Products for the dental-technical laboratory

2009/10



English

bredent

35 years of dental innovations

35 years of patented ideas for a successful laboratory will help

Dear customer,



96 % of all bredent products are based on the ideas of dental technicians and are currently produced on a floorspace of 9000 m² in Senden/Illler.

Thank you very much for your confidence in bredent employees and technologies.

We are constantly striving to improve! Therefore I would like to ask you to send your proposals and ideas concerning the optimization of products as well as suggestions for improved cooperation to my e-mail address:
peter.brehm@bredent.com
or to the following fax number: **(+49) 0 73 09 / 8 72-1 65**
I am looking forward to hearing from you and will be glad to reply to you.

Best regards,

Peter Brehm

Company values

In the cooperation with customers and individuals within and outside the company we feel obliged to the bredent company values and objectives of bredent officially defined in 1995.

Efficient	We are convinced of the benefit of our work and therefore we readily commit ourselves to become more efficient.
Partnership	We are open and fair in the cooperation. This is how we establish confidence.
Trend-setting	Our special competence, flexibility and global orientation allow us to put beneficial concepts in practice within short time.

Company objectives

We develop products and methods to help dentists and dental technicians to produce favorably-priced, high-quality dental restorations within shorter time. We are constantly striving to be a competent, innovative and reliable partner for our customers. It is our target to allow dentists and dental technicians to offer aesthetic restorations that ensure periodontal hygiene to the patients at a fair price.

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How to reach us



More than 200 employees from the areas of research, development and production are constantly striving to provide benefits and assistance.

With more than 80 dental technicians in the international advisory field service we are in your vicinity.

Use our expertise and special competence to ensure your commercial success.

You can reach us personally:

Monday to Friday **7.00 a.m. to 4.15 p.m.**
Telephone: **(+49) 0 73 09 / 8 72-4 40**

and 24 hours a day:

Fax: **(+49) 0 73 09 / 8 72-4 44**
E-mail: **info@bredent.com**
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Deutsche Dental Industrie

Not all products included in the catalogue are approved for use and available in all markets (oder: countries - wenn mit Märkten Länder gemeint sind). If you have any questions, please contact bredent GmbH & Co. KG or your sales agent (oder: sales partner).

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Harmonized symbiosis of product provides the basic precondition for precision-

Symbiosis



Dear customer,

For more than 30 years bredent has been synonymous for innovative products and application concepts for dental techniques and is a worldwide leading supplier in this sector today.

Implants, instruments and prosthetic elements from bredent medical are used very successfully in the fields of implantology and dentistry.

The comprehensive system solutions of the bredent group offer dentists and

bredent
More than 30 years of dental innovations

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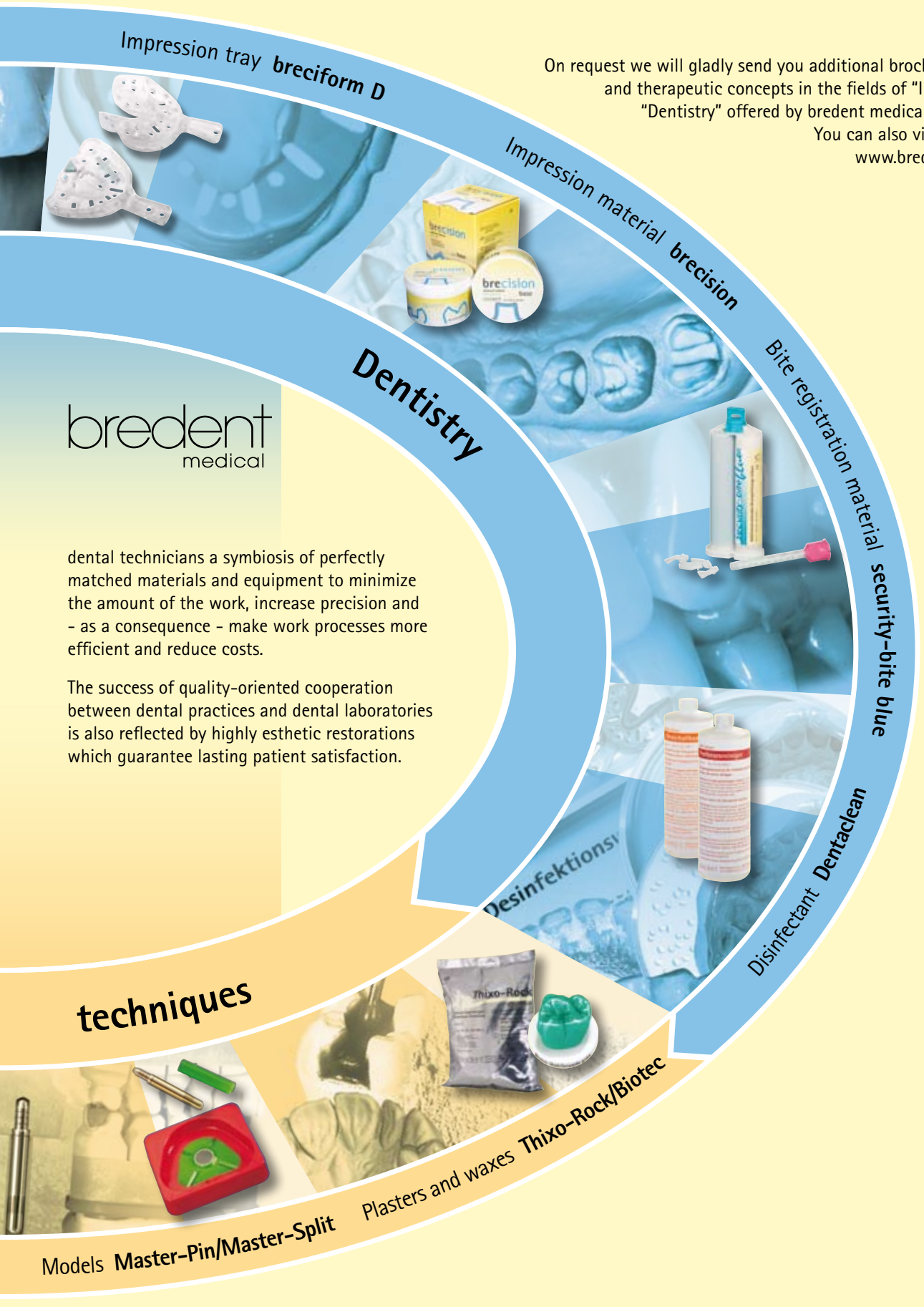
On request we will gladly send you additional brochures on products and therapeutic concepts in the fields of "Implantology" and "Dentistry" offered by bredent medical GmbH & Co. KG. You can also visit our website at www.bredent-medical.com



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This is what you will find:

- News / Innovations
- Interesting facts and things to know from/about the field of dental techniques
- Events
- Dates of fairs and congresses
- Bur assistant for quick selection of the correct bur shape and bur cut
- Product info
- Catalogue pages, brochures, instructions for use, statements of conformity, safety data sheets
- Current job openings



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Disinfecting and cleaning

- **Dentaclean impression and denture disinfectant**
- **Dentaclean plaster removing agent / speed**
- **Shipping bags**

Dentaclean impression and denture disinfectant



Disinfecting with Dentaclean impression and denture disinfectant avoids the transmission of viruses, bacteria and fungi – from the patient to the laboratory. The concentrate is mixed to obtain 10 liters of ready-to use solution which is highly effective and has a surprisingly mild odor.

Dentaclean impression and denture disinfectant
1000 ml concentrate to obtain
10 liters ready-to-use solution
incl. 25 shipping bags
REF 520 0100 6

Tested and approved by the Institute for clinical hygiene and infection control, Giessen.



Pathogens can be transmitted to the laboratory with impressions.



After the use of Dentaclean impression disinfectant, active viruses, bacteria and fungi can no longer be detected.

Accessories:



Disinfection bath
W 35 x D 26 x H 14 cm
1 piece
REF 230 0015 0

Shipping bags



The shipping bags have already been labeled „disinfected". Additionally, a separate bag holds the refte to protect them against moisture.

Shipping bags
200 pieces
REF 520 0100 2

Dentaclean plaster removing agent / speed



Ready-to-use solution to remove plaster residues from all surfaces.
The Dentaclean plaster removing agent is available in two types: normal and Speed. The ready-to-use solution removes plaster residues from all surfaces. If no time is to be wasted, Dentaclean Speed should be used.

Plaster removing agent
1000 ml
REF 520 0011 9
2500 ml
REF 520 0099 3

Speed plaster removing agent
1000 ml
REF 520 0101 0
2500 ml
REF 520 0099 4



Hard plaster particles are carefully reduced from the mixing bowl (cup) without any damage.



Gentle and fast removal of plaster protects the resin surface and the color.

- **Silicone and wax surface tension reducing agent**
- **Spray bottle sp**
- **Surface tension reducing agent**

Silicone and wax surface tension reducing agent



Enhances the flow properties of plaster for silicone impressions.
Spraying on the silicone and wax tension reducing agent improves the flow properties of plaster for silicone impressions. Before pouring the arch, the impression must be dry.

Silicone and wax surface tension reducing agent
750 ml
REF 540 0070 5



The fine spray head of the plastic spray bottle simplifies uniform spraying of the liquid.

Accessories:

Spray bottle, plastic sp
125 ml
REF 540 0075 0



The spraying head of the spray bottle simplifies uniform wetting of the surface with silicone and wax surface tension reducing agent.



After the application of the agent onto the surface (left), the flow characteristics of the plaster have been clearly improved.



Silicone and wax surface tension reducing agent produces a homogeneous plaster surface. This will ensure precise dental work.

Surface tension reducing agent



The surface tension reducing agent for impressions. Cleans, disinfects and improves the flow characteristics of model materials. Suitable for silicone, alginate and hydrocolloid impressions.

Surface tension reducing agent
125 ml
REF 520 ES12 5



Refill package
750 ml
REF 520 ES75 0





Spray on a thin coat of surface tension reducing agent. Allow to react for 1-2 min. for alginate and hydrocolloid impressions. Then blow the impression dry and cast. Condensation-cured silicone impressions: the impression is rinsed with water after the reaction time and blown dry subsequently before casting. The plaster flows without any formation of bubbles and surface segregation.

Thixo-Rock



Thixo-Rock is a class IV super-hard stone with distinctive thixotropy and perfect flowability. Minimal expansion is completed after two hours and is just 0.08 %. Hence highly accurate situation imression and precison-fit restorations are ensured. Thixo-Rock is available in brown, ivory and grey.



Color – brown:
1 x 2 kg **REF 570 0005 2**
5 x 2 kg **REF 570 0005 1**
10 x 2 kg **REF 570 0005 0**

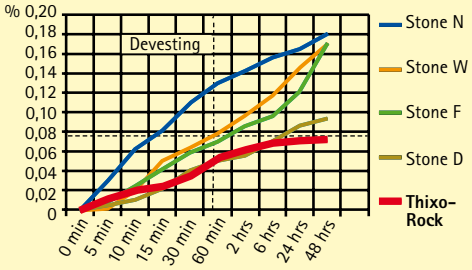


Color – ivory:
1 x 2 kg **REF 570 00E5 2**
5 x 2 kg **REF 570 00E5 1**
10 x 2 kg **REF 570 00E5 0**



Color – grey:
1 x 2 kg **REF 570 00G5 2**
5 x 2 kg **REF 570 00G5 1**
10 x 2 kg **REF 570 00G5 0**

Expansion of various other stones



Technical data – Thixo-Rock

Color	brown, ivory, grey
Mixing ratio	100 g / 20 ml dist. water
Soaking time	20-30 sec
Mixing time under vacuum	60 sec
Processing time at 23°C	5-6 min
Setting time (Vicat time)	approx. 10 min
Removal of model after	45 min
Compressive strength after 1 hr	above 60 MPa
Compress. strength after 24 hrs	85 MPa
Hardness after 1 hr(Brinell)	200 MPa
Hardnesss after 24 hrs (Brinell)	280 MPa
Linear expansion after 2 hrs	< 0.08 % (no further expansion)



The excellent processing time span allows bubble-free pouring of numerous impressions with just a single mix.



Thixo-Rock offers high stability on the spatula and thixotropic consistency on the vibrator. Simple and clean processing is ensured.



Absolutely accurate reproduction of dimensions of the oral situation thanks to the minimal expansion value (< 0.08 %) so that precision-fit dentures are obtained.



The arches can be cut and trimmed without the formation of chips.



Preparation limits of the dies are not damaged when grinding the dies. No breaking of edges when removing the model. Consequently, precision-fit restorations are obtained.

Accessories:



KoEx Measuring Device
1 piece including
2 contraction inserts
REF 110 0148 0

Processing in the ecovac unit:
Vacuum level 1, mixing speed: 390 rpm

- Thixo-Rock
- **Arti-Rock**
- **Fluid-Rock**

Fluid-Rock



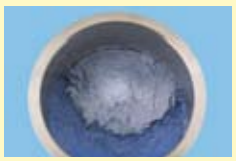
Fluid-Rock is a smoothly flowing class IV super-hard stone to prepare bases for models. The light-blue color can be easily combined with all colors for the arch. The extended processing time allows to pour several bases at the same time. The thin consistency results in perfect flow characteristics and allows to obtain bubble-free models.

Color - blue:
1 x 2 kg **REF 570 0FB5 2**
5 x 2 kg **REF 570 0FB5 1**
10 x 2 kg **REF 570 0FB5 0**

Technical Data - Fluid-Rock

Color	blue
Mixing ratio	100 g / 25 ml distilled water
Processing time	approx. 6 min at 18° to 20° C
Setting time (Vicat time)	approx. 11 min at 18° bis 20° C
Comp. strength aft. 1 hr	48 N/mm²
Comp. strength aft. 24 hrs	55 N/mm²
Setting expansion	< 0,06 % (no further expansion after 2 hours)

Processing in the ecovac unit:
Vacuum level 1, mixing speed: 390 rpm



Mix Fluid-Rock base stone in the ratio of 100 g powder and 25 ml distilled water to achieve a highly fluid consistency.

2



Fluid-Rock base stone is directly poured into the model former without using a vibrator. Perfect flow characteristics allow to obtain models without any bubbles.

3



Low expansion ensures constant quality when producing models. Perfectly matched with Thixo-Rock super-hard stones.

Arti-Rock



Low-expansion articulating stone for precision-fit restorations.
Low expansion of only 0.02 % ensures accurate position of the model when aligning according to the anatomic situation. Accurate restorations and reduced grinding time are obtained. Perfect stability and special adhesive capacity simplify mounting in the articulator and ensure safe retention of the models.

Arti-Rock
1 x 4 kg **REF 570 0AR0 4**
1 x 18 kg **REF 570 0AR1 8**

Technical Data - Arti-Rock

Color	white
Mixing ratio	100 g / 40 ml dist. water
Processing time span	approx. 3 min.
Setting time (Vicat time)	5 min.
Compressive strength according to DIN	7.2 MPa
Expansion	0.01 % after 20 min. 0.02 % after 48 hrs.



The smooth consistency allows trouble-free and precise mounting of models in the articulator.

2



When using keys, accurate reproduction of details is achieved thanks to smooth processing of the stone. The final hardness allows easy processing.

3



The short setting time and low expansion are perfect preconditions for accurate rebasing.

- **Exakto-Form**

Exakto-Form



Model resin for accurate reproduction and maximum edge stability in five different colors.
Processing does not require to change familiar working processes.



Component A
yellow
1 x 50 g
REF 520 0017 8



Component A
light-ivory
1 x 50 g
REF 520 0017 6



Component A
olive green
1 x 50 g
REF 520 0017 4



Component A
grey
1 x 50 g
REF 520 0017 5



Component A
signal blue
1 x 50 g
REF 520 0017 7



Component B
1 x 50 g
REF 520 0017 3

Assortments cont. 240 g each

6 x 20 g A yellow
6 x 20 g B **REF 520 2028 4**

6 x 20 g A light-ivory
6 x 20 g B **REF 520 2028 2**

6 x 20 g A olive green
6 x 20 g B **REF 520 2028 0**

Assortments cont. 600 g each

6 x 50 g A yellow
6 x 50 g B **REF 520 0028 4**

6 x 50 g A light-ivory
6 x 50 g B **REF 520 0028 2**

6 x 50 g A olive green
6 x 50 g B **REF 520 0028 0**

6 x 50 g A grey
6 x 50 g B **REF 520 0028 3**

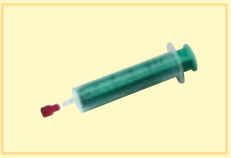
6 x 50 g A signal-blue
6 x 50 g B **REF 520 0028 1**

Accessoires:



Stirring sticks
250 mm long, 100 pcs
REF 390 0031 0

Mixing cups
120 ml, 100 pcs
REF 390 0030 0



Measuring syringes
20 ml, 50 pcs
REF 390 0036 0



Exakto-Form Insulating liquid
125 ml
REF 520 0021 0



Prior to mixing, each component must be stirred so that a homogeneous mixture is obtained. Mix the sediment completely.



Add component A to component B; empty tin completely.



Mix Exakto-Form approx. 30 sec. until a uniform colour is obtained.



Two tins of Exakto-Form are sufficient to produce 2-3 complete dental arches.



The material can be removed after just 30 minutes. Final hardness is achieved after 90 minutes. Then the material can be trimmed.



If a base for the model is to be produced with Exakto-Form, the model must be previously insulated with Exakto-Form insulating liquid.



Due to its high edge stability Exakto-Form is perfectly suitable for precision-fit bridge and crown work.



Any technique can be used for sawing Exakto-Form models. Familiar working processes do not need to be changed.



If smaller quantities are used, fill component A and B into a separate syringe.



Fill equal portions of Exakto-Form into a silicone cup (approx. 2 ml each for one die) and mix to obtain a homogeneous consistency. Please note: material in the syringes must be processed within 5 days.



Pour Exakto-Form into the impression. The excellent flow properties avoid the formation of bubbles even in impressions with thin edges.



The hardened resin can be drilled and trimmed. The stability avoids dimensional changes and guarantees precise models.

- **Transblock**
- **Litebloc UV**
- **Undercut wax**

Transblock



The transparent block-out material for fast and systematic working. The stability of Transblock results in uniform layer thicknesses and can be adjusted individually by scraping.



Any desired size or shape of Transblock can be produced with the help of an instrument or scissors.



Due to its stability a uniform thickness is retained during the adaptation. If required, the thickness can be adapted individually by scraping.

Transblock
250 g
REF 540 0114 9



The high flexibility simplifies placing onto the model.



The transparency of Transblock allows to check the thickness of the area that has been blocked out. This way precisely prepared models for individual trays are obtained.

Litebloc UV



Light-curing resin for blocking-out cavities and building up dies.



The screwable tube allows application of the desired quantity.

Litebloc UV
4 g
REF 520 0098 0



The fine dimensional accuracy allows perfect filling of the cavity.



After a short setting time, Litebloc can be coated with any die varnish.

Undercut wax



Precise blocking out of all cavities on the die. The undercut wax has a high melting point and is therefore perfectly suited for blocking out cavities. No bond with the dipping wax is formed.



The high adhesive capacity of the undercut wax offers reliable hold in the cavity.

Undercut wax
25 g
REF 510 0048 0



Low shrinkage and optimum scraping capacity simplify blocking out.



The high melting temperature also allows the use of the wax below immersion wax copings.

Gingival masks

- **Multisil-Mask soft**
- Multisil-Mask hard

Multisil-Mask soft



Accurate reproduction of gingival tissue.
Quick and economical processing with the cartridge system and the especially adjusted silicone allow trouble-free direct application into the impression or the matrix. The natural color of the gingival mask supports perfect shade determination of the veneer. Overdimensioning of margins is recognized immediately.

Multisil-Mask soft 50 ml cartridges
REF 540 0104 7



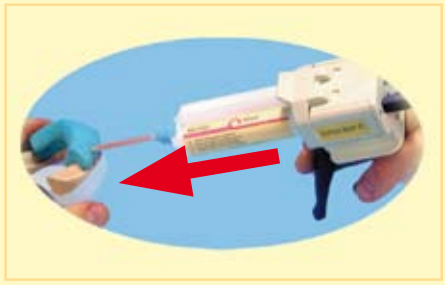
aesthetic



informative

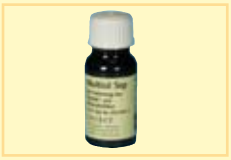


efficient





Mixing cannulas
Size 1 / blue
REF 320 0045 0



Multisil-Sep
10 ml insulating liquid
REF 520 0100 3

Assortment
2 x 50 ml Multisil-Mask soft
24 Mixing cannulas
10 ml Multisil-Sep
REF 540 0104 1



1 The gingival situation on the unsawed sawcut model ...



2 ... is reproduced using Exaktosil kneading silicone and then the arch is sawed.



3 The sawcuts are coated with wax.



4 Openings (inlet and outlet) are drilled into the matrix using the locating matrix drill and Multi-Sep is applied.



5 The dispensing device with cartridge and cannula is held to the opening. Whilst applying the material from the dosing device, the matrix is fixed on the model ...



6 ... to obtain the correct position of the gingival mask.

Accessories:



Dispensing device
1 piece
REF 320 0044 0

- Multisil-Mask soft
- **Multisil-Mask hard**

Multisil-Mask hard



Special resin for hard gingival masks featuring stable consistency and ideal processing characteristics.
The hardness allows torsion-free and accurate placement on the model. The Vario-Stud-Snap vks-oc system is used for fixation.
Divergent implants are aligned using the implant compensating cones developed by bredent.



Multisil-Mask hard
50 ml cartridge
1 piece
REF 540 0113 3

Mixing cannula blue
12 pieces
REF 320 0045 0



Implant compensating cones
Ø 3.5 mm, 12 pieces
REF 430 0703 5
Ø 4.0 mm, 12 pieces
REF 430 0704 0
Ø 4.5 mm, 12 pieces
REF 430 0704 5
Ø 5.0 mm, 12 pieces
REF 430 0705 0
Ø 5.5 mm, 12 pieces
REF 430 0705 5

Assortment

Implant compensating cones
20 pieces, 4 pieces each 3.5; 4.0; 4.5; 5.0; 5.5;
REF 430 0739 2



Matrix vks-oc 1.7 mm
8 pieces
REF 430 0659 0



Metal transfer patrixes 1.7 mm
8 pieces
REF 430 0662 0



Dispensing device
1 piece
REF 320 0044 0

Assortment

2 x 50 ml Multisil-Mask hard in cartridges
24 pieces mixing cannulas
1 Assortment implant compensating cones
8 pieces patrixes vks-oc 1.7 mm
8 pieces matrixes vks-oc 1.7 mm
REF 540 0113 4

Accessories:



Light-curing die varnish
transparent
20 ml
REF 540 0100 6



The marginal fit of the individual abutment to the implant can always be checked.



Multisil-Mask hard permits reliable adapting of individual attachments and framework designs.



Accurate placement of pontics can be easily achieved with Multisil-Mask hard.

Processing



Initial situation of the implant restoration with laboratory abutments.



Place the implant compensating cones on the laboratory abutments in a way to ensure that the wide side is in the angulated area.



Fill Multisil-Mask hard around the laboratory abutments at the height of the compensating cones.



Use tweezers to insert the matrixes vks-oc into the soft resin immediately after injecting the resin.



Trim the gingval mask from the basal side to obtain a straight margin.



Apply vaseline to separate the gingival mask against plaster.



Snap in of the metal transfer patrixes in the matrixes.



Fill the impression with Thixo-Rock and then ...



... box the impression with the Master-Split model system.



Use an instrument to lift the gingigal mask carefully off after boiling out the compensating cones.



The gingival mask is safely retained by the vks-oc matrixes and can always be repositioned in an accurate manner.



The completed gingival mask. Apply transparent die varnish to protect the gingival mask against scratches and to improve the aesthetic appearance.

- **ecovac vacuum mixing system**
- KoEx Measuring Device
- **Disinfection bath 3L**
- Master pin drill unit mpb 1
- Polylux pl 20
- Prothetictive chamber
- Abdruck-Cut
- Thermo-syringe
- Plaster knife

ecovac vacuum mixing system



ecovac

Precision-fit restorations obtained through optimal use of material properties.
The user-friendly and compact design simplifies work and reduces sources of errors. A powerful and maintenance-free vacuum pump, adjustable in two different levels (15 mbars, 200 mbars), ensures bubble-free mixing of materials and results in a perfect casting surface. Stirring time and speed can be adjusted continuously to allow correct processing of different materials.

ecovac (230 V) **REF 140 0093 0**

(Wall mounting, without mixing cup and base)
1 mains cable
1 spare filter
1 drilling template for wall mounting
4 screws and plugs for wall mounting

Accessories

Base **REF 210 0045 0**



ecovac mixing spiral

The mixing spiral takes up the components to be mixed from all areas of the mixing cup and stirrs them horizontally and vertically. No unmixed materials will remain on the bottom of the mixing cup, which may cause different expansion of the material later on.
All features and components listed provide increased reliability, lead to improved fit when preparing dental restorations and avoid time-consuming reworking.

Mixing spiral,	50 ccm	**REF 140 0R94 5**
Mixing spiral,	250 ccm	**REF 140 0R94 0**
Mixing spiral,	750 ccm	**REF 140 0R94 2**
Mixing spiral,	1000 ccm	**REF 140 0R94 3**



ecovac mixing cups

The smooth inner surface of the stainless steel mixing cup prevents any material or liquid residues from adhering to or depositing in scratches or undercuts. The conical shape ensures that material which has been taken up will flow back to the center of the mixing cup. Accordingly, the mixing ratio is retained exactly and better results can be achieved with minimal effort.

Mixing cup,	50 ccm	**REF 140 0B94 5**
Mixing cup,	250 ccm	**REF 140 0B94 0**
Mixing cup,	750 ccm	**REF 140 0B94 2**
Mixing cup,	1000 ccm	**REF 140 0B94 3**

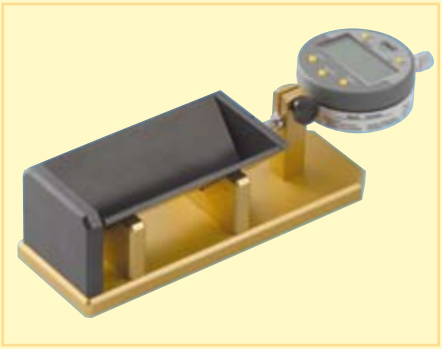


Mixing cup, D
(for the use in the Degussa mixing unit),
425 ml **REF 140 0B94 4**

Telephone (+49) 0 73 09 / 8 72-4 40

- ecovac vacuum mixing system
- **KoEx Measuring Device**
- **Disinfection bath 3L**
- Master pin drill unit mpb 1
- Polylux pl 20
- Prothetictive chamber
- Abdruck-Cut
- Thermo-syringe
- Plaster knife

KoEx Measuring Device



Facilitating contraction and expanding measurements for the first time

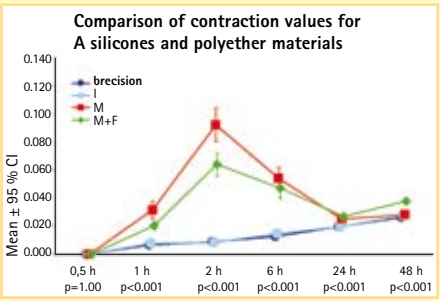
Why do discrepancies in fit exist between the cast and the intraoral situation?

KoEx Measuring Device
1 piece including
2 contraction inserts
REF 110 0148 0

Impression Materials, Contraction

Studies have indicated that impression materials differ greatly in their contraction (shrinkage) behavior, reproducing the oral situation inaccurately. The brecision impression material provides stable values after two hours, permitting further processing to be performed rapidly.

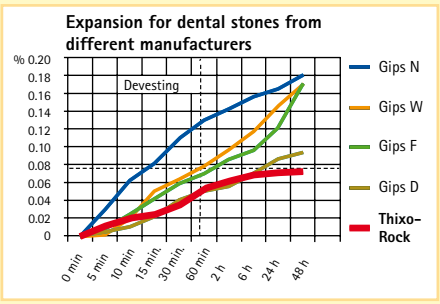




Dental stone, Expansion

Check the expansion values for your dental stone materials and compare them to those of bredent's Thixo-Rock. Thixo-Rock expands by a maximum of 0.06 % after two hours; after 48 hours, the expansion is still less than 0.08%.

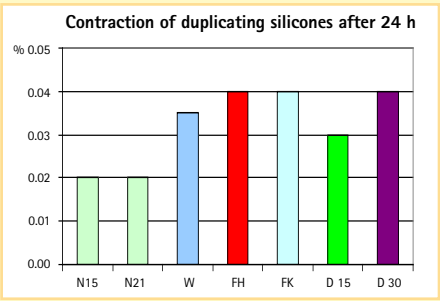




Silicone duplicating materials, Contraction

Contraction measurements of different silicone duplicating materials have shown substantial differences between these. Exaktosil N15 was stable at 30 minutes, at 0.02 %. The values for other duplicating silicones changed after 24 hours, adversely affecting the fit of the restoration.





Investment compound, Expansion

Investment compounds that can be controlled exactly and individually are a prerequisite for non-precious alloy precision one-piece attachment casting as well as for K+B plastic injection molding using thermopress 400.



Disinfection bath 3L



Disinfection bath 3L
W 35 x D 26 x H 14 cm
1 piece
REF 230 0015 0

with the convenient filter basin.
Due to the flat wide form of the disinfection bath 3L, up to 6 impression trays can be disinfected at the same time.

- The bredent disinfection bath 3L has a capacity of 3 liters
- Due to the convenient filter basin careful cleaning of impression trays and instruments is simplified
- Direct skin contact with the disinfectant is avoided thanks to the integrated dripping device
- Individualizing of the filter is possible due to moveable instrument rests

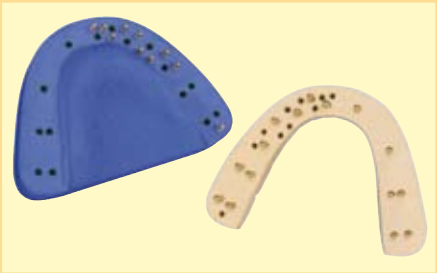


Dripping device prevents direct skin contact with the solution. This guarantees safe every day usage.



The stable bath made of polypropylene is heat resistant up to 135° C and therefore suitable for autoclave and thermo-disinfecting.

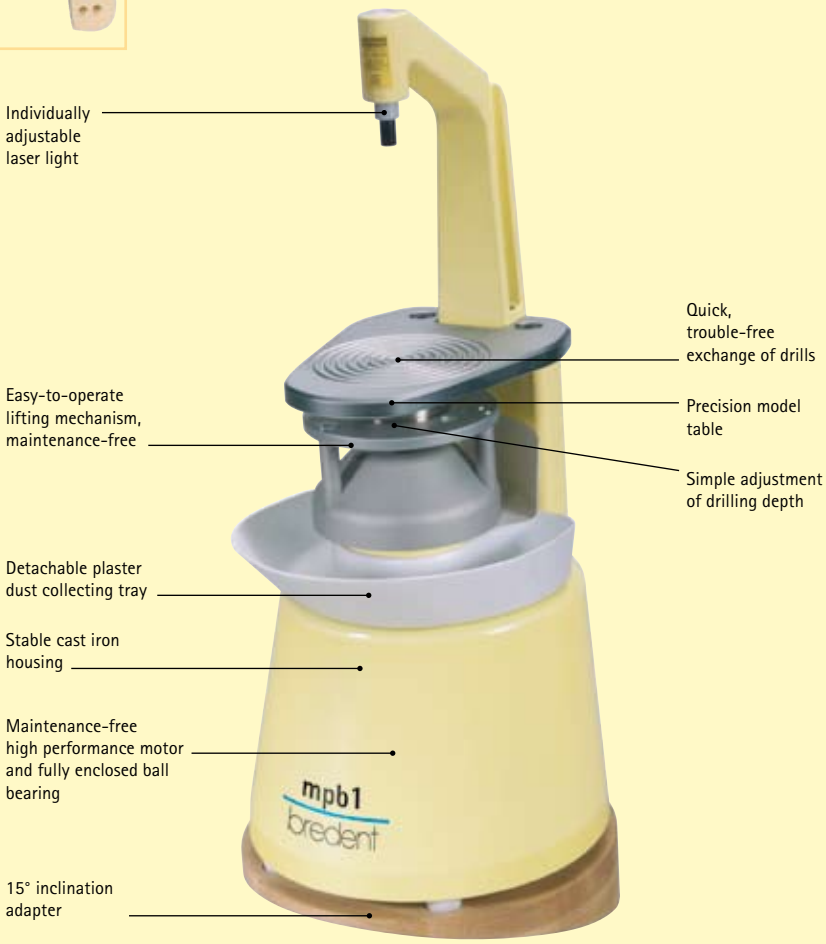
Master pin drill unit mpb 1



The powerful, high quality and maintenance-free motor features high true running accuracy. Accordingly, the precision of the drilled hole and the accuracy of the models are increased. Working is simplified thanks to the easy-to-operate lifting mechanism.

Master pin drill unit mpb 1 REF 140 0092 0
(without 15° base)

1 spare fuse
1 Master-Pin Diatit tungsten carbide bur standard/green
1 flat wrench
1 plaster collecting tray
1 plug axle
1 power cord



Accessories:



Adapter base
15° inclination /
precious wood
REF 210 0044 0



Tungsten carbide drill
Special drill for
Master-Pin Radix-K
Ø 2,0 mm
3 mm shaft
REF 360 0123 3



Master-Pin Diatit tungsten carbide step drill standard/green
REF 360 0119 2



Master-Pin Diatit tungsten carbide step drill special/yellow
REF 360 0119 3

If glueing in of the Master-Pin is too difficult, the special/yellow Master-Pin Diatit tungsten carbide drill can be used to prepare a larger drillhole. The diameter of this drill is 0.1 larger than the one of the standard/green Master-Pin Diatit tungsten carbide drill.



Master-Pin Diatit tungsten carbide step drill special/red
REF 360 0119 4

If the drilled hole is too large to receive the Master-Pin, the special/red Master-Pin Diatit tungsten carbide drill can be used to prepare a smaller drillhole. The diameter of this drill is 0.01 mm smaller than the one of the standard/green Master-Pin Diatit tungsten carbide drill.

Master pin drill unit mpb 1



The diameter of the luminous spot can be adjusted individually to ensure anti-dazzling, precise focusing.



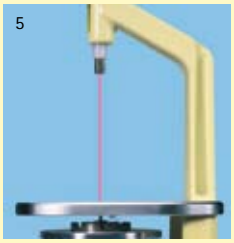
Firmly mounted model table with shape and width adapted to the arch.



Guidelines on the model table allow specific alignment of the model for exact planning of pin holes.



Integrated grooves collect plaster particles and provide the precondition for arches which rest parallelly.



Exact model table mounted at an angle of 90° to the drill subsequently ensures simple removal of the arch from the model base.



The firm hold of the arch allows precise drilling of pin holes. The drill is directed to the arch without any vibration.



The enclosed plug axle permits simple adjustment of the drilling depth.



Drills are exchanged without the need to open the unit.





Any resulting plaster particles are automatically collected by the projecting collecting tray.



Unit, motor and collet remain clean, the collecting tray can be removed.

Equipment / Instruments

- ecovac vacuum mixing system
- KoEx Measuring Device
- Disinfection bath 3L
- Master pin drill unit mpb 1
- **Polylux pl 20**
- **Prothetictive chamber**
- **Abdruck-Cut**
- Thermo-syringe
- Plaster knife

Polylux pl 20



The light-curing unit with removable material container for easy placement of the object. The powerful lamp (9 watts) illuminates the entire interior chamber and supports polymerization of the materials. UVA range: 350 - 450 nm. Power: 20 mw/cm.

Polylux pl 20
Light-curing unit with material container **REF 140 0088 0**

Light-curing unit without material container **REF 140 0084 0**

Accessories:

Material container **REF 140 0085 0**
Spare lamp S 9W **REF 140 0086 0**

Protective chamber

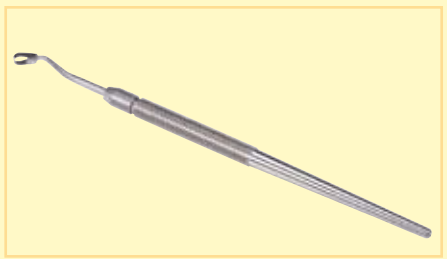


The protective chamber avoids inhaling of dust, protects your eyes and, consequently, protects your health. Available with or without extraction nozzle. The extraction nozzle can be directly connected with the extraction system.

Protective chamber with extraction nozzle **REF 220 0010 0**
Dimensions: approx. w 410 x d 350 x h 260 mm
Ø 35 mm

Protective chamber without extraction nozzle **REF 220 0011 0**
Dimensions: approx. w 410 x d 350 x h 260 mm

Abdruck-Cut



Abdruck-Cut
1 piece
REF 360 0114 0

Undercuts can be easily and specifically removed using the scalpel-sharp loop blade.



The scalpel-sharp loop blade allows cutting even in areas difficult to access.

Accessories:



Loop knife
1 piece
REF 360 0115 0

bredent
Telephone (+49) 0 73 09 / 8 72-4 40

- ecovac vacuum mixing system
- KoEx Measuring Device
- Disinfection bath 3L
- Master pin drill unit mpb 1
- Polylux pl 20
- Prothetictive chamber
- Abdruck-Cut
- **Thermo-syringe**
- **Plaster knife**

Thermo-syringe



Fixing and glueing, that can be dissolved quickly without any residues, for any type of model situation.
The adhesive resin wax can be moulded by heating and easily placed on the models.

Thermo-syringe
REF 110 0121 1



After heating, the adhesive resin wax is directly applied onto the glueing point using the thermo-syringe. Firm bonding is ensured.



The adhesive resin wax can be applied onto any type of material. Afterwards it can be removed from the objects without leaving any residues.

Accessories:



Adhesive resin wax
Pack cont. 250 g **REF 510 0070 1**
Bucket cont. 1000 g **REF 510 0070 0**

Plaster knife



Multi-purpose knife with ergonomically shaped plastic handle for optimum transfer of force, simplifies your daily work.

- Long blade made of stainless hardened steel.
- Dimensionally stable, easy-to-clean hard plastic handle. Ergonomic shape for right and left hand use.
- Multi-purpose element for easy removal of im pression tray. Features impact surface with opposing chisel.



The extra long and narrow blade is perfectly suited for cutting off excess plaster in the lingual region.



The special cones on the multi-purpose element simplify removal of the impression tray from the model.

Plaster knife
REF 310 0011 4



Plaster edges can be perfectly trimmed with the permanently sharp and stable blade.

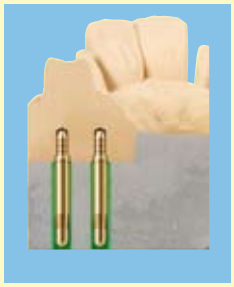


When opening flasks, the lateral chisel ensures improved transmission of force thanks to the high leverage effect of the knife handle.



A separate impact surface has been added opposite the chisel to protect the back and the blade of the knife.

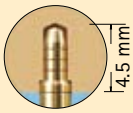
Master-Pin System



The pin system for perfect sawcut models.

The small drilling depth of just 4.5 mm in the arch avoids undesired perforation of the arch. Flattening of the soft plastic sleeves is ideal for pins with small distance to each other. The types of plastic of the sleeves and the design of the inner wall ensure soft and controlled removal of the dies. Ideal for bridge models.

Your advantages at a glance



The smallest drilling depth of all pins of only 4.5 mm.
Advantage: no perforation of the arch during drilling and enhanced stability.



The Master-Pin Diatit tungsten carbide drill is adjusted so that the boundary line for drilling of the pin is exactly on the same level as the basis of the arch.



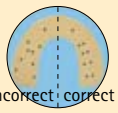
Master-Pin and Master-Pin sleeve can be easily assembled due to the taper and the rounding of the end of the pin.



The optimized glueing tip: the adhesive is spread more uniformly in the drillhole and at the glueing shaft. Advantage: safe hold of the Master-Pin in the die.



A length of only 11.7 mm of the Master-Pin sleeves allows to obtain low sawcut models.



The sleeve rises above the Master-Pin. All Master-Pins can be clearly recognized on the underside of the model.





The funnel-shaped design of the Master-Pin sleeve simplifies assembling of die segments and model base.





The unilateral flattening of the Master-Pin sleeves serves to protect against twisting and...

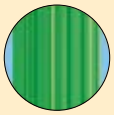


... is the perfect solution in case of drillholes with small distance to each other.

The retentive build-up ensures perfect bonding to the base plaster.



Due to the special surface design of the inner wall of the sleeve, soft friction between Master-Pin and Master-Pin sleeve is achieved whilst ensuring maximum precision and stability.



Master pls 44



Time-saving production of sawcut models made of high-precision plastic injection elements through a pin-free model system - hence reduction of equipment and materials.

Your advantages at a glance

- all components are made of highly precise special plastic
- trouble-free processing of the pin carrier plate
- economic fabrication of models thanks to favorably-priced components
- time-saving fabrication of sawcut models
- no drilling and placing of pins required hence reduction of necessary equipment
- simple sawing from below or above through the omission of pins
- stabilization bar can be cut individually so that die models with only one or two dies can be produced in an economic manner
- pin distance perfectly suitable for small anterior dies
- reliable control of the perfect position and hold of the die segments
- due to the preparation of the base the expansion of the plaster is not transferred to the arch
- precise guidance of dies through perfectly adapted stabilization bar
- top-quality model without pins
- compatible with Master-Split model system

Master-Split model system



A universal model system for economical model fabrication for all dental-technical indications.

Matched with the Master-Pin system, Master x-tray and Master pls 44. Simple and precise fabrication of the base with integrated Split-Cast which requires little space due to its shape. Three different model formers for crown and bridgework, implant prosthetics, CoCr restorations, full dentures and repairs.

Your advantages at a glance

• **helps to save time**	Production of the model (secondary base) in a single working step.
• **plaster can be saved**	The respective impression size determines which of the three Master-Split model former sizes is used. The plaster consumption is reduced to the minimum.
• **high precision**	Since the model is produced directly on the secondary base (Master-Split base former), a perfectly smooth, precisely fitting model underside is achieved.
• **extended reusability**	All individual components of the Master-Split model system are reusable and durable.
• **excellent cost/benefit ratio**	Since time and plaster are saved, the favourably priced Master-Split model system pays for itself already after it has been used a few times.
• **optimized handling**	Each model will automatically obtain a Split-Cast separation. Due to the model-articulator separation, working is performed on a small, easy-to-use and functional model.
• **small height**	Even in cases of limited space (face-bow model assembly, etc.) the small height of the Master-Split base former allows the use of the Master-Split model system.
• **increased safety**	Due to the additional octagon platform the model is safely and precisely fixed on the Master-Split base former even in the case of lateral movement in the articulator.
• **perfect aesthetics**	Models produced with the Master-Split model system excel by their aesthetic appearance.

Master-Pin System



The Master-Pin system simplifies daily fabrication of models since the system components have been matched with each other. Processing is simple and no new techniques need to be learned. The main advantages of the Master-Pin system are the small drilling depth and the small diameter of the drillhole. Soft integration and removal of the Master-Pin is ensured by the design of the inner wall of the Master-Pin sleeve. This is a particular advantage for bridge restorations. Easy assembling is achieved thanks to the tapering of the Master-Pin.



Master-Pins
1000 pieces
REF 360 P122 5



Master-Pin sleeves
1000 pieces
REF 360 H122 5



Master-Sep
Special insulating liquid for sawcut models
200 ml
REF 520 0029 0

Assortment

402 pieces
200 Master Pins
200 Master-Pin sleeves
1 Master-Pin Diatit tungsten carbide step drill standard/green
1 Working box

REF 360 0122 6



Assortment

2000 pieces
1000 Master Pins
1000 Master-Pin sleeves

REF 360 0122 5





Master-Pin Diatit tungsten carbide step drill standard/green
3 mm shaft, 1.5/2. 1 piece
REF 360 0119 2



Master-Pin Diatit tungsten carbide step drill special/yellow
3 mm shaft, 1.5/2, 1 piece
REF 360 0119 3
If glueing in of the Master-Pin is too difficult, the special/yellow Master-Pin Diatit tungsten carbide drill can be used to prepare a larger drillhole. The diameter of this drill is 0.1 larger than the one of the standard/green Master-Pin Diatit tungsten carbide drill.



Master-Pin Diatit tungsten carbide step drill special/red
3 mm shaft, 1.5/2, 1 piece
REF 360 0119 4
If the drilled hole is too large to receive the Master-Pin, the special/red Master-Pin Diatit tungsten carbide drill can be used to prepare a smaller drillhole. The diameter of this drill is 0.01 mm smaller than the one of the standard/green Master-Pin Diatit tungsten carbide drill.



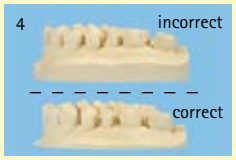
Weigh resp. measure plaster and water to obtain constant results.



A thermoforming foil is placed on the impression. Uniform thickness of the arch is obtained.



The arch is trimmed to achieve uniform low height.



The correct height of the trimmed arch is essential.



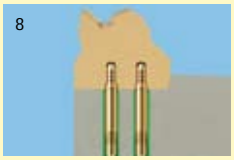
The trimmed surface can be optimized with wet grinding paper.



The inner surface of the dry arch is ground with a plaster bur slightly conically (6°) toward the base.



The drillholes are positioned with the Master-Pin Diatit tungsten carbide drill.



Drillholes are prepared- 2 for each die – beginning from the buccal direction:
1. drillhole = center of fissure
2. drillhole = approx. 3 mm away toward the palatal or lingual direction.



The correct alignment of drillholes in the arch.



The upper course of the palatal resp. lingual 6° ground edge is marked with a red pen.



The Master-Pins are precisely glued in the drillholes using cyanoacrylic adhesive.



Arch with Master-Pins glued in.



The arch as well as the Master-Pins are separated with Master-Sep.



The thicker end of the Master-Pin sleeves is put on the Master-Pins.



Even in case of Master-Pins that have only very little distance to each other, the Master-Pin sleeve can be easily used due to the lateral flattening.



The Master-Pin sleeves rise from the Master-Pins by approx. 0.5 mm so that uniform, constant height of the arch is always ensured.



The Master-Split system is used to prepare base for the arch.



Place the prepared arch into the model former and align it.



Base plaster is filled up to 1 mm below the deepest point of the red marking line (fig. 10).



After the plaster has hardened, remove the model by pressing it out of the Master-Split model former.



The removed model will receive a Split-Cast separation: the Master-Split during the preparation of the arch without any additional work.



Prior to trimming the model, the Master-Split base former is removed.



The sawcut model is trimmed to the smallest size possible.



The trimmed and dried working model.



The arch is removed from the model base towards the pins - parallely and without tilting.



The base of the arch and the model base must be thoroughly cleaned after trimming to ensure high precision and perfect aesthetics.



The green Master-Pin sleeves are all on the same level and can be clearly recognized on the underside of the model.



The die segments are separated using a Giflex diamond disc.



Perfect fit of the working dies on the model base.



It is also possible to place interdental Master-Pins that are not glued in.



Aesthetically appealing and functional models simplify daily work.

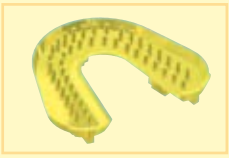


A fine and precise dental restoration is created on a fine model.

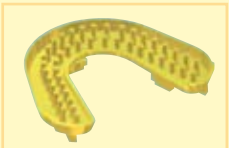
Master pls 44



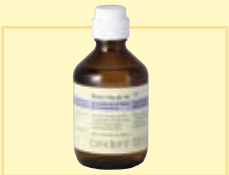
Time-saving production of sawcut models made of high-precision plastic injection elements through a pin-free model system – hence reduction of equipment and materials.
Quick and simple fabrication of sawcut models. Approx. 40 % of plaster is saved thanks to the given base height. The model system which does not include metal pins is made of robust special plastic. Placing metal/plastic pins is not required.



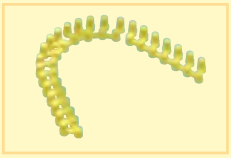
Master pls 44
Pin carrier plate
Upper jaw
100 pieces
REF 360 P120 K



Master pls 44
Pin carrier plate
Lower jaw
100 pieces
REF 360 P12U K



Master-Sep pls 44
Special separating liquid for sawcut models
200 ml
REF 520 0029 3



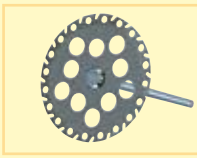
Master pls 44
Stabilization bar
100 pieces
REF 360 S120 0



Master-Split
model former
medium
2 pieces
REF 360 0118 M



Master-Split
base former
10 pieces
REF 360 0118 0



Giflex-TR
Master x-tray
Ø 25 mm
1 piece
REF 340 00M2 5



Master x-tray
magnets
25 pieces
REF 360 0127 2



Metal magnetic plate
50 pieces
REF 360 0118 1

Large assortment

10 Pin carrier plate Upper jaw
10 Pin carrier plate Lower jaw
20 Stabilization bar
4 Base former
200 ml Master-Sep pls 44
10 Metal magnetic plate
2 Model former
10 Magnets
1 Giflex-TR

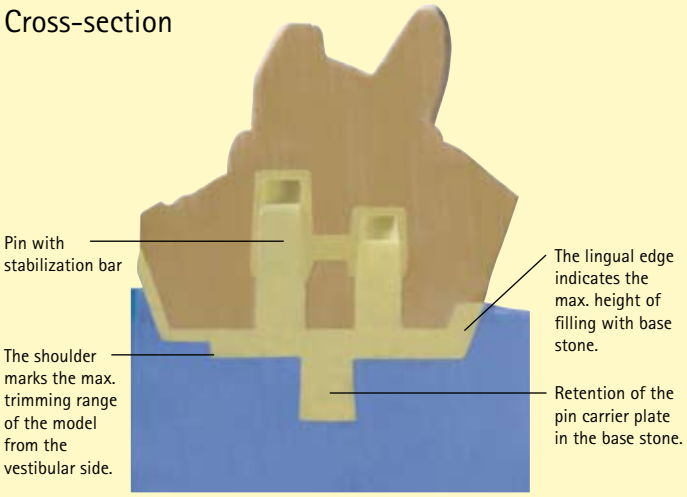
REF 360 0127 5

Small assortment

25 Pin carrier plate Upper jaw
25 Pin carrier plate Lower jaw
50 Stabilization bar

REF 360 0127 7

Cross-section



1. The arch is poured first and then placed on the base with the pin carrier plate.



The impression is cut with a scalpel in a way to obtain a uniform surface slightly tapered toward the inside. This way the entire model height is reduced.



The pin carrier plate is separated with Master-Sep pls 44 to achieve soft friction between pin carrier plate and stabilization bar.



The stabilization bar is fixed on the pin carrier plate - either completely or in segments - only after the application of insulating liquid.



The impression and the pin carrier plate are filled with plaster which must not flow over the edges of the plate.



The pin carrier plate is assembled with the impression and excess plaster is removed. The underside of the pin carrier plate features adequate retentions to provide safe hold in the base stone.



The pin carrier plate with the arch is placed in the center of the Master-Split model former (medium) and then filled with liquid base stone. The lingual edge of the pin defines the height of the base (see below).



Once the base stone has hardened, the model is trimmed no further than up to the vestibular marking.



Tap carefully with a horn mallet to remove the arch from the base.



The segments are sawed from below using the Giflex-TR Master x-tray.



When sawing from above, the arch can be safely placed on a saw base.



The pins on the pin carrier plate are slender yet strong enough to provide adequate stability for anterior areas of lower jaws even in case of difficult space conditions.

2. First the model base is produced to be able to fabricate the sawcut model more quickly and to save additional working time.



The model former is filled with highly liquid base stone. Several model bases can be produced in this way and then the arches are attached.



The impression is poured in the usual way, the pin carrier plate is also filled with plaster and then placed on the base which has already been produced.



After hardening of the plaster, the impression can be removed and the sawcut model can be completed.

3. Use of segmented splints



The impression is poured in the usual way and the segmented splint is placed according to the situation. Retention pins are inserted into the residual plaster to ensure safe hold of the arch.



After placing the impression on the base, die segments are sawed out of the model.

4. Additive technique



Remove (grind) imperfections in the soft plaster of the palate and separate subsequently.



Fill palatal part and base former with plaster and assemble them.



Tap slightly with a felt-coated mallet to remove the arch from the base.



Arch and completely preserved palatal roof.



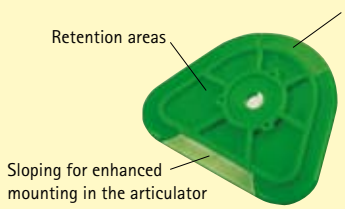
Combined denture completed on a single model - this way material costs and time can be saved.

Master-Split model system

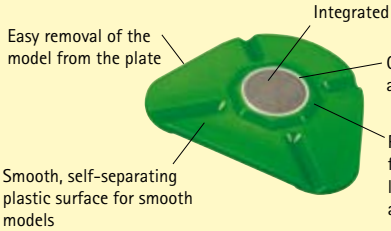


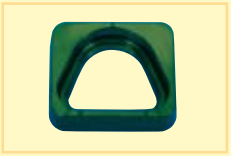
A universal model system for economical model fabrication for all dental-technical indications.
Each size of the Master-Split model system consists of two elements. Thanks to the three different Master-Split model formers, the correct size is always available for any size of arches or impressions. Saving of plaster is possible thanks to the range of different sizes. When mounting in the articulator, sufficient space is always ensured due to the small height of the Split-Cast. The surface of the material allows easy cleaning.

Underside



Upper side





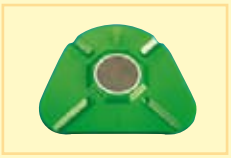
Master-Split model former small
2 pieces
REF 360 0118 K



Master-Split model former medium
2 pieces
REF 360 0118 M



Master-Split model former large
2 pieces
REF 360 0118 G



Master-Split base former
10 pieces
REF 360 0118 0



Metal magnetic plates
50 pieces
REF 360 0118 1

Assortment
small
1 Model former
3 Basis former
3 Metal magnetic plates
REF 360 0124 K

Assortment
medium
1 Model former
3 Basis former
3 Metal magnetic plates
REF 360 0124 M

Assortment
large
1 Model former
3 Basis former
3 Metal magnetic plates
REF 360 0124 G

Application examples


Crowns and bridges


Implants and combined prosthetic work


Full dentures and CoCr work


Situation models, repairs

Tip







To ensure exact contact of the model on the Master-Split base former, the completed model is smoothed and cleaned with sanding paper 2 to 3 times. Wax or dirt that will deposit on the four model skids later on will not affect the precision.

Care and cleaning



Plaster and wax residues can be easily recognized on the signal-green plate so that precise working is simplified.





The Master-Split base formers and the Master-Split model formers only need to be cleaned under running water since their surfaces are extremely smooth and self-separating. They are intended to be used for plaster and matched with this material. Additional separating is not required.

Processing


1

Regardless which arch or impression size is used


2

the Master-Split model formers fit in every case.


3

The green Master-Split base former – the matching counterpart to the underside of the model.


4

The Master-Split model former is selected according to the size of the impression or the arch.


5

The Master-Split base former is first inserted at the rear edge.


6

After fitting, the plate is positioned and pressed in using both hands.


7

Only then the plate is pressed in again on the table.


8

The plate is only then inserted properly, when there is a 0.1 mm high step at the edge.


9

The Master-Split metal magnetic plate is centered on the Master-Split base former.


10

The arch is aligned according to the markings of the Master-Split model former.


11

In the case of sawcut models the model base is generally prepared with a liquid base plaster.


12

After the base plaster has hardened, the model is pressed out.


13

During the preparation of the base the removed die model obtains a Split-Cast separation - the Master-Split - without additional work.


14

Due to the special shape of the sleeve, an indentation is obtained at the model base which simplifies the removal of the plate.


15

The Master-Split base former is removed before the model is trimmed.


16

The model is trimmed with the plaster trimmer to obtain a perfect size.


17

The trimmed and dry working model.


18

If the arch is adequately prepared, trimming is no longer required after preparing the base.

Split-Cast check


1

The position of the model can be easily checked despite the fixed magnet.


2

The solution for a familiar problem


3

The plaster Split-Cast must be trimmed to be integrated into the articulator.


5

An individual plaster control base is much thicker than


7

Plaster control bases often cause problems when they are integrated into articulators


4

The Master-Split base former is the better choice.


6

the specially shaped Master-Split base former


8

whereas the Master-Split base former always provides sufficient space.

Pins

- **Master-Pin Radix-S**
- **Retention pins**
- Master-Pin Radix-K

Master-Pin Radix-S



The root-shaped plug-type pins, for space-saving application.
The sturdy, high-tech plastic provides the required stability and the root shape offers protection against twisting.



Master-Pin Radix-S
1000 pieces
REF 360 0123 1



Radix-S retention rings
1000 pieces
REF 310 0011 1



Master-Pin Radix-S can be easily and safely aligned and fixed in the impression.

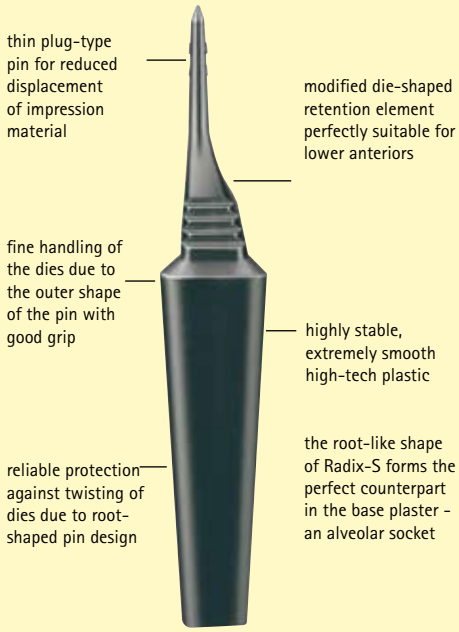


Pouring out and preparing the base of the impression are done in the usual way.

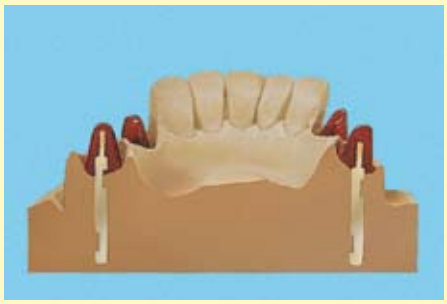
Accessories:



Master-Sep
Special separating liquid for sawcut models
200 ml
REF 520 0029 0



Retention pins



The retention pins feature retentions to guarantee safe hold when fabricating resin dies. Also perfectly suited for milled models.





Retention pins
100 pieces
REF 360 0000 1
500 pieces
REF 360 0000 2



The particularly stable retention pins can be used for all resin dies.

bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- Master-Pin Radix-S
- Retention pins
- **Master-Pin Radix-K**

Master-Pin Radix-K



The favourably-priced dowel pin solution for the production of models. Due to the special root shape only one pin can be used per die. In addition to the retention element, glueing surfaces are integrated to ensure safe hold in the die. The smooth surface of the high-tech plastic allows easy integration and removal of the die.



Master-Pin Radix-K
1000 pieces
REF 360 0123 2



Tungsten carbide drill
Ø 2.0 mm
3 mm shaft
REF 360 0123 3



Perfect glueing is ensured when a small amount of adhesive is also applied to the area of the support.



The root shape that is obtained in the model base ensures exact guidance and positioning. The dies are protected against tilting and twisting.



It is also possible to place interdental Master-Pins Radix-K which are not glued in.

Assortment

250 Master-Pin Radix-K
1 Tungsten carbide drill

REF 360 0123 4



Accessories:



Master-Sep
Special separating liquid for sawcut models
200 ml
REF 520 0029 0

Insulating

- **Plaster insulating liquid gis**
- **Master-Sep**
- **Master-Sep pls 44**
- Isoplast ip
- Exakto-Form insulating liquid

Plaster insulating liquid gis



For reliable insulation of plaster against plaster. Alginate-based plaster insulating liquid which ensures gap-free fit. For utmost precision and separating of sawcut models without any damage.

Accessories:



Spray bottle sp
plastic
125 ml
REF 540 0075 0



Brush pen pk 125
125 ml
REF 390 0033 0

Plaster insulating liquid bottle
750 ml
REF 540 0013 5



The plaster insulating liquid soaks into the plaster and seals the surface without layering. The brush pen allows quick application.



The spray bottle insulates large areas within a short time. The fine spray mist ensures uniform wetting of the surface.



The gap-free fit ensures maximum precision.



The plaster insulating liquid allows separating of the base and the arch without any damage.

Master-Sep



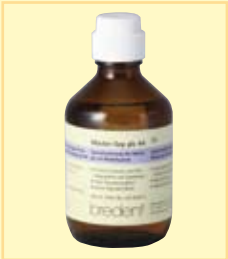
Master-Sep
Special separating liquid for sawcut models, 200 ml
REF 520 0029 0

Special plaster against plaster separating liquid with unsurpassed separating effect for sawcut models. Arch and base can be separated more easily. A soft gliding layer is achieved by wetting the pins.



Master-Sep penetrates into the plaster and seals the surface. Simultaneously, Master-Sep serves as a lubricant between pin and sleeves.

Master-Sep pls 44



Master-Sep pls 44
special separating liquid for plaster against resin
REF 520 0029 3

Master-Sep pls 44 facilitates the removal of the arch from the pin carried plate of Master pls 44. The smooth surface and the perfect separating effect allow trouble-free fabrication of models.



bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- Plaster insulating liquid gis
- Master-Sep
- Master-Sep pls 44
- **Isoplast ip**
- **Exakto-Form insulating liquid**

Isoplast ip



Isoplast ip
750 ml
REF 540 0101 9

Accessories:



Brush pen pk 125
125 ml
REF 390 0033 0



Brush pen pk 20
20 ml
REF 540 0072 0

Isoplast is alginate based and insulates plaster against resin whilst creating a highly lustrous resin surface.



The brush pen allows to apply the material in an economic and precise way.



Isoplast seals the surface and the plaster exhibits a fine luster. This way the quality of the insulating layer can be checked.



Isoplast allows removal of the tray without damaging the model.

Exakto-Form insulating liquid



Special insulating liquid for model fabrication with Exakto-Form resin. Polyether-based impressions need to be wetted with a thin coat of Exakto-Form insulating liquid to avoid chemical bonding.

Exakto-Form insulating liquid
125 ml
REF 520 0021 0



In cases of silicone impression compounds on polyethere basis, the impression must be previously sprayed out with Exakto-Form insulating liquid to avoid chemical bonding.



If a base for the model is to be produced with Exakto-Form, the model must be previously insulated with Exacto-Form insulating liquid.

Waxes

- **Spacer wax**
- **Functional margin wax**
- **Adhesive wax klw**

Spacer wax



The spacer wax allows quick determination of pin positions. The trapezoid shape simplifies the removal from the plaster base and the special consistency of the wax allows individual bending without the formation of cracks. Two different sizes are available.



Spacer wax
purple
5 mm, 220 g
REF 430 0157 3
8 mm, 220 g
REF 430 0155 0

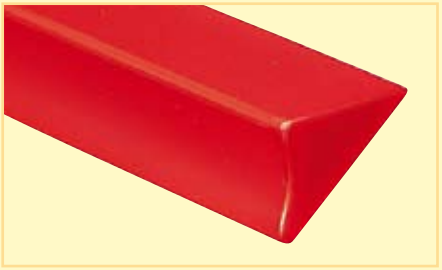


The narrow side of the spacer wax is pressed 3 mm onto the pins. After attaching the base, the pins protrude 3 mm out of the wax.



The trapezoid shape simplifies the removal of the spacer wax from the base. The pins are free and can be simply and easily pressed out after sawing.

Functional margin wax



To produce perfect functional margins. The slightly sticky, flexible functional margin wax allows simple and safe positioning to each impression material. Final fixation is achieved by waxing up. Accordingly, uniform design of functional margins is possible.

Functional margin wax
175 g
REF 430 0150 0



The completed functional tray represents the best prerequisite for precise models with a perfect functional margin.



Uniform and ideal functional margins in the model guarantee perfect fit of the denture.

Adhesive wax klw



The special constituents guarantee firm glueing of any type of material. Residue-free removal with steam or boiling off of the adhesive wax is still possible.

Adhesive wax klw
dark red
25 g
REF 510 0040 0



The high stability after cooling down allows the production of the model without any additional reinforcing elements.



The fine flow characteristics ensure the hold of models prior to filling with plaster.

bredent

- **Light-curing die varnish**
- **Die varnish, light-curing, opaque**
- Spacer varnish gold, silver, silver-blue, blue
- Gloss and hardening agent for plasters

Light-curing die varnish



For smoothening and hardening the plaster surface.
Depending on the plaster and modelling wax, different colors are available. The desired layer thickness can be achieved by applying the varnish several times and can be checked with the help of the color intensity.

Light-curing die varnish

red, 20 ml	**REF 540 0100 3**
yellow, 20 ml	**REF 540 0100 4**
green, 20 ml	**REF 540 0100 5**
blue, 20 ml	**REF 540 0100 0**
transparent, 20 ml	**REF 540 0100 6**

1



Five different colours to ensure contrast to any type of modelling wax.

2



The disposable brush allows precise application. The layer thickness can be varied by applying the material several times.

3



The varnishes are translucent. If they are applied several times, the colour becomes more intense so that the layer thickness can be controlled.

4



The light-curing die varnishes produce a particulary hard surface which protects the die against damage when fitting on the crowns.

5



To produce a cement gap, the varnish must be cured immediately after applying. For hardening of preparation margins: Allow die to soak into the plaster, then polymerize. The varnish hardens the surface without layering.

Accessories:



Brush holder, bent
12 pieces
REF 330 0114 1



Brush holder, straight
12 pieces
REF 330 0114 9



Disposable brush
100 pieces
REF 330 0114 2



Mixing block
10 pieces
REF 330 0114 4

Die varnish, light-curing, opaque



Swift application thanks to good masking capacity. The opaque die varnishes simplify uniform coloring of the varnish coat. The brush is already integrated in the lid. When cleaning the die with steam, the varnish coats remain intact.

1



Light-curing die varnish is available in three different opaque colours. The fine masking capacity allows to obtain a uniform colour of the varnish layer.

2



During the application the die varnish diffuses into the plaster surface. Depth polymerization leads to abrasion-resistant bonding to the die. Light-curing die varnish resists high mechanical stress. Even steam-blasting units do not affect the strong bonding.

Die varnish, light-curing, opaque

red, 20 ml	**REF 540 0010 4**
green, 20 ml	**REF 540 0010 3**
blue, 20 ml	**REF 540 0010 1**

Die varnish, light-curing, opaque, diephos dentine

tooth-colored, 10 ml	**REF 540 0010 0**

Die varnishes

- Light-curing die varnish
- Die varnish, light-curing, opaque

- **Spacer varnish gold, silver, silver-blue, blue**
- **Gloss and hardening agent for plasters**

Spacer varnish gold, silver, silver-blue, blue



Air-drying varnishes with metal components for scratch-resistant surfaces.
These spacer varnishes allow to achieve specific layer thicknesses starting from approx. 5 µm. The layer thickness is increased by this value with each additional application.
The metal components of the die varnishes gold / silver and silver-blue micro produce highly abrasion-resistant surfaces and thus protect the die.
The spacer varnish blue can also be used to detect and eliminate early and undesired contacts when fitting on a framework.



Spacer varnish gold
20 ml
REF 550 0000 5

Spacer varnish silver
20 ml
REF 540 0071 7

Spacer varnish silver-blue micro,
20 ml
REF 550 0000 6

Thinner for spacer varnish silver and gold
20 ml
REF 540 0070 1

Thinner for spacer varnish silver-blue
20 ml
REF 540 0069 0

The spacer varnishes can be applied easily and dried quickly so that the amount of work is reduced.



The spacer varnishes gold and silver produce a layer thickness of approx. 10 µ; the spacer varnish silver-blue produces a layer thickness of approx. 5 µ.



The spacer varnishes contain metal components. They produce a particularly abrasion-resistant surface which protects the die against damage.



spacer varnish blue
20 ml
REF 550 0000 7

thinner for spacer varnish blue
20 ml
REF 540 0069 0



The area of the cement gap of 8 – 10 µm in the inside of the crown can be easily recognized thanks to the clear color contrast.



Since the blue spacer varnish is well suited to detect undesired contact points, it can also be used as an alternative to occlusion spray.



The blue spacer varnish can be applied selectively to avoid overlaps which may result from non-uniform application of spray.



Accordingly, early contact points can be quickly eliminated.

Gloss and hardening agent for plasters



Gloss and hardening agent for plasters
20 ml
REF 550 0000 1
100 ml
REF 550 0000 2

Scratch-resistant surfaces for all plaster types without layering. The gloss and hardening agent for plasters renders the model or die resistant to scratches. Simultaneously, a lustrous surface is achieved with a layer thickness of only 2 µm.



Without the hardening agent models can be dam-aged when the restoration is placed on the model.



The specially adjusted consistency leads to the diffusion into the plaster surface. The high edge stability and scratch resistance avoids damage of any kind.



The gloss and hardening agent for plaster has hardened after only 2 minutes.



Gloss and hardening agent for plaster diffuses into the plaster so that it can also be used on the preparation margin.

bredent

- **Pi-Ku-Plast**
- **Pi-Ku-Plast HP 36**
- Tray material UV

Pi-Ku-Plast / Pi-Ku-Plast HP 36



For precision-fit and stable resin dies in next to no time. Brush resin in 5 different colors. Both resins only differ in their contraction values. HP 36 features a contraction of 0.036 %. Since the resin hardens quickly, it is perfectly suitable for the fabrication of resin dies or resin copings in the double crown technique.



Apply a thin coat of vaseline to the inside of the crowns.



The excellent modelling characteristics allow precise filling of the crowns within a very short time.



Pi-Ku-Plast HP 36 features a very short setting time. Therefore the retention pins can be placed directly into the resin.



This way, Pi-Ku-Plast HP 36 allows to produce accurate and particularly stable resin dies within a very short time.



Resin dies are the perfect basis for precision-fit dentures.



The high stability of Pi-Ku-Plast HP 36 allows to obtain a stable basis for all types of milling work.

Assortments, large Pi-Ku-Plast

3 vessels
1 brush size each A+B
1 brush holder
100 ml cleaner
100 ml monomer
85 g polymer

blue	**REF 540 0017 3**
yellow	**REF 540 0017 4**
orange	**REF 540 0017 5**
red	**REF 540 0017 6**
transparent	**REF 540 0017 7**

Assortments Pi-Ku-Plast HP 36

3 vessels
1 brush size each A+B
1 brush holder
100 ml cleaner
100 ml monomer
85 g polymer

blue	**REF 540 0021 9**
yellow	**REF 540 0021 7**
orange	**REF 540 0021 8**
red	**REF 540 0022 0**
transparent	**REF 540 0021 6**

Refill packages

100 ml cleaner		**REF 540 0016 9**
85 g polymer		**REF 540 0016 7**
100 ml monomer	blue	**REF 540 0016 8**
	yellow	**REF 540 0017 8**
	orange	**REF 540 0017 9**
	red	**REF 540 0018 0**
	transparent	**REF 540 0018 1**

Refill packages

100 ml cleaner		**REF 540 0022 4**
85 g polymer		**REF 540 0021 5**
100 ml monomer	blue	**REF 540 0021 3**
	yellow	**REF 540 0021 1**
	orange	**REF 540 0021 2**
	red	**REF 540 0021 4**
	transparent	**REF 540 0021 0**

Refill packages

Vessel cleaner, 8 ml	**REF 540 0017 2**
Vessel monomer, 8 ml	**REF 540 0017 1**
Vessel polymer, 8 ml	**REF 540 0017 0**
brush size A and brush holder, pack. cont. 3 pcs	**REF 330 0114 6**
brush size B and brush holder, pack. cont. 3 pcs	**REF 330 0114 7**

Refill packages

Vessel cleaner, 8 ml	**REF 540 0020 9**
Vessel monomer, 8 ml	**REF 540 0020 7**
Vessel polymer, 8 ml	**REF 540 0020 8**
brush size A and brush holder, pack. cont. 3 pcs	**REF 330 0114 6**
brush size B and brush holder, pack. cont. 3 pcs	**REF 330 0114 7**

Assortments, small Pi-Ku-Plast

20 ml cleaner
2 mixing trays, silicone, red
20 ml monomer red
1 brush size B + brush holder
12 g polymer

REF 540 0019 6



Pi-Ku-Plast separating varnish
10 ml
REF 540 0018 2

Tray material UV



Highly stable light-curing resin for trays and base plates.
The flexibility of the material allows easy placement onto the model without tearing. The required shape can be cut with an instrument. The pink color provides the perfect basis for the set-up.



Tray material UV
50 pieces UJ
REF 540 0011 0



Tray material UV
50 pieces LJ
REF 540 0011 1

Assortment

25 Tray material UV UJ
25 Tray material UV LJ
REF 540 0011 2



Tray material UV band
2,5 mm x 90 mm
1350 g
REF 540 0016 6

Tray material UV block
1000 g
REF 540 0011 3

Accessories:



Polylux pl 20
polymerization unit with material container
(see page 20)
REF 140 0088 0



The high flexibility of the material simplifies the placement onto the model. The material will not be damaged.



The tray material can be precisely cut with any instrument. Accordingly, the amount of work is reduced.



Perfect adaptation to any situation guarantees uniform wall thicknesses.



Due to the high stability the position of the handle which has been determined will not be changed during the polymerization process.



The tray material has hardened after only 10 minutes in the Polylux unit.



The high stability of the tray material avoids deformation during impression-taking. Precise models will be obtained.



The pink color offers the perfect basis for any type of set-up.



As a basic material for bite patterns or functional trays with bite rims, the resin ensures that the work will not be deformed.

- **Giflex-TR**
- **Giflex-TR Master x-tray**

Giflex-TR





Giflex-TR is a disc that features diamond-coating on both sides and is particularly suitable for cutting plaster and resin dies. Calculated chip spaces in the area of the diamond coating ensure quick removal of the grinding dust and increase the cutting performance of the disc. Giflex-TR allows quick, smooth and reliable cutting even of very hard plaster and resin. Troublesome chattering and jamming of the disc is avoided.

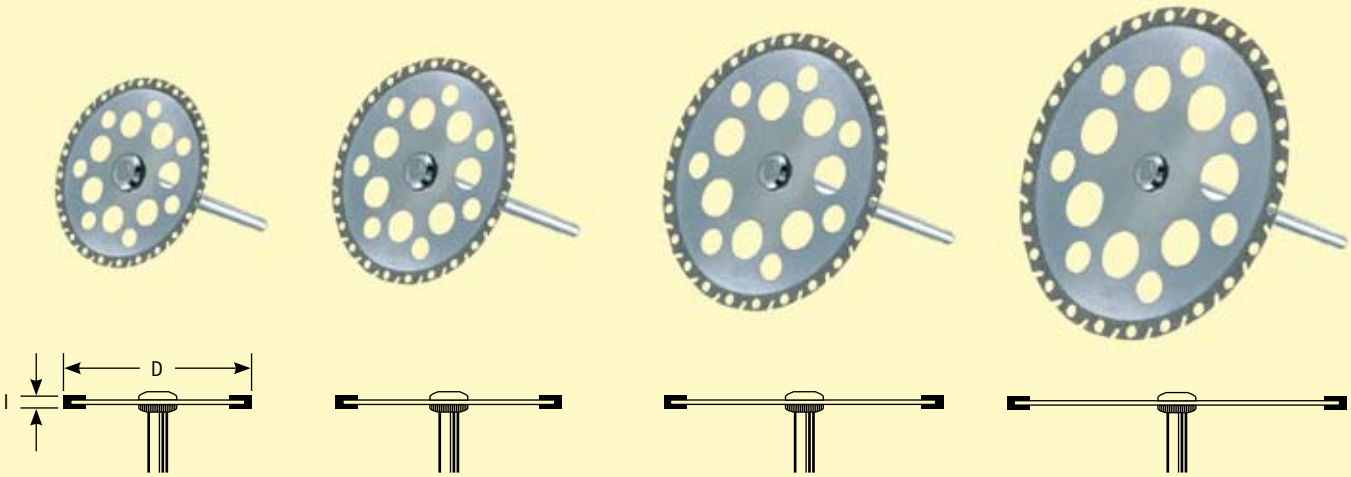
Larger holes in the diamond-free section reduce the friction heat. The disc will not overheat even if deep cuts are carried out.The high running transparency allows a better view onto the saw cut.

Ø 25 mm: for difficult work

Ø 30 mm: perfectly suitable for extremely difficult space conditions

Ø 37 mm: the universal disc

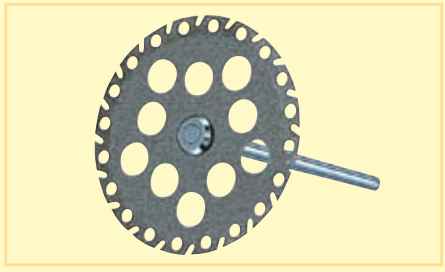
Ø 45 mm: the disc for rational processing



Giflex-TR diamond discs are coated on both sides and ready mounted.

Shaft diameter:	Standard 2.35 mm	Standard 2.35 mm	Standard 2.35 mm	Standard 2.35 mm
REF	**340 0002 5**	**340 0012 0**	**340 0002 0**	**340 0011 0**
ISO-No	806 104 377514 250	806 104 377514 300	806 104 377514 370	806 104 377514 450
Diameter (D):	25 mm	30 mm	37 mm	45 mm
Length (l):	0.3 mm	0.3 mm	0.3 mm	0.3 mm
Recommended speed:	20,000 rpm	15,000 - 20,000 rpm	15,000 - 18,000 rpm	10,000 - 15,000 rpm

Giflex-TR Master x-tray



Diamond grinding disc
Giflex-TR
Master x-tray
REF 340 00M2 5

Special diamond disc for processing resins. The Giflex-TR Master x-tray features a coarse diamond grit to achieve a cooling effect already in the diamond-coated section when separating resins.

Rotating tools

- **Tungsten carbide burs for processing of plaster**
- **Tungsten carbide burs for processing acrylics**

Tungsten carbide burs for processing of plaster

Quick shaping and smooth surfaces for all types of plaster. The relief protects the sharp blade against breakage of edges. This way the service life of the relief tools is three times longer than the one of comparable burs. Additionally, the processed surface is smoother and a luster is added.



Tungsten carbide
1 piece
REF H263 SH 60



The super-coarse cross-cutting edge allows removal of large quantities of any type of plaster.



Tungsten carbide
1 piece
REF H263 GH 60



The coarse cutting edge allows finer cuts and avoids splintering of the plaster.

For exact determination of the preparation margin for all die materials.



Rapidy microbur
1 piece
REF H001 NH 31



The cross-cutting edge produces smooth and precise ditches.



Preparation bur
1 piece
REF H263 GH 30



The cylindrical round shape allows to prepare an oblique ditch so that the preparation margin can be recognized more easily.

Tungsten carbide burs for processing acrylics

The proper selection of tools reduces the amount of work.



Diatit bur
1 piece
REF D468 GG 16



Diatit bur
1 piece
REF D468 GG 23



The triple cutting tungsten carbide burs are perfectly suitable to cut off excess tray material UV. In case of shellac the shape of the Tungsten carbide bur avoids loading of the cutting edges.



Tungsten carbide
1 piece
REF H194 SH 70



Aggressive cutting of the super-coarse cross-cutting edge allows rough shaping in a very short time.



Tungsten carbide
1 piece
REF H274 GH 60



The medium-coarse cross-cutting edge smoothens the surface and allows finishing in a single working step.

Additional rotating tools in chapter 9 and 11.



Diacryl
1 piece
REF 340 0102 0



The margin cutter produces a uniform tray margin and creates sufficient space for lip and cheek fraenums.

bredent



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Dipping waxes

- **Elaflex**
- **Visio-Dip**
- **Dipping wax**

Elaflex



Elaflex
purple
130 g
REF 510 0090 0



Even in inlays, the cavities can be precisely prepared using Elaflex. This way, modelling is simplified.



Elaflex is so flexible that the wax coping is not deformed when it is removed.



Elaflex is self-insulating on all metal parts that are polished to high luster.

Super-elastic dipping wax for highly precise wax copings.
The elasticity of Elaflex allows to remove the wax coping without deforming it. Thanks to the self-insulating effect, a precise coping can be prepared on metal elements polished to high luster.

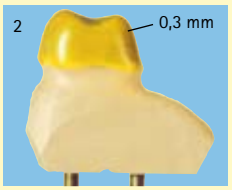
Visio-Dip



Visio-Dip
yellow
130 g
REF 510 0073 0



At a wax thickness of more than 0.4 mm the die is no longer visible.



The die becomes visible at a layer thickness of 0.3 mm. Less finishing work is required if a precise wax thickness is ensured.

Super-elastic dipping wax for highly precise wax copings. The elasticity of Elaflex allows to remove the wax coping without deforming it. Thanks to the self-insulating effect, a precise coping can be prepared on metal elements polished to high luster.

Dipping wax



Accurate, precise fitting wax copings with properties similar to resin.
The dipping waxes allow the fabrication of highly precise wax copings with perfect fit.
Thanks to the properties that are similar to those of resins they can be processed on all surfaces without separating. Different colors ensure perfect contrast to the subsurface.
The basis for efficient and precise working!

green
130 g
REF 510 0087 0

yellow
130 g
REF 510 0085 0

dentine color
130 g
REF 510 0089 0

brown
130 g
REF 510 0088 0



Shows the constant wax thickness and excellent marginal fit without having to re-wax the cervical margin. Dipping wax is supplied as beads.



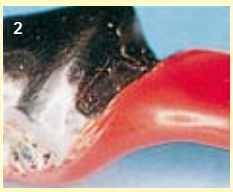
Use the white wax to block out undercuts or to build up the ideal shape of preparation. It does not adhere to the other waxes.

red, 130 g **REF 510 0086 0**

Accessories:



Cervical disc
REF 320 0091 0



The dipping wax requires no separating medium for removal from smooth preparations or metal work. Hence it is ideal for precision dental technical work.



Tooth-colored dipping wax perfectly suitable for Life-Color wax structures.

K2 exact carving wax



The low shrinkage and, as a consequence, precise waxing up are distinctive features of this carving wax. The solidification phase is very short; hence K2 exact carving wax is suitable for selective waxing up. The hardness results in good scraping properties and allows perfect smoothening of the wax model.

Standard Modelling wax



Beige modelling wax for crown and bridgework and for the inlay technique. Fast solidification reduces the waiting time and allows to continue working quickly.

Gecko sculpturing wax



The modelling wax in 4 different colors matched with the plasters of bredent, Fuji Rock, Super Die, Die Keen and Vel-Mix-Stone. Since the colors are matched with those of the plasters, visual support and non-tiring modelling are achieved.

Splendido



Splendido is available in two different qualities: a hard wax for the summer and a softer one for the winter.
Splendido can be used in all areas of modelling techniques. The green color supports visual control during modelling and the fissure depth can be easily recognized.
The summer wax can be milled up to a room temperature of 40° C.

KBI-wax



The light-blue color shows the plasticity of the wax-up. The high stability and exceptional modelling property provide perfect options for all modelling techniques.

Life-Color-Wax dentine color



Specially developed modelling wax for the wax-up method according to M. A. Polz. Perfectly suitable for training of apprentices, since the anatomic shape of the wax-up can be recognized more easily.

beauty setup



Dentine-colored wax developed for the visio.lign veneering system for the fixation of the veneers for the esthetic try-in.

Biotec modelling wax



Organic modelling wax which burns out without residues and ensures a homogeneous casting result. Perfectly suitable for press ceramic material. The low shrinkage demands high precision of fit.

Modelling waxes

- **K2 exact**
- **Standard Modelling wax**
- **Gecko**
- Splendido
- KBI-wax
- Life-Color-Wax
- beauty setup
- Biotec modelling wax

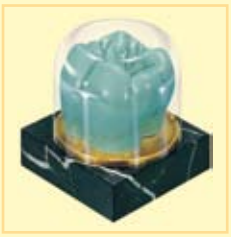
K2 exact



K2 exact
60 g

grey	**REF 510 0090 2**
yellow	**REF 510 0090 3**
beige	**REF 510 0090 4**
green	**REF 510 0090 5**

Extraordinary carving qualities for the highest precision in all crown, bridge and inlay work.
Low shrinkage and, as a consequence, precise waxing up are distinctive features of this carving wax. The solidification phase is very short; hence K2 exact carving wax is suitable for selective waxing up. The hardness results in good scraping properties and allows perfect smoothening of the wax model.



Marble plinth
and dome
REF 320 0042 0



The extremely low shrinkage allows high precision even with feather edges.



A short solidification phase makes it easier and quicker for modelling into the correct tooth shape required.



The strength and homogeneity of the wax provide optimal carving qualities and allow to produce smooth polished surfaces.

Standard Modelling wax



Standard Modelling wax
beige
70 g Click-Clack jar
REF 510 0078 5

Beige modelling wax for crown and bridgework and for the inlay technique. The solidification temperature of 50°C allows to work quickly. The beige color avoids tiring of the eyes during waxing up and supports the three-dimensionality so that deep occlusal surfaces can be perfectly recognized.

Gecko





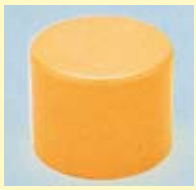
The wax pattern can be compared objectively with the adjacent tooth.





Opaque wax allows for improved determination of the depth of the fissures in the wax pattern.

Available in different colors for convenient and non-tiring waxing up.
The special wax quality allows highly precise application and perfect sculpturing.





The wax reproduces the contours and colour of the model exactly, which is pleasant to work with and will not tire the user.





The contours are easier to discern thanks to the way in which these pastell shades reflect the light.

Gecko modelling wax
25 g

beige, for Thixo-Rock and Fuji Rock	**REF 510 0060 2**
yellow, for Super Die	**REF 510 0060 4**
green, for Die Keen	**REF 510 0060 1**
red, for Vel-Mix-Stone	**REF 510 0060 3**

Telephone (+49) 0 73 09 / 8 72-4 40

- K2 exact
- Standard Modelling wax
- Gecko
- **Splendido**
- **KBI-wax**
- **Life-Color-Wax**
- **beauty setup**
- **Biotec modelling wax**

Splendido



This wax is suitable for any type of wax-ups: crowns, bridges and inlays. Also suitable for milling. Splendido is also available as summer wax „Splendido hard", which can be milled up to a room temperature of 40 °C.

Splendido 25 g, green
medium **REF 510 0069 0**
hard **REF 510 0059 0**





The light green colour of this wax provides for improved light reflection and facilitates determination of the final contouring. The opacity of this wax allows for improved determination of the depth of the fisures in the wax pattern.

KBI-wax



Wax for crowns, bridgework, inlays.
Minimal shrinkage, high stability, good modelling properties and smooth surfaces after scraping offer ideal possibilities for any waxing-up technique. Suitable for milling techniques.

KBI-Wachs 25 g, blue,
medium **REF 510 0091 0**
hard **REF 510 0092 0**





The light blue colour enables the technician to view the contours and surface structure of the pattern in greater detail. „KBI hard" is available for use in summer. Both waxes are, of course suitable for milling.

Life-Color-Wax



Tooth-colored wax in two consistencies. Particularly low-shrinkage wax especially developed for the waxing-up technique according to M. A. Polz; hence perfectly suited for dental training.

Life-Color-Wax
25 g
dentine color, medium **REF 510 0080 0**
dentine color, hard **REF 510 0081 0**

100 g
dentine color, medium **REF 510 0079 0**
dentine color, hard **REF 510 0078 0**



Precise application and superior scraping properties are the distinctive features of this wax.

beauty setup



Dentine-colored wax developed for the visio.lign veneering system for fixation of the veneers for the esthetic try-in. Two different colors that can be mixed cover the classic A-D range of shades.

beauty setup
bright, 25g
REF 430 0031 0

dark, 25g
REF 430 0030 0



Metal shine of the framework is elininated and the patient gets an impression of the final restoration.

Biotec modellling wax



Modelling wax that meets highest demands on modelling properties, shrinkage and complete burning out.
The excellent scraping properties ensure perfect fit of the wax crown on the die.
Wax residues can be blown away easily.
Low shrinkage leads to high precision of fit.

Biotec modelling wax, 60 g
green **REF 510 0061 1**
grey **REF 510 0061 0**

Residue-free burning out is the prerequisite for homogeneous casting.
Perfectly suitable for modelling pressed ceramic crowns and inlays.



Easily controllable stability for specific application across small and large areas.

Wax for outer copings

- **Wax for outer copings**
- **Biotec-Wax for outer copings**

Wax for outer copings



For secondary metal elements. Special consistency avoids the formation of grooves on the inner side of the coping.

Wax for outer copings
25 g
yellow
REF 510 0042 0



Easily spread and, whilst cooling, will not shape creases on the surface exposed to the metal. Extremely high precision of fit, thanks to the minimal shrinkage.

Biotec-Wax for outer copings



The modelling wax for uniform application of coats with minimal shrinkage and unsurpassed burning out properties.

Biotec-Wax for outer copings
28 g
violet
REF 510 0061 3



Uniform coping thickness due to perfect scraping properties. When the die shines through, a layer thickness of 0.3 to 0.4 mm has been achieved.



Low shrinkage and excellent burning out properties ensure utmost precision of fit and homogeneous castings.

bredent

- **Cervical wax**
- **Biotec-Cervical wax**

Cervical wax



In order to achieve a perfect marginal seal on crowns, inlays, onlays etc., the wax must adapt well and be completely shrink-free.

Cervical wax
25 g
red
REF 510 0060 5



Cervical wax is used for shaping the cervical margin and adheres perfectly to the coping and sculpturing wax.

Biotec-Cervical wax



Modelling wax for precision-fit crown margins due to low shrinkage and outstanding burning out properties.

Biotec-Cervical wax
28 g
red
REF 510 0061 2



The special consistency of this wax, minimum shrinkage and extremely low quantity of residues of combustion ensure perfect fit of the crown margin.

Special wax

- **Undercut wax**
- **Adhesive wax**
- **Biotec milling wax**

Undercut wax



Selective blocking out of all cavities of the die. The undercut wax has a high melting point and hence it is suitable for blocking out cavities.

Undercut wax
25 g
white
REF 510 0048 0



The undercut wax exhibits minimal shrinkage and adheres well. It's white color contrasts well with all types of die material.

Adhesive wax klw



Special constituents guarantee firm adhesion to any type of material. Yet any residues of adhesive wax can be removed with steam or boiled off.

Adhesive wax klw
25 g
dark red
REF 510 0040 0



Special constituents guarantee firm adhesion to any type of material



The fine flow characteristics ensure the hold of models prior to filling with plaster.

Biotec milling wax



Excellent milling wax with superb modelling properties. Outstanding scraping and milling properties since sticking of wax to the bur is avoided.



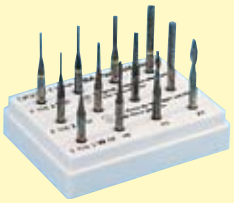
Biotec milling wax
28 g
blue
REF 510 0061 4



Enormous amount of time is saved thanks to good modelling properties since no other wax is required for the shear distributor.



Extremely accurate milling wax to produce smooth and shining surfaces during milling.



The bredent bur system can be found in chapter 10!



Can be used for pressed ceramics since the wax burns out almost entirely.

- **SERACOLL UV**
- compoForm UV

SERACOLL UV



SERACOLL UV connects bridges
- good capillary effect
- extremely high stability for perfect retention
- short hardening time
- improved casting results



SERACOLL UV
light-curing wax adhesive
2 x 3 ml
2 dosing dishes
REF 540 0115 1



The wax-up is prepared separately and thus any stress within the wax structure is avoided. After checking and fine contouring the crown margins, the wax-up is placed onto the model again.



One drop of SERACOLL UV is added into the separating gap using the probe. Thanks to the good capillary effect of SERACOLL UV the gap is evenly filled. The optimum size of the separating gap is < 0,3 mm. If required, add another drop to restore the original shape.



After each application of material, SERACOLL UV is hardened in standard UV light-curing units for at least 90 seconds.



The wax-up with sprues being attached can be removed from the model without the formation of stress and invested subsequently.



SERACOLL UV is perfectly suited for stress-free bar structures and other applications in the field of implant restorations.



SERACOLL UV is suited for all standard light sources (UV and LED). When using hand lamps, each surface of the model must be cured for 10 seconds.



By applying a thin layer of SERACOLL UV, all rough model surfaces can be smoothened. More homogeneous casting results are obtained.



Thanks to the enclosed small dosing dish, the required quantity of SERACOLL UV can be taken up with the probe.



Pi-Ku-Plast, compoForm UV and waxes can be connected with each other without any problems.



Attachment elements can be positioned in the parallelometer; one drop of SERACOLL UV is added into the gap and the rounded, clean transition zones are cured using a hand lamp.

compoForm UV





The stability of compoForm UV renders the material perfectly suitable for the transfer of the jaw situation and, consequently, stress-free working is ensured.

Light-curing composite for modelling, fixation of separated bridges and for quick fabrication of post and core restorations. compoForm UV burns out without leaving any residue and produces homogeneous casting results.
Individual modelling directly from the syringe. Thanks to immediate hardening with a polymerization lamp the model can be built up in a safe and controlled manner.

compoForm UV
2 x 3 ml syringes
10 application cannulas
REF 540 0115 0



compoForm UV can be used in conjunction with modelling wax and is perfectly suitable for inter-locking the model prior to investing. This way investing without any deformation is possible.



Modelling and further processing of telescopic and conical crowns can be perfectly controlled by means of a visual check of the layer. The high stability of the hardened composite allows reworking with a bur.



Thanks to low shrinkage and burning without any residue, the composite is ideal for fixation of bridges to be soldered.



Thanks to low shrinkage and burning without any residue, the composite is ideal for fixation of bridges to be soldered.

Accessories:



Application cannulas
25 pieces
REF 580 0001 8



Undercuts on dies can be quickly and completely blocked out.



Burning without any residue and reduced swelling behavior provide perfect preconditions for top-quality casting results.

- **Biotec reels of wax pattern**
- **Reels of wax pattern**
- **Reels of wax pattern**
- Sprues
- Rinsing heads
- Protek wax patterns cut to size
- Quadro wax profile
- Quadrosticks
- Casting pears
- Sprues
- Wax casting bars
- Wax casting rings

Biotec reels of wax pattern



Sprue wax with organic components, highly flexible and burns out perfectly.

Biotec reels of wax pattern
250 g, beige

Cross section in Ø mm	REF
1.2	**430 0801 2**
1.5	**430 0801 5**
2.0	**430 0802 0**
2.5	**430 0802 5**
3.0	**430 0803 0**
3.5	**430 0803 5**
4.0	**430 0804 0**
5.0	**430 0805 0**





High flexibility and low elastic recovery after shaping allow specific, stress-free attaching of the sprues. Residue-free burning out is the basis for perfect casting results.
Perfectly suitable for modelling pressed ceramic crowns and inlays.

Reels of wax pattern



Various diameters of wax pattern are available in medium and hard consistencies.

Reels of wax pattern, 250 g

Cross section in Ø mm	REF blue (medium hard)	REF green (hard)
1.2	**430 0115 0**	
1.5	**430 0115 5**	
2.0	**430 0116 0**	**430 0111 0**
2.5	**430 0116 5**	**430 0111 5**
3.0	**430 0117 0**	**430 0112 0**
3.5	**430 0117 5**	**430 0112 5**
4.0	**430 0118 0**	**430 0113 0**
5.0	**430 0118 5**	**430 0113 5**





The wax patterns can be bent without recovering elastically or becoming pinched.

Wax pattern sticks





Wax pattern for sprues made of extremely hard special wax.
Extremely hard special wax to ensure that the wax model will not be deformed when it is removed; result: highly accurate castings, even for large-span work. Dimensional stability at room temperature so that the wax model can be safely removed.

Wax pattern sticks
250 g, red

Ø mm x length	REF
2.0 x 115	**430 0172 3**
2.5 x 115	**430 0172 1**
3.0 x 115	**430 0168 0**
3.5 x 115	**430 0169 0**
4.0 x 115	**430 0170 0**
4.5 x 115	**430 0172 2**
5.0 x 115	**430 0171 0**
6.5 x 115	**430 0172 4**



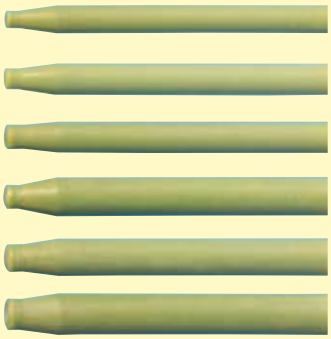
Wax model with direct fitting of the sprues. No deformation of the model during removal if wax profile sticks are used.



Wax pattern with attached sprues connected with a bar. The wax pattern sticks can be easily bent by heating them slightly and thus adapted to the bridge shape. Safe removal of the model at room temperature.

Sprues for vacuum pressure casting

Sprues and rinsing heads suitable for all casting techniques to ensure homogeneous, uniform and predictable casting results.



Sprue channel Ø mm	Sprue Ø mm	Pack. pieces	REF
2.0	3.5	50	**430 0143 1**
		150	**430 0146 3**
2.5	4.0	50	**430 0143 2**
		150	**430 0146 4**
3.0	4.0	50	**430 0143 3**
		150	**430 0146 5**
3.0	5.0	50	**430 0143 4**
		100	**430 0146 6**
3.5	5.0	50	**430 0143 5**
		100	**430 0146 7**
4.0	5.5	50	**430 0143 6**
		100	**430 0146 8**

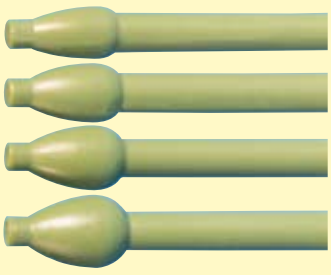




Assortment

450 pieces
Vacuum pressure casting, containing 30 sprues and 30 rinsing heads each,
REF 430 0146 0

Sprues for vacuum pressure casting for voluminous castings



Sprue channel Ø mm	Head Ø mm	Sprue Ø mm	Pack. pieces	REF
3.5	6.5	5.0	50	**430 0143 7**
			100	**430 0146 9**
3.5	7.5	5.0	50	**430 0143 8**
			100	**430 0147 1**
3.5	8.5	5.0	50	**430 0143 9**
			100	**430 0147 2**
3.5	9.5	5.0	50	**430 0144 0**
			100	**430 0147 3**

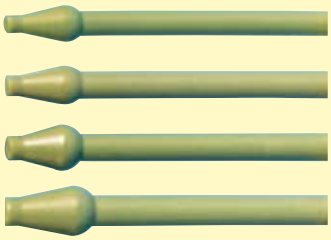


Assortment

211 pieces
Vacuum pressure casting for voluminous castings, containing 30 sprues and 30 rinsing heads each, 25 g Protek wax patterns (rods) cut to size, Ø 1.0 mm, **REF 430 0147 0**

- Biotec reels of wax pattern
- Reels of wax pattern
- Reels of wax pattern
- **Sprues**
- Rinsing heads
- Protek wax patterns cut to size
- Quadro wax profile
- Quadrosticks
- Casting pears
- Sprues
- Wax casting bars
- Wax casting rings

Sprues for centrifugal casting



Sprue channel Ø mm	Head Ø mm	Sprue Ø mm	Pack. pieces	REF
2.5	4.5	3.0	50	**430 0144 1**
			150	**430 0147 7**
2.5	5.0	3.5	50	**430 0144 2**
			150	**430 0147 8**
3.0	6.0	3.5	50	**430 0144 3**
			150	**430 0147 9**
3.5	6.5	4.0	50	**430 0144 4**
			150	**430 0148 1**

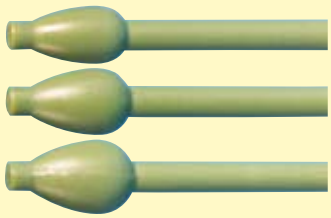




Assortment

390 pieces
Centrifugal casting, containing 30 sprues and 30 rinsing heads each, **REF 430 0148 0**

Sprues for centrifugal casting for voluminous castings



Sprue channel Ø mm	Head Ø mm	Sprue Ø mm	Pack. pieces	REF
3.5	7.5	4.0	50	**430 0144 5**
			100	**430 0148 2**
3.5	8.0	4.0	50	**430 0144 6**
			100	**430 0148 3**
3.5	9.5	4.0	50	**430 0144 7**
			100	**430 0148 4**

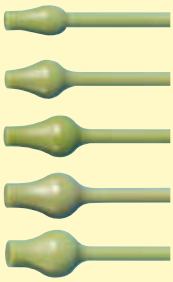


Assortment

181 pieces
Centrifugal casting for voluminous castings, containing 30 sprues and 30 rinsing heads each, 25 g Protek wax patterns (rods) cut to size, Ø 1.0 mm, **REF 430 0148 5**

Rinsing heads

Rinsing heads for vacuum and centrifugal casting. Since the residual air is forced into the rinsing heads, a high density of the structure is obtained to deliver superior casting results.



Sprue channel Ø mm	Head Ø mm	Pack. pieces	REF
2.5	4.0	50	**430 0144 8**
		150	**430 0148 6**
2.5	5.0	50	**430 0144 9**
		150	**430 0148 7**
2.5	5.5	50	**430 0145 0**
		150	**430 0148 8**
3.0	6.0	50	**430 0145 1**
		150	**430 0148 9**
3.5	6.5	50	**430 0145 2**
		150	**430 0149 1**



The retainer helps to attach the rinsing heads.

Rinsing heads for voluminous castings

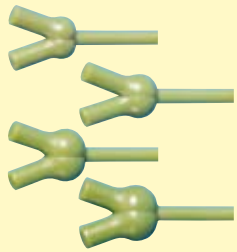


Sprue channel Ø mm	Head Ø mm	Pack. pieces	REF
3.5	7.5	50	**430 0145 3**
		100	**430 0149 2**
3.5	8.5	50	**430 0145 4**
		100	**430 0149 3**



The retainer is cut off with the wax knife after waxing up the rinsing heads.

Double rinsing heads

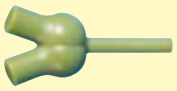


Sprue channel Ø mm	Head Ø mm	Pack. pieces	REF
2.5	4.0	50	**430 0145 5**
		150	**430 0149 4**
2.5	5.0	50	**430 0145 6**
		150	**430 0149 5**
2.5	5.5	50	**430 0145 7**
		150	**430 0149 6**
3.0	6.0	50	**430 0145 8**
		150	**430 0149 7**



The double rinsing heads are used for two objects with the same volume. Attaching is easier and the amount of work is reduced.

Double rinsing heads for voluminous castings



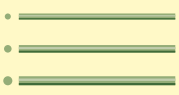
Sprue channel Ø mm	Head Ø mm	Pack. pieces	REF
3.5	6.5	50	430 0145 9
		150	430 0149 8



During casting the compressed air is displaced into the air channels and produces castings free from shrinkage cavities, which can be easily fitted.

Protek wax patterns cut to size

Protek wax patterns cut to size, rods, for cooling fins, pressure compensation and vent channels



- Ø 0.8 mm, 15 g, **REF 430 0125 0**
- Ø 1.0 mm, 25 g, **REF 430 0150 2**
- Ø 1.2 mm, 55 g, **REF 430 0121 0**

Wax profiles

- Biotec reels of wax pattern
- Reels of wax pattern
- Reels of wax pattern
- Sprues
- Rinsing heads
- Protek wax patterns cut to size
- **Quadro wax profile**
- **Quadrosticks**
- **Casting pears**
- Sprues
- Wax casting bars
- Wax casting rings

Quadro wax profile



Square sprues for better casting results.
Studies have shown that all liquids - including liquid metal - flow in drops; that also applies to flowing into a square sprue.
Accordingly, the gas (air) contained in the cavity (casting mould) can escape freely across the unfilled corners. Results:

- no swirling of molten metal due to the back pressure of the residual air
- faster flowing in of the molten metal
- more homogeneous castings
- smoother surfaces
- increased precision of fit



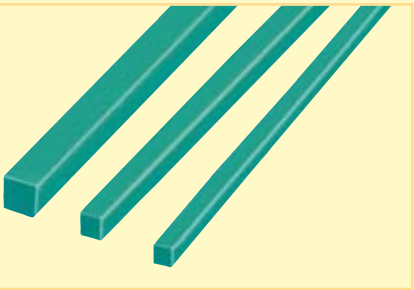
Quadro wax profile
250 g, green

1.75 x 1.75 mm	**REF 430 0691 0**
2.25 x 2.25 mm	**REF 430 0692 0**
3.00 x 3.00 mm	**REF 430 0693 0**

Quadrosticks



The Quadrosticks made of extra-hard special wax can not be deformed at room temperature. This way distortion of the wax pattern is avoided when removing it from the model. This is a crucial prerequisite for precision-fit dental work.





Assortment

150 pieces
Quadrosticks
65 pieces 1.75 mm
50 pieces 2.25 mm
35 pieces 3.00 mm
REF 430 0164 0

Quadrosticks, green

- 1.75 X 1.75 X 50 mm, 150 PCS
  REF 430 0165 0
- 2.25 X 2.25 X 50 mm, 125 PCS
  REF 430 0166 0
- 3.00 X 3.00 X 50 mm, 85 PCS
  REF 430 0167 0

Casting pears



Pointed "Lost head" for fast and specific attaching the casting object with wax; suitable for centrifugal casting.

Casting pears
100 pieces each

Ø	length	
6 mm	9 mm	**REF 430 0740 6**
7 mm	10 mm	**REF 430 0740 7**
8 mm	11 mm	**REF 430 0740 8**
9 mm	12 mm	**REF 430 0740 9**

- Biotec reels of wax pattern
- Reels of wax pattern
- Reels of wax pattern
- Sprues
- Rinsing heads
- Protek wax patterns cut to size
- Quadro wax profile
- Quadrosticks
- Casting pears
- **Sprues**
- **Wax casting bars**
- **Wax casting rings**

Sprues



Sprues with "lost head"
Large reservoir for thick castings
for a homogeneous casting result.

Shaft Ø	Head Ø	Quantity	
3 mm	6 mm	180	**REF 430 0153 0**
3 mm	8 mm	140	**REF 430 0154 0**



pointed on both sides

Shaft Ø	Length Ø	Quantity	
3 mm	35 mm	180	**REF 430 0162 9**

Wax casting bars



Wax casting bar, bent
4.0 mm Quadro profile
50 pieces **REF 430 084B 4**
5.0 mm Quadro profile
50 pieces **REF 430 084B 5**



Wax casting bar, straight
4.0 mm Quadro profile
50 pieces **REF 430 084L 4**
5.0 mm Quadro profile
50 pieces **REF 430 084L 5**

Wax casting rings



Wax casting rings round

19 x 3.0 mm	180 pieces	**REF 430 0050 0**
28 x 3.0 mm	72 pieces	**REF 430 0051 0**
28 x 3.5 mm	72 pieces	**REF 430 0052 0**
28 x 4.0 mm	72 pieces	**REF 430 0053 0**
36 x 3.5 mm	42 pieces	**REF 430 0054 0**
36 x 4.0 mm	42 pieces	**REF 430 0055 0**
45 x 4.5 mm	24 pieces	**REF 430 0056 0**



Wax casting rings Quadro profile
Small

27 x 4.0 mm	40 pieces	**REF 430 074K 4**
27 x 5.0 mm	40 pieces	**REF 430 074K 5**

Medium

35 x 4.0 mm	30 pieces	**REF 430 074M 4**
35 x 5.0 mm	30 pieces	**REF 430 074M 5**

Large

45 x 4.0 mm	20 pieces	**REF 430 074G 4**
45 x 5.0 mm	20 pieces	**REF 430 074G 5**



Wax casting rings Tricast
80 pieces **REF 430 0125 1**



Assortment

131 pieces

19 x 3.0 mm	50 pieces
28 x 3.0 mm	15 pieces
28 x 3.5 mm	15 pieces
28 x 4.0 mm	15 pieces
36 x 3.5 mm	10 pieces
36 x 4.0 mm	10 pieces
45 x 4.5 mm	16 pieces

REF 430 0057 0

Brelight





Prepare a coping using dipping wax or thermo-forming foil and place it on the abutment teeth.



Setting up denture teeth serves for exact positioning of the Brelight auxiliary wax patterns.



The denture teeth are ultimately positioned using a plaster or silicone matrix.



Remove the denture teeth and place the Brelight auxiliary wax patterns accurately using the matrix.



Extremely stable bridge frameworks can be produced with minimum consumption of metal.

Lightweight auxiliary wax patterns for acrylic veneering to save metal and ensure utmost stability.
Weak spots in the interdentium are avoided by voluminous junctures. Horizontal and vertical penetration of the composite material provides maximum stability and perfect bonding to the framework. When the veneering material hardens, Brelight pontics allow transmission of light from the occlusal direction and thus ensure perfectly reliable polymerization also in the basal area. Preshaped anatomical cusp areas, mamelons and neck areas allow quick, individual design of the dentin core even for unexperienced or less trained dental technicians. Brelight auxiliary wax pattern for bridge frameworks made of precious metal, non-precious metal or titanium for full veneering with cold-, heat-curing resins and composite materials. For the fabrication of temporary restorations as well as for fixed and removable dentures. Lower and more uniform thicknesses of the material in the area of the pontics reduce solidification contraction and allow precision-fit castings even for large span restorations.

Refill packs (RP)
Depending on form and size, refill packs cont. 10, 25, 50 and 100 pieces each are available.
Please enter the exact number of parts into the box next to the desired form.



Minikit ☐
52 forms
x 2 parts
REF E14 000M K



If retentions are additionally attached, Brelight auxiliary wax patterns provide a maximum degree of bonding between metal and veneering material.

Tooth	17 / 16 RP	13 RP	12 RP	11 RP	21 RP	22 RP	23 RP	26 / 27 RP	UJ premolar RP
C	☐	☐		☐	☐		☐	☐	☐
B	☐	☐	☐	☐	☐	☐	☐	☐	☐
A	☐	☐	☐	☐	☐	☐	☐	☐	☐

A	☐	☐	☐	☐	☐	☐	☐	☐	☐
B	☐	☐	☐	☐	☐	☐	☐	☐	☐
C	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tooth	47 / 46 RP	45 RP	44 RP	43 RP	33 RP	34 RP	35 RP	36 / 37 RP	LJ anterior RP



Assortment

52 forms
x 5 parts ☐
REF E14 5200 5

52 forms
x 10 parts ☐
REF E14 5201 0

Sender (Stamp):

Customer No.

Date, Signature

Please copy before filling in!

Biotec metal-ceramic blocks without collar b-mkbl



Auxiliary wax elements with properties similar to modelling wax and very limited quantity of residues of burning out. The melting point, hardness and scraping properties are adapted to the modelling waxes to allow simple and specific connecting of the auxiliary wax elements with the crown pattern. The extremely low quantity of residues of burning out of the Biotec auxiliary wax pattern provide perfect preconditions for smooth, homogeneous cast surfaces.

Tooth	17-14	RP	12-22	RP	24-27	RP
Size C		☐		☐		☐
B		☐		☐		☐
A		☐		☐		☐
A		☐		☐		☐
B		☐		☐		☐
C		☐		☐		☐
Tooth	47-44		42-32		34-37	



Assortment

18 forms
x 5 parts ☐
REF B13 180 05

18 forms
x 10 parts ☐
REF B13 180 10

18 forms
x 20 parts ☐
REF B13 180 20



Refill packages (RP):
Each form and size is available as refill package cont. 10, 25, 50 or 100 pieces each.
Please enter the exact number of pieces into the box next to the desired form.



Minikit: ☐
18 forms
x 2 parts
REF B13 000 MK

Sender (Stamp):

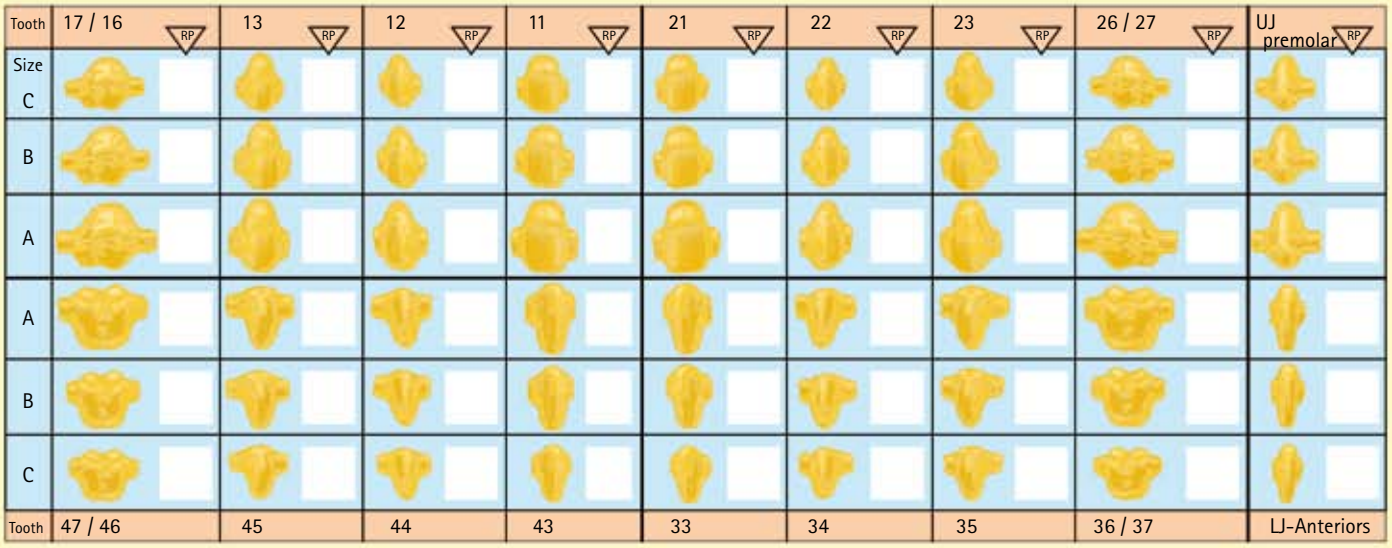
Customer No.

Date, Signature

Please order from your dealer

Please copy before filling in!

In-between pontics bwg



Design by Jan Langner

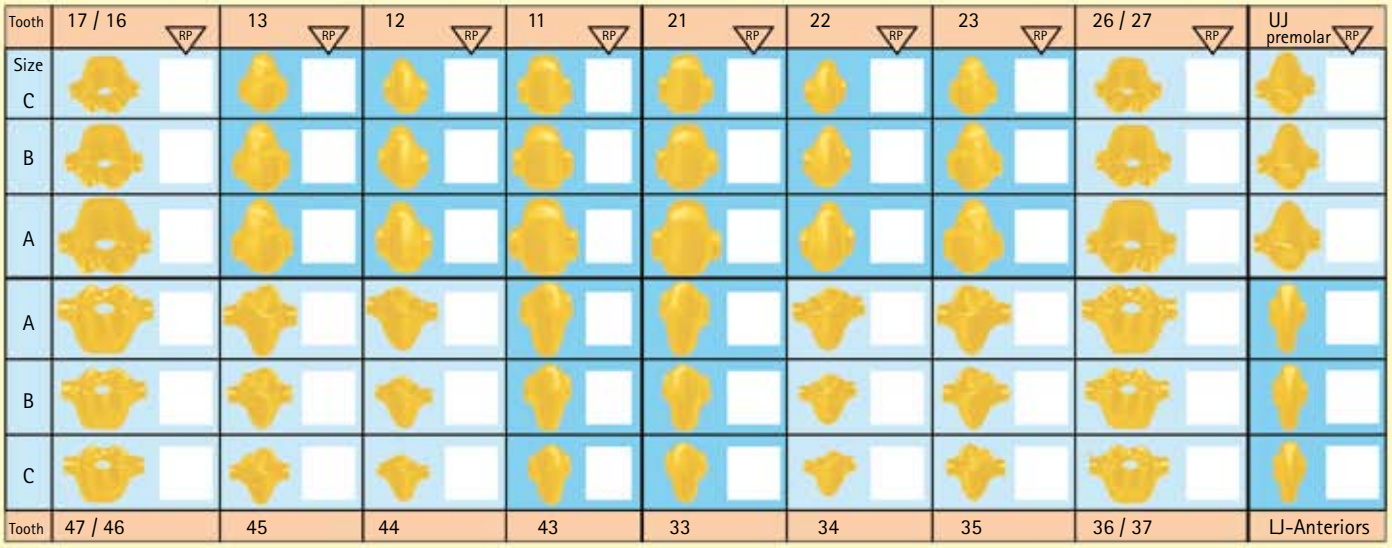
Refill packages (RP): containing 50 pieces each

Assortment In-between pontics bwg: containing 540 pcs.
(54 different forms with 10 individual pieces each)

REF D00 5401 0

Please enter number of desired packages in the box.

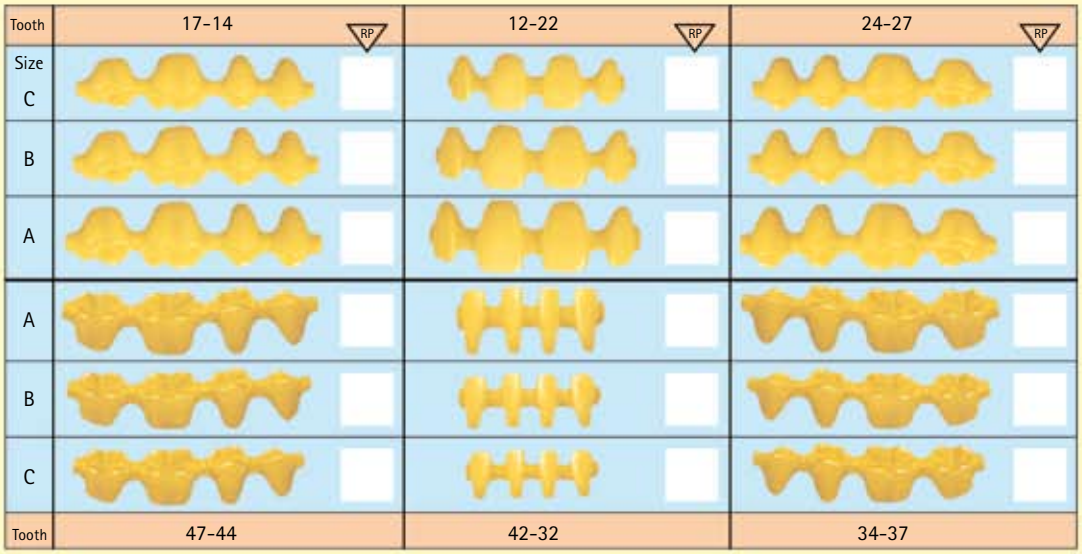
In-between hollow pontics bwhg



Refill packages (RP): containing 50 pieces each

Anterior assortment In-between hollow pontics bwhg
containing 300 pieces (27 different forms)

Betweenblocs bwbl



REF D01 2701 0

Please enter number of desired packages in the box.

Anterior and posterior assortment
In-between pontics and
In-between hollow pontics bwhg
containing 540 pieces.
(different forms with 54 individual pieces each 27 Hollow pontics and 27 Massive pontic)

REF D01 5401 0

Please enter number of desired packages in the box.

Refill packages (RP): each 25 pieces
Assortment
Between blocks bwbl:
containing 180 pieces
(18 different forms, each 10 blocks)

REF D00 1801 0

Please enter number of desired packages in the box.

Illustrations are full size

Sender (Stamp):

Customer No.

Date, Signature

Further order:

bredent

Please copy before filling in!

Between hollow blocks bwhbl

Tooth	17-14	RP	12-22	RP	24-27	RP
Size C						
B						
A						
A						
B						
C						
Tooth	47-44		42-32		34-37	



Refill packages (RP):
containing 25 blocks each

Assortment
Between hollow blocks bwhbl:
containing 12 hollow blocks (posterior blocks) and 6 massive blocks (anterior blocks)

REF D01 1801 0

Please enter number of desired packages in the box. ☐

Hollow pontic blocks hpbl

Tooth	17-14	RP	12-22	RP	24-27	RP
Size C						
B						
A						
A						
B						
C						
Tooth	47-44		42-32		34-37	



Refill packages (RP):
containing 25 blocks each

Assortment
Hollow pontic blocks hpbl:
containing 180 blocks (18 different forms with 10 blocks each)

REF A11 1801 0

Please enter number of desired packages in the box. ☐

Illustrations are full size

Sender (Stamp):

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Date, Signature

Further order:

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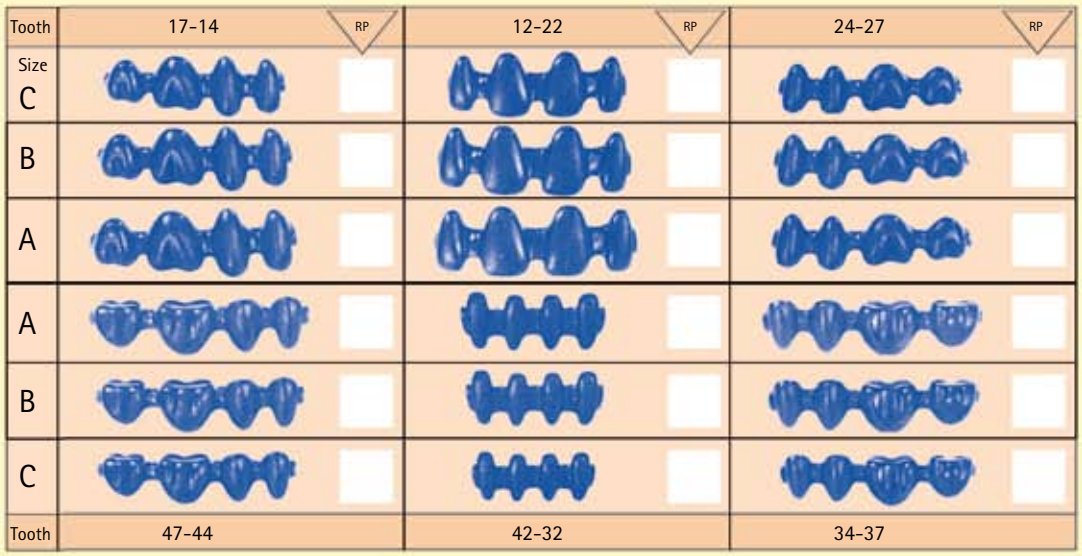
Please order from your dealer

Please copy before filling in!

Metal-ceramic blocks mkbl



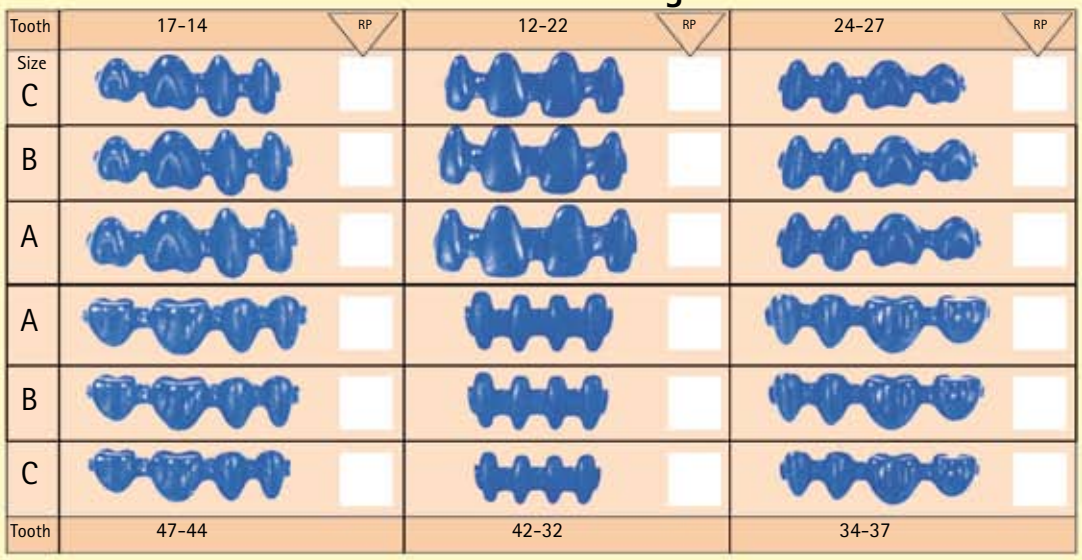
Refill packages (RP): 25 each

Assortment
Metal-ceramic blocks mkbl: containing 180 pieces. (different forms with 18 individual pieces each 10 blocks)

REF A00 1801 0

Please enter number of desired packages in the box. ☐

Metal-ceramic blocks with shallow collar fg-mkbl





Refill packages (RP): 25 each

Assortment
Metal-ceramic blocks with shallow collar fg-mkbl: containing 180 pieces. (different forms with 18 individual pieces each 10 blocks)

REF A01 1801 0

Please enter number of desired packages in the box. ☐

Illustrations are full size

Sender (Stamp):

Customer No.

Date, Signature

Further order:

bredent

Please copy before filling in!

Aesthetic and ergonomic metal-ceramic blocks äe-mkbl

Tooth	17-14 RP	12-22 RP	24-27 RP
Size C			
B			
A			
A			
B			
C			
Tooth	47-44	42-32	34-37



Refill packages (RP): containing 25 blocks each

Assortment
Aesthetic and ceramic metal-ceramic blocks äe-mkbl:
containing 180 blocks
(18 different forms with 10 blocks each)

REF A02 1801 0

Please enter number of desired packages in the box. ☐

Aesthetic wax veneers ä-wv

Design by Jan Langner, Master Dental Technician

Tooth	12 RP	11 RP	21 RP	22 RP
Size C				
B				
A				
A				
B				
C				
Tooth	42	41	31	32



Aesthetics and ergonomic ceramic pontics as a basis



Aesthetics wax veneers from the palatal side on aesthetic and ergonomic ceramic pontics



Aesthetics wax veneers from the labial side



Refill packages (RP): containing 50 pieces each

Assortment
Aesthetic wax veneers ä-wv:
containing 240 pieces
(24 different forms with 10 individual pieces each)

REF C13 2401 0

Please enter number of desired packages in the box. ☐

Illustrations are full size

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Date, Signature

Further order:

bredent

Hollow pontics hpg

Design by W. Wedenig

Tooth	Molars 17 / 16	Premolars 4 / 5	13	12 / 11	UJ Anteriors 21 / 22	23	Molars 26 / 27
Size C	RP	RP	RP	RP	RP	RP	RP
B							
A							
A		occlusal view					
B							
C							
Tooth	47 / 46 Molars		43		41 / 31 LJ Anteriors	33	36 / 37 Molars



Refill packages (RP): 50 pieces each

Assortment Hollow pontics hpg:
containing 360 pieces.
(36 different forms with 10 individual pieces each)

REF A01 3601 0

Please enter number of desired packages in the box. ☐

Metal-ceramic circular mkc

Tooth	17	16	15	14	13	12	11	21	22	23	24	25	26	27
Size C	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP
B														
A														
A														
B														
C														
Tooth	47	46	45	44	43	42	41	31	32	33	34	35	36	37

Refill packages (RP): 50 pieces each

Assortment metal-ceramic circular mkc:
containing 840 pieces (84 different forms with 10 individual pieces each)

REF A00 8401 0

Please enter number of desired packages in the box. ☐

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Date, Signature

Further order:

bredent

Please order from your dealer

Please copy before filling in!

- **Aesthetic-Gnathoflex**
- Gnathoflex Premium

Aesthetic-Gnathoflex



Flexible, re-usable silicone moulds for creating wax, acrylic or ceramic occlusals.
Shaping occlusal surfaces within seconds thanks to highly flexible silicone moulds.
- Can be used for many applications – with wax, acrylic and porcelain
- Saves time – thanks to the teflon coating super smooth surfaces are created immediately
- Only needs to be bought once - Aesthetic-Gnathoflex moulds can be reused

Achieve increased turnover in less time yet maintain constant high quality!



Gnathoflex is fabricated from high-grade silicone which maintains its stability up to 250 °C. The occlusal path is created by the mould, which is only 0.5 mm thick.



Gnathoflex is extremely flexible and very durable and ensures that its shape is maintained.



Gnathoflex precisely reproduces the anatomical cusps and fissures in wax, acrylic or porcelain. The result is a smooth, glazed surface.

Produce wax occlusals in 40 secs.



The aesthetic, but functional anatomy which Gnathoflex produces in wax patterns, may be modified to suit individual requirements.



The copings are prepared as usual, using wax or acrylic.



As soon as the wax begins to gel,

Produce acrylic occlusals in 90 secs.



Gnathoflex provides for high-luster occlusals when using the acrylic or composite of your choice. It is also ideal for temporary bridgework.



Gnathoflex is filled with the modelling wax of your choice.



place the Gnathoflex on the die.

Produce porcelain occlusals in 180 secs.



Porcelain work may be built up using the shade and anatomy of your choice. Any porcelain may be used.

You may also use Gnathoflex as the basic mould for fabrcating your laboratorys own individual occlusals.

Open the articulator 0.5 mm, measured at the surface being waxed-up, in order to allow for the thickness of the Gnathoflex.

Choose for yourself: Precisely articulated multiple contacts, minimum contact or exactly 0.5 mm out of occlusion.



Close the articulator and attach the Gnathoflex to the wax coping, using a drop of wax.



The second bridge abutment is waxed-up using the same method.



Shows the high-luster precision wax reproduction of the silicone mould.



A pre-formed wax pattern is used when waxing-up the occlusal surface of the pontic.



Shows the completed occlusal aspect of the bridge. Gnathoflex ensures uniform, aesthetic occlusals.



Lingual view of the intercuspidation between the wax pattern and the opposing teeth.



The buccal view shows the central cusp-to-fossa relationship.



Terminal occlusion contact areas, made visible by means of articulating film.

Silicone moulds for occlusals

- **Aesthetic-Gnathoflex**
- Gnathoflex Premium

Aesthetic-Gnathoflex

Fabricate occlusals using any acrylic, no trimming required.



Prepare the coping as usual and apply the crown and bridge acrylic (dentine) of your choice.



No separating agent is necessary when filling the Gnatoflex with acrylic. First fill the cusps with incisal and then fill the mould completely with dentine. Place the mould on the bridge.



Close the articulator. When using photo-curing acrylic, commence polymerisation now, in order to fix the bite.



Remove the bridge, apply the interdental contact areas and complete the polymerisation. Having carried this out, remove the silicone moulds.

Accurately shaded porcelain occlusals, easier than ever before.



Apply the opaque, fire it and build-up the bridge using dentine. Brush a thin coat of Gnathoflex separating agent into the silicone mould.



First fill the Gnathoflex with incisal and then with dentine. The incisal material should be brushed out from the cusps toward the margins. In order to allow for the shrinkage, the articulator should be opened by more than 0.5 mm when building up porcelain occlusals.



Place the Gnathoflex on the bridge and fix it using porcelain. Complete the build-up using incisal, dentine or a mixture of both – depending upon the shade.



Dry the porcelain as usual or use a hair dryer. Carefully remove the Gnathoflex from the bridge. The bridge can now be removed from the model, further porcelain applied to the contact areas and the bridge fired as normal.

Accessories:



Isoflex
20 ml
REF 540 0101 3

Aesthetic-Gnathoflex + DVD



Create occlusal surfaces
in seconds with these extremely
flexible Teflon silicone moulds

- Can be used for many applications - with wax, acrylic or porcelain
- Saves time - thanks to the Teflon coating super smooth surfaces are created immediately.
- Only has to be bought once.
  Aesthetic Gnathoflex moulds can be re-used.

Achieve increased turnover in less time yet maintain constantly high quality!

- For wax patterns
- For ceramic
- For acrylic

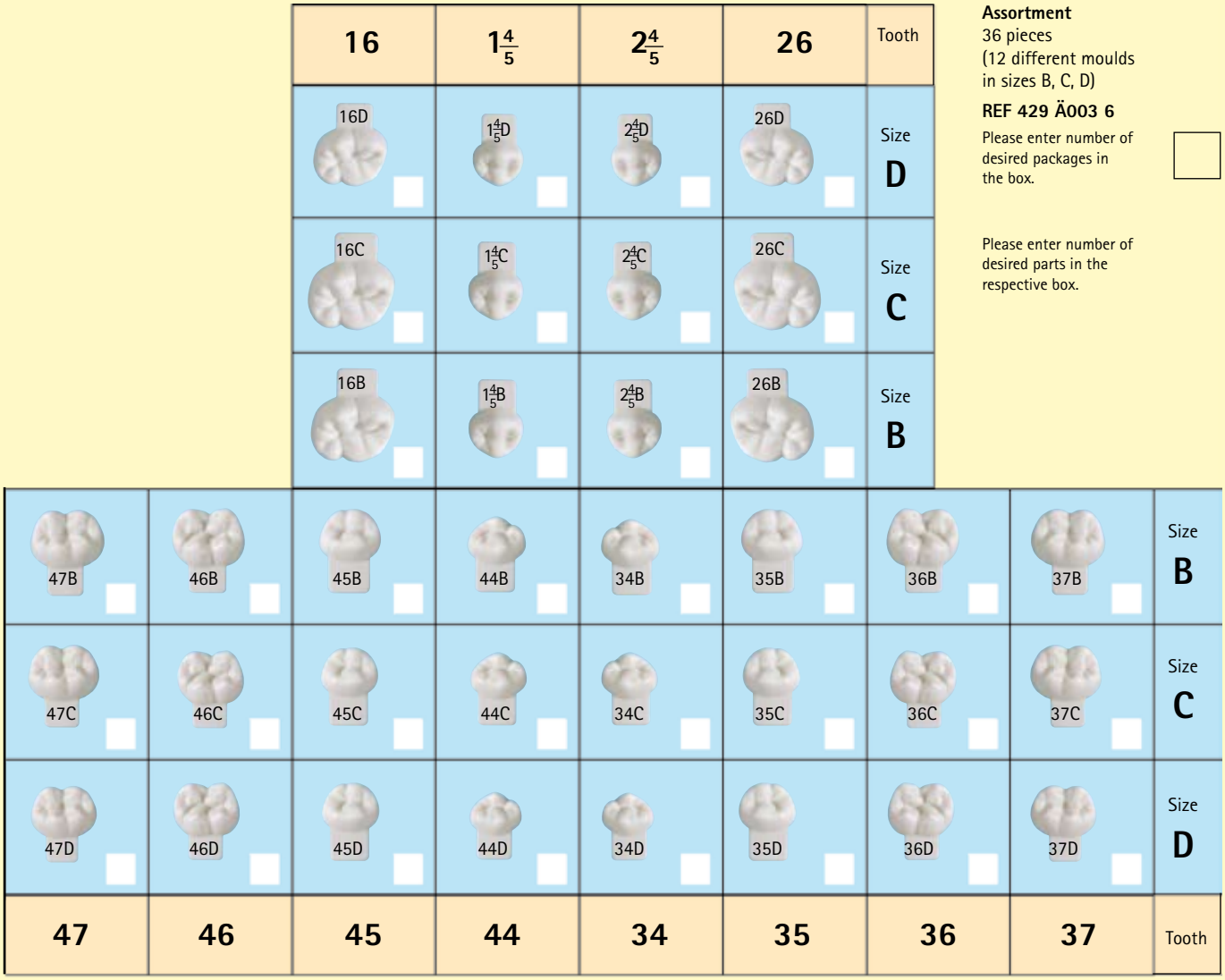


Aesthetic-Gnathoflex
DVD
REF 670 D17G B

Telephone (+49) 0 73 09 / 8 72-4 40

- **Aesthetic-Gnathoflex**
- Gnathoflex Premium

Aesthetic-Gnathoflex



Illustrations are full size

Assortment
36 pieces
(12 different moulds in sizes B, C, D)

REF 429 Ä003 6

Please enter number of desired packages in the box. ☐

Please enter number of desired parts in the respective box.

Sender (Stamp):

Customer No.

Date, Signature

Further order:

Silicone moulds for occlusals

- Aesthetic-Gnathoflex
- **Gnathoflex Premium**

Gnathoflex Premium



Extremely flexible, reuseable silicone moulds for creating occlusals.
40 to180 seconds for a gnathological, aesthetically functional occlusal with wax, acrylic and ceramic.



Gnathoflex
Study model
FF1 Set
1 UJ model
1 LJ model
REF 992 5027 3

Original size



Gnathoflex
Study model
FF1 mini Set
1 UJ model mini
1 LJ model mini
REF 992 5027 4

Original size



Assortment

Gnathoflex Premium
48 pieces
16 different moulds
3 sizes A-B-C
REF 429 P004 8



Isoflex - if
20 ml
REF 540 0101 3



DVD
Aesthetic-Gnathoflex
In-between pontics
REF 670 D17G B

bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- Aesthetic-Gnathoflex
- **Gnathoflex Premium**

Gnathoflex Premium

Wax occlusals



The copings are prepared as usual, using wax or acrylic.



To compensate the thickness of the Gnathoflex, the bite is raised by 0.5 mm.



Fill Gnathoflex with wax and wait until the wax begins to gel.



Once the wax has hardened, place the Gnathoflex occlusal onto the coping.





Close the articulator in the position of maximum intercuspidation and attach the occlusal to the coping using a drop of wax. Depending on the situation, two or more Gnathoflex occlusals can be placed simultaneously or one after the other. The contact can be strongly varied by raising or lowering the antagonist.









High-luster, gnathologically shaped wax occlusals with perfect contact to the antagonist are the perfect basis for smooth and precision-fit casting. Gnathoflex Premium helps to save time during the preparation of the wax model as well as during finishing of crowns and bridges.





Acrylic occlusals



Prepare the structure as usual and apply crown and bridge acrylic (dentine).



No separating agent is required when filling the Gnathoflex with acrylic. First fill the cusps with incisal and then fill the mould completely with dentine.



Place Gnathoflex on the bridge, close the articulator and polymerize with UV light in order to fix the bite.



Then the bridge is removed, interdental contact areas are applied and polymerization is completed.

Ceramic occlusals



The opaque is fired on the metal structure.



Hold the Gnathoflex with the tweezers and apply Isoflex insulating liquid onto the inner surface.



Tap several times on the Gnathoflex to remove excess Isoflex insulating liquid.







Fill incisal into the cusps and brush out from the cusps toward the margins. Fill the Gnathoflex with dentine and place on the bridge structure. Close the articulator and turn it. Fix the Gnathoflex occlusals to the bridge using dentine material. Dry the object and carefully remove the Gnathoflex. The other occlusals are prepared accordingly. Complete the bridge.

Gnathoflex Premium

17	16	15	14	24	25	26	27	
 429 P017 C	 429 P016 C	 429 P015 C	 429 P014 C	 429 P024 C	 429 P025 C	 429 P026 C	 429 P027 C	C
 429 P017 B	 429 P016 B	 429 P015 B	 429 P014 B	 429 P024 B	 429 P025 B	 429 P026 B	 429 P027 B	B
 429 P017 A	 429 P016 A	 429 P015 A	 429 P014 A	 429 P024 A	 429 P025 A	 429 P026 A	 429 P027 A	A
 429 P047 A	 429 P046 A	 429 P045 A	 429 P044 A	 429 P034 A	 429 P035 A	 429 P036 A	 429 P037 A	A
 429 P047 B	 429 P046 B	 429 P045 B	 429 P044 B	 429 P034 B	 429 P035 B	 429 P036 B	 429 P037 B	B
429 P047 C	429 P046 C	429 P045 C	429 P044 C	429 P034 C	429 P035 C	429 P036 C	429 P037 C	C
47	46	45	44	34	35	36	37	

Illustrations are full size

Please select the desired parts from the original illustrations.

Please enter number of desired parts in the respective box or highlight the assortment.

Please enter number of desired packages in boxes.

Assortments **Gnathoflex Premium:**

16 pcs, containing 16 moulds in size A
REF 429 P000 A ☐

16 pcs, containing 16 moulds in size B
REF 429 P000 B ☐

16 pcs, containing 16 moulds in size C
REF 429 P000 C ☐

48 pcs, containing 16 moulds in 3 sizes ABC each
REF 429 P004 8 ☐

Sender (Stamp):

Customer No.

Date, Signature

- **Crystals and beads**

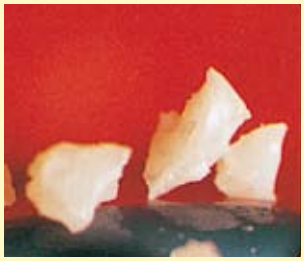
Crystals and beads



Retention crystals
0.2 mm, 20 ml
REF 530 0048 0
0.5 mm, 20 ml
REF 530 0050 0
0.8 mm, 20 ml
REF 530 0051 0



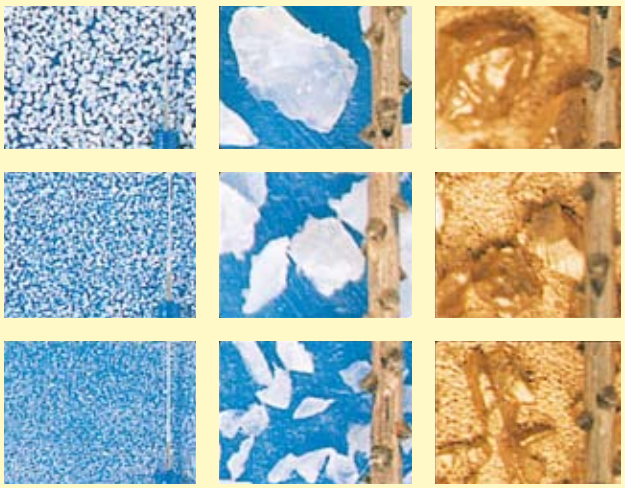
Optimum retention leads to the strongest possible acrylic/metal junctures.



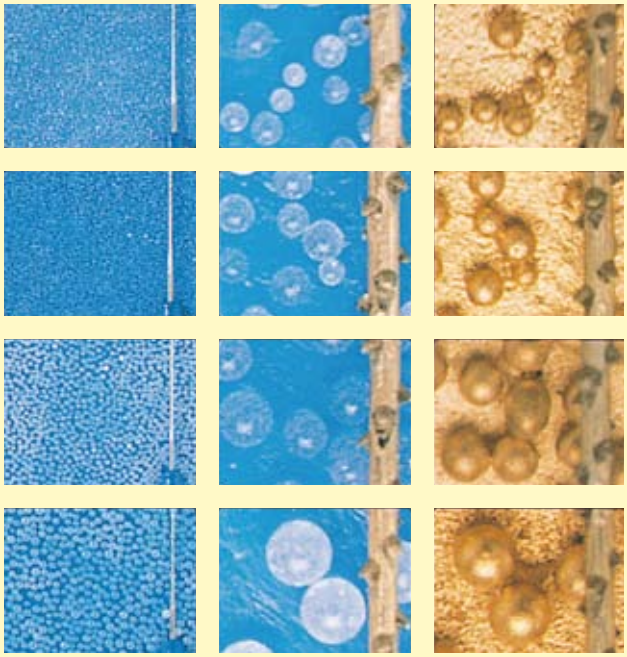


Crystals have double the retentive area of beads.

Original size | 10x magnification | 10x magnification (gold)



Micro retention beads result in elegant facings.



Surface sealing agent

- **Optiguss**

Optiguss

The solution for increased perfection with less effort.
Optiguss Micro – 5 micron coating – or Optiguss Macro – 10 micron coating – can be applied easily and quickly to the wax pattern to smooth, seal and reinforce it without changing its shape.
The use of Optiguss reduces the finishing time by 50 % compared to a conventional cast surface.



Optiguss-macro 15 ml
REF 520 0092 0

Optiguss-micro 15 ml
REF 520 0093 0



Optiguss mixing well macro
2 pieces
REF 390 0035 0

Optiguss mixing well micro
2 pieces
REF 390 0034 0



3 **Brushes** size A + brush holder **REF 330 0114 6**

3 **Brushes** size B + brush holder **REF 330 0114 7**

3 **Brushes** size C + brush holder **REF 330 0114 8**



Brush cleaning pot
2 pieces
REF 390 0037 0



Brush cleaner
20 ml
REF 520 0094 0

Assortment



15 ml Optiguss-macro
15 ml Optiguss-micro
2 Optiguss mixing well macro
2 Optiguss mixing well micro
3 Brushes size A
3 Brushes size B
3 Brushes size C
2 Brush cleaning pot
1 Brush cleaner

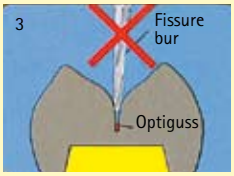
REF 520 0091 0



Even when the pattern is waxed-up as carefully as possible, minute scratches and rough areas remain in the wax which have to be trimmed out of the casting.



Applying Optiguss creates super smooth surfaces.



Deep fissures, which cannot be reached with a fissure bur, can be smoothed with Optiguss. This simplifies polishing of gnathologically designed occlusals.



The finishing time can be reduced by more than 50 % due to more homogeneous surfaces.



Approximal contact areas are strengthened, yet retain their shape.



Fitting surfaces are built-up properly and smoothed, which reduces the time required for trimming.

bredent

- **Isobre wax insulating liquid**
- **Isoflex**

Isobre wax insulating liquid



Isobre wax insulating liquid
750 ml
REF 540 0104 0

Micro-fine insulating liquid on organic basis for reliable, exact separation of the wax pattern against all dental materials.

Accessories:



Brush pen pk 20
20 ml
REF 540 0072 0







Isobre wax insulating liquid on organic basis is absolutely reliable, solvent-free and can be washed off easily. Neutral against plastic, ceramic, metal, plaster and painted surfaces. Even when the insulated surface has dried, Isobre wax insulating liquid will produce a highly efficient, micro-fine insulating layer which ensures simple and safe removal of the wax pattern. Highly absorbing surfaces must be insulated 2 to 3 times.

Isoflex



Special liquid to insulate Gnathoflex silicone moulds against wax, ceramic and acrylic.

Isoflex
20 ml
REF 540 0101 3

Tension reducing agents

- **Wax-Lite surface tension reducing agent**
- **Silicone and wax surface tension reducing agent**

Wax-Lite surface tension reducing agent



Alcohol-free surface tension reducing agent for bubble-free investing of wax patterns.

Wax-Lite surface tension reducing agent
750 ml
REF 520 0100 8





Wax surfaces that are coated with the tension reducing agent allow flowing of the investment material into very small cavities of the model. This results in smooth, homogeneous surfaces and perfect occlusal surfaces. With the spray bottle micro-fine layers of Wax-Lite can be applied on the wax surface.

Silicone and wax surface tension reducing agent



Improves the flow characteristics of plaster on silicone impressions.
Spraying on silicone and wax tension reducing agent will improve the flow characteristics of plaster for silicone impressions. The impression must be dry before the arch is poured.

Silicone and wax surface tension reducing agent
750 ml
REF 540 0070 5



The fine spray head of the plastic spray bottle simplifies spraying uniform quantities of the agent.

Accessories:

Spray bottle, plastic sp
1 piece, 125 ml
REF 540 0075 0



The spraying head of the spray bottle simplifies uniform wetting of the surface with silicone and wax surface tension reducing agent.



After the application of the agent onto the surface (left), the flow characteristics of the plaster have been clearly improved.



Silicone and wax surface tension reducing agent produces a homogeneous plaster surface. This will ensure precise dental work.

- **Cervical disc**
- **Wax knife**
- Waxpool duo
- Wax knife bwm 3
- Quick Change
- Piezo-Blitz pb 1
- Quick-Mandrel-System
- Spot Clip
- Mamelon cutter
- Quicktool
- Ceramix

Cervical disc

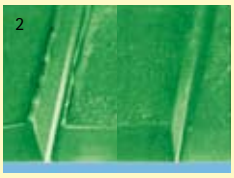


Increases precision and reduces working time when making wax or plastic patterns.

Cervical disc
REF 320 0091 0



This precision steel cutting disc is 0.1 mm thick, 3.0 mm in diameter and can be guided exactly when cutting.



Shows a comparison of the cuts made in 0.5 mm thick wax using a scalpel (left) and cervical disc (right).



Shows an extremely precise pattern, produced using our dipping wax without the need to re-wax the cervical margin.

Wax knife



Hand piece
(without blade)
REF 110 0072 0



Contouring tips

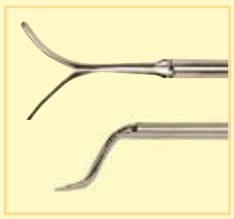
size 1 Ø 0.3 mm	**REF 790 0070 0**
size 3 Ø 0.7 mm	**REF 790 0072 0**
size 5 Ø 1.0 mm	**REF 790 0074 0**

Blades



Standard blade
REF 320 0070 0

Sword blade
REF 320 0072 0



Duo-blade
REF 790 0073 0

Hollow blade, angled
REF 320 0071 0

Waxpool duo



Waxpool duo unit
REF 110 0150 0

Waxpool duo handpiece
REF 110 0151 0

Assortment

4 parts
1 Waxpool duo unit
1 Waxpool duo handpiece
2 Waxpool duo contouring blades at your choice

REF 110 0152 0

Wax dipping unit and wax knife all in one – digital control for added comfort
- Stable and easy to clean plastic housing
- Exchangeable plastic lids
- Clear design
- °C or °F can be selected

Wax dipping unit
- Precise temperature control of the dipping wax for increased quality
- High-performance heating elements reduce the time for heating the wax
- Uniform wax copings thanks to constant temperature control
- Special, lowered safety dipping wax to avoid burning of fingers
- Melting temperature up to 120° C

Wax knife
- A separate wax knife can be connected
- A single unit at the working place
- Non-tiring working thanks to ergonomic design of the handle
- Special insulating elements reduce heating up of the handle
- Simple exchange of blades
- Boost key for quick heating up to the end temperature
- Maximum temperature of 240° C

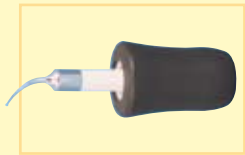
Accessories:



Rest
REF 140 0096 5



Contouring blade size 1
REF 320 WP4G 1



Contouring blade size 3
REF 320 WP4G 3



Contouring blade size 5
REF 320 WP4G 5



Contouring blade standard
REF 320 WP47 2

Wax knife bwm 3



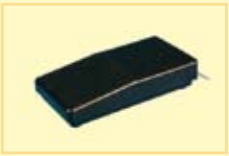
Control unit bwm 3
with handpiece and contouring blade size 5
REF 140 0096 3

Control unit bwm 3
REF 140 0096 0

Handpiece bwm 3
REF 140 0096 2



Rest bwm 3
REF 210 0045 1



Footswitch bwm 3
REF 140 0096 1



Foam rubber grip lining
4 pieces
REF 140 0096 4

Electric wax knife featuring integrated advanced technology and high quality. The ergonomic handpiece allows to take up wax quickly and ensures comfortable working.

- Ergonomically designed handpiece
- Quick heating up with the Rapid-Speed footswitch
- Adjustable temperature control
- Simple and fast exchange of the contouring blades



Contouring blade bwm 3 size 1 **REF 320 004G 1**

Contouring blade bwm 3 size 3 **REF 320 004G 3**

Contouring blade bwm 3 size 5 **REF 320 004G 5**

Contouring blade bwm 3 Standard **REF 320 0047 2**



1 Comfortable and quick removal of the contouring blades.



2 Device for firm, reliable hold of the handpiece at the unit.



3 Mobile rest for safe depositing of the handpiece.



4 Blade shapes proven over numerous years allow individual application.



5 Integration into the grip for quick and simple exchange of the contouring instruments without the risk of injuries.



6 The special instrument grip avoids twisting of the contouring tip whilst working.



7 The contouring tips are stored on the control unit in a safe and clearly arranged manner.



8 If the wax knife is not needed, it can be placed on the rest in the direct reach of the technician.



9 The footswitch allows to quickly reach a higher temperature than the one that has been set. Activation of the footswitch is indicated by the control lamp.



10 Logical and clearly arranged control unit for stress-free and safe working.



11 Handpiece with flexible, stable cable for simple working.



12 High-tech dental equipment featuring highly useful function and design - for comfortable and simple working.

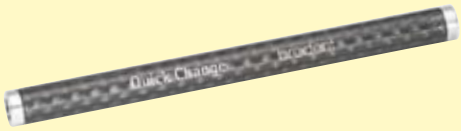
Quick Change



The combination of design, function and systematics.

Quick change system for instruments for ceramic, model fabrication and prosthetics

- Design carbon handle – esthetic and haptic
- Stainless blade holder with magnetic receptacle for perfect fixation of all blades
- All metal components and magnets are corrosion-resistant
- Temperature resistance of instruments inside the handle: 80°C
- Single hand use with quick change system
- Individual indications for ceramic, model fabrication and prosthetic
- Easy control thanks to reduced range of instruments
- Clever system allows to find the suitable instruments quickly (protection of registered design!)
- Troublesome screwing with keys is avoided
- Blades can be adjusted at any position – familiar working position is retained
- High safety thanks to immediate release of the heated blades
- Proper storage of sensitive ceramic blades
- Ceramic brushes can be perfectly stored in a hanging position
- Ceramic blades with high surface quality for outstanding gliding properties



Carbon handle
L 101 mm, Ø 8 mm
REF 310 0103 1

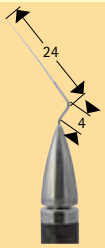


Halter
w 102 x d 100 x h 75 mm
Weight approx.. 575 g
REF 310 0103 0

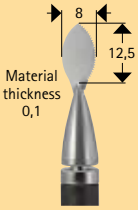
Overview of instruments
Dimensions in mm



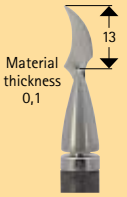
TwinPoint
REF 310 0105 6



Fissure tool
REF 310 0103 4



Olive
REF 310 0105 7



Croco, smooth
REF 310 0103 2



Croco, serrated
REF 310 0103 3



Adapter with M4 thread
REF 310 0103 5



MagicContrast size 6
REF 310 0105 3



MagicContrast size 8
REF 310 0105 4



MagicContrast size 8B
REF 310 0105 5



KoliBrush size 6
REF 310 0104 4



KoliBrush size 8
REF 310 0104 5



KoliBrush size 8B
REF 310 0104 6



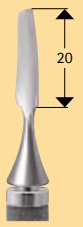
Blade according to Zahle
REF 310 0104 0



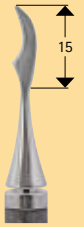
Probe 0.8
REF 310 0104 1



Probe 1.1
REF 310 0104 2



Blade 0408
REF 310 0103 9

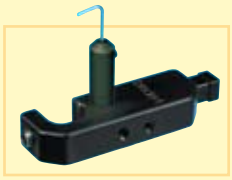


Blade 0308
REF 310 0103 7

Piezo-Blitz pb 1



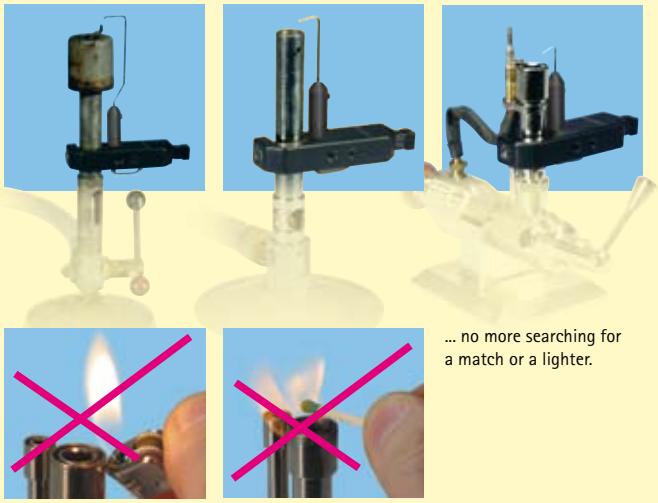
Piezo-electric ignitor for all gas burner types.
Suitable for all burner types (even old ones)!



Piezo-Blitz pb1
REF 360 0126 6



The main and the economy flame can be ignited by turning the ignition electrode.



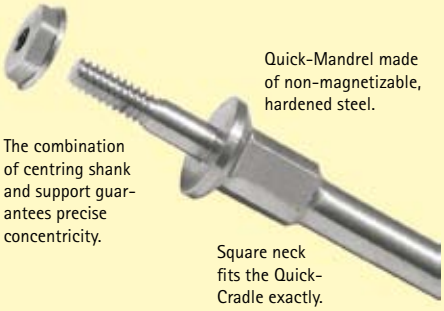
... no more searching for a match or a lighter.

Quick-Mandrel-System



Save 40 seconds every time you change a separating disc, wheel or polishing disc. Every second counts!
The magnetic screwdriver holds the hexagonal nut.

Hexagonal nut with large support, made of magnetizable, hardened steel.



Quick-Mandrel made of non-magnetizable, hardened steel.

The combination of centring shank and support guarantees precise concentricity.

Square neck fits the Quick-Cradle exactly.

Stainless steel Quick-Gradle
1 piece
REF 360 0115 5



size 1
up to 1 mm thick discs
10 pieces
REF 360 0115 4



size 2
1-3 mm thick discs
10 pieces
REF 360 0115 3



size 3
3-5 mm thick discs
10 pieces
REF 360 0115 2

Assortment

1 Quick-Gradle
2 Quick-Mandrels size 1
2 Quick-Mandrels size 2
2 Quick-Mandrels size 3

REF 360 0115 6

Save 40 seconds



now

Changing the disc with pliers and an instrument wastes a lot of time!



in future

The Quick-Mandrel-System - Unbeatably fast and pratical.

Be faster and get ahead

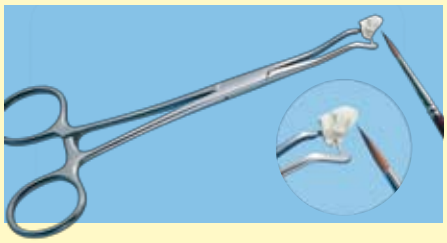


Place the magnetic screwdriver on the Quick-Mandrel and turn it to loosen the hexagonal nut. The hexagonal nut is retained in the magnetic screwdriver.



Tighten the magnezitable hexagonal nut to position the new separating disc on the Quick-Mandrel, securely and in the centre.

Spot Clip



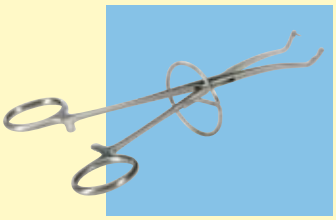
Artery clip with spot-shaped holding area simplifies veneering – in two variations



Every ceramic specialist is familiar with the problems of metal-ceramic crowns without a metal margin: the holding spot of the artery clip is not sufficiently covered by base material (opaque). The problem can be solved with Spot Clip.



This clip covers only a tiny spot of the surface to be veneered. The base material can be easily applied around the holding spot of the clip.



Spot Clip
1 piece
REF 310 0000 5

Spot Clip with supporting ring
1 piece
REF 310 0000 7



After removing the Spot Clip, the aqueous base material fills the holding spot of the clip. This way a uniform smooth layer of base material is obtained.



Spot Clip simplifies the application of stains and glaze material. No smearing of stains, no subsequent application of stains in the area of the holding spot of the clip ist required.

Mamelon cutter



Simplifies the incisal design of ceramic crowns.

Mamelon cutter
1 piece
REF 310 0000 1



Large mamelon cutter for upper incisors.



Small mamelon cutter for lower incisors.



The crowns are shaped in the usual way using dentine material.



The incisal edge is cut back using the mamelon cutter.





The contoured dentine core after firing: A base for incisal design options is obtained in a fast, safe and easy way.

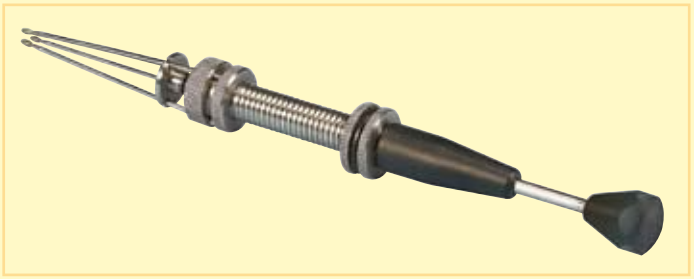


The individual shades can be applied onto the dentine core – regardless whether firing has been carried out or not.



The incisal edges of the finished crowns exhibit a vivid play of colours.

Quicktool



Ceramic structures are held safely without any pressure thanks to the three galvano plated diamond tips and the locking mechanism – even galvano formed copings.



Quicktool
REF 310 0102 0

The three bud-shaped diamond tips ensure safe and uniform hold of the crown. Accordingly, safe hold is achieved also when condensing.

Accessories:



3 diamond tips
REF 310 0102 1



The gripping force can be adjusted to the crown size without deforming the crown.

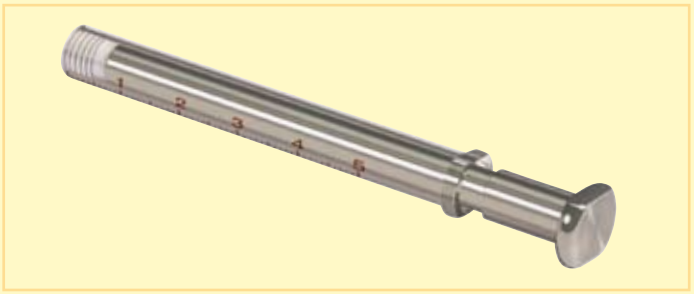


In case of limited space, a diamond tip can be removed - ideal for lower anterior crowns.



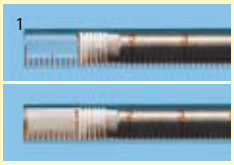
The integrated condenser condenses the ceramic material in next to no time.

Ceramix

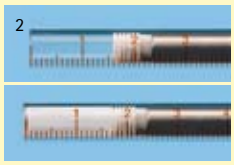


Reproducing individual shade mixtures quickly and easily. Ceramic material is saved thanks to controlled dosing.

Ceramix
REF 360 0119 5



The desired quantity is determined using the scale and the Ceramix is inserted into the ceramic material.



The corresponding filling quantity is determined for additional ceramic materials.



When inserting the Ceramix into the ceramic material, it must be ensured that the material is properly condensed.

To obtain the same shade mixture continuously, note down the ratio of the mixed shades. This way ceramic material is saved.

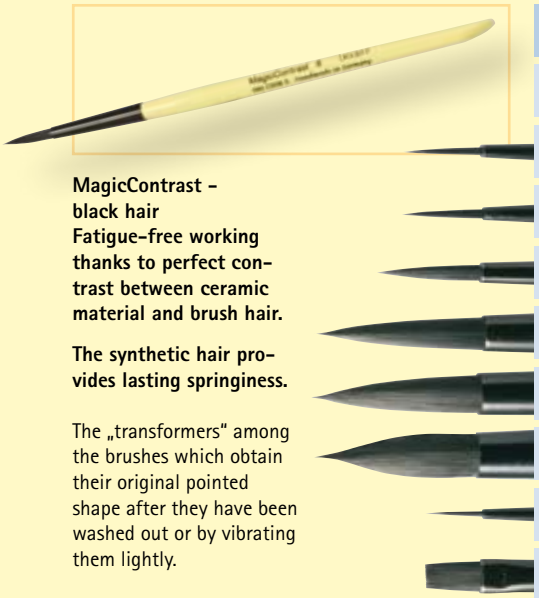


To obtain individual sample shade tabs, stir the mixed ceramic material thoroughly with a spatula. Take up with the Ceramix, press onto the fibrous pad, wet and fire.

Units / Instruments

- **MagicContrast**
- **MagicBrush**
- KoliBrush

MagicContrast



MagicContrast – black hair
Fatigue-free working thanks to perfect contrast between ceramic material and brush hair.

The synthetic hair provides lasting springiness.

The „transformers" among the brushes which obtain their original pointed shape after they have been washed out or by vibrating them lightly.

Product name	Size	Qty.	REF
MagicContrast	4, 6, 8	1 piece each	390 CSET 1
MagicContrast	1	2 pieces	390 C001 0
MagicContrast	2	2 pieces	390 C002 0
MagicContrast	4	2 pieces	390 C004 0
MagicContrast	6	1 piece	390 C006 0
MagicContrast	8	1 piece	390 C008 0
MagicContrastBigBrush	8 BigBrush	1 piece	390 C008 B
MagicContrast	1/0	2 pieces	390 CS01 0
MagicContrast-Opaker	5	2 pieces	390 CS03 0

Scale 1:1

MagicBrush



MagicBrush – golden brown hair

High springiness of durable synthetic hair for simpler layering of the ceramic material. MagicBrush and MagicContrast only differ by the color of the hair.

Restore the original pointed shape by tapping off or vibrating the brush lightly, just like with the MagicContrast brushes.

Product name	Size	Qty.	REF
MagicBrush	4,6,8	1 piece each	390 MSET 1
MagicPaintBrush	00 000	1 piece each	390 MS23 0
MagicBrush	1	2 pieces	390 M001 0
MagicBrush	2	2 pieces	390 M002 0
MagicBrush	4	2 pieces	390 M004 0
MagicBrush	6	1 piece	390 M006 0
MagicBrush	8	1 piece	390 M008 0
MagicBigBrush	8 BigBrush	1 piece	390 M008 B
MagicBrush	1/0	2 pieces	390 MS01 0
MagicBrush	2/0	2 pieces	390 MS02 0
MagicBrush-Opaker	5	2 pieces	390 MS03 0

Scale 1:1

- **MagicContrast**
- **MagicBrush**
- KoliBrush

Magic...



The MagicContrast brushes = black and MagicBrush = brown feature absolutely identical functional chacteristics!



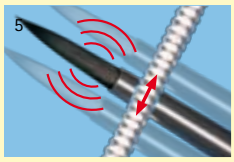
The pointed shape of dry brush hair is immediately restored by wetting, tapping off or vibrating the brush lightly.



Thanks to the strong contrast, any contamination such as dust or dry ceramic particles can be clearly recognized.







From the spatula shape to the original shape by rinsing the brush in liquid and then tapping if off or vibrating it lightly with a suitable instrument.



High elasticity to pick up specific quantities of ceramic material more easily.



The optimized springiness restores the shape of the brush tip immediately after picking up ceramic material. Additionally, the respective quantity can be easily assessed thanks to the contrast.



The spatula shape can be easily achieved after pressing the tip with two fingers. This way, the brush can be shaped individually.



Large quantities of ceramic material are picked up and time-saving layering is achieved thanks to the elasticity and the springiness of the brush hair.



The spatula shape does not reduce the stability of the brush hair; hence less time is required for applying the ceramic material to the framework.

KoliBrush



KoliBrush – golden brown natural hair
Natural hair brushes made of superior quality Kolinsky hair.



Improved design of the tip of the BigBrush is achieved tanks to the integrated spheres - for simpler modelling. Fine, stable tip thanks to carefully selected hair.



The shape and quality of the hair for perfect retention of moisture and improved adhesion and application of ceramic material.



The desired elasticity is obtained by the unique design and combination. This way already applied ceramic layers will not be damaged.

Scale 1:1

Product name	Size	Qty.	REF
KoliBrush	**4, 6, 8 B**	1 piece each	**390 KSET 1**
KoliBrush	**1**	**2** pieces	**390 K001 0**
KoliBrush	**2**	**2** pieces	**390 K002 0**
KoliBrush	**4**	**2** pieces	**390 K004 0**
KoliBrush	**6**	**1** piece	**390 K006 0**
KoliBrush	**8**	**1** piece	**390 K008 0**
KoliBigBrush	**8 BigBrush**	**1** piece	**390 K008 B**
KoliBrush	**1/0**	**2** pieces	**390 KS01 0**
KoliOpakerBrush	**5**	**2** pieces	**390 KS03 0**

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- **Manual bredent casting technique** according to Sabath
- **Metal muffle rings**
- Silicone muffle rings
- Casting ring system
- Brevest M1 C+B
- Brevest C+B Speed
- Brevest Rapid 1
- Brevest ceram Speed
- Investment hardener
- Investment marker
- Casting ring marker
- Brealloy C+B 270
- Brealloy MK
- Golden booklet

Manual bredent casting technique according to Sabath



The „bredent casting technique" loose-leaf folder (Dental casting, accurate – homogeneous – compatible) is intended to be used as a manual by the user. The folder's purpose is not to „transform" the dental technician into a material scientist or metallurgist using scientific data and chemical formulas. It is rather the objective of the folder to simplify reliable scientific data and experience for the dental technician as a user.

bredent casting technique according do Sabath
The dental cast
precisely fitting - homogeneous - compatible
Loose-leaf folder
230 pages
REF 992 961G B



Course program

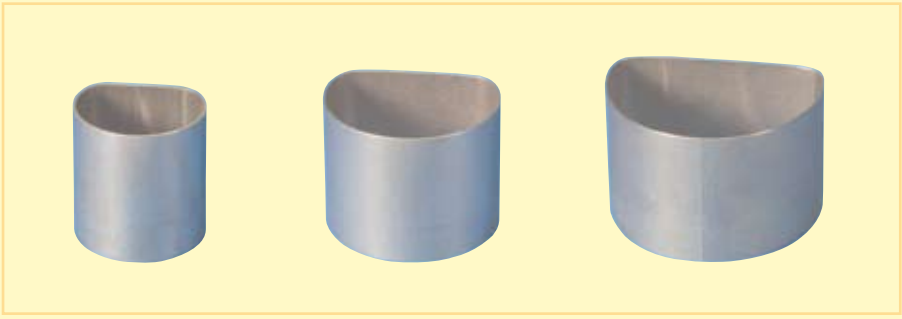
In the „bredent casting technique" course you will learn the systematical procedures.
The know-how conveyed in this course is to enable you to achieve reproducible high-quality results.

Metal muffle rings

Steel ring adapted to the shape of the arch

Semi-round steel rings allow positioning the castings outside the center of heat. The stress-free castings can be easily fitted and allow to continue working quickly.





Steel rings for SX3, SX6 and SX9, compatible with all standard casting machines – familiar procedures can be used.

Large-span rounded bridges are always invested outside the center of heat.

Steel ring

	SX3	SX6	SX9
REF	**360 ESR0 3**	**360 ESR0 6**	**360 ESR0 9**

Base former for steel ring

	SX3	SX6	SX9
REF	**360 ESS0 3**	**360 ESS0 6**	**360 ESS0 9**



Metal-reinforced silicone base formers for high stability.

Assortment

12 pieces
1 steel ring SX3, SX6, SX9 each
1 base former SX3, SX6, SX9 each
1 fleece liner SX3, SX6, SX9
20 ml wash primer for fleece
200 ml wash primer - refill package
125 ml mould release agent
REF 360 ESSE T

Accessories:



Mould release agent
125 ml
REF 520 TM12 5
750 ml
REF 520 TM75 0

Silicone muffle rings

Silicone rings made from addition-cured silicone are poor heat conductors. During setting of the investment material, the accumulated heat causes quick increase in temperature and leads to a higher final temperature. Stronger expansion movement is obtained. Tolerances are reduced and the precision of investment material is increased. The silicone sleeve ensures uniform expansion pressure, increases precision and produces reliable results. The high-quality silicone can be easily cleaned and features special durability.

A central aspect during cooling and solidification of the liquid molten mass is the position of the prosthetic object towards the outer wall of the muffle. bredent casting technique offers the suitable design of investment muffles to always position the object outside the center of heat.



The bridge is positioned in the center of heat.

Thanks to the mould design, all bridge moulds are positioned outside the center of heat to obtain a homogeneous casting structure.

Silicone sleeve

	SX3	SX6	SX9
REF	**360 SIM0 3**	**360 SIM0 6**	**360 SIM0 9**



Base former for silicone sleeve

	SX3	SX6	SX9
REF	**360 SIS0 3**	**360 SIS0 6**	**360 SIS0 9**



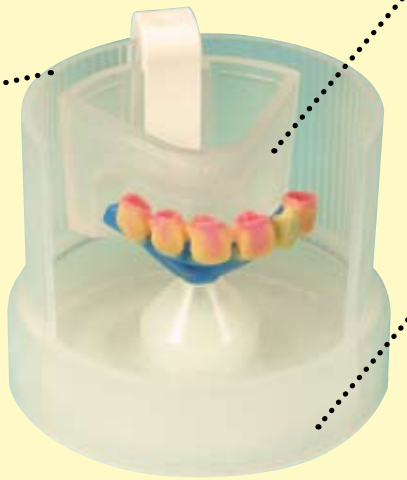
Sortiment

7 pieces
1 silicone sleeve SX3, SX6, SX9 each
1 base former SX3, SX6, SX9 each
125 ml mould release agent

REF 360 SISE T

Casting ring system

Elastic silicone muffle rings allow horizontal setting expansion, ensure castings with accurate dimensions, simplify fitting and reduce the working time.



Silicone muffle rings

- Permanently elastic muffle rings simplify the removal of the casting since it no longer needs to be pressed out of the metal ring.
- The groove design of the inner surface creates a larger investment surface so that the heat is transferred more evenly during the heating and cooling phase. Consequently, castings without any deformations are obtained.
- Since absorption or release of water are avoided, the silicone muffle rings exhibit a neutral behavior towards the investment material and the mixing ratio of the investment materials remains unchanged and accurate castings are ensured.

Expansion control device

- The expansion control device ensures a uniform layer of investment material around the casting. Consequently, accurate castings are obtained and finishing is simplified.
- Six height-adjustable expansion control devices in different sizes reduce material consumption and costs.
- The expansion control devices are compatible with all standard ring systems and can be used universally.

Base formers

- Suitable for all standard casting systems thanks to the funnel design. Compatible with all metal muffle rings, which ensures user friendliness. Familiar working procedures can be maintained.
- Stable silicone avoids any deformation when lifting the muffle, protects the casting and hence reduces the working time.

The self-separating silicone surfaces avoid the adhesion of investment material and can be cleaned easily. The casting muffle system is suitable for all casting systems. A system changeover is not required.

Base former



x1
1 piece
REF 360 0B10 1

x3
1 piece
REF 360 0B10 3

x6
1 piece
REF 360 0B10 6

x9
1 piece
REF 360 0B10 9

Silicone muffle rings



x1
1 piece
REF 360 0S10 1

x3
1 piece
REF 360 0S10 3

x6
1 piece
REF 360 0S10 6

x9
1 piece
REF 360 0S10 9

Expansion control device



Holder
1 piece
REF 360 0EH0 0

x3 + Holder
1 piece
REF 360 0E10 3

x6 small + holder
1 piece
REF 360 0E1K 6

x9 small + holder
1 piece
REF 360 0E1K 9

x6 large + holder
1 piece
REF 360 0E1G 6

x9 medium + holder
1 piece
REF 360 0E1M 9

x9 large + holder
1 piece
REF 360 0E1G 9

Assortment

Expansion control device 1 x3, 2 x6, 3 x9 and 6 holders **REF 360 0127 9**

Casting ring system

Base former



Silicone muffle ring



Expansion control device



Advantages of the expansion control device

Metal ring and expansion control device

Durability after repeated usage


1

The wax model is prepared according to the situation.


2

The suitable size of the silicone muffle ring is selected. Equal distances around the model must be maintained.


3

After selecting the muffle size, the corresponding expansion control device is selected.


4

The model must not be placed into the center of heat.


5

The holder is used to position the expansion control device at the correct height in accordance with the model.


6

The expansion control device can be placed to the sprued model at individual heights. This way investment material is saved.


7

The usual work routines remain unchanged. The muffle size corresponds to standard muffles and can therefore be used for all casting systems.


8

Use the holder to place the expansion control device to the silicone ring according to the size of the model.


9

Cavities are filled with the expansion control device to obtain uniform investment layer thickness around the casting, which has a positive effect on the expansion and the contraction of the alloy. Additionally, investment material is saved.


10

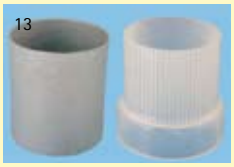
The casting is uniformly surrounded by investment material; hence uniform expansion is achieved.


11

The expansion control device can also be used for conventional metal rings. The same advantages are obtained.


12

Too much space is filled without the use of the expansion control device. This will adversely affect the expansion behavior of the investment material towards the casting.


13

Repeated heating will damage the metal ring. The silicone muffle ring retains the shape and offers an extended service life.

- Manual bredent casting technique according to Sabath
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- **Brevest C+B Speed**
- **Brevest Rapid 1**
- Brevest ceram Speed
- Investment hardener
- Investment marker
- Casting ring marker
- Brealloy C+B 270
- Brealloy MK
- Golden booklet

Brevest M1 C+B und Brevest C+B Speed



Brevest M1 C+B
50 bags, 160 g each
REF 570 M1CB 8

125 bags, 160 g each
REF 570 0M1C B

Bresol N *
1000 ml bottle
REF 520 000N 1

5000 ml
REF 520 000N 5

Assortment
25 bags
Brevest M1 C+B
1000 ml Bresol N
REF 570 0002 4

Very fine-grained, phosphate-bonded investment materials for crowns and bridges made of precious and non-precious metal alloys featuring outstanding reproduction of details.



At a room temperature of 21°C a processing time span of 4 to 6 minutes is obtained for bubble-free pouring out of casting rings.



Brevest C+B Speed
50 bags, 160 g each
REF 570 CBS0 8

125 bags, 160 g each
REF 570 CBS2 0

Bresol Speed *
1000 ml bottle
REF 520 000S 1

5000 ml
REF 520 000S 5

* frost-resistant

Assortment
25 bags
Brevest C+B Speed
1000 ml Bresol Speed
REF 570 CBS0 4



Highly accurate and dimensionally precise large-span bridges are produced with Brevest M1 C+B and Brevest C+B Speed.



Exact control of concentrations for precision-fit dentures is possible with the frost-resistant mixing liquids Bresol N and Bresol Speed.

Accessories:



Dosing bottle
REF 520 0101 1



Dosing syringe
6 pieces
REF 520 0101 2

Brevest Rapid 1



Rapid-heating, universal precision investment material for crowns and bridges as well as the entire field of CoCr work.

Brevest Rapid 1
40 bags, 200 g each
REF 570 000R 8

100 bags, 200 g each
REF 570 00R2 0

Brevest Rapid 1
50 bags, 160 g each
REF 570 160R 8

125 bags, 160 g each
REF 570 16R2 0

Bresol R
1000 ml bottle
REF 520 000R 1

5000 ml
REF 520 000R 5

Assortment
20 bags
Brevest Rapid 1
1000 ml Bresol R
REF 570 0002 5



Fine grained, rapid-heating precision investment material for all large-span bridges, can also be used without casting rings.



Brevest Rapid 1 can be placed into the furnace at a temperature of 900 °C already 15 minutes after mixing.

Accessories:



Dosing bottle
REF 520 0101 1



Dosing syringe
6 pieces
REF 520 0101 2

Investing / Casting

- Manual bredent casting technique according to Sabath
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- Brevest C+B Speed
- Brevest Rapid 1
- **Brevest ceram Speed**
- **Investment hardener**
- **Investment marker**
- Casting ring marker
- Brealloy C+B 270
- Brealloy MK
- Golden booklet

Brevest ceram Speed



Brevest ceram Speed is a special investment material for all pressed ceramic systems. It is suitable for stains and the layering technique.

Brevest ceram Speed
50 bags, 100 g each
Bresol Speed *
1000 ml bottle
REF 570 00PS 5

Assortment

5 bags
Brevest ceram Speed
150 ml Bresol Speed*
REF 570 0PS0 5

Bresol Speed *
1000 ml bottle
REF 520 000S 1
5000 ml
REF 520 000S 5

* frost-resistant



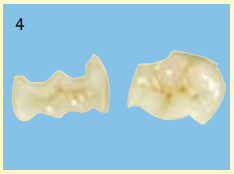
The fine-grained consistency and exact concentration control allow dental technicians to use Brevest ceram Speed as investment material for stains and the layering technique.



Precision-fit objects are ensured by careful devesting with a blasting pressure of 2 to 4 bars.



Brevest ceram Speed features low reactivity to pressed ceramics at any temperature.



Aesthetic pressed inlays and all-ceramic crowns are obtained.

Accessories:



Dosing bottle
REF 520 0101 1



Dosing syringe
6 pieces
REF 520 0101 2

Investment hardener



Improves the hardness and surface texture of all models duplicated in silicone.

Investment hardener
500 ml
REF 550 0000 4



The improved strength toughens the edges and prevents damage to the fine wax-coated margins.



The greater scratch resistance allows wax ing up without damaging the model surface.

Investment marker



Helps with the positive identification of investment muffles.

Investment marker
REF 330 0115 0



The necessary information is noted down quickly and easily.



The marker can be clearly read on all investment materials up to 1100 °C.

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Casting ring marker



For correct identification of casting rings.

Casting ring marker
1 marker with 4 spare cartridges
REF 330 0115 1

Refill package with 8 cartridges
REF 330 0115 2



Comprehensive information even on the smallest of rings.



The positive identification is assured up to 950° C.

Brealloy C+B 270



Brealloy C + B 270
cylinder, each 6.3 g

50 g
REF 500 CB05 0

200 g
REF 500 CB20 0

500 g
REF 500 CB50 0

1000 g
REF 500 CB00 0

Ceramic bonding alloy with a hardness of 270 HV 10 which can be milled easily. Brealloy C + B 270 is free from nickel, beryllium and gallium. The alloy corresponds to the standard DIN 13912: 1996 for non-precious metals and DIN EN ISO 9693: 1995 for metal-ceramic systems.

Composition (in mass-%)	
Cobalt	66
Chromium	20
Molybdenum	6
Wolfram	6
Silicone	0.9
Carbon	0.02
Manganese	0.7

Physical values (guide values)	
Density (g/cm³)	8.4
Vickers hardness (HV 10)	270
Solidus point (°C)	1280
Liquidus point (°C)	1350
Casting temperature (°C)	1450
0.2% proof stress (MPa)	600
Modulus of elasticitiy (MPa)	approx. 200,000
Strain at break (%)	10
Espansion coefficient (WAK 20-600 °C)	14.4 µm/mk



Milling technique: Brealloy C + B 270 can be milled perfectly.



Partial crowns made of Brealloy C + B 270: slender and precise.



Attachment technique with Brealloy C + B 270: precision in the one-piece casting method.

Investing / Casting

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- Brealloy C+B 270
- **Brealloy MK**
- **Golden booklet**

Brealloy MK



brealloy MK
50 g
REF 500 MK05 0
200 g
REF 500 MK20 0
500 g
REF 500 MK50 0
1000 g
REF 500 MK00 0

Solderable CoCr based alloy for crown and bridge technology. The low hardness permits easy processing. It is therefore ideal for milling. brealloy MK is free from nickel, beryllium and gallium.

Composition (in % of mass)	
cobalt	65
chrome	20
molybdenum	6.5
tungsten	6.5
silicon	0.8
manganese	0.8
iron	<0.5
carbon	<0.1

Physical properties (guide values)	
density (g/cm³)	8.4
Vickers hardness (HV 10)	265
solidus point (°C)	1280
liquidus point (°C)	1350
casting temperature (°C)	1420
0.2% yield point	480
tensile strength (N/mm²)	790
E-module (mPa)	190,000
Elongation at break (%)	10
Coefficient of expansion (WAK 20-600°C)	14.8 µm/mK



The low hardness facilitates milling, shaping and polishing.



Ideally suited for longer bridges.



Even inlays with fine spring tips can be easily produced.



The low hardness creates ideal conditions for milling and is thus highly suitable for all types of attachments.

Golden booklet



Golden booklet
DIN A 6
REF 610 0020 0

Thanks to the clear and simple structure of the golden booklet, reliable stock-keeping of precious metal alloys is ensured. The booklet simplifies the control and provides a quick survey on the consumption of alloys.



Golden booklet
DIN A 4
REF 610 0010 0

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- **Brevest L**
- **Brealloy Lot**
- **Brealloy flux**
- Superflux
- Oxyd-Stop-PM
- Oxyd-Stop-NPM
- Oxyd-Stop macro
- Oxyd-Stop Silver-Palladium alloy
- Heat absorbent paste
- Brecid pickling agent

Brevest L



Brevest L
2 kg
REF 570 00L0 2

Special solder investment material for precise soldering of precious and non-precious metal alloys.
- fast setting, hence no undesired delays in the work processes
- special liquid allows to control expansion of CoCr alloys

Assortment
2 kg Brevest L
500 ml Bresol L
REF 570 00L2 5



Bresol L
500 ml
REF 520 00L0 5



Use adhesive wax or brush resin to fix the object to be soldered in the correct position on the model.



When working with non-precious metal alloys, mix Brevest L with Bresol L to ensure adequate expansion. The solder block should be as small as possible.

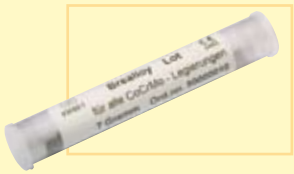


The soldering gap should be as small as possible. Prior to soldering, apply flux to cover the soldering gap.



The fit of the soldering object is checked.

Brealloy Lot



Brealloy Lot
7 g
REF 500 0001 0

Solder especially matched with CoCr alloys for chrome cobalt and ceramic bonding techniques to avoid the formation of galvanic elements and undesired reciprocal action with the ceramic material.

Brealloy flux



Brealloy flux
8 g
REF 500 0001 1

Suitable for all CoCr alloys,
supports the flow characteristics of the solder.

Soldering

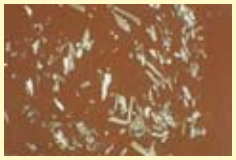
- Brevest L
- Brealloy Lot
- Brealloy flux
- **Superflux**
- **Oxyd-Stop-PM**
- Oxyd-Stop-NPM
- Oxyd-Stop macro
- Oxyd-Stop Silver-Palladium alloy
- Heat absorbent paste
- Brecid pickling agent

Superflux



Superflux
special flux
7 ml
REF 520 0040 0

White gold-containing special flux.
- Special components allow resoldering without removing the oxide layer
- Superflux is suitable for all solder connections (NPM zu NPM, NPM zu CrCo, PM zu NPM, PM zu CrCo, PM zu PM)
- Special quality allows the use for all dental alloys
- Optimal properties especially for furnace soldering avoid discoloration of the ceramic



White gold particles have a positive influence on the flow behavior of the solder.



Prepare for furnace soldering in the usual manner. Apply well-stired Superflux on the soldering gap.



No discoloration of the ceramic and reliable solder connection allow time-saving working.



Preheat the investment model slightly (50-100°C). Super-flux will fill the soldering gap more easily. Apply only a small quantity of Superflux.



Prior to soldering, sandblast CrCo elements using 110 µ aluminium oxide.



After soldering, remove Superflux residues with a pickling agent or with abrasive beads, grind the soldering points smooth and polish them.



Sandblast the connecting point after soldering. The solder has penetrated into the soldering gap in a perfect way and ensures absolutely reliable solder connections.



Flux residues and oxide are removed with a sandblasting unit. Grind the soldering point smooth and polish it. Perfect solder connections are obtained with Superflux.

Oxyd-Stop-PM



Oxyd-Stop-PM
20 ml
REF 520 0065 0

Thinner
20 ml
REF 520 0067 0

Prevents polished, precious and semi-precious alloy surfaces oxidizing while being soldered with a flame or in a furnace and while firing porcelain.



Oxyd-Stop-PM maintains the high luster. No refinishing is required.



Refinishing oxidized surfaces reduces the material and may adversely affect the precision of fit.

Oxyd-Stop-PM - Range of Applications



Oxyd-Stop-PM prevents precious metal crowns and bridges from oxidizing during soldering. Also suitable for Wiron 88.



Perfect for post-soldering porcelain bridgework. The high luster metal surface is protected.



Always apply a fresh coat of Oxyd-Stop-PM after the casting has been heated. Only then is optimum protection against oxidation provided.



After firing or soldering, the protective layer is easily removed with hot water or steam cleaner.



Safeguards high grade milled attachement restorations against oxidization while porcelain is being fired.



Shake the Oxyd-Stop-PM well and brush it onto the areas to be protected. Allow briefly to dry. The surface is now optimally protected against oxidation.



Refinishing is reduced to a minimum, which saves time and enhances the quality.

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Oxyd-Stop-NPM



Prevents oxidation while soldering all chrome cobalt and non-precious alloys. This reduces refinishing to a minimum and saves time.

Oxyd-Stop-NPM
2 x 50 ml
REF 520 0061 0


1

Oxyd-Stop-NPM protects non-precious bridges or single crowns against oxidation. The high luster surfaces are maintained.


2

Oxyd-Stop-NPM is perfect for use on chrome cobalt frameworks. Repairs and extensions can then be completed even faster.


3

When using Oxyd-Stop-NPM, the metal surface has the same high luster after soldering as it had after polishing.


4

Apply Oxyd-Stop-NPM direct from the tube onto the areas being protected. The dispensing tip facilitates this procedure.


5

Use an instrument to spread the Oxyd-Stop-NPM evenly.


6

Oxyd-Stop-NPM effectively prevents oxidation while soldering with a flame. High luster areas remain free of oxides and retain their precision of fit.


7

After soldering, Oxyd-Stop-NPM can be brushed off easily and quickly under running water. This saves time.


8

The surfaces only require minimal polishing to restore their high luster. Only the exposed crown has oxidized.

Oxyd-Stop macro



- Avoids oxidation of all non-precious metal alloys during heat treatment
- No time-consuming removing of the oxide after soldering, high luster is maintained and thus considerable time is saved
- Perfectly suitable for the use as antiflux
- Does not contain any flux and is therefore suitable for ceramic work in all furnaces

Oxyd-Stop macro
NPM + CrCo
20 ml
REF **520 0062 0**

Thinner
for Oxyd-Stop macro
20 ml
REF **520 0064 0**


1

Brush Oxyd-Stop onto polished areas of non-precious structures.


2

Oxyd-Stop macro avoids oxidation during soldering with a flame in an efficient manner.


3

Remove Oxyd-Stop macro with abrasive beads at a pressure of max. 3 bar. Short polishing is sufficient to restore mirror-like high luster.


4

Brush Oxyd-Stop macro onto the CoCr areas to be protected. Allow to dry for a short time.


5

Soldering is carried out in the usual way. Oxyd-Stop macro avoids the formation of an oxide layer.


6

Remove Oxyd-Stop macro with abrasive beads and polish shortly. Only unprotected areas have oxidized.

Soldering

- Brevest L
- Brealloy Lot
- Brealloy flux
- Superflux
- Oxyd-Stop-PM
- Oxyd-Stop-NPM
- Oxyd-Stop macro
- **Oxyd-Stop Silver-Palladium alloy**
- **Heat absorbent paste**
- **Brecid pickling agent**

Oxyd-Stop Silver-Palladium alloy



Oxyd-Stop Silver-Palladium alloy
20 ml
REF 520 0033 0

Avoids oxidizing of silver-palladium and reduced alloys. No reworking required and thus time is saved.



Apply a thin coat of Oxyd-Stop Silver-Palladium onto the areas to be protected and let it dry. A white protective layer is formed.



Oxyd-Stop Silver-Palladium avoids the oxidation of the soldering object while being soldered with a flame or in a furnace.



Remove Oxyd-Stop with the sandblasting unit, in the ultrasonic unit or with a pickling agent. Repolishing of the protected areas is reduced to a minimum degree.

Heat absorbent paste



There is no better method of protecting against heat.

Heat absorbent paste
250 g
REF 540 0020 0



Apply the heat absorbent paste very close to the joint.



This paste will not melt when warmed.



Acrylic, porcelain or other heat-sensitive materials are no longer harmed by heat.

Brecid pickling agent



For the first time ever, precious metal retains its high luster after pickling

Brecid pickling agent
3 x 75 g
REF 520 0099 0



Shows a contact area being soldered onto a full gold crown, polished to a high-luster.



Although conventional pickling agent does remove the oxide, it also dulls the high luster achieved with great effort.



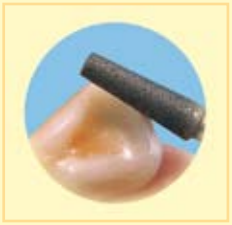
Pickling precious metals in Brecid removes the oxide yet leaves the high-luster intact therefore saving time.

bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- **Ceragum**
- Aurogum
- Abraso-Gum Acryl
- breCeram
- Abraso-Gum with quick chuck

Ceragum



A typical application for silicone polishers on ceramic: After glaze firing the incisal edge of an incisor is recontoured.

The universal polisher for all materials.
The grain sizes of the three new Ceragum silicone polishers have been perfectly matched with each other. This assortment even allows to polish coarsely ground ceramic surfaces to a mirror-like high luster in next to no time.



Ceragum coarse

	Cylinder 19 x Ø 6 mm	**Lens** 4 x Ø 22 mm	**Wheel** 4 x Ø 22 mm
ISO No.	658 900 114532 060	658 900 303532 220	658 900 372532 220
Quantity	**REF**	**REF**	**REF**
12 pcs	**PWK G061 2**	**PLK G221 2**	**PRK G221 2**
50 pcs	**PWK G065 0**	**PLK G225 0**	**PRK G225 0**
100 pcs	**PWK G060 0**	**PLK G220 0**	**PRK G220 0**



The coarse Ceragum features high abrasion capacity so that grinding marks of the diamond tool can be easily removed.



Ceragum medium

	Cylinder 19 x Ø 6 mm	**Lens** 4 x Ø 22 mm	**Wheel** 4 x Ø 22 mm
ISO No.	658 900 114522 060	658 900 303522 220	658 900 372522 220
Quantity	**REF**	**REF**	**REF**
12 pcs	**PWK M061 2**	**PLK M221 2**	**PRK M221 2**
50 pcs	**PWK M065 0**	**PLK M225 0**	**PRK M225 0**
100 pcs	**PWK M060 0**	**PLK M220 0**	**PRK M220 0**



The medium Ceragum removes the grinding marks of the coarse Ceragum quickly and prepares the object for high luster polishing.



Ceragum fine

	Cylinder 19 x Ø 6 mm	**Lens** 4 x Ø 22 mm	**Wheel** 4 x Ø 22 mm
ISO No.	658 900 114502 060	658 900 303502 220	658 900 372502 220
Quantity	**REF**	**REF**	**REF**
12 pcs	**PWK F061 2**	**PLK F221 2**	**PRK F221 2**
50 pcs	**PWK F065 0**	**PLK F225 0**	**PRK F225 0**
100 pcs	**PWK F060 0**	**PLK F220 0**	**PRK F220 0**



The fine Ceragum polisher features extra fine grain size. After the preparation of the surface with the medium Ceragum, it polishes ceramic to a high luster in a very short time.

Accessories:



Spiral mandrel
ISO No. 312 104 610415 050
6 pieces
REF 360 0116 7



Quick-Mandrel size 2
ISO No. 330 104 606050 050
10 pieces
REF 360 0115 3

The suitable spiral mandrel is recommended to mount the cylinder (REF 360 0116 7). Wheel and lens fit perfectly on the quick mandrel size 2.

Processing

- Ceragum
- **Aurogum**
- **Abraso-Gum Acryl**
- breCeram
- Abraso-Gum with quick chuck

Aurogum





Silicone polishers for polishing precious metal alloys.
The coarse Aurogum silicone polishers remove finishing traces in a very short time. The fine Aurogum silicone polishers produce a perfect high luster.

Aurogum coarse

	Cylinder 19 x Ø 6 mm	**Lens** 4 x Ø 22 mm	**Wheel** 4 x Ø 22 mm
ISO No.	638 900 114522 060	638 900 303522 220	638 900 372522 220
Quantity	**REF**	**REF**	**REF**
12 pcs	**PWE G061 2**	**PLE G221 2**	**PRE G221 2**
50 pcs	**PWE G065 0**	**PLE G225 0**	**PRE G225 0**
100 pcs	**PWE G060 0**	**PLE G220 0**	**PRE G220 0**



The abrasive grain size of the coarse Aurogum silicone polisher removes all traces of finishing in next to no time and prepares the surface for high luster polishing.



Aurogum fine

	Cylinder 19 x Ø 6 mm	**Lens** 4 x Ø 22 mm	**Wheel** 4 x Ø 22 mm
ISO No.	000 900 114492 060	000 900 303492 220	000 900 372492 220
Quantity	**REF**	**REF**	**REF**
12 pcs	**PWE F061 2**	**PLE F221 2**	**PRE F221 2**
50 pcs	**PWE F065 0**	**PLE F225 0**	**PRE F225 0**
100 pcs	**PWE F060 0**	**PLE F220 0**	**PRE F220 0**



Aurogum fine: After the preparation of the surface with the coarse Aurogum polisher a mirror-like high luster is achieved in next to no time.

Accessories:



Spiral mandrel
ISO No. 312 104 610415 050
6 pieces
REF 360 0116 7



Quick-Mandrel size 2
ISO No. 330 104 606050 050
10 pieces
REF 360 0115 3

Abraso-Gum Acryl



Abraso-Gum Acryl coarse
ISO No. 658 104 243534 100
6 pieces
REF P243 HG 10



Abraso-Gum Acryl medium
ISO No. 658 104 243522 100
6 pieces
REF P243 HM 10





Abraso-Gum Acryl fine
ISO No. 658 104 243503 100
6 pieces
REF P243 HF 10

The processing set for acrylics, ideal for minor corrections.
Abraso-Gum Acryl polishers are particularly recommended for efficient polishing after the elimination of minor tool marks: a smooth surface of the acrylic is obtained through processing with the Diacryl grinding tool.

Assortment 5 pieces
1 Diatit bur D263 KG 60
1 Diatit bur D200 KF 23
1 Abraso-Gum Acryl coarse green
1 Abraso-Gum Acryl medium grey
1 Abraso-Gum Acryl fine red
REF 350 0099 2



The green, coarse Abraso-Gum Acryl tool removes grinding marks of the Diatit bur in a short time.



The grey, medium-coarse Abraso-Gum Acryl removes the grinding marks of the coarse, green Abraso-Gum Acryl and prepolishes the surface by providing it with a mat luster.



The red, fine Abraso-Gum Acryl produces a mirror-like high luster without any scratches within extremely short time.

bredent

breCeram



From shaping to a high polish – finely tuned processing set,
for the ceramics specialist

- inverted cone with relief grinding technology for smooth surfaces
- fine but abrasive diamond grinder
- two different abrasion stages of the Abraso-Fix-Roundbrushes permit rapid polishing, as the polish paste is already carried in the bristles
- Ceragum coarse is suitable for use with ceramic and for rubberized metal
- Cerafine adds a very high gloss to ceramic and metal very quickly



The diamond grinder is used for coarse processing of ceramic. But nevertheless a fine surface is achieved thanks to the fine diamonds.



The inverted cone is ideally suited for shaping of the occlusal surfaces. Simultaneously the undercut produces a polished ceramic surface.



Ceragum coarse is a universal product. It removes material fast, leaving an optimal surface structure.



Abraso-Fix green is used to produce the coarse surface structure. It is also highly suitable for smoothing ceramic and metal occlusal surfaces.



Abraso-Fix red already achieves a light polish on the surface. It is used to give the first polish to ceramic and metal.



Cerafine is the high gloss polisher for ceramic and metal. It is particularly suitable for transition areas of metal to ceramic, as after glaze firing the metal polish no longer has a matting effect.



Fast and simple processing of ceramic and metal. breCeram offers the ideal combination.

Assortment

6 pieces



breCeram processing set for ceramics
6 pieces
1 diamond grinder fine
1 Tungsten carbide 1.2
1 Abraso-Fix green
1 Abraso-Fix red
1 Ceragum coarse, wheel
1 Cerafine, wheel
REF 520 2028 6



Diamond grinder fine
1 piece
REF 340 0107 1

Tungsten carbide
ISO-Nr.
500 104 010006 012
1 piece
REF H010 NH 12



Abraso-Fix green
2 pieces
REF 350 0059 0
8 pieces
REF 350 0075 5



Abraso-Fix red
2 pieces
REF 350 0060 0
8 pieces
REF 350 0075 3



Ceragum coarse,
wheel not mounted
12 pieces
REF PRK G221 2
50 pieces
REF PRK G225 0
100 pieces
REF PRK G220 0



Cerafine, wheel
1 piece
REF 520 2028 5

Accessories:



Tungsten carbide
ISO-No.
500 104 010006 008
1 piece
REF H010 NH 08



Tungsten carbide
ISO-No.
500 104 010006 010
1 piece
REF H010 NH 10



Tungsten carbide
ISO-No.
500 104 010006 016
1 piece
REF H010 NH 16

Abraso-Gum with quick chuck





The quick chuck allows rapid exchange of tools, ensures optimal fixation of the polishing tips in the tool and avoids early wear.

For polishing of occlusal surfaces: The Abraso-Gum polishing tips are extremely slender with a diameter of only 3 mm. They allow particularly precise processing of occlusal surfaces. Three different grain sizes for precious metal alloys and two grain sizes for non-precious metal alloys are available.

Assortment

61 pieces
12 Abraso-Gum red
12 Abraso-Gum blue
12 Abraso-Gum green
12 Abraso-Gum black
12 Abraso-Gum brown
1 Quick chuck

REF 520 0015 2



The grain sizes of the Abraso-Gum rubber polishers have been perfectly matched with each other. The blue Abraso-Gum removes grinding marks of the red Abraso-Gum.



The red Abraso-Gum features a high abrasion capacity. Cusp „slopes" can be smoothened immediately after casting with this rubber polisher.



The green Abraso-Gum features a very fine grain size. After pre-processing with the blue Abraso-Gum, it allows to produce a perfect high luster on the occlusal surfaces in next to no time.



The black Abraso-Gum features a very high abrasion capacity. It has been particularly matched with non-precious metal alloys. After casting, the cusp „slopes" can be finished and smoothened with this rubber polisher.



The grain size of the brown Abraso-Gum has been matched with the grain size of the black Abraso-Gum. The brown Abraso-Gum removes grinding marks of the black Abraso-Gum in a perfect way and prepares the object for high luster polishing.













	PM rubber polishing red	**PM prepolishing** blue	**PM high luster** green	**NPM rubber polishing** black	**NPM high luster** brown	**Quick chuck**
Quantity	100 pcs	100 pcs	100 pcs	100 pcs	100 pcs	1 pc
REF	**520 0010 0**	**520 0011 0**	**520 0012 0**	**520 0014 0**	**520 0015 0**	**350 0023 0**

- **Opaquer mixing liquid**
- **Porcelain mixing liquid**
- **Stain liquid**
- **Porcelain liquid set**
- **Ceramic cotton**
- breformance
- Ceramic separating set

Opaquer mixing liquid

Opaquer mixing liquid
18 ml
REF 520 0085 0
200 ml
REF 520 0012 2

For enhanced wetting and perfect flow characteristics.





Developed and tested by leading ceramists.

Tip:
Adding a few drops of opaquer liquid to porcelain mixed with mixing liquid prolongs its working time and facilitates building-up of large-size restorations.

Porcelain mixing liquid

Porcelain mixing liquid
30 ml
REF 520 0086 0
200 ml
REF 520 0012 3

- Much less shrinkage thanks to improved condensing properties
- Prevents occlusal and interdental contraction cracks in the porcelain
- Easier to condense





Tip:
Mix the porcelain slightly thinner; to obtain the ideal consistency leave it for 2 minutes. If building-up takes a long time, spatulate the mixture from time to time; if necessary add a few drops of porcelain mixing liquid because the porcelain already begins to condense on the mixing slab.

Stain liquid

Stain liquid
7 ml
REF 520 0084 0
30 ml
REF 520 0012 1

- Provides for an absolutely even glaze
- Holds the stains in place perfectly on porcelain
- Thanks to a new formula, this stain liquid can be used for inlay in stains





Porcelain liquid set



Porcelain liquid set
for testing and comparing

30 ml	Porcelain mixing liquid
18 ml	Opaquer mixing liquid
7 ml	Stain liquid

REF 520 0087 0

Ceramic cotton



Ceramic cotton
7.5 x 7.5 cm
REF 520 0030 0

Perfect storage and support for large-span bridges or all-ceramic restorations.

Ceramic separating set



Plaster sealing liquid gvs
20 ml
REF 520 0012 9

For separating ceramic materials against plaster.
- Extremely thin separating film provides outstanding separating effect
- Suitable for all commercial ceramic materials (also low-melting) thanks to optimal composition
- Harmonized components avoid discoloration of the ceramic materials



Ceramic separating liquid kis
20 ml
REF 540 0070 3



Thinner for ceramic separating liquid
20 ml
REF 550 0000 3



Apply plaster sealing liquid onto the areas to be separated so that a homogeneous, smooth surface is obtained



Brush plaster sealing liquid also onto approximal areas. Let the plaster sealing liquid dry for 2 minutes.



Apply ceramic separating liquid onto the plaster model so that a wet, shining layer is obtained.



Ceramic separating liquid also applied onto the approximal contacts. The model must not be dried with compressed air.



Ceramic materials are layered directly on the wet ceramic separating liquid.



The special composition of the ceramic separating liquid avoids discoloration of the ceramic materials.



Remove the ceramic structure carefully from the plaster model.



The ceramic separating liquid provides absolute reliability when producing the model. Spalling of ceramic is avoided; accordingly considerable time can be saved.

Assortment

20 ml Plaster sealing liquid gvs
20 ml Ceramic separating liquid kis
REF 520 0100 0

- Opaquer mixing liquid
- Porcelain mixing liquid
- Stain liquid
- Porcelain liquid set
- Ceramic cotton
- Ceramic separating set
- **breformance**

breformance

breformance Polymer
for breformance LiquidColdCuring and breformance LiquidHeatCuring



Heat- and cold-curing crown and bridge material for temporary restorations.
- simple processing
- unsurpassed esthetics
- convenient preparation
- economic



breformance LiquidHeatCuring
50 ml
REF 540 0119 1



breformance LiquidColdCuring
* 50 ml
REF 540 0110 7
100 ml
REF 540 0111 2

*Assortment
6 parts



1 x 50 ml breformance LiquidColdCuring
1 x 50 ml breformance separating liquid
25 g Polymer each
REF 540 0109 5

	Cervical 1	Cervical 2	Enamel 1	Enamel 2	breformance Polymer		REF
					1 neck material Cervical1	*25 g 90 g	540 0110 4 540 0111 8
					1 neck material Cervical2	*25 g 90 g	540 0110 5 540 0111 9
					1 incisal material Enamel 1	*25 g 90 g	540 0110 2 540 0111 1
					1 incisal material Enamel 2	*25 g 90 g	540 0110 3 540 0111 7
	✓		✓		1 dentine material A1	25 g 90 g	540 0115 2 540 0115 3
	✓		✓		1 dentine material A2	*25 g 90 g	540 0109 6 540 0111 3
	✓		✓		1 dentine material A3	*25 g 90 g	540 0109 7 540 0110 9
		✓		✓	1 dentine material A3,5	*25 g 90 g	540 0109 8 540 0111 0
		✓		✓	1 dentine material A4	25 g 90 g	540 0115 4 540 0115 5
	✓		✓		1 dentine material B2	25 g 90 g	540 0115 6 540 0115 7
	✓		✓		1 dentine material B3	*25 g 90 g	540 0110 0 540 0111 5
	✓		✓		1 dentine material C2	*25 g 90 g	540 0109 9 540 0111 4
		✓		✓	1 dentine material D3	*25 g 90 g	540 0110 1 540 0111 6
					1 transparent material	*25 g 90 g	540 0110 6 540 0112 0

Shades according to VITA classical / Vita is a registered trademark of Vita Zahnfabrik, Bad Säckingen

Accessories:



Isoplast ip
750 ml
REF 540 0101 9



Haptosil D
Components A and B each 1300 g
REF 540 0118 0



Round brush Rodeo
REF 350 0096 0

PE-Foils
80 pieces
REF 320 0045 6

breformance

Clinical use in implantoloy with SKY fast & fixed and breformance LiquidColdCuring



Prior to the date of surgery a diagnostic setup is prepared in a considerable reduced size and using breformance. After placement of the implants, the technician receives an impression reflecting the new clinical situation.



The SKY fast & fixed prosthetic copings are screwed on, any interfering areas are milled off the prepared bridge structure and the height of the prosthetic copings is adapted.



To ensure stress-free fit from the very beginning, all prosthetic copings (except one) receive space tubes. A drill is placed into the screw canal as a spacer for the polymerized prosthetic coping.



The integrated spacers are simply pulled out after polymerizing the breformance material.



The breformance bridge which was removed from the model is pre-milled and the prosthetic copings which were not fixed yet are screwed on in the mouth.



Using the polymerized prosthetic coping, the breformance bridge is fixed in the mouth with a screw on the posthetic copings already screwed onto the abutments. The adhesive gaps formed by the spacer tubes are filled in the mouth and thus stress-free fixation of the prosthetic copings in the bridge structure is achieved.



Any missing transition zones from the prosthetic copings to the bridge structure are built up using breformance. The basal surface of the bridge must be free from transition zones, have a round shape and be polished. Projecting funnels of prosthetic copings are adapted to the anatomy of the bridge.



The integrated temporary bridge is fastened with screws. Screw canals are sealed using a composite material.

breformance LiquidHeatCuring

Easy to use heat-curing resin for temporary crown and bridge technology. Monomer reduced production is possible with breformance LiquidHeatCuring.



Embed the model so that the cover of the mould can be easily separated.



Heat the mould with boiling water to facilitate opening. To prevent the dies from fracturing, open the two halves of the mould carefully. After opening, boil out the remaining wax.



Deburr any sharp edges. Use Isoplast ip (REF 540 0101 9) to insulate the plaster while it is still warm. Make sure that no puddles form behind the dies. Isoplast ip facilitates removal after the polymerization process.



Mix breformance in a ratio of 1:2 (liquid:powder). After selecting the dentine color, place the powder in a ceramic mixing bowl and then add the appropriate amount of liquid. After mixing, the resin must be left to expand for approx. 6 minutes.



The expanded resin is now inserted into the mould taking care to avoid bubble formation. More resin is inserted than necessary so that the resin is compressed during pressing.



For the trial pressing a foil is placed between the two mould halves. After the trial pressing, individual treatment can begin.



The enamel area is cut back using a sharp instrument. The pre-reacted enamel resin is now added and a new trial pressing is made. After checking the trial pressing, the mould is closed and heated.



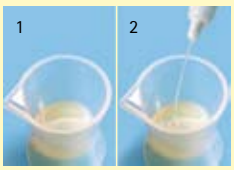
The finished bridge with layered enamel. If the tooth color is not as desired, trouble-free individualization is possible with breformance LiquidColdCuringPolymer.

breformance

breformance LiquidColdCuring

Liquid resin for quick and easy production of temporary crowns and bridges. breformance LiquidColdCuring is noted particularly for its elasticity, tensile strength and color stability.

Processing



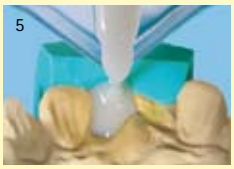
Mix breformance in the ratio of 4 drops of liquid to 0.1g of powder.



Mix liquid and powder to obtain a creamy consistency which will make processing easier.



Place a silicone matrix produced with haptosil D, (REF 540 0118 0) onto the wax. Cover model and die with a coat of model separating liquid.



The processing time is 3 -5 minutes (depending on the room temperature) and allows convenient working.
Polymerizing can be performed at air, in the water bath at 40 °C or in the pressure polymerization unit in water (temperature: 40 °C) and a pressure of 3-4 bar.

Fabrication of an individual restoration



Wax-up with Biotec wax (REF 510 0061 0).



After preparing a silicone matrix (see fig. 4), pour in breformance.



Mark the contours of individual layering on the tooth mould prepared with dentine material.



Dentine body wetted with breformance Liquid prepared for the application of individual effects.

- **visio.lign veneering system**

visio.lign veneers for anterior and posterior teeth



Your decision for distinctive designs and unsurpassed stability.
The visio.lign veneering system consists of multi-layer veneers for anterior and posterior teeth, suitable individualization and add-on materials and a bonding (composite) system with matched shades. The anatomical novo.lign A and novo.lign P veneers feature unique shape and layer design and allow dental laboratories and practices to meet the requirements on esthetics and efficiency .

Esthetics of light and design



Indications
- Telescopic and conical crowns
- CoCr clasp restorations
- Crowns and bridges
- Attachment work
- Implant prosthetics
- Full dentures
- Occlusal veneers
- Esthetic try-ins
- Temporary restorations

Design and material
The novo.lign A and novo.lign P veneers are 1 mm thick and based on a newly developed polymer with a ceramic filler structure.
The cross-linked acrylates (PMMA) ensure color stability and resistance to plaque. The microfiller embedded in the polymer matrix leads to increased abrasion resistance, which is very close to that of natural enamel. This composite matrix features the high flexural strength of composites and the elasticity of PMMA materials.

Individualization
Microfilled, complimentary tooth composite for individualizing, adding on and finishing. Red-white esthetics, dentine, intensive and incisal materials.

Occlusal veneers / Occlusion concepts
novo.lign P is intended to be used for occlusal / vestibular veneering for veneering in the region of posterior teeth. novo. lign P is used for non-system specific, multifunctinal occlusals. Based on clearly defined statics, all established concepts and methods can be used.

Bonding and layer design
Thanks to bonding to the combo.lign composite cement with its matched shade, a highly esthetic, color stable and individual veneer is obtained. combo.lign is a dual-hardening material (UV light- and self-curing) and ensures reliable and durable bonding.

Implant prosthetics
Esthetics, reliable bonding and color stability as well as tremendous reduction of working time and costs are decisive advantages when producing implant prosthetics. Consequently, restorations could be offered to patients at a lower price. This way new patients for implant-supported restorations can be acquired.

Completion of the system – Full teeth
neo.lign A and neo.lign P will complete the visio.lign system and will be available from September 2009.

For detailed information, see chapter 7. Prosthetics!

- **Chrom-Kobalt-Bonding**
- **Ceram-Bond**
- Silano-Pen

Chrom-Kobalt-Bonding



Chrome Cobalt Bonding
4.5 g
REF 520 0032 1
19 g
REF 520 0032 0

The microfine layer of bonding material ensures a perfect bond between the porcelain and chrome cobalt, fully compensating for differences in their thermal coefficients of expansion.
Reduces the problems for alloys with strong tendency to oxide layer formation.
The micro-fine intermediate layer that is fired at 980 °C allows to balance the CTE values of the chrome cobalt alloy and the ceramic material.
Chrome Cobalt Bonding protects against spalling and avoids time-consuming remakes. In cases of unfavorable space conditions, CCB allows to fire the ceramic material directly on the CoCr structure.

Ceram-Bond







Ceram-Bond
30 g
REF 520 0032 2
7 g
REF 520 0032 3

For increased reliability with all alloys.
The premixed, ready-to-use Ceram-Bond allows to omit oxide firing when veneering metal frameworks.
Ceram-Bond is applied immediately after finishing, sandblasting and cleaning the metal framework.
This micro-fine layer improves bonding of the ceramic material to the metal framework, protects against spalling and offers increased reliability.

Bonding agent

- Chrom-Kobalt-Bonding
- Ceram-Bond
- **Silano-Pen**

Silano-Pen



Safe, easy to use, inexpensive bonding system. Gap-free, reliable chemical bonding of metal/resin, ceramic/resin.

New research results of the bonding strength and the areas of usage of the Silano-Pen are published in edition No. 3/2001 "Quintessenz für Toothtechnik." carried out by the Zentrum für Zahnmedizin, Charité / Berlin under the guidance of Prof. Dr. H.-J. Tiller and Prof. Dr. J.-F. Roulet.

Refill packages

1 Silano-Pen	**REF 320 0047 1**
1 Gas cartridge*	**REF 540 0083 0**
2.5 ml Bonding agent	**REF 540 0082 0**
12 Brush holders, straight	**REF 330 0114 9**
100 Disposable brushes	**REF 330 0114 2**
12 Plastic bowls	**REF 230 0013 0**
15 Cleaning brushes	**REF 350 0044 1**

Secure bonding system for new acrylic veneers.



Gap-free bonding of new acrylic veneers on gold, non-precious metal and titanium.

Reliable bonding with acrylic veneer repairs.



Simple preparation of metal frameworks for the repair of damaged veneers.

Chemical bonding between acrylic and ceramic.



Outstanding bonding from veneer resins on metal / ceramic transition zones.

Gap-free bonding with....

Cr-Co framework



Reliable bonding of acrylics to chrome cobalt retentions and facings.



Pretreatment of bonding surfaces allows to reduce their size due to increased bonding strength.

Increased bonding values



Processing instructions

Time saving, easy activating of metal frameworks. For light curing veneering resins.



Sandblast the surface with non-recycled abrasive material, 110 µ at 4 bar pressure. Clean with oil and water-free compressed air.



Heat the area to be veneered evenly with the flame for 5 seconds per facing.



After the surface has cooled down (under 50°C) apply bonding agent and leave to dry for 3 minutes.



Apply and cure opaque and dentine according to the manufacturer's instructions.

Reliable repair of acrylic and ceramic work



Acrylic, ceramic, metal: Blast with non-recycled blasting material, 110 im with 4 bar pressure. Clean with oil and water-free compressed air.



Heat the area to be repaired evenly with the flame. Ceramic: approx. 5 seconds per veneer Acrylic: approx. 3 seconds per veneer.



After cooling of the flamed area (under 50 °C), apply bonding agent with a brush and leave to dry for 3 minutes.



If necessary, apply opaque and dentine or only dentine and cure according to the manufacturer's instructions.

Assortment



1 Silano-Pen
1 Gas cartridge*
2 x 2.5 ml Bonding agent
1 brush holder, straight
100 Disposable brushes
1 Plastic bowls
3 Cleaning brushes

REF 320 0047 0

* One gas cartridge is enough for the production of approx. 2000 veneers.

bredent





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Screwdrivers

- **Universal screwdriver set**
- Universal screwdriver set for contra-angles
- Screwdriver

Universal screwdriver set



Sterilizable set

Screwdriver set for 98% of all screws available on the market. To be inserted into the torque ratchet, adjustable from 10 to 40 Ncm. This way screws can be turned in correctly and safely.



Universal screwdriver set to loosen and tighten all types of screwed implant abutments.

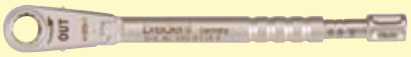
Universal screwdriver set with instruments
REF 310 0001 2

Universal screwdriver set, without instruments
REF 310 0001 1





On the lid you can find important information required for the quick selection of the necessary screwdriver and the torque needed to tighten the screw.



Torque ratchet
REF 330 0115 5

Torque adjustable from 10 to 40 Ncm.



Screwdriver long

6	Screwdriver	1		Torx 6	**REF 310 0010 1**
	Screwdriver	2		slotted 1.6	**REF 310 0010 2**
	Screwdriver	3		slotted 2	**REF 310 0010 3**
	Screwdriver	4		0.03" only available as short type	
0.05"	Screwdriver	5		Allen 0.05"	**REF 310 0010 5**
0.9	Screwdriver	6		Allen 0.9	**REF 310 0010 6**
1	Screwdriver	7		Allen 1.0	**REF 310 0010 7**
1.2	Screwdriver	8		Allen 1.2	**REF 310 0010 8**
1.8	Screwdriver	9		Allen 1.8	**REF 310 0010 9**
2.5	Screwdriver	10		Hexagon 2.5	**REF 310 0011 0**
1.3	Screwdriver	11		Square 1.3	**REF 310 0101 1**
5.5	Screwdriver	12		Torx 5.5	**REF 310 0101 2**



Screwdriver short

6	Screwdriver	1	short	Torx 6	**REF 310 00K0 1**
	Screwdriver	2	short	slotted 1.6	**REF 310 00K0 2**
	Screwdriver	3	short	slotted 2	**REF 310 00K0 3**
0.03"	Screwdriver	4	short	Allen 0.03"	**REF 310 00K0 4**
0.05"	Screwdriver	5	short	Allen 0.05"	**REF 310 00K0 5**
0.9	Screwdriver	6	short	Allen 0.9	**REF 310 00K0 6**
1	Screwdriver	7	short	Allen 1.0	**REF 310 00K0 7**
1.2	Screwdriver	8	short	Allen 1.2	**REF 310 00K0 8**
1.8	Screwdriver	9	short	Allen 1.8	**REF 310 00K0 9**
	Screwdriver	10		Allen 2.5 only available as long type	
1.3	Screwdriver	11	short	Square 1.3	**REF 310 00K1 1**
5.5	Screwdriver	12	short	Torx 5.5	**REF 310 00K1 2**

- Universal screwdriver set
- **Universal screwdriver set for contra-angles**
- Screwdriver

Universal screwdriver set for contra-angles



Sterilizable set

Screwdrivers with seating for contra-angles. Thanks to the integrated torque they simplify turning in screws with special motors. In conjunction with the adapter, the screwdrivers can also be used with the torque ratchet.



Universal Screwdriver-Set for contra-angles, with instruments
REF 310 W001 2

Universal Screwdriver-Set for contra-angles, without instruments
REF 310 W001 1

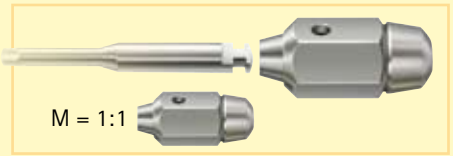


Accessories:



Torque ratchet
REF 330 0115 5

Torque adjustable from 10 to 40 Ncm.



Ratchet adapter
REF 580 0116 8



Screwdriver long

6	Screwdriver	1	Torx 6	**REF 310 W010 1**
	Screwdriver	2	slotted 1.6	**REF 310 W010 2**
	Screwdriver	3	slotted 2	**REF 310 W010 3**
	Screwdriver	4	0.03" only available as short type	
0.05"	Screwdriver	5	Allen 0.05"	**REF 310 W010 5**
0.9	Screwdriver	6	Allen 0.9	**REF 310 W010 6**
1	Screwdriver	7	Allen 1.0	**REF 310 W010 7**
1.2	Screwdriver	8	Allen 1.2	**REF 310 W010 8**
1.8	Screwdriver	9	Allen 1.8	**REF 310 W010 9**
2.5	Screwdriver	10	Hexagon 2.5	**REF 310 W011 0**
1.3	Screwdriver	11	Square 1.3	**REF 310 W101 1**
5.5	Screwdriver	12	Torx 5.5	**REF 310 W101 2**



Screwdriver short

6	Screwdriver	1	short	Torx 6	**REF 310 W0K0 1**
	Screwdriver	2	short	slotted 1.6	**REF 310 W0K0 2**
	Screwdriver	3	short	slotted 2	**REF 310 W0K0 3**
0.03"	Screwdriver	4	short	Allen 0.03"	**REF 310 W0K0 4**
0.05"	Screwdriver	5	short	Allen 0.05"	**REF 310 W0K0 5**
0.9	Screwdriver	6	short	Allen 0.9	**REF 310 W0K0 6**
1	Screwdriver	7	short	Allen 1.0	**REF 310 W0K0 7**
1.2	Screwdriver	8	short	Allen 1.2	**REF 310 W0K0 8**
1.8	Screwdriver	9	short	Allen 1.8	**REF 310 W0K0 9**
	Screwdriver	10		Allen 2.5 only available as long type	
1.3	Screwdriver	11	short	Square 1.3	**REF 310 W0K1 1**
5.5	Screwdriver	12	short	Torx 5.5	**REF 310 W0K1 2**

Screwdrivers

- Universal screwdriver set
- Universal screwdriver set for contra-angles
- **Screwdriver**

Screwdriver long



Screwdriver long
1 piece
REF 330 0081 2

The long screwdriver allows perfect visual control of the horizontal path of screwing in the laboratory. The screw connection can be more easily achieved by the dentist. For screws with 0.9 mm hexagon socket.

Screwdriver short



Screwdriver short
1 piece
REF 330 0069 0

Ideal for practice and laboratory. The grooved handle simplifies turning in of screws since safe hold is ensured. For screws with 0.9 mm hexagon socket.

Screwdriver for contra-angles



Screwdriver for contra-angles
1 piece
REF 330 0081 3

For mechanical turning in of screws with 0.9 mm hexagon socket. The use of special motors allows to control the torque.

Screwdriver-Set



Assortment

3 pieces
1 x Screwdriver long
1 x Screwdriver short
1 x Screwdriver for contra-angles
REF 330 0081 0

Screwdriver is



Screwdriver is
for contra-angles
1 piece
REF 460 0001 0



Screwdriver is
manual short
1 piece
REF 460 0001 1

Special screwdrivers for the vks-oc rs abutments. Suitable as manual screwdriver and for contra-angles for enhanced control of the torque with special motors.

Screwdriver for stud-head screw



Screwdriver for stud-head screw
1 piece
REF 330 0116 4

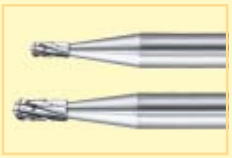
Screwdriver for the stud-head screw vks-oc/sg 1.7 exchangeable stud.

- **Security-Lock**
- Security-Lock adhesive sleeve
- Security-Lock-Ceramic

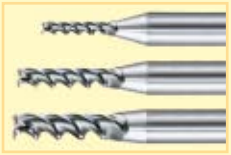
Security-Lock



Patented threaded units which do not loosen or break. As the non-threaded section is in the inner coping, no micro-movements can be transferred. This guarantees that the threaded rod will not loosen inadvertently.
The matrix sleeve made of a high-melting cast-on alloy can be cast on up to max. 1300 °C.
The threaded rods are available in three different sizes (1.0/1.4 and 1.8 mm) and suitable for any situation.



HM-Centring drill
1.0
REF 330 0081 5
1.4
REF 330 0066 0



Diatit-Multidrill
1.0
REF 330 0061 0
1.4
REF 330 0079 0
1.8
REF 330 0080 0



Threaded rods
2 pieces
1.0
REF 430 0729 3
1.4
REF 430 0729 4
1.8
REF 430 0729 5



Matrix sleeve with fixing screw
2 pieces each
1.0
REF 430 0729 6
1.4
REF 430 0729 7
1.8
REF 430 0729 8

Accessories:



Screwdriver short
1 piece
REF 330 0069 0

Additional screwdrivers see pages 110–112.



Milling/drilling oil
20 ml, see page 128
REF 550 0000 8

Assortment
9 pieces
Security-Lock 1.0
2 Threaded rods
2 Matrix sleeves

2 Fixing screws
1 Diatit-Multidrill
1 HM-Centring drill
1 Screwdriver short
REF 430 0729 0

Assortment
9 pieces
Security-Lock 1.4
2 Threaded rods
2 Matrix sleeves

2 Fixing screws
1 Diatit-Multidrill
1 HM-Centring drill
1 Screwdriver short
REF 430 0729 1

Assortment
9 pieces
Security-Lock 1.8
2 Threaded rods
2 Matrix sleeves

2 Fixing screws
1 Diatit-Multidrill
1 HM-Centring drill
1 Screwdriver short
REF 430 0729 2



The different sizes can be used for a wide range of applications with implants and bridges etc.



In this case, a superstructure is to be retained with a screw. The abutment should be waxed up using standard procedures.



Once the abutment has been cast, it should be milled and polished.



A centring drill is used to create a purchase point in the correct position.



The correct size of Multidrill is used to drill a hole at the correct angle for the threaded rod. It is absolutely essential that bredent milling/drilling oil is used.



Screw the threaded rod into the threaded sleeve. Both the pin and hexagonal socket (max. reduction: 2.3 mm) can be reduced as required.



Coat the threaded rod and sleeve with Pi-Ku-Plast, REF 540 0017 6.



Pi-Ku-Plast garantees optimum strength for continued processing.



Screw a retention screw coated with colloidal graphite into the threaded sleeve to retain it in the investment material, REF 540 0070 6.

Dimensions





Product	REF	Ø	Length	Thread	Length/Rod	max. Reduction
Threaded rod titanium 1.0	430 0729 3	Rod 1.0 mm	8.5 mm	M 2 x 0.4	3.5 mm	2.3 mm
Threaded rod titanium 1.4	430 0729 4	Rod 1.4 mm	8.5 mm	M 2 x 0.4	Rod 3.5 mm	2.3 mm
Threaded rod titanium 1.8	430 0729 5	Rod 1.8 mm	8.5 mm	M 2.5 x 0.45	Rod 3.5 mm	2.3 mm
Matrix sleeve HL 1.0	430 0729 6	2.8 mm	5.3 mm	–	–	2.3 mm
Matrix sleeve HL 1.4	430 0729 7	2.8 mm	5.3 mm	–	–	2.3 mm
Matrix sleeve HL 1.8	430 0729 8	3.2 mm	5.3 mm	–	–	2.3 mm

Security-Lock adhesive sleeve



Security-Lock system is perfectly suitable for situations difficult to access such as small jaws or large-span bridges. The titanium threaded sleeve that can be glued in allows processing independent of the alloy.



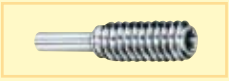
Auxiliary modelling element 1.4
REF 360 0116 9



HM-Centring drill 1.4 mm
REF 330 0066 0



Diatit-Multidrill
1.4 x 6 mm
REF 330 0079 0



Threaded rods 1.4
2 pieces
REF 430 0729 4



Matrix sleeves titanium, 2 pieces
REF 430 0739 7



Tap handwheel
REF 330 0115 3

Assortment

5 pieces, 1 piece each
Auxiliary modelling element 1.4
HM-Centring drill 1.4
Diatit-Multidrill
Threaded rod 1.4
Matrix sleeve titanium

REF 430 0739 5

Accessories:



Screwdriver short
1 piece
REF 330 0069 0

Additional screwdrivers see pages 110–112.



FGP insulating agent
REF 540 0102 7



Milling/drilling oil
see page 128
REF 550 0000 8



DTK-adhesive
REF 540 0010 6

Dimensions





Product	REF	Ø	Length	Thread	Length/Rod	max. reduction
Threaded rod titanium 1.0	430 0729 3	Rod 1.0 mm	8.5 mm	M 2 x 0.4	3.5 mm	2.3 mm
Threaded rod titanium 1.4	430 0729 4	Rod 1.4 mm	8.5 mm	M 2 x 0.4	Rod 3.5 mm	2.3 mm
Threaded rod titanium 1.8	430 0729 5	Rod 1.8 mm	8.5 mm	M 2.5 x 0.45	Rod 3.5 mm	2.3 mm
Matrix sleeve titanium 1.4	430 0739 7	2.8 mm	5.3 mm	–	–	2.3 mm
Matrix sleeve HL 1.0	430 0729 6	2.8 mm	5.3 mm	–	–	2.3 mm
Matrix sleeve HL 1.4	430 0729 7	2.8 mm	5.3 mm	–	–	2.3 mm
Matrix sleeve HL 1.8	430 0729 8	3.2 mm	5.3 mm	–	–	2.3 mm

Security-Lock adhesive sleeve



Any alloy is suitable for casting, even CoCr alloys.



After parallel milling and high luster polishing, the secondary element is moulded with Pi-Ku-Plast.



To determine the exact position of the screw, the wax up is modelled according to the situation.



The wax is removed at the specific point to determine the exact drilling position.



A groove is prepared at this point using the tungsten carbide centering drill 1.4.



The Diatit-Multidrill 1.4 and milling and drill oil are used to prepare a hole in the desired direction of screwing.



The auxiliary modelling element is attached to the model using Pi-Ku-Plast and moulded (completed) with wax according to the situation.



Prior to investing, the auxiliary modelling element is removed by turning it slightly with a pair of tweezers.



Any alloy can be used for casting the secondary construction.



All elements that must not be glued – such as the primary construction, the external surfaces of the primary construction and the screw are ...



... separated with FGP insulating liquid (REF 540 0102 7) so that the excessive adhesive can be removed easily.



After separating, the threaded rod is turned into the matrix sleeve.



Primary and secondary element are assembled. A drop of DTK adhesive is filled and spread evenly in the hole in the secondary element.



Matrix sleeve and threaded rod are inserted into the hole and no longer moved until the DTK adhesive has hardened.



The protruding matrix sleeve and the threaded rod are cut off to obtain the required length (max. reduction: 2.3 mm) using the Tita-Pol prepolishing wheel.



The protruding matrix sleeve and the threaded rod are cut off to obtain the required length (max. reduction: 2.3 mm) using the Tita-Pol prepolishing wheel.

Security-Lock-Ceramic



Security-Lock-Ceramic 1.4 allows splinting for all alloys without a thread sleeve.

Restorations made of a CoCr alloy which are to be veneered are biocompatible and can be produced without any additional alloy components.



Auxiliary modelling element 1.4
REF 360 0116 9



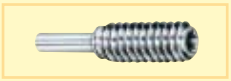
Ceramic screws with wax sleeve1.4
2 pieces
REF 360 0117 0



HM-Centring drill 1.4
REF 330 0066 0



Diatit-Multidrill
1.4 x 6 mm
REF 330 0079 0



Threaded rods 1.4
2 pieces
REF 430 0729 4



First tap, tungsten carbide
REF 460 0010 M



Second tap, tungsten carbide
REF 460 0010 F



Tap handwheel
REF 330 0115 3



Ceramic removing tool
REF 460 0010 6

Assortment

10 pieces, 1 piece each
Auxiliary modelling element
Ceramic screw with wax sleeve
HM-Centring drill
Diatit-Multidrill
Threaded rod 1.4
First tap, tungsten carbide
Second tap, tungsten carbide
Ceramic removing tool
Tap handwheel
Screwdriver, short

REF 430 0739 1

Accessories:



Screwdriver short
1 piece
REF 330 0069 0



Milling/drilling oil
see page 128
REF 550 0000 8



1 The wax model of the primary constractions is prepared in the usual way.



2 Any alloy can be used for casting, even CoCr alloys.



3 After parallel milling, the secondary element is moulded using Pi-Ku-Plast.



4 To determine the exact position of the screw, the wax-up is modelled according to the situation.



5 The wax is removed at the specific point to determine the exact drilling position.



6 A groove is prepared at this point using the tungsten carbide centering drill.



7 The Diatit-Multidrill 1.4 and milling and drilling oil are used to prepare a hole in the desired direction of screwing.



8 The auxiliary modelling element is attached to the model using Pi-Ku-Plast and reduced with wax according to the situation.



9 The wax-up is reduced for ceramic veneering according to the situation.



10 Using tweezers, the auxiliary modelling element is turned slightly and removed.



11 After attaching the sprues, the ceramic spacer with wax sleeve is inserted into the opening up to the stop.



12 The wax sleeve and the model are connected.



13 The ceramic spacer remains in the metal structure until the ceramic veneer is completed.



14 The ceramic spacer is removed with the ceramic removing tool - do not remove with the sandblaster.



15 The thread is recut using the first and the second tap. Use milling and drilling oil when tapping.



16 The threaded rod is turned in and primary and secondary element are screwed with each other.



17 The threaded rod is shortened to the required length (max. reduction: 2.3 mm) using the Tita-Pol prepolishing wheel.



18 Security-Lock-Ceramic 1.4 can be processed safely and quickly with just a single alloy. There are no temperature-related alloy problems since finished parts are cast in.

Dimensions



Product	REF	Ø	Length	Thread	Length/Rod	max. Reduction
Threaded rod titanium 1.4	430 0729 4	Rod 1.4 mm	8.5 mm	M 2 x 0.4	Rod 3.5 mm	2.3 mm

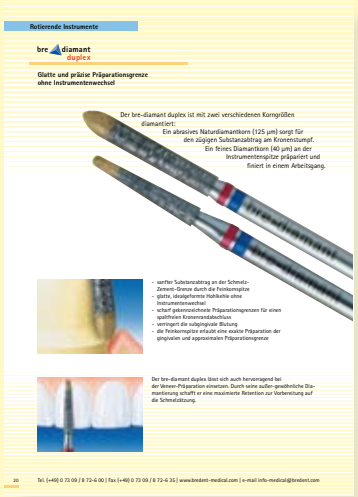
bredent

Telephone (+49) 0 73 09 / 8 72-4 40

Products for the dental practice

The catalogue provides a clearly arranged survey on the product range.
In addition to materials and instruments for the dental practice, materials which are intended to be used in the dental-technical laboratory are included.

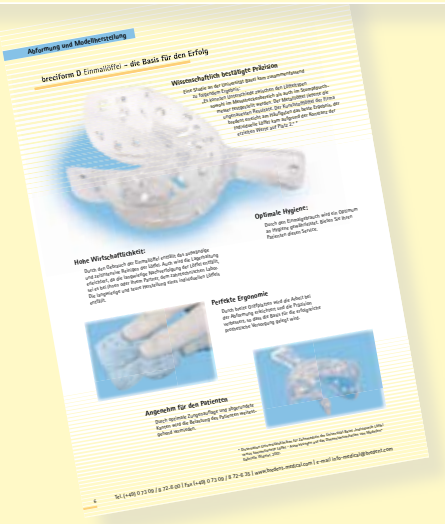


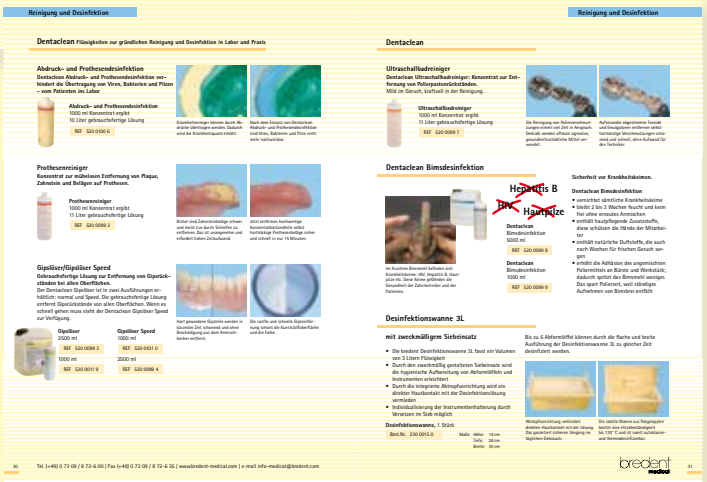






The simple, logically structured concept allows to find the desired product quickly and saves time when selecting the product.

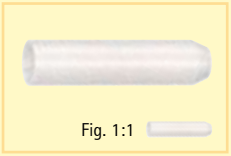




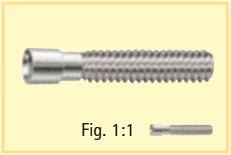
- **Friction Splint FS1**

Friction Splint FS1

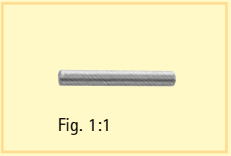
Connecting elements for superstructures.
- **uncomplicated integration in the mouth**
- **defective screw connectors can be repaired with FS1**
- **FS1 is replaceable**
- **time-saving, no tapping necessary**
- **variable application for all indications**
- **can be individually shortened**
- **no loosening through expansion**



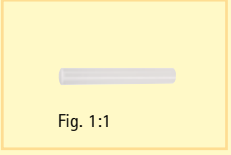
Friction Splint FS1 sleeve
1 piece
REF 450 0008 0
10 pieces
REF 450 0008 4



Friction Splint FS1 pin
1 piece
REF 450 0008 1
10 pieces
REF 450 0008 5

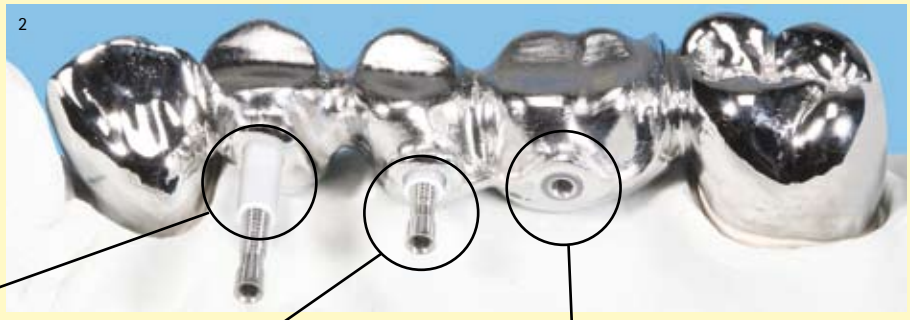


Modeling aid
Ø 2,0 mm
1 piece
REF 450 0008 3
10 pieces
REF 450 0008 7



Spacer
Ø 2,0 mm
1 piece
REF 450 0008 2
10 pieces
REF 450 0008 6







The FS1 sleeve is placed through the splint hole (identical size and position in both the primary and the secondary units) with the splint screw being preassembled.



After pressing in the sleeve ...



...the splint screw is turned in.



No tapping is necessary.



Damaged screw connectors....



.....can be re-tooled with the FS1.

Accessories:



Diatit-Multidrill Ø 2,0
1 piece
REF 330 0072 0



Fixing screw
2 pieces
REF 360 0103 0



Screwdriver short
1 piece
REF 330 0069 0



Milling/drilling oil
see page 128
REF 550 0000 8

Additional screwdrivers see pages 110-112.

• **Friction Splint FS1**

Friction Splint FS1



Wax-up with matrix.



Remove the wax-up. The pin hole is drilled into the abutment with the Dia-tit-Multidrill Ø 2,0 mm.



The wax-up is placed back onto the model. The modeling aid is integrated in the wax-up. Holes with a diameter of 2.0 mm are drilled into the full wax-up at the positions for the attachments.



The attachments are milled. The previously prepared matrix serves for orientation. The ceramic spacer can be used to ensure perfect casting of the splint holes.



Using the modeling aids...



... the secondary units are waxed up and prepared for casting.



Sleeve...



...and splint screw are shortened to the same length if required.



In the case of zirconium crowns it must be ensured that ...



...the diameter of the drillhole is 2.0 mm after the sintering process and ...



...the ceramic firings. Stress/tension within the ceramic can only be avoided in this way.



The splint screw which is screwed half way into the sleeve is positioned using tweezers...



...and pressed in. The remaining section of the splint screw is turned in.



The splint can be removed by turning it out with the screwdriver SW 0,9.



The screwed-in fixing screw is removed from the sleeve.



In case of usage of less than 1 year and in undamaged condition, the removed sleeve can be reinserted.

Bridge Sectioning Attachment oc



This prefabricated unit facilitates fabrication of a sectioned bridge with occlusal screw.

The titanium screw has a hexagonal socket to facilitate tightening and loosening it.

The circumferential ring marks the maximum level to which it can be shortened.

Made of cast-on alloy.



Titanium screw
1 piece
REF 330 0070 0
10 pieces
REF 330 0071 0



Closing ring HL, cast-on
2 pieces
REF 430 0730 4



Fixation screw
2 pieces
REF 360 0103 0



Bridge sectioning studs oc
2 pieces
REF 430 0730 3

Assortment

6 pieces, 1 piece each
Titanium screw
Closing ring HL, cast-on
Bridge sectioning studs oc
Fixation screw
Paralleling mandrel
Screwdriver short
REF 430 0730 2

Accessories:



Screwdriver short
1 piece
REF 330 0069 0

Additional screwdrivers see pages 110–112.



Paralleling mandrel
for oc and custom bridge sectioning attachments
1 piece
REF 360 0115 7



The paralleling mandrel positions the sectioning attachment correctly.



The design and minimal dimensions of the threaded sleeve in the sectioning attachment enable it to be adapted to the papillae as required.



The threaded sleeve is made of a cast-on alloy and can be used with any gold or semi-precious alloy.



The fixing screw which is coated with colloidal graphite retains the threaded sleeve precisely in the investment material.



The section connecting the attachment to the coping is rounded, has a diameter of 1.0 mm* and can be trimmed accurately with a 1.0 mm rotary cutter if required.



The circumferential ledge on the locking ring marks the level to which the screw and locking ring can be reduced.



To ensure that the locking ring is fixed in place securely, the outer section must be moulded with Pi-Ku-Plast brush-on resin.



The exterior design of the locking ring, which consists of a cast-on gold alloy, ensures that it is retained securely in resin.



The bridge pattern is waxed up onto the resin outer section.



The titanium screw can be ground to blend it into the occlusal surface.

Dimensions



Product	REF	Ø	Length	Thread	Length/Head	max. Reduction
Titanium screw 1.4	330 0070 0	2.1 mm	4.5 mm	M 1.4 x 0.3	2.5 mm	1.4 mm
Closing ring HL, cast-on HL	430 0730 4	2.5 mm	2.1 mm	–	–	1.4 mm
Bridge sectioning studs oc	430 0730 3	3.0 mm	6.9 mm	M 1.4 x 0.3	–	3.3 mm

- Bridge Sectioning Attachment oc
- **Custom Bridge Sectioning Attachment**
- Vario-Soft 3 Bridge Sectioning Attachment

Custom Bridge Sectioning Attachment



Reliable processing with the complete set of tools simplifies the fabrication of all types of bridge sectioning attachments.



Custom bridge sectioning attachments
8 pieces
REF 430 0735 0

Accessories:



Tool set
10 pieces
REF 330 0060 0



Paralleling mandrel
for oc and custom bridge sectioning attachments
1 piece
REF 360 0115 7



Milling/drilling oil
see page 128
REF 550 0000 8



1 A paralleling mandrel is used to position the bridge sectioning attachment as required for the case.



2 The plastic component can be adapted to the papillae as required.



3 The section connecting the attachment to the coping is rounded, has a diameter of 1.0 mm* and can be trimmed with a cylindrical cutter (size 010) if required.



4 The purchase point is created with a centring drill.



5 Bredent milling/drilling oil should be used when drilling. All other oils, especially etheric oils, are unsuitable and impede correct drilling.



6 A Multidrill (1.2 x 5) from the tool set is used to drill an approximately 2 mm deep hole. The use of generous amounts of drilling oil prevents the drill overheating.



7 Use a stop drill (1.2 x 2) to drill the threaded hole precisely to the required depth. Use Bredent drilling oil to ensure that the hole is drilled neatly and smoothly.



8 A countersinking drill is used to widen the hole to 1.4 mm for the thread tap and create space for the conical screw head.



9 The pre-tap taps the first stage of the thread. The final tap taps a high precision thread. Drilling oil prevents the tap jamming.



10 The conical screwhead fits into the inner section by approximately 3/10 mm. It withstands higher shear forces (155 kg) than conventional systems.



11 The screw should be coated with PiKu-Plast resin and integrated into the pattern. The screw should be reduced after casting.



12 The minimal dimensions of the screw provide pleasant aesthetics for all screw-retained restorations.

Dimensions



Product	REF	Ø	Length	Thread	Length/Rod Head length	max. Reduction
Custom Bridge Sectioning Attachment	430 0735 0	3.0 mm	7.0 mm	–	–	custom

Vario-Soft 3 Bridge Sectioning Attachment

One attachment ...



Cast-on bridge sectioning attachment with integrated shear distributor.



Fig. 1:1

Titanium screw
1 piece
REF 330 0070 0
10 pieces
REF 330 0071 0



Fig. 1:1

Closing ring HL, cast-on
2 pieces
REF 430 0730 4

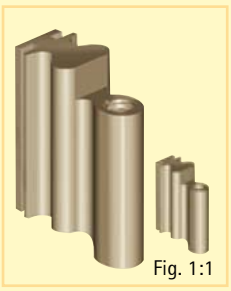


Fig. 1:1

Patrix HL suitable for casting-on
1 piece
REF 450 0000 1

Accessories:



Paralleling mandrel universal
1 piece
REF 360 0115 1



Screwdriver short
1 piece
REF 330 0069 0

Additional screwdrivers see pages 110–112.

Assortment

4 pieces, 1 piece each
Patrix HL suitable for casting-on
Titanium screw
Closing ring HL, cast-on
Screwdriver short
REF 450 0000 2



1 The bridge-sectioning attachment that can be cast on is positioned at the wax pattern using the paralleling mandrel.



2 After casting, the crown framework is checked and finished.



3 After ceramic veneering, the bridge-sectioning attachment is polished with high luster buffs.



4 Fix the cast-on closing ring with titanium screw and cover with Pi-Ku-Plast.



5 The bridge is waxed up in the usual way.



6 Completed and fitted bridge framework. Ready for ceramic veneering.

Dimensions



Product	REF	Ø	Depth	Width	Height	max. Reduction
Patrix	450 0000 1	1.8 mm	6.1 mm	3.0 mm	7.6/7.0 mm	2.8 mm
Titanium screw 1.4	330 0070 0	M1.4 x 0.3	–	2.1 mm	4.5 mm	1.2 mm
Closing ring HL, cast-on HL	430 0730 4	2.5 mm	–	–	2.1 mm	1.4 mm

- Bridge Sectioning Attachment oc
- Custom Bridge Sectioning Attachment
- **Vario-Soft 3 Bridge Sectioning Attachment**

Vario-Soft 3 Bridge Sectioning Attachment

... two indications



In case of loss of the terminal abutment of the bridge the previous patrix becomes the fixation base for the new removable attachment denture.



Matrix
green-reduced friction
8 pieces
REF 430 0519 0



Matrix
yellow-regular friction
8 pieces
REF 430 0518 0



Matrix
red-high friction
8 pieces
REF 430 0517 0



Duplicating matrix
8 pieces
REF 430 0737 2



Wax matrix housing
8 pieces
REF 430 0521 0

Accessories:



Matrix adhesive assortment
REF 540 0103 1

If the plastic attachment matrix is not sufficiently retained in the chrome cobalt framework, this tested and approved adhesive system should be used.



After taking the impression and producing the model, the patrix is slid onto the previous bridge-sectioning attachment and duplicated.



Wax pattern of the later chrome cobalt framework on the investment material model.



After casting, press in the desired friction matrix.



Completed chrome cobalt framework with attachment to prepare the set-up of teeth.

Tool set for individual screw connections 1.4 and 1.6

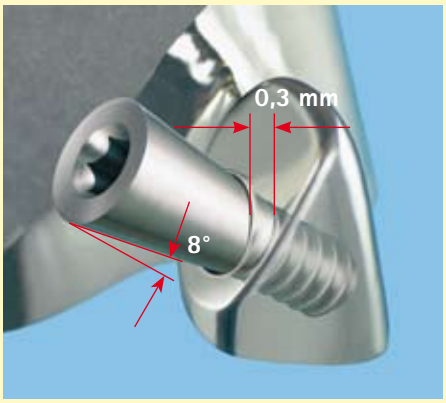


For any situations and possibilities of dental technical screw connections.

Fast, inexpensive and tension-free screw connections.



Perfectly suitable for two-section bridges and dentures that are removeable to a limited degree.



The screw head is lowered 0.3 mm deep into the primary element. This way maximum tensile strength and protection against acting shear stress are ensured.
The conical screw head provides a self-locking effect. It is not possible for the screw to loosen itself.

Individual screw connections must be prepared for all gold content alloys at the points dictated by the dental-technical conditions. This way new dental-technical indications are obtained.

Available in two different thread sizes.

Assortment



10 pieces
Tool set for individual screw connections M 1.4
REF 330 0060 0

Assortment



10 pieces
Tool set for individual screw connections M 1.6
REF 330 0001 6



HM-Centring drill Ø 1.4
1 piece
for M 1.4 and M 1.6
REF 330 0066 0



Diatit-Multidrill
1 piece each
M 1.4
REF 330 0063 0
M 1.6
REF 330 0115 7



Diatit-Multidrill with stop
1 piece each
M 1.4
REF 330 0075 0
M 1.6
REF 330 0115 8



Facing cutter
1 piece each
M 1.4
REF 330 0065 0
M 1.6
REF 330 0115 9



Tap holder
1 piece
REF 330 0068 0



First tap
1 piece each
M 1.4
REF 330 0067 1
M 1.6
REF 330 0116 V



Second tap
1 piece each
M 1.4
REF 330 0067 0
M 1.6
REF 330 0116 F



Auxiliary modelling element
1 piece each
M 1.4
REF 330 0115 6
M 1.6
REF 330 0116 3



Screwdriver short
1 piece
REF 330 0069 0

Additional screwdrivers see pages 110–112.

Accessories: :



Milling/drilling oil
see page 128
REF 550 0000 8



Titanium screw
1 piece
M 1.4 x 0.3
REF 330 0070 0
Head length 2.5 mm

10 pieces
M 1.4 x 0.3
REF 330 0071 0

1 piece
M 1.6 x 0.35
REF 330 0116 0
Head length 2.5 mm

10 pieces
M 1.6 x 0.35
REF 330 0116 1



Titanium screw extended head
1 piece
M 1.4 x 0.3
REF 330 0K70 0
Head length 3.5 mm

10 pieces each
M 1.4 x 0.3
REF 330 0K71 0

1 piece
M 1.6 x 0.35
REF 330 K116 0
Head length 3.5 mm

10 pieces
M 1.6 x 0.35
REF 330 K116 1
Head length 3.5 mm

- **Tool set for individual screw connections**
- Prefabricated screwing set

Tool set for individual screw connections 1.4 and 1.6

Two possibilities for a successfull screw connection

The quick screw connection without milling machine, only with the handpiece


1

The patrix of the bridge sectioning attachment features the same direction of insertion as residual abutment teeth.


2

Wax-up the second bridge element, cast and finish.


3

Prepare a small groove at the point where the screw is to be placed.


4

Drill through the secondary element approx. 1.5 mm deep into the primary element using the Diatit-Multidrill.


5

Remove the secondary element and drill into the primary element up to the stop using the Diatit-Multidrill with stop.


6

Assemble the primary and secondary element and drill up to the stop using the tungsten carbide facing cutter.


7

Cut the thread into the primary element. First use the first tap and then the last tap.


8

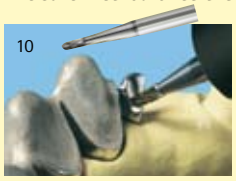
Assemble primary and secondary element and turn into the screw.


9

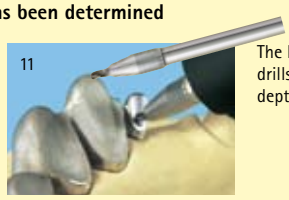
The screw head with the secondary element is ground flush and polished.

Use of the auxiliary modelling element

The safe method once the direction of the screw has been determined


10

Grind a small groove into the patrix using the center drill.


11

The Diatit-Multidrill drills down to the exapt depth.


12

Integrate the auxiliary modelling element into the pattern using the brush resin.


13

Complete the pattern using modelling wax.


14

Turn the auxiliary modelling element with apair of pliers and remove it.


15

After casting, assemble the bridge elements. Drill to the stop using the facing cutter. Further working steps are described in figures 7, 8 and 9.

Dimensions





Product	REF	Ø	Length	Thread	Length/Head	max. Reduction
Titanium screw M 1.4	330 0070 0	2.1 mm	4.5 mm	M 1.4 x 0.3	2.5 mm	1.2 mm
Titanium screw M 1.4 / 3.5	330 0K70 0	2.3 mm	5.5 mm	M 1.4 x 0.3	3.5 mm	1.8 mm
Titanium screw M 1.6	330 0116 0	2.3 mm	5.2 mm	M 1.6 x 0.35	2.5 mm	1.2 mm
Titanium screw M 1.6 / 3.5	330 K116 0	2.6 mm	6.2 mm	M 1.6 x 0.35	3.5 mm	2.0 mm

Tool set for individual screw connections Additional Set zirconium



Assortment

3 pieces, 1 piece each
Diatit-Multidrill
Facing cutter zirconium
Positioning pin

REF 330 2432 4

The preparation of screw connections in zirconium restorations is simplified in conjunction with the tool set for individual screw connections 1.4.



The tools that are 30 % larger compensate the shrinkage of zirconium and allow precision-fit screw connections.



Diatit-Multidrill
1.5 x 8 mm
REF 330 0073 0



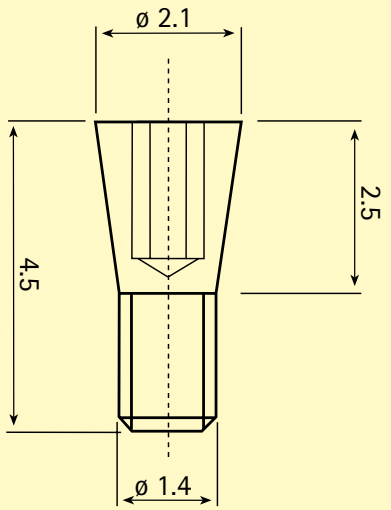
Facing cutter zirconium
REF 330 2432 6



Positioning pin
REF 330 2432 7

Prefabricated screwing set

For occlusal and horizontal screw connections.



Titanium screw
M 1.4 x 0.3





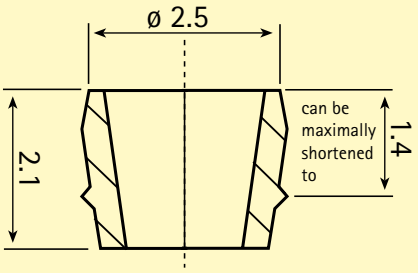
Titanium screw
1 piece
REF 330 0070 0
10 pieces
REF 330 0071 0



Closing ring HL, cast-on
2 pieces
REF 430 0730 4



Tapped bush HL
2 piece
REF 330 0081 1



Closing ring HL, cast-on

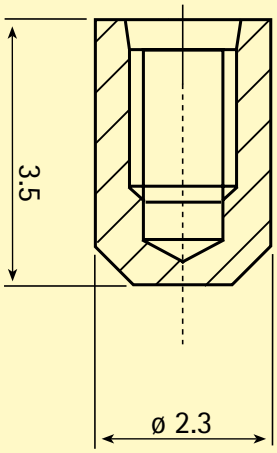




Fixation screw
2 pieces
REF 360 0103 0



Screwdriver short
1 piece
REF 330 0069 0
Additional screwdrivers see pages 110–112.



Tapped bush HL



Assortment

5 pieces, 1 piece each
Titanium screw
Closing ring HL, cast-on
Tapped bush HL
Fixation screw M 1.4
Screwdriver short

REF 430 0735 1

Dimensions



Product	REF	Ø	Length	Thread	Length/Head	max. Reduction
Titanium screw 1.4	330 0070 0	2.1 mm	4.5 mm	M 1.4 x 0.3	2.5 mm	1.4 mm
Closing ring HL, cast-on HL	430 0730 4	2.5 mm	2.1 mm	–	–	1.4 mm
Tapped bush HL	330 0081 1	2.3 mm	3.5 mm	–	–	–

- **Diatit-Multidrill twist drill**
- Milling/drilling oil

Diatit-Multidrill twist drill



This drill even drills exact holes easily in hard chrome cobalt alloys.
As a result of the Diatit wear protection, this three-edged Multidrill achieves a diamond pyramid hardness number of up to 3700 (Vickers hardness).



Custom screw connectors

Can be fabricated for any alloy and wherever the dental technical conditions dictate. Thus, new applications are created.


1

In cases with custom fabricated metal attachments, 0.8 mm or 1.0 mm Diatit-Multidrills can be used to drill precision holes for friction pins.


2

Drilling occlusal surfaces with an 0.8 Ø or 1.0 mm Ø Diatit-Multidrill and a milling machine - easy, even through the hardest of CrCo alloys.


3

A friction pin (for activating) soldered into a chrome cobalt framework, viewed from beneath.

Latch axles – Splinted connectors

Non-stressed, and can be made of any alloy. Provides for splinted attachments requiring neither solder nor adhesive - which is biocompatible restorations are based on.


4

The Diatit centre drill is used for centring in order to drill a hole for cottering by hand.


5

The holes for a non-stressed splint are drilled with the matrix in place, and using the Diatit-Multidrill.


6

A precisely fitting, non-stressed splint, ready for adding the facings.

Custom retrofitting of friction pins


7

Placing a friction pin on a custom attachment.


8

The depth and position of the hole are measured on the attachment patrix and set with the fine adjuster on the milling machine.


9

The exact position of the hole is determined on the milling machine.


10

Precise drilling even if the patrix is of soft precious metal and the matrix of a CrCo alloy.


11

The precisely drilled guidance groove in the patrix, for fitting the friction pin into, can be seen clearly.


12

0.8 mm diameter friction pin (for activating) soldered into place. Thanks to the precisely drilled hole, there is a large friction surface between the friction pin and the patrix.

	Material	Diatit
	REF	**330 0074 0**
	ISO-No.	509 104 422366 008
	Measure	0.8 Ø x 8 mm
	REF	**330 0061 0**
	ISO-No.	509 104 420366 010
	Measure	1.0 Ø x 5 mm
	REF	**330 0062 0**
	ISO-No.	509 104 422366 010
	Measure	1.0 Ø x 7 mm
	REF	**330 0063 0**
	ISO-No.	509 104 420366 012
	Measure	1.2 Ø x 5 mm

	Material	Diatit
	REF	**330 0115 8**
	ISO-No.	509 104 418366 013
	Measure	1.3 Ø x 3.2 mm
	REF	**330 0115 7**
	ISO-No.	509 104 421366 013
	Measure	1.3 Ø x 5 mm
	REF	**330 0079 0**
	ISO-No.	509 104 421366 014
	Measure	1.4 Ø x 6 mm
	REF	**330 0073 0**
	ISO-No.	509 104 422366 015
	Measure	1.5 Ø x 8 mm

	Material	Diatit
	REF	**330 0116 2**
	ISO-No.	509 104 421366 017
	Measure	1.7 Ø x 5 mm
	REF	**330 0080 0**
	ISO-No.	509 104 421366 018
	Measure	1.8 Ø x 6 mm
	REF	**330 0072 0**
	ISO-No.	509 104 421366 020
	Measure	2.0 Ø x 8 mm
	REF	**330 0075 0**
	ISO-No.	509 104 418366 012
	Measure	1.2 Ø x 2.3 mm

Working speed on precious metal 5.000 R·min^{-1}.

All tools feature a total tool length of 45 mm and a shaft diameter of 2.35 mm.

Milling and drilling oil



Milling/drilling oil
20 ml
REF 550 0000 8

Especially developed for the milling and drilling technique.
This milling and drilling oil does not contain any ethereal additives. Accordingly, the evaporation temperature is increased considerably; gumming of the oil is no longer possible. Due to special components and the particular consistency, the oil film remains between the metal and the milling tool. This results in the fact that metal chips come out of the cutting sections of the burs more quickly and thus easier milling is possible. The cutting performance and the service life of the milling tools is enhanced correspondingly. By using this milling and drilling oil, more material can be removed while exerting less pressure and obtaining a considerably smoother surface. The oil that has been especially developed for dental techniques withdraws the heat during processing of the object more quickly and avoids overheating of the milling and drilling tools.



When tapping, always use a rich quantity of milling and drilling oil. This simplifies turning in of the tap.

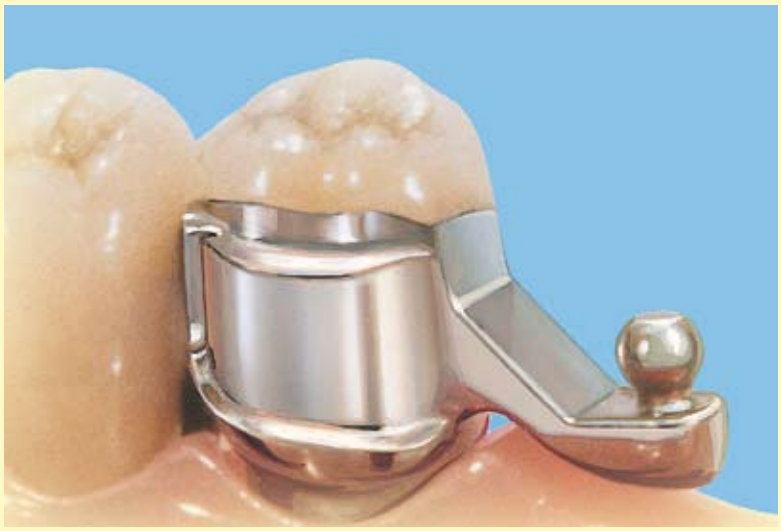


The surface of the object becomes clearly smoother if the oil is used.



This milling and drilling oil avoids overheating of the milling and drilling tools; consequently, the service life of the milling tools is increased considerably.

Use:
Always use a rich quantity of milling and drilling oil during centring, drilling, milling and tapping.



Important information for users of bredent attachments!

To ensure trouble-free and lasting function of the attachments, the stable position of the removeable denture is of utmost importance. A circumferential shoulder with parallel milled interlock at the abutment crown and a corresponding shear distributor at the removeable restorations are essential elements and indispensable. Tilting movements of the denture must be avoided since they result in frequent locking and unlocking of the snap attachments and - in conjunction with crystalline deposits - may cause premature wear and thus affect the proper function of the attachments.

bredent Research Information

Vario-Stud-Snap attachment vks oc + sg

Latest findings have shown that in a very limited number of cases deposits may be formed on natural teeth, dentures and fixed restorations in the oral environment.

If, due to insufficient oral hygiene, these crystals are not removed, some exceptional cases of inclusion of these crystals in the surface of the plastic matrix might result.
This leads to an abrasive effect on the stud of the patrix resulting in the possible loss of snap. Very rare cases of this unexplained and previously unknown phenomenon have been reported for the Stud-Snap attachments sold (1 of 5000 patients).

Accordingly, we recommend the exclusive use of hard alloys and to clean the teeth, the denture and the fixed restoration two times a day as well as to have them regularly checked by the dentist. To ensure perfect function of the Vario-Stud-Snap attachment it is necessary that the patient acquires the snap point with his finger when inserting the denture and locks it by pressing on it with his finger.

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Brochures for dentists and patients

- **Vario-Soft product range**
- **Patient Information**

Vario-Soft product range



Help to make you and your dentist more successful with these brochures!

Dentist information
„Vario-Soft product range"

The different types of attachments of the Vario-Soft attachment group and their advantages are illustrated in detail in this brochure. This will provide dentists with a better survey on the variety of attachments so that patients will receive more qualified advice and high quality restorations.

REF 000 041G B

Patient Information



Patient Information

This brochure has been published for patients, that are to receive combined dentures. It contains detailed explanations on the subject of „Combined dentures" and is easily understandable. The patient is provided with explanations why tooth gaps should not be left untreated over longer periods from the medical point of view.
Using a comparison, the brochure describes the difference between clasps and attachment-based dentures. In this context the interested patient receives information about the advantages of combined dentures. Moreover, important characteristics of attachment-based dentures are outlined: aesthetics, durability, preservation of residual teeth and biocompatibility by reducing the large number of different alloys used in the mouth.

REF 000 040G B

The brochures are available free of charge!

Vario-Stud-Snap vks-oc

The versatile and proven stud anchor system



Extracoronal use

Extracoronal patrices consist of burnout plastic. They are cast together with the crowns.
The advantages are:

- low price of the retaining elements
- time-saving and safe processing
- reduction of the number of materials – for high biocompatibility



vks-oc rs Abutments

- abutments with proven vks-oc rs patrix
- three different diameters, three different distance heights
- suitable for all common implants with outer hexagon
- reduction of cost due to limited stockkeeping



vks-oc-uni

- stud anchors for intracoronal use, e.g. on root caps
- economical concept due to plastic patrices that can be cast
- also available in cast-on alloy

vks-oc rs 2.2 abutments



nine abutments suitable for Brånemark, 3i (except 6 mm) and Steri-Oss hex-lock

The patrix of the stud attachment has been produced with utmost precision in an industrial process. It consists of titanium, grade 5. This material guarantees precision of fit, high durability and biocompatibility.

In the area of the head the screw of the vks-oc stud abutment features a recess. This ensures gap-free fit of the abutment on all common implants with hexagon. Only the suitable diameter and the desired distance height have to be observed.

Fig. 1:1



vks-oc rs Ø 2.2 mm abutment
Ø 4 mm, distance height 2 mm
impression matrix
1 piece each
REF 460 0004 2



vks-oc rs Ø 2.2 mm abutment
Ø 5 mm, distance height 2 mm
impression matrix
1 piece each
REF 460 0005 2



vks-oc rs Ø 2.2 mm abutment
Ø 6 mm, distance height 2 mm
impression matrix
1 piece each
REF 460 0006 2



vks-oc rs Ø 2.2 mm abutment
Ø 4 mm, distance height 4 mm
impression matrix
1 piece each
REF 460 0004 4



vks-oc rs Ø 2.2 mm abutment
Ø 5 mm, distance height 4 mm
impression matrix
1 piece each
REF 460 0005 4



vks-oc rs Ø 2.2 mm abutment
Ø 6 mm, distance height 4 mm
impression matrix
1 piece each
REF 460 0006 4



vks-oc rs Ø 2.2 mm abutment
Ø 4 mm, distance height 6 mm
impression matrix
1 piece each
REF 460 0004 6



vks-oc rs Ø 2.2 mm abutment
Ø 5 mm, distance height 6 mm
impression matrix
1 piece each
REF 460 0005 6



vks-oc rs Ø 2.2 mm abutment
Ø 6 mm, distance height 6 mm
impression matrix
1 piece each
REF 460 0006 6



vks-oc rs Ø 2.2 mm implant analogue
Ø 4 mm
2 pieces
REF 460 0000 4



vks-oc rs Ø 2.2 mm implant analogue
Ø 5 mm
2 pieces
REF460 0000 5



vks-oc rs Ø 2.2 mm implant analogue
Ø 6 mm
2 pieces
REF 460 0000 6

Accessories:



Screwdriver is
elbow
1 piece
REF 460 0001 0



Screwdriver is
manual, short
1 piece
REF 460 0001 1



Angle measuring device
1 piece
REF 460 0010 0



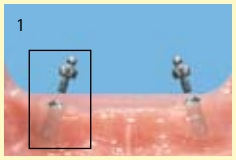
vks-oc rs Ø 2.2 mm axle abutment
2 pieces
REF 460 0010 2

8 pieces
REF 460 0010 8



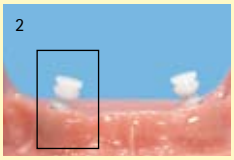
Impression matrix
2 pieces
REF 460 0000 2

8 pieces
REF 460 0000 8





After successful osseointegration of the implant, the mucous membrane is opened and the suitable vks-oc abutment is screwed in. The torque must be limited to 30 Ncm by using a vks-oc screwdriver.





Abutments in the distance heights of 2, 4 and 6 mm are available. Distance sleeves are not required. The stud abutments can also be used as gingiva former. Prior to taking the impression, place the transfer matrices onto the stud abutments.





The transfer matrices are now in the total impression. Retention grooves ensure the firm position of the transfer matrices in the impression material.

• **vks-oc rs 2.2 abutments**
• vks-oc extracoronal use
• vks-oc uni
• vks-oc exchangeable stud
• vks-sg exchangeable stud
• vks-sg
• vks-sg matrix housing
• vks-sg bar patrix

Important information about processing of attachments, see catalogue page 129

vks-oc rs 2.2 abutments



Prior to the fabrication of the model, laboratory implants are inserted into the tranfer matrices. This way precise transfer of the position of the implants is guaranteed.



The model precisely shows the position of the implants. Normally, the implants have not been inserted in an entirely parallel position to each other so that divergences or convergences between several stud abutments result.

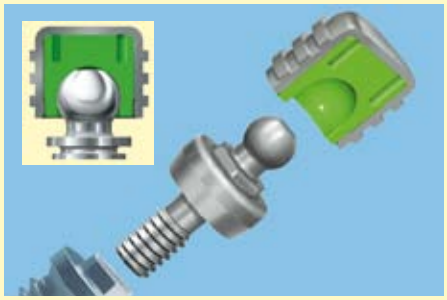


The vks-oc system accepts maximum deviations of 15 ° to the planned angle of insertion. To determine the deviation from the vertical axle, axle abutments are placed onto the abutment analogue.



A special angle measuring device represents the range of tolerance of the vks-oc system. In this example the deviation of the implants lies within the range of tolerance. Accordingly, supply with the vks-oc rs system is possible.

Rigid matrices for fixation in an acrylic denture



Assortment

13 pieces
2 Rigid matrices, green
2 Rigid matrices, yellow
2 Rigid matrices, red
2 Matrix housing for fixation in acrylics
2 Screwdriver is
1 Angle measuring device
1 Matrix inserting instrument
1 vks paralleling mandrel

REF 440 0066 4



Rigid matrices
vks-oc rs Ø 2.2 mm
green – reduced soft-snap-in effect
8 pieces
REF 440 0070 8

50 pieces
REF 440 0075 0



Rigid matrices
vks-oc rs Ø 2.2 mm
yellow – medium soft-snap-in effect
8 pieces
REF 440 0080 8

50 pieces
REF 440 0085 0



Matrix housing for fixation in acrylics
vks-oc rs Ø 2.2 mm
2 pieces
REF 440 0030 2

8 pieces
REF 440 0030 8



Rigid matrices
vks-oc rs Ø 2.2 mm
red – high soft-snap-in effect
8 pieces
REF 440 0090 8

50 pieces
REF 440 0095 0

Accessories:



Matrix inserting instrument
vks-oc rs Ø 2.2 mm
1 piece
REF 360 0116 1



Paralleling mandrel universal 2
vks-oc rs Ø 2.2 mm
1 piece
REF 360 0116 0



Matrix pliers
vks-oc Ø 2.2 mm + zg
1 piece
REF 310 0000 6



The matrices should be placed onto the divergent abutments so that parallel direction of insertion is ensured. For this purpose the procedure in figures 3 – 9 must be adhered to.



Orientation of the matrices at the axles of the implants would result in a divergent position of the matrices. The function of the matrices would be affected.



Press the yellow plastic matrix (resilient or rigid) into the metal housing using the inserting instrument. The paralleling mandrel is used to achieve parallel placement of all matrices on the abutments.



Fix the position of the matrices with plaster; fill undercuts up to the jaw ridge. The plaster base ensures correct position of all matrices during subsequent working steps.



To set up the teeth, use an acrylic base plate. The matrices are integrated into the base plate using a small amount of acrylic. The teeth are set up on this plate.



For try-in the matrices and the set-up can be removed from the model. Due to the plaster base (cf. fig. 5) the parallel position of the matrices is ensured so that it can be reproduced easily.



Prior to the completion, remove the matrices from the base plate and place them on the abutments. All techniques (e.g. flask pressing technique, casting technique) can be used for completion.



The matrix housing polymerized in the acrylic material: The plastic matrix can be removed with the matrix pliers. The rigid matrices can be exchanged for the resilient ones (and vice versa) at any time.

vks-oc rs 2.2 abutments

Rigid matrices for fixation in a CoCr structure



vks-oc rs Ø 2.2 mm
Processing of the matrix on the abutment



Rigid matrices
vks-oc rs Ø 2.2 mm
green – reduced soft-snap-in effect
8 pieces
REF 440 0070 8

50 pieces
REF 440 0075 0



Rigid matrices
vks-oc rs Ø 2.2 mm
red – high soft-snap-in effect
8 pieces
REF 440 0090 8

50 pieces
REF 440 0095 0



Wax matrix housing
vks-oc rs 2.2 mm
8 pieces
REF 440 0100 8

50 pieces
REF 440 0105 0



Matrix pliers
vks-oc Ø 2.2 mm + zg
1 piece
REF 310 0000 6

Accessories:



DTK-adhesive
REF 540 0010 6



Rigid matrices
vks-oc rs Ø 2.2 mm
yellow – medium soft-snap-in effect
8 pieces
REF 440 0080 8

50 pieces
REF 440 0085 0



Matrix housings
vks-oc rs 2.2 mm
for glueing or laser-welding
2 pieces
REF 440 0020 2



Duplicating matrix
vks-oc rs 2.2 mm
8 pieces
REF 440 0110 8

Assortment

13 pieces
2 Rigid matrices, green
2 Rigid matrices, yellow
2 Rigid matrices, red
2 Matrix housings
2 Wax matrix housings
2 Duplicating matrix
2 Screwdriver is
1 Angle measuring device
1 Matrix inserting instrument
1 vks paralleling mandrel

REF 440 0066 5

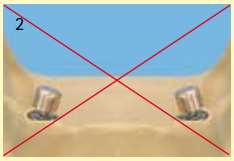
• **vks-oc rs 2.2 abutments**
• vks-oc extracoronal use
• vks-oc uni
• vks-oc exchangeable stud
• vks-sg exchangeable stud
• vks-sg
• vks-sg matrix housing
• vks-sg bar patrix

Important information about processing of attachments, see catalogue page 129

vks-oc rs 2.2 abutments



The matrices (duplicating matrix housing) should be placed onto the divergent abutments so that parallel alignment is ensured. For this purpose the procedure in figures 3 – 13 must be adhered to.



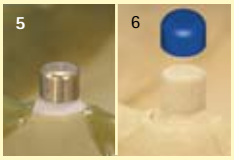
Orientation of the matrices at the axles of the implants would result in a divergent position of the matrices. The function and the durability of the matrices would be affected.



To ensure parallel position of the duplicating matrices, they are placed onto the patrices using the paralleling mandrel. Then the position of the matrices is fixed using plaster.



Fill undercuts between duplicating matrix and jaw ridge with plaster. The plaster base ensures the correct position of the matrices during all subsequent working steps.



To produce a chrome cobalt framework, the model is blocked out and duplicated in the usual way. The duplicating matrix housing guarantees the correct size of the glueing gap.



In order to wax up the chrome cobalt framework over the matrix housings, special wax matrix housings are available. They ensure correct thickness of the chrome cobalt frame in the area of the matrices.



The chrome cobalt framework is cast, finished and polished according to standard criteria. The cavities to hold the glueing matrices should only be cleaned with a sandblasting unit (do not grind).



Press plastic matrices into the metal matrix housing using the inserting instrument. To glue the metal matrix housings, place them on the abutments.



The plaster bases, which were built up by parallel placement of the duplicating matrices (cf fig. 4) ensure parallel position of the metal matrix housing prior to glueing.



Clean the recesses for the glueing matrices with the sandblasting unit and fill with DTK-adhesive. Caution: Residues in sandblasting units with circulation affect the adhesion of the DTK-adhesive.



Press the chrome cobalt framework onto the glueing matrices which have been fixed in the correct positions. Press excess glue out of the recesses.



Then prepare wax set-up, try-in and complete acrylic denture in the usual way. Resilient and rigid matrices are inter-exchangeable at any time.

Dimensions



Product	REF	Thread	Distance height	Width	Ø Stud
vks-oc rs Ø 2.2 mm	460 0004 2	M2 x 0.4	2 mm	4 mm	2.2 mm
	460 0004 4	M2 x 0.4	4 mm	4 mm	2.2 mm
	460 0004 6	M2 x 0.4	6 mm	4 mm	2.2 mm
	460 0005 2	M2 x 0.4	2 mm	5 mm	2.2 mm
	460 0005 4	M2 x 0.4	4 mm	5 mm	2.2 mm
	460 0005 6	M2 x 0.4	6 mm	5 mm	2.2 mm
	460 0006 2	M2 x 0.4	2 mm	6 mm	2.2 mm
	460 0006 4	M2 x 0.4	4 mm	6 mm	2.2 mm
	460 0006 6	M2 x 0.4	6 mm	6 mm	2.2 mm

Dimensions



Product	REF	Ø	Height
Matrix housing for fixation in acrylics vks-oc rs 2.2	440 0030 8	4.2 mm	3.2 mm
Matrix housings for glueing vks-oc rs 2.2	440 0020 2	4.0 mm	3.2 mm
Duplicating matrix vks-oc rs 2.2	440 0110 8	4.4 mm	3.4 mm
Rigid matrices vks-oc rs 2.2	440 0070 8	3.3 mm	3.0 mm
	440 0080 8	3.3 mm	3.0 mm
	440 0090 8	3.3 mm	3.0 mm

vks-oc extracoronal use - fixation in the CoCr structure



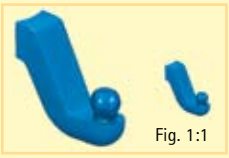
The extracoronal vks-oc must always be used in conjunction with a milled shear distributor. This way optimal transfer of resulting forces onto the anchor tooth is ensured.
vks-oc is available in two different angles to allow optimal adaptation to the course of the gingiva.



Patrix vks-oc
Ø 1.7 mm, 30°
8 pieces
REF 430 0734 5
50 pieces
REF 430 0734 6



Patrix vks-oc
Ø 2.2 mm
8 pieces
REF 430 0539 0
50 pieces
REF 430 0556 0



Patrix vks-oc
Ø 1.7 mm, 60°
8 pieces
REF 430 0734 7
50 pieces
REF 430 0734 8

Accessories:



vks Paralleling mandrel oc/sg
1 piece
ph-vks 1.7
REF 430 0677 0
ph-vks 2.2
REF 360 0113 0

Assortment

12 pieces
Vario-Stud-Snap vks-oc 2.2 30°
REF 430 0531 0

Assortment

22 pieces
Vario-Stud-Snap vks-oc 1.7 30°/60°
4 Blocking out discs oc 1.7
1 Inserting instrument vks 1.7
4 Matrices oc 1.7 each - yellow, green, red
1 Paralleling mandrel metal ph-vks 1,7
2 Patrices oc 1.7 each 30° + 60°
REF 430 0734 9

Assortment

12 pieces
Vario-Stud-Snap vks-oc 2.2
2 Blocking out discs oc 2.2
1 Inserting instrument vks 2.2
2 Matrices oc 2.2 each - yellow, green, red
2 Patrices oc 2.2
1 Paralleling mandrel metal ph-vks 2.2
REF 430 0531 0

Assortment

10 pieces
Vario-Stud-Snap vks-oc 2.2
2 Blocking out discs oc 2.2
2 Matrices oc 2.2 each - yellow, green, red
2 Patrices oc 2.2
REF 430 0534 0



At the beginning a crown is waxed up in the usual way and a milled shear distributor with groove is prepared in wax.



Select the suitable vks-oc according to the course of the papillae and bring it into the correct position using the paralleling mandrel.



Fix vks-oc at the crown using hot wax.



The transition zone of vks-oc/crown must be coated richly with hot wax. vks-oc patrices consist of burnout plastic. They are cast together with the crowns.



The one-piece castin failitates processing. After casting, the vks-oc is only slightly polished to high lustre using a buff.



The extracoronal vks-oc patrices are assembled in the chrome cobalt framework in a very easy manner.

Dimensions



Product	Ø	Angle	Length	Height
Patrix vks-oc	Stud 1.7 mm	30°	5.8 mm	3.9 mm
	Stud 1.7 mm	60°	6.6 mm	6.6 mm
	Stud 2.2 mm	–	6.7 mm	7.5 mm

- vks-oc rs 2.2 abutments
- **vks-oc extracoronal use**
- vks-oc uni
- vks-oc exchangeable stud
- vks-sg exchangeable stud
- vks-sg
- vks-sg matrix housing
- vks-sg bar patrix

Important information about processing of attachments, see catalogue page 129

vks-oc extracoronal use - fixation in the CoCr structure



Accessories:



Matrix inserting instrument
vks-oc Ø 1.7 mm
1 piece
REF 430 0621 0



Metal transfer patrices
vks-oc Ø 1.7 mm
8 pieces
REF 430 0662 0



Matrix inserting instrument
vks-oc Ø 2.2 mm
1 piece
REF 430 0548 0



Metal transfer patrices
vks-oc Ø 2.2 mm
8 pieces
REF 430 0548 2



Matrices vks-oc 1.7
red – high soft-snap-in effect
8 pieces
REF 430 0656 0
50 pieces
REF 430 0657 0



Matrices vks-oc 1.7
yellow – medium soft-snap-in effect
8 pieces
REF 430 0659 0
50 pieces
REF 430 0658 0



Matrices vks-oc 1.7
green- reduced snap
8 pieces
REF 430 0655 0
50 pieces
REF 430 0654 0



Blocking out discs
vks-oc 1.7
8 pieces
REF 430 0652 0
50 pieces
REF 430 0653 0



Matrices vks-oc 2.2
red – high soft-snap-in effect
8 pieces
REF 430 0546 0
50 pieces
REF 430 0548 3



Matrices vks-oc 2.2
yellow – medium soft-snap-in effect
8 pieces
REF 430 0545 0
50 pieces
REF 430 0549 0



Matrices vks-oc 2.2
green- reduced snap
8 pieces
REF 430 0544 0
50 pieces
REF 430 0548 5



Blocking out discs
vks-oc 2.2
12 pieces
REF 430 0540 0
50 pieces
REF 430 0548 5

vks-oc Ø 1.7 mm and vks-oc Ø 2.2 mm: assembly in chrome cobalt framework



Block out to the basal direction starting from the blocking out disc. This way the perfect recess in the chrome cobalt framework to hold the matrix is obtained.



Then produce duplicate with chrome cobalt investment material.



Wax pattern of the planned chrome cobalt supply: the matrix is coated with a wax layer (thickness approx. 0.4 mm).



The completed chrome cobalt framework is ready for the assembly of the matrix with the inserting instrument.



The matrix is mounted with the special inserting instrument. Retention is ensured due to the conical outer shape. To exchange the matrix use a round bur or the matrix pliers.

Dimensions

Product	Ø	Height
Matrix vks-oc 1.7	2.7 mm	2.0 mm
Matrix vks-oc 2.2	3.3 mm	2.7 mm
Blocking out disc vks-oc 1.7	2.8 mm	0.4 mm
Blocking out disc vks-oc 2.2	3.5 mm	0.4 mm

vks-oc uni



For root caps and bars.

vks oc uni in burnout plastic are cast together with the root cap. They can be processed easily and are particularly biocompatible since there is no electrochemical potential difference caused by a different alloy.

vks-oc uni are also available in a cast-on, high-melting alloy. They are particularly precise since reworking after casting is no longer required.



Patrix vks-oc uni
Ø 1.7 mm
8 pieces
REF 430 0676 0

50 pieces
REF 430 0675 0



Patrix vks-oc uni
Ø 2.2 mm
8 pieces
REF 430 0538 0

50 pieces
REF 430 0550 0



Patrix vks-oc uni
Ø 1.7 mm
HL-patrix
cast-on
2 pieces
REF 430 0701 0



Patrix vks-oc uni
Ø 2.2 mm
HL-patrix
cast-on
2 pieces
REF 430 0700 0

Accessories:



vks Paralleling mandrel oc/sg
1 piece
ph-vks 1.7
REF 430 0677 0

ph-vks 2.2
REF 360 0113 0



Wax bars wstg 1.6
1.6 x 8 x 50 mm
approx. 65 pieces
REF 430 0265 0

Wax bars wstg 1.9
1.9 x 4 x 50 mm
approx. 120 pieces
REF 430 0266 0

Wax bars wstg 2.2
2.2 x 6 x 50 mm
approx. 65 pieces
REF 430 0267 0



Paralleling mandrel 1.9 - 2.2 for wstg 1.9 - 2.2
1 piece
REF 430 0270 0

Dimensions

Product	REF	Ø	Height
Patrix vks-oc uni/HL	430 0675 0	Stud 1.7 mm	2.2 mm
	430 0550 0	Stud 2.2 mm	3.2 mm

- vks-oc rs 2.2 abutments
- vks-oc extracoronal use
- **vks-oc uni**
- vks-oc exchangeable stud
- vks-sg exchangeable stud
- vks-sg
- vks-sg matrix housing
- vks-sg bar patrix

Important information about processing of attachments, see catalogue page 129

vks-oc uni



Root cap is modelled in the usual way. Bring the vks-oc uni into the correct position using the paralleling mandrel and fix with hot wax.



Remove paralleling mandrel and apply rich coat of hot wax onto the transition zone of vks-oc uni/root cap. The one-piece casting facilitates processing.



Casting is carried out according to standard criteria. After casting, the vks-oc unit is only slightly polished to high lustre using a textile buff.



The blue blocking out disc is placed onto the patrix below the equator. Plug the plastic matrix into the metal matrix housing using the inserting instrument.



Press the metal matrix housing with the plastic matrix onto the patrix. The blocking out disc ensures parallel position of the matrix.



For try-in, fix the metal matrix at the acrylic base plate using a small amount of acrylic.



Matrix housing in the set-up. The picture shows that only little space is required. For try-in, remove the blocking out discs.



For completion, place on the blocking out disc and cover root cap with liquid silicone. Do not cover the occlusal part of the stud.



Press the metal matrix housing with integrated plastic matrix into the silicone that is still soft.



The denture is completed in the usual way after the silicone cover has hardened.



Basal view of completed denture: To change the snap friction, remove the plastic matrix with a round bur and insert a different plastic matrix.

Bar variation



Place a vks-oc uni in the correct position on a completely waxed-up bar using the paralleling mandrel and fix with hot wax.

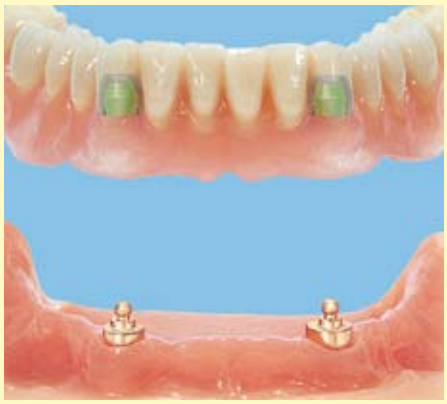


Remove paralleling mandrel and apply wax onto the transition zone of vks-oc uni/wax bar.



Casting is carried out in the usual way. vks-oc uni is only slightly polished to high lustre using a textile buff.

vks-oc uni



Rigid matrixes for fixation in an acrylic denture.



Matrices red
vks-oc Ø 1.7 mm
high snap
8 pieces
REF 430 0656 0
vks-oc Ø 2.2 mm
8 pieces
REF 430 0546 0



Matrices green
vks-oc Ø 1.7 mm
reduced snap
8 pieces
REF 430 0655 0
vks-oc Ø 2.2 mm
8 pieces
REF 430 0544 0



Matrices yellow
vks-oc Ø 1.7 mm
medium snap
8 pieces
REF 430 0659 0
vks-oc Ø 2.2 mm
8 pieces
REF 430 0545 0



Metal matrix housing
mmg vks-oc Ø 1.7 mm
2 pieces
REF 430 0697 0
8 pieces
REF 430 0661 0
mmg vks-oc Ø 2.2 mm
2 pieces
REF 430 0696 0
8 pieces
REF 430 0547 0

Accessories:



Matrix inserting instrument
vks-oc Ø 1.7 mm
1 piece
REF 430 0621 0



Metal transfer patrices
vks-oc Ø 2.2 mm
8 pieces
REF 430 0548 2



Matrix housings tmg
vks-oc Ø 1.7 mm
2 pieces
REF 430 0699 0
vks-oc Ø 2.2 mm
2 pieces
REF 430 0698 0



Metal transfer patrices
vks-oc Ø 1.7 mm
8 pieces
REF 430 0662 0



Matrix inserting instrument
vks-oc Ø 2.2 mm
1 piece
REF 430 0548 0



Blocking out discs
vks-oc Ø 1.7 mm
8 pieces
REF 430 0652 0
vks-oc Ø 2.2 mm
12 pieces
REF 430 0540 0

Assortment

Vario-Stud-Snap
vks universal 1.7
14 pieces
2 Matrices each red, yellow, green
2 Metal matrix housings
2 Blocking out discs
2 Patrices
1 Matrix inserting instrument
1 Paralleling mandrel
REF 430 0674 0

Assortment

Vario-Stud-Snap
vks universal 2.2
14 pieces
2 Matrices each red, yellow, green
2 Metal matrix housings
2 Blocking out discs
2 Patrices
1 Matrix inserting instrument
1 Paralleling mandrel
REF 430 0532 0

Note: Parallel alignment of vks-oc matrices (only rigid) and vks-oc rs matrices (either rigid or resilient) on root caps is always carried out using a blocking out disc. The processing methods of vks-oc matrices and vks-oc rs matrices are identical. vks-oc and vks-oc rs require different blocking out discs, matrix housings and inserting instruments.

Additional assortments can be found in the price list!

Dimensions

Product	REF	Ø	Height
Metal matrix housing vks-oc 1.7	430 0697 0	3.5 mm	2.3 mm
Matrix housings vks-oc 1.7	430 0699 0	3.5 mm	2.3 mm
Metal matrix housing vks-oc 2.2	430 0696 0	4.3 mm	3.1 mm
Matrix housings vks-oc 2.2	430 0698 0	4.3 mm	3.1 mm
Matrices vks-oc 1.7	430 0655 0	2.7 mm	2.0 mm
	430 0659 0	2.7 mm	2.0 mm
	430 0656 0	2.7 mm	2.0 mm
Matrices vks-oc 2.2	430 0544 0	3.3 mm	2.7 mm
	430 0545 0	3.3 mm	2.7 mm
	430 0546 0	3.3 mm	2.7 mm
Blocking out disc vks-oc 1.7	430 0652 0	2.8 mm	0.4 mm
Blocking out disc vks-oc 2.2	430 0540 0	3.5 mm	0.4 mm

- vks-oc rs 2.2 abutments
- vks-oc extracoronal use
- **vks-oc uni**
- vks-oc exchangeable stud
- vks-sg exchangeable stud
- vks-sg
- vks-sg matrix housing
- vks-sg bar patrix

Important information about processing of attachments, see catalogue page 129

vks-oc uni



Use on root caps for fixation in the CoCr structure.


Fig. 1:1

Patrix
vks-oc uni
Ø 1.7 mm
8 pieces
REF 430 0676 0
50 pieces
REF 430 0675 0


Fig. 1:1

Patrix
vks-oc uni
Ø 2.2 mm
8 pieces
REF 430 0538 0
50 pieces
REF 430 0550 0


Fig. 1:1

Patrix vks-oc uni
Ø 1.7 mm
HL-patrix
cast-on
2 pieces
REF 430 0701 0


Fig. 1:1

Patrix vks-oc uni
Ø 2.2 mm
HL-patrix
cast-on
2 pieces
REF 430 0700 0

Accessories:



vks Paralleling mandrel oc/sg
1 piece
ph-vks 1.7
REF 430 0677 0
ph-vks 2.2
REF 360 0113 0


1

Root cap is modelled in the usual way. Bring the vks-oc uni into the correct position using the paralleling mandrel and fix with hot wax.


2

Remove paralleling mandrel and apply rich coat of hot wax onto the transition zone of vks-oc uni/root cap. The one-piece casting facilitates processing.


3

Casting is carried out according to standard criteria. After casting, the vks-oc unit is only slightly polished to high lustre using a textile buff.


4


5

Fill undercuts between the blocking out disc and the marginal line with blocking out wax and block out and duplicate the chrome cobalt framework in the usual way.


6


7

In order to wax up the chrome cobalt framework over the matrix housings, use the special wax matrix housings. They ensure correct thickness of the chrome cobalt frame. Complete the chrome cobalt framework in the usual way.

Dimensions

Product	REF	Ø	Height
Patrix vks-oc uni/HL	430 0675 0	Stud 1.7 mm	2.2 mm
	430 0550 0	Stud 2.2 mm	3.2 mm

vks-oc uni


Fig. 1:1

Rigid matrices
vks-oc rs Ø 2.2 mm
green – reduced soft-snap-in effect
8 pieces
REF 440 0070 8


Fig. 1:1

Rigid matrices
vks-oc rs Ø 2.2 mm
yellow – medium soft-snap-in effect
8 pieces
REF 440 0080 8


Fig. 1:1

Rigid matrices
vks-oc rs Ø 2.2 mm
red – high soft-snap-in effect
8 pieces
REF 440 0090 8


Fig. 1:1

Matrix housings
vks-oc rs 2.2
for glueing or laser-welding
2 pieces
REF 440 0020 2


Fig. 1:1

Wax matrix housing
vks-oc rs 2.2
8 pieces
REF 440 0100 8

50 pieces
REF 440 0105 0


Fig. 1:1

Blocking out discs
vks-oc rs 2.2
8 pieces
REF 440 0010 8


Fig. 1:1

Duplicating matrix
vks-oc rs 2.2
8 pieces
REF 440 0110 8



Matrix pliers
vks-oc Ø 2.2 mm + zg
1 piece
REF 310 0000 6

Assortment

Vario-Stud-Snap
vks-oc rs 2.2
18 pieces
2 Rigid matrices each, red, yellow, green
2 Matrix housings
2 Duplicating matrix inkl. 2 Matrices yellow
2 Wax matrix housing
2 Blocking out discs
2 Patrices
1 Matrix inserting instrument
1 Paralleling mandrel

REF 440 0001 0

Accessories:



Matrix inserting instrument
vks-oc rs Ø 2.2 mm
1 piece
REF 360 0116 1



Paralleling mandrel universal 2
vks-oc rs Ø 2.2 mm
1 piece
REF 360 0116 0



DTK-adhesive
REF 540 0010 6

Dimensions

Product	REF	Ø	Height
Matrix housings for glueing vks-oc rs 2.2	440 0020 2	4.0 mm	3.2 mm
Duplicating matrix vks-oc rs 2.2	440 0110 8	4.4 mm	3.4 mm
Blocking out disc vks-oc rs 2.2	440 0010 8	4.4 mm	0.75 mm

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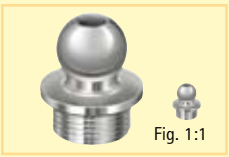
vks-oc exchangeable stud



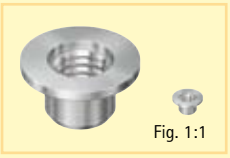
Safety, precision and biocompatibility due to easily exchangeable titanium stud.



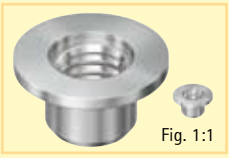
Stud-head screw vks-oc/sg 1.7 titanium
1 piece
REF 450 0005 6



Stud-head screw vks-oc/sg 2.2 titanium
1 piece
REF 450 0004 7



Thread sleeve vks-oc 1.7
1 piece
HL
REF 450 0005 4
platinum-iridium
REF 450 0005 5



Thread sleeve vks-oc 2.2
1 piece
HL
REF 450 0004 6
platinum-iridium
REF 450 0005 3

Assortment

vks-oc 1.7 exchangeable stud
5 pieces
1 Stud-head screw
1 Thread sleeve

1 Fixation screw
1 Screwdriver
1 Paralleling mandrel
REF 450 0005 8

Assortment

vks-oc 2.2 exchangeable stud
5 pieces
1 Stud-head screw
1 Thread sleeve

1 Fixation screw
1 Screwdriver
1 Paralleling mandrel
REF 450 0004 5

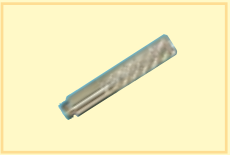
Accessories:



vks Paralleling mandrel oc/sg
1 piece
ph-vks 1.7
REF 430 0677 0
ph-vks 2.2
REF 360 0113 0



Screwdriver
short, hexagon
1 piece
REF 330 0069 0



Fixation screw
M 2
1 piece
REF 450 0004 8
M 1.6
1 piece
REF 450 0005 7



Screwdriver
Stud-head screw
vks oc/sg 1.7
1 piece
REF 330 0116 4

Tap vks exchangeable stud 1.7
1 piece
REF 460 0011 7

Tap vks exchangeable stud 2.2
1 piece
REF 460 0012 2

- vks-oc rs 2.2 abutments
- vks-oc extracoronal use
- vks-oc uni
- **vks-oc exchangeable stud**
- vks-sg exchangeable stud
- vks-sg
- vks-sg matrix housing
- vks-sg bar patrix

Important information about processing of attachments, see catalogue page 129

vks-oc exchangeable stud



The stud-head screw is only slightly screwed into the thread sleeve and held to the root cap wax-up using the paralleling mandrel.



The attachment patrix is waxed to the wax model in the determined path of insertion.



Processing is continued using vks-oc 2.2 mm rigid matrices



The stud-head screw is turned out (anticlockwise) of the thread sleeve using the screwdriver.



Prior to investing the model, the stud-head screw must be replaced by the fixation screw.



Colloid graphite is applied onto the thread area of the fixation screw; then the screw is turned into the thread sleeve exerting minimum force.



The casting is sand-blasted and the fixation screw is turned out. The root cap is finished, the stud-head screw turned in and polished to high lustre using titanium polishing paste.



or vks-oc rs 2.2 mm rigid matrices.

Dimensions



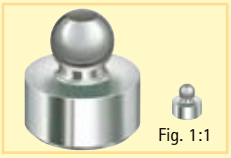
Product	REF	Ø	Thread	Height
Stud-head screw vks-oc/sg 1.7	450 0005 6	Stud 1.7 mm	M 1.6 x 0.2	2.9 mm
Stud-head screw vks-oc/sg 2.2	450 0004 7	Stud 2.2 mm	M 2 x 0.25	3.5 mm
Thread sleeve vks-oc 1.7	450 0005 4	3.4 mm	–	1.7 mm
Thread sleeve vks-oc 2.2	450 0004 6	3.4 mm	–	1.7 mm

vks-oc/sg exchangeable stud with adhesive sleeve





Auxiliary modelling element 1.7
1 piece
REF 450 0007 3



Auxiliary modelling element 2.2
1 piece
REF 450 0007 5



Thread sleeve titanium 1.7
2 pieces
REF 450 0007 4



Thread sleeve titanium 2.2
2 pieces
REF 450 0007 6

Accessories:



DTK-adhesive
REF 540 0010 6

One auxiliary modelling element for oc and sg.

The glue-in titanium thread sleeve as a low-cost alternative to the cast-on thread sleeve.



The auxiliary modelling element is integrated with the paralleling mandrel into the model according to the path of insertion.



The shape of the auxiliary modelling element allows to recognize the final alignment of the attachment.



Remove the auxiliary modelling element prior to investing.



After polishing, turn the stud-head screw into the thread sleeve and glue in the sandblasted seating using DTK adhesive.



Place the matrix on the stud-head screw and continue processing in the usual way.



Processing of vks-oc is carried out using the same auxiliary modelling element.

Dimensions

Product	REF	Thread	Height
Thread sleeve titanium vks-oc/sg 1.7	450 0007 4	M 1.6 x 0.2	1.9
Thread sleeve titanium vks-oc/sg 2.2	450 0007 6	M 2 x 0.25	1.9

Main catalogueue

Processing and application tips as well as product advantages in 12 languages on 408 pages.

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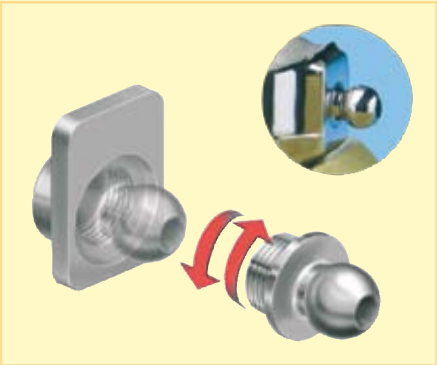
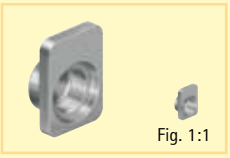
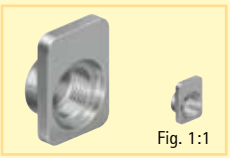
vks-sg exchangeable stud



Cast-on thread sleeve and exchangeable titanium stud for precision, biocompatibility and reliability.



Thread sleeve vks-sg 1.7
1 piece
HL
REF 450 0005 9
platinum-iridium
REF 450 0006 0



Thread sleeve vks-sg 2.2
1 piece
HL
REF 450 0005 1
platinum-iridium
REF 450 0005 2



Stud-head screw vks-oc/sg 1.7
1 piece
titanium
REF450 0005 6



Stud-head screw vks-oc/sg 2.2
1 piece
titanium
REF 450 0004 7

Assortment

vks-sg 1.7 exchangeable stud
5 pieces
1 Stud-head screw
1 Thread sleeve
1 Fixation screw
1 Screwdriver
1 Paralleling mandrel
REF 450 0006 1

Assortment

vks-sg 2.2 exchangeable stud
5 pieces
1 Stud-head screw
1 Thread sleeve
1 Fixation screw
1 Screwdriver
1 Paralleling mandrel
REF 450 0004 9

Accessories:



vks Paralleling mandrel oc/sg
1 piece
ph-vks 1.7
REF 430 0677 0
ph-vks 2.2
REF 360 0113 0



Screwdriver
short, hexagon
1 piece
REF 330 0069 0



Fixation screw
M 2
1 piece
REF 450 0004 8
M 1.6
1 piece
REF 450 0005 7



Screwdriver
Stud-head screw
vks oc/sg 1.7
1 piece
REF 330 0116 4

Tap vks exchangeable stud 1.7
1 piece
REF 460 0011 7

Tap vks exchangeable stud 2.2
1 piece
REF 460 0012 2

- vks-oc rs 2.2 abutments
- vks-oc extracoronal use
- vks-oc uni
- vks-oc exchangeable stud
- **vks-sg exchangeable stud**
- vks-sg
- vks-sg matrix housing
- vks-sg bar patrix

Important information about processing of attachments, see catalogue page 129

vks-sg exchangeable stud



The stud-head screw is only slightly screwed into the thread sleeve and held to the wax model using the paralleling mandrel.



The attachment patrix is waxed to the wax model in the path of insertion of the shear distributor with parallel interlock.



The attachment patrix is waxed to the wax model in the path of insertion of the shear distributor with parallel interlock.



The stud head screw is turned out (anticlockwise) of the thread sleeve using the screwdriver.



Colloid graphite is applied onto the thread of the fixation screw; then the screw is turned into the thread sleeve exerting minimum force.



The casting is sandblasted and the fixation screw is turned out. The crowns are finished and the stud-head screw is turned in.



The stud-head screw is polished to high lustre using titanium polishing paste.



The yellow matrix is placed on the stud and the model is prepared for duplicating. Further processing with the Vario-Stud-Snap vks-sg.

Dimensions





Product	REF	Ø	Depth	Thread	Width	Height
Stud-head screw vks-oc/sg 1.7	450 0005 6	Stud 1.7 mm		M 1.6 x 0.2		2.9 mm
Stud-head screw vks-oc/sg 2.2	450 0004 7	Stud 2.2 mm		M 2 x 0.25		3.5 mm
Thread sleeve HL vks-sg 1.7	450 0005 9	–	1.7 mm	1.7 mm	3.0 mm	4.0 mm
Thread sleeve platinum-iridium vks-sg 1.7	450 0006 0	–	1.7 mm	1.7 mm	3.0 mm	4.0 mm
Thread sleeve HL vks-sg 2.2	450 0005 1	–	1.7 mm	–	3.9 mm	5.1 mm
Thread sleeve platinum-iridium HL vks-sg 2.2	450 0005 2	–	1.7 mm	–	3.9 mm	5.1 mm

vks-sg **The complete product range**



With integral shear distributor.



For custom applications.



For use on bars in tooth-bounded gaps when fabricating complex restorations.



Matrices
green – reduced snap-in friction
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0668 0
Ø 2.2 mm
8 pieces
REF 430 0541 0



Matrices
yellow – regular snap-in friction
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0666 0
Ø 2.2 mm
8 pieces
REF 430 0542 0



Matrices
red – high snap-in friction
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0664 0
Ø 2.2 mm
8 pieces
REF 430 0543 0



Vario-Stud-Snap
vks-sg/sv 1.7
Refill package:
Patrices
8 pieces
REF 430 0735 3



Patrix sg
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0670 0
Ø 2.2 mm
8 pieces
REF 430 0537 0



Patrix sg universal
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0676 0
Ø 2.2 mm
8 pieces
REF 430 0538 0



vks-Patrix universal HL
Refill package:
Ø 1.7 mm
2 pieces
REF 430 0701 0
Ø 2.2 mm
2 pieces
REF 430 0700 0



vks Paralleling mandrel oc/sg
1 piece
ph-vks 1.7
REF 430 0677 0
ph-vks 2.2
REF 360 0113 0



Matrix inserting instrument
vks-oc Ø 1.7 mm
1 piece
REF 430 0621 0
vks-oc Ø 2.2 mm
1 piece
REF 430 0548 0



Metal transfer patrices
vks-oc Ø 1.7 mm
8 pieces
REF 430 0662 0
vks-oc Ø 2.2 mm
8 pieces
REF 430 0548 2



Paralleling mandrel universal
for vks-sg/sv
REF 360 0115 1

Assortments

vks assortment	35 pieces	**REF 430 0530 0**
vks assortment sg/uni 1.7	25 pieces	**REF 430 0651 0**
vks assortment sg/2.2	10 pieces	**REF 430 0533 0**
vks assortment sg 1.7	10 pieces	**REF 430 0673 0**
vks assortment sg/sv 1.7	9 pieces	**REF 430 0735 2**



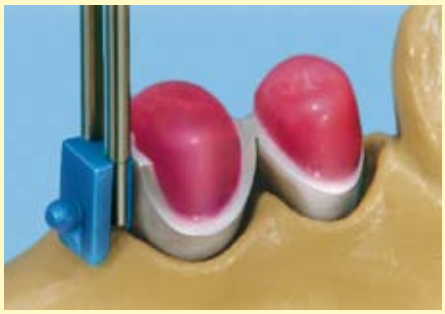
Dimensions

Product	REF	Depth	Width	Height
Patrix vks-sg 1.7	430 0670 0	2.7 mm	3.0 mm	4.1 mm
Patrix vks-sg 1.7 sv	430 0735 3	4.3 mm	3.5 mm	4.5 x 5.5 mm
Patrix vks-sg 2.2	430 0537 0	3.5 mm	3.8 mm	5.4 mm
Matrix vks-sg 1.7	430 0668 0	2.3 mm	3.2 mm	3.1 mm
	430 0666 0	2.3 mm	3.2 mm	3.1 mm
	430 0664 0	2.3 mm	3.2 mm	3.1 mm
Matrix vks-sg 2.2	430 0541 0	2.85 mm	4.2 mm	4.1 mm
	430 0542 0	2.85 mm	4.2 mm	4.1 mm
	430 0543 0	2.85 mm	4.2 mm	4.1 mm

- vks-oc rs 2.2 abutments
- vks-oc extracoronal use
- vks-oc uni
- vks-oc exchangeable stud
- vks-sg exchangeable stud
- **vks-sg**
- vks-sg matrix housing
- vks-sg bar patrix

Important information about processing of attachments, see catalogue page 129

vks-sg



Shear distributor vks-sg/sv 1.7
sg/sv 1.7 patrix with a completely new snap-in attachment including a shear distributor with 1.7 mm stud. No additional shear distributor required.



Vario-Stud-Snap vks-sg/sv 1.7
Assortment
REF 430 0735 2



Paralleling mandrel
for the sg/sv 1.7 patrix. Its slender design simplifies waxing the attachment onto the crown.
REF 360 0115 1



After casting, the stud and friction surfaces must not be trimmed.



The high lustre surfaces are perfect for the friction snap-in matrix to fit precisely.



The model must always be duplicated with the yellow matrix in position. This ensures that the housing will be perfect for setting the snap-in friction as required.



The investment model can be cast using standard methods.

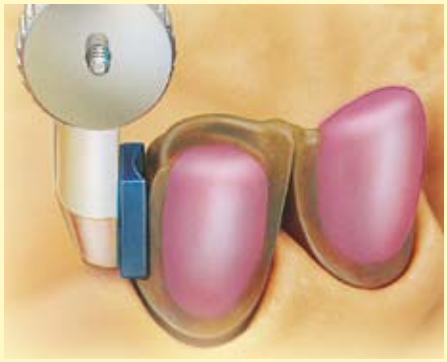


The precisely reproduced matrix is integrated into the pattern.



The outer coping, with the matrix pressed into place, guarantees long-term, gentle snap-in-friction.

If the vks attachment is to function perfectly it is essential that the patient finds the "snap-in spot" with the fingers and presses on the restoration to lock it into place.



vks-sg for free-end dentures



sg patrix
The concave waxing surface and mirror-finish on the resin provide the best possible conditions for producing precise castings.

A shear distributor with Interlock milled at 0° is required if the Vario-Stud-Snap attachment matrix guarantee is to be honoured.



The concave waxing surface on the sg patrix permits it to be fitted in close proximity to the crown.



The diameter of the stud must not be modified.



No spacer wax should be applied beneath the matrix during blocking out so that the matrix can be fully enveloped in metal.



The framework pattern must cover the matrix completely.

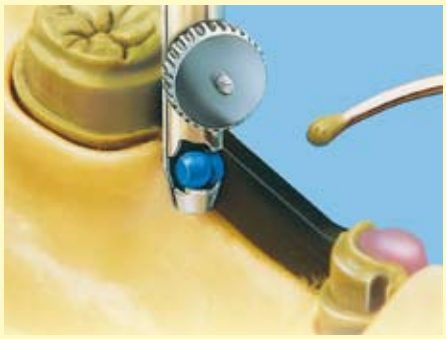


Trim the chrome cobalt framework as usual and fit it down. Coat the matrix housing with wax when polishing the framework.



Use the inserting instrument to insert the matrix with the desired friction.

vks-sg



For custom applications



Patrix sg universal
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0676 0
Ø 2.2 mm
8 pieces
REF 430 0538 0



vks-Patrix universal HL
Refill package:
Ø 1.7 mm
2 pieces
REF 430 0701 0
Ø 2.2 mm
2 pieces
REF 430 0700 0



Matrices green – reduced snap-in friction
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0668 0
Ø 2.2 mm
8 pieces
REF 430 0541 0



Matrices yellow – regular snap-in friction
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0666 0
Ø 2.2 mm
8 pieces
REF 430 0542 0



Matrices red – high snap-in friction
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0664 0
Ø 2.2 mm
8 pieces
REF 430 0543 0



Wax bars - save time when waxing up bars/attachments

1.6 x 8 x 50 mm
REF 430 0265 0
1.9 x 4 x 50 mm
REF 430 0266 0
2.2 x 6 x 50 mm
REF 430 0267 0



vks Paralleling mandrel oc/sg
1 piece
ph-vks 1.7
REF 430 0677 0
ph-vks 2.2
REF 360 0113 0



Matrix inserting instrument
vks-oc Ø 1.7 mm
1 piece
REF 430 0621 0
vks-oc Ø 2.2 mm
1 piece
REF 430 0548 0



Paralleling mandrels for wax bars

Paralleling mandrel 1.6 for wstg 1.6
1 piece
REF 430 0268 0

Paralleling mandrel 1.9 – 2.2 for wstg 1.9 – 2.2
1 piece
REF 430 0270 0



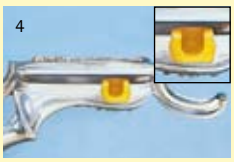
Once the cost-effective, one-piece casting has been completed, it can be blocked out for duplicating.



The investment model must be fabricated using a yellow matrix.



The bar and matrix are simply coated with wax. The remaining sections of the pattern should be waxed up as required.



The Vario-Stud-Snap sg retains every type of denture securely. The dentist can select the friction according to the patient's needs.

- vks-oc rs 2.2 abutments
- vks-oc extracoronal use
- vks-oc uni
- vks-oc exchangeable stud
- vks-sg exchangeable stud
- vks-sg
- **vks-sg matrix housing**
- vks-sg bar patrix

Important information about processing of attachments, see catalogue page 129

vks-sg matrix housing

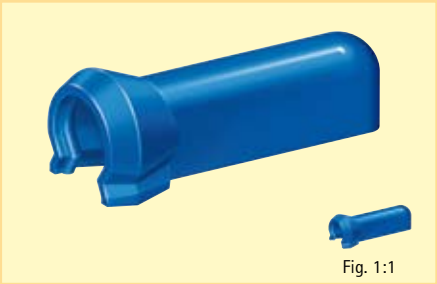


Fig. 1:1

Matrix housing
vks-sg 1.7
8 pieces
REF 430 0670 8

The matrix housing ensures reliable hold of the matrix and simultaneously allows to obtain a stress-free CoCr structure thanks to glueing.

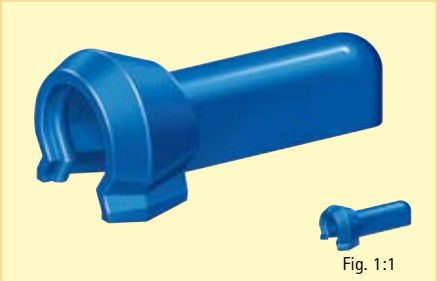


Fig. 1:1

Matrix housing
vks-sg 2.2
8 pieces
REF 430 0680 8



Prepare the crown in the usual way.



Insert the green matrix into the plastic matrix housing and place it on the stud patrix.



Use Pi-Ku-Plast for modelling the shear distributor and connect it with the matrix housing. Remove the matrix prior to casting.



Sandblast the appendix before glueing and attach retentions.



Use DTK adhesive to glue matrix housing and CoCr structure together.



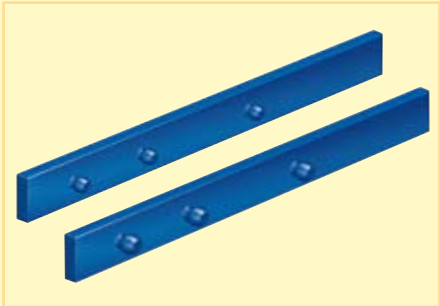
The appendix can also be polymerized directly into the plastic saddle.
A shear distributor is always required.

vks-sg bar patrix



vks-sg bar patrix titanium 1.7
1 piece
without stud-head screw
REF 450 0SA1 7

vks-sg bar patrix titanium 2.2
1 piece
without stud-head screw
REF 450 0SA2 2



vks-sg bar patrix 1.7
8 pieces
REF 430 0800 8

vks-sg bar patrix 2.2
8 pieces
REF 430 0810 8

Vario-Stud-Snap bar patrix.
Bar element with three integrated vks-studs in the sizes 1.7 or 2.2 mm. A titanium bar is also available for the exchangeable stud.

Assortment

vks-sg bar patrix 1.7
13 pieces
3 Matrices each
green, yellow, red

2 Bar patrixes
1 Matrix inserting instrument
1 Paralleling mandrel

REF 430 0806 0

Assortment

vks-sg bar patrix 2.2
13 pieces
3 Matrices each
green, yellow, red

2 Bar patrixes
1 Matrix inserting instrument
1 Paralleling mandrel

REF 430 0816 0



Stud-head screw vks-oc/sg 1.7 titanium
1 piece
REF 450 0005 6



Screwdriver
Stud-head screw vks-oc/sg 1.7
1 piece
REF 330 0116 4



Paralleling mandrel 1.6
1 piece
REF 430 0623 0



Stud-head screw vks-oc/sg 2.2 titanium
1 piece
REF 450 0004 7



Screwdriver
short, hexagon
1 piece
REF 330 0069 0



Matrix inserting instrument
vks 1.7, 1 piece
REF 430 0621 0
vks 2.2, 1 piece
REF 430 0548 0



Matrices green – reduced snap-in friction
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0668 0
Ø 2.2 mm
8 pieces
REF 430 0541 0



Matrices yellow – regular snap-in friction
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0666 0
Ø 2.2 mm
8 pieces
REF 430 0542 0



Matrices red – high snap-in friction
Refill package:
Ø 1.7 mm
8 pieces
REF 430 0664 0
Ø 2.2 mm
8 pieces
REF 430 0543 0



Time is saved during waxing up thanks to the integrated vks studs. The bar is cut to the proper length using a separating disc and fitted into the gap.



Use paralleling mandrel for waxing up the bar patrix to the crowns according to the direction of insertion.



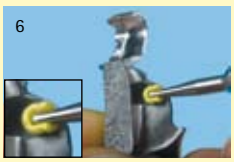
The cast bar and any undercuts below the matrix are blocked out (filled) with wax.



The bar and the matrix are simply coated with wax. The remaining sections of the pattern should be waxed up as required.



The chrome cobalt framework is fitted down and polished to high lustre using Brepol.



Use the inserting instrument to press the corresponding matrix in the housing.

- Vario-Soft 3
- Vario-Soft 3 sv
- Vario-Soft 3 sv bridge-sectioning attachment
- Vario-Soft 3 Matrizengehäuse
- Vario-Soft 3 mini
- Vario-Soft 3 mini sv
- Inverto Plus
- Interlock

Rod attachments



Vario-Soft 3



Vario-Soft 3 **with integrated paralleling mandrel**





Vario-Soft 3 **sv**



Vario-Soft 3 sv **bridge-sectioning attachment**



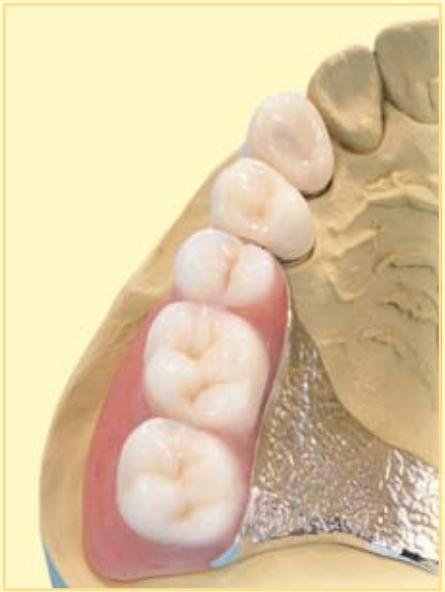
Vario-Soft 3 **matrix housing**



Vario-Soft 3 **mini**



Vario-Soft 3 **mini sv**



Vario-Soft 3

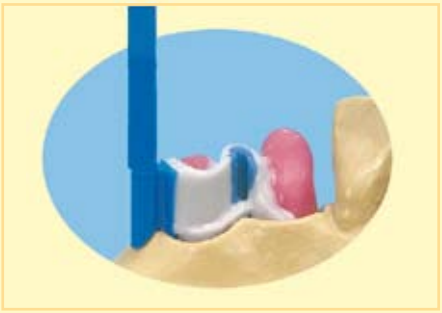



Fig. 1:1

offers numerous application possibilities using the same matrices

vs 3 Patrix
8 pieces
REF 430 0520 0




Fig. 1:1

vs 3 Patrix patrix with-outparalleling mandrel
8 pieces
REF 430 0737 0

Soft matrices
Matrixes that have proved their reliability for 15 years provide safety and ensure high comfort of wear for the patient.

Soft soft matrices
Special soft plastic compensates small divergences and minor processing imperfections.


Fig. 1:1

Duplicating matrix
8 pieces
REF 430 0737 2


Fig. 1:1

green - reduced friction
8 pieces
REF 430 0519 0


Fig. 1:1

green - reduced friction
8 pieces
REF 430 0565 0


Fig. 1:1

Wax matrix housing
8 pieces
REF 430 0521 0

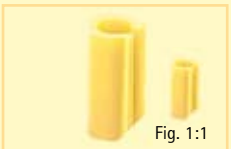


Fig. 1:1

yellow - regular friction
8 pieces
REF 430 0518 0


Fig. 1:1

yellow - regular friction
8 pieces
REF 430 0564 0




Fig. 1:1

red - high friction
8 pieces
REF 430 0517 0


Fig. 1:1

red - high friction
8 pieces
REF 430 0563 0

Assortment

13 pieces
Vario-Soft 3
2 vs 3 Patrices
1 Matrix inserting instrument
2 Duplicating matrix
2 Wax matrix housing
2 Soft Matrices, green - reduced friction
2 Soft Matrices, yellow - regular friction
2 Soft Matrices, red - high friction
REF 430 0516 0

Assortment

13 pieces
Vario-Soft 3 Soft
2 vs 3 Patrices
1 Matrix inserting instrument
2 Duplicating matrix
2 Wax matrix housing
2 Soft Soft Matrices, green - reduced friction
2 Soft Soft Matrices, yellow - regular friction
2 Soft Soft Matrices, red - high friction
REF 430 0561 0

Assortment

13 pieces
Vario-Soft 3 without integrated paralleling mandrel
2 vs 3 Patrices without paralleling mandrel
1 Matrix inserting instrument
2 Duplicating matrix
2 Wax matrix housing
2 Soft Matrices, green - reduced friction
2 Soft Matrices, yellow - regular friction
2 Soft Matrices, red - high friction
REF 430 0738 2

- **Vario-Soft 3**
- Vario-Soft 3 sv
- Vario-Soft 3 sv bridge-sectioning attachment
- Vario-Soft 3 matrix housing
- Vario-Soft 3 mini
- Vario-Soft 3 mini sv
- Inverto Plus
- Interlock

Vario-Soft 3



After casting, patrices must only be processed using rubber polishers and high-lustre buffs.



The white duplicating matrix that has been adapted from the basal direction provides the perfect precondition for all other types of friction.



Master model prepared for duplicating.



Wax matrix housing on the investment material model guarantees a uniform chrome cobalt housing.



Completed wax pattern of the later chrome cobalt framework.



The use of the inserting instrument ensures precise positioning of the matrices.



Dimensions

Product	REF	Ø	Depth	Width	Height	Max. reduction
vs 3 Patrix	430 0737 0	1.8 mm	3.1 mm	3.0 mm	6.0/7.0 mm	3.0 mm
vs 3 Matrix	430 0519 0	–	3.6 mm	3.2 mm	7.0 mm	3.0 mm
	430 0518 0	–	3.6 mm	3.2 mm	7.0 mm	3.0 mm
	430 0517 0	–	3.6 mm	3.2 mm	7.0 mm	3.0 mm

Accessories:



Paralleling mandrel universal
for vks-sg/sv
REF 360 0115 1

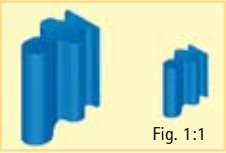
Vario-Soft 3 sv



with integrated shear distributor

saves time and provides perfect options for esthetic design while ensuring maximum transfer of forces.





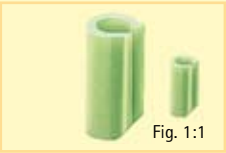
Patrix with shear distributor
8 pieces
REF 430 0737 4



Duplicating matrix
8 pieces
REF 430 0737 2



Wax matrix housing
8 pieces
REF 430 0521 0



Soft Matrix
green - reduced friction
8 pieces
REF 430 0519 0



Soft Matrix
yellow - regular friction
8 pieces
REF 430 0518 0



Soft Matrix
red - high friction
8 pieces
REF 430 0517 0



Matrix inserting instrument
2 pieces
REF 430 0736 6

Accessories:



Paralleling mandrel universal
for vks-sg/sv
REF 360 0115 1

Assortment

13 pieces
Vario-Soft 3 sv
2 vs 3 Patrices with integrated shear distributor
1 Matrix inserting instrument
2 Duplicating matrix
2 Wax matrix housing
2 Soft Matrices, green - reduced friction
2 Soft Matrices, yellow - regular friction
2 Soft Matrices, red - high friction
REF 430 0738 3

Dimensions



Product	REF	Ø	Depth	Width	Height	Max. reduction
vs 3 sv Patrix	430 0737 4	8 mm	5,3 mm	3.5 mm	6.0/7.0 mm	3.0 mm
vs 3 Matrix	430 0519 0	–	3.6 mm	3.2 mm	7.0 mm	3.0 mm
	430 0518 0	–	3.6 mm	3.2 mm	7.0 mm	3.0 mm
	430 0517 0	–	3.6 mm	3.2 mm	7.0 mm	3.0 mm



The patrix based on computer-aided-design includes all requirements of a modern filigree retaining element.



The white duplicating matrix guarantees precision-fit integration of the various friction matrices.



Master model prepared for the production of the investment compound model.



Precise investment material model ensures precision-fit integration of shear distributors.



Due to the integrated shear distributor patient-friendly constructions that protect the periodontium can be achieved.



If other friction values are desired, simply exchange the matrices.



Training Center in Senden/Ulm



The modernly equipped training rooms provide the perfect preconditions for any kind of dental training.
Purely theoretical knowledge is taught just as practical know-how for the dental practice.

Workshops for the dental practice team are supported using a modern dental treatment center. Surgical and other activities can be transmitted to adjacent rooms using multimedia equipment to give observers the feeling to be close and involved. Communication with the trainer is maintained and questions can be asked and answered at any time during the transmission.

In addition to the dental-technical laboratory, dental technicians will find a perfectly equipped functional room.

The pleasant atmosphere in the relaxation area invites male and female participants to exchange opinions and experience among each other.









Combination of „Education and Pleasure“











The sights and the range of sports activities in the regions of Allgäu, Bayrisch-Schwaben and the Bodensee attract numerous visitors during summer and winter. These destinations can be reached within one hour from the bredent training center and offer the possibility of planning a recreative, extended stay in the region.

Vario-Soft 3 sv bridge-sectioning attachment

One attachment ...



Bridge-sectioning attachment with integrated shear distributor suitable for casting-on.



Fig. 1:1

Titanium screw
1 piece
REF 330 0070 0
10 pieces
REF 330 0071 0



Fig. 1:1

Patrix HL suitable for casting-on
2 pieces
REF 430 0730 4



Fig. 1:1

Patrix HL cast-on
1 piece
REF 450 0000 1

Accessories:



Paralleling mandrel universal
1 piece
REF 360 0115 1



Screwdriver short
1 piece
REF 330 0069 0

Assortment

4 pieces, 1 piece each
Patrix HL cast-on
Titanium screw
Patrix HL suitable for casting-on
Screwdriver short
REF 450 0000 2



1 The bridge sectioning attachment that can be cast on is positioned at the wax pattern using the parelleling mandre.



2 After casting, the crown framework is checked and finished.



3 After ceramic veneering, the bridge-sectioning attachment is polished with high-lustre buffs.



4 Fix the cast-on closing ring with titanium screw and cover with Pi-Ku-Plast.



5 The bridge is waxed up in the usual way.



6 Completed and fitted bridge framework. Ready for ceramic veneering.

Dimensions



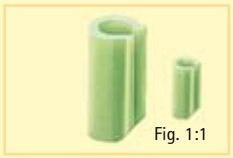
Product	REF	Ø	Depth	Width	Height	Max. reduction
Patrix	450 0000 1	1.8 mm	6.1 mm	3.0 mm	7.6/7.0 mm	2.8 mm
Titanium screw 1.4	330 0070 0	M1.4 x 0.3	–	2.1 mm	4.5 mm	1.2 mm
Patrix HL suitable for casting-on	430 0730 4	2.5 mm	–	–	2.1 mm	1.4 mm

Vario-Soft 3 sv bridge-sectioning attachment

... two indications



In case of loss of the terminal abutment of the bridge the previous patrix becomes the fixation base for the new removable attachment denture.



Matrix
green - reduced friction
8 pieces
REF 430 0519 0



Matrix
yellow - regular friction
8 pieces
REF 430 0518 0



Matrix
red - high friction
8 pieces
REF 430 0517 0



Duplicating matrix
8 pieces
REF 430 0737 2



Wax matrix housing
8 pieces
REF 430 0521 0

Accessories:



Matrix adhesive assortment
REF 540 0103 1

If the plastic attachment matrix is not sufficiently retained in the chrome cobalt framework, this tested and approved adhesive system should be used.



After taking the impression and producing the model, the patrix is slid onto the previous bridge-sectioning attachment and duplicated.



Wax pattern of the later chrome cobalt framework on the investment material model.



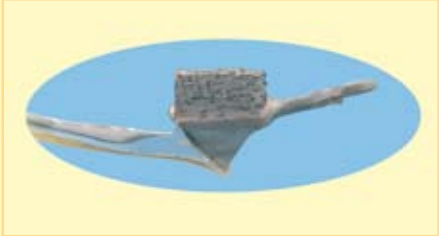
After casting, press in the desired friction matrix.

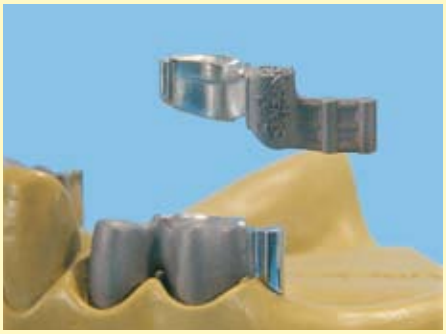


Completed chrome cobalt framework with attachment to prepare the set-up of teeth.

Vario-Soft 3 matrix housing







Made of plastic to produce a precision-fit metal matrix housing with any alloy.


Fig. 1:1

Matrix housing
8 pieces
REF 430 0737 6


Fig. 1:1

Duplicating matrix housing
8 pieces
REF 430 0737 8

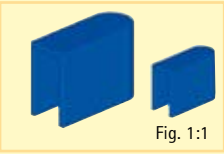


Fig. 1:1

Wax housing
8 pieces
REF 430 0738 0


Fig. 1:1

Matrix yellow soft
regular friction
8 pieces
REF 430 0564 0

Assortment
6 pieces
Vario-Soft vs 3 Matrix housing
2 Matrix housing
2 Duplicating matrix housing
2 Wax housing
REF 430 0738 4

Accessories:



DTK-adhesive
REF 540 0010 6




1 The matrix housing is perfectly suitable for all vs 3 patrices. The shear distributor must be integrated.


2 Slide vs 3 matrix into matrix housing and adapt to the prevailing conditions from the basal direction; then place it onto the patrix.


3 The shear distributor is coated with Pi-Ku-Plast modelling resin and connected to the matrix housing. Retention crystal must not be spread onto the retention area of the matrix housing.


4 Prior to investing, remove vs 3 matrix from the matrix housing and cast in the alloy of your choice.


5 After removing inaccuracies in the cast object, insert the matrix with the inserting instrument.


6 The duplicating matrix housing is placed onto the retention element. The defined wall thickness of 0.2 mm ensures an optimum gap for glueing.


7 The outer shape of the duplicating matrix has also been designed in a way to ensure clamping of the adhesive during glueing.


8 The wax housing is placed onto the retention appendix and connected to the chrom cobalt model.


9 Prior to glueing, vaseline is applied to the master model and the parts to be glued are sandblasted with 110 µ aluminium oxide.


10 A thin coat of DTK adhesive is applied onto the matrix housing and the chrome cobalt framework.


11 which are then glued exerting uniform pressure.





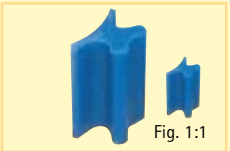
Dimensions

Product	REF	Width	Height	Max. reduction
vs 3 Matrix housing	430 0737 6	1.8 / 4.7 mm	5.0 / 7.6 mm	individual

Vario-Soft 3 mini



The computerized slender design and three patient-specific soft friction types provide reliable retention even in cases of limited space available.



Patrix
8 pieces
REF 430 0732 5



Duplicating matrix
white
8 pieces
REF 430 0732 3



Wax matrix housing
8 pieces
REF 430 0732 0



Matrix inserting instrument
2 pieces
REF 430 0736 5

Accessories:



Paralleling mandrel universal
1 piece
REF 360 0115 1



Matrix
green - reduced friction
8 pieces
REF 430 0731 7



Matrix
yellow - regular friction
8 pieces
REF 430 0731 5



Matrix
red - high friction
8 pieces
REF 430 0731 3



Assortment

13 pieces
Vario-Soft 3 mini
2 Patrices
2 Duplicating matrices
2 Wax matrix housings
2 Matrices, green - reduced friction
2 Matrices, yellow - regular friction
2 Matrices, red - high friction
1 Matrix inserting instrument
REF 430 0731 2



The slender design of the paralleling mandrel ensures safe retention and leaves sufficient space for waxing up.



The duplicating matrix ensures precise fabrication of the metal matrix housing in the chrome cobalt framework.



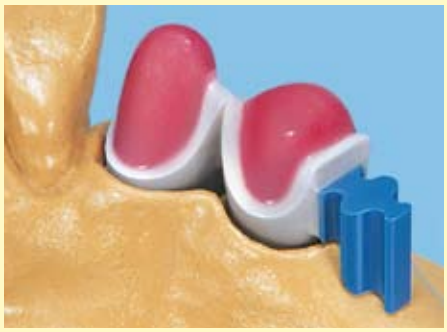
The working steps are carried out in the usual way. This way quality is assured.

Dimensions

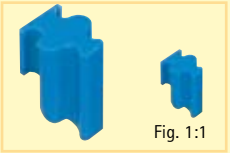


Product	REF	Depth	Width	Height	Max. reduction
vs 3 mini Patrix	430 0732 5	2.3 mm	3.1 mm	6.0 mm	3.0 mm
vs 3 mini Matrix	430 0731 7	2.0 mm	3.0 mm	6.0 mm	3.0 mm
	430 0731 5	2.0 mm	3.0 mm	6.0 mm	3.0 mm
	430 0731 3	2.0 mm	3.0 mm	6.0 mm	3.0 mm

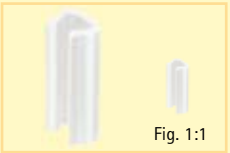
Vario-Soft 3 mini sv



Assortment
13 pieces
Vario-Soft 3 mini sv
2 Patrices
2 Duplicating matrices
2 Wax matrix housings
2 Matrices, green - reduced friction
2 Matrices, yellow - regular friction
2 Matrices, red - high friction
1 Matrix inserting instrument
REF 430 0733 0



Patrix
8 pieces
REF 430 0734 3



Duplicating matrix
white
8 pieces
REF 430 0734 1



Wax matrix housing
8 pieces
REF 430 0733 8

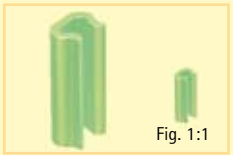


Matrix inserting instrument
2 pieces
REF 430 0736 4

Accessories:



Paralleling mandrel universal
1 piece
REF 360 0115 1



Matrix
green - reduced friction
8 pieces
REF 430 0733 5



Matrix
yellow - regular friction
8 pieces
REF 430 0733 3



Matrix
red - high friction
8 pieces
REF 430 0733 1





The optimized combustion behaviour of the patrix guarantees the precision in the cast object.



The duplicating matrix can be individually adapted to any situation.



The pattern is waxed up according to standard criteria; no new techniques have to be learned.

Dimensions

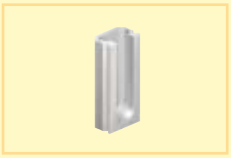


Product	REF	Ø	Depth	Width	Height	Max. reduction
vs 3 mini sv Patrix	430 0734 3	–	4.1 mm	3.5 mm	5.8 mm	2.8 mm
vs 3 mini sv Matrix	430 0733 5	–	2.0 mm	2.6 mm	6.0 mm	2.8 mm
	430 0733 3	–	2.0 mm	2.6 mm	6.0 mm	2.8 mm
	430 0733 1	–	2.0 mm	2.6 mm	6.0 mm	2.8 mm

Inverto Plus



Exchangeable, intracoronal attachment with activating screw.



Matrix
HL suitable for casting-on
1 piece
REF 450 0004 0



Matrix
resin
2 pieces
REF 450 0004 1



Patrix 45°
incl. activating screw, glue-in sleeve and basal screw
1 piece
REF 450 00P4 5



Patrix 90°
incl. activating screw, glue-in sleeve and basal screw
1 piece
REF 450 00P9 0



Basal screw
for 45° and 90°
1 piece
REF 450 0004 4



Activating screw
for 45° type
1 piece
REF 450 00A4 5

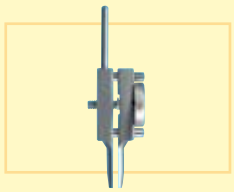


Auxiliary duplicating element, plastic
8 pieces
REF 450 0004 2



Ceramic spacer
1 piece
REF 450 0004 3

Accessories:



Paralleling mandrel universal 2
1 piece
REF 360 0116 0



Glue-in sleeve
for 45° and 90°
1 piece
REF 450 0005 0



Activating screw
for 90° type
1 piece
REF 450 00A9 0

Wax model



Attachment is attached to the wax model with HL or plastic matrix.

Completed casting



Finish the casting and adjust height of attachment.

Duplicating



Replace auxiliary duplicating element with glue-in sleeve and block out undercuts. Duplicate in the usual way.

Glueing in the attachment



Produce CoCr structure and glue the glue-in sleeve onto the model.

Cleaning glueing areas



Clean glueing areas and remove excess material after the adhesive has hardened.

Dimensions



Product	REF	Ø	Depth	Length	Width	Height
Matrix resin/HL	450 0004 0	–	1.55 mm	–	2,4 mm	5.4 mm
Patrix 45°	450 00P4 5	–	5.1 mm	–	2.5 mm	5.0 x 3.1 mm
Patrix 90°	450 00P90	–	5.1 mm	–	2.5 mm	5.0 x 3.1 mm
Glue-in sleeve	450 0005 0	2.5 mm	–	–	3.1 mm	–
Basal screw	450 0004 4	2.0 mm	–	0.8 mm	–	–
Activating screw 45°	450 00A4 5	1,0 mm	–	1.7 mm	–	–
Activating screw 90°	450 00A9 0	1,0 mm	–	4.0 mm	–	–
Auxiliary duplicating element	450 0004 2	2.9 mm	–	–	–	3.2 mm

Interlock





- **Fast and reliable attaching of the Interlock**
- **No damage to the die when drilling the Interlock**
- **Only drill with a groove bur**
- **Defined wall thickness of just 0.4 mm**

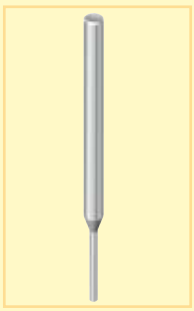
The Interlock is integrated into the model using the paralleling mandrel. Then the circular groove is modelled and milled.

Parallel- and 2°-Interlock made of high-melting special wax.
After determining the direction of insertion, the copings are produced (wax or resin).

Interlock parallel



8 pieces
REF 430 0736 9

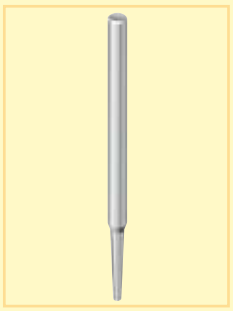


Paralleling mandrel Interlock, parallel
1 piece
REF 360 0116 6

Interlock 2°



8 pieces
REF 430 0736 8



Paralleling mandrel Interlock 2°
1 piece
REF 360 0116 5



Fast and correct attaching of the Interlock with shear distributor ensures quick reworking.



The Interlock is only redrilled (reamed) with the groove bur F538 2H 10. The shear distributor is processed in the usual way.



A reliable and durable removeable denture is obtained, if the correct Interlock is selected.

Dimensions



Product	REF	Ø	Width	Height
Interlock 0°	430 0736 9	0.9 mm	2.2 mm	6.0 mm
Interlock 2°	430 0736 8	1.4 mm	1.0/1.4 mm	6.0 mm

- Activatable frictions cylinder
- Activating attachment
- Vario Compress 1
- Vario Compress 2
- Stud fixator
- UVE Universal Connector Element

Activatable frictions cylinder



Individually adjustable, biocompatible plastic cylinder with titanium screw. Easy integration and safe hold of the denture due to the special shape of the friction cylinder.

Activating attachment



Titanium attachment with integrated silicon as supporting element for attachments and telescopic crowns.

- quick processing
- easy integration
- for snap and friction
- low-priced supporting element

Vario Compress 1



Individually adjustable friction with an adjusting screw.

Vario Compress 2



Friction silicon allows to adjust individual friction for attachments and telescopic crowns.

Stud fixator



as a snap element or to increase the friction for new restorations and repairs.
Ceramic stud and cavity-filling silicone as buffers ensure durability and soft integration of the restoration.

UVE Universal Connector Element



UVE can be used on various implant systems to achieve tension-free structures or combined with other types of implant restorations.

Activatable frictions cylinder





Assortment

4 pieces
2 Friction cylinders
2 Titanium screws

REF 440 0068 0



Assortment

20 pieces
10 Friction cylinders
10 Titanium screws

REF 440 0068 1

Individually adjustable, biocompatible plastic cylinder with titanium screw.
Easy integration and safe hold of the denture due to the special shape of the friction cylinder.

- **individually adustable friction**
- **safe hold in the CoCr structure due to the retention stud**



Friction cylinders
Ceramic spacer
REF 440 0068 3



1 Activatable use of the friction cylinder is possible with the attachment of the VS 3 group or with telescopic crowns.



2 Always use a shear distributor for attachments.



3 The plane surface of the friction cylinder is attached to the patrix.



4 Prior to duplicating, blocking out with wax to the basal direction is carried out and the model is prepared in the usual way.



5 The precise reproduction of the friction cylinder ensures accurate fit in the CoCr structure.



6 Prepare the model for investing in the usual way.



7 The friction cylinder is pressed into the CoCr structure using a blunt object. The screw seat is facing the basal area.



8 Due to the adjustment of the titanium screw, the hold of the denture can be individually adjusted to the respective patient.



Perfectly suitable for telescopic crowns

Dimensions



Product	REF	Thread	Depth	Length	Width	Height
Friction cylinders	440 0068 0	–	2.4 mm	–	2.4 mm	3.2 mm
Titanium screw		M 1.4 x 0.3	–	–	–	2.6 mm

- Activatable frictions cylinder
- **Activating attachment**
- Vario Compress 1
- Vario Compress 2
- Stud fixator
- UVE Universal Connector Element

Activating attachment



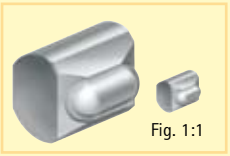


Fig. 1:1

Activating attachment ag
1 piece
REF 450 0003 2

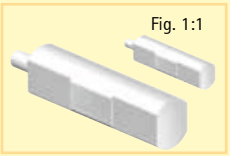


Fig. 1:1

Ceramic spacer ag
1 piece
REF 450 0003 1

Assortment

2 pieces
1 Activating attachment ag
1 Ceramic spacer ag
REF 450 0003 0

Titanium attachment with integrated silicon as retention element for attachments and telescopic crowns.

- **quick processing**
- **easy integration**
- **for snap and friction**
- **low-priced retention element**

Accessories:



DTK adhesive
REF 540 0010 6



The distal surface at the attachment or the telescopic crowns must be at least 3 mm.



Prepare the model for duplicating as usual.



Wax the ceramic spacer in the correct poition with raised part facing the attachment.



Complete the wax model and invest. The ceramic spacer does not need to be completely integrated into the model.



Sandblast the ceramic spacer with 50 µ aluminium oxide, finish the CoCr structure and polish to high luster.



Integrate the activating attachment and check the correct fit.



The openings at the Co structure are sealed with DTK adhesive from both ends, the CoCr structure is completed.



Can be used as friction or snap attachment. A recess is ground into the patrix after completion to ensure the snap function.



Dimensions



Product	REF	Depth	Width	Height
Activating attachment ag	450 0003 2	2.7 mm	3.5 mm	3.0 mm

Vario Compress 1

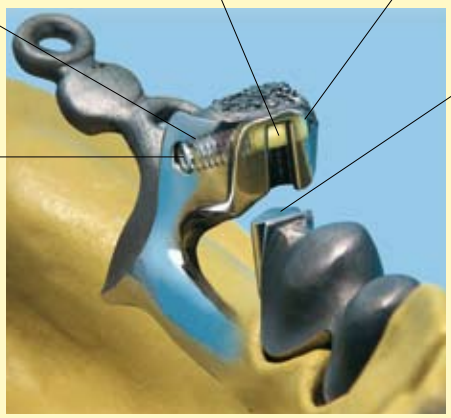
VC 1: Individually adjustable friction with an adjusting screw.

VC 1 adjusting screw
- precision thread
- titanium grade 5
- can be shortened individually

Approximal aperture of the VC 1 friction silicon bearing
- the retention force of the friction silicone is transferred to the primary element through this aperture

Thread turn and bearing for compressable VC1 friction silicon
- initial mould is produced with a ceramic mould in the casting procedure
- special tools for finishing the thread turn and bearing of the friction silicon ensure precise guidance of the components

VC 1 adjusting screw and VC 1 friction silicon
- adjusting screw compresses the silicone individually
- due to the individual compression of the friction silicon the friction of the telescopic anchor is adjusted
- friction silicon features a hollow space inside, under pressure the wall of the friction silicon springs quickly into this hollow space
- this way soft friction and smooth integration are guaranteed



Rod attachment
- any type of rod attachment can be used
- VC 1 can also be used at telescopic crowns

Vario Compress VC 1: A cylinder of abrasion-resistant special silicon is individually compressed with an adjusting screw. Due to the compression, this friction silicon exerts gentle pressure to the wall of the telescopic anchor that can be adjusted perfectly. Accordingly, individual adjustment of the static friction of the telescopic anchor is possible. The thread turn for the adjusting screw and the bearing of the friction silicon are shaped with a heat-resistant ceramic mould in the casting procedure. After casting, special tools ensure the precision of the thread turn and the bearing. Perfectly suitable for chrome cobalt supply - safe, economical and precise.

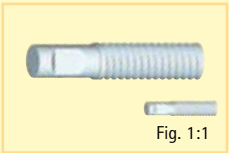


Fig. 1:1

VC 1
Ceramic screw
Ø 2 mm length 9,5 mm
1 piece
REF 460 0010 3

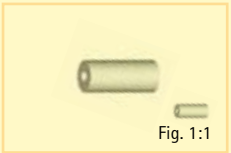


Fig. 1:1

VC 1 Friction silicon
Ø 1.7 mm length 4 mm
1 piece
REF 460 0010 4

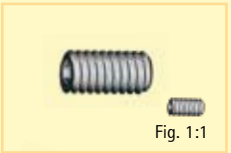


Fig. 1:1

VC 1 Titanium adjusting screw
Ø 2 mm length 4 mm
1 piece
REF 460 0010 5



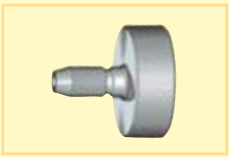
Ceramic removing tool
1 piece
REF 460 0010 6



Second tap, tungsten carbide
1 piece
REF 460 0010 M



Last tap, tungsten carbide
1 piece
REF 460 0010 F



Tap handwheel
1 piece
REF 330 0115 3



Screwdriver, short
1 piece
REF 330 0069 0

Assortment

3 pieces, 1 piece each
Vario Compress 1
VC 1 Ceramic screw
VC 1 Friction silicon
VC 1 Titanium adjusting screw
REF 460 0010 7

Assortment

8 pieces, 1 piece each
Vario Compress 1
VC 1 Ceramic screw
VC 1 Friction silicon
VC 1 Titanium adjusting screw
Ceramic removing tool
Second tap, tungsten carbide
Last tap, tungsten carbide
Tap handwheel
Screwdriver, short
REF 460 0010 1

Dimensions



Product	REF	Ø/Thread	Length	Max. reduction
Adjusting screw	460 0010 5	M 2 x 0.4	4 mm	2 mm
Friction silicon	460 0010 4	1.7 mm	4 mm	–

- Activatable frictions cylinder
- Activating attachment
- **Vario Compress 1**
- Vario Compress 2
- Stud fixator
- UVE Universal Connector Element

Vario Compress 1



Vario Compress 1 can also be used on telescopic crowns. Produce primary elements in the usual way. Secondary elements are waxed up directly or produced in the chrome cobalt technique (see figure 2).



Position ceramic screw so that contact with the primary element is ensured and fix with wax. Then complete the wax pattern of the secondary construction (see figure 3).



Invest and cast as usual; after casting, the secondary construction must be fitted onto the primary element and polished to a high luster.



After high luster polishing, remove the ceramic screw, recut the thread, position the VC 1 friction silicon and adjust the friction with the adjusting screw.

VC 1: Individually adjustable friction for all telescopic attachments.



Prepare wax pattern of the anchor crowns in the usual way. Attach the selected type of extracoronal rod attachment to the wax moulds. Vario Compress 1 can also be used with telescopic crowns.



Cast, polish and finish crowns in the usual way. Parallel surfaces of the primary elements must be milled according to standard techniques. Prepare primary elements to produce the secondary elements.



Block out the model to produce a chrome cobalt duplicate. Prepare duplicating mould and chrome cobalt model. Then model the chrome cobalt structure according to the dental technical rules.



The special VC 1 spacer is fixed with wax in the correct position on the chrome cobalt model. Contact with the friction surface of the primary element must be ensured. The VC 1 ceramic spacer provides precise reproduction of the shape of the screw and the cylindrical VC 1 friction silicon.



Then complete the wax model of the secondary structure. The VC 1 ceramic spacer projects from the wax model. This way safe retention in the investment material of the casting ring is ensured.



After casting, complete the chrome cobalt structure on the primary construction. After polishing the chrome cobalt structure, remove the ceramic spacer by turning the ceramic removing tool gently.



Prethread the thread with the tungsten carbide first tap. The second tap removes small ceramic residues in the thread turn. Then recut the thread with the tungsten carbide last tap. Use sufficient quantities of milling and drilling oil when tapping.



Insert the VC 1 friction silicon into the clean drill hole. The VC 1 features a hollow space inside. Under pressure, the wall of the friction silicon springs into this hollow space so that soft friction is ensured.



Lock the thread with the adjusting screw and fasten the screw slightly. Due to the pressure of the adjusting screw the VC 1 friction silicon is compressed. This way the friction of the attachment is adjusted.

Vario Compress 2

Friction silicon allows to adjust individual friction for attachments and telescopic crowns.

Abrasion-resistant special silicon provides extended durability and safe hold of the denture.

The friction silicon is compressed by turning the VC 2 titanium adjusting screw. The friction is adjusted individually. Vario Compress 2 can be integrated from the basal or oral direction.

The primary element can be designed individually. Vario Compress 2 can be used for various indications.

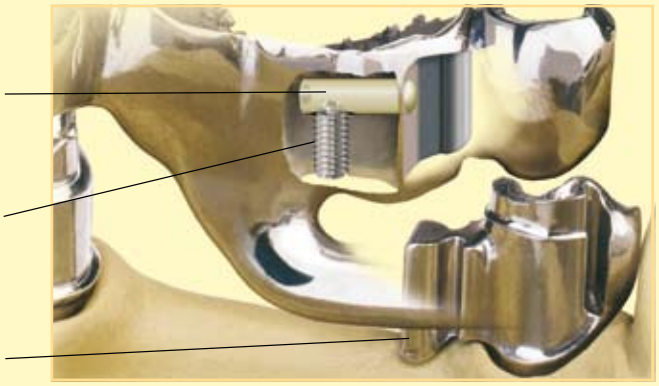




Fig. 1:1

VC 2 Friction silicon
Ø 1.9 mm
Length 6 mm
1 piece
REF 460 0011 5



Fig. 1:1

VC 2 Titanium adjusting screw
Ø 2 mm
Length 5 mm
1 piece
REF 460 0011 4

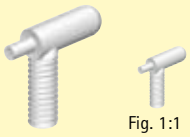


Fig. 1:1

VC 2 Ceramic spacer
Ø 2 mm
Length 5 mm
1 piece
REF 460 0011 3

Assortment

8 pieces, 1 piece each
Vario Compress 2
VC 2 Friction silicon
VC 2 Adjusting screw titanium
VC 2 Ceramic spacer
Ceramic removing tool
Second tap, tungsten carbide
Last tap, tungsten carbide
Tap wheel
Screwdriver, short
REF 460 0011 0

Assortment

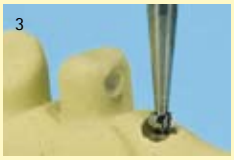
3 pieces, 1 piece each
Vario Compress 2
VC 2 Friction silicon
VC 2 Titanium adjusting screw
VC 2 Ceramic spacer
REF 460 0011 2



The model is prepared for duplicating.



The position of the ceramic spacer is marked on the investment model using a pen.



A small cavity at the crown and a hole in the basal area are drilled with the Rapidy 2.1 mm until the correct position of the ceramic spacer on the model is ensured.



Complete the model so that only the ceramic spacer needs to be inserted.



Integrate the ceramic spacer completely into the wax model and invest.



The ceramic is removed from the thread with the ceramic removing tool. Residual ceramic particles are sandblasted with 50 my glass beads.



Prepare a chamfer at the thread opening using the Rapidy 2.1 mm and recut the thread using the taps.



The titanium adjusting screw is turned in after completion and shortened adequately.

The ceramic removing tool and the taps, see Vario Compress 1.

Dimensions



Product	REF	Ø/Thread	Length	Max. reduction
Titanium adjusting screw	460 0011 4	M 2 x 0.4	5 mm	2.5 mm
Friction silicon	460 0011 5	1.9 mm	6 mm	individual

- Activatable frictions cylinder
- Activating attachment
- Vario Compress 1
- Vario Compress 2
- **Stud fixator**
- UVE Universal Connector Element

Stud fixator



as a snap element or to increase the friction for new restorations and repairs.
Ceramic stud and cavity-filling silicone as buffers ensure durability and soft integration of the restoration.

- Time is saved thanks to quick and easy integration
- Friction is restored subsequently
- Ceramic stud for prolonged comfort of wearing
- Hygiene-friendly thanks to cavity-filling silicone


Fig. 1:1

Stud fixator
2 pieces
REF 440 0265 1

Accessories:



DTK adhesive
REF 540 0010 6

Procedure in the laboratory


1

To reproduce the oral situation accurately, use Pi-Ku-Plast to fabricate the primary construction


2

and to produce a working model.


3

Prepare a matrix before removing the resin saddle.


4

Drill a hole with a diameter of 2.1 mm into the secondary element and place it back on the model.


5

Use the drill (Ø 2.1 mm) to carefully prepare a groove with a max. depth of 0.4 mm in the resin saddle.


6 7

The stud fixator is fitted in the CoCr structure and fixed with DTK adhesive.


8

The housing of the stud fixator must be flush with the crown wall. Only the ceramic stud may stand out in the crown. Reattach the resin saddles.


9

Prepare a coping of the resin die using a thermoforming foil.


10

Mark the groove on the resin die with a pen. Drill a hole (Ø 2.1 mm) through the die coping at this point.

Procedure in the practice


11

Place the die coping onto the primary construction in the mouth and transfer the position of the groove accurately.


12

Integrate the restoration with friction being restored.

Dimensions

Product	REF	Ø	Length
Stud fixator	440 0265 1	2.2 mm	3.7 mm

UVE Universal Connector Element



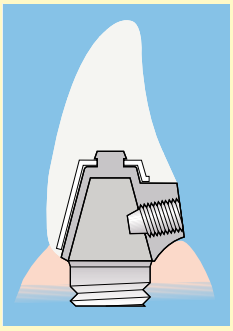
One abutment – Many options – Important benefits.

Screw-retained restorations – with a safe passive fit

Achieving a passive fit – simply and safely
A well-defined adhesive gap of 0.15 mm ensures that all bridges including wide-span bridges can be seated passively.

A passive fit guarantees long-term implant treatment success

It has never been easier to fabricate transversely screw-retained restorations
Industrially prefabricated components accelerate and simplify laboratory procedures while ensuring a high level of accuracy.



Transverse screw for fixed-removable superstructures

UVE for SKY implant system



UVE-Set 0° for SKY
UVE abutment
UVE titanium coping
Transverse screw
0.9 mm allen*
modelling component, plastic
Abutment screw,
1 per box
for all Ø
REF UV-Y4001



UVE-Set 15° for SKY
UVE abutment
UVE titanium coping
Transverse screw
0.9 mm allen*
modelling component, plastic
Abutment screw,
1 per box
for all Ø
REF UV-Y4002

UVE for CAMLOG® implant system



UVE-Set 0° for CAMLOG®
UVE abutment
UVE titanium coping
Transverse screw
0.9 mm allen*
modelling component, plastic
Abutment screw
0.05" allen
1 per box
Ø 3.8 mm
REF UV-C3801
Ø 4.3 mm
REF UV-C4301
Ø 5.0 mm
REF UV-C5001



UVE-Set 15° for CAMLOG®
UVE abutment
UVE titanium coping
Transverse screw
0.9 mm allen*
modelling component, plastic
Abutment screw
0.05" allen
1 per box
Ø 3.8 mm
REF UV-C3802
Ø 4.3 mm
REF UV-C4302
Ø 5.0 mm
REF UV-C5002

*Accessories for transverse screw:

Accessories:



Screwdriver short
0.9 mm allen
REF 310 00K0 6



Screwdriver for contra-angles short
0.9 mm allen
REF 310 W0K0 6

- Activatable frictions cylinder
- Activating attachment
- Vario Compress 1
- Vario Compress 2
- Stud fixator
- **UVE Universal Connector Element**

UVE Universal Connector Element

UVE 0°



Castable plastic cap
with a well-defined adhesive gap of 0.15 mm.



UVE titanium coping and transverse screw
The UVE titanium coping has an integrated lateral threaded bore to accommodate the transverse screw.



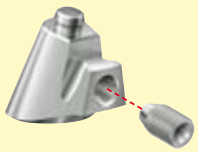
UVE titanium abutment
The UVE titanium abutment is the foundation of the entire restoration. It features a precision retention for the transverse screw.



Transverse screw 0.9 mm allen

UVE 15°





Transverse screw





1 Bite index



2 Bite index, intraorally screw-retained



3 Diagnostic wax-up



4 Abutments on the cast



5 Abutments on the cast



6 Titanium copings on the abutments



7 Bite wall for modelling



8 Completed maxillary wax-up



9 Non-precious alloy framework prior to veneering



10 Bridge prepared for bonding



11 UVE caps and transverse screw, adhesively secured inside the bridge



12 The completed restoration in situ



13 Checking the lip profile

Bite index on three UVEs for simple and fast intraoral bite registration procedures.

Analogous procedure with diagnostic wax-ups for fast and safe intraoral checking.

Based on this excellent diagnostic foundation, the UVE can be used to fabricate a definitive bridge using a limited number of steps and to obtain the desired passive fit.

Vario-Soft-Bar-Pattern vsp

The undersides of the resin and titanium bars are rounded to facilitate oral hygiene for the patient.

tested for biocompatibility

The snap-in retention provides for additional grip in the matrix housing. The well proven matrices are colour coded to enable the dentist to determine the degree of friction currently in use and how it can be changed.

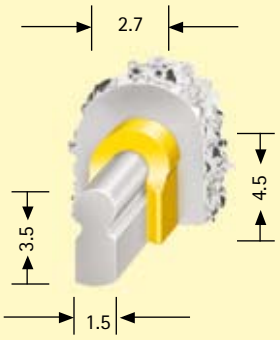


The exterior shape of the matrices are all exactly the same, so that the matrix can be replaced with one providing a different degree of friction.

Titanium bars and high-tech Duroplast matrices, which have been tested for biocompatibility, guarantee the highest possible oral compatibility.

This type of bar has multiple indications if used as an extra-coronal bar stub.







Vario-Soft-Bar-Patterns feature adjustable friction and snap-in effect, matrices with minimal dimensions which can be placed as required, and the possibility to be reduced from beneath.

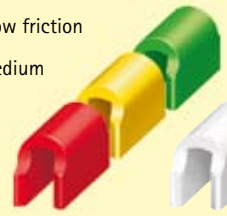
The reliable and cost-effective bar system with 3 precision matrices each with different degrees of friction for all bar indications.

Matrices for parallel bar restorations

Reduced, low friction

Normal, medium friction

High, firm friction



Duplicating matrix

Friction matrices vsp-f

	8 pieces	50 pieces
green	**430 0639 0**	**430 0638 0**
yellow	**430 0641 0**	**430 0640 0**
red	**430 0643 0**	**430 0642 0**

Bar patterns made of non-distorting, fully combustible special high-tech Thermoplast, guarantee optimum castings.



Resin bar vsp-f
4 pieces
REF 430 0647 0
25 pieces
REF 430 0646 0



The classic parallel bar can be used for a wide range of indications.

Duplicating matrixes
8 pieces
REF 430 0625 1
50 pieces
REF 430 0624 1

Accessories:



Titanium bar vsp-f
REF 560 0001 0



Matrix housing vsp-f
8 pieces
REF 430 0640 8
50 pieces
REF 430 0645 0



Insertion pin
2 pieces
REF 430 0622 0



Paralleling mandrel
1 piece
REF 430 0623 0

Assortment

20 pieces
Vario-Soft-Bar-Pattern vsp-f, Friction
4 Matrices vsp-f each, red, yellow, green
2 Bars vsp-f
4 Duplicating matrices vsp-f
1 Paralleling mandrel metal vsp-f/fs/gs
1 Insertion pin vsp-f/fs/gs
REF 430 0650 0

- **Vario-Soft-Bar-Pattern vsp**
- Vario-Soft-Bar vss
- Wax bars

Vario-Soft-Bar-Pattern vsp

Matrices for snap-in bar restorations



Friction snap-in matrices vsp-fs

	8 pieces	50 pieces
green	**430 0632 0**	**430 0633 0**
yellow	**430 0635 0**	**430 0634 0**
red	**430 0637 0**	**430 0636 0**

Assortment

18 pieces
Vario-Soft-Bar-Pattern vsp-fs, Friction-Snap
4 Matrices vsp-fs each, red, yellow, green
2 Bars vsp-fs
1 Paralleling mandrel metal vsp-f/fs/gs
1 Insertion pin vsp-f/fs/gs
REF 430 0649 0



Resin bar
vsp-fs
4 pieces
REF 430 0694 0
25 pieces
REF 430 0695 0



Implant in the lower jaw with a medium friction snap-in bar.

Accessories:



Titanium bar
vsp-fs / gs
REF 560 0002 0



Paralleling mandrel
1 piece
REF 430 0623 0



Insertion pin
1 piece
REF 430 0622 0

Matrices for jointed restorations



The **duplicating matrix** guarantees that the joint matrix will grip optimally

Joint snap-in matrices vsp-gs

	8 pieces	50 pieces
green	**430 0627 0**	**430 0626 0**
yellow	**430 0629 0**	**430 0628 0**
red	**430 0631 0**	**430 0630 0**

Duplicating matrixes
8 pieces
REF 430 0625 0
50 pieces
REF 430 0624 0



Resin bar
vsp-fs
4 pieces
REF 430 0694 0
25 pieces
REF 430 0695 0



The special, small, replaceable snap-in jointed matrices result in optimum bar joint restorations.

Assortment

20 pieces
Vario-Soft-Bar-Pattern vsp-gs, joint snap-in
4 Matrices vsp-gs each, red, yellow, green
2 Bars vsp-gs
4 Duplicating matrices vsp-gs
1 Paralleling mandrel metal vsp-f/fs/gs
1 Insertion pin vsp-f/fs/gs
REF 430 0648 0

Accessories:



Titanium bar
vsp-fs / gs
REF 560 0002 0



Insertion pin
2 pieces
REF 430 0622 0



Paralleling mandrel
1 piece
REF 430 0623 0

Bars

- **Vario-Soft-Bar-Pattern vsp**
- Vario-Soft-Bar vss
- Wax bars

Vario-Soft-Bar-Pattern vsp

Dimensions



Product	REF	Length	Width	Height
Bar Friction	430 0646 0	50 mm	1.5 mm	3.5 mm
Bar Friction-Snap/ joint snap-in	430 0695 0	50 mm	1.5 mm	3.5 mm
Matrix Friction	430 0640 0	6.5 mm	3.0 mm	4.5 mm
Matrix Friction-Snap	430 0634 0	5.6 mm	2.7 mm	2.3 mm
Matrix joint snap-in	430 0628 0	5.7 mm	2.7 mm	4.5 mm

Fabricating implant-borne restorations using a parallel bar



The bar should be fitted between the implant abutments with a paralleling mandrel. The bar is made of rigid acrylic which can be trimmed easily and quickly.



After casting and trimming, the bar is secured on the abutments with the paralleling mandrel. They should be soldered together to create a non-stressed unit.



Duplicating is always carried out with the yellow matrix intended for the bar system. This provides the optimum conditions for changing the degree of friction later on.



The restoration is blocked out and duplicated using standard methods. No spacer wax should be applied around the matrix.



The matrix is also duplicated and acts as a spacer for the matrix housing in the chrome cobalt framework.



The bar and matrix are simply coated with wax. The remaining sections of the pattern are waxed up as required.



Before pressing the matrix into its housing in the chrome cobalt framework, check the housing for high spots.



The matrix with the desired degree of friction is selected and pressed in with the inserting instrument. The additional snap-in retainers on the matrix provide optimum hold in the housing.



Shows the unterside of the finished restoration with parallel bar and high, firm friction (red matrix). The friction can be increased or reduced as required by replacing the matrix.

Implant-borne restorations on jointed bars



Once the jointed bar has been soldered and trimmed, the duplicating matrix for the jointed bar snap-in matrix should be placed on it. The underside is blocked out using standard methods. To ensure that the joint matrix fits exactly, the duplicating matrix must not be coated with blocking out wax.



This chrome cobalt framework has been trimmed and checked for high spots and is ready to be fitted with the jointed snap-in matrix with the ideal snapping force for the patient.



The joint snap-in matrix is easily pressed into the chrome cobalt framework with the inserting instrument.

Prior to duplicating, the implant caps and the vertical bar areas are coated with a wax layer with a thickness of 0.3 mm to allow rotational movement of the denture later on. During this process, however, the rounded occlusal end of the bar must not be coated with wax.

Innovation

For three decades bredent has been offering innovative products for dental-technical laboratories as an integral element of the company philosophy.



New developments and techniques will have decisive influence on the future of dentistry and dental techniques.
Ideas and recommendations on the modification of products are obtained from the constant contact with customers and the observation of the dental market as well as the organisation of International Competition of Ideas. They allow to optimize working processes in dental laboratories and dental practices and to reduce costs.

The integration of products for the dental practice into the sales program supports the system concept of bredent and contributes to the fabrication of precision-fit restorations.
The concept of the bredent symbiosis is strengthened by product systems that are matched and complement each other. This way success is guaranteed and patients will be provided with top quality restorations.









ISO 9001

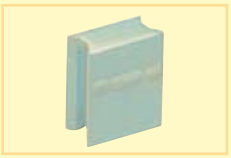
A special concern of bredent is the consistent implementation of the quality standard according to ISO 9001, which offers users a maximum degree of product reliability and - as a consequence - provides patients with high-quality restorations.

Deutsche Dental Industrie

Vario-Soft-Bar vss

Bar system with three interchangeable versions with different degrees of friction. Gentle to the periodontium.

3 precision matrices with different degrees of friction.

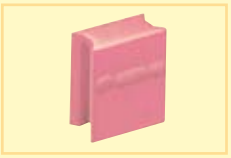


Matrices vss green
8 pieces
REF 430 0527 0
50 pieces
REF 430 0610 0

Reduced, light friction

Matrices vss yellow
8 pieces
REF 430 0526 0
50 pieces
REF 430 0594 0

Normal, medium friction



Matrices vss red
8 pieces
REF 430 0525 0
50 pieces
REF 430 0620 0

High, firm friction

The external dimensions of the matrices are exactly the same, which allows them to be replaced quickly to change the degree of friction



The Snap retainers guarantee retention in the matrix housing

The 4 rounded edges of the matrix create guidance grooves to retain it securely in the removeable section of the denture

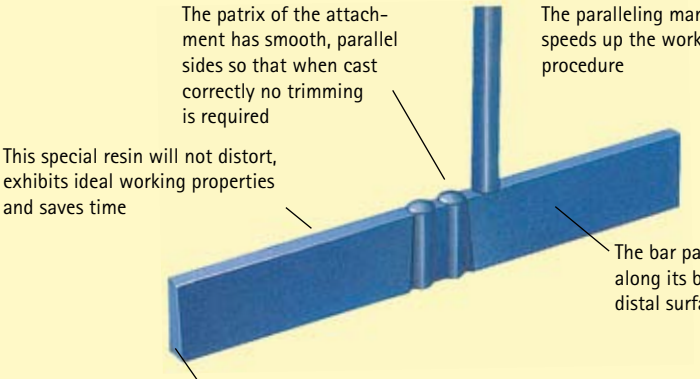


The double matrix technique provides for reliability

Patrices vss
8 pieces
REF 430 0524 0
50 pieces
REF 430 0595 0

Assortment

2 Patrices vss
2 Matrices vss each - red, yellow, green
1 Insertion pin
REF 430 0523 0



Accessories:



Insertion pin
REF 430 0736 3

Press fit pin. Practical, small and cost-effective. Facilitates handling for all users.



The vss attachment can be shortened by up to half its length, making it ideal for many indications even in cases with complex bites.



The patrix can be fitted perfectly, thus ensuring that the gingiva is protected and that the papilla remain free.



Test the excellent, gentle friction for yourself. Both you and your dentist will be enthusiastic about it.



Dimensions

Product	REF	Length	Width	Height
Bar patrix vss	430 0595 0	48 mm	2.2 / 2°	7.1 mm
Matrix vss	430 0610 0	6.7 mm	3.4 mm	8.0 mm
	430 0594 0	6.7 mm	3.4 mm	8.0 mm
	430 0620 0	6.7 mm	3.4 mm	8.0 mm

The double patrix system requires minimal space, making it perfect for use as an extracoronal attachment.

- Vario-Soft-Bar-Pattern vsp
- **Vario-Soft-Bar vss**
- Wax bars

Vario-Soft-Bar vss

The very gentle friction will impress and enthrall you!



The vss bar patrix can be shortened as required, to suit any particular case. The double patrix can be positioned mesially or distally.



Adapt the underside of the bar to the ridge. The special resin will not distort and is easy and quick to work on.



Shows the bar patrix waxed into place. It can be adjusted with wax at any time.



As the crowns and bar are cast in one piece, no soldering is required and any alloy can be used. This makes the vss ideal for patients with allergies.



The matrix is placed over the double patrices and its underside adapted to fit. The pattern is then blocked out for the chrome cobalt framework, using standard methods.



The model is duplicated with gel or silicone and the investment model is poured. vss can be used with any investment material, thus making it unnecessary to acquire special materials.



The pattern is waxed-up over the matrix reproduced in investment material. This guarantees that the chrome cobalt denture base will fit absolutely precisely.



The crome cobalt denture base is fitted down, trimmed and polished. The simple handling and gentle friction will impress you immediately.



Shows the matrix in position. Additional snap retainers guarantee optimum retention in the matrix housing.

Individually adjustable friction within reduced time and at low costs even after several years



The patrix is adapted to the situation and then waxed onto the crown. The papilla remain free, as required.



As it is cast in one piece the casting is a homogeneous structure of one alloy, which prevents stresses.



Once the yellow matrix has been fitted, block out the restoration in readiness for fabricating the chrome cobalt denture base. Ensure that no wax is applied around the matrix.



This ensures that the chrome cobalt structure reaches down to the gingiva and the matrix is retained completely in metal.



The press fit pin for the matrix is used to insert it precisely into the chrome cobalt denture base.



Thanks to the guidance grooves, the matrix fits the metall housing perfectly. It can be replaced at any time with a matrix with increased or reduced friction.

Wax bars

Wax rod attachments wbgs



Wax rod attachments	Short designation	REF	Supply form	Order quantity
Head 2 Ø x 50 mm Length	wbgs 2.0	**430 0261 0**	approx. 170 pieces	
Head 3 Ø x 50 mm Length	wbgs 3.0	**430 0262 0**	approx. 90 pieces	
Paralleling mandrel 2.0 for wbgs 2.0	ph 2.0	**430 0263 0**	1 piece	
Paralleling mandrel 3.0 for wbgs 3.0	ph 3.0	**430 0264 0**	1 piece	

Wax bar attachments wsgs



Wax bar attachments	Short designation	REF	Supply form	Order quantity
micro 2.2 bar height x 50 mm	wsgs m 2.2	**430 0271 0**	approx. 250 pieces	
normal 3.0 bar height x 50 mm	wsgs n 3.0	**430 0272 0**	approx. 125 pieces	
Paralleling mandrel 1.6 for wsgs m 2.2	ph 1.6	**430 0623 0**	1 piece	
Paralleling mandrel 2.2 for wsgs n 3.0	ph 2.2	**430 0270 0**	1 piece	

Wax T-attachments wtgs



Wax T-attachments	Short designation	REF	Supply form	Order quantity
Wax T-attachments 2.75	wtgs 2.75	**430 0275 0**	approx. 150 pieces	
Wax T-attachments 3.5	wtgs 3.5	**430 0276 0**	approx. 90 pieces	
Paralleling mandrel 2.75 for wtgs 2.75	phT 2.75	**430 0277 0**	1 piece	
Paralleling mandrel 3.5 for wtgs 3.5	phT 3.5	**430 0278 0**	1 piece	

Dimensions



Product	REF	Ø	Length	Width	Height	Max. reduction
Wax rod attachments	430 0261 0	Head 2.0 mm	50 mm	2.0 mm	4.5 mm	individual
	430 0262 0	Head 3.0 mm	50 mm	3.0 mm	5.5 mm	individual
Wax bar attachments	430 0271 0	–	50 mm	2.2 mm	1.5 mm	individual
	430 0272 0	–	50 mm	2.2 mm	3.0 mm	individual
Wax T-attachments	430 0275 0	–	50 mm	2.75 mm	3.4 mm	individual
	430 0276 0	–	50 mm	3.5 mm	4.75 mm	individual

Sender (stamp):

Customer No.

Date, signature

Additional order:

- Vario-Soft-Bar-Pattern vsp
- Vario-Soft-Bar vss
- **Wax bars**

Wax bars

Wax bars wstg



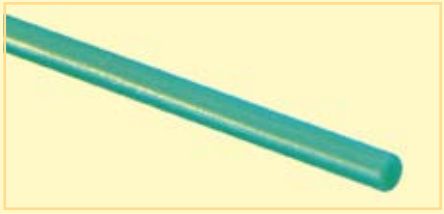
Wax bars	Short designation	REF	Supply form	Order quantity
1.6 x 8 x 50 mm	wstg 1.6	**430 0265 0**	approx. 65 pieces	
1.9 x 4 x 50 mm	wstg 1.9	**430 0266 0**	approx. 120 pieces	
2.2 x 6 x 50 mm	wstg 2.2	**430 0267 0**	approx. 65 pieces	
Paralleling mandrel 1.6 for wstg 1.6	ph 1.6	**430 0623 0**	1 piece	
Paralleling mandrel 2.2 for wstg 1.9 and wstg 2.2	ph 2.2	**430 0270 0**	1 piece	

Wax bar hinges wsgl



Wax bar hinges	Short designation	REF	Supply form	Order quantity
micro 2.2 bar height x 50 mm	wsgl m 2.2	**430 0273 0**	approx. 300 pieces	
normal 3.0 bar height x 50 mm	wsgl n 3.0	**430 0274 0**	approx. 160 pieces	
Paralleling mandrel 1.6 for wsgl m 2.2	ph 1.6	**430 0623 0**	1 piece	
Paralleling mandrel 2.2 for wsgl n 3.0	ph 2.2	**430 0270 0**	1 piece	

Round wax bars wstr



Round wax bars	Short designation	REF	Supply form	Order quantity
1.5 Ø x 50 mm	wstr 1.5	**430 0279 0**	approx. 400 pieces	
1.8 Ø x 50 mm	wstr 1.8	**430 0280 0**	approx. 300 pieces	
2.0 Ø x 50 mm	wstr 2.0	**430 0281 0**	approx. 250 pieces	

Dimensions



Product	REF	Ø	Length	Width	Height	Max. reduction
Wax bars	430 0265 0	–	50 mm	1.6 mm	8.0 mm	individual
	430 0266 0	–	50 mm	1.9 mm	4.0 mm	individual
	430 0267 0	–	50 mm	2.2 mm	6.0 mm	individual
Wax bar hinges	430 0273 0	–	50 mm	1.4 mm	2.2 mm	individual
	430 0274 0	–	50 mm	2.1 mm	3.0 mm	individual
Round wax bars	430 0279 0	1.5 mm	50 mm	–	–	individual
	430 0280 0	1.8 mm	50 mm	–	–	individual
	430 0281 0	2.0 mm	50 mm	–	–	individual

Sender (stamp):

Customer No.

Date, signature

Additional order:

- **Cylindrical attachment zg**

Cylindrical attachment zg

Universally suitable attachment featuring snap or friction



Friction

Resin matrices in three different
colors, with different pull-off force and easy exchangeability allow fast and specific adjustment of the total pull-off force of the removeable restoration.
Friction matrices or snap matrices are available in 3 different colors each and different retention levels.
The green matrix for reduced, the yellow matrix for normal and the red matrix for strong retention.

Whether the restoration is held by friction or snap can be decided individually and changed by simply exchanging the resin friction matrices or resin snap matrices.



Snap

For receiving the resin matrices and for stress-free, low-cost integration into the denture, the titanium matrix housing K for direct fixation in acrylics or the titanium matrix housing M for fixation (glueing) in the chrome cobalt framework are used.

Please select:

1. Resin patrix or metal patrix



Resin patrix
8 pieces
REF 440 0120 8
50 pieces
REF 440 0125 0





Patrix cast-on
2 pieces
REF 440 0120 2



2. Metal matrix housing
for the integration in resin



Titanium matrix housing K
2 pieces
REF 440 0230 2
8 pieces
REF 440 0230 5
50 pieces
REF 440 0235 0





Duplicating matrix
2 pieces
REF 440 0250 2

for the integration in metal



Titanium matrix housing M
2 pieces
REF 440 0240 2
8 pieces
REF 440 0240 8
50 pieces
REF 440 0245 0





Wax matrix housing
8 pieces
REF 440 0260 8
50 pieces
REF 440 0265 0

• **Cylindrical attachment zg**

Cylindrical attachment zg



Friction and snap matrices can be exchanged among each other.

3. Matrixes with resilience, friction or snap

Friction



Matrix green
reduced friction
8 pieces
REF 440 0150 8
50 pieces
REF 440 0155 0



Matrix yellow
normal friction
8 pieces
REF 440 0140 8
50 pieces
REF 440 0145 0



Matrix red
high friction
8 pieces
REF 440 0130 8
50 pieces
REF 440 0135 0

Snap



Matrix green
reduced friction
8 pieces
REF 440 0180 8
50 pieces
REF 440 0185 0

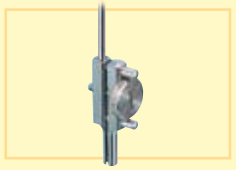


Matrix yellow
normal friction
8 pieces
REF 440 0170 8
50 pieces
REF 440 0175 0



Matrix red
high friction
8 pieces
REF 440 0160 8
50 pieces
REF 440 0165 0

Accessories:



Paralleling mandrel universal 2
1 piece
REF 360 0116 0



Matrix pliers
1 piece
REF 310 0000 6



Insertion pin
1 piece
REF 360 0116 4



DTK adhesive
REF 540 0010 6



Impression transfer set
Transfer patrix
2 pieces
Transfer matrix
2 pieces
REF 440 0116 3

Dimensions



Product	REF	Ø	Height	Ø Wax-on area
Resin patrix	440 0120 8	2.5 mm	3.8 mm	4.6 mm
Patrix HL	440 0120 2	2.5 mm	3.7 mm	4.3 mm
Metal matrix housing K	440 0230 2	4.8 mm	4.2 mm	–
Titanium matrix housing M	440 0240 2	4.3 mm	4.2 mm	–
Matrices Friction / Snap	440 0150 8	3.75 mm	3.8 mm	–
	440 0140 8	3.75 mm	3.8 mm	–
	440 0130 8	3.75 mm	3.8 mm	–
	440 0180 8	3.75 mm	3.8 mm	–
	440 0170 8	3.75 mm	3.8 mm	–
	440 0160 8	3.75 mm	3.8 mm	–

- **Cylindrical attachment zg**

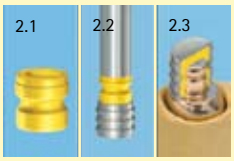
Cylindrical attachment zg

Cylindrical attachment and integration into full denture





The cast-on patrix or the resin patrix is waxed on using the parallel holder.



2.1 Matrix with resilience buffer.
2.2 The matrix is pressed in the metal matrix housing using the insertion pin.
2.3 The functional principle of the resilience matrix.



While processing the resilience matrix the spacer disc must be placed under the metal matrix housing.



A base for the wax pattern in which the metal matrix housings are fixed is produced using tray material.



During completion, blocking out with liquid silicone below the metal matrix housing is required to prevent resin from reaching into the matrix during pressing.



The cylindrical attachment provides a simple and economic way of processing that can be used in many application fields.



If required, the resin matrix can be removed with the matrix pliers and replaced by a new matrix with different friction.

Basic assortment

12 pieces
for the integration in resin *, Friction
2 Resin patrices
2 Matrices Friction, green, reduced friction
2 Matrices Friction, yellow, normal friction
2 Matrices Friction, red, high friction
2 Titanium matrix housing K
1 Paralleling mandrel universal 2
1 Insertion pin

REF 440 0115 5

Basic assortment

12 pieces
for the integration in resin *, Snap
2 Resin patrices
2 Matrices Snap, green, reduced friction
2 Matrices Snap, yellow, normal friction
2 Matrices Snap, red, high friction
2 Titanium matrix housing K
1 Paralleling mandrel universal 2
1 Insertion pin

REF 440 0115 4

Refill package

10 pieces
assorted *, Friction
2 Resin patrices
2 Matrices Friction, green, reduced friction
2 Matrices Friction, yellow, normal friction
2 Matrices Friction, red, high friction
2 Titanium matrix housing K

REF 440 0115 8

Refill package

10 pieces
assorted *, Snap
2 Resin patrices
2 Matrices Snap, green, reduced friction
2 Matrices Snap, yellow, normal friction
2 Matrices Snap, red, high friction
2 Titanium matrix housing K

REF 440 0115 7

*The cast-on patrices (2 pieces) are available separately REF 440 0120 2.

• **Cylindrical attachment zg**

Cylindrical attachment zg

Cylindrical attachment with friction matrices zg-f

The ideal combination with other parallel retention elements.





Basic assortments for the integration in resin, see page 186.



After the try-in of the telescopic crowns the patrix is waxed onto the root cap parallel to the direction of insertion of the other supporting elements



In order not to change the shape of the cylindrical patrix, polishing to high luster should only be carried out using a cotton buff.



The external form of the metal matrix housing ensures safe retention in the resin.



Individual adjustment of friction even after several years provide maximum comfort of wear.

Basic assortment

16 pieces
for the integration in metal *, Friction
2 Resin patrices
2 Matrices Friction, green, reduced friction
2 Matrices Friction, yellow, normal friction
2 Matrices Friction, red, high friction
2 Duplicating matrices
2 Wax matrix housings
2 Titanium matrix housing M
1 Paralleling mandrel universal 2
1 Insertion pin

REF 440 0115 2

Refill package

14 pieces, **assorted*, Friction**
2 Resin patrices
2 Matrices Friction, green, reduced friction
2 Matrices Friction, yellow, normal friction
2 Matrices Friction, red, high friction
2 Duplicating matrices
2 Wax matrix housings
2 Titanium matrix housing M

REF 440 0116 1

Cylindrical attachment with snap matrices zg-s

Stress-free glueing of the metal matrix housing in the CoCr denture is possible.

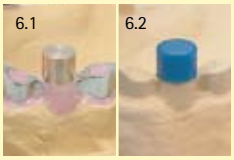




Friction and snap matrices can be exchanged among each other.



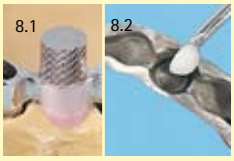
The cylindrical attachment provides a wide indication range. After casting, the duplicating matrix (6.1) is placed onto the patrix and



blocked out to the basal direction. Then the wax matrix housing (6.2) is placed on the investment material model and the CoCr structure is modelled.



Due to the small size of the cylindrical attachment an esthetic pattern can be prepared.



The metal matrix housing is glued into the CoCr structure using DTK-adhesive.

Basic assortment

16 pieces
for the integration in metal *, Snap
2 Resin patrices
2 Matrices Snap, green, reduced friction
2 Matrices Snap, yellow, normal friction
2 Matrices Snap, red, high friction
2 Duplicating matrices
2 Wax matrix housings
2 Titanium matrix housing M
1 Paralleling mandrel universal 2
1 Insertion pin

REF 440 0115 1

Refill package

14 pieces, **assorted*, Snap**
2 Resin patrices
2 Matrices Snap, green, reduced friction
2 Matrices Snap, yellow, normal friction
2 Matrices Snap, red, high friction
2 Duplicating matrices
2 Wax matrix housings
2 Titanium matrix housing M

REF 440 0116 0

* The cast-on patrices (2 pieces) are available separately REF 440 0120 2.

Lock attachments

- **Swivel-type lock sr**
- Swivel-type lock src
- Locking Pin bs 1
- KS-lock
- Locking Pin Snap System
- Locking Pin

Swivel-type lock sr

These particularly slender patterns can be used for a wide range of custom applications for all removable, passive designs – perfect for implants.



Assortment

14 pieces
Swivel-type lock sr left + right
REF 430 0736 2

Assortment

14 pieces
Swivel-type lock sr left
REF 430 0730 5

Assortment

14 pieces
Swivel-type lock sr right
REF 430 0730 6



Latch retainer with integral shear distributor
left, 4 pieces
REF 430 0735 8
right, 4 pieces
REF 430 0735 9



Latch tongue
4 pieces
REF 430 0735 7



Latch tongue and latch box



Shear distributor housing
left, 4 pieces
REF 430 0730 9
right, 4 pieces
REF 430 0731 0



Latch box
4 pieces
REF 430 0735 6



Oxide-steel pins
20 pieces
REF 430 0293 0



Latch spring
Guaranteed for 5 years
10 pieces
REF 430 0334 0



Latch tongue and latch box in a shear distributor housing

Cross-section through the Latch System sr



locked



unlocked



Fully assembled Latch System sr

Accessories:



Paralleling mandrel universal
1 piece
REF 360 0115 1

bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- **Swivel-type lock sr**
- Swivel-type lock src
- Locking Pin bs 1
- KS-lock
- Locking Pin Snap System
- Locking Pin

Swivel-type lock sr

This cost-effective latch allows you to calculate your prices to optimize your profit.



Classic shear distributor with Interlock and a complete latch system. The chrome cobalt framework and latch system were luted with dtk without creating stresses.



Latch box with individually modelled latch box housing. Ideal when minimal space is available.



Construction of a monoreducer with integrated shear distributor. The usage of the latch box housing avoids modelling of the shear distributor.

Applications for combined fixed/removable appliances with classic shear distribution arms



The latch retainer can be fitted onto the papillae accurately.



The non-soldered, one-piece casting reduces the costs and the number of alloys used in the mouth.



The shear distribution arm pattern is built up with Pi-Ku-Plast brush-on resin to guarantee that all details are reproduced.



The latch system provides numerous combinations for fabricating custom restorations.

Applications for combined fixed/removable appliances with a space-saving latch retainer



As the latch retainer is designed to fit around the papillae, it can be waxed close to the crown with a paralleling mandrel.



The shear distributor shoulder on the patrix eliminates the need for labour intensive milling, which saves time and money.



The slender design of the latch system allows the shear distributor housing to be waxed up as required.



The restoration is designed so as not to stress the abutment teeth.

„Monoreducer" with integral shear distributor and custom designed latch box housing



Patrix with integral milled shoulder for the shear distributor - saves time and space.



The latch tongue swivels horizontally into the latch retainer.



The latch system is very easily assembled.



Once the latch has been opened, the partial denture can be released without stressing the abutment tooth.

Dimensions



Product	REF	Length	Width	Height	Ø
Latch retainer	430 0735 9	4.0 mm	2.9 mm	4.3 mm	–
Latch tongue	430 0735 7	5.8 mm	3.8 mm	2.9 mm	–
Latch box	430 0735 6	6.2 mm	5.0 mm	2.9 mm	–
Shear distributor housing	430 0731 0	6.4 mm	5.9 mm	4.8 mm	–
Oxide-steel pins	430 0293 0	10.0 mm	–	–	1.0 mm

Lock attachments

- Swivel-type lock sr
- **Swivel-type lock src**
- Locking Pin bs 1
- KS-lock
- Locking Pin Snap System
- Locking Pin

Swivel-type lock src

Ceramic spacer for the simple fabrication of locks in the one-piece casting technique.
Swivel-type locks for CoCr restorations: low-cost, accurate and time-saving.





Wax latch retainer
- is cast together with the anchor crowns, hence reduction of metals in the mouth
- integrated shear distributor provides enhanced esthetics and simplifies the fabrication



Ceramic latch blade with lock axle
- Latch box premodelled in wax, hence quick fabrication is possible
- is integrated into the CoCr model
- only sandblasting required after casting
- creates precise fitting surfaces for metal, latch blade and latch axle



Latch spring
- determines the position of the lock blade when locked or unlocked and provides additional safety for the patient



Titanium latch blade
- shape matched exactly with the ceramic lock blade prefabricated precision lock blade
- ensures efficient processing

Latch axle
- stainless-steel, hence orally stable
- matches exactly with the ceramic spacer for the latch axle, simplifies the integration

High-precision ceramic patterns are available which reduce the amount of work tremendously and simplify the fabrication of an individual lock. The ceramic pattern designs are based on the design of the latch blade and the latch axle so that they fit exactly into each other. The latch box is cast in one piece together with the CoCr structure using the one-piece casting technique. Soldering is not required. Accordingly, the amount of alloys used intraorally is reduced and the costs for individual lock restorations are lowered.



Latch blades src ceramic
2 pieces
REF 430 0738 5



Latch retainer left
4 pieces
REF 430 0735 8



Latch retainer right
4 pieces
REF 430 0735 9



Latch spring
10 pieces
REF 430 0334 0



Latch tongue titanium
2 pieces
REF 430 T735 7



Oxide-steel pins
20 pieces
REF 430 0293 0

Assortment

10 pieces
Latch tongue src left + right
REF 430 0738 8

Accessories:



Paralleling mandrel universal
1 piece
REF 360 0115 1

- Swivel-type lock sr
- **Swivel-type lock src**
- Locking Pin bs 1
- KS-lock
- Locking Pin Snap System
- Locking Pin

Swivel-type lock src

Ceramic spacer for the simple fabrication of a latch retainer.



The latch retainer is waxed with the paralleling mandrel to the primary construction according to the path of insertion. When producing a bar restoration, the integrated shear distributor may be covered with wax.



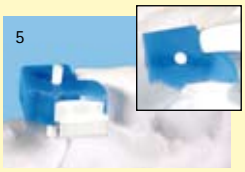
After casting, prepare the model for duplicating. Block out the lock of the latch retainer so that approx. 0.5 mm of the margin remains visible after duplicating.



The latch retainer can be easily seen on the investment model. The ceramic pattern can be safely positioned in the lock.



Trim the ceramic pattern with a separating disc in a way that it fits precisely into the lock of the latch retainer and ...



... ends exactly at the latch retainer but can still be positioned safely in the lock of the latch retainer.



Fix the ceramic pattern with the axle and attach with wax.



Complete the model in accordance with the situation and integrate the ceramic pattern. The axle should stand out on both sides of the model.



The titanium swivel-type lock is fitted into the sandblasted housing. Put the latch spring behind the titanium swivel-type lock and fix with the axle.

Dimensions



Product	REF	Length	Width	Height	Ø
Latch retainer	430 0735 9	4.0 mm	2.9 mm	4.3 mm	–
Latch tongue titanium	430 T735 7	5.8 mm	3.8 mm	2.9 mm	–
Oxide-steel pins	430 0293 0	10.0 mm	–	–	1.0 mm

Locking Pin bs 1

The lock axles can be shortened according to the respective sitiuation and an individual unlocking lens can be added.



The locking pin bs 1 is perfectly suitable for the use in the anterior area. The lock can be opened using a bent wire and then the denture can be removed.



The locking pin bs 1 can be used individually. Thanks to its size the locking pin bs 1 is perfectly suitable for unilateral removable dentures. An undercut can be integrated into the pin axle to open it.



The completely individual solution: The unlocking lens is prepared individually using denture resin or composite. This way the unlocking device is no longer visible.



Auxiliary modelling elements 1.3
2 pieces
REF 450 0007 1



Tap handwheel
1 piece
REF 330 0115 3



Assortment
17 pieces
Locking Pin bs 1
REF 450 0006 2

Refill packages



Pin axles
2 pieces
REF 450 0006 4



Bolt screws
2 pieces
REF 450 0006 5



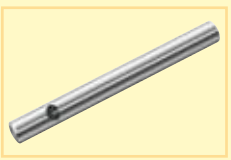
Wax screws
2 pieces
REF 430 0748 2



Wax sleeves 2.0/1
2 pieces
REF 450 0007 2



Auxiliary modelling elements 2.0 x 3.5
2 pieces
REF 450 0007 0



Auxiliary modelling element 2.0
2 pieces
REF 450 0006 3



First tap M 1.6
1 piece
REF 330 0116 V



Tungsten carbide center drill Ø 1.4
1 piece
REF 330 0066 0



Last tap M 1.6
1 piece
REF 330 0116 F



Diatit-Multidrill spiral drill 2.0
1 piece
REF 330 0072 0

Accessories:



Milling and drilling oil
20 ml
REF 550 0000 8

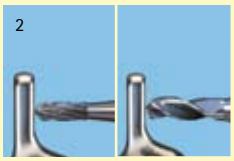
- Swivel-type lock sr
- Swivel-type lock src
- **Locking Pin bs 1**
- KS-lock
- Locking Pin Snap System
- Locking Pin

Locking Pin bs 1

Type 1: Bolt screw in metal framework



Wax up the pattern using standard methods. The prefabricated wax bar (REF 430 0265 0) is perfectly suitable to allow quick fabrication.



Prepare a small depression with the center drill and drill a hole through the bar using the Diatit-Multidrill spiral drill.



Assemble the auxiliary modelling elements 2.0 and 1.3 and position them in the drill hole so that between primary element and auxiliary element 1.3 ...



... a minimum space of 1.5 mm is obtained. Fix the auxiliary modelling elements with Pi-Ku-Plast.



Complete the model in accordance with the situation. Remove the auxiliary modelling elements, invest and then cast.



After casting, cut the thread with the taps whilst adding a rich quantity of milling and drilling oil.



Cut the lock axle according to the respective situation. Add an unlocking device and fix the pin axle with the bolt screw.



The individually fabricated locking pin can also be used if only limited space is available.

Type 2: Bolt screw in resin saddle



Insert the auxiliary modelling element 2.0 x 3.5 in the center of the drill hole as spacer for the investment model. Prepare the model for duplicating.



Place the wax sleeves on the investment model to obtain an accurate, uniform wall thickness of the model.



Complete the model (waxing up). The plugs of the auxiliary modelling element remain visible.



Fix the wax screw in the auxiliary modelling element 2.0 and fit it in the drill hole. There must be a distance of 1 mm between the wax screw and the secondary construction.



After completion the wax screw is removed with steam. Precise has been achieved in the resin which safely accepts the bolt screw. The pin axle is cut individually and an unlocking device is added. If required, the lock axle can be veneered in a suitable shade. A reliable, simple solution for any type of removable dentures.

Dimensions



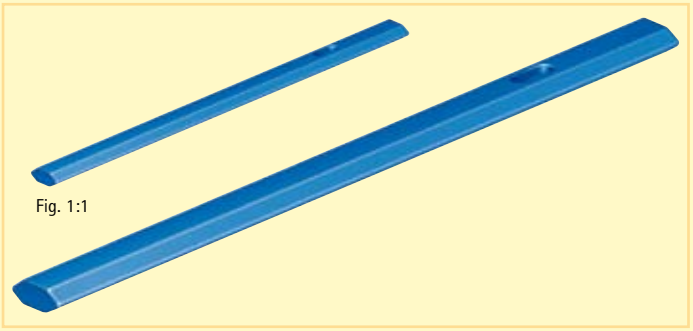
Product	REF	Ø/Thread	Length	Max. reduction
Pin axle	450 0006 4	2.0 mm	15.0 mm	individual
Bolt screw	450 0006 5	M 1.6 x 0.35	4.4 mm	–

Lock attachments

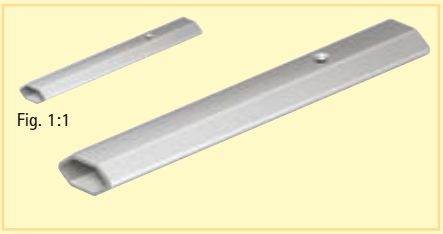
- Swivel-type lock sr
- Swivel-type lock src
- Locking Pin bs 1
- **KS-lock**
- Locking Pin Snap System
- Locking Pin

KS-lock





Locks
2 pieces
REF 450 0007 9



Titanium sleeves
2 pieces
REF 450 0007 8

Prefabricated sliding lock with individual opener.
- limited number of components
- simple design
- can be shortened individually
- individual design of opener
- for motorically handicapped patients
- snap mechanism when locking and unlocking
- perfectly suitable for implant structures



Use resin to model the primary element with a retainer for the lock. For this purpose attach the lock with titanium sleeve.



Try the lock with titanium sleeve in the cast primary element.



Primary element prepared for the supraconstruction – with or without electroplating.



Supraconstruction fabricated for the veneer.



Glue the titanium sleeve into the supraconstruction.

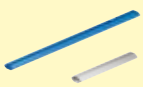


Fit the cast lock with the customized opener into the construction.



The opened lock with individually designed opener. Perfectly suited for motorically handicapped patients.

Dimensions



Product	REF	Ø	Length	Width	Height	Max. reduction
Lock	450 0007 9	–	50 mm	3,3 mm	1.8 mm	individual
Titanium sleeve	450 0007 8	–	25 mm	4.5 mm	2.3 mm	individual

- Swivel-type lock sr
- Swivel-type lock src
- Locking Pin bs 1
- KS-lock
- **Locking Pin Snap System**
- Locking Pin

Locking Pin Snap System

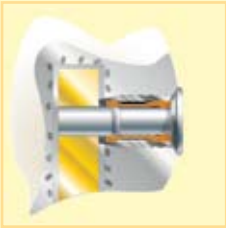
Suitable for numerous applications in combined work.





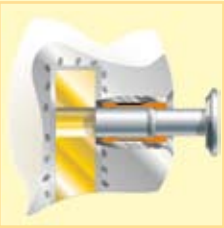


The soft, resin-supported guidance results in a soft snap of the locking pin during locking in the closed or open position.



closed

The snap ensures safe locking in closed position.



open

The snap informs the patient that the lock is completely open and the denture can be removed.

Locking Pin Snap E

The alloy is not relevant







All metal parts are made of titanium. The biocompatible plastic matrix provides long service life and soft snap-friction.



Original Size

Locking Pin Snap A

Fast and precise integration in precious metal supply





The platinum-iridium-containing alloy of the locking pin sleeve allows to save much time and ensures high precision when casting onto the metal framework.

Locking Pin Snap E

If waxing-up is performed on the investment compound model, there are two options:

Glueing in the chrome cobalt framework





Locking Pin E
1 piece
REF 440 0065 8



Ceramic spacer E
2 pieces
REF 440 0065 7



Device for waxing-on
1 piece
REF 440 0066 1



For less skillful patients the locking pin can be integrated so that it can also be opened from the buccal direction using a thin object.

Integration in resin



Assortment
5 pieces
Locking pin snap E for integration in chrome cobalt
2 Locking Pin E
2 Ceramic spacer E
1 Device for waxing-on
REF 440 0065 3

Assortment
3 pieces
Locking pin snap E for integration in resin
2 Locking Pin E
1 Device for waxing-on
REF 440 0065 1

Accessories:



Tungsten carbide center drill
REF 330 0066 0



Diatit-Multidrill
REF 330 0073 0



Rapidy Microbur
REF H001 NH 21



Milling and drilling oil
20 ml
REF 550 0000 8



Wax bars wstg
1.6 x 8.0 mm
REF 430 0265 0



FGP insulating liquid
REF 540 0102 7



DTK adhesive
REF 540 0010 6

Locking Pin Snap E

Locking Pin E for integration in chrome cobalt.

The precise way of integrating in the one-piece casting.



Waxing up of the pattern and casting is carried out using standard methods.



The position of the locking pin is determined with the centre drill and a small depression is prepared.



The hole for the pin is drilled with the Diatit Multidrill with a diameter of 1.5 mm.



The hole for the pin is filled with wax before duplicating.



A depression is scraped on both sides using a Rapidy Microbur 2.1 mm.



The pattern is prepared for duplicating and duplicated in the usual way.



Exact reproduction of the depressions on the bar is required.



The ceramic spacer E is exactly positioned with the device for waxing on.



The ceramic spacer E is integrated into the wax pattern up to its largest diameter.



The spacer is sandblasted with a maximum grain size of 110 µ at a pressure of 4 bar.



In order to try the function, the pin is inserted into the assembled construction.

Glueing in of Locking Pin Snap E.

Contact points that must not be glued must be covered with FGP insulating liquid.



The hole in the bar and 2-3 mm in the vicinity.



The contact area of the locking pin lens at the secondary element.



The locking pin stud up to the locking pin sleeve.



The contact area of the locking pin lens at the secondary element.



Primary and secondary element are assembled. A drop of DTK adhesive is evenly spread in the hole in the secondary element.



The locking pin sleeve is covered with a thin layer of DTK adhesive and pressed into the secondary element. Excess adhesive residues are removed after hardening of the DTK adhesive.



Locking Pin Snap E

Locking Pin Snap E for integration in resin.

Easy, fast and secure integration.



The crown is modelled with a shear distributor with interlock and the end of the bar is waxed on.



Casting and polishing are carried out after casting.



A small depression is prepared with the Diatit centre drill and in this way the position of the drillhole is determined.



The Diatit Multridrill is safely fixed by centering.



The hole for the pin is filled with wax before duplicating.



A depression is scraped on both sides of the locking pin patrix using a Rapidy Microbur 2.1 mm.



The pattern is prepared for duplicating and duplicated.



The small depressions are reproduced in the investment compound model.





The plugs of the device for waxing-on lock in position in the depressions.



The cylindrical plugs are integrated in the pattern using modelling wax.



This way two round apertures are obtained on both sides.



The two apertures are parallel to the axis due to the drilled hole.



The holes are prepared using a Diatit Multidrill with a diameter of 1.5 mm.



The locking pin is easily tried in.



The locking pin is fixed to the chrome cobalt framework using resin.



The locking pin lens is integrated into the wax pattern up to its outer margin and the denture is completed.

- Swivel-type lock sr
- Swivel-type lock src
- Locking Pin bs 1
- KS-lock
- **Locking Pin Snap System**
- Locking Pin

Locking Pin Snap

When the wax pattern is lifted from the model in order to invest it, there are two options:

Glueing in
Locking Pin Snap E

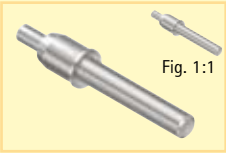


Casting in
Locking Pin Snap A





Locking Pin Snap E
1 piece
REF 440 0065 8



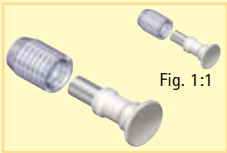
Modelling pin E
1 piece
REF 440 0065 6

Assortment

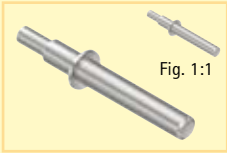
4 pieces
Locking Pin Snap E
2 Locking Pin Snap E
2 Modelling pin E
REF 440 0065 2

Assortment

4 pieces
Locking Pin Snap A
2 Locking Pin Snap A
2 Modelling pin A
REF 440 0065 4



Locking Pin Snap A
1 piece
REF 440 0066 0



Modelling pin A
1 piece
REF 440 0065 5



Locking Pin Snap
1 piece
REF 440 0065 9

Accessories:



Tungsten carbide center drill
REF 330 0066 0



Diatit-Multidrill
REF 330 0073 0



Milling and drilling oil
20 ml
REF 550 0000 8



Wax bars wstg
1.6 x 8.0 mm
REF 430 0265 0



Pi-Ku-Plast resin
REF 540 0017 3

Assortment small
REF 540 0019 6



FGP insulating liquid
REF 540 0102 7



DTK adhesive
REF 540 0010 6

Locking Pin Snap E

Integration of Locking pin snap in any alloy.



The wax bars by bredent are fitted in individually.



1

The position of the locking pin is determined with the centre drill and a small depression is prepared.



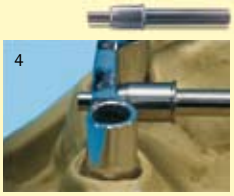
2

The Diatit-Multridrill is safely positioned by centering.



3

Thanks to little space required by the locking pin snap, the hole can be easily positioned in the patrix element.



4

The modelling pin E is inserted in the patrix hole up to the stop.



5

The modelling pin E is integrated in the pattern using Pi-Ku-Plast resin and modelling wax.



6

After completion of the pattern, the modelling pin E is removed by turning it slightly with a pair of pliers.



7

The investment compound in the locking pin housing is sandblasted with a grain size of 110 µ and a pressure of 4 bar.





8

Insulating and glueing in are carried out as described on page 193.



9

- Swivel-type lock sr
- Swivel-type lock src
- Locking Pin bs 1
- KS-lock
- **Locking Pin Snap System**
- Locking Pin

Locking Pin Snap A

Time-saving casting-on to precious metal secondary constructions.





The wax bars by bredent are fitted in individually.



The position of the locking pin is determined with the centre drill and a small depression is prepared.



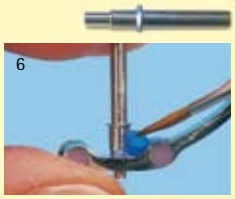
The bar is perforated with the Diatit-Multi-drill whilst adding rich quantities of milling and drilling oil.



Thanks to the little space required by the locking pin snap, the hole can be easily positioned in the patrix element.



The cast-on locking pin sleeve is put onto the modelling pin A and inserted into the locking pin hole of the patrix up to the stop.



The modelling pin A with the cast-on locking pin sleeve is integrated in the pattern up to its largest diameter using Pi-Ku-Plast resin and modelling wax.



After waxing up, the modelling pin A is removed with a slight turn.



In order not to damage the cast-on locking pin sleeve, the investment compound is removed with glass beads.



The locking pin snap is pressed in the locking pin sleeve that has been cast in.



Dimensions



Product	REF	Ø Axle	Ø Ring	Length	Ø	Max. reduction
Locking Pin Snap	440 0065 8	1.5 mm	3.5 mm	6.25 mm	–	–
Locking Pin Snap sleeve	440 0066 0	2.8 mm	–	3.6 mm	2.8 mm	–

Locking Pin

Universal active. The pin can be located on either the oral or buccal surfaces.





Locking pin: Resistant to the oral environment. Made of special steel, with spark eroded activating slot and wax spacer.

Assortment

Pack of 2 sets
Locking pin system*
1 blocking out matrix
2 locking pin matrices
2 locking pin patrices
1 steel pin 1.5 mm
2 locking pins, activatable

REF 430 0445 0



The metal matrix preformer ensures that the pin guidance is absolutely parallel.



Locking pin matrix: This prefabricated wax matrix reduces the time required when waxing-up chrome cobalt appliances.



Locking pin patrix with concave surface for waxing onto the pattern.



„Mini" locking pin: The smallest in the bredent Locking Pin System.

Assortment

Pack of 2 sets
Locking pin system mini*
1 blocking out matrix
2 locking pin matrices
2 locking pin patrices
1 steel pin 1.5 mm
2 locking pins, activatable

REF 430 0460 0



The „Mini" locking pin matrix, simplifies fitting of the locking pin.



„Mini" locking pin patrix: Saves space, ideal for anterior use.

*** For further information see price list.**



The pin viewed from the lingual direction. The pin passes through an extracoronal retaining lug.



This pin can be operated from the buccal aspect.



The spark eroded activating slot is simply activated from the underside.

- Swivel-type lock sr
- Swivel-type lock src
- Locking Pin bs 1
- KS-lock
- Locking Pin Snap System
- **Locking Pin**

Locking Pin

Locking Pin System



Wax-up the pattern using standard methods, and then use the paralleling mandrel to wax the patrix into place.



Adapt the underside of the patrix to fit the model and integrate it into the shear distributor.



Trim and polish the framework before applying the porcelain.



Place the matrix pre-former in position and secure it with the oxidized steel pin. Block out the underside.



Remove the matrix pre-former and fill the pin aperture with wax, leaving a slight depression.



Position the wax matrix correctly on the investment model.



Wax-up the denture base framework using standard methods.



Shows the chrome cobalt framework after casting and trimming. The apertures for the pin have been aligned accurately.



Shows the try-in, with temporary pin made of clasp wire.



Insert the pin until the wax sleeve touches the chrome cobalt framework.



Shows the completed saddle: The locking pin is pulled to open it.



Viewed from the underside. The slot in the pin enables it to be activated easily.

Dimensions



Product	REF	Ø Axle	Length	Width	Height	Ø Ring
Locking pin	430 0459 0	1.5	6.2 mm	–	–	2.9 mm
Locking pin, mini	430 0500 0	1.5	4.5 mm	–	–	2.9 mm
Locking pin matrix	430 0458 0	–	5.6 mm	2.5 mm	4,1 mm	–
Locking pin matrix, mini	430 0490 0	–	4.6 mm	1.9 mm	3.6 mm	–
Locking pin patrix	430 0458 0	–	5,4 mm	3.7/1.2 mm	3.4 mm	–
Locking pin patrix, mini	430 0490 0	–	4.3 mm	3.7/0.9 mm	2.8 mm	–

Training program in foreign countries

In addition to the training facilities in Senden, additional training laboratories for workshops/seminars are available in various foreign countries. These seminars/workshops will be conducted by national or international trainers.



Italy

Subjects of seminars/workshops: attachment/milling techniques, telescopic crowns, lock techniques, chrome cobalt work, epithetics, double crowns and CoCr work in the one-piece casting technique

For a schedule or registration please contact:
bredent s.r.l., Via Roma 10 / 39100 Bolzano – Italia
Phone 0039 / 0471 469576 / Fax: 0039 / 0471 469573



Poland

Subjects of seminars/workshops: CoCr work, combined dentures in conjunction with Vario-Stud-Snap, Vario-Soft 3 and Locking Pin Snap

The mostly two-day seminars/workshops will be held in the modern equipped training laboratory with 5 working places in Poznan.

Russia

Subjects of seminars/workshops: CoCr work, Vario-Stud-Snap resp. Vario-Soft 3 attachment

The trainer will be Mr. Stas Petrowskij, award winner of the competition „Attachment and CoCr technique in Moscow and in the Moscow area" and head dental technician of the central stomatological policlinic.

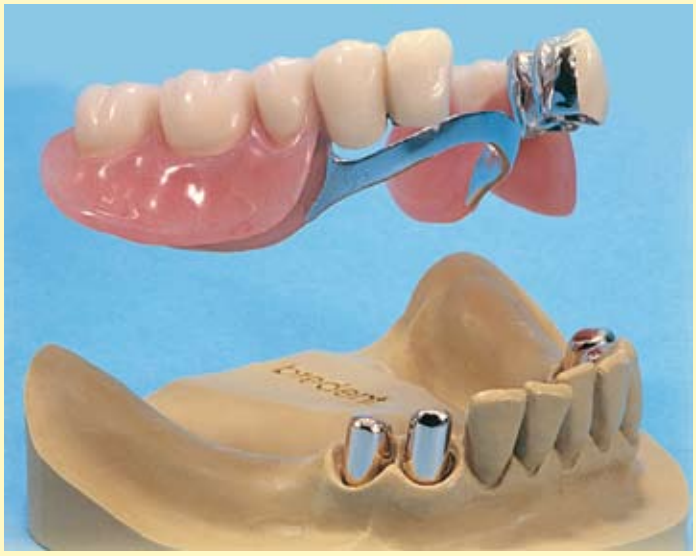


USA

Subjects of seminars/workshops: attachement, implant, crown and bridge, milling and one-piece casting techniques.

The courses are adapted individually according to the training/know-how level of the participants.

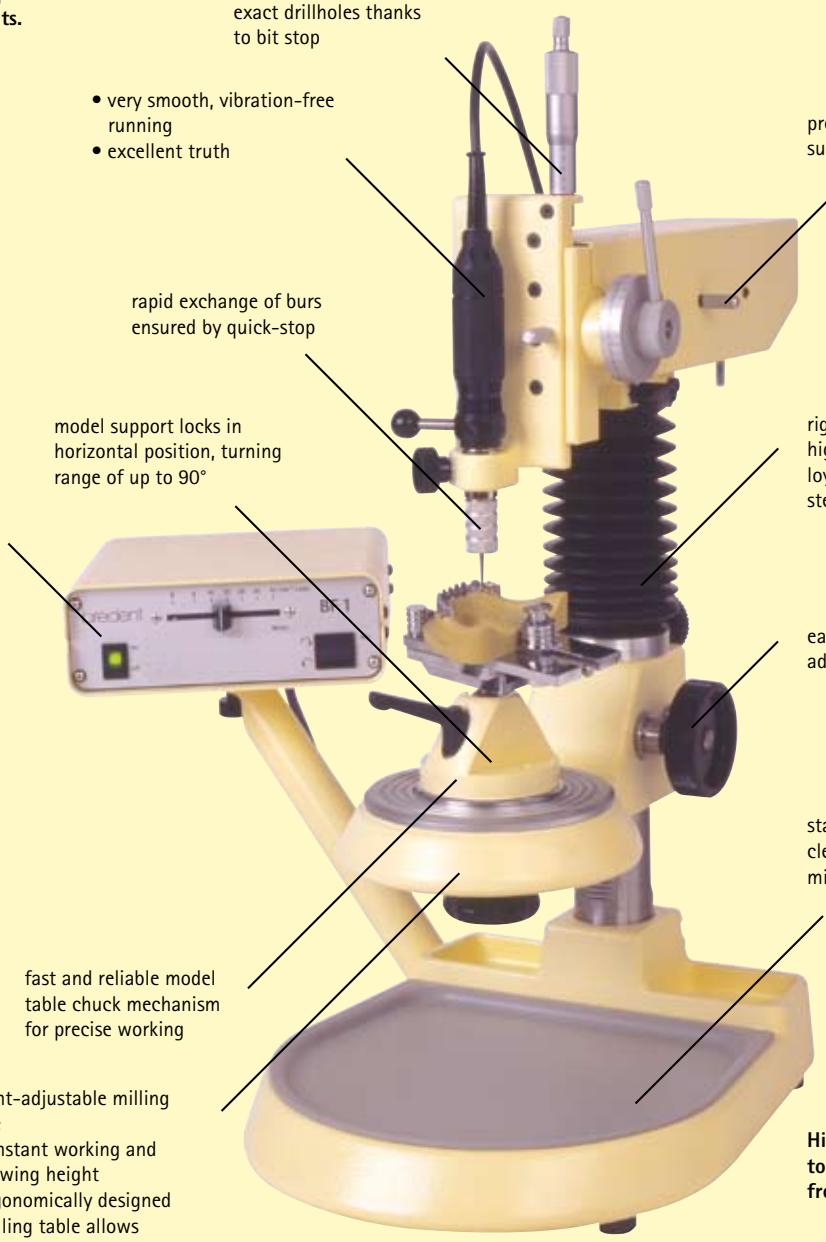
The highly modern equipped training laboratory of bredent USA/ Miami provides space for 12 participants. Courses will be held in German, Spanish or English by internationally renowned dental technicians.



Units / Instruments
Milling unit BF 1 206
Milling base 207
Model support BF 1 207
Transfer device 207
Brenometer surveying system 207
Activating pliers 208
Novo-Grip 208
Resins
Pi-Ku-Plast / Pi-Ku-Plast HP 36 209
Laser joint / Adhesive joint
Laser joint 211
DTK-adhesive 211
Double-T Adhesive Connector 212
Double-T Adhesive Mini Connector dtk 214
Restoring the friction
Friction fit system FGP 216

Milling unit BF 1

Precision guides ensure perfect milling and drilling results.



High-precision drilling and milling due to variably adjustable speed range from 0 to 30,000 rpm.

Assortment

4 pieces
1 Milling unit BF 1
1 Handpiece BF 1
1 Model support BF 1
1 Control unit BF 1

REF 140 0089 0

Technical Data

Power supply	230 Volt / 50/60 Hz
Power rating	80 Watt
Speed	0 - 30,000 U/min.
Chuck	Ø 2.35 mm
Fuse	thermal overload protection
Torque	2.6 Ncm
Weight	17.5 kg
Width/Depth/Height	250 x 370 x 510 mm

Accessories

Chuck 2.35 mm	**REF 730 0016 9**
Chuck 3 mm	**REF 730 0015 3**
Tap handwheel	**REF 330 0115 4**
Model support BF 1	**REF 730 0017 0**
Handpiece für BF 1	**REF 140 0089 5**
Foot switch BF 1	**REF 730 0017 1**
Milling base	**REF 140 0089 3**
Adapter airaqua turbine	
16 mm	**REF 730 0018 4**
18 mm (for BF1)	**REF 730 0018 3**
28,5 mm	**REF 730 0018 5**

- Milling unit BF 1
- **Milling base**
- **Model support BF 1**
- **Transfer device**
- **Brenometer surveying system**
- Activating pliers
- Novo-Grip

Milling base



Milling base with integrated thread for fixation on the milling base of the BF 1 unit. Additionally, plaster is removed completely and without damaging the metal plate by slightly turning the locking bolt.

Milling base
1 piece
REF 140 0089 3



Model support BF 1



The model support can be used for all milling units including units with magnetic circuit. Turning by 90° permits do perform lateral drilling of bars without removing the model.

Model support BF 1
1 piece
REF 730 0017 0



Transfer device



Permits correct transfer of the position of the model to the milling base. Up to 8 units can be transferred at the same time.

Transfer device
3 mm Schaft
REF 360 0116 3

2,35 mm Schaft
REF 360 0126 5

Brenometer surveying system



Brenometer surveying system

Four different surveying plates according to Ney allow accurate positioning of the clasp profiles whilst ensuring correct depth of undercuts. A locating pin and a red marker with a holder ensure correct surveying.



Marking the clasps and surveying with a single unit – this is how time and money can be saved.

Assortment

1 Brenometer marker holder
1 Brenometer locating pin
1 Brenometer plate 0.25
1 Brenometer plate 0.35
1 Brenometer plate 0.50
1 Brenometer plate 0.75

REF 310 0000 2

Refill packages:

Brenometer marker holder	**REF 310 0000 4**
Brenometer locating pin	**REF 310 0000 3**
Brenometer plate 0.25	**REF 310 0002 5**
Brenometer plate 0.35	**REF 310 0003 5**
Brenometer plate 0.50	**REF 310 0005 0**
Brenometer plate 0.75	**REF 310 0007 5**

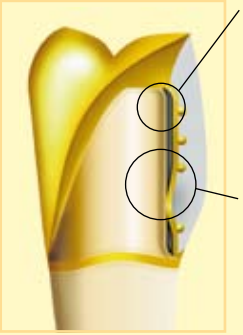
Activating pliers



Save telescopic units.

bredent
Activating pliers
REF 320 0043 0

Provide conical and telescopic crowns with "new" friction easily and quickly.



The problem:
Conical and telescopic crowns have lost their friction.

The solution:
Activating pliers - Pliers which recreate the retentive forces for telescopes which have lost their function.



The friction zones in the outer coping create 3 new contact areas between the inner and outer copings. This restores the retentive friction. Should the unit be activated too much, the surface can be trimmed to reduce the friction.



These pliers have a ball and socket for creating one or several new friction zones. The long lever of the pliers enables the forces to be applied as required.



The activating pliers can also be used to reduce a friction zone which is too retentive. If necessary, the facing should be removed for activating the unit and replaced again later.

Novo-Grip



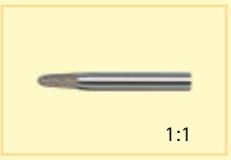
Sharpenable, sintered diamond coated inserts for conical pliers with „grip".

Novo-Grip pliers
1 pair of pliers
+ 2 standard inserts
+ 1 Allen key
REF 310 0000 8

Novo-Grip pliers
1 pair of pliers
+ 2 small inserts
+ 1 Allen key
REF 310 0011 3



Novo-Grip
standard insert
2 pieces
REF 310 0001 A



Novo-Grip
small insert
2 pieces
REF 310 0001 B

Accessories:



Diabolo cleaner
grindstone
for inserts
1 piece
REF 340 0100 0

Set screws M3
4 pieces
REF 310 0011 2

Different sizes



Exchangeable insert with a diameter of 2.35 mm, also for small primary crowns.

Special shafts



Hardened shafts provide high stability even if strong pressure is exerted.

Rotatable



Worne inserts can be rotated. New diamond grains ensure that inner surfaces of crowns can be held safely again.

Sharpenable



To regain the maximum abrasiveness, the inserts are clamped into the handpiece and new diamond grains are obtained on the surface using the grindstone.

- **Pi-Ku-Plast**
- **Pi-Ku-Plast HP 36**

Pi-Ku-Plast / Pi-Ku-Plast HP 36





The micro-fine grain size allows to reproduce all details and increases the precision.

Advantages of Pi-Ku-Plast HP 36

Five translucent colors simplify control of layer thicknesses so that reworking is minimized.

Exceptional material properties such as perfect contouring characteristics and no slumping provide the precondition for top-quality casting results. The brush resin is available in five different colors. Both resins differ only in their contraction. HP 36 has a contraction value of just 0.036 %. Since the resin sets quickly, it is perfectly suitable for the fabrication of resin dies or resin copings in the double crown technique.



The flat, pointed shape of the brush which is available in two different sizes allows to take up the desired quantity of material and reduces material consumption.





Wet the brush with Pi-Ku-Plast HP 36 monomer. The amount and firmness of the Pi-Ku-Plast portion can be controlled by the amount of monomer and the time it is immersed in the polymer.

Assortments big Pi-Ku-Plast

3 vessels	blue	**REF 540 0017 3**
1 brush each, size A + B	yellow	**REF 540 0017 4**
1 brush holder	orange	**REF 540 0017 5**
100 ml cleaner	red	**REF 540 0017 6**
100 ml monomer	transparent	**REF 540 0017 7**
85 g polymer		

Assortments Pi-Ku-Plast HP 36

3 vessels	blue	**REF 540 0021 9**
1 brush each, size A + B	yellow	**REF 540 0021 7**
1 brush holder	orange	**REF 540 0021 8**
100 ml cleaner	red	**REF 540 0022 0**
100 ml monomer	transparent	**REF 540 0021 6**
85 g polymer		

Refill package

100 ml **cleaner**		**REF 540 0016 9**
85 g **polymer**		**REF 540 0016 7**
100 ml **monomer**	blue	**REF 540 0016 8**
	yellow	**REF 540 0017 8**
	orange	**REF 540 0017 9**
	red	**REF 540 0018 0**
	transparent	**REF 540 0018 1**

Refill package

100 ml **cleaner**		**REF 540 0022 4**
85 g **polymer**		**REF 540 0021 5**
100 ml **monomer**	blue	**REF 540 0021 3**
	yellow	**REF 540 0021 1**
	orange	**REF 540 0021 2**
	red	**REF 540 0021 4**
	transparent	**REF 540 0021 0**

Refill package

vessel for cleaner, 8 ml	**REF 540 0017 2**
vessel for monomer, 8 ml	**REF 540 0017 1**
vessel for polymer, 8 ml	**REF 540 0017 0**
brush size A + brush holder, 3 pieces	**REF 330 0114 6**
brush size B + brush holder, 3 pieces	**REF 330 0114 7**

Refill package

vessel for cleaner, 8 ml	**REF 540 0020 9**
vessel for monomer, 8 ml	**REF 540 0020 7**
vessel for polymer, 8 ml	**REF 540 0020 8**
brush size A + brush holder, 3 pieces	**REF 330 0114 6**
brush size B + brush holder, 3 pieces	**REF 330 0114 7**

Assortment small Pi-Ku-Plast

20 ml cleaner
2 modelling dishes silicone, red
20 ml monomer red
1 brush size B and brush holder
12 g polymer

REF 540 0019 6



Pi-Ku-Plast separating agent
10 ml
REF 540 0018 2

- **Pi-Ku-Plast**
- **Pi-Ku-Plast HP 36**

Pi-Ku-Plast / Pi-Ku-Plast HP 36



brush size A + holder
REF 330 0114 6



brush size B + holder
REF 330 0114 7



Dip the flat side of the brush into the polymer to take up large portions.



Dip the narrow side of the brush into the polymer to take up small portions.



Dip only the brush tip into the polymer to take up very small portions.

Optimal control of layer thickness thanks to the transparent colors of Pi-Ku-Plast



The high-lustrous reproduction of the metal surface of the primary element results in a perfect inner surface of the secondary element and thus allows to save precious working time.



Pi-Ku-Plast separating agent, REF 54000182, allows to produce stable primary elements directly on the plaster die and provides a convincing alternative to wax.



Gap-free fit of the outer coping for unsurpassed precision of the cast secondary elements.



Wax and metal can be connected rigidly using Pi-Ku-Plast HP 36 which renders the material universally suitable.

The incineration phase of the resin elements in the casting ring frequently determines whether dental castings could be produced successfully or not.



The competitor's resin and Pi-Ku-Plast HP 36 in the incineration test.



At 275°C the competitor's product foams and expands considerably.



At 300°C the competitor's product reveals distinctive expansion whereas Pi-Ku-Plast HP 36 reduces the volume.



Identical copings produced with brush resin.



The competitor's resin and Pi-Ku-Plast HP 36, prepared for investing.



The considerable expansion of the competitor's resin during the incineration phase resulted in the fracture of the investment material die in the casting ring. After casting, the crown is sealed with a lid and can not be used. A section through the cast crown (figure 8) shows the fractured die.





Owing to friction heat, the competitor's resin may reach the plasticity phase which may result in deformation of the model and require considerable reworking.



Pi-Ku-Plast HP 36 is insensitive to heat, retains dimensional stability and ensures precision of fit which is well above the standard.



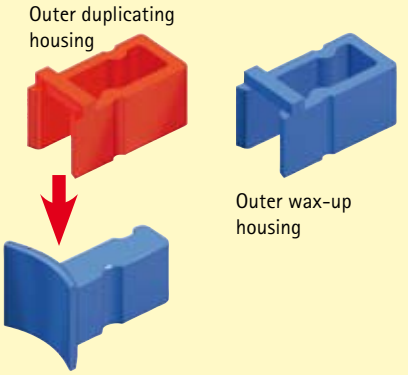
Allow the wax element to cool down to obtain a tension-free bridge model, separate using a thin blade and connect using Pi-Ku-Plast HP 36.



The extremely low shrinkage of Pi-Ku-Plast HP 36 allows to obtain a tension-free model and a precision-fit casting.

- **Laser joint**
- **DTK-adhesive**
- Double-T Adhesive Connector
- Double-T Adhesive Mini Connector dtk

Laser joint



Assortment

30 pieces
10 Inner housings
10 Outer duplicating housings
10 Outer wax-up housings
REF 440 0000 4

Laser weld joints rationally and precisely. The LV 1 laser joint ensures that the joint is always of the correct size, fits precisely and can be fabricated quickly.

Measurements in mm:

Inner housing	L 4.6 x W 1.6 x H 2.5
Outer duplicating housing	L 5.2 x W 2.6 x H 2.5
Outer wax-up housing	L 5.2 x W 2.6 x H 2.5

Refill packages:

Inner housing	16 pieces	**REF 440 0000 5**
Inner housing	50 pieces	**REF 440 0000 1**
Outer duplicating housing	16 pieces	**REF 440 0000 6**
Outer duplicating housing	50 pieces	**REF 440 0000 2**
Outer wax-up housing	16 pieces	**REF 440 0000 7**
Outer wax-up housing	50 pieces	**REF 440 0000 3**

Accessories:

Paralleling mandrel universal REF 360 0115 1

Custom laser joints are complicated and time-consuming to fabricate. To achieve precision of fit and high strength, the joint must be made to precise dimensions. The LV 1 laser joint ensures that the weld is strong and accurate. The outer housing cannot move due to contraction of the weld seam.



Wax the inner housing of the laser joint onto the outer housing - It only has to be paralleled if the outer housing is to be welded at two spots. Please note: The approximal „collar" should always face the occlusal aspect.



Before duplicating, place the red outer duplicating housing on the inner housing of the laser joint.



Before casting the investment model, replace the red outer duplicating housing with a blue outer wax-up housing. The outer duplicating housing is red - the outer wax-up housing is blue.



Shows the investment model with a outer wax-up housing: The chrome cobalt framework should be waxed up as usual. The interior dimensions of the outer wax-up housing are slightly larger than those of the outer duplicating housing. Therefore, the cast chrome cobalt framework fits the inner housing without requiring adjusting. The retention grooves can also be used to check the position of the outer housing.



Before welding the outer housing, remove the occlusal bar from the LV 1 laser joint. The outer housing should be fixed in place with two spot-welds placed diagonally above and two beneath the joint. The precision of fit should then be checked. The entire joint should then be welded, placing the welds diagonally.



The outer wax-up housing is minimally oversized. This ensures that the joint fits precisely after welding. If several outer housings are to be welded, proceed consecutively - always weld one joint properly, check the precision of fit and then fix the next housing in place.

DTK-adhesive



Dual-hardening composite adhesive for the fixation of dental attachment elements.

DTK-adhesive
REF 540 0010 6



Accessories:

Catalyst paste K, 5 g	**REF 540 0111 K**
Base paste B, 5 g	**REF 540 0111 B**
Mixing block, 10 pieces	**REF 330 0114 4**
Spatula, 100 pieces	**REF 330 0114 3**

Double-T Adhesive Connector



Tension-free, precise and low-cost metal junctures can be prepared very quickly with only very little space required.



Patrix



Patrix with Matrix



Matrix



Duplicating matrix

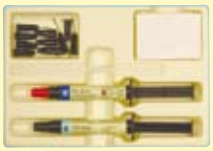


Patrix with duplicating matrix

Different inclination angles and sizes for all jaw situations

Ill. 1:1	90° A	90° B	120° A	120° B
Patrix	L 6.0 mm W 4.0 mm H 3.5 mm	L 4.5 mm W 2.5 mm H 3.5 mm	L 7.0 mm W 4.0 mm H 5.0 mm	L 5.0 mm W 2.5 mm H 3.0 mm
16 pieces	**REF 430 0405 A**	**REF 430 0405 B**	**REF 430 0402 A**	**REF 430 0402 B**
50 pieces	**REF 430 0342 A**	**REF 430 0342 B**	**REF 430 0422 0**	**REF 430 0423 0**
Matrix	L 5.5 mm W 4.0 mm H 3.0 mm	L 4.0 mm W 2.5 mm H 2.0 mm	L 5.5 mm W 4.0 mm H 3.0 mm	L 4.5 mm W 2.5 mm H 2.5 mm
16 pieces	**REF 430 0404 A**	**REF 430 0404 B**	**REF 430 0401 A**	**REF 430 0401 B**
50 pieces	**REF 430 0341 A**	**REF 430 0341 B**	**REF 430 0420 0**	**REF 430 0421 0**
Duplicating matrix	L 5.5 mm W 4.0 mm H 3.0 mm	L 4.0 mm W 2.5 mm H 3.0 mm	L 5.5 mm W 4.0 mm H 3.0 mm	L 4.5 mm W 2.5 mm H 2.5 mm
16 pieces	**REF 430 0406 A**	**REF 430 0406 B**	**REF 430 0403 A**	**REF 430 0403 B**
50 pieces	**REF 430 0343 A**	**REF 430 0343 B**	**REF 430 0424 0**	**REF 430 0425 0**
Paralleling mandrel, 1 piece	**REF 430 0345 A**	**REF 430 0345 B**	**REF 430 0344 A**	**REF 430 0344 B**

Accessories:



DTK-adhesive
REF 540 0010 6

Assortment

Double-T Adhesive Connectors
dtk 90°

- 5 Patrices A
- 5 Patrices B
- 10 Matrices A
- 10 Matrices B
- 5 Duplicating matrices A
- 5 Duplicating matrices B
- 1 Paralleling mandrel each, size A + B

REF 430 0340 0

Assortment

Double-T Adhesive Connectors
dtk 90°

- 3 Patrices A
- 3 Patrices B
- 6 Matrices A
- 6 Matrices B
- 3 Duplicating matrices A
- 3 Duplicating matrices B

REF 430 0347 0

Assortment

Double-T Adhesive Connectors
dtk 120°

- 5 Patrices A
- 5 Patrices B
- 10 Matrices A
- 10 Matrices B
- 5 Duplicating matrices A
- 5 Duplicating matrices B
- 1 Paralleling mandrel each, size A + B

REF 430 0408 0

Assortment

Double-T Adhesive Connectors
dtk 120°

- 3 Patrices A
- 3 Patrices B
- 6 Matrices A
- 6 Matrices B
- 3 Duplicating matrices A
- 3 Duplicating matrices B

REF 430 0407 0

- Laser joint
- Double-T Adhesive Mini Connector dtk
- DTK-adhesive
- **Double-T Adhesive Connector**

Double-T Adhesive Connector

Double-T Adhesive Connectors at the crowns

Patrixes must be fixed parallel



The patrix with the paralleling mandrel is waxed onto the wax pattern.



Depending on the jaw situation, use the 90° or 120° patrix.



Place the precision-fit duplicating matrix onto the patrix and fix it.



Prepare the model for duplicating in the usual way. The duplicating matrix must not be modified.



Insert the blue matrix in the duplicating mould at the preshaped point



and prepare the investment material model. Now the blue matrix is in the correct position on the matrix.



Prepare the CoCr pattern in the usual way and connect it with the matrix.



After casting, sandblast the matrix and finish and polish the CoCr object.

Double-T Adhesive Connector at the CoCr frame

Patrixes can be adapted to the jaw situations, no parallelism required.



The patrix is waxed onto the CoCr structure and the shape remains unchanged.



After finishing and polishing of the CoCr object, the crowns are modelled and the matrix is waxed on.



Fit the crown, sandblast the joints using 110 µm aluminium oxide and ensure stress-free glueing to the CoCr object.

Double-T Adhesive Mini Connector dtk



dtk mini
Thanks to the 2 different sizes A+B, the 3 different angles 90°, 105° and 120° and the minimal dimensions of the prefabricated wax patterns, the correct type of connector can be fabricated for all cases.



dtk mini front
dtk-front for tooth-bounded gaps in the anterior region. No problems with space when setting up anterior teeth, even in cases with severe overbites.



dtk mini super flat
dtk-super flat: A super flat connector for use in the posterior region. Maximum strength yet requires only a minimal amount of space.

Accessories:



DTK-adhesive
REF 540 0010 6

dtk mini	90° A	90° B	105° A	105° B
Patrix	L 11.0 mm W 3.0 mm H 4.0 mm	L 7.5 mm W 2.5 mm H 3.5 mm	L 10.0 mm W 3.0 mm H 4.0 mm	L 7.5 mm W 2.5 mm H 3.5 mm
16 pieces	**REF 430 0693 A**	**REF 430 0693 B**	**REF 430 0699 A**	**REF 430 0699 B**
50 pieces	**REF 430 0694 A**	**REF 430 0694 B**	**REF 430 0700 A**	**REF 430 0700 B**
Matrix	L 5.5 mm W 3.0 mm H 3.0 mm	L 3.0 mm W 2.5 mm H 3.0 mm	L 5.5 mm W 3.0 mm H 3.0 mm	L 3.0 mm W 2.5 mm H 3.0 mm
16 pieces	**REF 430 0691 A**	**REF 430 0691 B**	**REF 430 0697 A**	**REF 430 0697 B**
50 pieces	**REF 430 0692 A**	**REF 430 0692 B**	**REF 430 0698 A**	**REF 430 0698 B**
Duplicating matrix	L 5.5 mm W 3.0 mm H 3.0 mm	L 3.0 mm W 2.5 mm H 3.0 mm	L 5.5 mm W 3.0 mm H 3.0 mm	L 3.0 mm W 2.5 mm H 3.0 mm
16 pieces	**REF 430 0689 A**	**REF 430 0689 B**	**REF 430 0695 A**	**REF 430 0695 B**
50 pieces	**REF 430 0690 A**	**REF 430 0690 B**	**REF 430 0696 A**	**REF 430 0696 B**

dtk mini	120° A	120° B	dtk mini front	dtk mini super flat
Patrix	L 10.0 mm W 3.0 mm H 4.0 mm	L 7.5 mm W 2.5 mm H 3.5 mm	L 9.0 mm W 2.0 mm H 2.0 mm	L 10.0 mm W 5.0 mm H 2.0 mm
16 pieces	**REF 430 0705 A**	**REF 430 0705 B**	**REF 430 0711 0**	**REF 430 0717 0**
50 pieces	**REF 430 0706 A**	**REF 430 0706 B**	**REF 430 0712 0**	**REF 430 0718 0**
Matrix	L 5.5 mm W 3.0 mm H 2.5 mm	L 3.0 mm W 2.5 mm H 2.5 mm	L 5.5 mm W 2.0 mm H 1.5 mm	L 6.0 mm W 5.0 mm H 2.0 mm
16 pieces	**REF 430 0703 A**	**REF 430 0703 B**	**REF 430 0709 0**	**REF 430 0715 0**
50 pieces	**REF 430 0704 A**	**REF 430 0704 B**	**REF 430 0710 0**	**REF 430 0716 0**
Duplicating matrix	L 5.5 mm W 3.0 mm H 2.5 mm	L 3.0 mm W 2.5 mm H 2.5 mm	L 5.5 mm W 2.0 mm H 1.5 mm	L 6.0 mm W 5.0 mm H 2.0 mm
16 pieces	**REF 430 0701 A**	**REF 430 0701 B**	**REF 430 0707 0**	**REF 430 0713 0**
50 pieces	**REF 430 0702 A**	**REF 430 0702 B**	**REF 430 0708 0**	**REF 430 0714 0**

- Laser joint
- DTK-adhesive
- Double-T Adhesive Connector

- **Double-T Adhesive Mini Connector dtk**

Double-T Adhesive Mini Connector dtk

Assortment

dtk mini A + B
90°, 105°, 120°
with 2 connectors each
90°, 105°, 120°
1 Paralleling mandrel 90°
1 Paralleling mandrel 105°/120°
2 anterior connectors
2 super flat connector

REF 430 0558 0

Assortment

dtk mini A + B
90°
3 Patrices each
6 Matrices each
3 Duplicating matrices each

REF 430 0684 0

Paralleling mandrel
REF 430 0623 0

Assortment

dtk mini A + B
105°
3 Patrices each
6 Matrices each
3 Duplicating matrices each

REF 430 0685 0

Paralleling mandrel
REF 360 0112 0

Assortment

dtk mini A + B
120°
3 Patrices each
6 Matrices each
3 Duplicating matrices each

REF 430 0686 0

Paralleling mandrel
REF 360 0112 0

Assortment

dtk mini front
A + B
3 Patrices each
6 Matrices each
3 Duplicating matrices each

REF 430 0687 0

Assortment

dtk mini super flat
A + B
3 Patrices each
6 Matrices each
3 Duplicating matrices each

REF 430 0688 0

dtk mini





Thanks to the 3 different angles of the patrixes, the prefabricated wax patterns can be jawn optimally.



Precisely fitting duplicating matrices blocked out on the patrices - ready for duplicating.



Once the crome cobalt has been polished, adhere - non-stressed - with auto-curing resin cement or composite.

dtk mini front





The dtk-Front in minute, for use in the anterior region. The bar has a notch on its underside to ensure that the papillae remain unimpeded at all times. As this component has been reduced as much as possible, it is only used in tooth-bounded gaps in the anterior region.



Precisely fitting duplicating matrices in the patrices. Block out and duplicate using standard procedures. Can be integrated into the chrome cobalt denture optimally, even if the alveolar ridge is very narrow.



Non-stressed connectors without having to solder - even possible where too little space is available. There is always sufficient space to arrange the anterior teeth as required, even in cases where the teeth are very small.

dtk mini super flat





Super flat adhesive connector - total height only 2 mm for use in the posterior region. Adheres extremely well thanks to the retentive surface being as large as possible. As the waxed surface is relieved to prevent the papillae being impeded, it can be adapted perfectly to the alveolar ridge.



Precisely fitting, super flat, duplicating matrix. This is replaced with the matrix - with an 0.2 mm cement gap - in the duplicating mould.



Super flat, non-stressed adhesive connectors in the posterior region - sufficient space occlusally for setting up denture teeth. Adhere instead of soldering - even if too little space is available.

Friction fit system FGP



Individual friction for highest demands.
The friction fit system offers the dentist and the dental technician an entirely new perspective during the preparation and the restoration of the friction for all types of telescopic metal supplies. The long service life and the simple, time-saving processing render the friction fit system a comfortable solution for your patients.

Application fields of the FGP system



Safety and outstanding quality

The FGP system by bredent offers optimum and individual friction when preparing new conical and telescopic restorations.



Direct solution instead of extended waiting times

Due to the use of FGP directly in the dental practice. The simple use during the restoration of the friction of telescopic work is the solution for the dentist and the patient.



Individuality and precision

These requirements can still be fulfilled even in hardlyaccessible areas, whether new dental supply or relining work are concerned.



No compromises

During the preparation of new individual attachments. The FGP system allows to obtain results that fulfill highest demands.

20 years of experience with the FGP

Discover the personal advantages:

- **Saving of time due to fast and simple preparation**
- **Preparation of individual friction at favourable costs**
- **No fitting of secondary elements**
- **Long service life**
- **Maximum comfort of wear for the patients**
- **Allows low-cost single-piece casting**
- **Can be processed in the mouth**
- **Almost without any wear**
- **Low susceptibility to plaque thanks to highly compacted resin surface**

Up until today these advantages have contributed in more than 50,000 cases to allow soft integration and removal of the denture.
The principle of the FGP resin is based on the fact that the metal fit that has been common in the telescopic technique so far will now be replaced by a metal-resin fit.
The metal-resin fit offers the benefit of a considerably more favourable coefficient of friction than the one of a pure metal fit. Consequently, increased resistance to wear and extended service life are obtained.

• **Friction fit system FGP**

Friction fit system FGP

New fabrication of telescopic crowns


1

Thermo-forming or immersion wax copings serve as spacer for the FGP resin.


2

with a wall thickness of at least 0.2 mm ending 1 mm above the cervical margin.


3

The investment material model with cervical step is prepared before


4

the usual outer telescopic and cast pattern.


5

After casting – made with any alloy -


6

the cast frame is finished and veneered with resin or ceramic materials.


7

Due to the preparation during the modellation a gap resulted which is now filled with FGP.


8

In a preparatory step the pattern is insulated.


9

FGP bonding agent is applied equally thinly onto the inner surfaces.


10

The material is hardened at air for 5 minutes; during this time a visible layer is obtained.


11

The FGP two-component resin is mixed in the ratio of 1 : 1


12

and filled into the outer telescopes without any bubbles.


13

The restoration is placed onto the model exerting uniform pressure.


14

The hardened FGP resin with a clearly visible border at the cervical margin.


15

The FGP system offers individual friction with maximum comfort of wear.

The enhanced friction

Tests and scanning electron microscope studies with FGP reveal clearly better values of friction than those of metal fits.

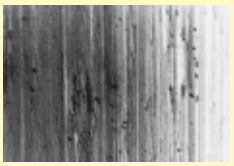


Conventional metal/ metal fit.
Metal fit after completion adjusted to a frictional force of 8 Newton.



FGP resin/metal fit.
Resin fit after completion adjusted to a frictional force of 8 Newton.

For this comparison between a classical metal fit and a FGP fit 21,000 integration and removal processes were simulated. This corresponds to a period of wear of approx. 20 years.



Scanning electron microscope picture of the inner side of a telescopic secondary element made of a precious metal alloys with a magnification x 100.



Scanning electron microscope picture of the inner side of a telescopic secondary element made of FGP resin with a magnification x 100.

Result: Residual friction 2 Newton, that is only 25 %.

Result: Residual friction 6 Newton, that is still 75 %.

- **Friction fit system FGP**

Friction fit system FGP

Restoration in case of loss of friction


1

Telescopic work after numerous years of wearing.


2

During the integration there is no sufficient friction.


3

Primary telescopes in situ prior to friction relining.


4

The dial caliper is used to measure the thickness of the outer telescopes.


5

The outer parts are ground to obtain space for the FGP resin.


6

Any residual grinding particles are removed with compressed air.


7

Retraction threads are put around the primary elements.


8

Then the inner telescopes are insulated with a small amount of liquid vaseline.


9

FGP bonding agent is applied equally thinly onto the inner surface of the outer parts.


10

The FGP two-component resin is mixed in the ratio of 1 : 1


11

and filled into the outer telescopes without any bubbles.


12

After the denture has been integrated, the patient is able to bite evenly exerting normal masticatory pressure.


13

The resin residues must be removed with the probe. Approx. 120 seconds after beginning of mixing, remove the restoration from the primary elements and place it on again.


14

The denture is removed after approx. 7 minutes and excess material is removed with a rotating tool.


15

The result is a functional denture that exhibits excellent comfort of wear within a very short period.

FGP in implantology

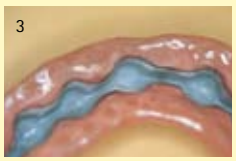
Absolutely tension-free fits.


1

The excellent sliding properties of FGP resin ensure gentle, implant-protecting integration and removal of the supra-constructions.


2

Even very small tensions in the low-cost and biocompatible single-piece casting process are perfectly compensated.


3

The high resistance to abrasion and non-tilting integrating and removing of the supraconstruction provide patients with a high comfort of wear and simple handling of their dentures.


4

The friction with FGP resin that will remain stable over many years guarantees the patients' happiness and satisfaction.

Assortment

Friction fit system FGP

REF 540 0102 8

1 x 2.5 g Friction resin component A
1 x 2.5 g Friction resin component B
1 x 1.25 ml FGP bonding agent
1 x 3.0 ml FGP insulating agent
1 Spatula
5 Brushes
1 Brush holder
1 Mixing block



Refill packages:

Friction resin component A	**REF 540 0108 A**
Friction resin component B	**REF 540 0108 B**
FGP bonding agent	**REF 540 0102 6**
FGP insulating agent	**REF 540 0102 7**

Accessories:

Mixing block 35 x 50 x 10 mm	10 pieces	**REF 330 0114 4**
Disposable brushes	100 pieces	**REF 330 0114 2**
Spatula	100 pieces	**REF 330 0114 3**
Brush holder, bent	12 pieces	**REF 330 0114 1**
Application cannulas, black	25 pieces	**REF 580 0001 8**

bredent





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Waxes

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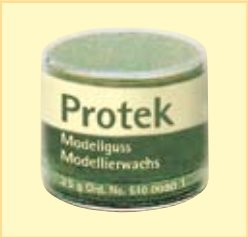
- Lingual bar patterns
- Wax patterns
- Clasp patterns
- Retentions
- Wax sheets
- Assortment box
- Sprue Wax
- Wax adhesive

Protek sculpturing wax



Protek sculpturing wax - emphasizes the contrast for improved viewing and adjusting.

Protek sculpturing wax
25 g, green
REF 510 0090 1



The sculpturing wax has the same consistency as all Protek components, which enables junctures to be waxed-up effortlessly and harmoniously. It is no longer necessary to carve from hard into soft wax.

Biotec blocking out wax



Biotec blocking out wax
28 g, pink
REF 510 0061 5



The special components of the blocking out wax ensure perfect blocking out of undercuts.



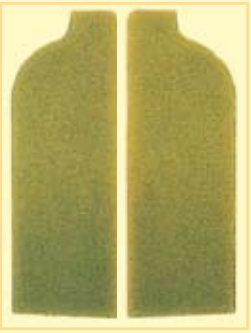
Easy and quick scraping allows to save time.



No color additives penetrate into the plaster surface after boiling out the model. The master model remains clean.

Special wax for blocking out undercuts in the entire field of CoCr work. Blocking out wax with very good scraping properties.
No discoloration on the plaster model after boiling out.

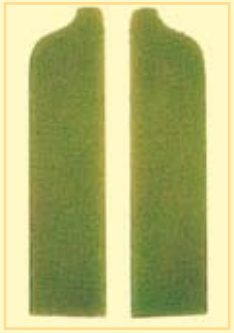
Protek saddle wax with pre-formed border



Protek saddle wax
Size A

0,40
REF 430 *571 0
90 pieces each, right/left

0,60
REF 430 *573 0
90 pieces each, right/left



Protek saddle wax
Size B

0,40
REF 430 *572 0
105 pieces each, right/left

0,60
REF 430 *574 0
105 pieces each, right/left

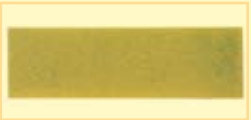




This self-adhesive saddle wax with pre-formed border, available in 2 sizes and thicknesses, guarantees that the underside of the acrylic is absolutely precise and even. The border matches the lingual bar joiners exactly.

* Also available as Protek summer wax (ideal wax quality for higher temperatures).
Just replace the asterisk in the REF with an „S" for summer wax or with „0" for standard wax quality.

Protek - Spacer wax



Protek-Spacer wax
75x150 mm plaques
15 pieces emp.

0,30 mm REF 430 *582 0
0,40 mm REF 430 *583 0
0,50 mm REF 430 *584 0
0,60 mm REF 430 *585 0

self-adhesive:
0,30 mm REF 430 *586 0
0,40 mm REF 430 *587 0
0,50 mm REF 430 *588 0
0,60 mm REF 430 *589 0



The quality of Protek spacer wax is better than ever before - extremely ductile and tear-resistant. After duplicating, it can be off the model without leaving a residue. Simplifies preparation of the model for duplicating and saves a great deal of time.

* Also available as Protek summer wax (ideal wax quality for higher temperatures).
Just replace the asterisk in the REF with an „S" for summer wax or with „0" for standard wax quality.

- Sculpturing wax
- Blocking out wax
- Saddle wax
- Spacer wax
- **Lingual bar patterns**
- **Wax patterns**
- Clasp patterns
- Retentions
- Wax sheets
- Assortment box
- Sprue Wax
- Wax adhesive

Lingual bar patterns



Protek lingual bar wax pattern
Ergonomically shaped lingula bar pattern. Adapatation is simplified by the concave shape matched with the jaw; hence time is saved during finishing.

Protek lingual bar wax pattern

3.6 x 1.85	30 pieces	**REF 430 0743 0**
	80 pieces	**REF 430 0748 0**



The conventional bar pattern is more difficult to adapt; a wax knife must be used for coating with wax.



The Protek lingual bar wax pattern adapts to the gingival situation so that reshaping with the wax knife can be omitted.



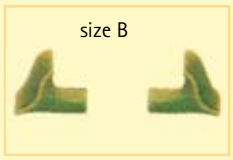
1.7 x 4	30 pc.	**REF 430 0124 C**
	80 pc.	**REF 430 0125 C**
2.0 x 4	30 pc.	**REF 430 0124 B**
	80 pc.	**REF 430 0125 B**
2.3 x 4	30 pc.	**REF 430 0124 A**
	80 pc.	**REF 430 0125 A**
2.45 x 4.3	30 pc.	**REF 430 012A 0**
	80 pc.	**REF 430 013A 0**
Assortment comprising 12 bars of each		**REF 430 0124 6**

Protek wax bars are available in 3 sizes to fit every type of jaw. Thanks to the structure of the wax they are easily adapted and exhibit no elastic recovery. The high pressure-resistance of this wax prevents deformation of the patterns and ensures that the framework pattern is shaped aesthetically.

Protek - Lingual bar joiners



- save work



1.7	le	A	**REF 430 517 LA**	1.7	le B	**REF 430 517 LB**	50 pc.
1.7	ri	A	**REF 430 517 RA**	1.7	ri B	**REF 430 517 RB**	50 pc.
2.0	le	A	**REF 430 520 LA**	2.0	le B	**REF 430 520 LB**	50 pc.
2.0	ri	A	**REF 430 520 RA**	2.0	ri B	**REF 430 520 RB**	50 pc.
2.3	le	A	**REF 430 523 LA**	2.3	le B	**REF 430 523 LB**	50 pc.
2.3	ri	A	**REF 430 523 RA**	2.3	ri B	**REF 430 523 RB**	50 pc.

Assortment:
15 pc. each
size A+B ri/le
1.7
REF 430 0575 0
2.0
REF 430 0576 0
2.3
REF 430 0577 0



The lower edge of the Protek joiner is shaped to fit the investment finishing line exactly, which was duplicated with Protek saddle wax.



Protek lingual bar joiners are available to fit every size of bar. The joiner is fitted into place and waxed onto the bar thus ruling out the need to wax-up the joint, which is very time-consuming. Protek lingual bar joiners are available in 2 sizes and matched to the three thicknesses of Protek lingual bar, to suit any situation.

Protek - Clasp / bar joiners



Protek - Clasp / bar joiner
size A, 100 pc. each
REF 430 0578 0



Protek - Clasp / bar joiner
size B, 100 pc. each
REF 430 0579 0



Interdental joinments of Protek clasps and bars effortlessly. The Protek joiner is matched to the relevant bar exactly and only requires placing in position.



lateral view

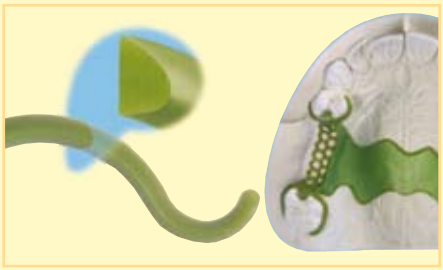
Assortment

A+B 50 pc. each
REF 430 0580 0



If Opticast is brushed onto the pattern, the components do not have to be waxed together and even finest of cracks are sealed. The investment material cannot creep under the pattern.

Clasp patterns





Premolar clasps, bent wlf pmk
10 trays
REF 430 0748 1



Premolar clasp, bent, for resin injection moulding
10 sheets of 20 clasps, 10 left + 10 right
REF 430 0748 5

The bent premolar clasp features a shifted ridge to ensure that the chyme is carefully transported away via the papilla. Compared to the previous cross-section of the clasp this results in considerable protection of the periodontium.

When using this pre-bent clasp pattern, no compression or elongation will result whilst bending the wax. This way the casting of the clasp profile will be more homogeneous.

Visit the course **„CoCr work is cast information".** Please request the course program!







The equator is marked in the usual way. The position is determined using the surveying plate 2 (undercut depth of 0.35 mm) of the Brenometer surveying system. If a short clasp is used (8 mm), the clasp tip is placed over the determined point (figure 1).







In the case of a premolar clasp (11 mm) the clasp tip is placed on the point (figure 2) and in case of a molar clasp (14 mm) the tip is placed below the point (figure 3). According to the determined position, the bent premolar clasps are placed against the tooth. Do not attach the patterns with wax to avoid changing the pattern.







During finishing, the cast clasps are only smoothed using a rubber polisher and the clasp tip is rounded off. This way the corresponding shape and the length of the pattern will always allow to obtain the same draw-off strength.



The clasp profile is separated from the central rod („tree") using a knife.



Place the clasp pattern on the template and cut off the desired length.



The pre-bent clasp pattern is placed against the corresponding tooth and fixed using the wax adapter, REF 360 0120 5. Do not attach with wax to avoid changing the pattern.



Thanks to the ideal clasp pattern design the chyme is directed away from the tooth and the gingiva is protected.

Accessories:



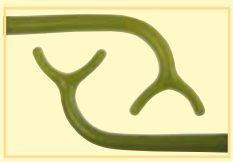
Wax adapter
REF 360 0120 5



Molar clasp
10 sheets
20 clasps each

REF 430 0157 1





Bonyhard clasp
10 sheets, 12 clasps each
REF 430 0157 6



Clasp patterns



Circumferential clasp, bent
10 sheets of 20 clasps **REF 430 0157 2**

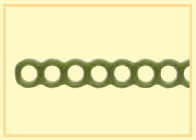
Thanks to their resistance to deformation and pressure, all Protek patterns can be fitted easily and quickly. All Protek components stay in place exactly when bent, which obviates the need to wax them into place and, especially in the case of clasp tips, avoids grinding which would otherwise be necessary.



Retentions

A wide range of retentions for any situation. Special wax offering high elasticity of bending for precise working.

Perforated retainers
25 pieces
13.5 cm long
REF 430 0159 0



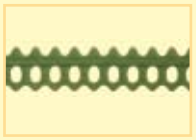


Perforated retainers staggered
25 pieces
13.5 cm long
REF 430 0159 1





Comb-shaped retainers
25 pieces
13.5 cm long
REF 430 0157 5





Finishing bands wral bent
20 pieces
REF 430 0157 7



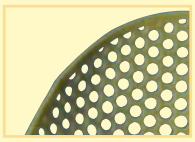


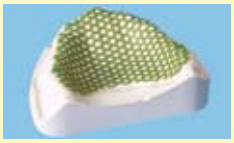
Perforated mesh
1.5 / 2.0
20 pieces 7x7 cm sheets
1.5
REF 430 0599 0
2.0
REF 430 0158 3





Reinforcing mesh
upper, preformed
12 pieces
REF 430 0219 0





Wax sheets

Stippled wax sheets
transparent so that markings and areas to be reduced remain visible.





fine stippling plw green

0.30 mm 15 pieces	**REF 430 *161 0**
0.35 mm 15 pieces	**REF 430 *161 1**
0.40 mm 15 pieces	**REF 430 *161 2**
0.45 mm 15 pieces	**REF 430 *161 3**
0.50 mm 15 pieces	**REF 430 *161 4**
0.60 mm 15 pieces	**REF 430 *161 5**

Protek wax sheets can be adapted effortlessly and will not split or crease, even in cases with very high palates.





medium stippling plw

0.30 mm 15 pieces	**REF 430 *161 6**
0.35 mm 15 pieces	**REF 430 *161 7**
0.40 mm 15 pieces	**REF 430 *161 8**
0.45 mm 15 pieces	**REF 430 *161 9**
0.50 mm 15 pieces	**REF 430 *162 0**
0.60 mm 15 pieces	**REF 430 *162 1**

* * Also available as Protek summer wax (ideal wax quality for higher temperatures).
Just replace the asterisk in the REF with an „S" for summer wax or with „0" standard wax quality.





coarse stippling plw

0.30 mm 15 pieces	**REF 430 *162 2**
0.35 mm 15 pieces	**REF 430 *162 3**
0.40 mm 15 pieces	**REF 430 *162 4**
0.45 mm 15 pieces	**REF 430 *162 5**
0.50 mm 15 pieces	**REF 430 *162 6**
0.60 mm 15 pieces	**REF 430 *162 7**

Waxes

- Sculpturing wax
- Blocking out wax
- Saddle wax
- Spacer wax
- Lingual bar patterns
- Wax patterns
- Clasp patterns
- Retentions
- Wax sheets
- **Assortment box**
- **Sprue Wax**
- Wax adhesive

Assortment box



The Protek assortment box provides a clear overview and simplifies working procedures. Can be filled according to your wishes.

Protek assortment box E 12
(empty box without content)
REF 640 0084 0

All Protek patterns are available in refill packs which can be fully recycled and are harmless to the environment

Reels of wax pattern



Various diameters of wax pattern are available in medium and hard consistencies.

Flat section wax wgb

7.0 x 1.5 x 180 mm
220 g **REF 430 0156 0**

Reels of wax pattern, 250 g Cross-section in mm		**REF** blue (medium)	**REF** green (hard)
•	1.2	**430 0115 0**	
•	1.5	**430 0115 5**	
●	2.0	**430 0116 0**	**430 0111 0**
●	2.5	**430 0116 5**	**430 0111 5**
●	3.0	**430 0117 0**	**430 0112 0**
●	3.5	**430 0117 5**	**430 0112 5**
●	4.0	**430 0118 0**	**430 0113 0**
●	5.0	**430 0118 5**	**430 0113 5**





The wax patterns can be bent without recovering elastically or becoming pinched.

Quadro wax profile



Square sprues for better casting results.
Studies have shown that all liquids - including liquid metal - flow in drops; that also applies to flowing into a square sprue.
Accordingly, the gas (air) contained in the cavity (casting mould) can escape freely across the unfilled corners. Results:

- no swirling of molten metal due to the back pressure of the residual air
- faster flowing in of the molten metal
- more homogeneous castings
- smoother surfaces
- increased precision of fit



Quadro wax profile
250 g, green

- 1.75 x 1.75
  REF 430 0691 0
- 2.25 x 2.25
  REF 430 0692 0
- 3.00 x 3.00
  REF 430 0693 0

bredent

Telephone (+49) 0 73 09 / 8 72-4 40

Wax patterns cut to size wpz

Cross-section in mm, green

·	0.8	**REF 430 0125 0**
•	1.2	**REF 430 0121 0**
•	1.5	**REF 430 0121 5**
●	2.0	**REF 430 0122 0**
⌓	1.8 x 0.9	**REF 430 0122 5**
⌓	2.0 x 1.0	**REF 430 0123 0**
◠	3.0 x 1.5	**REF 430 0123 5**
◠	4.0 x 1.5	**REF 430 0124 0**
◡	4.0 x 1.7	**REF 430 0124 5**

Wax pattern assortment:
150 g
Size 1.2 mm and above wax patterns, cut to size
REF 430 0120 0



An assortment of round and semi-round wax patterns in high Protek quality - resistant to deformation and pressure, no elastic recovery which facilitates the attachment of retainers. All patterns are available separately in 55 g packs.

Protek wax adhesive wk 2 - soaks into the investment material



Wax adhesive wk 2
20 ml
REF 540 0099 0
100 ml
REF 540 0100 2
Thinner
100 ml
REF 540 0100 1



Protek wax adhesive can be applied to the model in a thin film and soaks into the investment material.



The patterns stick securely to the investment model, with no marginal gap whatsoever.

- **Optiguss**

Optiguss

The solution for increased perfection with less effort.
Optiguss Micro – 5 micron coating – or Optiguss Macro – 10 micron coating – can be applied easily ans quickly to the wax pattern to smooth, seal and reinforce it without changing its shape. The use of Optiguss reduces the finishing time by more than 50% compared to a conventional casting surface.



Optiguss-macro
15 ml
REF 520 0092 0

Optiguss-micro
15 ml
REF 520 0093 0



Optiguss mixing well macro
2 pc.
REF 390 0035 0

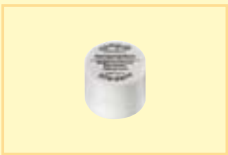
Optiguss mixing well micro
2 pc.
REF 390 0034 0



3 **Brush size** A + holder **REF 330 0114 6**

3 **Brush size** B + holder **REF 330 0114 7**

3 **Brush size** C + holder **REF 330 0114 8**



Brush cleaning pot
2 pieces
REF 390 0037 0



Brush cleaner
20 ml
REF 520 0094 0

Assortment



15 ml Optiguss-macro
15 ml Optiguss-micro
2 Optiguss mixing well macro
2 Optiguss mixing well micro
3 Brush size A
3 Brush size B
3 Brush size C
2 brush cleaning pots
1 Brush cleaner

REF 520 0091 0





Wax connectors can be built-up properly and smoothed simply and quickly with Optiguss.



As the surface of the casting is smooth, you require at least 30 % less time to trim it.





Applying several coats of Optiguss to pre-fabricated wax patterns improves them very easily, without changing their shape.





The investment material cannot creep under the wax pattern as Optiguss seals even the smallest of gaps.

bredent

- **Exaktosil N 15 / N 21**
- Technosil duplicating silicone
- Technolit
- Duplicating system
- Isosil
- Master-Copy
- Bre-Gel 1
- Bre-Gel 2
- Bre-Gel 3

Exaktosil N 15 / N 21

Tests have proven the excellent properties of Exaktosil! The silicone duplicating materials Exaktosil N15 and N21 with a processing time span of 5 – 6 minutes are highly fluid and hence ensure accurate reproduction of details. Thanks to the exceptional restoring capacity, the high tear resistance and elongation at rupture, Exaktosil silicone duplicating materials protect moulds against damage when removing them and offer technicians a superior level of quality. The suitable silicone duplicating material for all types of indications – Exaktosil!



Linear dimemsional change: 1.8 ‰
(according to DIN EN 24 823)
A specimen (stylized dental arch) is duplicated with Exaktosil N 21.

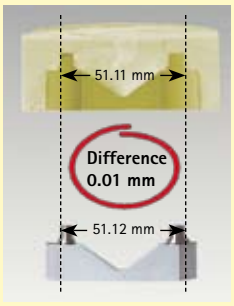


Exaktosil N 15
Component A
1000 ml
REF 540 0114 A

Exaktosil N 15
Component B
1000 ml
REF 540 0114 B

Assortment

Exaktosil N 15
1000 ml A
1000 ml B
REF
540 0103 8



Comparison of the dimensions of the specimen and the duplicating mould.
The extraordinary low shrinkage of only 1.8 ‰ ensures precise fit of CoCr objects.

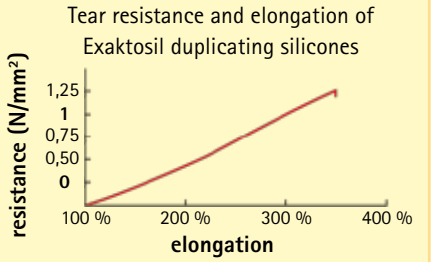


Exaktosil N 15
Component A
5000 ml
REF 540 0115 A

Exaktosil N 15
Component B
5000 ml
REF 540 0115 B

Assortment

Exaktosil N 15
5000 ml A
5000 ml B
REF
540 0103 9



The high tear resistance of approx. 1.25 N/mm² and an elongation at rupture of approx. 350 % protects duplicating moulds against damage when removing the material from the mould.



Exaktosil N 21
Component A
1000 ml
REF 540 0116 A

Exaktosil N 21
Component B
1000 ml
REF 540 0116 B

Assortment

Exaktosil N 21
1000 ml A
1000 ml B
REF
540 0114 7







Exaktosil N 21
Component A
5000 ml
REF 540 0117 A

Exaktosil N 21
Component B
5000 ml
REF 540 0117 B

Assortment

Exaktosil N 21
5000 ml A
5000 ml B
REF
540 0114 8





Duplicating

- Exaktosil N 15 / N 21
- **Technosil duplicating silicone**
- **Technolit**
- Duplicating system
- Isosil
- Master-Copy
- Bre-Gel 1
- Bre-Gel 2
- Bre-Gel 3

Technosil duplicating silicone



Addition-cured, shrinkage- and filler-free duplicating material for dimensionally accurate duplicates. Technosil is mixed in the ratio of 1:1 for simple processing. The shore hardness of 25 makes the material suitable for „ringless" model fabrication with the bredent duplicating system.

Technosil duplicating silicone
1000 g of
Component A **REF 540 TS01 A**
Component B **REF 540 TS01 B**



The short setting time allows to continue working quickly. Reduced shrinkage for accurate models.



Technosil duplicating silicone
5000 g of
Component A **REF 540 TS05 A**
Component B **REF 540 TS05 B**

Assortment

Technosil duplicating silicone component A + B 1000 g each

REF 540 TS01 0

Assortment

Technosil duplicating silicone component A + B 5000 g each

REF 540 TS05 0

Technolit



Surface tension reducing agent avoids the formation of bubbles and improves the flow characteristics of investment material and plaster.

Technolit
125 ml
REF 520 ET12 5



After a reaction time of 2 minutes the duplicating mould is blown dry using compressed air. Technolit avoids surface segregation for investment materials and plasters. Consequently, a more homogeneous surface is achieved.



Refill package
750 ml
REF 520 ET75 0

bredent

Duplicating system

The duplicating method as major element and basis for highly accurate duplicates. The stable plastic components ensure precision during duplicating and reduce errors.



Flask tray
large,
REF 520 DBKS G
small,
REF 520 DBKS K



Flask sleeve
large,
REF 520 DBKM G
small,
REF 520 DBKM K



Spacer - base insert
large,
REF 520 DBPE G
small,
REF 520 DBPE K



Stabilizer
large,
REF 520 DBBS
small,
REF. 520 DBBS K



Investment aid, aluminium
REF 520 DBAL W



Block-out kneading material
100 g
REF 540 0101 8



The flask tray serves as basis for the flask sleeve.



The flask sleeve is placed into the flask tray to ensure a stable position.



The spacer - base insert is filled with block-out material to ensure safe hold of the model when duplicating and to exclude shifting.



The block-out kneading material is used to fix the model and to block out undercuts. It will not bond to the silicone and can be reused.



The model is placed in a central position onto the block-out kneading material.



The stabilizer is put into the opening of the flask sleeve and the height is adusted according to the model. This protects the silicone mould against undesired deformation when filling the mould.



The flask sleeve is filled with Technosil.



The duplicating mould is fixed using the aluminium investment aid. Stress-free model fabrication is guaranteed on every type of surface.



Small and large sets.

Assortment

small, 5 pieces
1 flask tray
1 flask sleeve
1 spacer - base insert
1 stabilizer
1 investment aid, aluminium

REF 520 DBST K

Assortment

large, 5 pieces
1 flask tray
1 flask sleeve
1 spacer - base insert
1 stabilizer
1 investing aid, aluminium

REF 520 DBST G

Duplicating system - Starter Set

22 pieces
1 flask tray each large and small
1 flask sleeve each large and small
2 spacers - base inserts each large and small
3 stabilizers each large and small
2 investment aids, aluminium
2 block-out kneading materials
125 ml Isosil
je 1000 g Technosil duplicating silicone A+B
125 ml Technolit

REF 520 DBST E

Isosil



Isosil
125 ml
REF 520 IS12 5



Refill package
750 ml
REF 520 IS75 0



Plastic components that are wetted with Isosil allow easy removal or repositioning of the duplicating mould.

Master-Copy



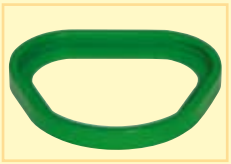
The perfect model duplicating system with transfer into the articulator.



The investment material model in the articulator features exactly the same occlusion and precision of fit as the master model.



Master-Copy base plate
1 piece
REF 360 0124 0



Master-Copy base plate ring
1 piece
REF 360 0124 1



Master-Copy silicone sleeve large
1 piece
REF 360 012M G



Master-Copy stabilizer large
1 piece
REF 360 012S G



Master-Copy stabilizer small
1 piece
REF 360 012S K



Master-Copy silicone sleeve small
1 piece
REF 360 012M K



Master-Copy base former
1 piece
REF 360 0124 2

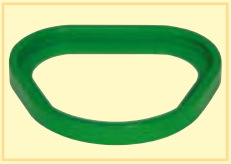


Magnetic plates
50 pieces
REF 360 0118 1

Assortment large
REF 360 0125 6



Master-Copy base plate
1 piece



Master-Copy base plate ring
1 piece



Master-Copy silicone sleeve large
1 piece



Master-Copy stabilizer large
1 piece



Master-Copy base former
1 piece



Magnetic plates
50 pieces

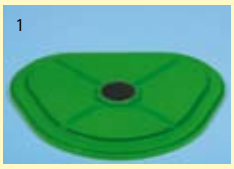
Prerequisite for the function of the Master-Copy system is the fact that the model has been processed with the Master-Split. Please request brochures on the Master model system.

Master-Copy



The initial situation ...

A frequently occurring initial situation. The lower jaw model must be duplicated for the CoCr structure.



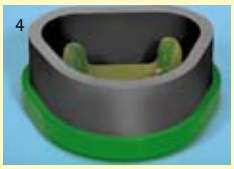
The base plate is the basis for the master model. The model produced with Master-Split fits exactly on the base plate.



The master model is fixed on the master model with the magnet.



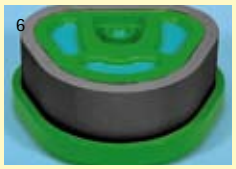
The base ring is placed on the base plate with the master model.



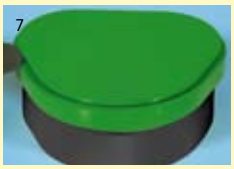
The snap of the silicon sleeve is ensured by catches in the base ring and the sleeve is held safely.



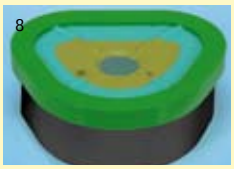
The stabilizer provides absolute stability and a highly uniform silicone layer in the tooth area.



The Master-Copy duplicating mould is filled with silicone up to the openings of the stabilizer.



Once the silicone has hardened, turn the duplicating mould and remove the base plate.



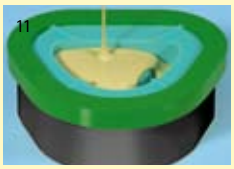
The model can be lifted by blowing in compressed air and removed from the mould.



If the model is difficult to remove, the base ring can be removed temporarily.



The base former features a magnetic plate.



The duplicating mould is filled with investment material up to 5 mm below the rim.



The base former is placed on and the mould is filled up to the base plate. Entrapped air can be easily recognized.



... the result

After hardening, the model is removed from the mould and the points for casting-on are ground. The model can be placed into the articulator.

Duplicating

- Exaktosil N 15 / N 21
- Technosil duplicating silicone
- Technolit
- Duplicating system
- Isosil
- Master-Copy
- **Bre-Gel 1**
- **Bre-Gel 2**
- **Bre-Gel 3**

Bre-Gel 1

Low-viscous agar duplicating gel for precise investment material models, suitable for microwave units



Bre-Gel BG 1
6000 ml
REF 540 0103 6



Low-viscous consistency
Bubble-free casting thanks to excellent flow characteristics.



Transparent color
Perfect control during exposure of the model due to transparent color and low viscosity.

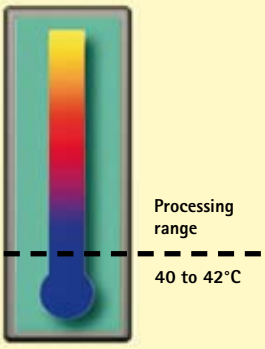


High edge stability
Stable edges ensure precise reproduction of details of the duplicate models.

Remeltable
Low viscosity to ensure bubble-free casting.



Can be remelted in the duplicating unit or the microwave at least 20 times due to the reversibility.



Processing range
40 to 42°C



A low pouring temperature with minimum difference between the gel and model guarantees tension-free, detailed duplicates.

Bre-Gel 2 opaque, Bre-Gel 3 opaque-liquid

Opaque duplicating gel for the entire duplicating technique, suitable for microwaves.



Bre-Gel BG 2 opaque
6000 ml
REF 540 0105 3



Bre-Gel BG 3 opaque-liquid
4 x 400 ml
REF 540 0105 4



Opaque Color.
The bright, opaque color simplifies the evaluation of filigree duplicating areas.



Low-viscous consistency.
Slow pouring in of the low-viscous duplicating gel avoids the formation of bubbles.



High tensile strength
The high elasticity and tensile strength allow easy removal from the cast even in undercut areas. Thus precise working is also possible in the resin casting technique.



The outstanding elasticity ensures recovery of deformed duplicating areas when removing the duplicate model.

bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- **Microkeramik**
- **Brevest M1**
- Brevest Rapid 1
- Brevest exakta M
- Brevest exakta Speed
- Brealloy F 400
- Brealloy MO
- Brealloy solder
- Brealloy flux
- Duro-Top
- Investment hardener
- Crepe sleeve
- Investment marker
- Casting funnel
- Golden booklet

Microkeramik

Perfect cast surfaces thanks to microfine ceramic layers for crowns and bridges and CoCr work.



In the field of crowns and bridges, Microkeramik is especially suitable for NP alloys since very fine cast surfaces are obtained. The Microkeramik is adapted to the expansion of the investment material.



An extended processing time span allows precise application of the Microkeramik. Microscopically fine ceramic particles ensure perfect reproduction of very fine details of wax models.



The difference after sandblasting with glass beads can be clearly recognized: The entire oxide layer can bee asily removed so that less working time is required.

Microkeramik
without **with**



Devesting is simplified since there is no bonding between the investment material and Microkeramik.



Microkeramik avoids extreme formation of oxide on NPM alloys. Cast objects are only sandblasted with 50 µ glass beads to obtain almost perfect high luster. Consequently, time for further processing is saved.



Microkeramik
125 g
REF 550 0001 2

Accessories:



3 **Brushes** size A
+ 1 brush holder
REF 330 0114 6



3 **Brushes** size B
+ 1 brush holder
REF 330 0114 7



3 **Brushes** size C
+ 1 brush holder
REF 330 0114 8

Brevest M1

Very precise, universal investment material for all CoCr alloys. Precision-fit crowns and bridges, clasps and CoCr attachment work as well as one piece casting work can be produced with two different liquids.



Bresol N *
1000 ml bottle
REF 520 000N 1

5000 ml canister
REF 520 000N 5

Brevest M1
40 bags 200 g each
REF 570 0000 8

100 bags 200 g each
REF 570 0002 0

* frost-resistant

Assortment

20 bags 200 g each Brevest M1
1000 ml Bresol C+B *
1000 ml Bresol M *
REF 570 0002 2

Please order the course documents for the attachment course VS 3 and one piece casting!

Accessories:



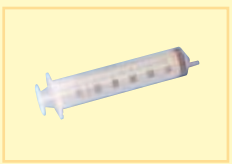
Dosing bottle
REF 520 0101 1



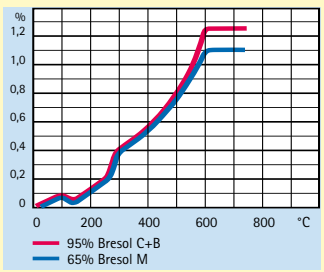
The frost-resistant Bresol C+B liquid which is suitable for expansion control is used for crowns and bridges.



For the precise one piece casting technique different expansion values can be obtained using Brevest M1. The extended reworking time span of 5 to 6 minutes provides the perfect precondition for this purpose.



Dosing syringe
6 pieces
REF
520 0101 2



The frost-resistant precision liquids Bresol C+B and Bresol M are perfectly suitable for all types of CoCr work in the entire field of dental techniques.



Due to the optimal expansion control perfect fit of attachments and CoCr claps can be achieved.

Investing / Casting

- Microkeramik
- Brevest M1
- **Brevest Rapid 1**
- **Brevest exakta M**
- **Brevest exakta Speed**
- Brealloy F 400
- Brealloy MO
- Brealloy solder
- Brealloy flux
- Duro-Top
- Investment hardener
- Crepe sleeve
- Investment marker
- Casting funnel
- Golden booklet

Brevest Rapid 1



Rapid-heating, universal precision investment material for crowns and bridges as well as the entire field of CoCr work.

Bresol R
1000 ml bottle
REF 520 000R 1
5000 ml
REF 520 000R 5

Brevest Rapid 1
50 bags 160 g each
REF 570 160R 8
125 bags 160 g each
REF 570 16R2 0

Brevest Rapid 1
40 bags 200 g each
REF 570 000R 8
100 bags 200 g each
REF 570 00R2 0

Accessories:

Dosing bottle
REF 520 0101 1
Dosing syringe
6 pieces
REF 520 0101 2



Fine grained, rapid-heating precision investment material for all large-span bridges, can also be used without casting rings.



Perfectly suitable for one piece casting. Precise expansion control with Bresol R.

Assortment

25 bags 160 g each
Brevest Rapid 1
1000 ml Bresol R
REF 570 160R 4

20 bags 200 g each
Brevest Rapid 1
1000 ml Bresol R
REF 570 0002 5



Brevest Rapid 1 can be placed into the furnace at a temperature of 900 °C already 15 minutes after mixing.



Accurate and precise attachment work and CoCr clasps – even if little time is available.

Brevest exakta M und Brevest exakta Speed

Phosphate-bonded investment materials for gel and silicone duplicating. The expansion for attachment work and CoCr clasps can be precisely controlled with the frost-resistant special mixing liquids.



Brevest exakta M
20 bags 400 g each
REF 570 00XM 8
50 bags 400 g each
REF 570 0XM2 0

Bresol N *
1000 ml bottle
REF 520 000N 1
5000 ml canister
REF 520 000N 5

Assortment

10 bags 400 g each
Brevest exakta M
1000 ml Bresol N *
REF 570 0002 3





Brevest exakta Speed
20 bags 400 g each
REF 570 0ES0 8
50 bags 400 g each
REF 570 0ES2 0

Bresol Speed *
1000 ml bottle
REF 520 000S 1
5000 ml
REF 520 000S 5

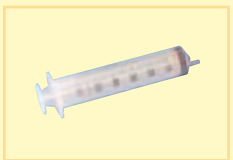
* frost-resistant

Assortment

10 bags 400 g each
Brevest exakta Speed
1000 ml Bresol
Speed *
REF 570 0ES0 4



Dosing bottle
REF 520 0101 1



Dosing syringe
6 pieces
REF 520 0101 2

Gel duplicating



Brevest exakta M and Brevest exakta Speed are particulary suitable for gel duplicating. After devesting, the investment material model is hardened in Duro-Top immersion hardener.

Silicone duplicating



These investment materials feature good flow characteristics and a processing time span of 2 to 3 minutes. No tension reducing agent is required for silicone duplicating.

- Microkeramik
- Brevest M1
- Brevest Rapid 1
- Brevest exakta M
- Brevest exakta Speed
- **Brealloy F 400**
- **Brealloy MO**
- Brealloy solder
- Brealloy flux
- Duro-Top
- Investment hardener
- Crepe sleeve
- Investment marker
- Casting funnel
- Golden booklet

Brealloy F 400





CoCrMo alloy for clasps and attachments in chrome cobalt restorations.
Brealloy F 400 is nickel-free and complies with the standard DIN EN ISO 6871 – part 1: 1996.

Brealloy F 400	VPE	100 g	500 g	1000 g
Cylinder, 7.5 g each	**REF**	**500 ML10 0**	**500 ML50 0**	**500 ML00 0**









The outstanding material properties of Brealloy F 400 allow rapid finishing and polishing.







Brealloy F 400 features a hardness of 400 HV 10. The alloy has been especially developed for non-precious attachment dentures. The chrome cobalt system of bredent offers additional innovative techniques allowing the production of locks and individual screw connections using Brealloy F 400. The combination of the physical values of Brealloy F 400 allows to obtain extremely slender chrome cobalt clasp dentures. Your patients will be enthusiastic about the high comfort of wear of these dentures.

Physical values (guide values)	
Density (g/cm³)	8.4
Vickers hardness (HV 10)	400
Solidus point (°C)	1320
Liquidus point (°C)	1380
Casting temperature (°C)	1480
0.2 % proof stress (MPa)	700
Modulus of elasticity (MPa)	approx.220.000
Tensile strength (MPa)	900
Elongation at break (%)	4
Expansion coefficient (TEC 25 - 600 °C)	15 µm/mk

Composition (in mass %)	
Cobalt	64.7
Chrome	29
Molybdenum	5
Manganese	0.4
Silicone	0.5
Carbon	0.4

Accessories:

Brealloy solder	**Brealloy flux**
7 g	8 g
REF 500 0001 0	**REF 500 0001 1**

Brealloy MO



An alloy designed to meet the requirements of the production of clasp and attachment model castings and for single shot casting technology. Easy shaping reduces milling material use. brealloy MO is nickel-free.

brealloy MO
100 g
REF 500 M010 0
500 g
REF 500 M050 0
1000 g
REF 500 M00 0

Physical properties (guide values)	
Density (g/cm³)	8.3
Vickers hardness (HV 10)	380
Solidus point (°C)	1260
Liquidus point (°C)	1350
Casting temperature (°C)	1420
0.2% proof stress (mPa)	640
Tensile strength (N/mm²)	700
E-modulus (mPa)	210,000
Elongation at break (%)	<6

Composition (in % of mass)	
Cobalt	62.2
Chrome	30
Molybdenum	5.5
Silicone	1.0
Manganese	0.6
Carbon	0.6
Others	0.1



The high e-modulus permits production of delicate brace prostheses.



Easy shaping of brealloy MO facilitates the production of attachments.

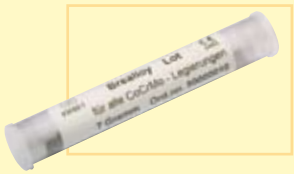


Individual bars can be produced to fit perfectly.

Accessories:

Brealloy solder	**Brealloy flux**
7 g	8 g
REF 500 0001 0	**REF 500 0001 1**

Brealloy solder



Brealloy solder
7 g
REF 500 0001 0

Solder especially matched with CoCr alloys for chrome cobalt and ceramic bonding techniques to avoid the formation of galvanic elements and undesired reciprocal action with the ceramic material.

Brealloy flux



Brealloy flux
8 g
REF 500 0001 1

Suitable for all CoCr alloys,
supports the flow characteristics of the solder.

Duro-Top



Duro-Top
1000 ml
REF 570 0005 4

Immersion hardener for precise and clean modelling on duplicate model surfaces.

For the agar duplicating technique



Immersion hardening liquid especially for agar duplicating - for sealing model surfaces.

Stabilization of edges



Thin edges and filigree areas withstand increased stress due to the immersion process.

Surface smoothing



Prefabricated wax elements adhere to the smooth model surface without using any adhesive.

Excellent diffusion



Due to the low-viscous consistency the hardener easily penetrates into the surface.

High yield



Excellent hardening effect and robust models are obtained even after numerous immersion processes.

Investment hardener



Improves the hardness and surface texture of all models duplicated in silicone.

Investment hardener
500 ml
REF 550 0000 4



The improved strength toughens the edges and prevents damage to the fine wax-coated margins.



The greater scratch resistance allows waxing up without damaging the model surface.

Crepe sleeve



Crepe sleeve
25 m
REF 570 0002 1

For individual overbedding of CoCr work.

- Surface enlargement
- Uniform absorption and release of heat
- Investment material is saved



Investment marker



Helps with the positive identification of investment muffles.

Investment marker
REF 330 0115 0



The necessary information is noted down quickly and easily.



The marker can be clearly read on all investment materials up to 1100 °C.

Casting funnel



Casting funnel
made of high-quality plastic
25 pieces
REF 360 0002 5



Specially shaped casting funnel for CoCr work. Made of high-quality plastic for extended durability. Compared to the shape of conventional casting funnels, this shape improves the filling behavior.

Golden booklet



Golden booklet
DIN A 6
REF 610 0020 0

Thanks to the clear and simple structure of the golden booklet, reliable stock-keeping of precious metal alloys is ensured. The booklet simplifies the control and provides a quick survey on the consumption of alloys.



Golden booklet
DIN A 4
REF 610 0010 0

- **Polierjet**
- Wax adapter
- Statik-Disc

Polierjet

Further development of an industrial polishing technique rationalizes dental surface processing.



Quadro-Finish



Compared to conventional polishing, the biocompatibility of chrome cobalt castings is increased due to a compacted surface:

- no mechanical irritation of the mucosa by sharp edges
- no mechanical irritation of the mucosa due to pores

Quadro-Finish polishing unit incl. starter kit
polishing material
4 polishing drums
REF 130 0046 0

Technical data	
Height	860 mm
Width	830 mm
Depth	600 mm
Motor power	0.75 KW
Current consumption	2.7 A /230 V
Weight	152 kg

- constant polishing performance
- no deformed chrome cobalt objects due to manual polishing
- improves and standardizes the precision of fit of chrome cobalt work
- time-consuming, unpleasant polishing with rubber polishers which is also injurious to health is no longer required
- less dirt and more pleasant working conditions in the laboratory
- surface hardening of non-precious alloys - clasps become clearly more elastic
- perfect polishing of the inside of the clasp



Duo-Finish

Due to the rolling effect of the polishing materials the structure of chrome cobalt claps is enhanced. A hard shell is formed on the outside and a soft core in the inside so that the clasps become more elastic and flexible similar to a cornstalk.

Duo-Finish polishing unit incl. starter kit
polishing material
2 polishing drums
REF 130 0045 0

Technical data	
Height	670 mm
Depth	755 mm
Width	600 mm
Motor power	0.75 KW
Current consumption	2.7 A /230 V
Weight	120 kg



Chrome cobalt supply, crowns and bridges made of non-precious alloys and titanium are polished to pre-high luster in three working steps. Compared to conventional polishing, approx. 20 minutes can be saved for each chrome cobalt object.

Accessories:

Foot rack
REF 730 0016 8

Polishing drum
REF 730 0016 7

Leasing at request

1. Prepolishing



Polishing porcelain 3/3, 8000 g
REF 730 0015 7

Polishing porcelain 6/12, 7200 g
REF 730 0015 8

Polishing porcelain 9/9, 7800 g
REF 730 0015 9

Polishing porcelain coarse, 5500 g
REF 730 0016 2

2. Main polishing



Polishing porcelain spheres,
9800 g
REF 730 0016 0

Polishing porcelain pins,
8800 g
REF 730 0016 1

Polishing powder, fine,
3500 g
REF 730 0016 3

3. High luster polishing



Polishing granulate,
4000 g
REF 730 0016 4

Polishing cream,
290 g
REF 730 0016 5

Polishing stainless steel pins,
2500 g
REF 730 0016 6

Wax adapter



Quick and safe adapting of prefabricated wax patterns in the CoCr technique.

Wax adapter
REF 360 0120 5



With the flat side, clasps and sublingual clasps can be perfectly and correctly placed on the investment model and pressed against it.





When using the wax adapter, prefabricated wax patterns will no longer be damaged or deformed by the special silicone but safely attached to the model.





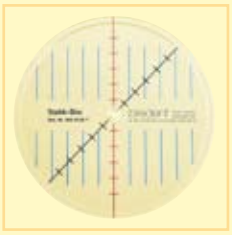
The rounded side is perfectly suited for stippled maxillary plates or retentions. The fine wax patterns will not be deformed either.



- Polierjet
- Wax adapter
- **Statik-Disc**

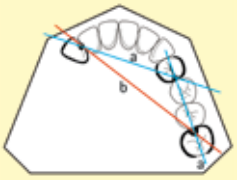
Statik-Disc

Time-consuming design drawings when planning CoCr dentures are no longer required if the Statik-Disc is used.
The statically correct position of the supporting elements is quickly determined by dentists and dental technicians.



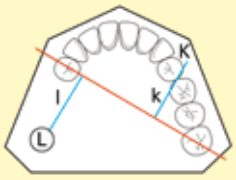
- quick determination of correct static
- can be applied individually to any situation
- suitable for all models
- simple handling

The clasp line principle
The clasp line principle applies to all denture constructions. The clasp supporting line (a) runs peripheral to the denture body. In the case of saddle dentures it should lie in the center of the jaw ridge. It is always obtained by connecting the clasp supports. The main clasp line (b) separates the jaw halves diagonally. It results from connecting the supports of tooth no. 13 and 27.



Statik-Disc
REF 360 0126 7

Determination of the tilting axis
Work arm and power arm are vertical on the tilting axis. The lever principle applies: load (L) x work arm (W) = power (P) x power arm (p). Load and power are given; therefore it must be attempted to keep power x power arm on the same level or higher than load x work arm.



Kennedy class I

On both sides the gaps are in the distal area of the residual dentition (bilateral free-end dentures). This type of denture creates the following static situation:
If a saddle is lowered after exposure to masticatory pressure, diagonal tensile stress is obtained on the opposite side. The rotation axis runs through the support on the same side and the end of the saddle on the opposite side.



Mark planned position of the tooth set up last on the modeled diagonal to the final natural tooth on the shorter arch. (1). The Statik Disc is placed on the model so that the red line runs through the center of the planned support between the planned tooth and the final natural tooth on the opposite side.
The red line is also the tilting axis.



The black line is turned to the planned support of the final natural tooth on the opposite side to determine where the final articifial tooth needs to be set up (2). Simultaneously the blue lines allow to read the power/load relationships. The blue lines have a distance of 10 mm to allow rapid and simple determination.
In this example it can be recognized that the power/work arm relationship is not perfect when integrating the final tooth. Accordingly, this tooth should not be replaced and thus the arch be shortened (3).



Kennedy class II

The gap is on one side in the distal area from the residual dentition (unilateral free end denture) or - in conjunction with a larger gap on the other side. This type of denture creates the following static situation:
Unless clasps are correctly attached to the denture, incorrect loading and tilting of the denture may be caused. Therefore a supporting element must be attached to avoid tilting .



The Statik-Disc is placed on the model so that the red line is in the center between the final tooth at the shortened arch (mesial support) and the last tooth on the opposite arch (mesial support).



The black line is turned so that it points to the desired tooth that was set up last. The position of the anti-tilting element is now indicated on the other side. If this element is situated mainly in the aesthetic area, the black line must be turned further to the mesial direction towards the tooth that is set up next. The position of the the antitilting element will then be shifted to the distal area.



Kennedy class IV

Kennedy class IV defines gaps that are located left or right from the central line and are limited by the residual dentition in the distal area.



In this type of dentures, clasps are attached to the dorsal area. If the Statik-Disc is placed on so that the red line serves as tilting axis, the blue lines allow to recognized immediately that the power/work arm relationship can be balanced by the clasps attached to the dorsal area.



In this case the power arm is missing so that a long work arm is obtained. Open clasps with distal support must be used. The clasp arms act as retentions in the presence of tensile stress since they are held by the equator if exposed to pull-off movement.



Attachment techniques



The Statik-Disc also simplifies correct planning if attachments are used. In this case the red line is placed on the attachment; this line also serves as tilting axis. The power/work arm relationship is read with the help of the blue line and thus the expansion of the teeth to be set up can be determined.

- **Titanium Finishing Set**

Titanium Finishing Set



Finish titanium rationally using cutters, polishers, brushes and pastes developed specifically for use on titanium.

Extra-sharp blades, special blade geometry and cutter blades combined with Diatit wear-resistance, which has been proven for many years, guarantee that titanium can be finished quickly, without harming the material yet reducing heat development.





Recommended speed
20,000 r.p.m.
REF D 194 KT 50





Recommended speed
20-25,000 r.p.m.
REF D 194 KT 40

The titanium-Diatit-cutter grinds exceptionally abrasively yet runs extremely smoothly on the titanium surface. Thus, one can work accurately and quickly to achieve a uniformly smooth ground surface.





Recommended speed
25-30,000 r.p.m.
REF D 198 KT 23





Recommended speed
10-15,000 r.p.m.
REF D 001 KT 14

Thanks to the various shapes and sizes, even areas which are narrow and difficult to access can be finished precisely. When used at the correct speed (refer to range of speeds) and only minimal pressure is exerted, the titanium-Diatit-cutter grinds exceptionally well and lasts a very long time.





Recommended speed
5-10,000 r.p.m.
REF 350 0087 0





Recommended speed
15-20,000 r.p.m.
REF 350 0088 0

The pre-polishers are matched to titanium to create a uniform, smooth surface on the restoration which can be polished immediately.





REF 350 0054 0

A round, goat-hair brush, for use in a handpiece, and Titapol pre high-luster polishing paste create a virtually perfect high-luster.





REF 350 0065 0

The cotton polishing buff, for use in a handpiece, and the Abraso-Star universal high-luster polishing paste create a fascinating, perfect high-luster.





REF 350 0081 0

The supple fibre fleece layer, with open pores, in the Abraso-Soft Metal polishing brush is impregnated with abrasive grit. When used with Titapol pre high-luster polishing paste, this brush creates uniform, high-luster surfaces on restorations in the shortest possible time.





REF 350 0083 0

The high-luster-buff metal, with its 50 layers of extra-fine, absorbent special textile, combined with Abraso-Star high-luster paste ensures perfect high-luster within a few minutes.

- **Titanium Finishing Set**

Titanium Finishing Set



Titapol
150 g
REF 520 0015 3
350 g
REF 520 0015 4



Abraso-Starglanz asg
REF 520 0016 3



Titapol pre high-lustre polishing paste and Abraso-Star universal high-lustre polishing paste - the perfect combination for excellent polishing.



Beech wood stand
8Bo/HP
REF 210 0043 0

Finishing set for titanium

REF 350 0089 0

	Refill packs:
1 Diatit tungsten carbide cutter, D194 KT 50	**REF D194 KT 50**
1 Diatit tungsten carbide cutter, D194 KT 40	**REF D194 KT 40**
1 Diatit tungsten carbide cutter, D198 KT 23	**REF D198 KT 23**
1 Diatit tungsten carbide cutter, D001 KT 14	**REF D001 KT 14**
1 Titapol pre-polishing wheel	**REF 350 0087 0**
1 Titapol pre-polishing cylinder	**REF 350 0088 0**
1 Round brush zwm db 19 Ø goat hair, white, mounted, double rows	**REF 350 0054 0**
1 Cotton buff, for handpiece	**REF 350 0065 0**
1 Abraso-Soft Metal CSF 2/80 chunking, black, white textile insert	**REF 350 0081 0**
1 High-luster buff, metal, 50 L/100	**REF 350 0083 0**
1 Titapol pre-polishing paste, 150 g	**REF 520 0015 3**
1 Abraso-Star asg universal high-luster polishing	**REF 520 0016 3**
1 Beech wood stand 8Bo/HP	**REF 210 0043 0**

You can select further Diatit tungsten carbide cutters for trimming titanium rationally from our range of cutters.

One piece casting technique

- **One piece casting**

One piece casting



Double crowns and CoCr work in the one piece casting technique.
One piece casting by bredent allows to produce precision-fit restorations from a single CoCr alloy.

Due to simple handling of the system, the dental technician can save up to 40 % of production time compared to a combined restoration made from gold/CoCr alloy.
Adjustment of friction of each secondary element is possible within approx. 6 minutes thanks to the exact expansion control of the investment material. Additionally, purchasing and storage costs of gold alloys are reduced by 90 %.
The high modulus of elasticity of CoCr alloys (Brealloy C +B 270 = 200,000 MPa) allows to produce very small dental restorations and thus increased aesthetics of e.g. ceramic veneers can be achieved.

New applications for palate-free upper dentures or clasp-free lower restorations give patients increased comfort of wear. The reception of taste and the phonetics are no longer affected negatively by such constructions.

The high biocompatibility of the CoCr alloys is supported so that electrochemical stress will not occur. The low thermal conductivity of CoCr alloys allows to reduce hot/cold sensitization considerably compared to gold alloys and results in an increase of patients' general well-being.

Patients, dentists and dental technicians will benefit from the material saved in the one piece casting technique. For example, the dentist can induce his dental laboratory to produce a telescopic restoration featuring improved quality and aesthetics. Since less work is required, the dental technician will save time which can be used to perform other activities. No material costs will have to be borne by patients since the health insurance companies will pay all costs of the alloys.

Patients, dentists and dental laboratories will benefit from the one piece casting technique.

Advantages of one piece casting for the:

1. Patient

- Reduced overall costs thanks to saving of material whilst still offering the same or enhanced quality
- Higher biocompatibility
- Improved well-being due to thinner constructions
- Enhanced phonetics
- Natural reception of taste
- No foreign body in the mouth

2. Dentist

- Can increase patient satisfaction due to thinner restorations
- Patients can receive more valuable restorations due to lower costs
- Less prone to plaque accumulation - prolonged preservation of teeth
- Increased tissue compatibility since only one metal is used

3. Dental technician

- More profit thanks to saving of material and reduction of storage costs
- Less time required compared to conventional techniques
- More options due to very small restorations
- More space for veneers
- Simple handling of the system

We strive to ensure your success!

bredent

- **One piece casting**

One piece casting

The bredent system allows to produce thin, biocompatible and precision-fit one piece casting restorations.



The primary crowns are prepared with the 2° wax bur F200 2W 23.



A max. wall thickness of 0.3 - 0.4 mm must be ensured.







The crowns are milled quickly using Brealloy C + B 270 and the 2° NE profile bur.



Perfect high luster is achieved with Brepol prepolishing and high luster polishing paste in a very short time.

See page 206 for detailed information on the milling unit BF1!





The model is prepared for duplicating in the usual way using Protek preparation wax.



The dk-sil duplicating flask and Exaktosil N15 are used for duplicating.





The exact expansion control offered by Brevest M1 is the prerequisite to produce precison-fit CoCr restorations.



The secondary crowns are prepared with the CoCr object in the time-saving one piece casting technique.



Order the course documentation „Double crowns and CoCr supply in the one piece casting technique"!

Polishing

- **Metal polishing set**
- **Brepol**

Metal polishing set

A complete range of polishing products for all alloys.



Abraso-Soft Metal

Abraso-Buff Metal

High Luster Buff Metal

Pumice polishing paste for polishing acrylic and metal.

Metal polishing set

1 x 150 g	Abraso Star K50, low abrasion
1 x 150 g	Abraso Star K80, high abrasion
1	Abraso-Soft metal
1	Abraso-Buff Metal
1	High Luster Buff Metal
1 x 500 g	Pumice Polishing Paste
50 ml	Abraso Star Glaze

REF 350 0085 0



Abraso Star K80 high abrasion

Abraso Star K50 low abrasion



Abraso Star Glaze
Universal high luster polishing paste for precious metals, non-precious alloys and acrylics.

Brepol



Brepol
50 g
REF 540 0103 7

High luster polishing paste for non-precious metal alloys.
Achieve high luster without prepolishing.



The round goat-hair brush and Brepol create perfect high luster on all non-precious metal alloys.



Safe polishing of clasp dentures with the hand-piece



Crowns and bridges made of non-precious metal alloys are polished as easily as gold.



After milling, polish telescopic and conical crowns to high luster without prepolishing. Perfectly suitable for the inner surfaces of secondary crowns.

Accessories:



Round goat-hair brush, white, double the bristles
Ø 19 mm, 15 pieces
REF 350 0054 0





Pen-shaped brushes Chungking, black
7 mm long
15 pieces
REF 350 0041 0



Attachment, shear distributor and CoCr structure are quickly and neatly polished to high luster.





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Disinfection and cleaning

- **Dentaclean impression and denture disinfectant**
- **Shipping bag**
- **Dentaclean denture cleaning agent**
- Dentaclean ultrasonic cleaning agent
- Dentaclean plaster removing agent
- Dentaclean plaster removing agent Speed
- Dentaclean pumice disinfectant

Dentaclean impression and denture disinfectant



Disinfecting with Dentaclean impression and denture disinfectant avoids the transmission of viruses, bacteria and fungi – from the patient to the laboratory. The concentrate is mixed to obtain 10 liters of ready-to-use solution which is highly effective and has a surprisingly mild odor.

Impression and denture disinfectant
1000 ml concentrate to obtain
10 liters ready-to-use solution
25 shipping bags
REF 520 0100 6

Tested and approved by the Institute for Clinical Hygiene and Infection Control, Gießen, Germany.



Pathogens can be transmitted by impressions that were not disinfected. Accordingly, the infection risk for the patient is increased.



After the use of Dentaclean impression and denture disinfectant, acute viruses, bacteria and fungi can no longer be detected.

Shipping bag



The shipping bags have already been labeled „disinfected". Additionally, a separate bag holds the order notes to protect them against moisture.

Shipping bag
200 pieces
REF 520 0100 2

Dentaclean denture cleaning agent



Concentrate for easy removal of plaque, tartar and coatings on dentures.

Dentaclean denture cleaning agent
1000 ml concentrate to obtain
11 liters ready-to-use solution
REF 520 0099 2



Up to now the removal of tartar has been difficult and could often only be achieved through grinding. This is unpleasant and takes a lot of time.



Now high-quality concentrate components in Dentaclean denture cleaning agent remove difficult coatings from dentures safely and quickly within only 15 minutes.



Contaminated dentures are unpleasant and require a lot of time for cleaning.



Dentures can be quickly and easily cleaned with Dentaclean denture cleaning agent.

- Dentaclean impression and denture disinfectant
- Shipping bag
- Dentaclean denture cleaning agent
- **Dentaclean ultrasonic cleaning agent**
- **Dentaclean plaster removing agent**
- **Dentaclean plaster removing agent Speed**
- **Dentaclean pumice disinfectant**

Dentaclean ultrasonic cleaning agent



Concentrate for removal of polishing paste residues.
Mild odor, powerful cleaning capacity.



Cleaning of polishing contaminations takes a lot of time. Therefore aggressive agents that are injurious to health are frequently used.



Matched surfactants and emulsifiers remove contaminations carefully and quickly thus saving time for the technician.

Dentaclean ultrasonic cleaning agent
1000 ml concentrate to obtain
11 liters ready-to-use solution
REF 520 0099 7

Dentaclean plaster removing agent / Dentaclean plaster removing agent Speed



Ready-to-use solution to remove plaster residues from all surfaces.
The Dentaclean plaster removing agent is available in two types: normal and Speed. The ready-to-use solution removes plaster residues from all surfaces. If no time is to be wasted, Dentaclean Speed should be used.

Dentaclean plaster removing agent
1000 ml
REF 520 0011 9
2500 ml
REF 520 0099 3

Dentaclean plaster removing agent Speed
1000 ml
REF 520 0101 0
2500 ml
REF 520 0099 4



Hard plaster particles are carefully removed from the mixing bowl without any damage.



Gentle and fast removal of plaster protects the acrylic surface and the color.

Dentaclean pumice disinfectant



Protects against germs.

Dentaclean pumice disinfectant
- Destroys all germs.
- Remains moist and free of germs for two to three weeks without having to be remixed.
- Contains skin-care additives to protect employees' hands.
- Contains natural odours which still smell fresh after several weeks.
- Mixed polish adheres to the brush and restoration better so that the pumice splatters less. This saves time when polishing as the pumice slurry does not have to be applied repeatedly.

Dentaclean
Pumice disinfectant
5000 ml
REF 520 0099 8

Dentaclean
Pumice disinfectant
1000 ml
REF 520 0099 9



Moist pumice contains germs: HIV, Hepatitis B, skin fungi etc.
These germs endanger the dental technican' s and patient' s health.



Dentaclean pumice disinfectant helps. It is fungicidal, bactericidal and virucidal. Tests carried out at Dr. Schumacher's Institute of Hygiene prove that even HBV and HIV viruses are destroyed completely. This safeguards the laboratory staff 's and patient' s health.

~~Hepatitis B~~

~~HIV~~

~~dermathophytes~~

Application:
Simply mix the pumice slurry with Dentaclean pumice disinfectant - do not add water. This is the only method to ensure that the pumice slurry remains moist and free of germs for two to three weeks!

- **Transblock**

Transblock



The transparent block-out material for fast and systematic working. The stability of Transblock results in uniform layer thicknesses and the material can be adjusted individually by scraping.



Any desired size or shape of Transblock can be produced with the help of an instrument or scissors.



The high flexibility simplifies placement onto the model.



Due to its stability a uniform thickness is retained during the adaptation. If required, the thickness can be adapted individually by scraping.



The transparency of Transblock allows to check the thickness of the area that has been blocked out. This way precisely prepared models for individual trays are obtained.

Transblock
250 g
REF 540 0114 9

- **Polylux pl 20**
- **Wax knife**
- Wax knife bwm 3
- Ergonom wax knife
- Piezo-Blitz pb1
- Repositioning tweezers
- Waxpool duo
- Thermo-syringe
- Posi-boy
- Protective chamber
- thermopress 400
- Articulation paper holder

Polylux pl 20



The light-curing unit with removable material container for easy placement of the object. The powerful lamp (9 watts) illuminates the entire interior chamber and supports polymerization of the materials.
UVA range: 350 - 450 nm. Power: 20 mw/cm.

Polylux pl 20

Polylux polymerization unit with material container	**REF 140 0088 0**
Polylux polymerization unit without material container	**REF 140 0084 0**

Accessories:

Material container	**REF 140 0085 0**
Replacement lamp S 9W	**REF 140 0086 0**

Wax knife



Hand piece
(without blade)
REF 110 0072 0



Contouring tips

size 1 Ø 0.3 mm
REF 790 0070 0

size 3 Ø 0.7 mm
REF 790 0072 0

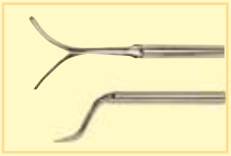
size 5 Ø 1.0 mm
REF 790 0074 0

Blades



Standard blade
REF 320 0070 0

Sword blade
REF 320 0072 0



Duo-blade
REF 790 0073 0

Hollow blade, angled
REF 320 0071 0



Wax is precisely applied in the interdental spaces using the thin tip of the Duoblade.



Wax is applied onto large-sized areas using the thick tip.



The shape of the standard blade is perfectly suitable to smoothen or scrape the wax pattern.



The preangled hollow blade is used to shape approximal areas that are difficult to access.

Wax knife bwm 3



Control unit bwm 3
with handpiece and contouring blade size 5
REF 140 0096 3

Control unit bwm 3
REF 140 0096 0

Handpiece bwm 3
REF 140 0096 2



Rest bwm 3
REF 140 0096 5



Footswitch bwm 3
REF 140 0096 1



Foam rubber grip lining
4 pieces
REF 140 0096 4

Electric wax knife featuring integrated advanced technology and high quality. The ergonomic handpiece allows to take up wax quickly and ensures comfortable working.

- ergonomically shaped handpiece
- quick heating up with the Rapid-Speed footswitch
- adjustable temperature control
- simple and fast exchange of the contouring blades



Contouring blade bwm3 size 1 **REF 320 004G 1**

Contouring blade bwm3 size 3 **REF 320 004G 3**

Contouring blade bwm3 size 5 **REF 320 004G 5**

Contouring blade bwm3 Standard **REF 320 0047 2**



1 Comfortable and quick removal of the contouring blades.



2 Device for firm, reliable hold of the handpiece at the unit.



3 Mobile rest for safe depositing of the handpiece.



4 Blade shapes proven over numerous years allow individual application.



5 Integration into the grip for quick and simple exchange of the contouring instruments without the risk of injuries.



6 The special instrument grip avoids twisting of the contouring tip whilst working.



7 The contouring tips are stored on the control unit in a safe and clearly arranged manner.



8 If the wax knife is not needed, it can be placed on the rest in the direct reach of the technician.



9 The footswitch allows to quickly reach a higher temperature than the one that has been set. Activation of the footswitch is indicated by the control lamp.



10 Logical and clearly arranged control unit for stressfree and safe working.



11 Handpiece with flexible, stable cable for simple working.



12 High-tech dental equipment featuring highly useful function and design - for comfortable and simple working.

- Polylux pl 20
- Wax knife
- Wax knife bwm 3
- **Ergonom wax knife**
- **Piezo-Blitz pb1**
- Repositioning tweezers
- Waxpool duo
- Thermo-syringe
- Posi-boy
- Protective chamber
- thermopress 400
- Articulation paper holder

Ergonom wax knife



Modelling knife for dental prosthetics.
Various instruments all in one – hence instruments do not need to be changed any longer so that faster and more efficient processing of the wax model is possible.
Ergonomic design of handle - suitable for right- and left-hand users.

Ergonom
Wax knife
REF 310 0001 3



Special, ground edge of the knife tip for simple and fast modelling of age-specific papillae shapes.



The spoon which features a ground edge is perfectly suitable for modelling the alveolar area.



The deep spoon perfectly allows to apply large wax quantities within a very short time.



Well-aimed, fast application of wax reduces the time for remodelling in the interdental area.



Transitions towards the functional margin and the functional margin itself can be prepared swiftly and neatly thanks to the curved design of the spoon element.





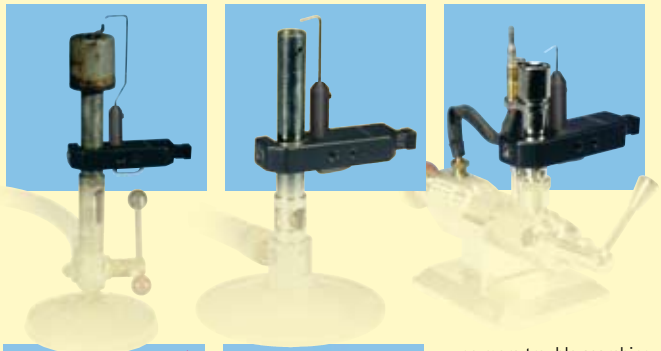
With the Ergonom wax knife, wax models can be easily and quickly shaped so that a natural appearance is obtained.

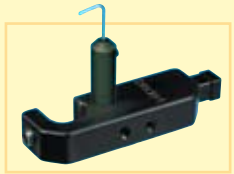
Piezo-Blitz pb1



Piezo-electric ignitor for all gas burner types. Suitable for all burner types (even old ones)!







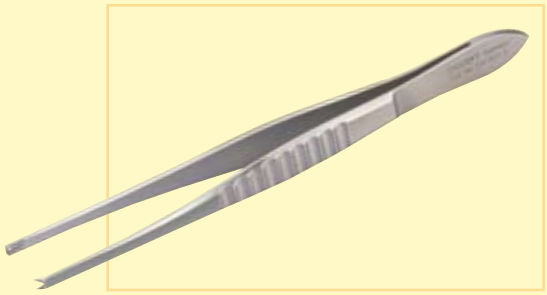
Piezo-Blitz pb1
REF 360 0126 6

The main and the economy flame can be ignited by turning the ignition electrode.



... no more trouble searching for a lighter or matches.

Repositioning tweezers





- special pincer tips for secure holding
- pincer tips of hardened material for a long working life
- no slipping of small parts – no irritating searching
- fine tips for narrow areas

Secure holding of plastic and ceramic teeth during repositioning in the cuvette and boiling-out. The special pincer tips of the tweezers take secure hold of teeth and other small parts and permit fast working.

Repositioning tweezers
1 piece
REF 310 0011 5



The pointed pincer tips permit secure holding of teeth and other small parts.



The special and well designed denticulation of the pincers provides optimal hold security.



Secure holding of teeth is not possible with normal tweezers. Time-consuming searching is eliminated.



Small parts such as screws or attachments are gripped easily and securely. A useful instrument particularly for implantology.



On completion there is always a problem – the repositioning of the teeth! The special fine pincers at the tweezers tips permit secure gripping of the teeth.

Waxpool duo



Waxpool dipping unit
REF 110 0150 0

Waxpool duo Set

4 pieces
1 Waxpool duo unit
1 Waxpool duo handpiece
2 Waxpool duo contouring blades at your choice
REF 110 0152 0

Waxpool duo hand-piece
REF 110 0151 0

Accessories:



Rest
REF 140 0096 5

Wax dipping unit and wax knife all in one – digital control for added comfort
- Stable and easy to clean plastic housing
- Exchangeable plastic lids
- Clear design
- °C or ° F can be selected

Wax dipping unit
- Precise temperature control of the dipping wax for increased quality
- High-performance heating elements reduce the time for melting the wax
- Uniform wax copings thanks to constant temperature control
- Special, lowered safety dipping basin to avoid burning of fingers
- Melting temperature up to 120° C

Wax knife
- A separate wax knife can be connected
- A single unit at the working place
- Non-tiring working thanks to ergonomic design of the handle
- Special insulating elements reduce heating up of the handle
- Simple exchange of blades
- Boost key for quick heating up to the end temperature
- Maximum temperature of 240° C



Contouring blade size 1
REF 320 WP4G 1



Contouring blade size 3
REF 320 WP4G 3



Contouring blade size 5
REF 320 WP4G 5



Contouring blade Standard
REF 320 WP47 2

Units / Instruments

- Polylux pl 20
- Wax knife
- Wax knife bwm 3
- Ergonom wax knife
- Piezo-Blitz pb1
- Repositioning tweezers
- Waxpool duo
- **Thermo-syringe**
- **Posi-boy**
- **Protective chamber**
- thermopress 400
- Articulation paper holder

Thermo-syringe



Thermo-syringe
REF 110 0121 1



After heating, the adhesive acrylic wax is directly applied onto the glueing point using the Thermo-syringe. Firm bonding is ensured.



The adhesive acrylic wax can be applied onto any type of material. Afterwards it can be removed from the objects without leaving any residues.

Accessories:



Adhesive acrylic wax
Pack cont. 250 g **REF 510 0070 1**

Bucket cont. 1000 g **REF 510 0070 0**

Fixing and glueing that can be dissolved without any residues for any type of model situation.
The adhesive acrylic wax can be moulded by heating and easily applied to the models.

Posi-boy



The perfect „third hand" to hold any model in the desired position.
Posi-boy simplifies processing of cold-curing acrylics. The solid metal base ensures firm stand and the correct position in the pressure pot. No tilting, no leaking of acrylics, no change of pre-shaped saddles.

Posi-boy
REF 360 0101 0



The corrosion-resistant V2 A material guarantees a long service life for the Posi-boy and keeps the acrylics „in shape" in any pressure pot. Thanks to its robust design and the individual adjustment options, firm hold of the model is ensured.

Protective chamber



The Protective chamber avoids inhaling of dust, protects your eyes and, consequently, protects your health. Available with or without extraction nozzle. The extraction nozzle can be directly connected to the extraction system.

Protective chamber with extraction nozzle **REF 220 0010 0**
Dimensions: approx. width
410 x depth 350 x height 260 mm, Ø 35 mm

Protective chamber without extraction nozzle **REF 220 0011 0**
Dimensions: approx. width
410 x depth 350 x height 260 mm

thermopress 400



Injection moulding unit for thermal resins up to 400° C

- No additional equipment such as CO_2 cylinder or compressed air required. This way costs and time are saved.
  The injection moulding result can be achieved more easily and safely since pressure drop is avoided.
- Added comfort thanks to simple programming and operating of the unit.
- Time-saving function thanks to simultaneous operation of both heating chambers.
- The injection process can only be performed with the lid being closed; additional safety is provided. Convenient removal of the flask thanks to automatic cartridge ejection if the bracket is unlocked.

thermopress 400
1 unit with power cord
2 allen keys
1 cleaning brush
1 special tool
REF 110 0040 0



Heating is accelerated by high-performance thermocouples. The temperature of the resin is maintained on a constant level by two thermocouples.



Guide and fastening mechanism holds the flask safely in the unit. As a consequence, transmission of power during the injection process is fully utilized - no energy is lost.



Convenient and clear operation using the multifunctional display. Up to 30 different program variations can be selected.

Technical data thermopress 400

Width	650 mm
Height	250 mm
Depth	300 mm
Weight	40 kg
Voltage	220 - 230 V
Power	0.5 - 1.6 kW
	max. 2.2 kW

Accessories thermopress 400:

1 press-out device and punch*	**REF 140 0090 4**
1 pair of cartridge pliers*	**REF 140 0090 6**
1 flask hook with hex*	**REF 140 0091 2**
1 flask, small* (l 122 cm, w 102 cm, h 72 cm)	**REF 140 0090 3**
1 flask, large (l 140 cm, w 102 cm, h 72 cm)	**REF 140 0090 5**
1 cleaning brush	**REF 110 0040 2**
1 thermopaste 400 special paste, 50 g*	**REF 540 0105 1**
Expando-Rock-Set	
5 kg expansion plaster, 500 ml Expandosol	**REF 570 0ERS 5**

thermopress-Workshop
REF 950 0020 0

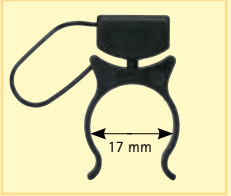
thermopress 400 accessories assortment
7 pieces
REF 110 0040 1
View above, accessories thermopress 400: articles marked with * are included in thermopress 400 accessories assortment!

thermopress introductory assortment
5x30 g bre.crystal pink 1
3x24 g bre.crystal crystal clear
5x24 g bre.flex pink 1
2x20 g bre.flex pink 2
2x16 g bre.dentan A
3x16 g Bio Dentaplast A2
REF 140 0090 2

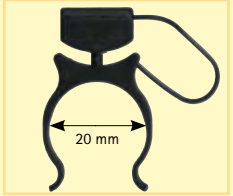
Articulation paper holder



Repeated taking up and placing down the handpiece and articulation paper are no longer required. Grinding in a flick of the wrist!



Articulation paper holder size 1
1 piece
REF 360 0121 7



Articulation paper holder size 2
1 piece
REF 360 0122 0

Insulating agents

- **Wax insulating agent**
- **Plaster insulating agent**
- Isoplast ip
- Acrylic Sep

Wax insulating agent



Micro-fine insulating liquid for all wax patterns. Insulates plaster, acrylics, metal and even wax against wax.

Wax insulating liquid wis with brush pen pk 20
750 ml
REF 540 0070 4

Accessories:



Plastic spray bottle sp
125 ml
REF 540 0075 0



Brush pen pk 20
20 ml
REF 540 0072 0



The brush pen allows to apply defined quantities of the wax insulating liquid to the desired areas of the model.



After waxing-up the saddles, the pattern can be removed from the model without any damage.

Plaster insulating agent



For reliable insulation of plaster against plaster. Alginate-based plaster insulating liquid which ensures gap-free fit. For utmost precision and separating of sawcut models without any damage.

Plaster insulating agent
750 ml
REF 540 0013 5

Accessories:



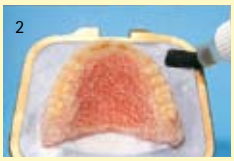
Plastic spray bottle sp
125 ml
REF 540 0075 0



Brush pen pk 20
20 ml
REF 540 0072 0



The plaster insulating liquid soaks into the plaster and seals the surface without layering. The brush pen allows quick application.



The plaster insulating liquid allows separating the two flask halves without any damage.



bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- Wax insulating agent
- Plaster insulating agent
- **Isoplast ip**
- **Acrylic Sep**

Isoplast ip



Plaster-acrylic insulating liquid for all cold- and hot-curing acrylics.



The desired quantity of Isoplast can be applied to ensure economic use.

Isoplast ip
750 ml
REF 540 0101 9

Accessories:



Brush pen pk 125
125 ml
REF 390 0033 0



The plaster-acrylic insulating liquid seals the surface. This way precise impressions are ensured.



Isoplast allows to obtain extremely smooth, shining acrylic surfaces. The finishing time is reduced.



Acrylic Sep



Acrylic-plaster separating liquid for the condensing, pressing and injection techniques. Particularly suitable for separating the thermopress resins.

Acrylic Sep
250 ml
REF 520 0029 1

750 ml
REF 520 0029 4

Wax

- **Protective wax for functional margins**
- **Bite blocks**
- Set-up wax asw
- Modelling wax pink Standard
- Wax palatal patterns gf
- Adhesive wax klw
- Acrylic sprue wax
- Flexible acrylic sprue wax

Protective wax for functional margins



To produce perfect functional margins.
The slightly sticky, flexible functional margin wax allows simple and safe positioning to each impression material. Final fixation is achieved by waxing up. Accordingly, uniform design of functional margins is possible.

Protective wax for functional margins frs
175 g
REF 430 0150 0



The completed functional tray provides the best precondition for precise models with a perfect functional margin.



Uniform and ideal functional margins on the model ensure perfect fit of the denture.

Bite blocks



Prefabricated wax bite blocks – available in the shape of jaws or rods featuring different degrees of hardness.



medium, red, UJ/LJ
74 pieces
REF 430 0022 0

medium, red, UJ
74 pieces
REF 430 0020 0

medium, red, LJ
74 pieces
REF 430 0021 0



soft, pink, UJ/LJ
74 pieces
REF 430 0027 0

soft, pink, UJ
74 pieces
REF 430 0025 0

soft, pink, LJ
74 pieces
REF 430 0026 0



The basal profile of the bite blocks allows time-saving adaptation on the base plate.



hard, yellow, UJ/LJ
74 pieces
REF 430 0017 0

hard, yellow, UJ
74 pieces
REF 430 0015 0

hard, yellow, LJ
74 pieces
REF 430 0016 0

super-hard, white, UJ/LJ
74 pieces
REF 430 0012 0

super-hard, white, UJ
74 pieces
REF 430 0010 0

super-hard, white, LJ
74 pieces
REF 430 0011 0



Bite blocks bw
rods
medium, red
104 pieces
14 x 8 x140 mm
REF 430 0023 0



soft, pink
104 pieces
14 x 8 x140 mm
REF 430 0028 0



hard, yellow
104 pieces
14 x 8 x140 mm
REF 430 0018 0

super-hard, white
104 pieces
14 x 8 x140 mm
REF 430 0013 0

The height and the width of prefabricated bite blocks are suitable for the use on partial dentures.



Prepare situation model in the usual way.



The basal profile of the bite block simplifies adapting on the base plate.



The consistency of the bite blocks allows simple reduction of the height and width using the wax knife.



The prefabricated wax bite block can be easily integrated.



Since additional application of wax to the buccal and lingual area is no longer required, a considerable amount of time and material can be saved.



The high stability and functional processing of the bite blocks ensures precise bite-taking.

bredent

- Protective wax for functional margins
- Bite blocks
- **Set-up wax asw**
- **Modelling wax pink Standard**
- Wax palatal patterns gf
- Adhesive wax klw
- Acrylic sprue wax
- Flexible acrylic sprue wax

Set-up wax asw



For setting up and changing the position of acrylic teeth without heating.



Set-up wax asw 4
pink
220 g
REF 430 0157 4



Set-up wax asw 5
pink
220 g
REF 430 0152 0



Set-up wax asw 3
pink
220 g
REF 430 0151 0

Assortment

Set-up wax asw
pink, 220 g
1 each asw 3, 4, 5
REF 430 0149 0



Three different sizes of the pink set-up wax allow the individual use.



Thanks to its consistency the set-up wax can be perfectly processed without being heated.



The set-up wax allows quick adapting on the base plate.



No additional wax is required for flushing of the set-up wax.



Due to the adhesive capacity of the set-up wax, acrylic teeth are fixed prior to waxing on.



Even after waxing on, acrylic teeth can be brought into any individual position.

Modelling wax pink Standard mdwst



Modelling waxes in sheets are used for a large number of applications in denture work.

Modelling wax pink Standard mdwst sheets.

Two thicknesses and three different qualities provide the technician with individual processing options.

Sheet thickness
1.25 mm
quantity 1000 g
75 x 150 x 1.25 mm

soft, pink	**REF 430 0164 3**
medium, pink	**REF 430 0164 2**
hard, pink	**REF 430 0164 1**

Sheet thickness
1.50 mm
quantity 1000 g
75 x 150 x 1.5 mm

soft, pink	**REF 430 0164 6**
medium, pink	**REF 430 0164 5**
hard, pink	**REF 430 0164 4**



Due to the particular stability of the pink modelling wax sheets, sufficient stability for the base plates is provided.



By rolling up the wax sheets and waxing them to the base plate, acrylic teeth can be set up immediately.



Bite blocks can be easily produced by rolling up and kneading this modelling wax.



The structure of the pink modelling wax sheets allows easy blocking-out for individual trays.



Even during extended try-in, the original stability of this modelling wax is maintained.

Wax palatal patterns gf



More quality, function and esthetics within a short time.
The recesses for the acrylic teeth simplify adapting of the pre-shaped wax palatal patterns to the situation.



Assortment

Wax palatal patterns gf
120 pieces,
25 pieces each

0.5 mm A, B
1.5 mm A, B
REF 430 0218 0



The use of wax palatal patterns for the wax set-up simplifies modelling and saves time.



Cut out the pink modelling wax and replace it by wax palatal patterns.



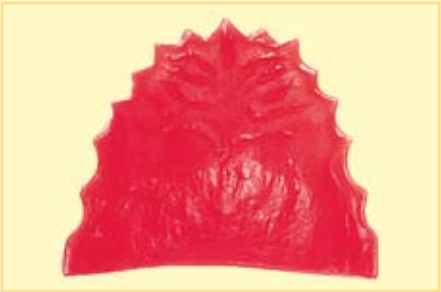
The pre-shaped wax palatal patterns can be easily adapted.



The transition of the wax palatal patterns to the approximal area can be perfectly designed with the fine modelling tip of the wax knife.



The natural function and esthetics of the palate is restored.





size A

0.5 mm 100 pieces **REF 430 0214 A**

1.5 mm 60 pieces **REF 430 0211 A**

size B

0.5 mm 110 pieces **REF 430 0215 B**

1.5 mm 70 pieces **REF 430 0212 B**

Adhesive wax klw



Special constituents guarantee firm glueing of any type of material. Residue-free removal with steam or boiling off of the adhesive wax is still possible.

Adhesive wax klw
dark red
25 g
REF 510 0040 0



The high stability after cooling down allows the production of the model without any additional reinforcing elements.



The well-balanced composition allows residue-free removal with steam resp. boiling off of the adhesive wax.

- Protective wax for functional margins
- Bite blocks
- Set-up wax asw
- Modelling wax pink Standard
- Wax palatal patterns gf
- Adhesive wax klw
- **Acrylic sprue wax**
- **Flexible acrylic sprue wax**

Acrylic sprue wax



Acrylic sprue wax
220 g
REF 430 0172 0



Save time by using this special wax for the acrylic casting and injection techniques.
- free from colorants
- pre-shaped
- can be moulded at room temperature

Flexible acrylic sprue wax



Flexible acrylic sprue wax
275 g, Ø 10 mm
REF 430 0741 0



The cross-section has been especially matched with the thermopress flask.
- low melting temperature, hence simple boiling out
- no color residues

Tray material UV



Highly stable light-curing resin for trays and base plates.
The flexibility of the material allows easy placement onto the model without tearing. The required shape can be cut with an instrument. The pink color provides the perfect basis for the set-up.



Tray material UV
50 pieces UJ
REF 540 0011 0



Tray material UV
50 pieces LJ
REF 540 0011 1

Assortment

50 pieces
25 x Tray material UV - UJ
25 x Tray material UV - LJ
REF 540 0011 2



Tray material UV band
2.5 mm x 90 mm
1350 g
REF 540 0016 6

Tray material UV block
1000 g
REF 540 0011 3

Accessories:



Polylux pl 20
Polylux polymerization unit with material container
(see page 251)
REF 140 0088 0



The high flexibility of the material simplifies the placement onto the model. The material will not be damaged.



The tray material can be precisely cut with any instrument. Accordingly, the amount of work is reduced.



Perfect adaptation to any situation guarantees uniform wall thicknesses.



Due to the high stability the position of the handle which has been determined will not be changed during the polymerization process.



The tray material has hardened after only 10 minutes in the Polylux unit.



The high stability of the tray material avoids deformation during impression taking. Precise models will be obtained.



The pink color offers the perfect basis for any type of set-up.



As a basic material for bite patterns or functional trays with bite rims, the resin ensures that the work will not be deformed.

Poly-Gel UV



Protects acrylics against plaster when fabricating dentures in the hot-curing method – helps to save time.

Poly-Gel UV
200 ml
REF 540 0013 1



Polylux pl 20
REF 140 0084 0

Assortment

200 ml Poly-Gel UV
250 g retention crystals
REF 540 0013 6



Poly-Gel UV retention crystals
250 g
REF 540 0013 2



The retention crystals offer a sufficiently large area to fix Poly-Gel UV safely.



Invest the wax set-up into the flask half in the usual way.



Poly-Gel UV is directly applied to the wax pattern from the tube to avoid excessive use of material.



After applying, Poly-Gel UV is spread with an instrument to obtain a uniform, thin layer thickness (max. 3 mm).



The retention crystals are precisely spread onto the Poly-Gel UV. To avoid bite raising, Poly-Gel UV must not be applied to the occlusal surfaces.



Since Poly-Gel UV only hardens in the polymerization unit, several wax set-ups can be invested simultaneously.



Poly-Gel UV firmly adheres to the plaster after the wax pattern has been boiled out. Approximal areas will be protected.



Poly-Gel UV creates a protective film which can be easily removed after devesting.

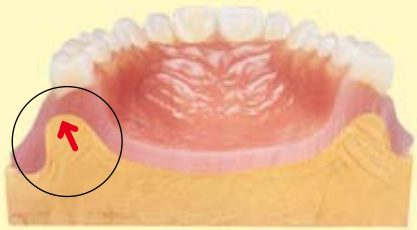


Exact reproduction of the papillae pattern in acrylic material. The finishing time of the approximal areas is reduced through the use of Poly-Gel UV.

Dentaplast Opti-Press



Heat-polymerizing denture resin in three colors. Dentaplast Opti-Press is processed in the packing/pressing technique and suitable to fabricate telescopic and cover dentures in the field of full and combination dentures.



Maximum precision of fit



Dimensional stability and torsional resistance ensure perfect fit of the acrylic denture.



Invest the wax set-up in the flask in the usual way. Use Poly-Gel UV or Dentasil to protect acrylic teeth.



After boiling out the wax model, apply Isoplast separating liquid onto the plaster.

Dentaplast Opti-Press	quantity	100 g	500 g	1000 g
powder, pink opaque	REF	540 0112 4	540 0112 5	540 0112 6
powder, pink opaque veined	REF	540 0112 7	540 0112 8	540 0112 9
powder, transparent	REF	540 0112 1	540 0112 2	540 0112 3



The teeth may be removed to ensure simple handling when roughening the acrylic teeth and preparing the undercuts.

Dentaplast Opti-Press	quantity	100 ml	500 ml	1000 ml
liquid	REF	540 0113 0	540 0113 1	540 0113 2



The optimized mixing ratio provides exceptional kneadability. Accordingly, the resin can be shaped before it is placed into the flask.

Dentaplast Opti-Cold



Cold-curing, pink resin for CoCr dentures, repairs and relinings.



Low-viscosity resin with extended processing time span allows pouring of dentures or repairs without the formation of bubbles.



Dentaplast Opti-Cold	quantity	100 g	500 g	1000 g
powder, pink opaque	REF	540 0113 8	540 0113 9	540 0114 0
powder, pink opaque, veined	REF	540 0114 1	540 0114 2	540 0114 3
powder, transparent	REF	540 0113 5	540 0113 6	540 0113 7

Dentaplast Opti-Cold	quantity	100 ml	500 ml	1000 ml
liquid	REF	540 0114 4	540 0114 5	540 0114 6

- Tray material UV
- Poly-Gel UV
- Dentaplast Opti-Press
- Dentaplast Opti-Cold
- **Dentaplast Opti-Cast**
- Opti-Cast casting system
- Multisil-Soft
- thermopress bre.crystal, bre.dentan, Bio Dentaplast, bre.flex, Bio XS, thermopress 400
- thermopress 400 Muffle System

Dentaplast Opti-Cast



The casting resin for the Opti-Cast casting system.

cadmium-free

The Dentaplast Opti-Cast casting resin is cadmium-free and particularly biocompatible thanks to the low content of residual monomer.

Modern manufacturing systems guarantee constant quality of our products and the compliance with DIN EN 1567.

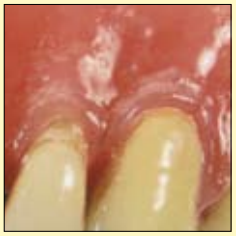




precision of fit

Very low polymerization shrinkage leads to utmost precision of fit of dentures.





surface quality

The high density of Dentaplast Opti-Cast casting resin reduces accumulation of plaque on the polished surface. The perfect precondition for individually designed dentures.

Dentaplast Opti-Cast	quantity	100 g	500 g	1000 g
powder, pink opaque	REF	540 P010 0	540 P050 0	540 P100 0
powder, pink opaque, veined	REF	540 P010 G	540 P050 G	540 P100 G
powder, transparent	REF	540 P010 T	540 P050 T	540 P100 T

Dentaplast Opti-Cast	quantity	100 ml	500 ml	1000 ml
liquid	REF	540 F010 0	540 F050 0	540 F100 0

Opti-Cast casting system

Opti-Cast Set



Opti-Cast flask
1 piece
REF 360 0125 7

Sealing plugs
20 pieces
REF 360 0125 8

Producing, finishing and polishing dentures with the least effort. The perfect flow characteristics and the well-matched processing times render Opti-Cast casting resin the first choice product. Due to the carefully selected raw materials, inaccuracy of fit is a matter of the past. The optimized material combination minimizes residual monomer.



Silicone plugs
3 pieces
REF 360 0125 9

Small punching tube
1 piece
REF 360 0126 0



Mixing cup maxi 1
80 ml
1 piece
REF 320 004M 1



Isoplast ip
750 ml
REF 540 0101 9



Measuring cup liquid
25 ml, 1 piece
REF 360 0126 2



Measuring cup powder
50 ml, 1 piece
REF 360 0126 3



Bre-Gel BG 3
4 x 400 ml
REF 540 0105 4

Assortment

Opti-Cast pink opaque

1	flask
20	Sealing plugs
3	Silicone plugs
1	Small punching tube
1	Mixing cup maxi 1
1	Measuring cup liquid
1	Measuring cup powder
500 g	Dentaplast Opti-Cast casting system powder
500 ml	Dentaplast Opti-Cast casting system liquid
30 ml	Isoplast ip

REF 360 0126 4

Assortment

Opti-Cast pink opaque, veined

1	flask
20	Sealing plugs
3	Silicone plugs
1	Small punching tube
1	Mixing cup maxi 1
1	Measuring cup liquid
1	Measuring cup powder
500 g	Dentaplast Opti-Cast casting system powder
500 ml	Dentaplast Opti-Cast casting system liquid
30 ml	Isoplast ip

REF 360 0126 8

Bre-Gel BG 3 opaque liquid

Special duplicating gel for the economical production of dentures.



The model with the waxup is soaked.



To avoid low pressure when deflasking, the plug is inserted in the outside of the lower flask element.



The silicone plugs are pressed into the charging holes.



To ensure optimal positioning of the sprues, the model and the upper flask element are assembled as shown. A magnet in the base plate helps to hold the model.

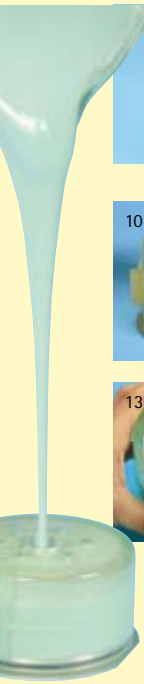


Shake duplicating gel to obtain homogeneous consistency



and then melt in the microwave for 3 min at 600 to 800 watt.

Opti-Cast casting system





Stir Bre-Gel to achieve uniform heating. Melt two more minutes.



Excess pressure caused by boiling is avoided by the opened lid.



The flask is cooled in the cold water bath to 40-45 °C while stirring.



Pour Bre-Gel into the flask until the vents are slightly overfilled.



Final strength is reached after 45 minutes in the cold water bath.



The circumferential groove simplifies the removal of the upper flask element.



The model is carefully deflasked using compressed air.



The complex gingival model is reproduced in precise details.



Soak the model for 10 minutes before it is completed.



The charging hole and the vent are neatly punched with the small punching tube.





Before the teeth are placed back into the gel mould, they require circumferential ...



... and basal roughening with the setup grinding tool (REF 340 0101 0).



Thinly applied Isoplast (REF 540 0101 9) with short drying time ensures a perfect insulating film.



The model is placed back into the gel mould.



To ensure stabilization, the silicone plugs remain in the charging holes until the flask is closed.



The flask is closed in the correct position using a centering snap.



The flask is placed onto the flattened lower flask element. Opti-Cast casting resin can now be poured in from above.





Entrapped air escapes when the flask is swayed.



A delay in polymerization can be achieved with cold water. This way resin can flow during the polymerization phase.



The resin is polymerized in the pressure pot for 30 min at 40 to 50 °C and a pressure of 2-6 bars.

Multisil-Soft



The permanently soft relining system.

Multisil-Primer
5 ml
REF 520 0100 4



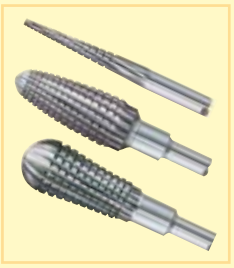
reliable bonding

The bonding agent is matched to the bond of denture resin and silicone.



ready-to-use

The flow characteristics allow rapid processing and applying through the dosing device.

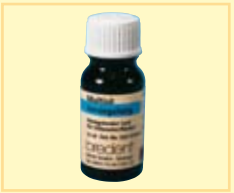


Silicone burs
REF S187 QG 23
REF S263 QG 60
REF S237 QG 65



grindable

Silicone burs with a special cutting geometry simplify grinding of functional margins and transition zones.



Multisil sealing liquid
10 ml
REF 520 0100 5



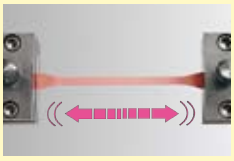
plaque-resistant

Multisil sealing agent avoids the accumulation of plaque to the surface and penetration of bacteria into the surface.



permanently elastic

Prolonged comfort of wear is a distinctive feature of the material.



tear-resistant

Highly cured materials create exceptional wear resistance and special tear resistance.



Dosing device
REF 320 0044 0

Assortment

Multisil-Soft

2 x 50 ml	Multisil-Soft in cartridges
5 ml	Multisil-Primer
10 ml	Multisil sealing liquid
12 pieces	Mixing cannulas
1 piece	Silicone burs S237 QG 65

REF 540 0104 5



Refill packages:

50 ml Multisil-Soft cartridges
REF 540 0104 6

5 ml Multisil-Primer
REF 520 0100 4

10 ml Multisil sealing liquid
REF 520 0100 5

12 St. Mixing cannulas yellow
REF 320 0045 1

- Tray material UV
- Poly-Gel UV
- Dentaplast Opti-Press
- Dentaplast Opti-Cold
- Dentaplast Opti-Cast
- Opti-Cast casting system
- Multisil-Soft
- **thermopress** **bre.crystal, bre.dentan, Bio Dentaplast, bre.flex, Bio XS, thermopress 400**
- thermopress 400 Muffle System

thermopress



The range of biocompatible materials available guarantess a wide and varied application range of the system.



bre.crystal

features long-term stability, provides a dense and hence smooth surface. This results in enhanced comfort of wearing of full dentures.

- **no residual monomer – high biocompatibility**
- **limited water absorption – constant suction effect, lasting precision of fit**
- **available in the shades: crystal clear, pink 1, pink 2, pink 3, pink stippled**
- **to be processsed at 260° C**



bre.dentan

is an industrially polymerized thermoplastic resin which increases the resistance to fracture and the biocompatibility of crowns and bridges.

- **three different dentin shades are available**
- **can be veneered with conventional C+B resins**
- **available in the three common dentine shades A, B, C**
- **to be processed at 260° C**



bre.flex

Unbreakable denture base material for partial dentures. The indication range also includes splints and sports mouthguards.

- **available in the shades: translucent, pink 1, pink 2, pink 3 and tooth shade B**
- **to be processed at 222° C**



Bio Dentaplast

Clasps and attachments which are normally made of metal can be produced using tooth-colored Bio Dentaplast. The esthetic appearance of teeth at which retaining clasps have been attached is improved.
Additional indications are

- **crowns and bridges (temporary)**
- **telescopic and attachment work**
- **tooth-colored clasps**
- **shades A1, A2, A3, B2, B3 based on the VITA shade guide**
- **to be processed at 220° C**



Bio XS

The high-melting Bio XS features dimensional and thermal stability and is stress-free to simplify the fabrication of precision-fit dentures.

- **The extremely stable thermoplastic resin is perfectly suitable for the fabrication of metal-free veneers of crowns and bridges and for telescopic and attachment work.**
- **supplied in cream tinge**
- **to be processed at 380° C**

bre.crystal



Esthetically appealing thermoplastic resin.

	bre.crystal	Heat-/cold-curing resin
Shrinkage	0.6 %	5-7 %
Water absorption	0.35 %	2 %
Residual monomer	0.2 %	2-7 %

bre.crystal
(Thermoplastic resins – partial and full dentures)

color	Quantity	REF
crystal-clear	20 x 24 g	**540 0P32 4**
crystal-clear	20 x 30 g	**540 0P33 0**
crystal-clear	1 x 500 g	**540 0P30 5**
pink 1	20 x 24 g	**540 0P12 4**
pink 1	20 x 30 g	**540 0P13 0**
pink 1	1 x 500 g	**540 0P10 5**
pink veined	20 x 24 g	**540 0P02 4**
pink veined	20 x 30 g	**540 0P03 0**
pink veined	1 x 500 g	**540 0P00 5**
pink 2	20 x 24 g	**540 0P22 4**
pink 2	20 x 30 g	**540 0P23 0**
pink 2	1 x 500 g	**540 0P20 5**
pink 3	20 x 24 g	**540 0P42 4**
pink 3	20 x 30 g	**540 0P43 0**
pink 3	1 x 500 g	**540 0P40 5**

Wax model



The flexible acrylic sprue wax with the required diameter of 10 mm is waxed on to the premolars and thins out towards the palatal direction.



Dentasil tooth protection silicone (REF 520 0029 6) allows to achieve a high final hardness (Shore 65) so that the teeth are perfectly protected against the high press-in pressure.

Investing



The wax model is invested into the flask using class III or IV stone and then boiled out.

Retentions



The roughened acrylic teeth with retentions are wetted with the Haftconnector (bonding agent) for 5 min. The circular retention produced using Vb2 ensures safe hold.

Polishing



The highly compressed bre.crystal denture can be processed and polished just like conventional acrylics.

Aluminium catridges empty
18 pieces
REF 540 KL01 8

Acrylic sprue wax
220 g
REF 430 0172 0

Bonding agent
REF 520 0029 2

Wipo-Dur
Repair material
pink
powder
500 g
REF 540 0RP0 5

liquid
500 ml
REF 540 0RF0 5



Acrylic Sep Acrylic/plaster separating liquid
250 ml
REF 520 0029 1

750 ml
REF 520 0029 4

Accessories:



Dentasil tooth protection silicone
2 x 50 ml
with 24 mixing cannulas size 2, yellow
REF 520 0029 6

Mixing cannulas
size 2, yellow
12 pieces
REF 320 0045 1



Diamond point Veneering technique Vb 2
1 piece
REF 340 0083 0



Plaster insulating agent
750 ml
REF 540 0013 5



Dosing device
REF 320 0044 0

- Tray material UV
- Poly-Gel UV
- Dentaplast Opti-Press
- Dentaplast Opti-Cold
- Dentaplast Opti-Cast
- Opti-Cast casting system
- Multisil-Soft
- **thermopress** bre.crystal, **bre.dentan, Bio Dentaplast,** bre.flex, Bio XS, thermopress 400
- thermopress 400 Muffle System

bre.dentan



Thermoplastic resin featuring high resistance to fracture for tooth-colored crowns, bridges and long-term temporary restorations – simple, fast and favorably-priced.



bre.dentan in 3 tooth shades
(crowns and bridges)

	Quantity	REF
bre.dentan A	20 x 16 g	**540 0DA1 6**
bre.dentan B	20 x 16 g	**540 0DB1 6**
bre.dentan C	20 x 16 g	**540 0DC1 6**



Outstanding material properties for accurate positioning and perfect fit. Ideal to prepare exact, high-quality temporary restorations.



Plaster insulating agent
750 ml
REF 540 0013 5

Bio Dentaplast



.... offers a wide range of applications in the area of attachment and chrome cobalt work.
Reinforced pre-bent clasp pattern for resin injection moulding. No application of additional wax required, hence time is saved and correct cross-section design is ensured.

Expando-Rock-Set
5 kg expansion plaster 500 ml Expandosol
REF 570 0ERS 5

Bio Dentaplast
(tooth shade based on the Vita shade guide)

	Quantity	REF
A1	20 x 16 g	**540 BA11 6**
A1	20 x 20 g	**540 BA12 0**
A2	20 x 16 g	**540 BA21 6**
A2	20 x 20 g	**540 BA22 0**
A2	1 x 500 g	**540 BA20 5**
A3	20 x 16 g	**540 BA31 6**
A3	20 x 20 g	**540 BA32 0**
A3	1 x 500 g	**540 BA30 5**
B2	20 x 16 g	**540 BB21 6**
B2	20 x 20 g	**540 BB22 0**
B2	1 x 500 g	**540 BB20 5**
B3	20 x 16 g	**540 BB31 6**
B3	20 x 20 g	**540 BB32 0**
B3	1 x 500 g	**540 BB30 5**



Plaster insulating agent
750 ml
REF 540 0013 5



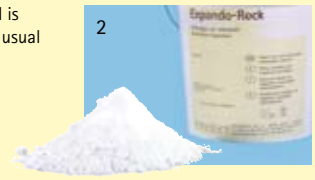
Premolar clasps, bent for resin injection moulding
10 sheets with 10 clasps each left + right
REF 430 0748 5

Preparatory work



The master model is duplicated in the usual way.

Duplicate



The low shrinkage of Bio Dentaplast is compensated with expansion stone.

Model



The wax model must be thicker; at the largest diameter a minimum thickness of 1.5 mm is required. The retentions are reinforced using a 1.0 mm wax wire.

Investing



Bio Dentaplast is a readily flowing thermoplastic resin. Wax wires with a diameter of 3.5 - 4.0 mm are sufficient for the injection channels.



Die varnish
REF 540 0100 5

Separating



Brilliant surfaces can be achieved by sealing the plaster surface with the heat-resistant UV Lack (varnish) (REF 540 0100 6).

Finishing



The materials (Expando-Rock, plaster insulating, Bio Dentaplast) that are matched with each other compensate expansion and shrinkage and allow the fabrication of precision-fit dentures.

bre.flex

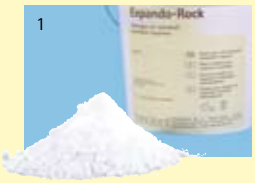


bre.flex is a flexible, highly compatible polyamide and has proved its suitability for dentures for allergic persons.
Silicone burs are perfectly suitable for processing bre.flex.

bre.flex
(splints and sports mouthguards, chrome cobalt and attachment work)

color	Quantity	REF
translucent	20 x 24 g	**540 0F12 4**
translucent	20 x 20 g	**540 0F12 0**
translucent	20 x 16 g	**540 0F11 6**
translucenta	1 x 500 g	**540 0F10 5**
tooth shade B	20 x 24 g	**540 0F22 4**
tooth shade B	20 x 20 g	**540 0F22 0**
tooth shade B	20 x 16 g	**540 0F21 6**
tooth shade B	1 x 500 g	**540 0F20 5**
pink 1	20 x 24 g	**540 0F02 4**
pink 1	20 x 20 g	**540 0F02 0**
pink 1	20 x 16 g	**540 0F01 6**
pink 1	1 x 500 g	**540 0F00 5**
pink 2	20 x 24 g	**540 0F42 4**
pink 2	20 x 20 g	**540 0F42 0**
pink 2	20 x 16 g	**540 0F41 6**
pink 2	1 x 500 g	**540 0F40 5**
pink 3	20 x 24 g	**540 0F32 4**
pink 3	20 x 20 g	**540 0F32 0**
pink 3	20 x 16 g	**540 0F31 6**
pink 3	1 x 500 g	**540 0F30 5**

Duplicate



Use Expando-Rock to produce the model.

Wax model



The wax model has a layer thickness of only 0.5 - 0.8 mm.

Separating



Brilliant and homogeneous denture surfaces are achieved by sealing the plaster surface with die varnish (REF 540 0100 6).



Diatit-Multidrill
1.5 Ø x 8 mm
REF 330 0073 0

Retention

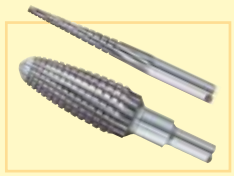


To ensure safe hold of the acrylic teeth, a retention (1 mm) is drilled from the mesial to the distal direction.

Investing



Use a class III stone for bases and counter parts.



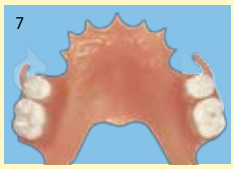
Silicone burs
REF S187 QG 23
REF S263 QG 60

Devesting



After cooling down for at least 20 min, bre.flex can be easily devested.

Finishing



bre.flex is resistant to fracture. Perfectly suitable for the fabrication of flexible dentures.



Die varnish
REF 540 0100 5

Accessories:



Abraso-Gum Acryl
6 pieces
REF P243 HG 10



cartridges empty
18 pieces
REF 540 KL01 8

Expando-Rock-Set
5 kg expansion plaster
500 ml Expandosol
REF 570 0ERS 5



Abraso-Gum Acryl
6 pieces
REF P243 HM 10



Rodeo round brushes
15 pieces, Ø 21 mm
REF 350 0097 0

- Tray material UV
- Poly-Gel UV
- Dentaplast Opti-Press
- Dentaplast Opti-Cold
- Dentaplast Opti-Cast
- Opti-Cast casting system
- Multisil-Soft
- **thermopress** bre.crystal, bre.dentan, Bio Dentaplast, bre.flex, **Bio XS,** thermopress 400
- thermopress 400 Muffle System

Bio XS



The thermoplastic resin developed by bredent is an extremely stable polymer, high-melting and biocompatible. Perfect bonding of the veneering resin to the Bio XS framework is achieved by sandblasting (grain size 110 µ) at a pressure of approx. 2 bars. Retentions should be used.

Bio XS

cream 5 x 8 g	**REF 540 XS00 8**
cream 5 x 16 g	**REF 540 XS01 6**
cream 2 x 24 g	**REF 540 XS02 4**
cream 1 x 500 g	**REF 540 XS00 5**

Accessories:

Expando-Rock-Set
expansion plaster
bucket, 5 kg
Expandosol, 500 ml
REF 570 0ERS 5

thermopaste 400
Special paste for
Bio XS, 50 g
REF 540 0105 1

Crown and bridge frameworks, attachments and telescopes are produced in the injection moulding technique without any complex procedures.

The warm, cream tinge supports coloring even of very thin veneer frameworks. Perfect aesthetic appearance is achieved also in cases of limited space.



Invested wax-up on the model made from Expando-Rock in the required expansion. This way a highly accurate design is achieved and the amount of reworking is reduced.



The advanced thermoplastic resin Bio XS allows the fabrication of very thin CoCr frameworks and avoids thermal interactions in the patient's mouth for enhanced well-being.

Bio XS – material properties

- Readily flowing up to 0.3mm
- Flexural strength approx. 170 MPa and tensile strength approx. 100 MPA
- Resistance to cleaning agents – tested
- Resistance to discoloration caused by food or drinks - tested
- Sterilizable

Bio XS – tested biocompatibility and quality

- Biocompatibility tested according to ISO 10993
- Quality control according to ISO 9001

Bio XS – for metal-free restorations to satisfy highest demands

- Perfectly matched materials
- Precision-fit injection results
- No thermal irritation in the patient's mouth
- No metal taste
- Excellent comfort of wearing

thermopress 400



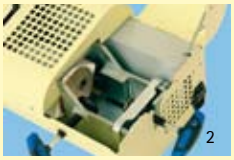
Injection moulding unit for thermal resins up to 400° C

- No additional equipment such as CO_2 cylinder or compressed air required. This way costs and time are saved.
  The injection moulding result can be achieved more easily and safely since pressure drop is avoided.
- Added comfort thanks to simple programming and operating of the unit.
- Time-saving function thanks to simultaneous operation of both heating chambers.
- The injection process can only be performed with the lid being closed; additional safety is provided. Convenient removal of the flask thanks to automatic cartridge ejection if the bracket is unlocked.

thermopress 400
1 unit with power cord
2 allen keys
1 cleaning brush
1 special tool
REF 110 0040 0



Heating is accelerated by high-performance thermocouples. The temperature of the resin is maintained on a constant level by two thermocouples.



Guide and fastening mechanism holds the flask safely in the unit. As a consequence, transmission of power during the injection process is fully utilized - no energy is lost.



Convenient and clear operation using the multifunctional display. Up to 30 different program variations can be selected.

Technical data thermopress 400

Width	650 mm
Height	250 mm
Depth	300 mm
Weight	40 kg
Voltage	220 - 230 V
Power	0.5 - 1.6 kW
	max. 2.2 kW

Accessories thermopress 400:

1 press-out device and punch*	**REF 140 0090 4**
1 pair of cartridge pliers*	**REF 140 0090 6**
1 flask hook with hex*	**REF 140 0091 2**
1 flask, small* (l 122 cm, w 102 cm, h 72 cm)	**REF 140 0090 3**
1 flask, large (l 140 cm, w 102 cm, h 72 cm)	**REF 140 0090 5**
1 cleaning brush	**REF 110 0040 2**
1 thermopaste 400 special paste, 50 g*	**REF 540 0105 1**
Expando-Rock-Set	
5 kg expansion plaster, 500 ml Expandosol	**REF 570 0ERS 5**

thermopress 400 accessories assortment (Unit)
7 pieces **REF 110 0040 1**

View above, accessories thermopress 400: articles marked with * are included in thermopress 400 accessories assortment!

thermopress introductory assortment (cartridges)
5x30 g bre.crystal pink 1
3x24 g bre.crystal crystal clear
5x24 g bre.flex pink 1
2x20 g bre.flex pink 2
2x16 g bre.dentan A
3x16 g Bio Dentaplast A2
REF 140 0090 2

Training program
2-day courses (Senden)
REF 950 0020 0

thermopress 400 Information Brochure
REF 992 945G B

thermopress 400 Patient Information
REF 000 135G B

thermopress 400 System, CD
REF 992 946 EX

thermopress 400 assortment S1 (cartridges)

5 x 30 g	bre.crystal pink 1	1 x 250 ml	Acrylic Sep
5 x 24 g	bre.flex pink 1	1 x 20 ml	Die varnish, light-curing, opaque
5 x 16 g	bre.dentan A		
5 x 16 g	Bio Dentaplast A3		

REF 540 S000 1

thermopress 400 assortment S2 (cartridges)

5 x 16 g	Bio Dentaplast A2	5 x 16 g	Bio Dentaplast B3
5 x 16 g	Bio Dentaplast A3	1 x 250 ml	Acrylic Sep acrylic separating liquid
5 x 16 g	Bio Dentaplast B2		

REF 540 S000 2

- Tray material UV
- Poly-Gel UV
- Dentaplast Opti-Press
- Dentaplast Opti-Cold
- Dentaplast Opti-Cast
- Opti-Cast casting system
- Multisil-Soft
- thermopress bre.crystal, bre.dentan, Bio Dentaplast, bre.flex, Bio XS, thermopress 400
- **thermopress 400 Muffle System**

thermopress 400 Muffle System



Wax modeling



Injection molded plastic encasing

Simple and time saving production of crowns and bridges with thermopress 400.

- **complicated investing in flasks is eliminated**
- **less reworking through close fitting injection molding technology**
- **reduced waiting time as no plaster investment**
- **no time-consuming insulation work**
- **simple mold removal**
- **individual expansion control through investment material**



Conventional flask procedure is avoided.



With Brevest Rapid 1 the required plastic contraction can be compensated for via the precise expansion setting.



The wax model is mounted on a metal base and invested in conventional plaster.



In order to melt out the wax heat the muffle in a furnace at 900°C and then allow to cool.



Replace the muffle on the metal base and surround with the metal sleeve. The metal sleeve should grip only the muffle.



Tighten the screw of the metal sleeve and finally insert the plastic block to counteract pressure.



The muffle is placed in the thermopress 400 and fixed by means of the screws. Then the injection molding operation is initiated.



The exactly fitting dental prosthesis is finished after a very short time. Simple and fast processing according to plastic injection molding technology.

thermopress 400
Base Molds
1 piece
REF 360 0128 2

thermopress 400
Metal Sleeve
1 piece
REF 360 0128 1

thermopress 400
Plastic Block
1 piece
REF 360 0128 3

thermopress 400
Spacer
1 piece
REF 360 0128 4

thermopress 400
Silicone sleeve
1 piece
REF 360 0128 0

Assortment 5 parts

thermopress 400
Muffle System
1 Base Former
1 Metal Sleeve
1 Plastic Block
1 Spacer
1 Silicone Sleeve
REF 360 0123 0

System components



visio.lign, the veneering system for guaranteed esthetics. Comprises of multi-layer veneers for anterior and posterior teeth and a bonding system in perfectly matched shades. Additional tooth and gingiva materials complete the systen.





Anterior veneer
The range of lifelike, anatomical designs creates natural esthetics in all indications. Currently available in 11 different designs, 8 upper designs from 44 - 53 mm and 3 lower designs from 35 - 41 mm.



combo.lign
Dentinee-colored, dual-hardening composite for luting the veneers.

Posterior veneeer
Multifunctional posterior veneer universally suitable for all occlusion concepts. Available in two sizes.



crea.lign
Micro-filled composite for individualizing, completing and finishing.



Opaque
Light-curing and dual-hardening.



visio.sil
Transparent, addition-curing silicone for the fabrication of translucent keys to be used and processed with light-curing materials.



visio.link
PMMA and composite primer for bonding highly cross-linked novo.lign A and novo.lign P veneers, prefabricated teeth and for conditioning composites.



Dispenser
The Dispenser allows to press out and mix both materials easily.

Indications - Application areas



Telescopic and conical crowns



Crowns and bridges



Attachment restorations



Implant prosthetics



Occlusal veneers



Try-in of esthetic restorations



Temporary restorations



Full dentures on implants



Temporary restorrations



CoCr clasps

Processing steps

Esthetic try-in



Selection of the suitable design and shade.



Adapting and milling the veneer ...

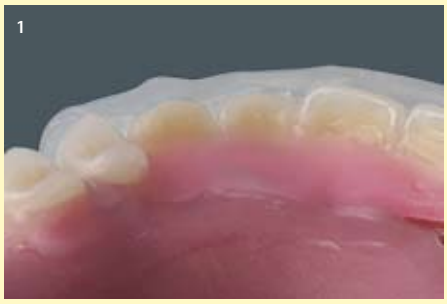


... using beauty wax fixed on a vacuum formed splint.

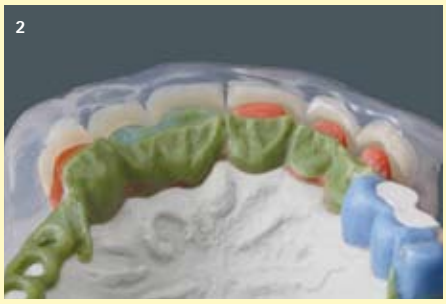


Veneers set up for the esthetic try-in.

Waxing up the framework



Fixation of the veneers after the esthetic try-in in the silicone material.



Position of the veneers serve for planning and transferring the situation to the wax model.

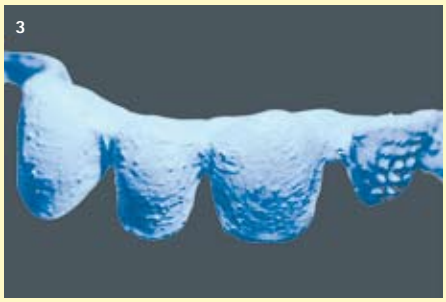


Framework perfectly designed for the space available.

Conditioning the framework



Conditioning with metal primer.



Apply opaque and polymerize.

Processing steps

Luting/bonding



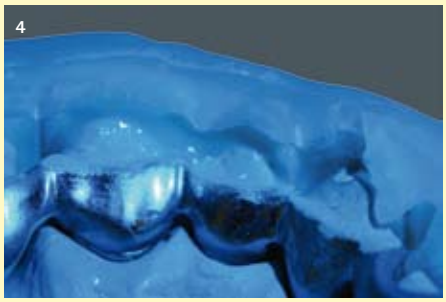
Apply visio.link and polymerize.



combo.lign applied to the interior of the veneer.



Polymerization in the transparent key silicone material.



Polymerization in the transparent silicone for keys.

Finishing with crea.lign



Dentinee materials.



Approximal und cervical zur Ergänzung.



The shades of incisal materials...



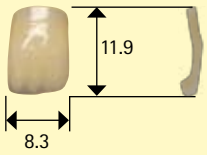
...and additional red-white materials are perfectly matched with each other.

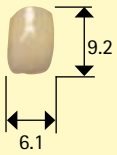
novo.lign A, Range of designs - anterior maxillary

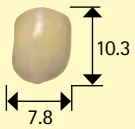
Facet in the cervical and central area is 1 mm thick

A44



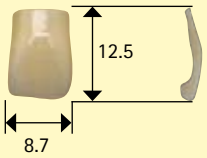


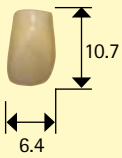


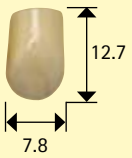


S46









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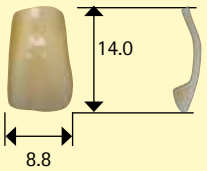
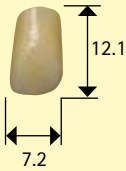
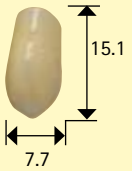
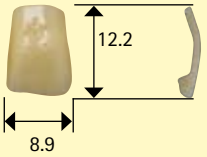


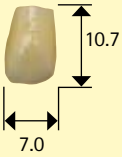


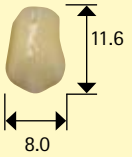


D48



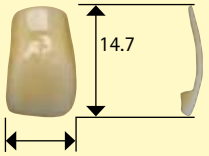


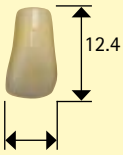


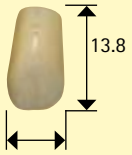


M48



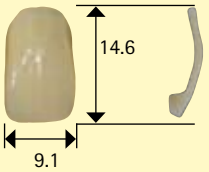


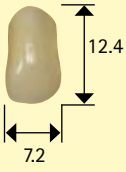


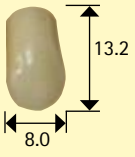


D49



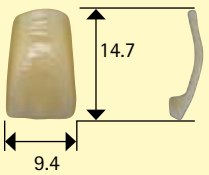


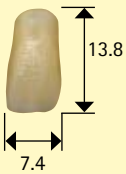


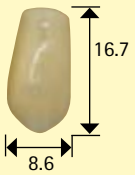


B51



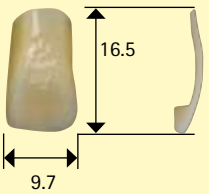


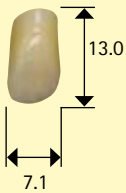


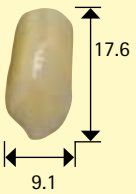


K53









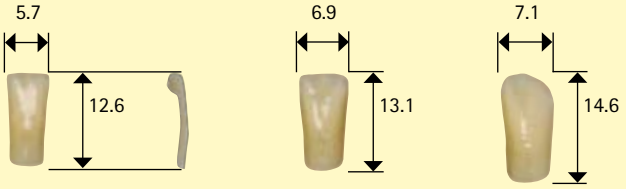
(scale 1:1, dimensions in mm)

novo.lign P, Range of designs - anterior mandibular

Facet in the cervical and central area is 1 mm thick

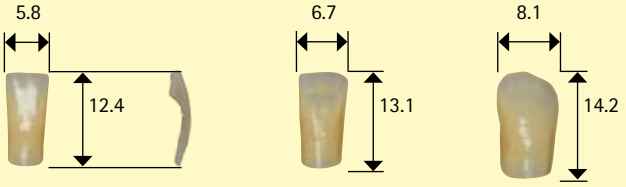
D39





D41





(scale 1:1, dimensions in mm)

novo.lign A and P



visio.lign
The distinctive features and characteristics provide the tooth design with its original vivid appearance. Abrasion surfaces as well as individual asymmetries and surface structures of natural teeth were fully preserved.
Straightforward shapes and concepts were the basis for the manufacturing process using digital technology and tools. Cutting-edge manufacturing processes and precision milling techniques allow the successful transfer of the filigree surface structures and characteristic details.

Bond and build-up
The combo.lign composite cement, which matches the shade of the restoration, contributes to creating an aesthetically appealing and sophisticated veneer with superior shade stability. The veneer is first conditioned and then bonded (luted) to the modelling composite. combo.lign is a dual-curing material (UV light and self-curing) and ensures long-lasting high bond strength.

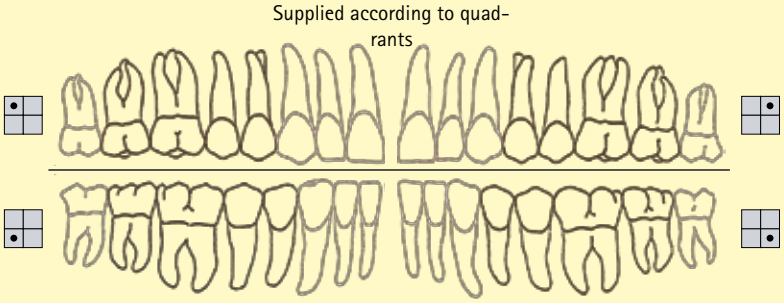
Design and materials
The novo.lign A and novo.lign P veneers are 1millimeter thick and based on a newly developed polymer with ceramic fillers. The cross-linked acrylates (PMMA) ensure shade stability and resistance to plaque.
The microfiller embedded in the polymer matrix increases the resistance to abrasion which is almost identical to that of natural teeth. This composite matrix features the high flexural strength of composites and the elasticity of PMMA materials.



Industrially manufactured novo.lign A and novo.lign P veneers guarantee reproducible esthetic results. The patient can even assess the appearance of the completed restoration during the esthetic try-in.

novo.lign P, Range of designs - upper/lower posterior

Facet in the cervical and central area is 1 mm thick

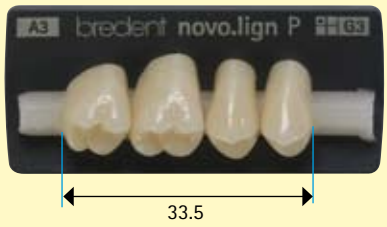


Combination table of novo.lign veneer designs

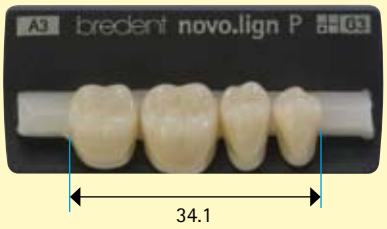
anterior Upper	Lower	posterior novo.lign P
A44	*	G3
S46	D39	G3
I47	D39	G3
D48	D39	G3 + G4
M48	D39	G3 + G4
D49	D39 + D41	G3 + G4
B51	D39 + D41	G4
K53	D41	G4

*design being developed

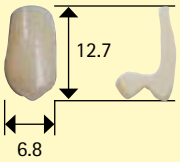
G3

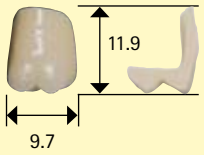


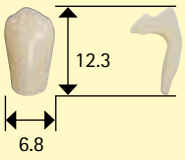


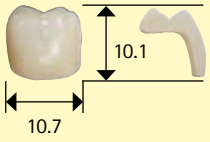












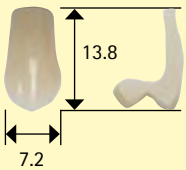
G4

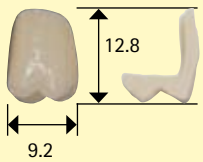


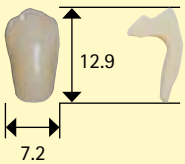


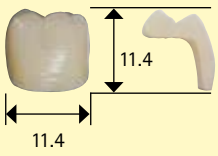












(scale 1:1, dimensions in mm)

Opaque



combo.lign Opaque - light- and self-curing
REF see order form.



Use in a ratio of 1:1.

visio.link



PMMA and composite primer for bonding highly cross-linked novo.lign A and novo.lign P veneers and prefabricated teeth. For conditioning composites, denture base materials and biocompatible, thermoplastic BioXS.
REF VLPMMA10



Apply visio.link thinly and polymerize. Bonding agent for novo.lign A and P, prefabricated teeth, composites and denture base materials.

combo.lign



Dentinee-colored, dual-hardening fixation composite for reliable luting/bonding of novo.lign A and novo.lign P veneers. Available in the shades A1, A2, A3, A3,5 B2, B3, C3, D3, A4.
REF see order form.

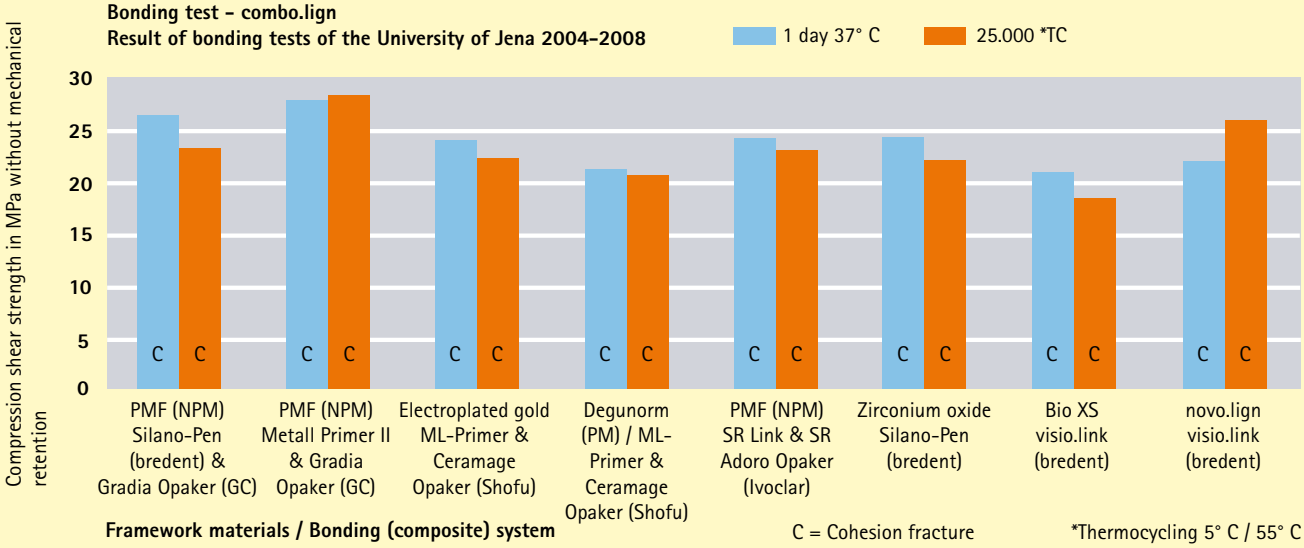


combo.lign can be used for composite joints from 0.2 to 2mm. Thanks to dual hardening, the material also hardens in dark zones and provides maximum bond strength.

combo.lign
fixation composite
8 g
REF see order form.

Mixing cannulas
Opaque mixing cannulas for reliable processing of combo.lign, 10 pcs. **REF COM KG21 0**

Bonding test - combo.lign
Result of bonding tests of the University of Jena 2004-2008



visio.lign veneering system

- System components
- Indications - Application areas
- Processing steps
- novo.lign A
- novo.lign P
- Opaque
- visio.link
- combo.lign
- **crea.lign**
- **visio.sil**
- **Dispenser**

crea.lign



Microfilled composite for individualizing, completing and finishing. Red-white esthetic, intensive and incisal materials.

REF see order form.



crea.lign has been matched with the bonding sysem and features superior polishing characteristics.

visio.sil



Developed for the use with light-curing materials. Transparent addition-cured silicone for the fabrication of translucent keys to be used and processed with light-curing materials.

visio.sil
50 ml
REF 540 0120 0

Mixing cannulas visio.sil
12 pieces
REF 320 0045 7



visio.sil can be directly applied and mixing is not required.

Dispenser



Dispenser for combo.lign
Dosing device for 5ml double syringes

Dispenser
5 ml
REF 320 0044 1



The use of the Dispenser allows bubble-free and quick mixing of the components in a ratio of 1:1.

novo.lign A **Upper anterior veneers**		**Shades (classic A–D shade system)** **A1**	**A2**	**A3**	**A3,5**	**A4**	**B2**	**B3**	**C3**	**D3**
	REF	A10	A20	A30	A35	A40	B20	B30	C30	D30
A44 Set of 6 (13, 12, 11, 21, 22, 23)	VOA44 _ _ _ S									
A44 Set of 4 (12, 11, 21, 22)	VOA44 _ _ _ 4									
A44 Set of 2 (13, 23)	VOA44 _ _ _ 3									
S46 Set of 6 (13, 12, 11, 21, 22, 23)	VOS46 _ _ _ S									
S46 Set of 4 (12, 11, 21, 22)	VOS46 _ _ _ 4									
S46 Set of 2 (13, 23)	VOS46 _ _ _ 3									
I47 Set of 6 (13, 12, 11, 21, 22, 23)	VOI47 _ _ _ S									
I47 Set of 4 (12, 11, 21, 22)	VOI47 _ _ _ 4									
I47 Set of 2 (13, 23)	VOI47 _ _ _ 3									
D48 Set of 6 (13, 12, 11, 21, 22, 23)	VOD48 _ _ _ S									
D48 Set of 4 (12, 11, 21, 22)	VOD48 _ _ _ 4									
D48 Set of 2 (13, 23)	VOD48 _ _ _ 3									
M48 Set of 6 (13, 12, 11, 21, 22, 23)	VOM48 _ _ _ S									
M48 Set of 4 (12, 11, 21, 22)	VOM48 _ _ _ 4									
M48 Set of 2 (13, 23)	VOM48 _ _ _ 3									
D49 Set of 6 (13, 12, 11, 21, 22, 23)	VOD49 _ _ _ S									
D49 Set of 4 (12, 11, 21, 22)	VOD49 _ _ _ 4									
D49 Set of 2 (13, 23)	VOD49 _ _ _ 3									
B51 Set of 6 (13, 12, 11, 21, 22, 23)	VOB51 _ _ _ S									
B51 Set of 4 (12, 11, 21, 22)	VOB51 _ _ _ 4									
B51 Set of 2 (13, 23)	VOB51 _ _ _ 3									
K53 Set of 6 (13, 12, 11, 21, 22, 23)	VOK53 _ _ _ S									
K53 Set of 4 (12, 11, 21, 22)	VOK53 _ _ _ 4									
K53 Set of 2 (13, 23)	VOK53 _ _ _ 3									
Lower anterior veneers										
D39 Set of 6 (43, 42, 41, 31, 32, 33)	VUD39 _ _ _ S									
D39 Set of 4 (42, 41, 31, 32)	VUD39 _ _ _ 4									
D39 Set of 2 (43, 33)	VUD39 _ _ _ 3									
D41 Set of 6 (43, 42, 41, 31, 32, 33)	VUD41 _ _ _ S									
D41 Set of 4 (42, 41, 31, 32)	VUD41 _ _ _ 4									
D41 Set of 2 (43, 33)	VUD41 _ _ _ 3									

Please enter the order quantity.

Composition of REF No. for novo.lign

1 2 3 4 5 6 7 8 9

1: novo.lign = **V**

2: Upper = **O**, Lower = **U**

3 4 5: Design **B51** or **D48** for molars, **1G3** = **1** = quadrant **G** = tooth mould **3** = tooth size

4 5: Width of set of 6 46 = 46 mm

7 8: Shade **A30** = A3

9: **S** = Set of 6 complete, **4** = set of 4 incisors **3** = Set of 2 cuspids, (**n/a for molars**)

Sender (Stamp):

Customer No.

Date, Signature

novo.lign P, multifunctional Veneers, posterior G 3		Shades (classic A–D shade system) A1	A2	A3	A3,5	A4	B2	B3	C3	D3
	REF	A10	A20	A30	A35	A40	B20	B30	C30	D30
1G3 1. quadrant, (14, 15, 16, 17)	VO1G3_ _ _									
2G3 2. quadrant, (24, 25, 26, 27)	VO2G3_ _ _									
3G3 3. quadrant, (34, 35, 36, 37)	VU1G4_ _ _									
4G3 4. quadrant, (44, 45, 46, 47)	VU2G4_ _ _									
Veneers, posterior G 4										
1G4 1. quadrant, (14, 15, 16, 17)	VO3G3_ _ _									
2G4 2. quadrant, (24, 25, 26, 27)	VO4G3_ _ _									
3G4 3. quadrant, (34, 35, 36, 37)	VU3G4_ _ _									
4G4 4. quadrant, (44, 45, 46, 47)	VU4G4_ _ _									

combo.lign		A1	A2	A3	A3,5	A4	B2	B3	C3	D3
	REF	A10	A20	A30	A35	A40	B20	B30	C30	D30
Fixation composite, 8 g	CO2x4_ _ _									

Please enter the order quantity.

combo.lign Opaque	Cont.	REF	Quantity
Opaque light, light-curing	4 g	CO1X4OPL	
Opaque medium, light-curing	4 g	CO1X4OPM	
Opaque GUM, light-curing	4 g	CO1X4OPG	
Opaque catalyst, self-curing	4 g	CO1X4Kat	

combo.lign	Cont.	REF	Quantity
Mixing cannulas	10 pcs.	COM KG21 0	

visio.link	VPE	REF	Quantity
PMMA und Composite Primer	10 ml	VLP MMA1 0	

visio.sil	VPE	REF	Quantity
Transparent A - silicone	50 ml	540 0120 0	
Mixing cannulas, visio.sil	12 pcs.	320 0045 7	

crea.lign	VPE	REF	Quantity
crea.lign Dentine A1	4 g	CLF MDA1 0	
crea.lign Dentine A2	4 g	CLFMDA20	
crea.lign Dentine A3	4 g	CLFMDA30	
crea.lign Dentine A3,5	4 g	CLFMDA35	
crea.lign Dentine A4	4 g	CLFMDA40	
crea.lign Dentine B2	4 g	CLFMDB20	
crea.lign Dentine B3	4 g	CLFMDB30	
crea.lign Dentine C3	4 g	CLFMDC30	
crea.lign Incisal opal	4 g	CLFM00I1	
crea.lign Incisal blue	4 g	CLFM00I2	
crea.lign Incisal rose	4 g	CLFM00I3	
crea.lign GUM light	4 g	CLFM00G1	
crea.lign GUM pink	4 g	CLFM00G2	
crea.lign GUM pink	4 g	CLFM00G3	

Dispenser	VPE	REF	Quantity
Dispenser	5 ml	320 0044 1	

Sender (Stamp):

Customer No.

Date, Signature

- **haptosil D**
- Location matrix drill

haptosil D





Addition-curing kneading silicone with a Shore A hardness of 90 for the fabrication of stable and exact keys and models.
Models for repairs and extensions can also be fabricated within a short time. Consequently, an enormous amount of time can be saved compared to conventional model fabrication.

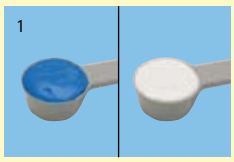


haptosil D
Component A and B
1300 g each
REF 540 0118 0

haptosil D
Component A and B
7500 g each
REF 540 0119 0

Precise reproduction of details with haptosil D reduces reworking time since highly accurate keys can be produced.





Equal quantities of haptosil D are removed using the enclosed portioning spoon.



Processing time is 90 - 120 seconds after mixing both components. Both components are kneaded to obtain a homogeneous mixture.



Make sure to achieve a uniform color when mixing the components; only after a uniform color is obtained, haptosil D has been properly mixed and hardens completely and evenly.



Exert uniform pressure to press haptosil D onto the desired spot/area. The softness allows accurate impressions also in areas difficult to access.



The Shore A hardness of 90 ensures a stable and safe key, which will not tear when it is removed.

Technical data

Addition-curing kneading silicone	
Hardness:	90 Shore A
Tear strength:	4.86 N/mm²
Deformation under pressure:	1.24%
Elongation:	15%
Processing time:	90-120 seconds
Hardening time:	approx. 5-6 minutes

Location matrix drill



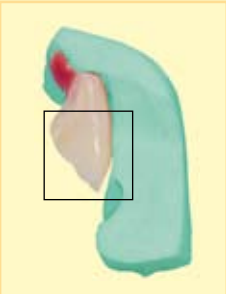
The safest and most accurate method for reliable positioning of acrylic teeth in plaster or silicone matrixes.

Location matrix drill
1 piece
REF 330 0078 0



No adhesive – no displacement of the teeth in the matrix!

conventional method





undesired gap

with matrix drill





utmost precision of fit

With the conventional method acrylic teeth are fixed incisally/occlusally in the matrix using adhesive wax. This includes the risk that the tooth is pulled out of the matrix due to the contraction of the wax and an undesired gap results.

The holes that are drilled through the matrix allow the application of adhesive wax onto the acrylic teeth. Due to the contraction of the wax the tooth is pulled into the matrix and held safely.



Drilling from the oral direction into the silicone or plaster matrix provides the precondition for the central glueing surface at the acrylic tooth.



The drill enlarges the drillhole until a funnel shape is obtained to allow securing the tooth.



Sticky wax is added through the drillhole so that the tooth is secured in its correct position.



By using this method, the tooth is pulled into the matrix and firmly held. Utmost precision is ensured.

- **Ropak UV**
- **Ropak Kompaktopaker UV**
- **Kompaktopaker tooth-colored UV**

Ropak UV



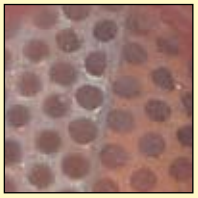
Light curing acrylic-colored opaque to coat CoCr objects.

Ropak UV F – liquid
10 ml
REF 520 0016 4



Ropak UV P – powder
10 g
REF 520 0016 5





Esthetics beyond compare – pink opaque shows perfection



The viscosity of Ropak UV can be adjusted to the individual requirements.



Mix powder and liquid on a mixing tray to obtain a homogeneous consistency.



Use disposable brush to apply the material. Ropak UV will coat the object even if it exhibits a thin consistency.



Apply thinly using the disposable brush; even dark metal elements will be coated in an aesthetic way.

Ropak Kompaktopaker UV



The ready-to-use alternative for convenient coating of CoCr objects.

Ropak Kompaktopaker UV
20 ml
REF 540 0013 3



Apply Ropak Kompaktopaker with the integrated brush directly onto the clean metal surface.

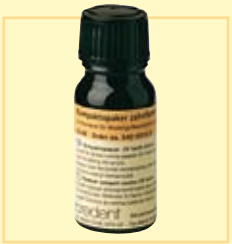


All metal elements applied with Ropak are perfectly covered.



The use of Ropak provides the future acrylic area with a more pleasant look.

Kompaktopaker tooth-colored UV



To enhance esthetics in the area of acrylic teeth.

Kompaktopaker tooth-colored UV
10 ml
REF 540 0010 5



Kompaktopaker tooth-colored is particularly suitable for the anterior area.



The tooth-colored opaque that features a fine coating capacity is applied to the desired area.



This way perfect coating of the metal and thus esthetic restorations are obtained.

Processing acrylics

- **Abraso-Gum Acryl**
- **Set-up grinding tool**
- Diacryl grinding tool
- Tungsten carbide tools

Abraso-Gum Acryl **processing set for acrylics**

Ready to hand for minor adjustments of dentures. bredent tungsten carbide burs and acrylic polishers are helpful tools for repairs, remove all tender spots, smoothen surfaces and produce high luster.

Assortment

5 pieces
1 Diatit bur D263 KG 60
1 Diatit bur D200 KF 23
1 Abraso-Gum Acryl coarse, green
1 Abraso-Gum Acryl medium, grey
1 Abraso-Gum Acryl fine, red

REF 350 0099 2

Diatit bur



1 piece
REF D200 KF 23

1 piece
REF D263 KG 60



A smooth surface is achieved by exerting slight pressure.

Acrylic polisher coarse, green



6 pieces
REF P243 HG 10



The coarse acrylic polisher removes traces of the bur and shapes the surface.

Acrylic polisher medium, grey



6 pieces
REF P243 HM 10



The grey acrylic polisher features a slight abrasive capacity and smoothens the surface in a single working step.

Acrylic polisher fine, red

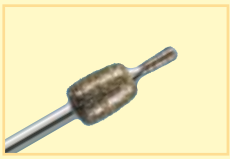


6 pieces
REF P243 HF 10



The fine acrylic polisher produces a perfect high-luster on all acrylic materials in next to no time.

Set-up grinding tool



Set-up grinding tool
1 piece
REF 340 0101 0

Two grinding tools in one.
Grinding without exchanging tools in a single working step

- quick adaptation of the underside of the tooth to be set up
- grinding in of occlusal stops

Two grinding tools in one.



occlusal



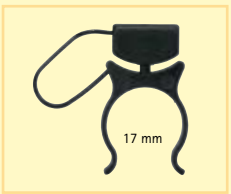
The small, precisely shaped grinding tip with fine, perfectly cutting diamond grains provides the ideal precondition for well-aimed and rapid grinding in of occlusal contacts.

basal

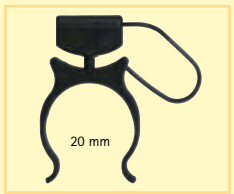


The large grinding area with its optimized shape and selected natural abrasive diamonds ensures maximum removal of material and thus accurate and quick grinding.

Accessories:



Articulation paper holder size 1
1 piece
REF 360 0121 7



Articulation paper holder size 2
1 piece
REF 360 0122 0

Diacryl grinding tool



Time gained and quality increased when processing acrylics with diamond-coated Diacryl grinding tools.
Due to the uniform coarse-grain diamonds with sharp cutting edges and the special shape, Diacryl grinding tools are perfectly suitable for finishing acrylic dentures and tray material in a quick and purposeful manner.



Assortment
1 piece each
REF 340 0107 0



Coarse grinding tool
1 piece
REF 340 0103 0



The special diamond grain size and the hollow shape of the grinding tool result in excellent grinding properties and ensure maximum cooling.



Margin grinding tool, round
1 piece
REF 340 0106 0



Due to tapering in the middle of the grinding tool uniform margins of functional trays can be produced.



Universal grinding tool
1 piece
REF 340 0104 0



Can be universally used for coarse and large papillae as well as for root bases.



Margin grinding tool, pointed
1 piece
REF 340 0102 0



Recesses of labial and buccal frenula can be perfectly finished with this Diacryl grinding tool.



Papilla grinding tool
1 piece
REF 340 0105 0



The fine, pointed flame design allows filigree finishing of alveolar and papillary bases.



Rubber grinding tool
1 piece
REF 340 0090 0



Thanks to the fine grinding performance the object is prepared for polishing within a short time The rubber grinding tool is used instead of sandpaper.

Tungsten carbide tools

Tungsten carbide burs

For processing of acrylics.
Special types with cross cut for smooth surfaces on all acrylics.



Rapidy Microbur with relief
1 piece
REF H001 NH 10



The microbur with relief ensures quick removal of material even at inaccessible spots.

Diatit burs

With longer service life and increased grinding performance.



1 piece
REF D194 KS 70



The coarse cross cut allows the quick removal of material across large areas.

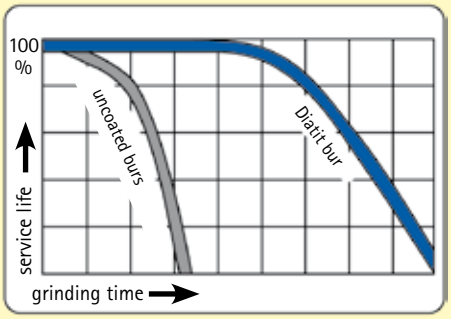
A bredent bur that features Diatit wear protection reaches a degree of hardness of up to 3700 according to Vickers (HV).



1 piece
REF D468 GG 16



Acrylic can be cut precisely and almost without any chips with the Diatit bur.

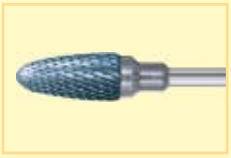




1 piece
REF D237 KG 65



The coarse cross cut produces smooth surfaces in a quick and pressure-free manner.



1 piece
REF D263 KG 60



Due to the universal design of the bur time-consuming exchange of tools is no longer required.

A hardness that is 100 % higher thanks to the Diatit wear protection results in a service life that is three times longer than the one of uncoated bredent burs.



1 piece
REF D194 KG 23



The acute wedge angle of the individual cutting edges ensure precise milling with a high cutting performance.

Further information on burs in chapter 9!



1 piece
REF D274 KG 60



The diagonal cutting edges of this bur allow to produce extremely smooth surfaces in no time.

- **Acrylic polishing set**
- **High luster with the handpiece**
- Polishing brushes
- Polishing buff

Acrylic polishing set

The complete range of polishing products for acrylics – systematic polishing.

Further information on polishing brushes in chapter 12.





Abraso Star K50
slightly abrasive
320 g
REF 520 0016 1



The pumice polishing paste diffuses into the brushes and allows particularly long pre-polishing.



The fine abrasive components of the pumice polishing paste simplify careful polishing of the acrylic denture material.

Abraso-Soft Acryl
Ø 80 mm
1 piece
REF 350 0080 0

Abraso-Buff Acryl
Ø 80 mm
1 piece
REF 350 0078 0

High luster buff Acryl
Ø 100 mm
1 piece
REF 350 0082 0

Pumice polishing paste
for polishing of acrylics and metal
3 x 500 g
REF 520 0016 0

Acrylic polishing set **REF 350 0084 0**

1 x 150 g Abraso-Star K50 slightly abrasive
1 x 500 g Pumice polishing rpaste
1 piece Abraso-Soft Acryl
1 piece Abraso-Buff Acryl
1 piece High luster buff Acryl

High luster polishing with the handpiece



Polishing of acrylics with the handpiece.
Brushes and buffs for handpieces provide brilliant high luster on all dental acrylics.



Cotton buff
Ø 22 mm
15 pieces
REF 350 0065 0



Velvet-soft small cotton threads polish palatal patterns excellently so that smooth surfaces are obtained to which coatings can not adhere.



Star brushes goat hair white
Ø 19 mm
15 pieces
REF 520 0015 1



The star design allows to increase the polishing performance up to 50 % and reduces the working time considerably.



Star brushes goat hair white
Ø 13 mm
15 pieces
REF 520 0014 1



All filigree areas are pre-polished with the smaller star brush. Perfectly suitable in the approximal area; protects acrylic teeth.



Cotton buff
Ø 22 mm
15 pieces
REF 350 0091 0



The dimensionally stable linen buff produces a mirror-like finish even on the hardest veneering materials.

Accessories:



Acrypol polishing paste
for veneering materials
170 g
REF 520 0017 0



Leather buff
Ø 22 mm
15 pieces
REF 350 0066 0



Polishing with the leather buff avoids damage to thin transitions towards metal.



Abraso-Starglanz asg
Universal high luster polishing paste
2 x 50 ml
REF 520 0016 3



Polishing buff
felt, three layers
Ø 22 mm
15 pieces
REF 350 0064 0



The three felt layers are perfectly suitable for any type of structure. Extremely fine polishing results are achieved.

Polishing brushes



Abraso-Soft Acryl
Due to the polishing heat the open-pore special fleece and the bleached Chungking bristles absorb more polishing paste and therefore up to 50 % of working time can be saved.

Unlike conventional brushes, the open-pore structure of the fibre fleece allows to take up considerably larger quantities of pumice or polishing paste. Accordingly, less polishing paste needs to be applied.
The fleece is able to absorb more air so that the polishing temperature is reduced and gentle polishing is ensured. Overheating of the surface is avoided.

Abraso-Soft Acryl
Ø 80 mm
1 piece
REF 350 0080 0





The combination of fibre fleece and bleached Chungking bristles let the pumice polishing paste diffuse deeply into the brush.



Mixed pumice diffuses into the brush and the fibre fleece. The polishing agent remains longer on the brush and is gradually applied onto the surface in uniform quantities.

The brush hair are made of bleached Chungking bristles. Bleaching roughens the bristles, makes them softer and increases the absorbing capacity. On the one hand the rough surface holds the pumice paste more easily and on the other hand acrylic is polished more actively without overheating the surface.



Round polishing brushes with plastic core. Round brushes – Chungking white for abrasive polishing.
Due to its small width, the large brush is suitable for polishing areas that are difficult to access.



Chungking white
Ø 80 mm
4 rows
12 pieces
REF 350 0034 0



Chungking white
Ø 70 mm
3 rows
12 pieces
REF 350 0030 0



Chungking white
Ø 65 mm
4 rows
12 pieces
REF 350 0074 0



Chungking white
Ø 60 mm
3 rows
12 pieces
REF 350 0075 0



Chungking white
Ø 50 mm
2 rows
12 pieces
REF 350 0027 0



Narrow brush
White goat hair with metal core for polishing that protects the structure.
The soft goat hair brush avoids the abrasion of the surface structure of acrylic teeth and thus simplifies polishing of approximal areas.

Narrow brush – white goat hair with metal core
Ø 48 mm
10 pieces
REF 350 0061 0

- Acrylic polishing set
- High luster with the handpiece
- Polishing brushes
- **Polishing buff**

Polishing buff



Abraso-Buff Acryl
Three rows of high-quality Chungking bristles and special fabric liners guarantee prepolishing with an excellent result.

Abraso-Buff Acryl
Ø 80 mm
1 piece
REF 350 0078 0



The small width of the Abraso-Buff Acryl allows polishing in filigree approximal areas. Exchanging the brush is no longer required.





After finishing, the optimum prehigh-luster is easily achieved in no time.

The 2 x 2 special textile layers of the Abraso-Buff acrylic retain polishing pastes or pumice considerably longer than conventional brushes. They gradually spread abrasive materials and thus simplify polishing.



Prepolishing buff Acryl
Aggressive polishing behaviour – working time reduced.

The stable layers of the prepolishing buff Acryl consist of silicone-treated linen. Accordingly, particularly aggressive polishing is possible.

Prepolishing buff Acryl
Ø 80 mm
24 layers
1 piece
REF 350 0099 1

Ø 60 mm, 24 layers
1 piece
REF 350 0098 0



The buff allows time-saving polishing at reduced temperatures.



Due to the different sizes palatal areas can also be polished easily.

Polishing buff



High luster buff Acryl
No formation of fuzz and only reduced evolution of heat.

High luster buff Acryl
1 piece each,

Ø 60 mm, 40 layers	**REF 350 0094 0**
Ø 100 mm, 35 layers	**REF 350 0082 0**





The outer layers with reinforced fibres provide the buff with a stability never achieved before.



The 35 resp. 40 layers of linen have been welded with an ultrasonic unit to protect them against twisting and produce a unique high luster due to the high stability.



The particularly loosely woven linen ensures circulation of air during high luster polishing so that overheating of the acrylic is avoided. This results in a very gentle polishing process.

Special linen consequently avoids excessive evolution of heat on the acrylic surface.



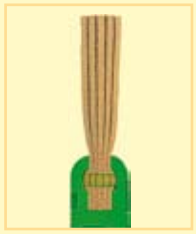
Leather buff
Produces high luster in a quick and gentle manner.

Leather buff for acrylics
1 piece each

Ø 80 mm, 5 layers	**REF 350 0036 0**
Ø 100 mm, 5 layers	**REF 350 0035 0**

Leather buff for metal
1 piece each

Ø 60 mm, 9 layers	**REF 350 0099 0**





Acylics can be polished at lower temperatures in a very gentle manner using the leather buff for speeds up to 1500 rpm.



Polishing at lower temperatures produces a high luster even in the approximal area so that coatings will not remain there.

The leather buff produces perfect high luster without any retentions for bacteria. This way cleaning of dentures is simplified.



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Disinfecting and cleaning

- **Dentaclean impression and denture disinfectant**
- **Shipping bags**
- **Disinfection tray**
- Dentaclean denture cleaning agent
- Ultrasonic cleaning bath
- Plaster removing agent/ Speed plaster removing agent

Dentaclean impression and denture disinfectant



Disinfecting with Dentaclean impression and denture disinfectant avoids the transmission of viruses, bacteria and fungi from the patient to the laboratory. The concentrate yields 10 liters of ready-to-use solution which is highly effective and has a pleasant mild odour.

Dentaclean impression and denture disinfectant
1000 ml concentrate to obtain
10 liters ready-to-use solution
including 25 shipping bags
REF 520 0100 6

Tested and approved by the Institute for clinical hygiene and infection control, Giessen.



Pathogens can be transmitted to the laboratory with impessions.



After the use of Dentaclean impression disinfectant, active viruses, bacteria and fungi can no longer be detected.

Shipping bags



The shipping bags have already been labelled „disinfected". Additionally, they feature a separate pack for order slips to prevent them from becoming wet.

Shipping bags
200 pieces
REF 520 0100 2

Disinfection tray



Fast and convenient cleaning of instruments.

Disinfection tray
4 liters
REF 230 0014 0



Remove alginate from contaminated instruments/tools and impression trays and immerse them into the solution. Leave the instruments/ tools in the solution for approx. 20 to 40 minutes and then rinse them thoroughly under running water.

- Dentaclean impression and denture disinfectant
- Shipping bags
- Disinfection tray
- **Dentaclean denture cleaning agent**
- **Ultrasonic cleaning bath**
- **Plaster removing agent/ Speed plaster removing agent**

Dentaclean denture cleaning agent



Dentaclean denture cleaning agent
1000 ml concentrate to obtain 11 liters of ready-to-use solution
REF 520 0099 2



Up to now it has always been very difficult to remove tartar from orthodontic screws and clasp edges.



Dentaclean denture cleaning agent allows for easy removal of tartar from orthodontic appliances without damaging filigree metal parts.

Concentrate for easy removal of plaque, tartar and coatings on dentures.
The liquid concentrate yields the 11fold quantity and therefore ensures high economic efficiency.

Before



After



Ultrasonic cleaning bath



Ultrasonic cleaning agent
1000 ml concentrate to obtain 11 liters of ready-to-use solution
REF 520 0099 7



Cleaning of polishing contaminations takes a lot of time. Therefore aggressive agents that are injurious to health are frequently used.



Matched surfactants and emulsifiers remove contaminations carefully and quickly thus saving time for the technician.

Concentrate for quick removal of polishing contaminations
Mild odour, powerful cleaning capacity

Dentaclean plaster removing agent / Speed plaster removing agent



Ready-to-use solution to remove plaster residues from all surfaces.
Two types of Dentaclean plaster removing agent are available: regular and Speed. The ready-to-use solution removes plaster residues from all surfaces. Dentaclean Speed plaster removing agent should be used if no time can be wasted.

Dentaclean plaster removing agent
1000 ml
REF 520 0011 9

2500 ml
REF 520 0099 3

Speed plaster removing agent
1000 ml
REF 520 0101 0

2500 ml
REF 520 0099 4



Hard plaster particles are carefully removed from the mixing bowl without any damage.



Gentle and fast removal of plaster protects the acrylic surface and the colour.

- **Thixo-Rock**

Thixo-Rock



Thixo-Rock is a class IV super-hard stone with distinctive thixotropy and perfect flowability. The minimal expansion value after two hours is well below 0.08 %. This allows to prepare impressions identical with the original situation and ensures precise fabrication of orthodontic devices. Thixo-Rock is also suitable for orthodontic demonstration models.
Thixo-Rock is available in brown, ivory and grey.



Color brown:

1 x 2 kg	**REF 570 0005 2**
5 x 2 kg	**REF 570 0005 1**
10 x 2 kg	**REF 570 0005 0**



Color ivory:

1 x 2 kg	**REF 570 00E5 2**
5 x 2 kg	**REF 570 00E5 1**
10 x 2 kg	**REF 570 00E5 0**



Color grey:

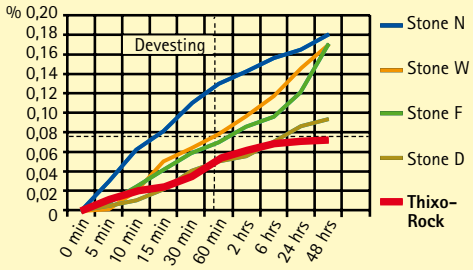
1 x 2 kg	**REF 570 00G5 2**
5 x 2 kg	**REF 570 00G5 1**
10 x 2 kg	**REF 570 00G5 0**

Technical data - Thixo-Rock

Color	brown, ivory, grey
Mixing ratio	100 g / 20 ml distilled water
Soaking time	20-30 sec
Mixing time under vacuum	60 sec
Processing time at 23°C	5-6 min
Setting time (Vicat time)	approx. 10 min
Removal of model after	45 min
Compressive strength after 1 hr	above 60 MPa
Compress. strength after 24 hrs	85 MPa
Hardness after 1 hr(Brinell)	200 MPa
Hardnesss after 24 hrs (Brinell)	280 MPa
Linear expansion after 2 hrs	< 0.08 % (no further expansion)

Processing in the ecovac unit:
Vacuum level 1, mixing speed: 390 rpm

Expansion of various other stones




1

Thixo-Rock offers high stability on the spatula and thixotropic consistency on the vibrator. Simple and clean processing is ensured.


2

The excellent processing time span allows bubble-free pouring of numerous impressions with just a single mix.


3

Absolutely accurate reproduction of dimensions of the oral situation thanks to the minimal expansion value (< 0.08 %) so that precision-fit dentures are obtained.


4

The arches can be cut and trimmed without the formation of chips.


5

High resistance to scratches and fracture as well as exceptional edge stability avoid breaking of edges when devesting. Excellent reproduction of details ensure highly accurate appliances.

bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- **Adhesive wax**
- **Modelling wax pink Standard mdwst**

Adhesive wax



The carefully selected constituents ensure reliable adhesion to all materials. The adhesive wax can still be removed with steam or boiled off.

Adhesive wax klw
dark red
25 g
REF 510 0040 0



The high stability after hardening allows the fabrication of models for repair work without any additional reinforcing elements.



The high adhesive capacity guarantees the safe hold of the clasps on the model.



The balanced composition allows the removal of the wax with steam.

Modelling wax pink Standard mdwst



Modelling waxes in sheets for construction and mush bites as well as for the entire range of orthodontic applications.

Two thicknesses and three different qualities for the use in the entire range of orthodontics.





Construction and mush bites can be easily prepared by rolling up and kneading this modelling wax.

Sheet thickness 1.25 mm 75 x 150 x 1.25 mm	1000 g
soft, pink	**REF 430 0164 3**
medium, pink	**REF 430 0164 2**
hard, pink	**REF 430 0164 1**

Sheet thickness 1.50 mm 75 x 150 x 1.5 mm	1000 g
soft, pink	**REF 430 0164 6**
medium, pink	**REF 430 0164 5**
hard, pink	**REF 430 0164 4**

Block-out material

- **Block-out wax**
- **Transblock**

Block-out wax



Excellent adhesion, fine scraping properties.

Biotec
Block-out wax
28 g
REF 510 0061 5



The block-out wax is a soft wax for orthodontic work that can be easily adapted. The excellent adhesion and the fine scraping properties allow quick working.



If block-out wax is applied onto the Dentaplast KFO acrylic, the acrylic becomes smooth and lustrous. Reworking and polishing are not required.

Transblock





Any desired size or shape of Transblock can be produced with the help of an instrument or scissors.



The high flexibility simplifies placing onto the model.



Due to its stability a uniform thickness is retained during the adaptation. If required, the thickness can be adapted individually by scraping.



The transparency of Transblock allows to check the thickness of the area that has been blocked out. This way precisely prepared models for individual trays are obtained.

The transparent block-out material for fast and efficient working. When adapting, the stability of Transblock ensures uniform layer thickness which can be adjusted individually by scraping if required.

Transblock
250 g
REF 540 0114 9

- **Plaster luster and hardening agent**
- **Isoplast ip**

Plaster luster and hardening agent



Scratch-resistant surfaces for all types of plasters without the application of several coats. Plaster luster and hardening agent provides the model with scratch resistance and creates a lustrous surface with a coat thickness of just 2 µm.

Plaster luster and hardening agent
20 ml
REF 550 0000 1
100 ml
REF 550 0000 2



Without plaster luster and hardening agent the models can be damaged when producing large clasp constructions.



The plaster luster and hardening agent diffuses into the plaster surface and hardens after only 2 minutes.



The high edge stability and scratch-resistance avoids any type of damage.

Isoplast ip



Isoplast is an alginate-based agent for separating plaster against acrylics and creates a high-luster acrylic surface.

Accessories:



Brush pen pk 125
125 ml
REF 390 0033 0



Brush pen pk 20
20 ml
REF 540 0072 0

Isoplast ip
750 ml
REF 540 0101 9



Isoplast can be applied efficiently and economically with the brush pen.



Isoplast seals the surface and provides the stone with a luster. This allows to check the insulation.

Equipment / Instruments

- **Thermo-syringe / Adhesive wax**
- **Bending pliers for Adams clasps**
- Labial bow pliers

Thermo-syringe



Fast adhesive connection that can be removed without any residue for all types of orthdontic work.
After heating, the adhesive wax can be shaped and easily placed onto the models.

Thermo-syringe
REF 110 0121 1



After heating, the adhesive wax is directly applied onto the joint using the thermo-syringe. It ensures a stable connection.



The adhesive wax can be applied onto all materials. After the application, it can be removed from the objects without any residues.

Accessories:



Adhesive wax
250 g package **REF 510 0070 1**
1000 g bucket **REF 510 0070 0**

Bending pliers for Adams clasps

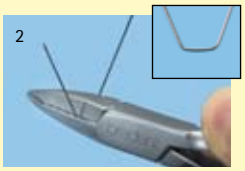


Perfectly fitting Adams clasps for orthodontic work within seconds.

Bending pliers for Adams clasps
1 piece
REF 310 0000 9



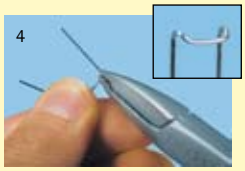
Determining the clasp size.
Use the narrow or wider notch of the pliers depending on the size of the tooth.



Bending U-shape. Place wire with 0.7 mm diameter into the corresponding notch and close the pliers.



Bending M-shape.
Bend wires downward on both sides of the plier flanks.



Bending off the small bows.
Bend U-shaped loops slightly backwards depending on the buccal curvatur of the tooth.



Bending the supporting rests.
Bend the supports of the clasp rests backward by 90°.



Adapting the supports.
Adapt clasp support to the tooth.



Adapting the retention elements.
Adapt the clasp appendix to the palatal or lingual area of the jaw.



In case of limited space available.
In case of unfavourable gingiva conditions, clasps may also be bent with a single loop.

- Thermo-syringe / Adhesive wax
- Bending pliers for Adams clasps
- **Labial bow pliers**

Labial bow pliers



Producing absolutely symmetrical labial bows within a short time.

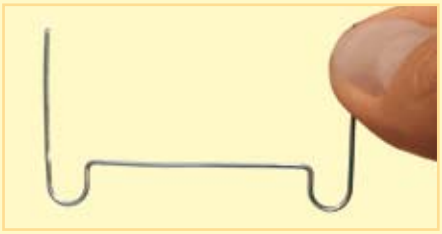
7 recesses allow to produce the suitable labial bow for any situation.





Labial bow pliers r7
1 piece
REF 320 0093 0

Completed, absolutely symmetrical labial bow, produced in next to no time.





By bending the labial bow a single time only, kinks and possible breakage points are avoided.

Accessories:

Bow measuring template
1 piece
REF 320 0092 0



The desired course of the labial bow is drawn on the model.



The transparent measuring template is held at the beginning of the bow.



The flexible measuring template allows exact measuring of the bow length.



The measured length is transferred to the clasp wire.



The exact size of the bow on this model is No. 5.



Place the clasp wire into the fifth recess as determined with the bow measuring template.



The long end of the clasp wire is pressed over the flat side of the pliers.



The clasp wire is bent neatly around the pliers to avoid kinks.



Bend the short end of the clasp wire over the round end of the pliers.



The first bow is completed with two movements.



Set the labial bow pliers to the marking again.



Bend the bow part which is facing the first bow over the flat side of the labial bow bending pliers again.



Press the other end of the clasp wire over the round part of the labial bow pliers.



The second bow that features the same size as the first one is completed within a short time.



Just like the first bow, the second one is exactly size No. 5.



The bow has been completed as it was planned.



The labial bow is adapted to the course of the dental arch.

Resin

- **Dentaplast KFO**
- **Dosing bottles**
- **Dentaplast KFO tinsel**

Dentaplast KFO



The high resistance to fracture and low polymerization shrinkage allows filigree design with optimum precision of fit.

Dentaplast KFO is extremely stable.
This results in:
- high resistance to fracture
- finishing without smearing
- excellent high luster for unproblematic hygiene

Dentaplast KFO	Qty	**REF**
Powder	100 g	**540 0018 3**
Liquid	100 ml	**540 0018 4**
Powder	500 g	**540 0018 5**
Liquid	500 ml	**540 0018 6**
Powder	1000 g	**540 0018 7**
Liquid	1000 ml	**540 0018 8**



Due to the low polymerization shrinkage the precision of fit of the object can be increased.



The uniform pourability allows controlled application of powder in quantities that can be precisely determined.



The metal nozzle allows for controlled and economic application of the monomer.



The high stability of Dentaplast KFO allows continuous, uninterrupted spreading and saves time.

Dosing bottles



Dosing bottle for powder
100 ml
REF 390 0038 0



Dosing bottle for liquid
100 ml
REF 390 0039 0

The special dosing bottles allow precise and economic application of material. Accordingly, time-saving and efficient working is possible.

Dentaplast KFO tinsel



The seven different coloured tinsels allow the individual design of orthodontic appliances according to the patient's desire.

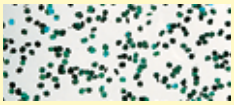
Accessories for powder **Dentaplast KFO tinsel**



anthracite
125 ml
REF 540 0018 9



purple
125 ml
REF 540 0019 3



green
125 ml
REF 540 0019 0



red
125 ml
REF 540 0019 4



blue
125 ml
REF 540 0019 1



color mixture
125 ml
REF 540 0019 5



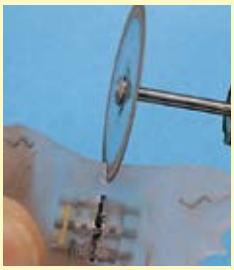
gold
125 ml
REF 540 0019 2

bredent

- **Giflex-TR**
- Giflex-TR Master x-tray
- Ceraflex

Giflex-TR





Controlled saw cuts due to the perforated design. Giflex-TR is a disc that features diamond-coating on both sides and is particularly suitable for cutting plaster and resin dies. Calculated chip spaces in the area of the diamond coating ensure quick removal of the grinding dust and increase the cutting performance of the disc. Giflex-TR allows quick, smooth and reliable cutting even of very hard plaster and resin. Troublesome chattering and jamming of the disc is avoided.
The two smaller diameters are also perfectly suitable for separating acrylics. The perforated design avoids smearing and clotting of the cut.

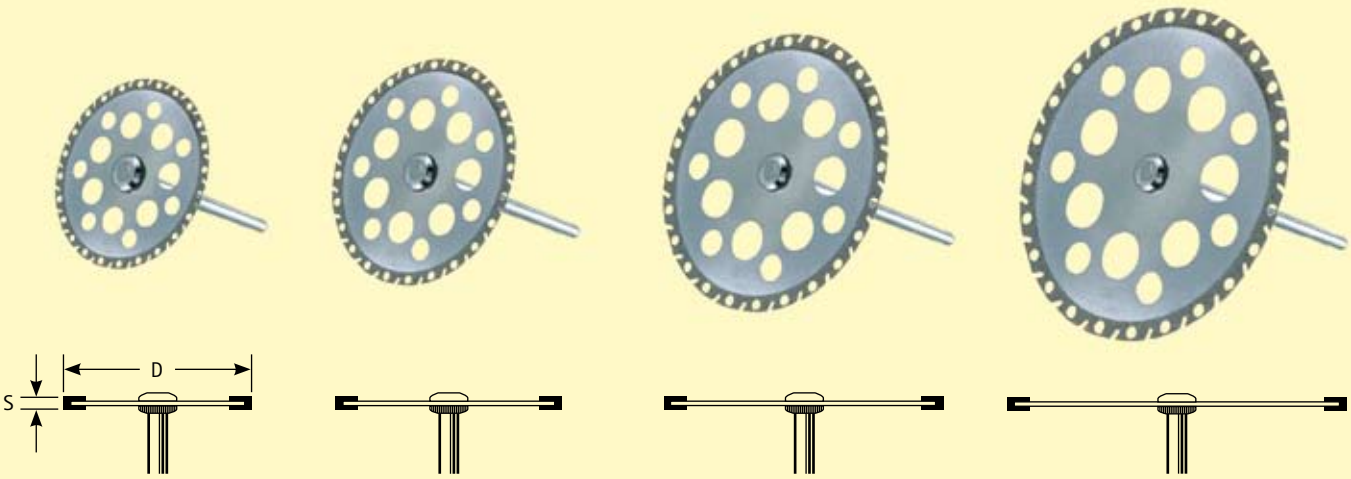
Larger holes in the diamond-free section reduce the friction heat. The disc will not overheat even if deep cuts are carried out.The high running transparency allows a better view onto the saw cut.

Ø 25 mm: For difficult work on plaster and resin.

Ø 30 mm: Perfectly suitable for extremely difficult space conditions.

Ø 37 mm: The universal disc

Ø 45 mm: The disc for rational processing.



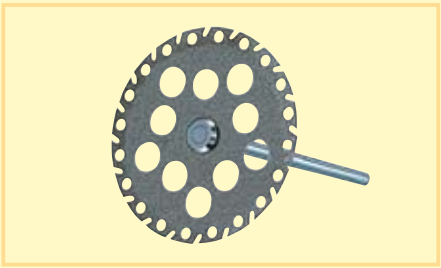
Giflex-TR diamond discs are coated on both sides and ready mounted.

Shaft diameter:	Standard 2.35 mm	Standard 2.35 mm	Standard 2.35 mm	Standard 2.35 mm
REF	**340 0002 5**	**340 0012 0**	**340 0002 0**	**340 0011 0**
ISO No.	806 104 377514 250	806 104 377514 300	806 104 377514 370	806 104 377514 450
Diameter (D):	25 mm	30 mm	37 mm	45 mm
Thickness (S):	0.3 mm	0.3 mm	0.3 mm	0.3 mm
Recommended speed:	20,000 R·min^{-1}	15,000 - 20,000 R·min^{-1}	15,000 - 18,000 R·min^{-1}	10,000 - 15,000 R·min^{-1}

Diamond discs

- Giflex-TR
- **Giflex-TR Master x-tray**
- **Ceraflex**

Giflex-TR Master x-tray



Diamond disc
Giflex-TR
Master x-tray
Ø 25 mm
Thickness 0.4 mm
REF 340 00M2 5

Special diamond disc for processing acrylics. Giflex-TR Master x-tray features coarse diamond grit; hence a cooling effect is obtained in the diamond-coated section when separating acrylics.

Ceraflex



Ø 16 mm
Thickness 0.25 mm
1 piece
REF 340 0013 0

Ø 22 mm
Thickness 0.25 mm
1 piece
REF 340 0003 0

Diagonal toothing and abrasive diamond for a high cutting efficiency.
The cooling effect of the saw toothing with the abrasive diamond graining creates ideal conditions for rapid and specific separating of acrylics.



Ceraflex is available in two diameters. The small diameters allow selective separating of expansion plates.

- **Tungsten carbide burs for processing of plaster**
- **Tungsten carbide burs for processing of acrylics**
- Diacryl grinding tool dcs
- Diacryl rubber grinding tool
- Silicone bur

Tungsten carbide burs for processing of plaster

Quick shaping and smooth surfaces for all types of plaster. The relief supports the sharp cutting edge to avoid breakage of edges. This way the service life of the relief tools is three times longer than the one of comparable burs. Moreover the surface becomes smoother and exhibits a perfect luster.



Material	Tungsten carbide	Diatit
REF	**H194 KS 60**	**D194 KS 60**
ISO No.	500 104 194223 060	509 104 194223 060
REF	**H194 KS 70**	**D194 KS 70**
ISO No.	500 104 194223 070	509 104 194223 070



Tools with SH cut have been especially developed for processing plaster. Smooth running of the relief avoids coarse edges in the plaster.



Material	Tungsten carbide
REF	**H263 SH 60**
ISO No.	500 104 263220 060



Also perfectly suitable for acrylics.

Tungsten carbide burs for processing of acrylics

Saving time and improving quality when processing acrylics - thanks to bredent tools.



Material	Tungsten carbide	Diatit
REF	**H468 GG 16**	**D468 GG 16**
ISO No.	500 104 468211 016	509 104 468211 016
REF	**H468 GG 23**	**D468 GG 23**
ISO No.	500 104 468211 023	509 104 468211 023



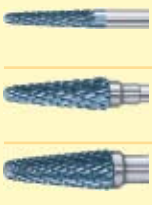
With the Tri Cutter acrylic can be cut precisely and almost without any chips. Perfectly suitable for thermoforming plates.



Material	Tungsten carbide	Diatit
REF	**H137 QM 23**	**D137 QM 23**
ISO No.	500 104 137134 023	509 104 137134 023



The diagonal cutting edges of this bur allows to produce extremely smooth surfaces in no time.



Material	Tungsten carbide	Diatit
REF	**H194 KG 23**	**D194 KG 23**
ISO No.	500 104 194220 023	509 104 194220 023
REF	**H194 KG 40**	**D194 KG 40**
ISO No.	500 104 194220 040	509 104 194220 040
REF	**H194 KG 50**	**D194 KG 50**
ISO No.	500 104 194220 050	509 104 194220 050



The somewhat narrower, conical shape of these cross cut burs allow controlled, efficient removal of material.



Material	Tungsten carbide	Diatit
REF	**H263 KG 60**	**D263 KG 60**
ISO No.	500 104 263220 060	509 104 263220 060



With this universal bur all materials can be finished without exchanging the tool - this way you can save time.



Material	Tungsten carbide	Diatit
REF	**H237 KG 65**	**D237 KG 65**
ISO No.	500 104 237220 065	509 104 237220 065



The coarse cross cut produces smooth surfaces in a quick and pressure-free manner.

Rotating tools

- Tungsten carbide burs for processing of plaster
- **Tungsten carbide burs for processing of acrylics**
- **Diacryl grinding tool dcs**
- **Diacryl rubber grinding tool**
- **Silicone bur**

Tungsten carbide burs for processing of acrylics

Relief bur for fast removal of acrylic material.



Material	Tungsten carbide
REF	**H263 SH 60**
ISO No.	500 104 263220 060



The special cut of the relief bur ensures excellent removal of material and a very smooth material surface. Thanks to smooth running of the relief cut, controlled penetration into the material is guaranteed.

Diacryl grinding tool dcs

Time gained and quality increased when processing acrylic with diamond-coated Diacryl grinding tools.



Coarse grinding tool
REF 340 0103 0



The special grain size of the coarse grinding tool simplifies the removal of large acrylic material quantities. The hollow shape reduces heating.



Papilla grinding tool
REF 340 0105 0



The shape of the papilla grinding tool allows to obtain a round design of the acrylic at the tooth.



Universal grinding tool
REF 340 0104 0



The universal grinding tool smoothens the acrylic surface so that it is perfectly prepared for processing with the rubber grinding tool.



Margin grinding tool, pointed
REF 340 0102 0



The very thin tip of the margin grinding tool allows to finish spots that are almost inaccessible.

Diacryl rubber grinding tool

Controlled, fast sanding of orthodontic acrylics.



Diacryl rubber grinding tool
REF 340 0090 0



The abrasive Diacryl rubber grinding tool for smooth surfaces of orthodontic supplies replaces the use of abrasive paper. Due to the fine grinding capacity the surface is perfectly prepared for subsequent polishing with excellent results in less time.

Silicone bur

Individually useable burs for all silicones.



Material	Tungsten carbide
REF	**S187 QG 23**
ISO No.	500 104 187 023



Material	Tungsten carbide
REF	**S263 QG 60**
ISO No.	500 104 263 060



Material	Tungsten carbide
REF	**S237 QG 65**
ISO No.	500 104 237 065

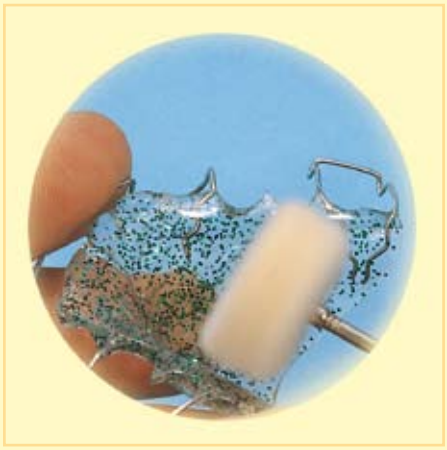


The special cutting edge geometry allows the use for all soft materials and transition areas towards hard acrylics. In orthodontics, silicone positioner can be perfectly milled with this tool.

- **Brushes for polishing with the handpiece**
- **Processing of acrylics**

- Brushes for polishing with the polishing unit

Brushes for polishing with the handpiece



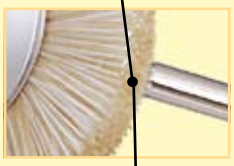
Special brushes for prepolishing and high-luster polishing.



Linen buff, coated
Ø 22 mm
15 pieces
REF 350 0091 0



Goat hair white,
double number of bristles
Ø 19 mm
15 pieces
REF 350 0054 0



Double number of bristles



Goat hair white,
double number of bristles
Ø 22 mm
15 pieces
REF 350 0055 0



Polishing buff
felt, 3 layers
Ø 22 mm
15 pieces
REF 350 0064 0



Cotton buff
Ø 22 mm
15 pieces
REF 350 0065 0



Fabric discs that have been soaked with polishing paste polish more smoothly. This saves time because it is not necessary to apply polishing paste.



The double number of bristles of the brush offer perfect stability when polishing large surfaces.



The three-layer felt buff polishes clasp transitions gently and quickly.



The three layers of felt adapt to any type of structure so that even very fine polishing is simplified.



The cotton buff allows polishing at spots of the ortho-dontic appliance which can not be reached with the polishing motor. Extremely soft cotton threads produce a mirror-like high luster.



Super-soft cotton threads polish orthodontic plates perfectly without leaving any rough spots and thus no retentions for accumulations.

Processing of acrylics



Diatit bur
1 piece
REF D200 KF 23

1 piece
REF D263 KG 60



Acrylic polisher medium, grey
6 pieces
REF P243 HM 10







Acrylic polisher coarse, green
6 pieces
REF P243 HG 10



Acrylic polisher fine, red
6 pieces
REF P243 HF 10





Abraso-gum for practice and laboratory. Remove all tender spots, smoothen surfaces, produce high luster.

Assortment

Diatit burs
1 Acrylic polisher, fine
1 Acrylic polisher, medium
1 Acrylic polisher, coarse
REF 350 0099 2

Brushes for polishing with the polishing unit



For particularly intensive, fast polishing.

Prepolishing buff Acrylic
Ø 80 mm
1 piece
REF 350 0099 1

Ø 60 mm
1 piece
REF 350 0098 0



The stable layers of the prepolishing buffs Acryl consist of silicone-coated linen so that particularly aggressive, fast polishing is possible.



This buff consists of a nonwoven fibre fabric in the centre between two layers of silicone-coated cotton fabric. On the outside there are two rows of bleached Chungkink bristles. This brush absorbs particularly much polishing paste or pumice and only releases it very slowly - for efficient prepolishing.

Abraso-Sil Acrylic
Ø 80 mm
1 piece
REF 350 0099 3

Ø 50 mm
REF 350 0102 2





High-quality Chungking bristles and 2 x 2 special fabric liners guarantee prepolishing with an excellent result.

Abraso-Buff Acrylic
Ø 50 mm
1 piece
REF 350 0102 4

Ø 80 mm
1 piece
REF 350 0078 0



Polishing paste or normal pumice sticks considerably longer to the special fabric liners than conventional brushes. They gradually spread abrasive materials and simplify polishing. This way relaxed and stress-free working is possible.



The small width of the Abraso-Buff Acryl guarantees perfect polishing. After finishing with abrasive paper (120 µ), the optimum prehigh-luster is easily achieved in no time.

- Brushes for polishing with the handpiece
- Processing of acrylics
- **Brushes for polishing with the polishing unit**

Brushes for polishing with the polishing unit



Abraso-Soft Acrylic
Due to the polishing heat the open-pore special fleece and the bleached Chungking bristles absorb more polishing paste and therefore up to 50 % of working time can be saved. Unlike conventional brushes, the open-pore structure of the fleece allows to take up considerably larger quantities of pumice or polishing paste. Polishing paste does no longer have to be applied continuously and working time is saved. Additionally, due to its structure the fleece is able to absorb more air which re-sults in a reduction of the polishing temperature and protects the resin so that damage to the orthodontic appli-ance surfaces to be processed will be avoided.

Abraso-Soft Acryl
Ø 50 mm
1 piece
REF 350 0102 0
Ø 80 mm
1 piece
REF 350 0080 0





The combination of fibre fleece and bleached Chungking bristles let the pumice polishing paste diffuse deeply into the brush.



Mixed pumice diffuses into the brush and the fibre fleece. The polishing agent remains longer on the brush and is gradually applied onto the surface in uniform quantities.

The brush hair are made of bleached Chungking bristles. Therefore they are rougher and softer. The rough surface holds the pumice paste more easily so that it polishes the orthodontic resin more actively without damaging the surface.



White goat hair with metal core.
For polishing that protects the structure.

Narrow brush, metal core
ø 48 mm
10 pieces
REF 350 0061 0



The particularly soft goat hair allow to carry out demanding polishing processes so that the material is protected.



High luster buff Acrylic.
No excessive evolution of heat due to special linen.

High luster buff Acrylic
1 piece each
Ø 60 mm 40 layers
REF 350 0094 0
Ø 100 mm 35 layers
REF 350 0082 0



The 35 resp. 40 layers of linen have been welded with an ultrasonic unit to protect them against twisting and produce a unique high luster due to the high stability.



This high luster buff was prebeaten mechanically. Accordingly, when polish-ing is started formation of fuzz is excluded.

Polishing pastes / Elastic orthodontic appliances

- **Pumice polishing paste**
- **Abraso-Star K50**
- **Abraso-Starglanz**
- **DKZ-System**

Pumice polishing paste



No splashing of the polishing agent.

Pumice polishing paste
for acrylics and metal
3 x 500 g
REF 520 0016 0



The fine abrasive components of the pumice polishing paste simplify careful polishing of the orthodontic acrylic material.



The pumice polishing paste diffuses into the brushes and ensures particularly long-lasting polishing.

Abraso-Star K50



Abrasive high-luster polishing.

Abraso-Star K50
slightly abrasive
320 g
REF 520 0016 1



Special basic materials guarantee absolute, mirror-like high luster on all orthodontic acrylic materials.



The high adhesive capacity of K50 on all polishing brushes allows longer abrasive polishing than with conventional polishing pastes.

Abraso-Starglanz



Perfect high luster within seconds.

Abraso-Starglanz
High luster polishing paste
2 x 50 ml
REF 520 0016 3



The excellent polishing properties reduce the amount of work during polishing with the handpiece considerably.



Abraso-Starglanz produces perfect high luster quickly and easily.

DKZ-System



Defined corporeal tooth adjustment
DKZ – resin-silicone connection.
The DKZ-System is a patient-friendly, patented orthodontic adjustment technique to perform tooth movements with the help of silicone.
The use of the special Multisil-Primer allows to achieve permanent bonding of DKZ silicone and a resin base (PMMMA) of orthodontic appliances.
This innovative technique opens a comprehensive new range of applications for the fabrication and modification of removable appliances and devices.

Advantages:
- reducing the number of appointments
- rapid progress in treatment
- no reactivating of springs and screws
- enhanced comfort of wearing for patients
- set-up model as a motivation tool
- easy care

1 Multisil-KFO 40 cartridge 50 ml — **REF 540 0105 0**

1 Multisil-KFO 60 cartridge 50 ml — **REF 540 0104 9**

1 Multisil-Primer
2.5 ml — **REF 520 0100 4**

1 Multisil sealing agent
10 ml — **REF 520 0100 5**

12 Mixing cannulas
yellow — **REF 320 0045 1**

For further information, please request the detailed DKZ Info Folder.
REF 992 949G B

bredent

• **DKZ-System**

DKZ-System



Assortment 1

Multisil-KFO 40+60 Shore

2 Multisil-KFO cartridges each 50 ml in Shore hardness 40 und 60
1 Multisil-Primer 5 ml
12 mixing cannulas, yellow
1 Multisil sealing agent 10 ml

REF 540 0104 4

Assortment 2

Multisil-KFO 40 Shore

2 Multisil-KFO cartridges each 50 ml in Shore hardness 40
1 Multisil-Primer 5 ml
12 mixing cannulas, yellow
1 Multisil sealing agent 10 ml

REF 540 0104 3

Assortment 3

Multisil-KFO 60 Shore

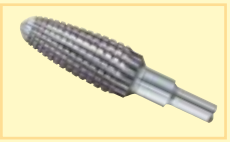
2 Multisil-KFO cartridges each 50 ml in Shore hardness 60
1 Multisil-Primer 5 ml
12 mixing cannulas, yellow
1 Multisil sealing agent 10 ml

REF 540 0104 2

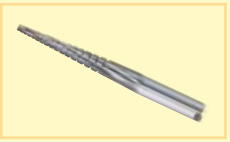
Accessories:



Silicone bur
1 piece
REF S237QG 65



Silicone bur
1 piece
REF S263QG60



Silicone bur
1 piece
REF S187QG23



Dispensing device
1 piece
REF 320 0044 0

Multisil-KFO 40, 50 ml cartridge	**REF 540 0105 0**
Multisil-KFO 60, 50 ml cartridge	**REF 540 0104 9**
Mixing cannulas, size 2 / yellow, 12 pieces	**REF 320 0045 1**
Multisil-Primer, 5 ml bottle	**REF 520 0100 4**
Multisil sealing agent, 10 ml bottle	**REF 520 0100 5**

Application examples – DKZ-System



Bionator with soft silicone occlusal appliance for intrusion of posterior teeth in case of slight overbite.



Thanks to the extended processing time span and the excellent stability of the silicone positioners can be prepared easily and in a stress-free manner.



Maxillary plate with silicone element in the anterior area for protrusion and derotation. The exact target of treatment was given in a set-up model; this way the desired result will be achieved in a reliable manner.



Thanks to the ideal combination of hard thermoformed splints and the elastic silicone rotation movements and single tooth alignment can be easily carried out. Safe tooth movement is achived thanks to the optimal transmission of force with the integrated hard moulds.

Example of preparing an adjusting appliance for protrusion of an anterior tooth



Prepare the resin base on the plaster model in the usual way.



Separate the misaligned tooth from the arch.



Use wax to position the separated segment as desired (slight overcorrection may be required).



Reduce and roughen the resin base for the integration of the silicone.



Brush up a thin coat of primer and allow to take effect for two minutes.



Apply the silicone from the double cartridge.



Polymerize in the pressure pot for 10 minutes at min. 45° C and a pressure of 2 bar.



Trim transition zones towards the resin base with a silicone bur.



Apply sealing varnish onto the finished silicone surfaces and let it dry at air for 6 hours.

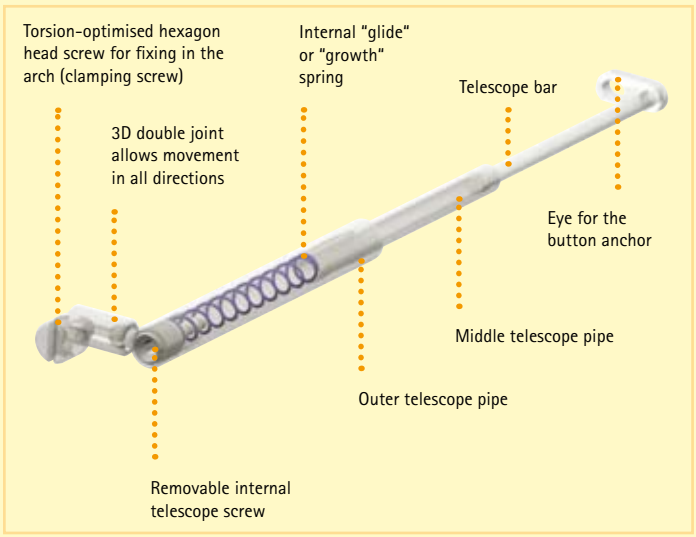
- **Elasto-Harmonizer**

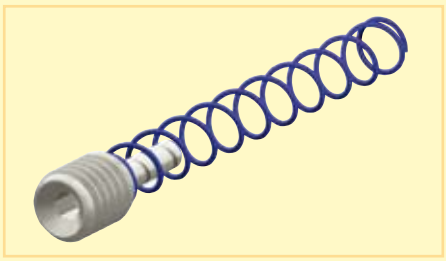
Elasto-Harmonizer according to Dr. Christian Sander



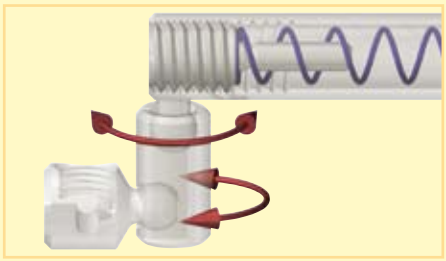
The shorter path to First Class.

Advantages at a glance:
- Time saving due to its simple handling
- Quality-optimized biocompatible titanium case
- No irritation due to the smooth surface of the design
- Easy and quick to change between skeletal and dental action
- Compliance-independent
- Only one apparatus for both sides
- Chairside solution
- Simple cleaning during treatment check
- Two different spring forces possible

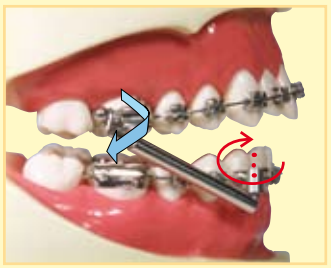




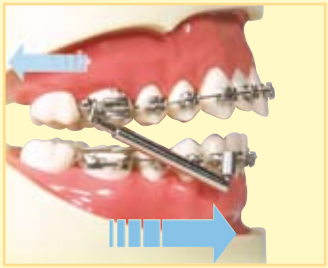
Removable internal telescope screw with a spring for easy and quick changing between skeletal and dental action. The spring is secured to stop it from falling out.



Both 3D double joints of the Elasto-Harmonizer allow the lower jaw to move in all directions. This means that the Elasto-Harmonizer is particularly patient-friendly and comfortable to wear.



Time benefit.
Mounting one or two Elasto-Harmonizers is particularly easy and quick because you merely need to bend one wire and tighten one screw.
The pre-assembled Elasto-Harmonizer significantly reduces the time patients spend in the dental surgery.



Skeletal or dento-alveolar action.
Distalising the teeth in the upper jaw with the "glide spring". Its gentle force guarantees safe and physiological distalization of the teeth in the upper jaw.

Dislocation of the lower jaw by the "growth spring".
In a similar way to the Herbst® apparatus, the strong "growth spring" produces a growth incentive for the lower jaw. This leads to remodelling of the mandibular joint.



Eat as much as you want!
A three-pipe telescope with a length of 68mm allows the unrestricted opening of the mouth. The food-intake is not impaired by this construction.



Shift option.
For asymmetric jaw relations a correcting growth influence is possible. Apart from the unilateral use, the "shift" option can also be used.

With this option, asymmetric influences can be achieved with the use of springs of different strengths.

- **Elasto-Harmonizer**

Elasto-Harmonizer

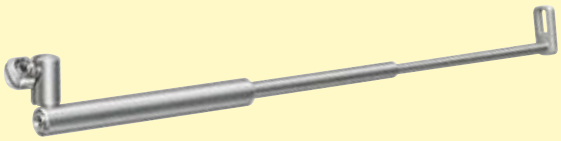


Fig. 1:1

Elasto-Harmonizer
1 piece
REF 580 0118 0



Glide spring
10 pieces
REF 580 0118 1



Growth spring
10 pieces
REF 580 0118 2



Fig. 1:1

Elasto-Harmonizer button anchor
10 pieces
REF 580 0118 3



Screw driver short
1 piece
REF 330 0069 0

Spare parts



Fig. 1:1

Internal telescope screw
10 pieces
REF 580 0118 4



Fig. 1:1

Clamping screw
10 pieces
REF 580 0118 5

Starter-Kit

10 Elasto-Harmonizer
10 Button anchor
10 Growth spring
10 Glide spring
1 Screwdriver short
2 Internal telescope screws
2 Clamping screws

REF 580 0118 6

Assortment 1

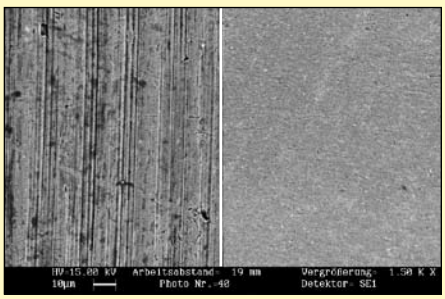
2 Elasto-Harmonizer
2 Button anchor
2 Growth spring
2 Glide spring

REF 580 0118 7

Assortment 2

6 Elasto-Harmonizer
6 Button anchor
6 Growth srping
6 Glide spring

REF 580 0118 8



Conventional surface | Smooth surface design

Smooth surface design.
The special polishing procedure achieves a very smooth surface.
This means that irritation of the cheeks' mucous membranes is avoided.
Little affinity to plaque and reduced adhesion of bacteria guarantee long-lasting wearing comfort.

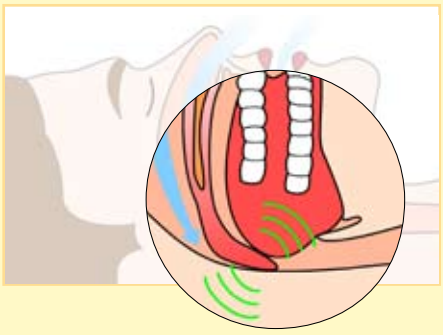


Cleaning.
If the apparatus has become dirty, the internal telescope screw and the spring are removed and the Elasto-Harmonizer can be cleaned with the air-water syringe.

Snoring therapy - intraoral mandibular advancement device

- **Snoring therapy**
- ***Roncho* EX mandibular advancement device**

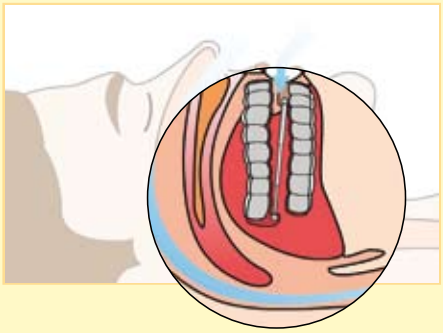
Snoring therapy



Snoring – a common disease
Extreme snoring (up to 90 decibel) disrupts restorative sleeping in 50 % of all bedrooms!
With increasing age, more than half of the population suffers from snoring problems:

- 40 – 60 % experience simple snoring without disrupted breathing (primary snoring)
- 5 – 10 % suffer from pathologic snoring with health risks caused by blockage of the airway (obstructive sleep apnea)

But snoring does not simply generate annoying sounds or sleep disruption – it may cause serious diseases, such as high blood pressure, stroke or heart attacks.



The efficiency of intraoral mandibular advancement devices to combat minor or medium sleep apnea syndromes is already established through several studies. Their use is recommended by the Deutsche Gesellschaft Zahnärztliche Schlafmedizin - DGZS (German Society of Dental Sleep Medicine) for this area of indication. Specific dental, oral and functional diagnostics are required prior to use.

The individually designed intraoral mandibular advancement device *Roncho* Ex keeps the lower jaw toward the median line at night, and thus prevents from snoring and reduces a disrupted breathing significantly.

Roncho EX mandibular advancement device



A system for the treatment of minor or medium obstructive sleep apnea syndrome (OSAS).



Telescopic appliance, mandible immobilization, and a frontal and lateral bite elevation create a matching treatment device

Mandibular Advancement Device Roncho EX

The mandibular advancement device *Roncho* Ex is a novel and comfortable treatment device with an especially high wearing comfort to combat obstructive snoring efficiently.
This advanced development of the already known mandibular advancement device offers a very good lateral and vertical mobility, due to telescopic ball and socket joints. Since the telescopic rails of the mandibular advancement device *Roncho* Ex are occlusally integrated, the buccal mucosa will not become irritated.
A temporomandibular joint support, which is modeled into the synthetic material, provides an additional relief of the musculature during sleep.
The design of the mandibular advancement device *Roncho* Ex was developed in the dental practice under clinical conditions and warrants high patient acceptance. The treatment concept has proven itself for several years.
The mandible advancement device *Roncho* Ex allows you to expand your range of products and to supply your patients with an established and proven treatment device that was developed in the dental practice.
The unique comfort of *Roncho* Ex is going to make your laboratory even more successful! Offer your dentists a product that makes for satisfied patients.

We are going to support you with:

- Workshops for practical production (certification)
- Advanced training courses about snoring therapy (certification)
- Marketing support through
  - Patient flyers
  - Waiting room posters
  - Patient information on the internet, including reference to certified den tists and dental laboratories

- ***Roncho*** **EX mandibular advancement device**

Roncho EX mandibular advancement device



Mandibular Advancement Device

Roncho EX

Ball and socket joints on telescopic rails provide high lateral and vertical mobility.

The system components and their advantages:

- The telescopic rails are delivered with individu ally adjustable springs, which are variable to suit any bite situation.
- Ball and socket joints allow for high three-di-mensional mobility.
- Occlusally incorporated telescopes offer optimal wearing comfort. The buccal mucosa will not become irritated!
- The bite elevation relieves the temporomandibu lar joints at night.
- The optional frontal immobilization keeps the mandible in a comfortable position.



Visit our workshop and get acquainted with the professional production of the intraoral man-dibular advancement device *Roncho* Ex.
The clinically required construction criteria and system components match each other, and the production methods are conveyed by qualified instructors.
Ask for current course offers.

Your benefit:

- **Acquisition of new customers**
- **Expansion of offers for the private insurant**

Our office and field consultants would be pleased to inform you about further details.

Available as of April 2009.
Prices quoted upon request.

Assortment

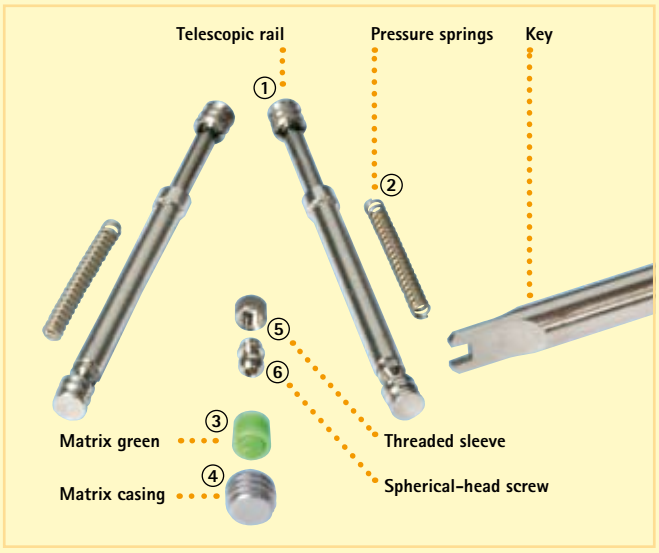
2 Telescopic rails
2 Pressure springs
1 Key
1 Spherical-head screw
1 Matrix, green
1 Matrix case
1 Threaded sleeve

REF 580 0119 0

Refill package:

10	Telescopic rails incl. 10 pressure springs	**REF 580 0119 1**
10	Pressure springs	**REF 580 0118 1**
1	Key	**REF 580 0119 2**
1	Spherical-head screw	**REF 450 0004 7**
8	Matrices, green	**REF 430 0544 0**
8	Matrix cases	**REF 430 0547 0**
2	Threaded sleeves	**REF 450 0007 6**

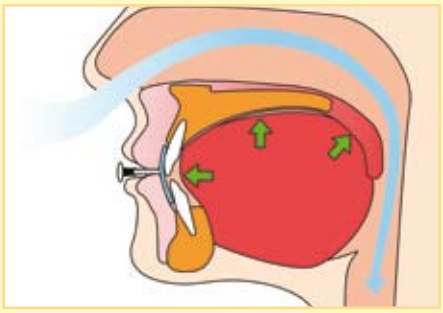




Biofunctional therapy

- **Biofunctional therapy**
- **Vacuum activator *silencos***
- **Vacuum activator *silencos kid***

Biofunctional therapy



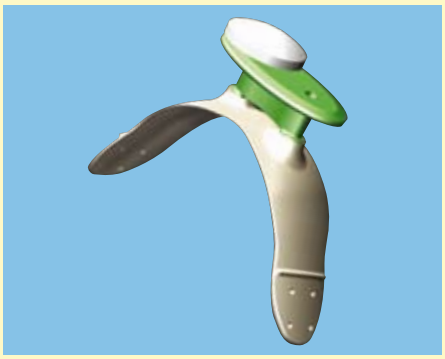
Daily training with the vacuum activator helps to keep the lips closed and to create a self-contained state of rest within the mouth through swallowing.
This procedure is visualized by the pressure gauge of the device. The bio-functional therapy uses the vacuum activator's pressure gauge as bio-feedback signal for training the proper position of a self-contained state of rest.
The treatment steps are systematically controllable. Training procedure and training time are displayable via pressure monitoring. Therapeutic goal is a preferably permanent system stabilization of the self-contained state of rest.

This method was developed at the University of Göttingen/Germany under Prof. Dr. Dr. W. Engelke and is applied since 2003.

Literature: Engelke, W.: Systematische Ronchopathiebehandlung in der zahnärztlichen Praxis, Cuvillier Verlag, Göttingen.

The application is simple and may be integrated into the dental or orthodontic practice at any time.
An "oral-friendly" design and high class materials grant a high wearing comfort and encourage your patients' active cooperation.

Vacuum activator *silencos* for adult therapy



silencos
1 piece
REF 580 0600 0

Accessories:

silencos Membrane
5 pieces
REF 580 M600 0

silencos provides an effective primary snoring therapy without obstruction.
Nasal respiration, the self-contained oral state of rest, and the velum are being trained through regular exercise and daily practice.

Additional therapeutic possibilities are
- Practice of the self-contained state of rest
- Development of a nasal respiration habit
- Stabilization of tongue and velum
- Immobilization support for X-ray taking (OPG or CT)
- Closed mouth training
- Mobilization of the mouth base after tumor surgical measures
- Exercises to restore the oral functions within neurologic rehabilitation

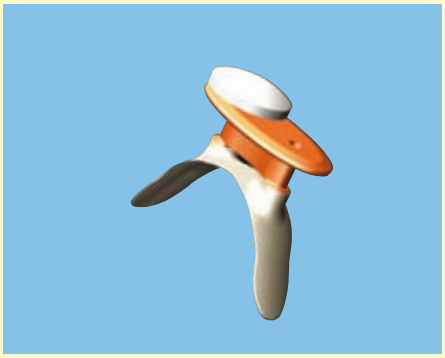




silencos Night device
1 piece
REF 580 N600 0

In connection with an individually fabricated rail, the night device closes the mouth outwards, which supports nasal respiration, stabilizes the velum and prevents it from swinging in the airflow.
Indication: Velar snoring therapy.

Vacuum activator *silencos kids* for early child therapy



silencos kids
1 piece
REF 580 0600 K

Accessories:

silencos Membrane
5 pieces
REF 580 M600 0

Malocclusions and jaw malformations may be caused by incorrect swallowing patterns, pathologic mouth breathing or habits, such as thumb-sucking. These should be recognized and treated at an early stage.
The vacuum activator offers all functions of an oral vestibule plate (OVP), yet reaches far beyond the possibilities of the OVP, because the exercises are controllable via membrane.
silencos kids was especially developed for the preschool child.

silencos kids
Waiting room poster
2 pieces
REF 0P0 005G B

silencos kids
Patient flyer
20 pieces
REF 000 278G B

Additional therapeutic possibilities are
- Controlled habit manipulation, such as thumb-sucking, lip-biting
- Balance of forces within the orofacial system
- Adaption of a natural rest tongue position
- Myofunctional dysfunctions
- Treatment of habitually conditioned incorrect tongue positions
- Frontal open bite therapy
- Adenotonsillectomy aftercare
- Habitual dysfunction therapy
- Play therapy

The bredent Order Number System for Diatit and tungsten carbide tools 324
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Microburs with relief
Rapidy Microbur 333
Tungsten carbide tools with relief 334
Diatit and tungsten carbide tools 336
Diatit power burs 347
Processing of titanium 348



The bredent Order Number System for Diatit and tungsten carbide tools

Color coding
Finding the cut type quickly with the help of the color code on the shaft of the bur.

NF	none	**SH**	orange	**KG**	green
NH	orange	**KF**	red	**KS**	black
MH	orange	**KM**	blue	**GG**	none
N/MH	orange/blue	**QM**	light-blue	**KC**	purple
GH	orange/green	**QG**	white	**KT**	silver grey

Tool shape, ISO-Number
Three numbers indicate the tool shape according to ISO.



Letter in initial position
N = special tool for non-precious metal alloys
H = Tungsten carbide
D = Diatit wear protection[1]
B = special tools (drills), e.g. fissure tool
F = special tools for the milling technique
S = silicone bur

[1] For details on the Diatit wear protection see page 329

Cut
bredent offers the tools mentioned above in 14 different cut designs. The cut types are marked by the combination of two capital letters.

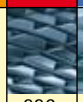
For details on the cut designs see page 325

Size
Diameter at the largest point of the working element in tenth of millimeters.

Finding the desired tool quickly

This catalogue offers the possibility to always find the desired tools in the fastest possible way.
The method of determination is either based on the shape or on the cut of the tool.

Determination based on the shape
The outer two columns of the double page 326/327 show all bredent tool shapes.
The desired shape can be selected there. Then a bredent cut type is selected in the row of the desired tool shape.
A page number is indicated in the box of the selected cut. Further information on the selected tool is provided on this page.

Picture Scale 1:1	REF	Cut													
		NF	NH	MH	GH	SH	KF	KM	QM	QG	KG	KS	GG	KC	KT
	D137. . 23 H137. . 23						 336	 339	 342		 344				

Picture of the tool in the original size.

Here are the two identifying letters of the desired cut type.

Order number, without the indication of the cut. This is available with a diameter of 2.3 mm.

This tool is available in the cut types KF, KM, QM, KG. For more detailed information see pages 336, 339, 342, 344.

To allow finding the different burs quickly the color codes have been indicated here.

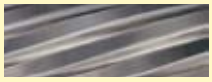
Orientation based on the cut
From page 328 all tools are arranged according to the cut.
The arrangement includes fine and coarse cuts as well as special cuts for chrome-cobalt alloys titanium.

ISO numbers
are indicated for all tools to ensure enhanced comparability.
These internationally standardized numbers feature 15 digits.
The numbers include the following information:

1. - 3. digit: Materials of the working element
4. - 6. digit: Shaft type
7. - 9. digit: Shape of the working element
10. - 12. digit: Cut
13. - 15. digit: Diameter of the working element

509 104 001215 023

The Cut Types of the bredent Diatit and tungsten carbide tools



NF:
Normal cut
Fine

- for processing of any dental material
- easy removal of material with perfect control, smooth surface of object
- single cut instead of "double" cross cut



NH:
Normal cut
with relief

- for processing of precious metals, non-precious metals, resin, plaster
- excellent removal of material and very smooth rotation, smooth surface of object
- relief: wide, stable cutting edge, extended service life



MH:
Central cut
with relief

- for processing of precious metals, non-precious metals, resin and ceramics
- fine removal of material, very smooth surface of object, low vibration running protects the wrist of the technician and the drive
- relief: wider, stabler cutting edge for extended service life, enhanced cutting performance



GH:
Coarse cut
with relief

- for coarse treatment of precious metals, non-precious metals, resins; in individual cases also for treatment of plaster
- excellent removal of material, low-vibration running and extended service life due to relief



SH:
Super coarse cut
with relief

- for processing of plaster and carrying out particulary coarse work on resin surfaces
- excellent removal of material and particularly smooth material surface due to relief
- no loading with shavings due to larger cut spaces



KF:
Cross cut
Fine

- mainly for more delicate types of work on precious and non-precious metals, resins and ceramics
- moderate and accurate removal of material, smooth surface of object



KM:
Cross cut
Medium

- for finishing of larger surfaces on precious metals, non-precious metals and resins, in individual cases also on plaster
- efficient removal of material, smooth surface of object, smooth running of tool
- universal application possibilities, therefore reduced frequency of tool exchange



QM:
Horizontal cut
Medium

- suitable for finishing of larger surfaces as well as for more delicate work on precious and non-precious metals and resin, therefore reduced frequency of tool exchange
- very fine, economic removal of material, smooth surface
- high smoothness of running protects drive and wrist



QG:
Cross cut
Coarse

- especially for processing of silicones
- very efficient and accurate removal of soft materials



KG:
Cross cut
Coarse

- for coarse and efficient pretreatment of large surfaces on precious metals, non-precious metals and resins, in individual cases also on plaster
- extensive removal of material, larger surface roughness than the finer bredent cut types



KS:
Cross cut
Super coarse

- especially for processing of plaster, also suitable for very coarse types of work on resin
- extensive removal of material
- the size of the individual cut space avoids loading with shavings



GG:
Straight cut
Coarse

- to perform cuts in resin or shellack plates
- very economic cutting of plates
- single, straight cutting edges



KC:
Cross cut
Chrome-Cobalt

- especially for processing of chrome-cobalt alloys
- excellent removal of material, smooth surface
- the characteristic feature of this tool: the resulting metal swarf cause fewer irritations to the skin since they are larger and exhibit a coarse structure



KT:
Cross cut
Titanium

- especially for processing of titanium
- the special dent of this cut increases the cutting volume which reduces the friction. Overheating of titanium is avoided.
- economic, careful removal of material, smooth surface

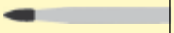
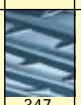
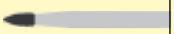
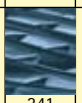
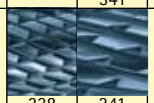
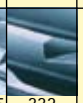
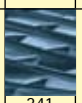
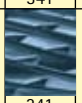
Pictures on scale 1:5

Cut overview

Picture Scale 1:1	REF	Cut												
		NF	NH	MH	GH	SH	KF	KM	QM	QG	KG	KS	GG	KC	KT
Size 06	**B153 . . 02-06** only available in tungsten carbide	328													
Size 23	**H001 NH 04-31** only available in tungsten carbide		333												
	D001 . . 14 only available in Diatit														348
	D001 . . 23 **H001 . . 23** **H010 . . 08-16**			330				339			344				348
Size 16	**H010 . . 08-16**		332												
	D137 . . 23 **H137 . . 23**						336	339	342		344				
	D141 . . 23 **H141 . . 23** **N141 . . 23**			330+334				339							
	H161. . 60									343					
	D184 . . 16 **H184 . . 16**			330			336	339							
	D187 . . 23 **H187 . . 23** **S187 . . 23**						336	340		343	344				
	D194 . . 23 **H194 . . 23**						336	340			344				348
	D194 . . 40 **H194 . . 40** **N194 . . 40**				331+335	332	336	340			344			347	348
	D194 . . 50 **H194 . . 50**				331		336	340			344				348
	D194 . . 60 **H194 . . 60**					332						346			
	D194 . . 70 **H194 . . 70**					332						346			
	D198 . . 23 **H198 . . 23** **N198 . . 23**			334			337	340							348

bredent

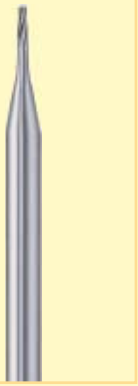
All tools that are shown are available with the shaft diameter of 2.35 mm. The total lengths of the tools are 45 mm (tools of sizes 02 - 23) resp. 52 mm (tools of sizes 40 - 70).

Picture Scale 1:1	REF	Cut												
		NF	NH	MH	GH	SH	KF	KM	QM	QG	KG	KS	GG	KC	KT
	**D200 . . 23** **H200 . . 23**						 337	 340			 345				
	**D225 . . 23** **H225 . . 23**						 337	 340							
	**D237 . . 23** **H237 . . 23**			 330			 337	 341							
	**D237 . . 65** **H237 . . 65** **S237 . . 65**									 343	 345				
	**H244 . . 23**				 331										
	**D251 . . 60** only available in Diatit													 347	
 Size 16	**D257 . . 16/23** **H257 . . 16/23**							 341							
	**H263 . . 30** **D263 . . 40** **H263 . . 40** **N263 . . 40**				 331		 338	 341							 348
	**D263 . . 60** **H263 . . 60** **S263 . . 60** **N263 . . 60**				 331+335	 332				 343	 345				
	**D274 . . 60** **H274 . . 40/60** **N274 . . 40**				 331+335	 332					 345				
	**D277 . . 14** **H277 . . 14** **N277 . . 14**			 330+334				 341							
	**D277 . . 23** **H277 . . 23**			 330+334				 341							
	D289 . . 23 **H289 . . 23**			 331			 338	 342							
	D292 . . 23 **H292 . . 23**						 338	 342			 345			 347	
 Size 23	**D468 . . 16/23** **H468 . . 16/23**												 346		

All tools that are shown are available with the shaft diameter of 2.35 mm. The total lengths of the tools are 45 mm (tools of sizes 02 - 23) resp. 52 mm (tools of sizes 40 - 70).

- **Fissure tool**

Fissure tool



	Material	Tungsten carbide	QTY
	**REF**	**B153 NF 02**	10 pieces
	ISO-No.	500 104 153006 002	
	Ø 0,2 mm		
	**REF**	**B153 NF 04**	10 pieces
	ISO-No.	500 104 153006 004	
	Ø 0,4 mm		
	**REF**	**B153 NF 06**	10 pieces
	ISO-No.	500 104 153006 006	
	Ø 0,6 mm		



Due to the shape of the tool smoothening of cusp „slopes" at inaccessible spots is possible. The extremely small diameter allows excellent smoothening in the deep area of the fissure so that polishing of occlusal surfaces is simplified. Well polished occlusal surfaces reduce the accumulation of plaque. This tool offers the dental technician excellent design possibilities.

Assortment

6 pieces, 2 pieces each
Fissure tool
ISO-No. 500 104 153006 002
ISO-No. 500 104 153006 004
ISO-No. 500 104 153006 006
REF 330 0082 6



Perfect fissures with the smallest fissure tool in the world Diameter 0.2 mm



Additionally, the special cutting edge geometry allows recontouring of ceramic occlusal surfaces prior to glaze firing. Therefore it offers new possibilities of designing occlusal surfaces to the ceramic specialist.

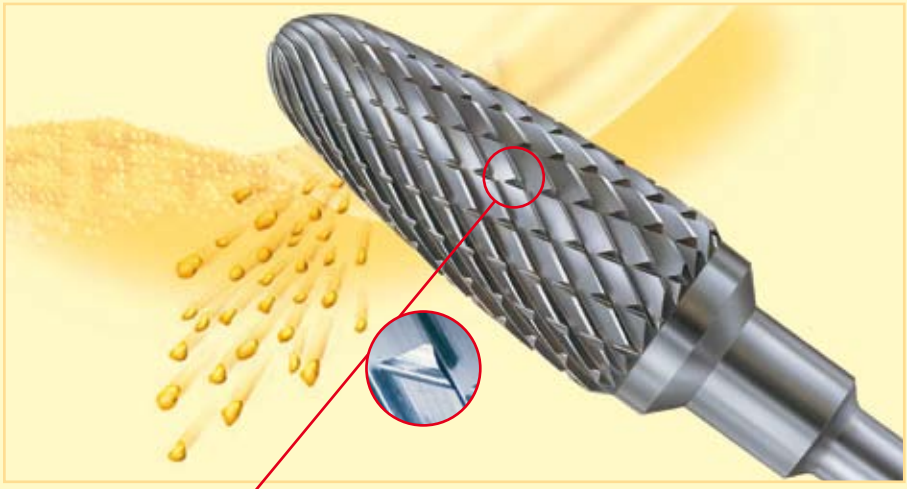


The bredent fissure tool in a magnification x 100

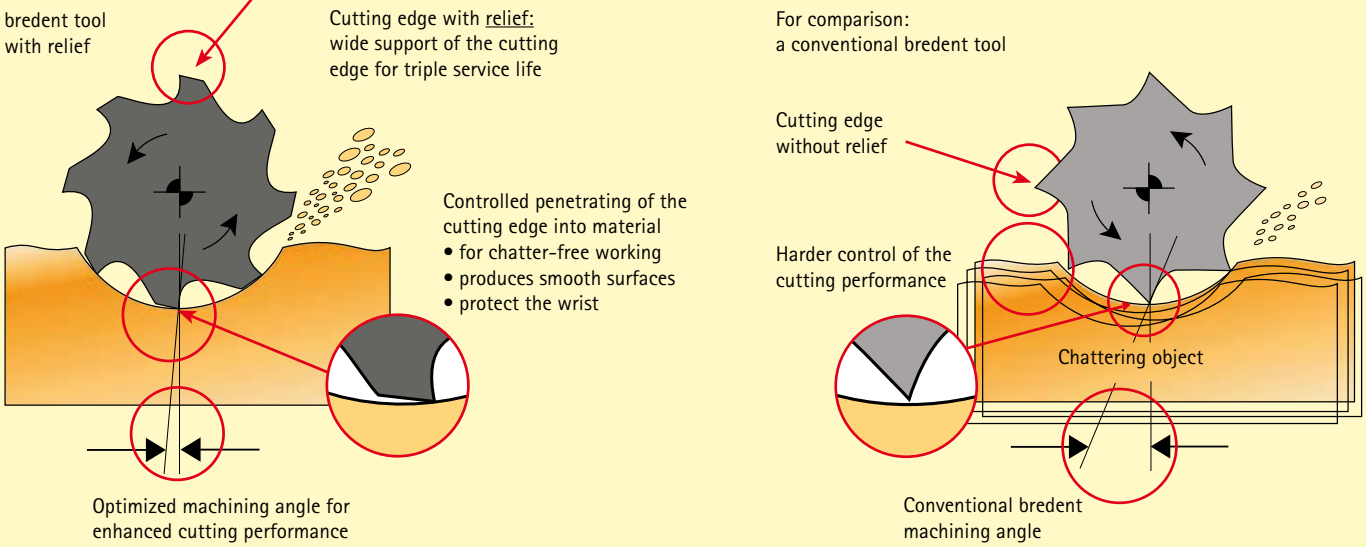
Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm			10-20,000	10-20,000	15-20,000	15-20,000

- **Comparison: bredent tools with and without relief**
- **Diatit wear protection**

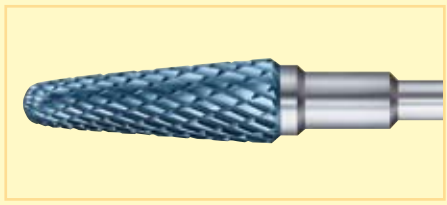
Comparison: bredent tools with and without relief



Triple service life comparated to conventional bredent cut.
The latest tungsten carbide tools by bredent are provided with a relief during an additional manufacturing process. The relief supports the sharp cutting edge to avoid breakage of the edges. This way the service life of the relief tools is three times longer than the one of conventional bredent tools. Additionally, the relief allows to optimize the machining angle so that an excellent cutting performance is achieved.



Diatit wear protection



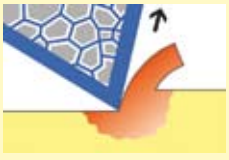
Smooth running from the very beginning
Diatit tools feature particular wear protection: Diatit. This is a special material which is added into the surface of the bur after it has been produced. It hardens the tool surface and reduces the surface friction. This comprehensive hardening process results in a tool which features very smooth rotation and precise cutting performance from the very beginning - and this is provided over a considerably extended period. Accordingly, accurate removal of material is ensured. Additionally, the service life of the tool (compared to uncoated bredent tungsten carbide burs) is increased considerably by the hardening process.

Tungsten carbide structure
bredent tungsten carbide tools consist of a metal sintering material with a very fine grain size. Additionally, Diatit tools



are subject to a hardening process after the cut has been completed. This hardening process reaches into the gaps between the crytals in a depth of up to 100 mm.

bredent tool with Diatit wear protection.
The surface of the tool is smoothened so that the friction is reduced. The swarf comes



off the tools more easily. This results in smoother running of the tool.

bredent tool without Diatit wear protection.
Additionally, - compared to uncoated bredent tungsten carbide tools - jagging of the



cutting edges of Diatit tools is avoided due to the wear protection. Compared to uncoated bredent tungsten carbide burs the hardness rises up to 3700 HV (compared to 1850 HV) and results in an increased service life of the tool.

Cut: MH





Material Tungsten carbide
REF **H001 MH 23**
ISO-No. 500 104 001190 023



This bur offers numerous possibilities of application; in this picture it is used in the CoCr technique.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	10-20,000	10-20,000	10-20,000	10-20,000	15-20,000





Material Tungsten carbide
REF **H141 MH 23**
ISO-No. 500 104 141190 023



The tool H141 MH 23 used for grinding a ditch. Smooth, chatter-free running of the relief cut increases the reliability during the application.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	10-20,000	10-20,000	10-20,000	10-20,000	15-20,000





Material Tungsten carbide
REF **H184 MH 16**
ISO-No. 500 104 184190 016



The high cutting performance of the relief cut allows more efficient treatment of ceramics; the picture shows smoothening of the transitions of metal/ceramic.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material Tungsten carbide
REF **H237 MH 23**
ISO-No. 500 104 237190 023



Tools with relief produce a particularly smooth micrograph. During milling of ceramic materials a silky-mat surface is obtained which is suitable for glaze-firing without any additional treatment. Therefore relief tools ensure high efficiency when processing ceramic materials.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material Tungsten carbide
REF **H277 MH 14**
ISO-No. 500 104 277190 014



REF **H277 MH 23**
ISO-No. 500 104 277190 023



Slender designs allow the use of relief tools even for highly precise work.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000

Cut: MH and GH





Material	Tungsten carbide
REF	**H289 MH 23**
ISO-No.	500 104 289190 023



The tool H289 MH 23 is particularly suitable for grinding VMK veneer surfaces.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide
REF	**H194 GH 40**
ISO-No.	500 104 194220 040



REF	**H194 GH 50**
ISO-No.	500 104 194220 050



Due to the extended service life the relief cut saves material costs Accordingly, costs can be reduced considerably particularly when processing VMK frameworks.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide
REF	**H244 GH 23**
ISO-No.	500 104 244220 023

The shape allows highly accurate finishing of metal structures.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide
REF	**H263 GH 30**
ISO-No.	500 104 263220 030



REF	**H263 GH 60**
ISO-No.	500 104 263220 060



The large surface of the bur allows to remove large plaster quantities. Simultaneosuly, a smooth surface is achieved.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-15,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide
REF	**H274 GH 40**
ISO-No.	500 104 274220 040



REF	**H274 GH 60**
ISO-No.	500 104 274220 060



A smooth object surface can be produced with the relief cut. This provides considerable advantages when processing resins.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-15,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000

Cut: SH and NH





Material	Tungsten carbide
REF	**H274 SH 40**
ISO-No.	500 104 274220 040



The relief cut produces a very smooth object surface. Smooth and chatter-free cutting of the bur leads to safer use by the technician and protects the joints.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-15.000	8-12.000				





Material	Tungsten carbide
REF	**H194 SH 40**
ISO-No.	500 104 194220 040



REF	**H194 SH 60**
ISO-No.	500 104 194220 060



REF	**H194 SH 70**
ISO-No.	500 104 194220 070



Tools with SH cut have been especially developed for processing of plaster. Smooth running of the relief avoids coarse edges in the plaster.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	8-12.000	8-12.000				





Material	Tungsten carbide
REF	**H263 SH 60**
ISO-No.	500 104 263220 060



Bur with relief cut for quick removal of denture resin. Also perfectly suitable for plaster.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20.000	10-20.000	10-20.000	10-20.000	10-20.000	15-20.000





Material	Tungsten carbide
REF	**H010 NH 08**
ISO-No.	500 104 010006 008



REF	**H010 NH 10**
ISO-No.	500 104 010006 010

REF	**H010 NH 12**
ISO-No.	500 104 010006 012



REF	**H010 NH 16**
ISO-No.	500 104 010006 016



The inverted cone is perfectly suitable for shaping occlusal surfaces. Simultaneously, a brilliant ceramic surface is achieved thanks to the relief cut.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	10-20,000	10-20,000	10-20,000	15-20,000	15-20,000

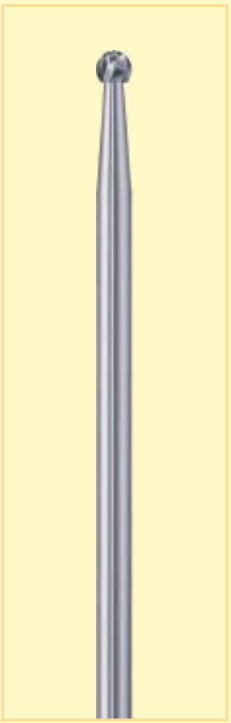
Rapidy Microbur



Optimum cutting performance and long service life due to relief.
The Rapidy Microbur also features a relief. Due to this modern edge geometry the Rapidy exhibits a particularly high cutting performance as well as extraordinarily smooth running.
The dental technician is able to benefit from these properties especially when extremely hard materials have to be processed in a fast and precise manner, e.g. when shaping ceramic or non-precious metal alloys. Even on these materials the Rapidy ensures extensive removal of material and creates a particularly smooth object surface. Additionally, the triple service life that is ensured by the relief allows to save costs.



H001 NH 04: The fine cutting performance of the Rapidy Microbur offers excellent possibilities of design to the ceramic specialist.



Material	Tungsten carbide		
QTY	1 piece	5 pieces	10 pieces
REF	**H001 NH 04**	**330 0050 4**	**330 0100 4**
ISO-No.	500 104 001006 004		
REF	**H001 NH 05**	**330 0050 5**	**330 0100 5**
ISO-No.	500 104 001006 005		
REF	**H001 NH 06**	**330 0050 6**	**330 0100 6**
ISO-No.	500 104 001006 006		
REF	**H001 NH 07**	**330 0050 7**	**330 0100 7**
ISO-No.	500 104 001006 007		
REF	**H001 NH 08**	**330 0050 8**	**330 0100 8**
ISO-No.	500 104 001006 008		
REF	**H001 NH 09**	**330 0050 9**	**330 0100 9**
ISO-No.	500 104 001006 009		
REF	**H001 NH 10**	**330 0051 0**	**330 0101 0**
ISO-No.	500 104 001006 010		
REF	**H001 NH 12**	**330 0051 2**	**330 0101 2**
ISO-No.	500 104 001006 012		
REF	**H001 NH 14**	**330 0051 4**	**330 0101 4**
ISO-No.	500 104 001006 014		
REF	**H001 NH 16**	**330 0051 6**	**330 0101 6**
ISO-No.	500 104 001006 016		
REF	**H001 NH 18**	**330 0051 8**	**330 0101 8**
ISO-No.	500 104 001006 018		
REF	**H001 NH 21**	**330 0052 1**	**330 0102 1**
ISO-No.	500 104 001006 021		
REF	**H001 NH 23**	**330 0052 3**	**330 0102 3**
ISO-No.	500 104 001006 023		
REF	**H001 NH 31**	**330 0053 1**	**330 0103 1**
ISO-No.	500 104 001006 031		

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	10-20,000	10-20,000	10-20,000	15-20,000	15-20,000

Cut: MH/NPM special burs





Material	Tungsten carbide
REF	**N141 MH 23**
ISO-No.	500 104 141190 023



The tool N141 MH 23 during grinding of a ditch. Smooth, chatter-free running of the relief cut increases the reliability during the application.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					15-20,000	





Material	Tungsten carbide
REF	**N198 MH 23**
ISO-No.	500 104 198190 023



The tool N198 MH 23 during grinding of a ditch. The smooth, chatter-free running of the relief cut increases the reliability during the application.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					15-20,000	





Material	Tungsten carbide
REF	**N277 MH 14**
ISO-No.	500 104 277190 014



Slender designs allow the use of the relief tools even for very precise work and create an extremely smooth surface.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					15-20,000	



Assortment

Package contains 7 burs

REF 330 0117 0

Thanks to the special relief cut, extended service life of these burs for non-precious metal alloys is achieved. The modified angle of the relief increases the abrasiveness and leads to a better surface quality which allows to save a considerable amount of time.

Cut: GH/NPM special burs





Material	Tungsten carbide
REF	**N194 GH 40**
ISO-No.	500 104 194220 040



Thanks to the increased service life the relief cut saves tool costs. Accordingly, costs can be considerably reduced when processing VMK frameworks made of non-precious metal alloys.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					15-20,000	





Material	Tungsten carbide
REF	**N263 GH 40**
ISO-No.	500 104 263220 040

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					15-20,000	





Material	Tungsten carbide
REF	**N263 GH 60**
ISO-No.	500 104 263220 060

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					15-20,000	





Material	Tungsten carbide
REF	**N274 GH 40**
ISO-No.	500 104 274220 040

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					15-20,000	

Cut: KF





Material	Tungsten carbide	Diatit
REF	**H137 KF 23**	**D137 KF 23**
ISO-No.	500 104 137140 023	509 104 137140 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H184 KF 16**	**D184 KF 16**
ISO-No.	500 104 184140 016	509 104 184140 016



Due to the fine cut a smooth surface of the object is obtained. This slender tool is particularly suitable for finishing of veneers.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H187 KF 23**	**D187 KF 23**
ISO-No.	500 104 187140 023	509 104 187140 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H194 KF 23**	**D194 KF 23**
ISO-No.	500 104 194140 023	509 104 194140 023



REF	**H194 KF 40**	**D194 KF 40**
ISO-No.	500 104 194140 040	509 104 194140 040



REF	**H194 KF 50**	**D194 KF 50**
ISO-No.	500 104 194140 050	509 104 194140 050



The D194 KF 23 is particularly suitable for finishing of metal-ceramic frames.



The fine micrograph of the KF cut simplifies polishing of the metal surface.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000

Cut: KF





Material	Tungsten carbide	Diatit
REF	**H198 KF 23**	**D198 KF 23**
ISO-No.	500 104 198140 023	509 104 198140 023



The slender design and the smooth micrograph of the D198 KF 23 ensure excellent suitability for processing of partial frameworks.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H200 KF 23**	**D200 KF 23**
ISO-No.	500 104 200140 023	509 104 200140 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H225 KF 23**	**D225 KF 23**
ISO-No.	500 104 225140 023	509 104 225140 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H237 KF 23**	**D237 KF 23**
ISO-No.	500 104 237140 023	509 104 237140 023



D237 KF 23: Due to the fine cut a smooth surface can be achieved on hard alloys as well.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000

Cut: KF





Material	Tungsten carbide	Diatit
REF	**H263 KF 40**	**D263 KF 40**
ISO-No.	500 104 263140 040	509 104 263140 040



The D263 KF 40 can be used for a wide range of applications in the CoCr technique.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H289 KF 23**	**D289 KF 23**
ISO-No.	500 104 289140 023	509 104 289140 023



The KF cut is perfectly suitable for finishing of metal ceramic veneers.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H292 KF 23**	**D292 KF 23**
ISO-No.	500 104 292140 023	509 104 292140 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		12-18,000	15-20,000	15-20,000	15-20,000	15-20,000

Cut: KM





Material	Tungsten carbide	Diatit
REF	**H001 KM 23**	**D001 KM 23**
ISO-No.	500 104 001190 023	509 104 001190 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H137 KM 23**	**D137 KM 23**
ISO-No.	500 104 137190 023	509 104 137190 023



Due to the smooth running and the excellent cutting performance, this tool is particularly suitable for precise and efficient finishing.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H141 KM 23**	**D141 KM 23**
ISO-No.	500 104 141190 023	509 104 141190 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H184 KM 16**	**D184 KM 16**
ISO-No.	500 104 184190 016	509 104 184190 016



Application example.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000

Cut: KM





Material	Tungsten carbide	Diatit
REF	**H187 KM 23**	**D187 KM 23**
ISO-No.	500 104 187190 023	509 104 187190 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H194 KM 23**	**D194 KM 23**
ISO-No.	500 104 194190 023	509 104 194190 023
REF	**H194 KM 40**	**D194 KM 40**
ISO-No.	500 104 194190 040	509 104 194190 040
REF	**H194 KM 50**	**D194 KM 50**
ISO-No.	500 104 194190 050	509 104 194190 050

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H198 KM 23**	**D198 KM 23**
ISO-No.	500 104 198190 023	509 104 198190 023



Efficient and controlled finishing due to the slender tool with KM cut.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H200 KM 23**	**D200 KM 23**
ISO-No.	500 104 200190 023	509 104 200190 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H225 KM 23**	**D225 KM 23**
ISO-No.	500 104 225190 023	509 104 225190 023



D225 KM 23 for regrinding exact transitions of metal/resin.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000

Cut: KM





Material	Tungsten carbide	Diatit
REF	**H237 KM 23**	**D237 KM 23**
ISO-No.	500 104 237190 023	509 104 237190 023



This tool is particularly suitable for designing filigree CoCr frameworks.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H257 KM 16**	**D257 KM 16**
ISO-No.	500 104 257190 016	509 104 257190 016



Material	Tungsten carbide	Diatit
REF	**H257 KM 23**	**D257 KM 23**
ISO-No.	500 104 257190 023	509 104 257190 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H263 KM 40**	**D263 KM 40**
ISO-No.	500 104 263190 040	509 104 263190 040



Controlled removal of material with the bredent KM tool.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H277 KM 14**	**D277 KM 14**
ISO-No.	500 104 277190 014	509 104 277190 014



Material	Tungsten carbide	Diatit
REF	**H277 KM 23**	**D277 KM 23**
ISO-No.	500 104 277190 023	509 104 277190 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000

Cut: KM and QM





Material	Tungsten carbide	Diatit
REF	**H289 KM 23**	**D289 KM 23**
ISO-No.	500 104 289190 023	509 104 289190 023



Finishing of precious metal alloys: D289 KM 23

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H292 KM 23**	**D292 KM 23**
ISO-No.	500 104 292190 023	509 104 292190 023



Fine cutting performance and smooth surface of the object: D292 KM 23 - application example in the precious metal technique

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20,000	12-18,000	15-20,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H137 QM 23**	**D137 QM 23**
ISO-No.	500 104 137134 023	509 104 137134 023



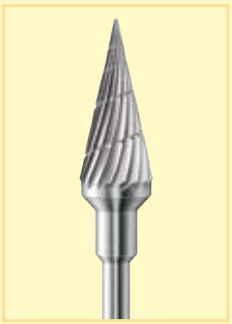
Precious metal technique: Smooth surface of the object, tool is running steadily.

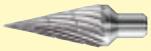


The fine cutting performance and the smooth running of this tool ensure efficient working in the field of resins as well.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	15-20.000	15-18.000	15-20.000	15-20.000	15-20.000	15-20.000

Cut: QG





Material	Tungsten carbide
REF	**H161 QG 60**
ISO-No.	500 104 161220 060



The tapered tip is ideal for accurate processing of very thin acrylic structures. Also perfectly suitable for the splint therapy.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm		10-20,000				





Material	Tungsten carbide
REF	**S187 QG 23**
ISO-No.	500 104 187 023



Due to the different shapes, these burs can be used to shape silicone and also in hardly accessible areas, such as in the alveoli of the gingival mask.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic	Silicone
Working speed rpm							30.000





Material	Tungsten carbide
REF	**S237 QG 65**
ISO-No.	500 104 237 065



Due to controlled removal of material, a smooth transition zone from the silicone to the denture resin is achieved. The ground surface is smooth and free from grooves.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic	Silicone
Working speed rpm							20.000





Material	Tungsten carbide
REF	**S263 QG 60**
ISO-No.	500 104 263 060



Thermoformed, soft thermoplastic plates with different hardness degrees are rapidly and safely ground with these silicone burs, e.g. for sports mouth guards.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic	Silicone
Working speed rpm							18.000

Cut: KG





Material	Tungsten carbide	Diatit
REF	**H001 KG 23**	**D001 KG 23**
ISO-No.	500 104 001215 023	509 104 001215 023



D001 KG 23: Removal of bubbles in the precious metal technique.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H137 KG 23**	**D137 KG 23**
ISO-No.	500 104 137220 023	509 104 137220 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H187 KG 23**	**D187 KG 23**
ISO-No.	500 104 187220 023	509 104 187220 023



The slender design and the fine cutting performance of the D187 KG 23 render this tool indispensable for the use in the CoCr technique.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H194 KG 23**	**D194 KG 23**
ISO-No.	500 104 194220 023	509 104 194220 023



REF	**H194 KG 40**	**D194 KG 40**
ISO-No.	500 104 194220 040	509 104 194220 040



REF	**H194 KG 50**	**D194 KG 50**
ISO-No.	500 104 194220 050	509 104 194220 050



D194 KG 23 for efficient CoCr processing



The coarse cuts of the D194 KG 40 (picture 3) and the D194 KG 50 (picture 2) guarantee fast and perfect finishing of resin.



Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000

Cut: KG





Material	Tungsten carbide	Diatit
REF	**H200 KG 23**	**D200 KG 23**
ISO-No.	500 104 200220 023	509 104 200220 023



D200 KG 23 for finishing of CoCr frameworks.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H237 KG 65**	**D237 KG 65**
ISO-No.	500 104 237220 065	509 104 237220 065



D237 KG 65 excellent removal of material and smooth running for efficient processing of resin.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H263 KG 60**	**D263 KG 60**
ISO-No.	500 104 263220 060	509 104 263220 060



Due to its shape and the coarse cut the D263 KG 60 is well suited for grinding of plaster dies..

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H274 KG 60**	**D274 KG 60**
ISO-No.	500 104 274220 060	509 104 274200 060



The D274 KG 60 is suitable for all materials due to this coarse cut.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000





Material	Tungsten carbide	Diatit
REF	**H292 KG 23**	**D292 KG 23**
ISO-No.	500 104 292220 023	509 104 292220 023

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	10-20,000	8-12,000	10-17,000	15-20,000	15-20,000	15-20,000

Cut: KS and GG







Material	Tungsten carbide	Diatit
REF	**H194 KS 60**	**D194 KS 60**
ISO-No.	500 104 194223 060	509 104 194223 060
REF	**H194 KS 70**	**D194 KS 70**
ISO-No.	500 104 194223 070	509 104 194223 070



D194 KS 60: The super-coarse cut guarantees a particularly powerful cutting performance.



D194 KS 70: The super-coarse cut is particularly effective on plaster and resin.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	8-12,000	8-12,000				







Material	Tungsten carbide	Diatit
REF	**H468 GG 16**	**D468 GG 16**
ISO-No.	500 104 468211 016	509 104 468211 016
REF	**H468 GG 23**	**D468 GG 23**
ISO-No.	500 104 468211 023	509 104 468211 023



Simple and precise cutting of plate material is possible due to the straight cut.



Smearing of the plate material due to overheating is avoided so that fast and reliable working is ensured.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm	8-12.000	8-12.000				

Cut: KC

KC cut: Special cut for CoCr and non-precious metal alloys.
The KC cut provides high cutting performance on hard alloys. Coarse metal swarf results which can not penetrate into the technician's skin. The KC cut rationalizes surface working and simultaneously avoids injuries to the skin.





Material	Diatit
REF	**D194 KC 40**
ISO-No.	509 104 194190 040



The KC cut ensures gentle and pressure-free milling with high cutting performance.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					10-20,000	





Material	Diatit
REF	**D251 KC 60**
ISO-No.	509 104 251190 060



The KC cut by bredent guarantees efficient finishing of CoCr frames.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					10-20,000	





Material	Diatit
REF	**D292 KC 23**
ISO-No.	509 104 292190 023



The high cutting performance ensures efficient finishing of crowns and bridges made of non-precious metal alloys.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	CoCr denture/NPM	Ceramic
Working speed rpm					10-20,000	

Cut: KT

KT cut: Especially for processing of titanium.
At 850 °C titanium reacts with the oxygen in the ambient air and forms a surface with undesired material characteristics (e.g. discolourations, insufficient polishing capacity, embrittlement, etc.). Due to the special diagonal cut the tools with the KT cut offer a larger swarf-cutting volume so that the swarf comes off the tool more easily and the friction is reduced. This special cut avoids overheating of the titanium caused by friction heat. Consequently, this cut ensures efficient and careful removal of material and produces a smooth surface.





Material	Diatit
REF	**D001 KT 14**
ISO-No.	509 104 001190 014



Material	Diatit
REF	**D001 KT 23**
ISO-No.	509 104 001190 023



The different shapes of the titanium burs by bredent guarantee efficient and reliable processing of titanium frames.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	Titanium	Ceramic
Working speed rpm					10-15,000	





Material	Diatit
REF	**D194 KT 23**
ISO-No.	509 104 194190 023



Material	Diatit
REF	**D194 KT 40**
ISO-No.	509 104 194190 040



Material	Diatit
REF	**D194 KT 50**
ISO-No.	509 104 194190 050



D194 KT 23: For controlled processing of areas difficult to access.

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	Titanium	Ceramic
Working speed rpm					size 23+40: 20-25,000 size 50: 20,000	





Material	Diatit
REF	**D198 KT 23**
ISO-No.	509 104 198190 023

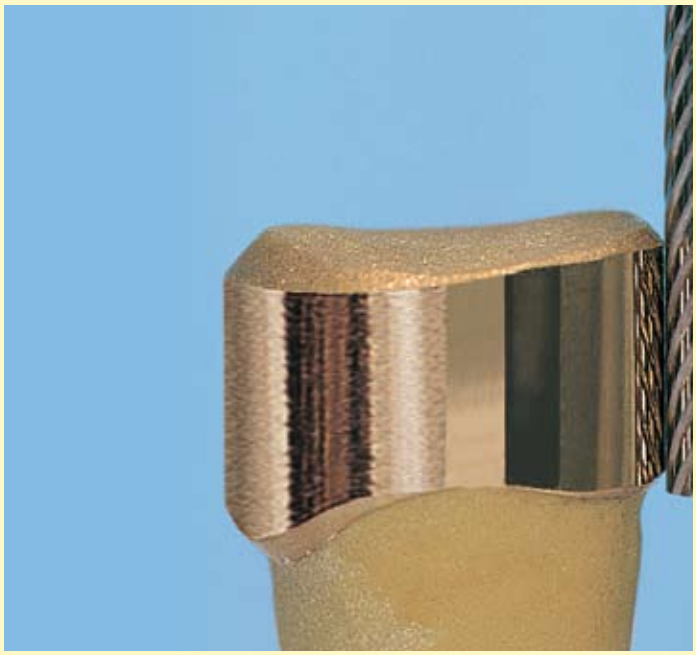
Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	Titanium	Ceramic
Working speed rpm					25-30,000	





Material	Diatit
REF	**D263 KT 40**
ISO-No.	509 104 263190 040

Application field	Plaster	Denture resin	Veneer resin	Precious metal/pd-based	Titanium	Ceramic
Working speed rpm					20-25,000	



Tools with relief for the milling technique
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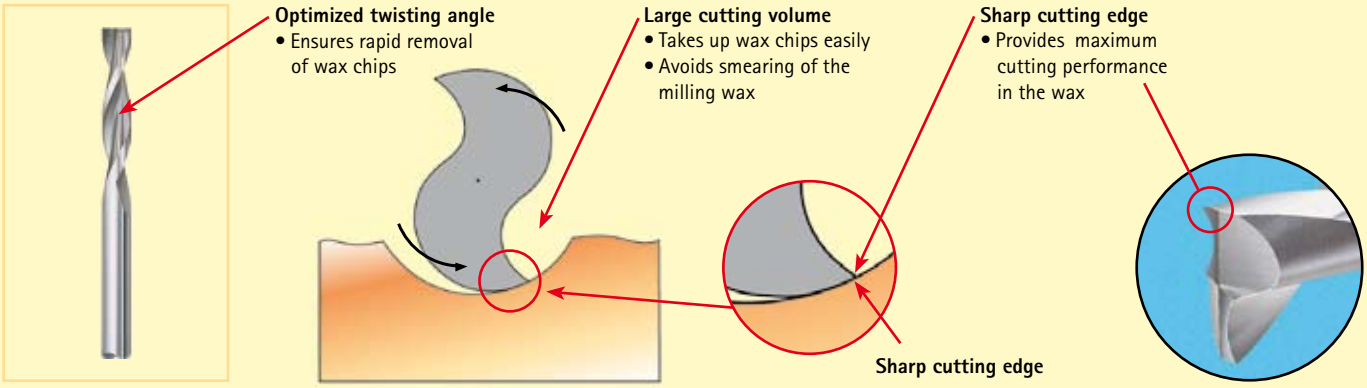
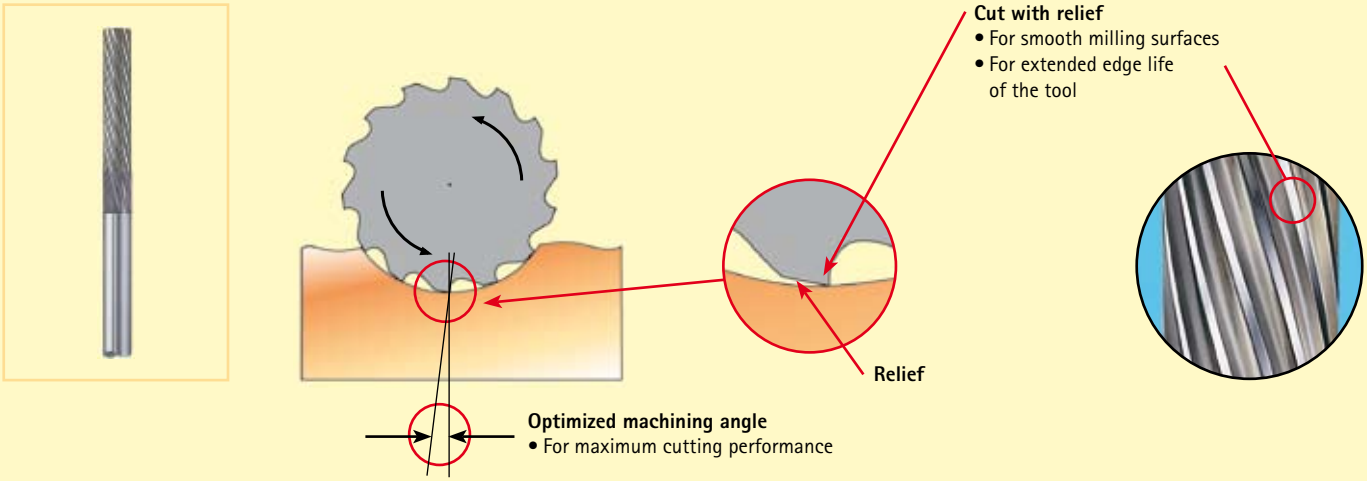
Tools with relief for the milling technique

- **Wax bur**
- **Profile bur**
- **Polishing bur**

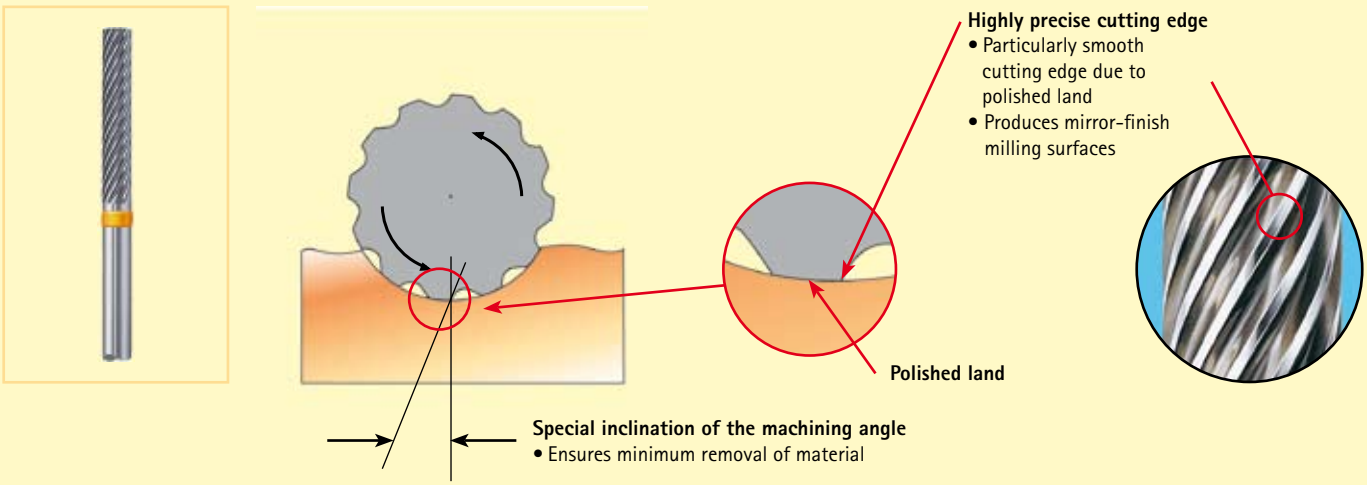
Wax bur



Profile bur



Polishing bur



- **Biotec milling wax**
- **Bur application**

Biotec milling wax



Excellent milling wax with superb modelling properties. Outstanding scraping and milling properties since sticking of wax to the bur is avoided.



Biotec milling wax
28 g
REF 510 0061 4



Enormous amount of time is saved due to good modelling properties since no other wax is required for the shear distributor.



Extremely accurate milling wax to produce smooth and shining surfaces during milling.

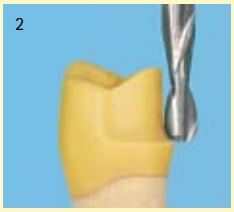


Can be used for press ceramics since the wax burns out almost entirely.

Systematic preparation of a groove-shoulder attachment with the milling technique tool set by bredent



It is recommended to model the entire, planned crown in wax prior to starting the milling work.



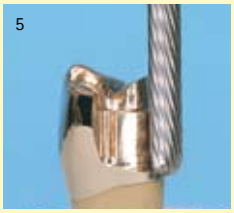
In the first step a semi-round shoulder with a marginal step is prepared with the wax bur F137 3W 23.



Then the approximal grooves are prepared with the groove bur F538 3H 10.



Finally, the occlusal shoulder is completed with the shoulder bur F205 3H 27.



After casting and finishing of the crown, the parallel surface is remilled with the profile bur F137 3H 23.



Remilling of the groove is carried out with the tool F 538 3H 10. During this process the groove bur should only be moved up and down in the vertical axis.



The occlusal shoulder is reworked with the tool F205 3H 27.



Finally, a high lustre is achieved on the parallel surface using the polishing bur F137 3P 23.



The milling tools with relief by bredent produce a perfect high lustre so that additional polishing is not required.



A secondary element is modelled with the pattern resin Pi-Ku-Plast and – if required – shaped with rotating tools.



The secondary element is cast and placed onto the primary element.



The low shrinkage of the pattern resin ensures excellent precision of fit of the secondary element.

Burs

- **Parallel burs**
- Conical burs
- Groove burs / shoulder burs
- Wax burs
- Cross-cut burs
- Wax burs and diamond grinding tools

Wax bur, parallel, round face



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**F137 2W 07**	**F137 3W 07**
ISO No.	500 103 137366 007	500 123 137366 007
REF	**F137 2W 10**	**F137 3W 10**
ISO No.	500 103 137366 010	500 123 137366 010
REF	**F137 2W 15**	**F137 3W 15**
ISO No.	500 103 137366 015	500 123 137366 015
REF	**F137 2W 23**	**F137 3W 23**
ISO No.	500 103 137366 023	500 123 137366 023
working speed on wax		2,500 - 5,000 rpm



The wax bur F137 3W 23 features rounded face cut. Therefore it is perfectly suitable to prepare precise ditches in the marginal area.

* shaft Ø 2.35 short: total length of tool 34 mm
** shaft Ø 3.00 short: total length of tool 30 mm

Profile bur, parallel, round face



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**F137 2H 07**	**F137 3H 07**
ISO No.	500 103 137103 007	500 123 137103 007
REF	**F137 2H 10**	**F137 3H 10**
ISO No.	500 103 137103 010	500 123 137103 010
REF	**F137 2H 15**	**F137 3H 15**
ISO No.	500 103 137103 015	500 123 137103 015
REF	**F137 2H 23**	**F137 3H 23**
ISO No.	500 103 137103 023	500 123 137103 023
working speed on precious metal		15,000 - 20,000 rpm



The round face cut of the profile bur F137 3H 23 corresponds to the face cut of the wax bur shown above. Precisely designed ditches in wax can be milled additionally and easily with the suitable profile bur.

* shaft Ø 2.35 short: total length of tool 34 mm
** shaft Ø 3.00 short: total length of tool 30 mm

Polishing bur, parallel, round face

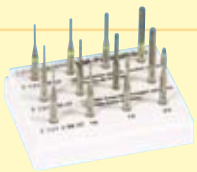


Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**F137 2P 07**	**F137 3P 07**
ISO No.	500 103 137102 007	500 123 137102 007
REF	**F137 2P 10**	**F137 3P 10**
ISO No.	500 103 137102 010	500 123 137102 010
REF	**F137 2P 15**	**F137 3P 15**
ISO No.	500 103 137102 015	500 123 137102 015
REF	**F137 2P 23**	**F137 3P 23**
ISO No.	500 103 137102 023	500 123 137102 023
working speed on precious metal		18,000 - 20,000 rpm



A mirror-finish surface is prepared with the polishing bur F137 3P 23. The identical face cuts of all wax, profile and polishing burs of the same size simplify designing of a perfect marginal ditch.

* shaft Ø 2.35 short: total length of tool 34 mm
** shaft Ø 3.00 short: total length of tool 30 mm



Assortment
12 pieces, 1 piece each
REF 330 0082 5



Milling and drilling oil
see page 359
REF 550 0000 8

bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- **Parallel burs**
- Conical burs
- Groove burs / shoulder burs
- Wax burs
- Cross-cut burs
- Wax burs and diamond grinding tools

Wax bur, parallel, straight face



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**F116 2W 07**	**F116 3W 07**
ISO No.	500 103 116366 007	500 123 116366 007
REF	**F116 2W 10**	**F116 3W 10**
ISO No.	500 103 116366 010	500 123 116366 010
REF	**F116 2W 15**	**F116 3W 15**
ISO No.	500 103 116366 015	500 123 116366 015
REF	**F116 2W 23**	**F116 3W 23**
ISO No.	500 103 116366 023	500 123 116366 023
working speed on wax		2,500 - 5,000 rpm



Wax bur F116 3W 23: Smooth and precise wax surfaces due to modern cutting edge geometry. Milling tools with straight face are particularly suitable for tangential borders in the marginal area.

Profile bur, parallel, straight face



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**F116 2H 07**	**F116 3H 07**
ISO No.	500 103 116103 007	500 123 116103 007
REF	**F116 2H 10**	**F116 3H 10**
ISO No.	500 103 116103 010	500 123 116103 010
REF	**F116 2H 15**	**F116 3H 15**
ISO No.	500 103 116103 015	500 123 116103 015
REF	**F116 2H 23**	**F116 3H 23**
ISO No.	500 103 116103 023	500 123 116103 023
working speed on precious metal		15,000 - 20,000 rpm



Rapid and precise shaping with the profile bur F116 3H 23: The relief technology allows to obtain excellent cutting performance.

* shaft Ø 2.35 short: total length of tool 34 mm
** shaft Ø 3.00 short: total length of tool 30 mm

Polishing bur, parallel, straight face

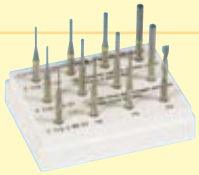


Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**F116 2P 07**	**F116 3P 07**
ISO No.	500 103 116102 007	500 123 116102 007
REF	**F116 2P 10**	**F116 3P 10**
ISO No.	500 103 116102 010	500 123 116102 010
REF	**F116 2P 15**	**F116 3P 15**
ISO No.	500 103 116102 015	500 123 116102 015
REF	**F116 2P 23**	**F116 3P 23**
ISO No.	500 103 116102 023	500 123 116102 023
working speed on precious metal		18,000 - 20,000 rpm



The high-lustre polished land allows to prepare high-lustrous milling surfaces. The secondary elements can be attached to these surfaces without subsequent polishing. This way precision is increased and working time is saved.

* shaft Ø 2.35 short: total length of tool 34 mm
** shaft Ø 3.00 short: total length of tool 30 mm



Assortment
12 pieces, 1 piece each
REF 330 0082 4

Parallel burs for titanium, precious and non-precious metal alloys

- **Parallel burs**
- Conical burs
- Groove burs / shoulder burs
- Wax burs
- Cross-cut burs
- Wax burs and diamond grinding tools

Profile bur abrasive, parallel round face



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**N137 2H 10**	**N137 3H 10**
ISO No.	500 103 137 103 010	500 123 137 103 010
REF	**N137 2H 15**	**N137 3H 15**
ISO No.	500 103 137 103 015	500 123 137 103 015
REF	**N137 2H 23**	**N137 3H 23**
ISO No.	500 103 137 103 023	500 123 137 103 023
working speed of non-precious metal	20,000 - 25,000 rpm	

* shaft Ø 2.35 short: total length of tool 34 mm
** shaft Ø 3.00 short: total length of tool 30 mm

Polishing bur abrasive, parallel round face



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**N137 2P 10**	**N137 3P 10**
ISO No.	500 103 137 102 010	500 123 137 102 010
REF	**N137 2P 15**	**N137 3P 15**
ISO No.	500 103 137 102 015	500 123 137 102 015
REF	**N137 2P 23**	**N137 3P 23**
ISO No.	500 103 137 102 023	500 123 137 102 023
working speed of non-precious metal	10,000 - 20,000 rpm	

* shaft Ø 2.35 short: total length of tool 34 mm
** shaft Ø 3.00 short: total length of tool 30 mm

Abrasive burs for titanium, precious and non-precious metal and milling work.

The cutting edge geometry has been especially designed for rapid removal of material. The relief ensures smooth running and allows to obtain very smooth surfaces on the object to be milled. The wide relief extends the edge life and avoids breaking of the sharp cutting edges.



Milling and drilling oil
see page 359
REF 550 0000 8

bredent

- **Parallel burs**
- Conical burs
- Groove burs / shoulder burs
- Wax burs
- Cross-cut burs
- Wax burs and diamond grinding tools

Profile bur abrasive, parallel straight face



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**N116 2H 10**	**N116 3H 10**
ISO No.	500 103 116 103 010	500 123 116 103 010
REF	**N116 2H 15**	**N116 3H 15**
ISO No.	500 103 116 103 015	500 123 116 103 015
REF	**N116 2H 23**	**N116 3H 23**
ISO No.	500 103 116 103 023	500 123 116 103 023
working speed of non-precious metal	20,000 - 25,000 rpm	

* shaft Ø 2.35 short: total length of tool 34 mm
** shaft Ø 3.00 short: total length of tool 30 mm

Polishing bur abrasive, parallel straight face



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short *	Ø 3.00 mm short **
REF	**N116 2P 10**	**N116 3P 10**
ISO No.	500 103 116 102 010	500 123 116 102 010
REF	**N116 2P 15**	**N116 3P 15**
ISO No.	500 103 116 102 015	500 123 116 102 015
REF	**N116 2P 23**	**N116 3P 23**
ISO No.	500 103 116 102 023	500 123 116 102 023
working speed of non-precious metal	10,000 - 20,000 rpm	

* shaft Ø 2.35 short: total length of tool 34 mm
** shaft Ø 3.00 short: total length of tool 30 mm

A rich quantity of milling and drilling oil is applied onto the milling surface and a speed of 20,000 - 25,000 rpm is used for milling. Whilst adding a copious quantity of milling and drilling oil, the milling surface is prepolished with the polishing bur at 20,000 rpm and then polished to high lustre at 10,000 rpm.



Milling and drilling oil
see page 359
REF 550 0000 8

Burs

- Parallel burs
- **Conical burs**
- Groove burs / shoulder burs
- Wax burs
- Cross-cut burs
- Wax burs and diamond grinding tools

Wax bur, conical, round face



	Material	Tungsten carbide	Tungsten carbide
	Shaft	Ø 2.35 mm short	Ø 3.00 mm short
conical 2°	**REF**	**F200 2W 23**	**F200 3W 23**
	ISO No.	500 103 200362 023	500 123 200362 023
conical 4°	**REF**	**F200 2W 31**	**F200 3W 31**
	ISO No.	500 103 200362 031	500 123 200362 031
conical 6°	**REF**	**F200 2W 40**	**F200 3W 40**
	ISO No.	500 103 200362 040	500 123 200362 040
	working speed on wax		2,500 - 5,000 rpm



total length: 32 mm

Preparation of a tapered crown with marginal ditch: The wax bur F200 3W 40 features a rounded face. First a wax pattern is prepared with this wax bur. The rounded face features a sharp cutting edge and produces a precise ditch.

Profile bur, conical, round face



	Material	Tungsten carbide	Tungsten carbide
	Shaft	Ø 2.35 mm short	Ø 3.00 mm short
conical 2°	**REF**	**F200 2H 23**	**F200 3H 23**
	ISO No.	500 103 200103 023	500 123 200103 023
conical 4°	**REF**	**F200 2H 31**	**F200 3H 31**
	ISO No.	500 103 200103 031	500 123 200103 031
conical 6°	**REF**	**F200 2H 40**	**F200 3H 40**
	ISO No.	500 103 200103 040	500 123 200103 040
	working speed on precious metal		15,000 - 20,000 rpm



total length: 32 mm

The object is shaped with the profile bur after casting. The radius of the face cut has been precisely matched with the corresponding wax bur. Accordingly, the ditch can be shaped quickly.

Polishing bur, conical, round face



	Material	Tungsten carbide	Tungsten carbide
	Shaft	Ø 2.35 mm short	Ø 3.00 mm short
conical 2°	**REF**	**F200 2P 23**	**F200 3P 23**
	ISO No.	500 103 200133 023	500 123 200133 023
conical 4°	**REF**	**F200 2P 31**	**F200 3P 31**
	ISO No.	500 103 200133 031	500 123 200133 031
conical 6°	**REF**	**F200 2P 40**	**F200 3P 40**
	ISO No.	500 103 200133 040	500 123 200133 040
	working speed on precious metal		15,000 - 20,000 rpm



total length: 32 mm

After contouring, the surface is finished with the polishing bur. Slight reworking with the polishing bur allows to obtain high lustre polishing even in the area of the ditch, since the radiuses of the polishing, profile and wax burs are absolutely identical.



Milling and drilling oil
see page 359
REF 550 0000 8

bredent

- Parallel burs
- **Conical burs**
- Groove burs / shoulder burs
- Wax burs
- Cross-cut burs
- Wax burs and diamond grinding tools

Wax bur, conical, straight face



	Material	Tungsten carbide	Tungsten carbide
	Shaft	Ø 2.35 mm short	Ø 3.00 mm short
conical 2°	**REF**	**F186 2W 23**	**F186 3W 23**
	ISO No.	500 103 186362 023	500 123 186362 023
conical 4°	**REF**	**F186 2W 31**	**F186 3W 31**
	ISO No.	500 103 186362 031	500 123 186362 031
conical 6°	**REF**	**F186 2W 40**	**F186 3W 40**
	ISO No.	500 103 186362 040	500 123 186362 040
	working speed on wax		2,500 - 5,000 rpm



total length: 32 mm

Preparation of a tapered crown with tangential marginal design: The wax bur F186 3W 40 is perfectly suitable for this task. First the wax pattern is prepared with the wax bur. The sharp cutting edges ensure particularly smooth wax surfaces.

Profile bur, conical, straight face



	Material	Tungsten carbide	Tungsten carbide
	Shaft	Ø 2.35 mm short	Ø 3.00 mm short
conical 2°	**REF**	**F186 2H 23**	**F186 3H 23**
	ISO No.	500 103 186103 023	500 123 186103 023
conical 4°	**REF**	**F186 2H 31**	**F186 3H 31**
	ISO No.	500 103 186103 031	500 123 186103 031
conical 6°	**REF**	**F186 2H 40**	**F186 3H 40**
	ISO No.	500 103 186103 040	500 123 186103 040
	working speed on precious metal		15,000 - 20,000 rpm



total length: 32 mm

The friction surfaces of the primary crown are precisely shaped with the profile bur. The optimized cutting angle of the profile bur ensures efficient profile milling.

Polishing bur, conical, straight face



	Material	Tungsten carbide	Tungsten carbide
	Shaft	Ø 2.35 mm short	Ø 3.00 mm short
conical 2°	**REF**	**F186 2P 23**	**F186 3P 23**
	ISO No.	500 103 186133 023	500 123 186133 023
conical 4°	**REF**	**F186 2P 31**	**F186 3P 31**
	ISO No.	500 103 186133 031	500 123 186133 031
conical 6°	**REF**	**F186 2P 40**	**F186 3P 40**
	ISO No.	500 103 186133 040	500 123 186133 040
	working speed on precious metal		15,000 - 20,000 rpm



total length: 32 mm

After profile milling, a mirror-like high lustre is produced on the friction surface using the polishing bur. Additional polishing of the surface is no longer required.



Milling and drilling oil
see page 359
REF 550 0000 8

Profile bur, abrasive, conical, round face



	Material	Tungsten carbide	Tungsten carbide
	Shaft	Ø 2.35 mm short	Ø 3.00 mm short
 conical 2°	**REF**	**N200 2H 23**	**N200 3H 23**
	ISO No.	500 103 200 103 023	500 123 200 103 023
 conical 4°	**REF**	**N200 2H 31**	**N200 3H 31**
	ISO No.	500 103 200 103 031	500 123 200 103 031
 conical 6°	**REF**	**N200 2H 40**	**N200 3H 40**
	ISO No.	500 103 200 103 040	500 123 200 103 040

working speed of non-precious metal 20,000 - 25,000 rpm

total length 32 mm

Abrasive burs for titanium, precious and non-precious metal and milling work.

The cutting edge geometry has been especially designed for rapid removal of material. The relief ensures smooth running and allows to obtain very smooth surfaces on the object to be milled. The wide relief extends the edge life and avoids breaking of the sharp cutting edges.

Profile bur, abrasive, conical, straight face



	Material	Tungsten carbide	Tungsten carbide
	Shaft	Ø 2.35 mm short	Ø 3.00 mm short
 conical 2°	**REF**	**N186 2H 23**	**N186 3H 23**
	ISO No.	500 103 186 103 023	500 123 186 103 023
 conical 4°	**REF**	**N186 2H 31**	**N186 3H 31**
	ISO No.	500 103 186 103 031	500 123 186 103 031
 conical 6°	**REF**	**N186 2H 40**	**N186 3H 40**
	ISO No.	500 103 186 103 040	500 123 186 103 040

working speed of non-precious metal 20,000 - 25,000 rpm

total length 32 mm

A rich quantity of milling and drilling oil is applied onto the milling surface and a speed of 20,000 - 25,000 rpm is used for milling. Whilst adding a copious quantity of milling and drilling oil, the milling surface is prepolished with the polishing bur at 20,000 rpm and then polished to high lustre at 10,000 rpm.



Milling and drilling oil
see page 359
REF 550 0000 8

- Parallel burs
- Conical burs
- **Groove burs / shoulder burs**
- Wax burs
- Cross-cut burs
- Wax burs and diamond grinding tools

Groove bur



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short	Ø 3.00 mm short
REF	**F538 2H 07**	**F538 3H 07**
ISO No.	500 103 538175 007	500 123 538175 007
REF	**F538 2H 10**	**F538 3H 10**
ISO No.	500 103 538175 010	500 123 538175 010
REF	**F538 2H 12**	**F538 3H 12**
ISO No.	500 103 538175 012	500 123 538175 012
REF	**F538 2H 15**	**F538 3H 15**
ISO No.	500 103 538175 015	500 123 538175 015
REF	**F538 2H 20**	**F538 3H 20**
ISO No.	500 103 538175 020	500 123 538175 020
working speed on precious metal		15,000 - 20,000 rpm
total length: 34 mm		



The groove bur F538 3H 10 exclusively serves to prepare grooves. For this purpose the groove bur is only moved up and down in the vertical axis. The cut on the face simplifies extending the grooves to the cervical direction. At speeds of 15.000 - 20,000 rpm a fine cutting performance and a mirror-like high lustre on the milling surface are obtained.

Shoulder bur



Material	Tungsten carbide	Tungsten carbide
Shaft	Ø 2.35 mm short	Ø 3.00 mm short
REF	**F205 2H 27**	**F205 3H 27**
ISO No.	500 103 205175 027	500 123 205175 027
REF	**F205 2H 29**	**F205 3H 29**
ISO No.	500 103 205175 029	500 123 205175 029
working speed on precious metal		15,000 - 20,000 rpm
total length: 34 mm		



The occlusal shoulder is prepared with a special shoulder bur. The shoulder bur features a face cut which smoothens the bottom of the shoulder. Optimum use of this tool is ensured at speeds of approx. 15.000 – 20,000 rpm. A mirror-like lustre on the milling surface is achieved with the relief cut. Additional polishing is not required.

Milling and drilling oil



Milling and drilling oil
REF 550 0000 8

The milling and drilling oil was especially developed to be used with the milling and drilling tools by bredent. The special consistency produces a reliable oil film between the metal and the drill so that the metal swarf slides out of the cut sections of the tool. This way the cutting performance and the service life of the milling tools are increased. Gumming of the milling and drilling oil is excluded thanks to the high evaporation temperature.

Use:
Always add sufficient quantities of milling and drilling oil during centring, drilling resp. milling.

Burs

- Parallel burs
- Conical burs
- Groove burs / shoulder burs
- **Wax burs**
- **Cross-cut burs**
- Wax burs and diamond grinding tools

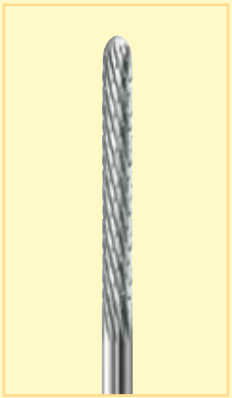
Wax burs 0°, 1°, 2°, 4°, 6°



Material	Tungsten carbide	
Shaft	Ø 2.35 mm short	
 parallel 0°	**REF**	**F137 2W 10**
	ISO No.	500 103 137366 010
 parallel 0°	**REF**	**F137 2W 15**
	ISO No.	500 103 137366 015
 parallel 0°	**REF**	**F137 2W 23**
	ISO No.	500 103 137366 023
 conical 1°	**REF**	**F200 2W 29**
	ISO No.	500 103 200362 029
 conical 2°	**REF**	**F200 2W 23**
	ISO No.	500 103 200362 023
 conical 4°	**REF**	**F200 2W 31**
	ISO No.	500 103 200362 031
 conical 6°	**REF**	**F200 2W 40**
	ISO No.	500 103 200362 040
working speed on wax		2,500 - 5,000 rpm

The new 1° wax burs are perfectly suitable for primary conical crowns with a slightly conical angle which are to provide maximum friction below a 0° telescopic crown.
Perfectly suited for electroplating.

Cross-cut burs



Material	Tungsten carbide	
Shaft	Ø 2.35 mm short	
 parallel 0°	**REF**	**F 137 2K 10**
	ISO No.	500 103 137190 010
 parallel 0°	**REF**	**F 137 2K 15**
	ISO No.	500 103 137190 015
 parallel 0°	**REF**	**F 137 2K 23**
	ISO No.	500 103 137190 023
working speed on precious metal		20,000 rpm

Thanks to the cross cut, high abrasive capacity is achieved to allow quick processing of precious and non-precious metals and titanium.



Material	Tungsten carbide	
Shaft	Ø 2.35 mm short	
 conical 1°	**REF**	**F 200 2K 29**
	ISO No.	500 103 200190 029
 conical 2°	**REF**	**F 200 2K 23**
	ISO No.	500 103 200190 023
 conical 4°	**REF**	**F 200 2K 31**
	ISO No.	500 103 200190 031
 conical 6°	**REF**	**F 200 2K 40**
	ISO No.	500 103 200190 040
working speed on precious metal		20,000 rpm

When using milling and drilling oil, the milled surfaces can be shaped with the same bur and using lower pressure just like with a relief bur. Smooth surfaces can be achieved with the same bur without changing the bur.



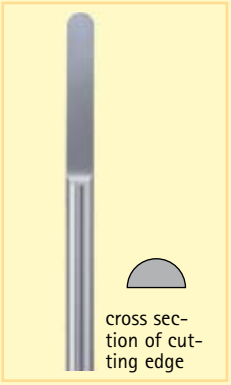
Milling and drilling oil
see page 359
REF 550 0000 8

bredent

Telephone (+49) 0 73 09 / 8 72-4 40

- Parallel burs
- Conical burs
- Groove burs / shoulder burs
- Wax burs
- Cross-cut burs
- **Wax burs and diamond grinding tools**

Wax bur, straight cutting edge, parallel, round face



	REF	320 0083 0
	ISO No.	330 103 137382 007
	Diameter	0.7 mm
	REF	320 0084 0
	ISO No.	330 103 137382 010
	Diameter	1.0 mm
	REF	320 0085 0
	ISO No.	330 103 137382 012
	Diameter	1.2 mm
	REF	320 0088 0
	ISO No.	330 103 137382 023
	Diameter	2.3 mm

Working speed on wax 5,000 rpm

Assortment
4 pieces, 1 piece each
REF 320 0087 0

All tools feature a total tool length of 36 mm and a shaft diameter of 2.35 mm.

Diamond grinding tool, coarse grain, parallel, round face



	REF	340 0083 G
	ISO No.	806 103 137534 010
	Diameter	1.0 mm
	REF	340 0084 G
	ISO No.	806 103 137534 012
	Diameter	1.2 mm
	REF	340 0085 G
	ISO No.	806 103 137534 015
	Diameter	1.5 mm
	REF	340 0086 G
	ISO No.	806 103 137534 019
	Diameter	1.9 mm
	REF	340 0087 G
	ISO No.	806 103 137534 023
	Diameter	2.3 mm

Working speed on CrCo/NPM 10,000 - 20,000 rpm

All tools feature a total tool length of 36 mm and a shaft diameter of 2.35 mm.

The radius of the face of the parallel diamond grinding tool has been matched with the face of the parallel wax burs shown above. The use of diamond grinding tools ensures efficient surface working especially on hard alloys.

Diamond grinding tool, fine grain, parallel, round face



	REF	340 0083 F
	ISO No.	806 103 137524 010
	Diameter	1.0 mm
	REF	340 0084 F
	ISO No.	806 103 137524 012
	Diameter	1.2 mm
	REF	340 0085 F
	ISO No.	806 103 137524 015
	Diameter	1.5 mm
	REF	340 0086 F
	ISO No.	806 103 137524 019
	Diameter	1.9 mm
	REF	340 0087 F
	ISO No.	806 103 137524 023
	Diameter	2.3 mm

Working speed on CrCo/NPM 10,000 - 20,000 rpm

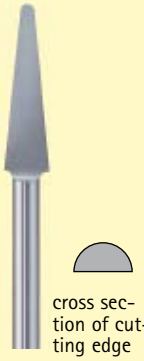
If correct usage is ensured, the diamond grinding tools offer high dimensional stability, functionality and edge life thanks to galvanic diamond coating

All tools feature a total tool length of 36 mm and a shaft diameter of 2.35 mm.

Wax burs and diamond grinding tools, conical

- Parallel burs
- Conical burs
- Groove burs / shoulder burs
- Wax burs
- Cross-cut burs
- **Wax burs and diamond grinding tools**

Wax bur, straight cutting edge, conical, round face



 conical 2°	REF	**320 0080 2**
	ISO No.	330 103 200382 023
 conical 4°	REF	**320 0081 4**
	ISO No.	330 103 200382 031
 conical 6°	REF	**320 0082 6**
	ISO No.	330 103 200382 040

working speed on wax 5,000 rpm

Assortment
3 pieces, 1 piece each
REF 320 0086 0

All tools feature a total tool length of 36 mm and a shaft diameter of 2.35 mm.

Diamond grinding tool, coarse grain, conical, round face



 conical 2°	REF	**340 0088 G**
	ISO No.	806 103 200534 023
 conical 4°	REF	**340 0089 G**
	ISO No.	806 103 200534 031
 conical 6°	REF	**340 0090 G**
	ISO No.	806 103 200534 040

Working speed on CrCo/NPM
10,000 - 20,000 rpm

All tools feature a total tool length of 36 mm and a shaft diameter of 2.35 mm.

The radius of the face of the parallel diamond grinding tool has been matched with the face of the parallel wax burs shown above. The use of diamond grinding tools ensures efficient surface preparation especially on hard alloys.

Diamond grinding tool, fine grain, conical, round face

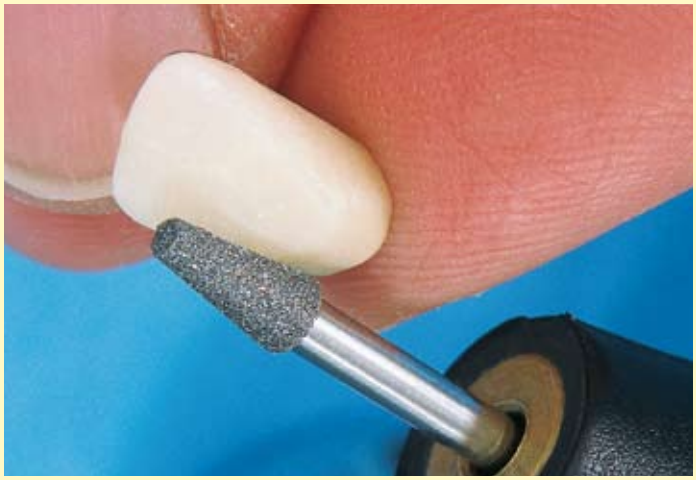


 conical 2°	REF	**340 0088 F**
	ISO No.	806 103 200524 023
 conical 4°	REF	**340 0089 F**
	ISO No.	806 103 200524 031
 conical 6°	REF	**340 0090 F**
	ISO No.	806 103 200524 040

Working speed on CrCo/NPM
10,000 - 20,000 rpm

If correct usage is ensured, the diamond grinding tools offer high dimensional stability, functionality and edge life thanks to galvanic diamond coating.

All tools feature a total tool length of 36 mm and a shaft diameter of 2.35 mm.





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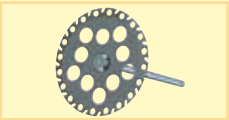
Diamond grinding wheels - Survey

Giflex-TR



Time-saving through more rapid and more precise separation of the saw models than is possible with a hand saw.

Giflex-TR Master x-tray



Special diamond disc for processing acrylics.

Diamond grinding wheels



Small diameters, for reliable and specific grinding.

Ceraflex



Diagonal toothing and abrasive diamond for a high cutting efficiency.

Microflex



The thinnest diamond grinding wheel coated on both sides - only 0.08 mm thick.

Transflex-T



The highly flexible grinding wheel with transparency for safe, concerted grinding.

Transflex



Diagonally arranged cutouts for running transparency with high breaking strength and optimal grinding capacity.

Ultraflex, Superflex, Flexibel, Elastisch



Special diamond graining in various thicknesses and coatings - the right diamond grinding wheel for every area of application.

- **Giflex-TR**
- **Giflex-TR Master x-tray**
- **Diamond grinding wheels**
- Ceraflex
- Microflex
- Transflex-T
- Transflex
- Ultraflex, Superflex, Flexibel, Elastisch

Giflex-TR



Time-saving through more rapid and more precise separation of the saw models than is possible with a hand saw.

Thickness:	**0.30 mm**
Coating:	on both sides
Version:	mounted
Ø 25 mm	
REF	**340 0002 5**
Ø 30 mm	
REF	**340 0012 0**
Ø 37 mm	
REF	**340 0002 0**
Ø 45 mm	
REF	**340 0011 0**



Due to the wide application range of the Giflex-TR it is possible to the separate the arch from the basal direction if preparation margins are close to the each other. The segmented design of the Giflex-TR allows rapid removal of grinding dust so that jamming of the disc is avoided.

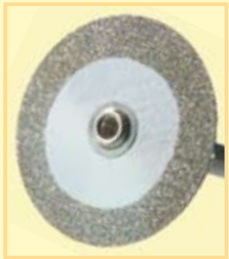
Giflex-TR Master x-tray



Thickness:	**0.40 mm**
Coating:	on both sides
Version:	mounted
Ø 25 mm	
REF	**340 00M2 5**

Special diamond disc for processing acrylics.
Giflex-TR Master x-tray features a coarse diamond grit; accordingly, a cooling effect is achieved already in the diamond-coated area when separating acrylics.

Diamond mini



Small diameters, for reliable and specific grinding.

Thickness:	**0.23 mm**
Coating:	on both sides
Version:	mounted
Ø 8 mm	
REF	**340 0014 3**
Ø 10 mm	
REF	**340 0014 4**
Ø 12 mm	
REF	**340 0014 5**
Ø 14 mm	
REF	**340 0014 6**



The small diameter is particularly suitable for finishing interdental spaces of ceramically veneered bridges.

Diamond grinding wheels

- Giflex-TR
- Giflex-TR Master x-tray
- Diamond grinding wheels
- **Ceraflex**
- **Microflex**
- **Transflex-T**
- **Transflex**
- Ultraflex, Superflex, Flexibel, Elastisch

Ceraflex



Diagonal toothing and abrasive diamond for a high cutting efficiency.
The cooling effect of the saw toothing with the abrasive diamond graining creates ideal conditions for rapid, concerted finishing of synthetic and ceramic veneers.

Thickness:	**0.25 mm**
Coating:	on both sides
Version:	mounted
Ø 16 mm	
REF	**340 0013 0**
Ø 22 mm	
REF	**340 0003 0**



As a result of its cooling effect, Ceraflex is particularly well suited for finishing composites and other synthetic materials.

Microflex



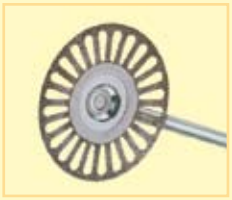
The thinnest diamond grinding wheel coated on both sides – only 0.08 mm thick.
The flexibility and thin structure of Microflex allow very fine separation in the anterior and posterior area.

Thickness:	**0.08 mm**
Coating:	on both sides
Version:	mounted
Ø 12 mm	
REF	**340 0014 2**
Ø 16 mm	
REF	**340 0014 1**
Ø 22 mm	
REF	**340 0014 0**



Very thin incisions create natural vividness in the veneering technique.

Transflex-T



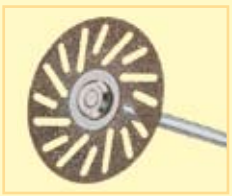
The longish cutouts in the grinding wheel ensure cooling, high flexibility and maximum running transparency.
This permits working in a way which is gentle on materials, clear and targeted and allows to save time.

Thickness:	**0.20 mm**	**0.20 mm**	**0.25 mm**
Coating:	on one side	on one side	on both sides
Version:	outer coating	inner coating	mounted
Ø 16 mm			
REF			**340 0010 0**
Ø 22 mm			
REF	**340 0008 0**	**340 0009 0**	**340 0007 0**



The special arrangement of the longish cutouts makes the rotating grinding wheel transparent. Being able to see the area of application during grinding is a considerable advantage.

Transflex



Diagonally arranged cutouts for running transparency with high breaking strength and optimal grinding capacity.
Transflex is particularly well suited for diving and separating in the areas of the front and side teeth and in approximate shaping.

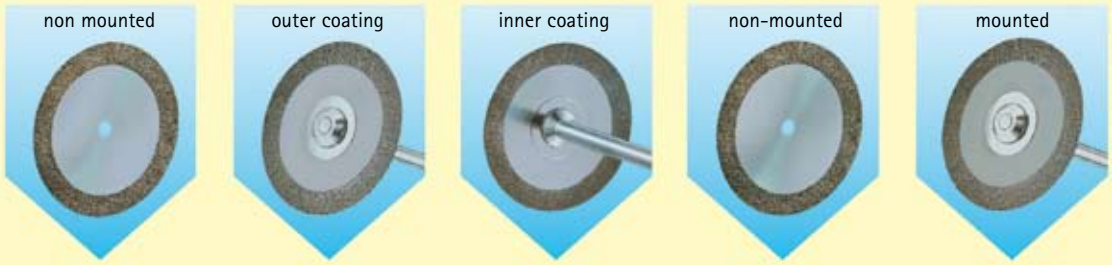
Thickness:	**0.20 mm**	**0.20 mm**	**0.25 mm**
Coating:	on one side	on one side	on both sides
Version:	outer coating	inner coating	mounted
Ø 22 mm			
REF	**340 0005 0**	**340 0006 0**	**340 0004 0**



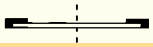
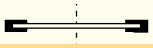
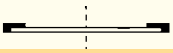
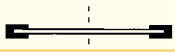
The specially diagonally arraned cutouts ensure running transparency with high stability and abrasiveness of the grinding wheel.

Ultraflex, Superflex, Flexibel, Elastisch

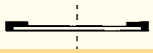
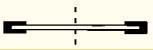
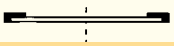
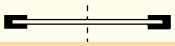
Special diamond graining in various thicknesses and coatings - the right diamond grinding wheel for every area of application.



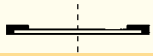
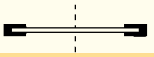
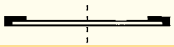
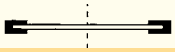
Ultraflex

Thickness: / Coating: / Version:	non-mounted	0.10 mm on one side outer coating	inner coating	0.15 mm on both sides non-mounted	0.15 mm on both sides mounted
Ø 19 mm					
REF	340 0034 0		340 0046 0	340 0027 9	340 0050 0
Ø 22 mm					
REF	340 0035 0		340 0058 0	340 0027 8	340 0062 0

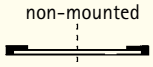
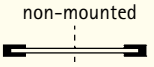
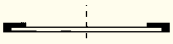
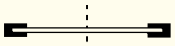
Superflex

Thickness: / Coating: / Version:	non-mounted	0.13 mm on one side outer coating	inner coating	0.20 mm on both sides non-mounted	0.20 mm on both sides mounted
Ø 19 mm					
REF	340 0036 0	340 0043 0	340 0047 0	340 0028 0	340 0051 0
Ø 22 mm					
REF	340 0037 0	340 0055 0	340 0059 0	340 0029 0	340 0063 0

Flexibel

Thickness: / Coating: / Version:	non-mounted	0.15 mm on one side outer coating	inner coating	0.23 mm on both sides non-mounted	0.23 mm on both sides mounted
Ø 19 mm					
REF	340 0038 0	340 0044 0	340 0048 0	340 0030 0	340 0052 0
Ø 22 mm					
REF	340 0039 0	340 0056 0	340 0060 0	340 0031 0	340 0064 0

Elastisch

Thickness: / Coating: / Version:	non-mounted	0.17 mm on one side outer coating	inner coating	0.25 mm on both sides non-mounted	0.25 mm on both sides mounted
Ø 19 mm					
REF	340 0040 0	340 0045 0	340 0049 0	340 0032 0	340 0053 0
Ø 22 mm					
REF	340 0041 0	340 0057 0	340 0061 0	340 0033 0	340 0065 0

Diamond grinding - Survey

Diacryl Grinding Instruments dcs



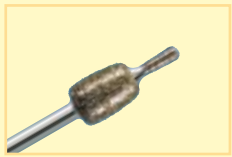
Save time and improve quality by grinding acrylic with diamond coated Diacryl rotating instruments.

Diagen-Turbo-Grinder dtg



The diamond grinder system with the extraordinary grinding properties due to special Diagen diamond binding material.

Set-up grinding tool



**Two grinding tools in one.
Grinding without exchanging tools in a single working step.**

Special Diamonds for the Veneering Technique



Perfect finishing of acrylic and ceramic veneers.

Diamond grinding tool dsl



The all-rounder among diamond grinding tools, available in the most common shapes.

FG-Diabolo



Economic system of grinding tools with razor sharp diamonds, self-regenerating grit and extended durability.

- **Diacryl Grinding Instruments dcs**
- Diagen-Turbo-Grinder dtg
- Set-up grinding tool
- Special Diamonds for the Veneering Technique
- Diamond grinding tool dsl
- Diabolo / Diabolo Cleaner
- FG-Diabolo

Diacryl Grinding Instruments dcs



Save time and improve quality by grinding acrylic with diamond coated Diacryl rotary instruments.
Thanks to their uniform, coarse grit diamond particles with sharp edges and thei r specific shapes, Diacryl diamond instruments are excellent for trimming acrylic dentures quickly and accurately.



Coarse diamond instrument
REF 340 0103 0



Universal diamond instrument
REF 340 0104 0



Papillae diamond instrument
REF 340 0105 0



Round diamond instrument for peripheries
REF 340 0106 0



Round diamond instrument for peripheries
REF 340 0102 0



Rubber grinder
REF 340 0090 0



Assortment

6 pieces, 1 piece each
REF 340 0107 0





Thanks to their extra coarse diamond grit and large diameter, these instruments grind aggressively and create a perfectly ground surface. They are perfect for reducing large areas of acrylic. Their hollow shape enables them to be used at high speeds, with maximum cooling effect.





Can be used in lingual and palatal areas, as required. For grinding large papillae and root attachment or lingual bars.





The pointed flame shape permits the papillae and alveolar attachments to be ground interdentally.





Thanks to the tapered central section of the instrument, uniformly thick peripheries can be created easily and quickly on functional impression trays and partial dentures. Acrylic beads and rough areas on the fitting surface of the denture are easily removed with the round head of the instrument.





Narrow frenae can be rounded and perfected with this Diacryl instrument.

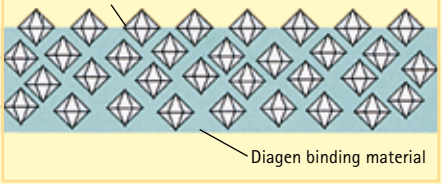




This abrasive rubber instrument creates smooth surfaces on acrylic dentures instead of using sandpaper. Thanks to the smooth surfaces, the denture can be prepared for optimum polishing in the shortest possible time.

Diagen-Turbo-Grinder dtg

Schematic view



The diamond grinder system with the extraordinary grinding properties due to special Diagen diamond binding material.
Maximum grinding power and abrasive capacity on metal and ceramic surfaces at reduced pressure. Increased service life compared to conventional binding material allows a wide range of applications and thus high efficiency.

also see page 380



Assortment
5 pieces, 1 piece each
Diagen-Turbo-Grinder dtg
REF 340 0020 0



Assortment
5 pieces, 1 piece each
Diagen-Turbo-Grinder dtg ceramic
REF 340 0020 5



Cylinder
Ø 4,8 x 13 mm
2 pieces
REF 340 0016 0



Inverted cone with recess
Ø 6 x 8 mm
1 piece
REF 340 0025 0



Lens
Ø 22 x 2 mm
1 piece
REF 340 0021 0



Disc
Ø 22 x 2 mm
1 piece
REF 340 0022 0



Cylinder
Ø 6,5 x 13 mm
2 pieces
REF 340 0017 0



Inverted cone with recess
Ø 12 x 6 mm
1 piece
REF 340 0024 0



Cone
Ø 3,5 x 11 mm
2 pieces
REF 340 0015 0



Disc
Ø 15 x 3,5 mm,
2 pieces
REF 340 0018 0



Disc
Ø 22 x 4,5 mm,
1 piece
REF 340 0019 0



Non-precious and precious metal alloys
Gentle and pressure-free grinding allows perfect finishing and efficient removal of material.



CoCr alloys
The various shapes allow a large application range in all areas.



Non-precious and precious metal alloys
The dtg grinders are perfectly suitable for processing of metal surfaces of ceramic frameworks thanks to the diamond coating.



Ceramic and resins
The grinder system is perfectly suitable for processing of ceramic due to grinding at reduced heat and extensive removal of material.



Precious metal alloys
Extremely long service life and thus maximum efficiency due to the special Diagen diamond binding material.



CoCr alloys
Due to the Diagen diamond binding material the grinders are perfectly suitable for rapid removal of material across large areas.

Ideal for processing zirconium oxide – recommended by leading implant manufacturers



The cylindrical shape is perfectly suitable for parallel processing.



The inverted cone with recess provides a cooling effect and thus the perfect precondition for processing zirconium oxide.



Thanks to their diamond coating, Diagen-Turbo-Grinders represent the ideal tools for processing materials such as glass ceramic or zirconium oxide.



Rapid and convenient shaping of implant suprastructures. The fine diamond particles produce a smooth surface.



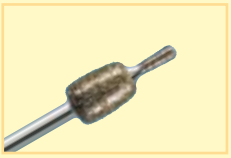
The variety of different shapes allow to obtain a wide indication range.



Extremely hard alloys and ceramic materials can be processed as easily as gold.

- Diacryl Grinding Instruments dcs
- Diagen-Turbo-Grinder dtg
- **Set-up grinding tool**
- **Special Diamonds for the Veneering Technique**
- Diamond grinding tool dsl
- Diabolo / Diabolo Cleaner
- FG-Diabolo

Set-up grinding tool



Set-up grinding tool
1 piece
REF 340 0101 0

Two grinding tools in one.
Grinding without exchanging tools in a single working step.
- quick adaptation of the underside of the tooth to be set up
- grinding in of occlusal stops

Two grinding tools in one



occlusal



The small, precisely shaped grinding tip with fine, perfectly cutting diamond grains provides the ideal precondition for well-aimed and rapid grinding in of occlusal contacts.

basal



The large grinding area with its optimized shape and selected natural abrasive diamonds ensures maximum removal of material and thus accurate and quick grinding.

Special Diamonds for the Veneering Technique





Diamond grinding tool for veneering techniques Vb 1
1 piece
REF 340 0084 0
ISO No. 806 104 033524 029

Perfect finishing of acrylic and ceramic veneers.



The concave part of this tool ensures perfect contouring of the approximal surfaces in the area of the neck of the tooth. Enhanced aesthetics in reduced time.

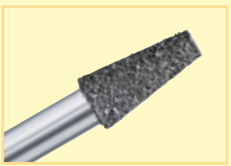




Diamond grinding tool for veneering techniques Vb 2
1 piece
REF 340 0083 0
ISO No. 806 104 000524 032



The very thin tip of this tool allows to design tooth necks of single crowns and bridges in an efficient way.





Diamond grinding tool for veneering techniques Vb 3
1 piece
REF 340 0085 0
ISO No. 806 104 171524 033

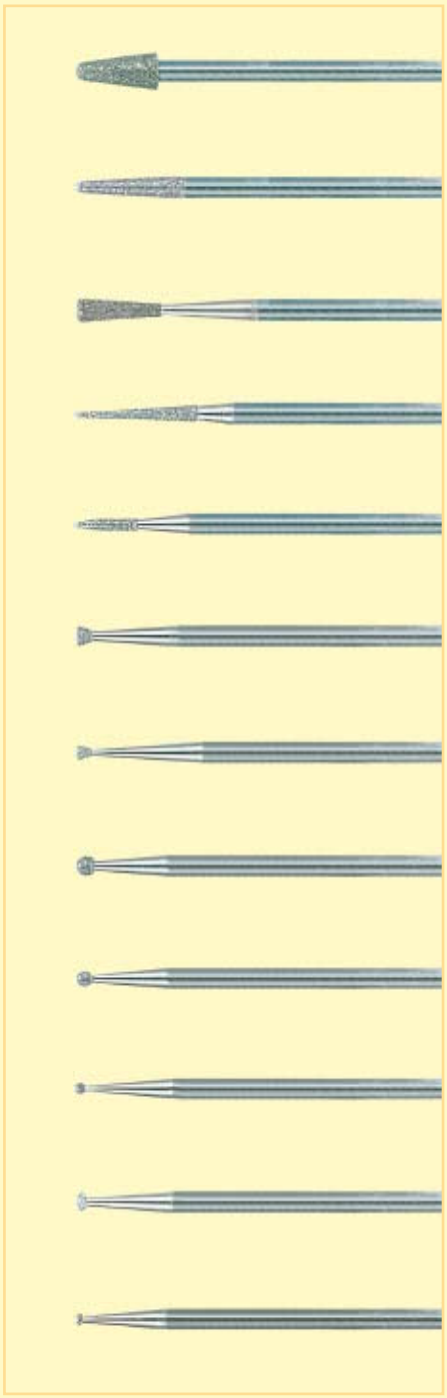


In a very simple way this tool creates uniform enamel bulges at the tooth neck. All tools can be used on ceramic and acrylic veneering materials.



The conical grinding tool with coated face provides a universal application range. The entire process of contouring can be carried out with this tool.

Diamond grinding tool dsl



Designation	REF	Supply form	Order quantity
KA 4,0	340 0070 0	1 piece	
KA 2,5	340 0071 0	1 piece	
KI 2,5	340 0072 0	1 piece	
SR 1,0	340 0073 0	1 piece	
KF 0,5	340 0074 0	1 piece	
KS 2,0	340 0075 0	1 piece	
KS 1,5	340 0076 0	1 piece	
RU 2,0	340 0077 0	1 piece	
RU 1,5	340 0078 0	1 piece	
RU 1,0	340 0079 0	1 piece	
LZ 2,0	340 0080 0	1 piece	
LZ 1,5	340 0081 0	1 piece	

Sender (stamp):

Customer No.

Date, signature

Additional order

Diabolo



Economic system of grinding tools with razor sharp diamonds, self-regenerating grit and extended durability.



Thanks to embedding the diamond crystals in a special mixture of binding material ceramic surfaces can be processed without leaving any residues.



The variety of shapes of the Diabolo tools offers an individual range for each surface type and all dental materials.



The outstanding hardness of the sintered diamonds allows particularly efficient use and material removal for resistant materials through self-sharpening diamond crystals.



The Diabolo sintered diamond tools ensure reliable and efficient processing of sensitive areas down to the last diamond grain.



Various materials can be processed with a Diabolo diamond grinding tool without time-consuming, repeated exchanging of tools.

Sintered diamond grinding tools

Owing to the tremendous hardness, the diamond grinding tool is particularly suitable for processing resistant materials. The sharp edges ensure efficient removal of material and allow to obtain perfect results.

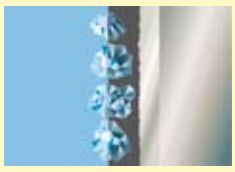


Shaft diameter: 2.35 mm

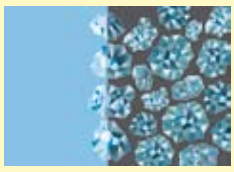
Schematic comparison of electroplated and sintered diamond grinding tools:

In the case of electroplated grinding tools, the diamond crystals have been attached to the bur blank in a metal bond.

In the bredent sintering method the razor sharp diamond crystals are embedded in an adapted mixture of binding material.

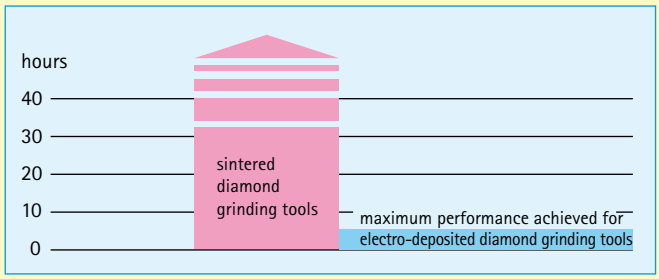


Diamond crystals in an electro-deposited metal bond.



Diamond crystals embedded in a special mixture of binding material.

The superior class of diamond grinding tools. For fast and efficient processing of extremely hard dental materials.
Carefully selected natural diamonds are entirely integrated into a mixture of metal and binding material designed for the individual application.
Due to the special manufacturing process worne out diamond grit is automatically removed and replaced by razor sharp diamond crystals so that automatic sharpening is achieved.
The range of different shapes ensures individual selection and permits the use for numerous applications.
The self-sharpening effect allows to perform highly difficult processing of dental material in a simple, fast and efficient way.



Summary: When comparing sintered/electroplated diamond grinding tools in the long-term test, the bredent Diabolo tools excelled by their efficiency and extended service life. Due to the self-sharpening effect of the diamond crystals, the sintered diamond tools feature high cutting performance and ensure perfect removal of material until the end of service life.

Diabolo

Color coding

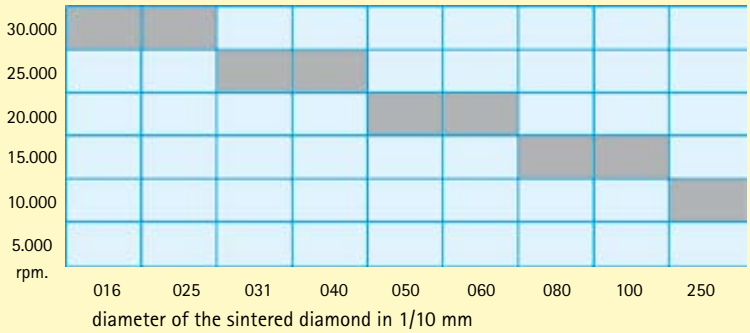
Diabolo grinding tools feature color coding.
This system indicates the different grit size of the grinding tool and thus simplifies the selection of the suitable tool.

Color coding	Grit size	Grit area	Marking
	200 µm		extra coarse / black
	130 µm		coarse/ green
	100 µm		normal
	80 µm		fine / red

Work recommendations

Always adapt speed and pressure (approx. 0.3 - 2N) to the material to be processed.

Recommended speed



Order Number

To simplify reordering, the order number of the respective Diabolo grinding tool is engraved on the shaft.

Razor sharp:
Diabolo diamond crystals constantly form new cutting edges during grinding. This way extremely high resistance and extended service life are ensured.

The color code:
From fine to extra coarse grit - at a single glance!
A separate color for each of the four grit sizes ensures that you select the correct Diabolo. Simple selection of the desired grit size with the help of the color rings.

Order number:
The order number is included on the shaft of every tool to exclude errors when ordering.



SF = Sintered diamond, fine
199 = shape of the working tip (C)
050 = largest diameter of the working tip (E)

Precise:
Every Diabolo sintered diamond is absolutely concentric and therefore wears down evenly. Accordingly, restorations fit precisely. This even applies to complex milling of non-precious metal objects.

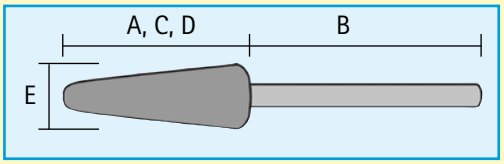
Guaranteed bredent quality:
Every sintered diamond undergoes the bredent quality assurance test. We guarantee optimum, uniform cutting performance right down to the last particle of diamond.

Very easily changed:
Diabolo sintered diamonds feature rounded ends on their shafts so that they can be inserted quickly into any handpiece.

ISO number

ISO numbers are indicated for all tools to ensure enhanced comparability.
These internationally standardized numbers feature 15 digits. The numbers include the following information:

Diagram Grinding tool



A
1. - 3. digit:
Material of the working tip

C
7. - 9. digit:
Shape of the working tip

E
13. - 15. digit:
Diameter of the working tip

807 104 199513 050

B
4. - 6. digit:
Shaft type

D
10. - 12. digit:
Grit size

bredent

Diabolo

Conical, pointed



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 165 023**	**SG 165 023**	**SN 165 023**	**SF 165 023**
ISO No.	807 104 165543 023	807 104 165533 023	807 104 165523 023	807 104 165513 023
REF	**SS 167 050**	**SG 167 050**	**SN 167 050**	**SF 167 050**
ISO No.	807 104 167543 050	807 104 167533 050	807 104 167523 050	807 104 167513 050
REF	**SS 213 016**	**SG 213 016**	**SN 213 016**	**SF 213 016**
ISO No.	807 104 213543 016	807 104 213533 016	807 104 213523 016	807 104 213513 016
REF	**SS 213 031**	**SG 213 031**	**SN 213 031**	**SF 213 031**
ISO No.	807 104 213543 031	807 104 213533 031	807 104 213523 031	807 104 213513 031



Highly accurate shaping of occulusal surfaces of ceramic veneers.

Conical, round



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 198 025**	**SG 198 025**	**SN 198 025**	**SF 198 025**
ISO No.	807 104 198543 025	807 104 198533 025	807 104 198523 025	807 104 198513 025
REF	**SS 198 037**	**SG 198 037**	**SN 198 037**	**SF 198 037**
ISO No.	807 104 198543 037	807 104 198533 037	807 104 198523 037	807 104 198513 037
REF	**SS 199 031**	**SG 199 031**	**SN 199 031**	**SF 199 031**
ISO No.	807 104 199543 031	807 104 199533 031	807 104 199523 031	807 104 199513 031
REF	**SS 199 040**	**SG 199 040**	**SN 199 040**	**SF 199 040**
ISO No.	807 104 199543 040	807 104 199533 040	807 104 199523 040	807 104 199513 040
REF	**SS 199 050**	**SG 199 050**	**SN 199 050**	**SF 199 050**
ISO No.	807 104 199543 050	807 104 199533 050	807 104 199523 050	807 104 199513 050



Grinding the inside of chrome cobalt clasps.

Conical



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 171 016**	**SG 171 016**	**SN 171 016**	**SF 171 016**
ISO No.	807 104 171543 016	807 104 171533 016	807 104 171523 016	807 104 171513 016
REF	**SS 171 031**	**SG 171 031**	**SN 171 031**	**SF 171 031**
ISO No.	807 104 171543 031	807 104 171533 031	807 104 171523 031	807 104 171513 031
REF	**SS 172 031**	**SG 172 031**	**SN 172 031**	**SF 172 031**
ISO No.	807 104 172543 031	807 104 172533 031	807 104 172523 031	807 104 172513 031
REF	**SS 173 031**	**SG 173 031**	**SN 173 031**	**SF 173 031**
ISO No.	807 104 173543 031	807 104 173533 031	807 104 173523 031	807 104 173513 031
REF	**SS 173 040**	**SG 173 040**	**SN 173 040**	**SF 173 040**
ISO No.	807 104 173543 040	807 104 173533 040	807 104 173523 040	807 104 173513 040
REF	**SS 173 050**	**SG 173 050**	**SN 173 050**	**SF 173 050**
ISO No.	807 104 173543 050	807 104 173533 050	807 104 173523 050	807 104 173513 050



Removing sharp edges and flattening of retention beads.

Bud, round



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 261 050**	**SG 261 050**	**SN 261 050**	**SF 261 050**
ISO No.	807 104 261543 050	807 104 261533 050	807 104 261523 050	807 104 261513 050
REF	**SS 263 050**	**SG 263 050**	**SN 263 050**	**SF 263 050**
ISO No.	807 104 263543 050	807 104 263533 050	807 104 263523 050	807 104 263513 050



Smoothing of the sublingual bar.

Bud



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 254 060**	**SG 254 060**	**SN 254 060**	**SF 254 060**
ISO No.	807 104 254543 060	807 104 254533 060	807 104 254523 060	807 104 254513 060



Grinding the retention area of chrome cobalt objects.

Diabolo

Bud, slender



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF				SF 257 031
ISO No.				807 104 257513 031



Grinding the surface of all-ceramic frameworks and veneering ceramic.

Cylinder, flame-shaped



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	SS 249 025	SG 249 025	SN 249 025	SF 249 025
ISO No.	807 104 249543 025	807 104 249533 025	807 104 249523 025	807 104 249513 025
REF	SS 250 016	SG 250 016	SN 250 016	SF 250 016
ISO No.	807 104 250543 016	807 104 250533 016	807 104 250523 016	807 104 250513 016
REF	SS 250 031	SG 250 031	SN 250 031	SF 250 031
ISO No.	807 104 250543 031	807 104 250533 031	807 104 250523 031	807 104 250513 031
REF	SS 251 031	SG 251 031	SN 251 031	SF 251 031
ISO No.	807 104 251543 031	807 104 251533 031	807 104 251523 031	807 104 251513 031



Opening the interdental spaces.

Cylinder, round



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	SS 141 025	SG 141 025	SN 141 025	SF 141 025
ISO No.	807 104 141543 025	807 104 141533 025	807 104 141523 025	807 104 141513 025
REF	SS 141 031	SG 141 031	SN 141 031	SF 141 031
ISO No.	807 104 141543 031	807 104 141533 031	807 104 141523 031	807 104 141513 031
REF	SS 143 050	SG 143 050	SN 143 050	SF 143 050
ISO No.	807 104 143543 050	807 104 143533 050	807 104 143523 050	807 104 143513 050
REF	SS 143 080	SG 143 080	SN 143 080	SF 143 080
ISO No.	807 104 143543 080	807 104 143533 080	807 104 143523 080	807 104 143513 080
REF	SS 153 016	SG 153 016	SN 153 016	SF 153 016
ISO No.	807 104 153543 016	807 104 153533 016	807 104 153523 016	807 104 153513 016
REF	SS 153 031	SG 153 031	SN 153 031	SF 153 031
ISO No.	807 104 153543 031	807 104 153533 031	807 104 153523 031	807 104 153513 031



Cervical finishing of veneering ceramic.

Cylinder, pointed



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	SS 131 016	SG 131 016	SN 131 016	SF 131 016
ISO No.	807 104 131543 016	807 104 131533 016	807 104 131523 016	807 104 131513 016
REF	SS 131 031	SG 131 031	SN 131 031	SF 131 031
ISO No.	807 104 131543 031	807 104 131533 031	807 104 131523 031	807 104 131513 031



Smoothing the surface structure in the incisal area of ceramic veneers.

- Diacryl Grinding Instruments dcs
- Diagen-Turbo-Grinder dtg
- Set-up grinding tool
- Special Diamonds for the Veneering Technique
- Diamond grinding tool dsl
- **Diabolo / Diabolo Cleaner**
- FG-Diabolo

Diabolo

Cylinder



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 111 025**	**SG 111 025**	**SN 111 025**	**SF 111 025**
ISO No.	807 104 111543 025	807 104 111533 025	807 104 111523 025	807 104 111513 025
REF	**SS 111 031**	**SG 111 031**	**SN 111 031**	**SF 111 031**
ISO No.	807 104 111543 031	807 104 111533 031	807 104 111523 031	807 104 111513 031
REF	**SS 112 016**	**SG 112 016**	**SN 112 016**	**SF 112 016**
ISO No.	807 104 112543 016	807 104 112533 016	807 104 112523 016	807 104 112513 016
REF	**SS 112 031**	**SG 112 031**	**SN 112 031**	**SF 112 031**
ISO No.	807 104 112543 031	807 104 112533 031	807 104 112523 031	807 104 112513 031
REF	**SS 113 050**	**SG 113 050**	**SN 113 050**	**SF 113 050**
ISO No.	807 104 113543 050	807 104 113533 050	807 104 113523 050	807 104 113513 050



Smoothing of surfaces treated with a solder or laser.

Inverted cone



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 227 016**	**SG 227 016**	**SN 227 016**	**SF 227 016**
ISO No.	807 104 227543 016	807 104 227533 016	807 104 227523 016	807 104 227513 016
REF	**SS 227 031**	**SG 227 031**	**SN 227 031**	**SF 227 031**
ISO No.	807 104 227543 031	807 104 227533 031	807 104 227523 031	807 104 227513 031



Finishing of deeper surfaces of metal frameworks.

Inverted cone, round



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 233 016**	**SG 233 016**	**SN 233 016**	**SF 233 016**
ISO No.	807 104 233543 016	807 104 233533 016	807 104 233523 016	807 104 233513 016
REF	**SS 233 031**	**SG 233 031**	**SN 233 031**	**SF 233 031**
ISO No.	807 104 233543 031	807 104 233533 031	807 104 233523 031	807 104 233513 031



Smoothing of chrome cobalt areas difficult to access.

Inverted cone



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 014 018**	**SG 014 018**	**SN 014 018**	**SF 014 018**
ISO No.	807 104 014543 018	807 104 014533 018	807 104 014523 018	807 104 014513 018
REF	**SS 014 021**	**SG 014 021**	**SN 014 021**	**SF 014 021**
ISO No.	807 104 014543 021	807 104 014533 021	807 104 014523 021	807 104 014513 021
REF	**SS 014 050**	**SG 014 050**	**SN 014 050**	**SF 014 050**
ISO No.	807 104 014543 050	807 104 014533 050	807 104 014523 050	807 104 014513 050
REF	**SS 014 080**	**SG 014 080**	**SN 014 080**	**SF 014 080**
ISO No.	807 104 014543 080	807 104 014533 080	807 104 014523 080	807 104 014513 080



Finishing of a precise marginal edge.

Diabolo Cleaner





Diabolo Cleaner
1 piece
REF 340 0100 0

The indispensable tool for removing contaminations so that constant cutting performance of the Diabolo tools is ensured.
Contaminated material is removed easily and quickly and new diamond cutting edges are exposed from the bronze binding material.

Diabolo

Inverted cone with recess



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF				**SF 030 012**
ISO No.				807 104 030513 012
REF			**SN 030 018**	**SF 030 018**
ISO No.			807 104 030523 018	807 104 030513 018
REF	**SS 030 025**	**SG 030 025**	**SN 030 025**	**SF 030 025**
ISO No.	807 104 030543 025	807 104 030523 025	807 104 030523 025	807 104 030513 025
REF	**SS 030 040**	**SG 030 040**	**SN 030 040**	**SF 030 040**
ISO No.	807 104 030543 040	807 104 030533 040	807 104 030523 040	807 104 030513 040
REF	**SS 030 060**	**SG 030 060**	**SN 030 060**	**SF 030 060**
ISO No.	807 104 030543 060	807 104 030533 060	807 104 030523 060	807 104 030513 060



The recess in the middle of the grinding tool ensures the edge stability of the tool during the use.

Round



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 001 018**	**SG 001 018**	**SN 001 018**	**SF 001 018**
ISO No.	807 104 001543 018	807 104 001533 018	807 104 001523 018	807 104 001513 018
REF	**SS 001 021**	**SG 001 021**	**SN 001 021**	**SF 001 021**
ISO No.	807 104 001543 021	807 104 001533 021	807 104 001523 021	807 104 001513 021
REF	**SS 001 040**	**SG 001 040**	**SN 001 040**	**SF 001 040**
ISO No.	807 104 001543 040	807 104 001533 040	807 104 001523 040	807 104 001513 040
REF	**SS 001 060**	**SG 001 060**	**SN 001 060**	**SF 001 060**
ISO No.	807 104 001543 060	807 104 001533 060	807 104 001523 060	807 104 001513 060



Reworking the metal element in the palatal area of chrome cobalt restorations.

Lens



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 304 050**	**SG 304 050**	**SN 304 050**	**SF 304 050**
ISO No.	807 104 304543 050	807 104 304533 050	807 104 304523 050	807 104 304513 050
REF	**SS 304 080**	**SG 304 080**	**SN 304 080**	**SF 304 080**
ISO No.	807 104 304543 080	807 104 304533 080	807 104 304523 080	807 104 304513 080
REF	**SS 304 120**	**SG 304 120**	**SN 304 120**	**SF 304 120**
ISO No.	807 104 304543 120	807 104 304533 120	807 104 304523 120	807 104 304513 120



Preparing a tooth curvature.

Wheel



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 072 040**	**SG 072 040**	**SN 072 040**	**SF 072 040**
ISO No.	807 104 072543 040	807 104 072533 040	807 104 072523 040	807 104 072513 040
REF	**SS 072 060**	**SG 072 060**	**SN 072 060**	**SF 072 060**
ISO No.	807 104 072543 060	807 104 072533 060	807 104 072523 060	807 104 072513 060
REF	**SS 072 080**	**SG 072 080**	**SN 072 080**	**SF 072 080**
ISO No.	807 104 072543 080	807 104 072533 080	807 104 072523 080	807 104 072513 080



Distinctive borders of transitions from metal towards the veneering material.

Wheel, rounded edges



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
REF	**SS 056 100**	**SG 056 100**	**SN 056 100**	**SF 056 100**
ISO No.	807 104 056543 100	807 104 056533 100	807 104 056523 100	807 104 056513 100

Note:
The photos illustrate only one common application field of the grinding tool.

- Diacryl Grinding Instruments dcs
- Diagen-Turbo-Grinder dtg
- Set-up grinding tool
- Special Diamonds for the Veneering Technique
- Diamond grinding tool dsl
- **Diabolo** / Diabolo Cleaner
- FG-Diabolo

Diabolo

Discs





Separating and grinding back the sprues.

	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
Ø 25 x 0,4 mm				
REF	**SS 327 004**	**SG 327 004**	**SN 327 004**	**SF 327 004**
ISO No.	807 104 327543 004	807 104 327533 004	807 104 327523 004	807 104 327513 004
Ø 25 x 1,0 mm				
REF	**SS 327 010**	**SG 327 010**	**SN 327 010**	**SF 327 010**
ISO No.	807 104 327543 010	807 104 327533 010	807 104 327523 010	807 104 327513 010
Ø 25 x 2,8 mm				
REF	**SS 327 020**	**SG 327 020**	**SN 327 020**	**SF 327 020**
ISO No.	807 104 327543 020	807 104 327533 020	807 104 327523 020	807 104 327513 020
Ø 25 x 3,0 mm				
REF	**SS 327 030**	**SG 327 030**	**SN 327 030**	**SF 327 030**
ISO No.	807 104 327543 030	807 104 327533 030	807 104 327523 030	807 104 327513 030
Ø 7 x 0,4 mm				
REF	**SS 327 080**	**SG 327 080**	**SN 327 080**	**SF 327 080**
ISO No.	807 104 327543 080	807 104 327533 080	807 104 327523 080	807 104 327513 080

Disc



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
Ø 15 x 0,2 mm				
REF				**SF 327 001**
ISO No.				807 104 327513 001

Supra Disc



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
Ø 20 x 0,2 mm				
REF			**SN 327 002**	**SF 327 002**
ISO No.			807 104 327523 002	807 104 327513 002

Duo Disc



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
Ø 20 x 0,5 mm				
REF			**SN 327 005**	
ISO No.			807 104 327523 005	

Supra Disc



	extra coarse 200 µm	coarse 130 µm	normal 100 µm	fine 80 µm
Ø 30 x 0,3 mm				
REF			**SN 327 003**	**SF 327 003**
ISO No.			807 104 327523 003	807 104 327513 003



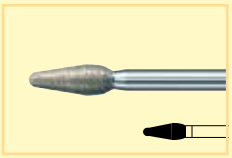
Highly accurate separation and preparation of interdental areas.

FG-Diabolo

Fast, efficient processing of any type of zirconium oxide and hard dental materials.
Friction grip - first-class diamond grinders. Economic system of grinding tools with razor sharp diamonds, self-regenerating grit and extended durability. FG-Diabolo are sintered diamond grinding tools and are used in the turbine or in the T-handpiece with FG adapter for grinding zirconium oxide and extremely hard materials. FG-Diabolo reduces processing times and renders working processes highly efficient.

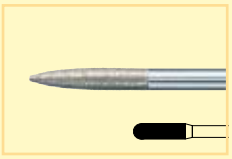
FG adapter 1.6 to 2.35
for the use in the handpiece
Pack cont. 10 pieces
REF 340 0100 2
not included in the assortment

Assortment
6 pieces, 1 piece each
FG-Diabolo, fine grit
Bud, large
Flame
Cylinder, round head
Inverted cone
Torpedo
Bud, small
REF 330 0116 6



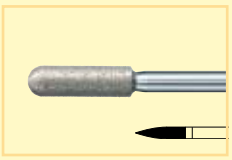
Bud, fine, large
REF FF 263 023





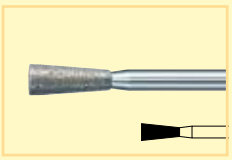
Flame, fine
REF FF 250 016





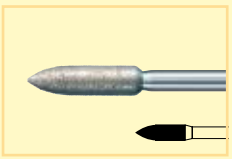
Cylinder, round head fine
REF FF 141 023





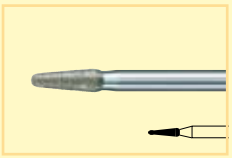
Inverted cone, fine
REF FF 227 023





Torpedo, fine
REF FF 289 023





Bud, fine, small
REF FF 263 014



Accessories:



Diabolo Cleaner
1 piece
REF 340 0100 0

All the tools you need even when processing zirconium oxide

Indispensable tool for removing contaminations. Diabolo Cleaner guarantees constant cutting performance. Contaminated material is removed easily and quickly and new diamond crystals are exposed from the bronze binding material and integrated into the surface of the tool to enhance the cutting performance and reduce the grinding time.

Leading implant manufacturers recommend Diagen-Turbo-Grinders dtg. These abrasive tools have proved their suitability for reworking sintered zirconium frameworks and minimized the amount of work thanks to the special Diagen diamond binding material.



see also page 370

Sortiment
5 pieces, 1 piece each
Diagen-Turbo-Grinder dtg
REF 340 0020 0

bredent

- **airaqua turbine**

airaqua turbine



airaqua turbine is a handy, compact unit with a light-weight handpiece for precise processing of hard materials such as high-performance ceramics (sintered zirconium oxide), press and metal ceramics.
The airaqua turbine features a spraying device to spray an air/water mixture onto the processing area.
Water cooling avoids overheating of the material.
The formation of microcracks is reduced considerably so that safe processing of materials is ensured.
The water spray traps the grinding particles, protects the grinding tools and thus extends their service life.
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The spray can be switched on and off quickly with the switch on the handpiece. Fine adjustment is achieved with the two regulators in the table unit. A very small rotor allows extremely comfortable working and perfect view on the workpiece. The lubricant is directly fed into the bearings. The handpiece features a special adapter (midwest) and thus can be used with angle handpieces, turbines and air motors with the same standard.

Technical data:

Speed	300,000 rpm
Energy supply	compressed air
Operating pressure	2.8 – 3.2 bars
Air consumption	40 l/min.
Water reservoir	350 ml
Collet	1.6 mm
Lubrication	manual
Width	approx. 190 mm
Height	approx. 190 mm
Depth	approx. 125 mm

airaqua turbine
REF 110 0146 0

Scope of delivery:
Table unit with filter, controller, manometer, water reservoir and regulators, footswitch, handpiece with rotor, special oil 30 ml and adapter

Accessories:



Adapter for airaqua turbine
16 mm
REF 730 0018 4
18 mm (für BF1)
REF 730 0018 3
28,5 mm
REF 730 0018 5





Refill package airaqua turbine oil
30 ml
REF 520 0033 5

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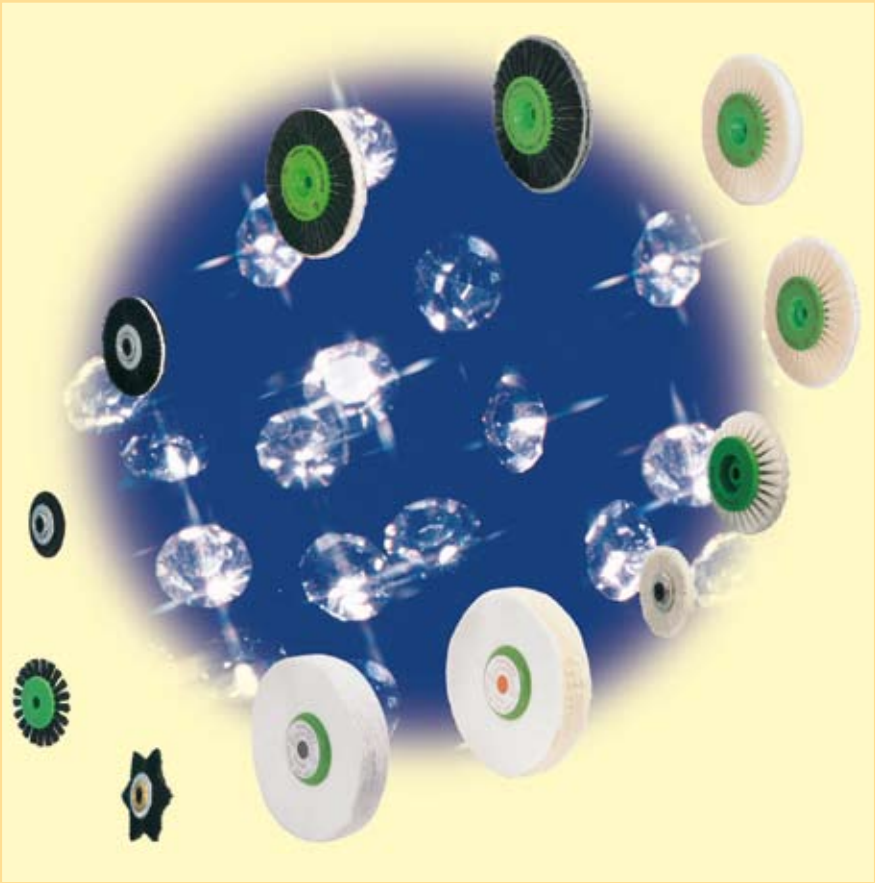





Specially selected raw materials guarantee perfect prepolishing and a brilliant high luster on all dental materials.
A wide range of shapes and qualities are available for use with polishing motors and handpieces.

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Dentaclean Pumice Disinfectant ... 400
Instruments
Pollygrip ... 400

Polishing metal - Survey

Standard polishing brushes



The standard line of polishing brushes includes a wide range of different shapes and sizes for various applications when polishing all types of metal.

Abraso-Soft Metal



The combination of selected natural, Chungking bristles and an open-pore special fabric absorb up to five times more polishing paste than conventional bristles.

Abraso-Buff Metal



As polishing requires less effort, the user can work in a more relaxed manner and save up to 50% of his time.

Abraso-Buff Metal Mini



The fabric layers absorb considerably more polishing paste than conventional polishing brushes.

Abraso-Buff Polipast Metal



Fabric layers impregnated with polishing paste and selected, especially stable, natural Chungking bristles reduce the time required for polishing by up to 60 %.

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Fifty particularly closely woven layers create a previously unattainable high luster on all alloys.

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- High Luster Buff Metal
- Metal polishing set
- Brushes for handpieces
- Cotton mandrel

Standard polishing brushes



Chungking black converging
Ø 80 mm, 4 rows
12 pieces
REF 350 0033 0



Chungking black straight
Ø 80 mm, 4 rows
12 pieces
REF 350 0031 0

The standard line of polishing brushes includes a wide range of different shapes and sizes for various applications when polishing all types of metal.



Chungking black converging
Ø 70 mm, 3 rows
12 pieces
REF 350 0029 0



Chungking black straight
Ø 65 mm, 4 rows
12 pieces
REF 350 0072 0



Chungking black converging
Ø 65 mm, 2 rows
12 pieces
REF 350 0028 0



Chungking black converging
Ø 60 mm, 3 rows
12 pieces
REF 350 0073 0



Chungking black converging
Ø 50 mm, 2 rows
12 pieces
REF 350 0026 0



Chungking black
Ø 48 mm
10 pieces
REF 350 0047 0



Chungking black converging
Ø 44 mm, 1 row
12 pieces
REF 350 0025 0



Chungking black
Ø 42 mm
10 pieces
REF 350 0048 0



Hexagonal brush Chungking black
Ø 48 mm
10 pieces
REF 520 0004 8



Chungking black tapering
Ø 36 mm
10 pieces
REF 350 0063 0



The selected Chungking bristles are very rigid and guarantee the long service life of the brushes.



The single tufts of bristles penetrate the fissures to create an optimum pre-luster in the shortest po-ssible time.



As the star-shape beats the surface gently, this brush polishes all stippled areas quickly and precisely. Abraso Star K80 (page 398) with integrated polishing particles adds to the effect.



Different versions of these brushes are available for various applications. This makes polishing much less labour intensive.



The small brush with a metal hub and short bristles abrades the metal surface and eliminates any traces left after trimming.



This brush (REF 350 0063 0) has a metal hub and tapering bristles. It is particularly hard due to the short bristles. This enables it to polish very slender metal components and junctures aggressively.

Polishing metal

- Standard polishing brushes
- **Abraso-Soft Metal**
- **Abraso-Buff Metal**
- **Abraso-Buff Metal Mini**
- Abraso-Buff Polipast Metal
- High Luster Buff Metal
- Metal polishing set
- Brushes for handpieces
- Cotton mandrel

Abraso-Soft Metal



The combination of selected natural, Chungking bristles and an open-pore special fabric absorbs up to five times more polishing paste than conventional bristles. Therefore, polishing paste does not have to be applied to the brush as often. This reduces the time required considerably. The fabric is impregnated with abrasive polishing grit and does not require polishing paste for polishing soft alloys. Scratches are eliminated from surfaces faster than when using conventional brushes. This rules out the need for prepolishing with a rubber polisher.

Abraso-Soft Metal

Ø 50 mm
1 piece
REF 350 0102 1

Ø 80 mm
1 piece
REF 350 0081 0



The special nonwoven fabric with integrated abrasives saves time when reducing/polishing all alloys.



The special fabric adapts to every surface optimally to polish large palatal surfaces of chrome cobalt frameworks and create a perfect pre-high-luster finish.

Abraso-Buff Metal



The 2 x 3 fabric layers absorb very much more polishing paste (e.g. Abraso-Star K80, page 398) and polish effectively. As polishing requires less effort, the user can work in a more relaxed manner and save up to 50% of his time.
The three rows of high grade Chungking bristles enhance the polish and create an optimum pre-high-luster. Any traces of trimming can be identified immediately and eliminated quickly. This brush is welded together using a special ultrasonic technique which guarantees that the bristles and fabric are gripped firmly.

Abraso-Buff Metal

Ø 50 mm
1 piece
REF 350 0102 5

Ø 80 mm
1 piece
REF 350 0079 0



The 2 x 3 fabric layers and selected, natural Chungking bristles are for polishing all dental alloys.



The slender shape is ideal for reaching areas which are difficult to access and polishing them to a pre-high-luster.

Abraso-Buff Metal Mini



When combined with selected, natural Chungking bristles, they produce a perfect pre-high-luster on all slender components such as clasps, crowns, inlays etc.

Abraso-Buff Metal Mini
Ø 48 mm
10 pieces
REF 350 0062 0



This small metal hub brush, with 4 layers of special fabric, facilictates abrasive polishing of all alloys.



By using different polishing pastes (e.g. Abraso Star K50 REF 520 0016 1, page 399), a perfect pre-high-luster can be achieved quickly on all alloys.

- Standard polishing brushes
- Abraso-Soft Metal
- Abraso-Buff Metal
- Abraso-Buff Metal Mini
- **Abraso-Buff Polipast Metal**
- **High Luster Buff Metal**
- Metal polishing set
- Brushes for handpieces
- Cotton mandrel

Abraso-Buff Polipast Metal



Fabric layers impregnated with polishing paste and selected, especially stable, natural Chungking bristles reduce the time required for polishing by up to 60 %.
The combination of abrasive fabric and high grade Chung-king bristles creates surfaces with no scratches whatsoever, in one single session.

The eight parts of the brush are welded together permanently using ultrasonics and high pressure. This prevents the impregnated fabric layers from redating loose and thus guarantees high strength and a long service life.



Abraso-Buff Polipast Metal
Ø 50 mm
1 piece
REF 350 0102 6

Ø 80 mm
1 piece
REF 350 0086 0

Selected, especially stable, natural Chung-king bristles polish more effectively and facilitate prepolishing to create non-streaky surfaces. This saves time and permits the user to work in a relaxed, non-stressed manner. High grade fabric layers store polishing paste and smooth the metal surface. Strong metal retainers grip the bristles securely.

The special grit (particle size: 1200) integrated into 2 x 2 fabric layers eliminates the scratches and rough areas, caused by trimming, from all chrome cobalt alloys.



Accurate, abrasive polishing saves time and reduces costs. Scratches etc. caused by trimming are eliminated.



The Abraso-Star K80 polishing paste (REF 520 0016 2) enhances and reactivates the polishing effect as required.



The outcome is impressive: the surface on the left has been sandpapered and that on the pre-polished. All traces left after trimming are eleminated from all chrome cobalt alloys without using rubber polishers.



High Luster Buff Metal



Fifty particularly closely woven layers create a previously unattainable high luster on all alloys.

High Luster Buff Metal
Ø 60 mm, 50 layers
1 piece
REF 350 0093 0

Ø 100 mm, 50 layers
1 piece
REF 350 0083 0



The hub is welded ultrasonically and grips the 50 fabric layers to prevent them from redating or becoming loose. This guarantees that the buff remains stable during polishing.



This detailed view of the fabric indicates how closely it is woven. The ends of the single threads are free and the millions of minute threads produce a silky soft surface for creating a radiant high luster.



Abraso Star Glaze high luster polishing paste (page 398) enhances the polishing effect with selected material components. The high luster buff is shaped in the factory so that labour intensive shaping is no longer required before polishing.



50 layers of specially selected fabric form an extremely dense surface for polishing to a high luster. The high density surface generates a high polishing temperature and guarantees an extremely high luster on all alloys.

Metal polishing set



Abraso-Soft Metal

Abraso-Buff Metal

High Luster Buff Metal

Pumice polishing paste for polishing acrylic and metal.



Abraso-Star K80 high abrasion

Abraso-Star K50 low abrasion



Abraso Star Glaze
Universal high luster polishing paste for precious metals, non-precious alloys and acrylics.

Metal polishing set
Contents:

1 x 150 g	Abraso-Star K50, low abrasion
1 x 150 g	Abraso-Star K80, high abrasion
1 piece	Abraso-Soft metal
1 piece	Abraso-Buff Metal
1 piece	High Luster Buff Metal Metal
1 x 500 g	Pumice Polishing Paste
50 ml	Abraso Star Glaze

REF 350 0085 0

Prepolishing with a handpiece

A large range of brushes for handpieces allows specific polishing of surface details on all alloys.



Hexagonal brushes
Chungking, black
15 pieces each

Ø 13 mm	**REF 520 0013 0**
Ø 19 mm	**REF 520 0019 0**



The light beating effect caused by the star-shape polishes right into the deepest fissures and eliminates scratches in the shortest possible time.



Pen-shaped brushes
Chungking, black, 7mm long
15 pieces each

Ø 2 mm	**REF 350 0043 0**
Ø 4 mm	**REF 350 0041 0**



When used with Abraso Star K80 (page 398), these pen-shaped brushes facilitate polishing areas which are difficult to get at, e.g. the inner surfaces of telescopic crowns.



Round brush
Chungking, black, double the bristles
15 pieces

Ø 19 mm	**REF 350 0049 0**
Ø 22 mm	**REF 350 0056 0**
Ø 25 mm	**REF 350 0050 0**



The double row of bristles is very stable when polishing wide areas.



Round brush
Chungking, black
15 pieces

Ø 19 mm	**REF 350 0051 0**
Ø 22 mm	**REF 350 0052 0**
Ø 25 mm	**REF 350 0053 0**



The small diameter of the brush is perfect for polishing fragile components and saves time when polishing all slender areas.



Linen buff
coated
15 pieces

Ø 22 mm	**REF 350 0091 0**



The high polishing performance
and minimal dimensions provide for brilliantly polished surfaces.



Round brush Rodeo
15 pieces each

Ø 15 mm	**REF 350 0095 0**
Ø 18 mm	**REF 350 0096 0**
Ø 21 mm	**REF 350 0097 0**



Fabric discs impregnated with polishing paste polish smoother.
This saves time because no polishing paste has to be applied.



Hexagonal brushes Rodeo
15 pieces each

Ø 13 mm	**REF 520 0R13 0**
Ø 19 mm	**REF 520 0R19 0**



Specially selected tail hairs from wild horses, which vary in hardness between Chungking bristles and goat-hair, are especially suitable for prepolishing soft alloys.

High luster polishing with a handpiece

Produce a radiant high luster, even in the tiniest areas.



Cotton buff
15 pieces
Ø 22 mm **REF 350 0065 0**



Fluffy, soft cotton fibres create a mirror-like finish on soft alloys.



Linen buff
15 pieces
Ø 22 mm **REF 350 0067 0**



When used with Abraso Star Glaze (page 398), these stable fabric buffs create a brilliant high luster in areas which are difficult to access.



Felt polishing buff
15 pieces
Ø 22 mm **REF 350 0064 0**



This three layer felt buff polishes crown/facing junctures gently.



Pen-shaped brushes
Goat-hair, white, 7 mm long
15 pieces
Ø 2 mm **REF 350 0044 0**
Ø 4 mm **REF 350 0042 0**



The soft goat hairs create a high luster on outer crowns which is gentle to the surface and produces optimum friction.

Cotton mandrel



No more spinning and punching of the cotton.
- special shape of the retaining eyelet ensures that the cotton is safely held
- easy attaching of the cotton saves time during polishing



Cotton mandrel
Ø 2.35 mm
2 pieces
REF 360 0126 9



Attach a piece of cotton in the area of the retaining eyelet and press it on slightly using the finger.



Wind the cotton around the mandrel at a low speed (< 1000 rpm).



Apply polishing paste onto the cotton.



Simple and fast high luster polishing of bars and milled supports.



Occlusal areas and crowns are polished to high luster in a time-saving manner.



High luster finish of friction surfaces in the double crown technique.

Standard polishing brushes



The soft Chungking brushes simplify polishing of acrylics and produce surfaces without striae.

Abraso-Buff Acrylic



The special textile layers retain the pumice polishing paste longer so that less polishing paste needs to be added.

Abraso-Soft Acrylic



These materials absorb more pumice and retain it for a longer time. The fibre fabric reduces the friction heat.

High Luster Buff Acrylic



The air is circulated continually to polish acrylic coolly and gently.

Brushes for handpieces



These four handpiece buffs produce a brilliant high luster on all dental acrylics.

Abraso-Sil Acrylic



This brush absorbs particularly much polishing paste or pumice and only releases it very slowly - for efficient prepolishing.

Prepolishing Buff Silicone



The silicone coating increases the stability of the buff. This results in increased abrasion capacity - particularly effective during prepolishing.

Leather Buff



This leather buff creates a perfect high luster which prevents bacteria and deposits being trapped. Dentures are then easier to clean.

Acrylic finishing set



Abrasive finishing and accurate polishing right up to a brilliant high luster quickly and easily - especially in areas which are difficult to get at, such as on orthodontic appliances.

Polishing acrylic

- **Standard polishing brushes**
- **Abraso-Sil Acrylic**
- Abraso-Buff Acrylic
- Prepolishing Buff Silicone
- Abraso-Soft Acrylic
- Leather Buff
- High Luster Buff Acrylic
- Acrylic finishing set
- Polishing acrylic set
- Brushes for handpieces

Standard polishing brushes



Chungking white
Ø 80 mm
4 rows
12 pieces
REF 350 0034 0



Chungking white
Ø 70 mm
3 rows
12 pieces
REF 350 0030 0



The wet, mixed pumice diffuses into the brush and nonwoven fibre fabric (Abraso-Soft Acrylic).



Chungking white
Ø 65 mm
4 rows
12 pieces
REF 350 0074 0



Chungking white
Ø 60 mm
3 rows
12 pieces
REF 350 0075 0



The reduced width of the Abraso-Soft Acrylic allows perfect polishing of interdental spaces.



Chungking white
Ø 50 mm
2 rows
12 pieces
REF 350 0027 0



Goat-hair
metal core
Ø 48 mm
10 pieces
REF 350 0061 0



Chungking white
Ø 44 mm
1 row
12 pieces
REF 350 0024 0



Chungking white
Ø 24 mm
1 row
12 pieces
REF 350 0102 3



Mandrel
for polishing brush
1 piece
REF 360 0116 8

Abraso-Sil Acryl



This buff consists of a nonwoven fibre fabric in the centre between two layers of silicone-coated cotton fabric. On the outside there are two rows of bleached Chungkink bristles. This brush absorbs particularly much polishing paste or pumice and only releases it very slowly - for efficient prepolishing.

Abraso-Sil Acryl
Ø 80 mm
1 piece
REF 350 0099 3
Ø 50 mm
REF 350 0102 2



bredent

- Standard polishing brushes
- Abraso-Sil Acrylic
- **Abraso-Buff Acrylic**
- **Prepolishing Buff Silicone**
- **Abraso-Soft Acrylic**
- **Leather Buff**
- High Luster Buff Acrylic
- Acrylic finishing set
- Polishing acrylic set
- Brushes for handpieces

Abraso-Buff Acrylic



This buff consists of two special textile layers and three rows of bleached Chunking bristles. The special textile layers retain the pumice polishing paste longer so that less polishing paste needs to be added.

Abraso-Buff Acrylic
Ø 50 mm
1 piece
REF 350 0102 4

Ø 80 mm
1 piece
REF 350 0078 0



The reduced width of the Abraso-Soft Acrylic allows perfect polishing of interdental spaces.



Prepolishing Buff Silicone



The buff consists of 24 layers of a silicone-coated cotton fabric. The silicone coating increases the stability of the buff. This results in increased abrasion capacity - particularly effective during prepolishing.
Additionally, the silicone coating results in considerably extended service life of the buff.

Prepolishing Buff Silicone
Ø 80 mm
1 piece
REF 350 0099 1

Ø 60 mm
1 piece
REF 350 0098 0



Abraso-Soft Acrylic



This brush consists of a central, nonwoven fibre fabric and bleached Chungking bristles on the outside. These materials absorb more pumice and retain it for a longer time. The fibre fabric reduces the friction heat.

Abraso-Soft Acrylic
Ø 50 mm
1 piece
REF 350 0102 0

Ø 80 mm
1 piece
REF 350 0080 0



The wet, mixed pumice diffuses into the brush and nonwovern fibre fabric.

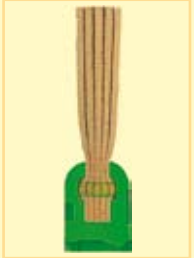


Leather Buff



This leather buff creates a perfect high luster which prevents bacteria and deposits from being trapped. Dentures are then easier to clean.

Leather Buff
1 piece each
Ø 60 mm **REF 350 0099 0**
Ø 80 mm **REF 350 0036 0**
Ø 100 mm **REF 350 0035 0**





This leather buff can be used at speeds of up to 1,500 r.p.m. to polish acrylics gently and keep them especially cool.



Cool polishing even creates a high luster interdentally, which prevents deposits being trapped.

Polishing acrylic

High Luster Buff Acrylic



The air is circulated continually to polish acrylic coolly and gently.



This high luster buff is ready for immediate use on a polishing motor and can be used easily and without fraying. Specially selected fabric prevents the acrylic overheating.

High Luster Buff Acrylic
1 piece each
Ø 60 mm 40 layers **REF 350 0094 0**
Ø 100 mm 35 layers **REF 350 0082 0**



The fibre reinforced outer layers provide this buff with a previously unattainable stability.



The 35 layers of textile have been welded into place ultrasonically to prevent them redating and, due to their high strength, create a previously unheard of high luster.



The loose woven textile circulates the air during high luster polishing and prevents the acrylic from overheating. Therefore, it polishes very gently.

Acrylic finishing set

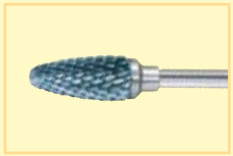
Abrasive finishing and accurate polishing right up to a brilliant high luster quickly and easily - especially in areas which are difficult to get at, such as on orthodontic appliances.
The Diatit coated cutter is especially long lasting and as cost-effective as never before.
Three different abrasive grits provide for accurate polishing right up to a brilliant high luster.



Tungsten carbide cutter
1 piece
REF D 200 KF 23



Pressure can be exerted as necessary to reduce the material as required.



Tungsten carbide cutter
1 piece
REF D 263 KG 60

Assortment

5 pieces
Abraso-Gum Acrylic
2 Tungsten carbide cutter
1 Acrylic polisher coarse green
1 Acrylic polisher medium grey
1 Acrylic polisher fine red
REF 350 0099 2



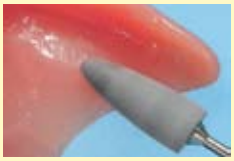
Acrylic polisher coarse green
1 piece
REF P 243 HG 10



The green, coarse polisher removes all traces of finishing effortlessly.



Acrylic polisher medium grey
1 piece
REF P 243 HM 10



The grey polisher polishes slightly abrasively and prepolishes in one stage.



Shows the polished surface. A brilliant high luster with no scratches.



Acrylic polisher fine red
1 piece
REF P 243 HF 10



The high luster polisher creates an excellent high luster on all acrylics in the shortest possible time.

- Standard polishing brushes
- Abraso-Sil Acrylic
- Abraso-Buff Acrylic
- Prepolishing Buff Silicone
- Abraso-Soft Acrylic
- Leather Buff
- High Luster Buff Acrylic
- Acrylic finishing set
- **Polishing acrylic set**
- Brushes for handpieces

Polishing acrylic set

A complete range of polishing products for all acylic techniques.



Abraso-Soft Acrylic | Abraso-Buff Acrylic | High Luster Buff Acrylic | Pumice polishing paste for acrylic

Polishing acrylic set

Content:

1 x 150 g	Abraso-Star K50, low abrasive
1 x 500 g	Pumice polishing paste
1piece	Abraso-Soft Acrylic
1piece	Abraso-Buff Acrylic
1piece	High luster Buff Acrylic

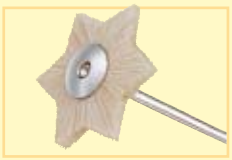
REF 350 0084 0



Abraso-Star K50 low abrasion

Prepolishing with a handpiece

Satin soft goat-hair brushes prepolish gently.



Hexagonal brushes
Goat-hair white
15 pieces
Ø 19 mm
REF 520 0015 1



Hexagonal brushes
Goat-hair white
15 pieces
Ø 13 mm
REF 520 0014 1



Round brush
Goat-hair white
double the bristles
15 pieces
Ø 22 mm
REF 350 0055 0



Round brush
Goat-hair white
double the bristles
15 pieces
Ø 19 mm
REF 350 0054 0



The star-shape increases the polishing performance by up to 50 % and saves a great deal of time.



The smaller brush prepolishes all narrow areas gently.



The large diameter is ideal for polishing large surfaces such as facings.



Doubling the number of bristles has provided the necessary stability, even when polishing interdental spaces.

High luster polishing with a handpiece

These four handpiece buffs produce a brilliant high luster on all dental acrylics.



Linen buff
15 pieces
Ø 22 mm
REF 350 0067 0



Cotton buff
15 pieces
Ø 22 mm
REF 350 0065 0



Leather Buff
15 pieces
Ø 22 mm
REF 350 0066 0



Polishing buff
felt, 3 layers
15 pieces
Ø 22 mm
REF 350 0064 0



This stable fabric buff creates a brilliant high luster, even on the hardest facing acrylics.



Super soft cotton threads polish palatal rugae optimally and do not leave rough areas which would trap deposits.



Polishing cool with a leather buff prevents harm to thin metal margins.



The three rows of felt adapt to every structure optimally, which simplifies polishing intricate details.

- **Abraso-Fix**
- **Polishing porcelain**

Abraso-Fix



Fine abrasive particles integrated into the bristles enable all dental materials to be prepolished without using polishing paste.

	green - coarse	2 pieces	8 pieces	 Perfect for quickly pre-polishing stippled chrome cobalt denture bases.
	Pen-shaped brushes			
	Ø 4 mm **REF**	**350 0075 7**	**350 0076 2**	
	Round brush			
	Ø 22 mm **REF**	**350 0059 0**	**350 0075 5**	
	blue - regular	2 pieces	8 pieces	 The gentle abrasion enables all outer telescopes to be polished to a high luster accurately.
	Pen-shaped brushes			
	Ø 4 mm **REF**	**350 0075 6**	**350 0076 1**	
	Round brush			
	Ø 22 mm **REF**	**350 0057 0**	**350 0075 4**	
	red - fine	2 pieces	8 pieces	 The soft abrasiveness makes it possible for an exact high luster finish even on secondary attachments.
	Pen-shaped brushes			
	Ø 4 mm **REF**	**350 0046 0**	**350 0076 0**	
	Round brush			
	Ø 22 mm **REF**	**350 0060 0**	**350 0075 3**	
	yellow - extra fine	2 pieces	8 pieces	 The fine polishing particles create an optimum pre-high luster on all facing acrylics in the shortest possible time.
	Pen-shaped brushes			
	Ø 4 mm **REF**	**350 0045 0**	**350 0075 9**	
	Round brush			
	Ø 22 mm **REF**	**350 0058 0**	**350 0075 2**	
	yellow - extrafine	2 pieces	8 pieces	 The particularly slender shape polishes occlusal surfaces right into the smallest fissures.
	Pen-shaped brushes			
	Ø 2 mm **REF**	**350 0077 0**	**350 0070 0**	

Assortment

4 pieces
Round brush
1 piece each: extra fine, fine, regular, coarse
REF 350 0075 1

Assortment

4 pieces
Pen-shaped brushes
1 piece each: extra fine, fine, regular, coarse
REF 350 0075 8



Polishing porcelain



The yellow Abraso-Fix brush creates a perfect pre-high luster on all porcelains.



Felt wheels
unmounted
Ø 12 mm
100 pieces
REF 350 0071 0



Extremely long lasting due to pressure impregnation and the hardness.

Polishing pastes

- **Metal polishing pastes**
- Metal and acrylic polishing pastes
- Acrylic polishing paste
- Porcelain polishing paste

Metal polishing pastes

For optimum, abrasive prepolishing right up to high luster polishing - specially developed polishing pastes enhance the properties of all polishing brushes. This saves time, allows the user to work in a relaxed, non-stressed manner and improves the quality of the work.



Abraso-Star K80
high abrasion
320 g
REF 520 0016 2



Abraso-Star K80 is highly abrasive, which simplifies polishing all non-precious alloys.



As K50 and K80 stick to all polishing brushes well, abrasive polishing can be carried out longer than when using conventional polishing pastes.



Titapol Polishing Paste
150 g
REF 520 0015 3
350 g
REF 520 0015 4



This titanium polishing paste prepolishes abrasively, almost up to a perfect high luster.



A handpiece brush and Titapol prepolish accurately, even in areas which are difficult to access and in the shortest possible time.



Abraso Star Glaze
High Luster Polishing Paste
2 x 50 ml
REF 520 0016 3



Abraso Star Glaze creates an optimum high luster quickly and easily.



The excellent polishing properties reduce the effort required when polishing with a handpiece.



Brepol
50 g
REF 540 0103 7



The round goat-hair brush and Brepol provide perfect high luster on all non-precious metal alloys.



Safe polishing of clasp dentures with the handpiece

High luster polishing paste for none-precious metal alloys high luster without prepolishing.



Crowns and bridges made of non-precious metal alloys are polished as easily as gold.



After milling, polish telescopic and conical crowns to high luster without prepolishing. Perfectly suitable for the inner surfaces of secondary crowns.

Accessories:



Round brush
Goat-hair white
double the bristles
Ø 19 mm, 15 pieces
REF 350 0054 0





Pen-shaped brushes
Chungking, black
7 mm long
15 pieces
REF 350 0041 0



Attachment, shear distributor and CoCr structure are quickly and neatly polished to high luster.

- Metal polishing pastes
- **Metal and acrylic polishing pastes**
- **Acrylic polishing paste**
- **Porcelain polishing paste**

Metal and acrylic polishing pastes



Pumice Polishing Paste
for metal and acrylic
3 x 500 g
REF 520 0016 0



The gentle polishing properties allow all traces left from finishing to be removed from all soft alloys in seconds.



The low abrasion constituents of this pumice polishing paste simplify polishing metal/acrylic junctures.



Abraso-Star K50
slightly abrasive
320 g
REF 520 0016 1

Acrylic polishing paste



Acrypol High Luster
Paste for facing acrylics
170 g
REF 520 0017 0



Slightly abrasive materials create a virtually perfect high luster. Simply polishing over the surface with a cotton buff is all that's needed to produce a perfect high luster.

Porcelain polishing paste



Diamond Polishing Paste
5 g
REF 540 0014 0

Polishing paste with a high diamond content and long lasting, impregnated, hard felt wheels provide for the best possible finish on all porcelains.



The special consistency of the polishing paste enables it to diffuse into the felt and polish for up to five times longer.

The high percentage of diamond particles provides for maximum abrasion and the best possible high luster.



The paste liquefies during polishing and can be pushed backwards and forwards on the facing without splashing.

- **Dentaclean Pumice Disinfectant**
- **Pollygrip**

Dentaclean Pumice Disinfectant



Dentaclean
Pumice disinfectant
5000 ml
REF 520 0099 8

Dentaclean
Pumice disinfectant
1000 ml
REF 520 0099 9

Protects against germs.

Dentaclean Pumice Disinfectant
- Destroys all germs.
- Remains moist and free of germs for two to three weeks without having to be remixed.
- Contains skin-care additives to protect emplo yees' hands.
- Contains natural odours which still smell fresh after several weeks.
- Mixed polish adheres to the brush and restorstion better so that the pumice splatters less. This saves time when polishing as the pumice slurry does not have to be applied repeatedly.

Application:
Simply mix the pumice slurry with Dentaclean pumice disinfectant - do not add water. This is the only method to ensure that the pumice slurry remains moist and free of germs for two to three weeks!



Moist pumice contains germs: HIV, Hepatitis B, skin fungi, etc. These germs endanger the dental technician' s and patient' s health.



Dentaclean pumice disinfectant helps. It is fungicidal, bactericidal and virucidal. Tests carried out at Dr. Schumacher's Institute of Hygiene prove that even HBV and HIV viruses are destroyed completely. This safeguards the laboratory staff 's and patient' s health.

~~hepatitis B~~

~~HIV~~ ~~dermathophytes~~

Pollygrip



Grips all crowns, bridges and inlays firmly for finishing and polishing precisely.

Crown holder, wide
1 piece **REF 360 0100 0**

Crown holder, narrow
1 piece **REF 360 0099 0**

Replacement parts:

Special rubber sleeves
100 pieces **REF 360 0096 0**



The rubber sleeves can be exchanged and grip firmly during all procedures.



Even minute inlays can be held firmly and without causing harm.

Assortment

23 pieces
1 Pollygrip
1 Crown holder, wide
1 Crown holder, narrow
20 Special rubber sleeves
REF 360 0095 0

Accessories:



Crown holder, wide
1 piece
REF 360 0098 0



Crown holder, narrow
1 piece
REF 360 0097 0

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All individual components have been exclusively developed by experienced epitheticians. The technique that can be learned in courses opens new business fields to your laboratory.

Future developments which allow lasting bonding of metal/silicone and silicone/silicone will become milestones in the field of epithetics.

The advantages of soft silicone and hard epithelial resin combined in a soft resin provide the basis for additional new developments.



Starter set for silicone epithetics / Impression material

- **Multisil-Epithetics Set**
- **Multisil-Epithetics soft-form and hard-form**

Multisil-Epithetics Set



Starter set to produce a silicone epithesis.

- Content of the case prepared in cooperation with experienced epitheticians
- Contains all materials required to produce a silicone epithesis
- Robust aluminium case and clearly arranged comparments to find the necessary materials quickly

Multisil-Epithetics Set

1	aluminium case with foam lining
20	mixing cannulas, pink
1	dosing device
1	brush
1	mixing spatula for epithetics
1	sliding caliper
30	ml Isoplast ip
5	ml Multisil-Epithetics thickener
5	ml Multisil-Primer
10	different intensive colors, 5 g each
10	different fibers, 2.5 g each
10	vdifferent stains, 5 g each
2 x 50	ml Multisil-Epithetics soft-form
2 x 50	ml Multisil-Epithetics hard-form
1 x 50	ml Multisil-Epithetics city
1 x 50	ml Multisil-Epithetics country
1 x 50	ml Multisil-Epithetics beach
3 x 50	ml Multisil-Epithetics transparent

REF 540 0106 0





Accessories:

12	Mixing cannulas, pink	**REF 320 0045 2**
1	Dosing device	**REF 320 0044 0**
1	Brush, size A + holder	**REF 330 0114 6**
1	Brush, size C + holder	**REF 330 0114 8**
1	Mixing spatula, epithetics	**REF 320 0045 3**
1	Sliding caliper	**REF 320 0045 4**
750 ml	Isoplast ip	**REF 540 0101 9**
1	Mixing block	**REF 320 0045 5**
80	PE-foil cut-outs	**REF 320 0045 6**

Multisil-Epithetics soft-form and hard-form

Soft-form



Impression material for epithetics on 1:1 silicone basis in time- and material-saving double mixing cartridges.

Multisil-Epithetics
soft-form
2 x 50 ml
REF 540 0106 1

- Due to the low hardness of 25 Shore A it is particularly suitable for undercut areas
- Extreme firmness ensures reliable impression-taking



Multisil soft-form to reproduce undercut areas.

Hard-form



Multisil-Epithetics
hard-form
2 x 50 ml
REF 540 0106 2

- The hardness of 45 Shore A provides stability for larger surfaces and for covering Multisil-Epithetics soft-form
- Extreme firmness simplifies reliable impression-taking



Multisil hard-form – for covering and stabilizing Multisil soft-form.

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- **Modelling wax for epithetics mdwe**
- **Multisil-Epithetik transparent**
- **Multisil-Epithetik city / country / beach**

Modelling wax for epithetics mdwe



Skin-colored plate wax for epithetics.

Modelling wax for epithetics mdwe
75 x 150 x 2.8 mm
1000 g
REF 430 0739 6



- thickness of 2.8 mm adjusted softening temperature optimal hardness, improved plasticity well-balanced stickiness, which is perfectly matched with the epithetics, ensure quick and reliable modelling
- After heating, the modelling wax can be shaped for an extended time and so modelling of the epithesis is simplified.

Multisil-Epithetics transparent



Multisil-Epithetics
transparent
2 x 50 ml
REF 540 0106 3

transparent

Transparent, soft epithelial material on 1:1 silicone basis.
- Convenient double mixing cartridge for consistent mixing quality
- Crystal-clear silicone for optimal, individual coloring with Multisil intensive colors
- Extended processing time of two hours at room temperature provides sufficient time for individualizations
- Simple polymerizing at 60° C does not require special equipment
- Final hardness of 35 Shore A and high tear strength ensure comfort of wear for the patient
- Fine flow behavior of the silicone allow most accurate reproduction of details of the model

Multisil-Epithetics city / country / beach



Multisil-Epithetics
city
50 ml
REF 540 0106 4

city



Multisil-Epithetics
country
50 ml
REF 540 0106 5

country



Multisil-Epithetics
beach
50 ml
REF 540 0106 6

beach

Colored, soft epithelial material on 1:1 silicone basis.
- 3 different skin tones simplify coloring of the epithesis:
  city = bright skin type
  country = normal skin type
  beach = dark skin type
- Mixing in Multisil-Epithetik transparent saves time during invididualizing
- Individual coloring with Multisil stains adds new possibilities of shade adaptation
- Final hardness of 35 Shore A and high tear strength ensure comfort of wear for the patient
- Fine flow behavior of the silicone allow most accurate reproduction of details of the model



Coloring and characterization of epithetics

- **Multisil stains**
- **Multisil-Epithetics thickener**
- **Multisil-sealing agent**
- **Multisil-Primer**
- Multisil intensive colors
- Multisil fibers

Multisil stains



Stains for surface characterization.
10 different stains provide all options of optimal adaptation to the patient situation.



Multisil stains
Glass jar, cont. 5 g

color	REF
white	540 0108 0
yellow	540 0108 1
red	540 0108 2
blue	540 0108 3
black	540 0108 4
green	540 0108 5
violet	540 0108 6
light-brown	540 0108 7
brown	540 0108 8
dark-brown	540 0108 9

Multisil-Epithetics thickener



To change the viscosity of addition-linked silicones.

Multisil-Epithetics thickener
transparent
5 ml
REF 540 0106 8



Silicone without Multisil-Epithetics thickener.



Silicone with Multisil-Epithetics thickener renders the silicone firm and simplifies layering of the epithesis.

Multisil-sealing agent



Sealing varnish for silicone surfaces.

Multisil-sealing agent
transparent
10 ml
REF 520 0100 5



Sealing the base of the epithesis avoids the accumulation of dirt and secretion and thus simplifies cleaning.

Multisil-Primer



Multisil-Primer
Bonding agent

Multisil-Primer
5 ml
REF 520 0100 4



Optimal bonding of silicone and acrylic resin.

Telephone (+49) 0 73 09 / 8 72-4 40

- Multisil stains
- Multisil-Epithetik thickener
- Multisil-sealing agent
- Multisil-Primer
- **Multisil intensive colors**
- **Multisil fibers**

Multisil intensive colors



Silicone colors for coloring addition-linked silicones.

- 10 different intensive colors provide comprehensive possibilities of color characterization
- High color stability avoids discoloration of the epithesis



Multisil intensive colors
Glass jar, cont. 5 g

color	REF
white	540 0107 0
yellow	540 0107 1
red	540 0107 2
blue	540 0107 3
yellow-ochre	540 0107 4
red-yellow	540 0107 5
umber	540 0107 6
suntan	540 0107 7
neutral	540 0107 8
brown	540 0107 9

Multisil fibers



Viscose fibers for characterizing epithetics.

- 10 different intensive colors provide comprehensive possibilities of color adaptation and characterization
- Special, thin fibers allow perfect reproduction of blood vessels, downy hair, etc.



Viscose fibers with different colors especially matched with the requirements of epithetics.

Multisil fibers
Plastic jar, cont. 2.5 g

color	REF
silver	530 0060 0
white	530 0060 1
beige	530 0060 2
signal red	530 0060 3
ruby-colored	530 0060 4
purple	530 0060 5
bordeaux	530 0060 6
blue	530 0060 7
mocha	530 0060 8
ochre	530 0060 9

- **Matt sealing agent for epithetics**

Matt sealing agent for epithetics



Matt surface sealing for addition-curing silicones.

- Creates a matt surface on silicone epithetics and thus ensures a natural appearance of the epithesis
- Prevents the stain coat from coming off the sur face and thus offers extended comfort of wearing
- Contains a UV protective varnish for the silicone colors and stains and provides lasting protection against fading
- Simple handling ensures reliable and permanent sealing of the surface of the epithesis

Matt sealing agent for epithetics
Primer
10 ml
REF 540 0109 1

Matt sealing agent for epithetics
Coating
20 ml
REF 540 0109 2

Matt sealing agent for epithetics
Matting powder
10 g
REF 540 0109 3

Assortment

3 pieces
1 Matt sealing agent for epithetics, Primer
1 Matt sealing agent for epithetics, Coating
1 Matt sealing agent for epithetics Matting powder

REF 540 0109 4





A thin coat of primer is applied on the surface of the epithesis.



Multisil stains allow fur-ther characterization of the epithesis.



Uniform, thin layers of coating are dabbed on using a brush.



Allow to dry for approxi-mately two minutes at 65° C (e.g. hot-air blower).



The matting powder is spread on after 15 minutes.



Place the epithesis in hot water for two minutes.

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Date, signature

Item	Order No.	Quantity

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