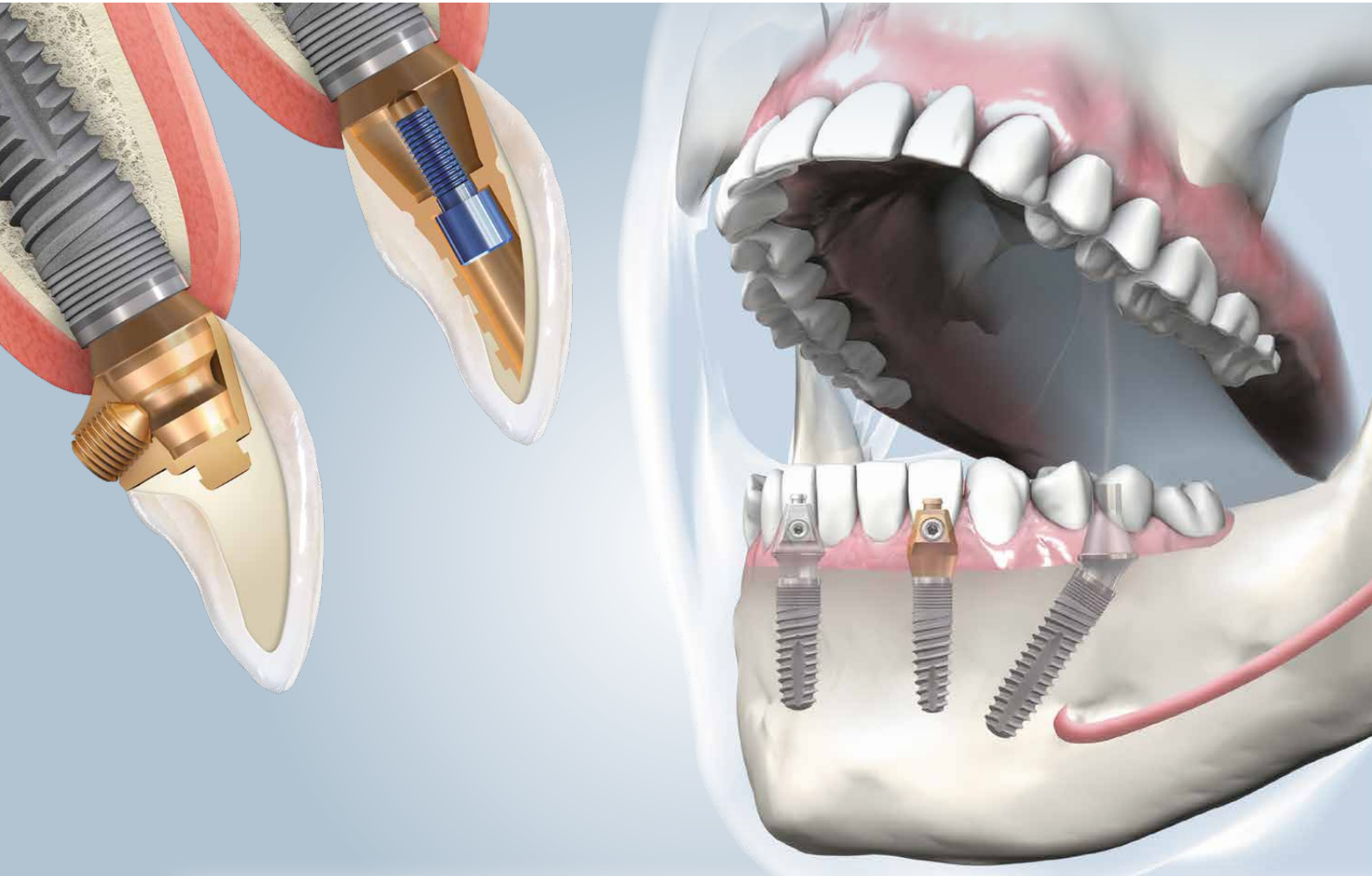


# SKY fast & fixed manual

Immediate restoration - transversally and occlusally screwed bridges



**Surgical and prosthetic protocol**

6th edition

# Trusted Quality Mark

Our blueSKY implant - key component of the SKY fast & fixed therapy system - received the "Trusted Quality Mark" of the Clean Implant Foundation in September 2018.

This certificate certifies that our implants are extremely clean after the manufacturing process and sterile packaging.

For the implant analyses, five randomly selected samples - from dental practices and from the manufacturer - were examined in the scanning electron microscope using strict test criteria according to DIN ISO/EN IEC 17025. The result was peer-reviewed by the Scientific Advisory Board and meets the requirements of the CleanImplant Catalog for residue-free implants published in 2017. More information is available at [www.cleanimplant.com](http://www.cleanimplant.com).



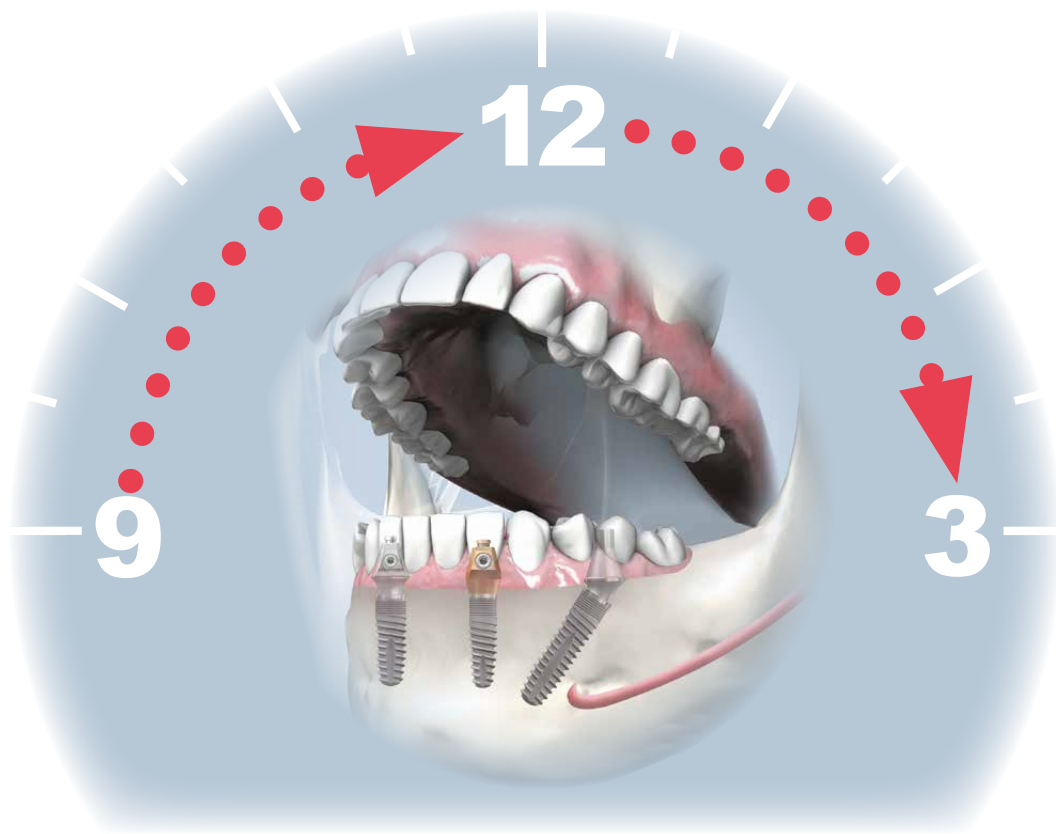
The bredent group would like to thank the implantologists and dental technicians for the images used in this brochure and for their support that was indispensable for creating such a comprehensive and practice-oriented manual.

Dental Practice, Drs. Georg Bayer, Frank and Steffen Kistler, Alexandra Elbertzhagen, Dr. Jörg Neugebauer and DT Stephan Adler, Landsberg am Lech, Germany / Dr. Tilo Bartels, MDT Claus Küchler, Munich, Germany / Dr. Burzin Khan, MT Danesh Vazifdar, Mumbai, India / Dr. Praful Bali, Delhi, India / Dr. Nigam Buch, Rajkot, India / EO Dent, Dr. Valentin Pavlov, Sofia, Bulgaria / Dental Design Erlangen, MDT Philipp von der Osten and edel&weiss MDT Daniel Kirndörfer, Germany / Dentamedic, Dr. Harald Streit, David Streit, Bad Neustadt, Germany / Dentalklinik Dr. Ryssel and Partner, Crailsheim, Germany / Dentaprime Klinik Dr. Ivan Peev, Varna, Bulgaria / Dr. Dilip Deshpande, Mumbai, India / Dr. Michail Drobiazgo, Simferopol, Crimea / Dr. Giovanni Ghirlanda, Rome, Italy / Dr. Ionut Leahu, Bucharest, Romania / Dr. Eugenia Michailidou DDS, MS, Athens, Greece / Praxis am Moritzplatz Dr. Lara Müller; Labor Miller & Schmuck, MDT Miller, Augsburg, Germany / Implant Consultant, Dr. Florian Obadan, Alexandria, Romania / Prof. Hakan Özyuvaci, Istanbul, Turkey / OpusDC Dental Clinic, Drs. Margit and Michael Weiss, Axel Schröder Ulm, Germany / MDT Mario Parra, Alicante, Spain / Dr. Guillaume Reys, Sélestat, France / DT Pascal Flajolet, Molsheim, France / Dr. Robert Schneider, Neula, Germany / Dr. Wilhelm Spurzem, Bensheim; MDT Oliver Heinzmann, Heppenheim, Germany / Dr. Zafer Kazak, Istanbul, Turkey

## Disclaimers

The product must only be used by dentists, dental technicians and specially trained experts.

Only original tools and parts are to be used for processing. The relevant instructions for use are to be observed.



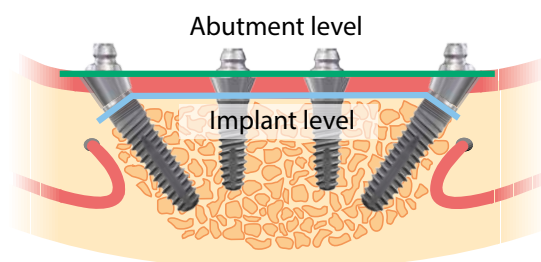
The beginnings of the success story of the SKY implant system date back to the early 2000s. In the space of 15 years, we have become the global leader in immediate restorations thanks to our system, having sold over 1 million implants, as well as a trendsetter for both prosthetic restorations with physiological materials, such as BioHPP, and for regeneration with the HELBO antibacterial photodynamic therapy.

With the sophisticated concept for edentulous or almost edentulous ridges under the name of SKY fast & fixed, we set a milestone in 2007 with regard to effective treatment of patients of the 50-plus generation. This patient group who are on the verge of edentulousness but still too young for removable restorations is growing steadily. The success of our procedure did not come as a surprise for us, as the concept combines our core competences - implantology in combination with efficient regeneration management for hard and soft tissue and almost 45 years of experience in dental techniques, the basis of our successful medium-sized family business.

Today, implantologists and dental technicians rely on a proven and coordinated system which can be successfully integrated into the practice from the very beginning. Well over 50,000 satisfied patients who have been treated over the past 12 years confirm the success and the reliability of this procedure. In addition to in-depth training for the entire team, we also offer interested implantologists advice and support for practice marketing in order to ensure economic success and increase patient satisfaction.

Since the development of the SKY implant system in 2002 by Star Group International founded by Dr. Manfred Lang and our cooperation two years later, we have continuously advanced the SKY implant system, especially in the field of implant-supported restorations. With the one-time therapy, for example, our engineers have redefined the process of the steps of a prosthetic restoration and - with the SKY elegance abutment - developed a hybrid component that is no longer replaced between the surgical and the prosthetic phase and hence enables unique gingiva management. Consequently, after 15 years the SKY implant system still stands for simplicity, clarity and economic efficiency to improve process reliability in the practice and increase your economic success.

# Table of contents



Patient-oriented treatment .....	6-8
----------------------------------	-----

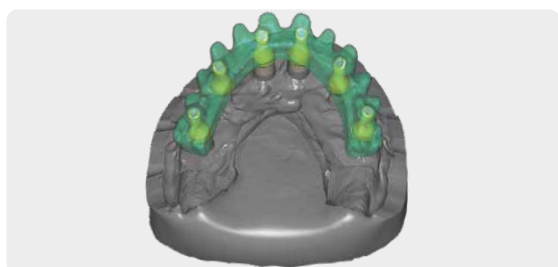
How does SKY fast & fixed work? .....	9-11
---------------------------------------	------

SKY fast & fixed / SKY uni.cone abutment system .....	12
Transversal and occlusal screwing .....	13
SKY fast & fixed / SKY uni.cone components .....	16
Technical specifications	
SKY fast & fixed and uni.cone abutments and prosthetic copings .....	17
SKY fast & fixed treatment .....	20

Template-guided surgery .....	22
-------------------------------	----

<b>Surgical protocol</b>	
• Surgical procedure (step by step) .....	18
• Impression taking and bite registration .....	25





- New manufacture of a temporary visio.lign restoration.....26
- Insertion in the practice.....31
- Guide template and milled temporary bridge.....32

#### Protocol for final restoration

- Final modelling with the temporary bridge.....34
- Taking an impression at abutment and implant level.....36
- Partially removable restoration  
CAD/CAM-produced BioHPP bridge framework.....37
- Model fabrication .....38

#### Definitive restorations

- Two-in-one technique .....44
- Unilateral free-end situation.....46
- One-time-therapy - cement-free.....47
- Transverse screwing.....48

#### Permanent removable restoration

- Bar restorations with SKY fast & fixed and  
SKY uni.cone abutments .....49

#### General information

- Physiological restoration.....50
- FAQ.....52
- Patient information .....53
- Information for referrers.....55

# Edentulous patients and those becoming edentulous



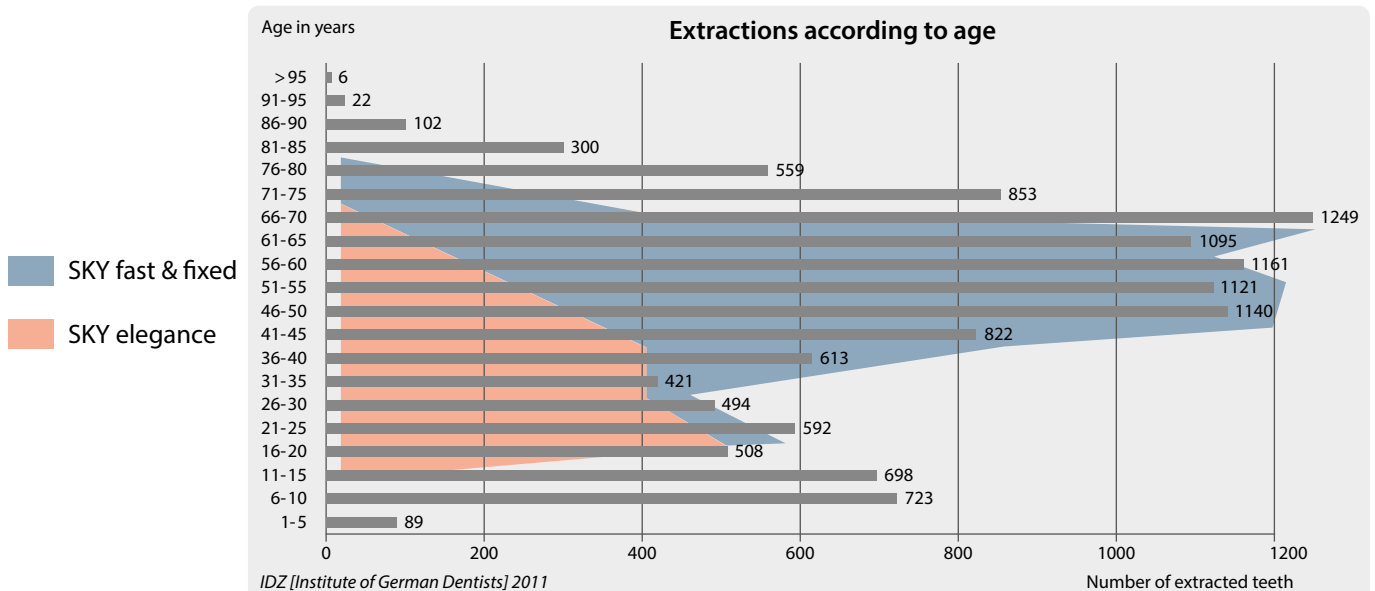
## What fears and wishes do patients have?

- They still feel young and fit
- They are in the middle of their lives and are active
- A well-kept appearance and healthy eating are of great importance to them
- Removable prostheses are not accepted, and neither is a temporary restoration
- Palate-free restoration
- Extensive surgical procedures are frequently refused because of high risks
- Fear of complications and long healing times

## What is the patients' situation?

The patients aged 40 to 60 years, who are in the prime of their lives, are frequently confronted with the following situation:

- moderate to severe periodontal diseases
- considerably reduced number of remaining teeth
- the 50-plus generation in Germany has an average of only 4 to 5 teeth in each jaw
- is edentulous at the age of 64 years



Restorations with our SKY elegance hybrid abutment are recommended for patients aged 20 to 60 years (orange) - with decreasing relevance from the age of 50.

Without changing abutments between the temporary and the final restoration, the soft tissue is perfectly protected and highly esthetic results are achieved.

According to statistics, the 50-plus generation already has a considerably reduced number of teeth and suffers from periodontal diseases. For these patients, SKY fast & fixed is the optimal treatment concept to restore function and esthetics.

### Why immediate loading?

The principle of the interlocked immediate restoration is not new. It was successfully introduced into implantology by Dr. P. Ledermann, Bern, Switzerland in the 1980s. Four interforaminally fitted implants were interlocked with a bar immediately after insertion and restored using a removable prosthesis. Dr. Malo, Lisbon (Portugal), developed this concept further. The emergence profile in the region of the second premolars is shifted due to implants fitted at an angle. This enables a fixed screwed provisional restoration on a broad support base.

The introduction of osseointegrated hip implants changed treatment in orthopaedics to immediate loading. Physiotherapy begins immediately after the operation.

In its consensus paper, the EuCC already wrote in 2006: The immediate loading of dental implants is well documented in patients with good peri-implantary bone quality and secure primary stability of the implant and is comparable to known data for delayed implant loading with regard to survival time.

### One abutment treatment – train the bone, save the tissue

Publications show positive behaviour of the soft tissue when avoiding frequent changing of the abutment. During the SKY fast & fixed treatment, the permanent abutments are screwed on immediately after implant

insertion and do not need to be removed again. All additional treatment steps are carried out on the abutment shoulder at gingival level; this facilitates aftercare.

### Immediate restoration – the patient's preferred option

Recommendation of the dental practice in Landsberg am Lech, Germany:



Prof. Dr. Jörg Neugebauer    DT Stephan Adler  
Practice for dentistry, Landsberg a. Lech

SKY fast & fixed has been a successful therapeutic option for us for more than 15 years for the continuously growing group of patients who are about to lose their teeth. They want a short treatment period, no augmentation procedures, if possible, and an immediate, fixed temporary restoration.

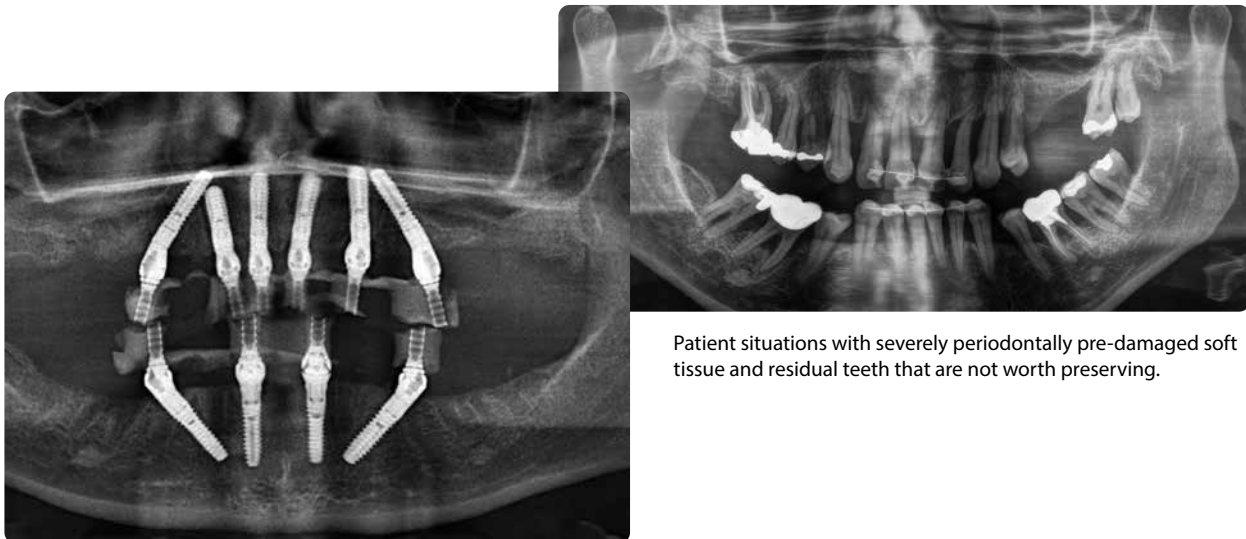
Almost all of our SKY fast & fixed patients would recommend this treatment thanks to their own positive experience.

## Advantages for your patients

**SKY**   
*fast & fixed*

### A patient-oriented treatment

- Rapid - usually after only one procedure – implant-supported, fixed bridge
- Lower number of implants and fewer surgical interventions reduce costs and risks
- No extensive surgical procedures such as augmentations
- Affordable – at a fair price
- Restoring function and esthetics – joy of life for your patients



Patient situations with severely periodontally pre-damaged soft tissue and residual teeth that are not worth preserving.

Without bone augmentation and augmentative measures, a large supporting polygon for implant-supported dental restoration without voluminous extensions could be fabricated using angled implants.

## Your benefits

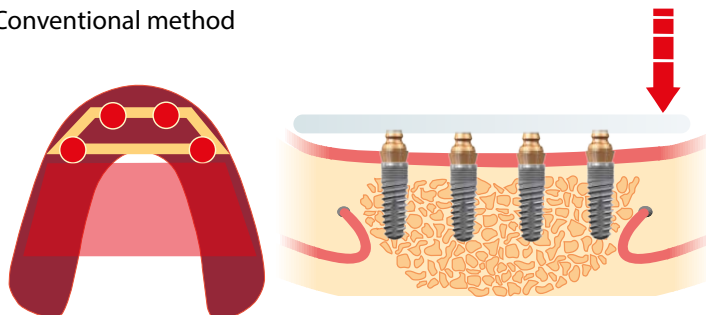
**SKY**   
*fast & fixed*

- Standardised work steps make the work easier
- Reduction and prevention of errors and complications
- Short treatment times
- Saving of time and costs
- Increase in turnover
- Satisfied patients – the best advertisement for the practice and laboratory



## How does SKY fast & fixed work?

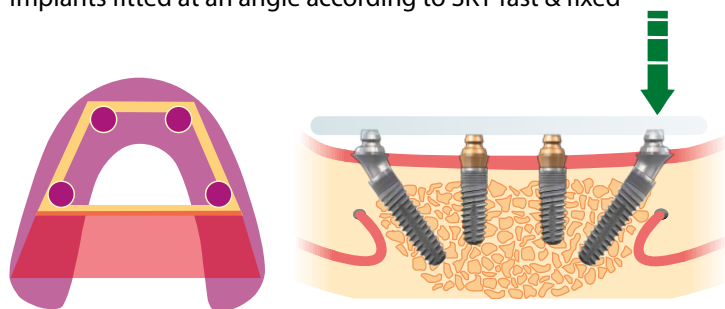
### Conventional method



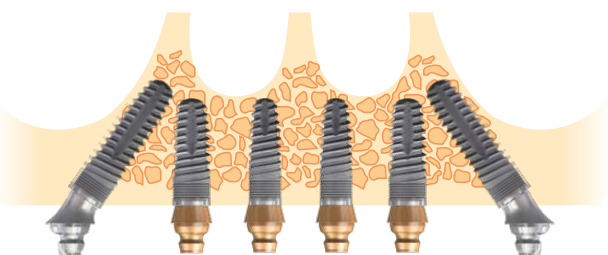
Interforaminal fitting of four implants creates a short supporting polygon with long extensions, which can cause unfavourable lever effects and force introductions into the implants. The desired axial distribution of the load is not achieved. Overloading of the implants and the prosthetic restoration is quite likely. The consequences range from fracture of the restoration to loss of the implant.

## Tissue Related Implant Management

Implants fitted at an angle according to SKY fast & fixed



The emergence profile of the implants is shifted in a posterior direction due to implants fitted at an angle and an extensive supporting polygon is therefore created. Extensions are shortened. The introduction of force into angled implants has proven to be more favorable than the insertion of straight implants for restorations with cantilevers, which has been documented by studies.



By using this tried-and-tested concept:

- the local bone is used to an optimal extent
- critically anatomical regions are protected
- the number of implants is reduced
- a fixed bridge is enabled as an immediate restoration

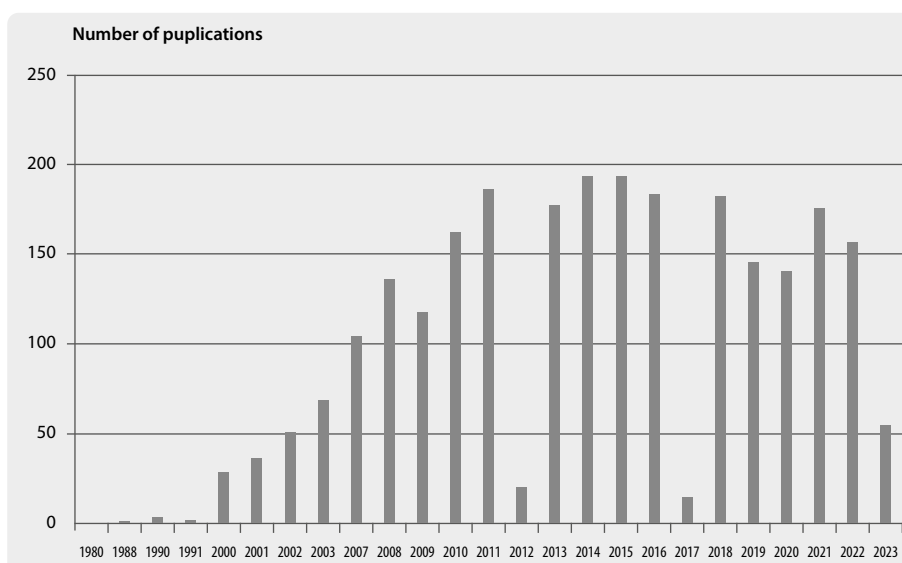


The SKY fast & fixed immediate restoration concept is based on more than 15 years of scientific and clinical experience with 100,000 patients treated so far.

### Scientific publications

Following bredent's introduction of the SKY fast & fixed concept in 2007, the number of scientific studies on immediate restoration and immediate loading increased in the years after.

Our therapy concept is one of the most documented.



Source: Pubmed.gov / US National Library of Medicine. As of: 20.04.2023



# SKY fast & fixed restoration



## Excellent primary stability

- Conical cylindrical implant shape
- Double thread
- Self-tapping compression thread
- Surgical protocol tailored to bone quality

## Snap on drill stops

## Rapid osseointegration thanks to *osseo-connect-surface (ocs)*

## SKY pro guide - Guided implantology possible

## Safe Interface

- 3.5 mm tube in tube
- Torx rotation lock
- Six positions
- Only one prosthetic platform for SKY fast & fixed and uni.cone

## SKY fast & fixed

- Platform switch for blueSKY and SKYclassic
- Abutments with anatomical design

## Two shoulder diameters

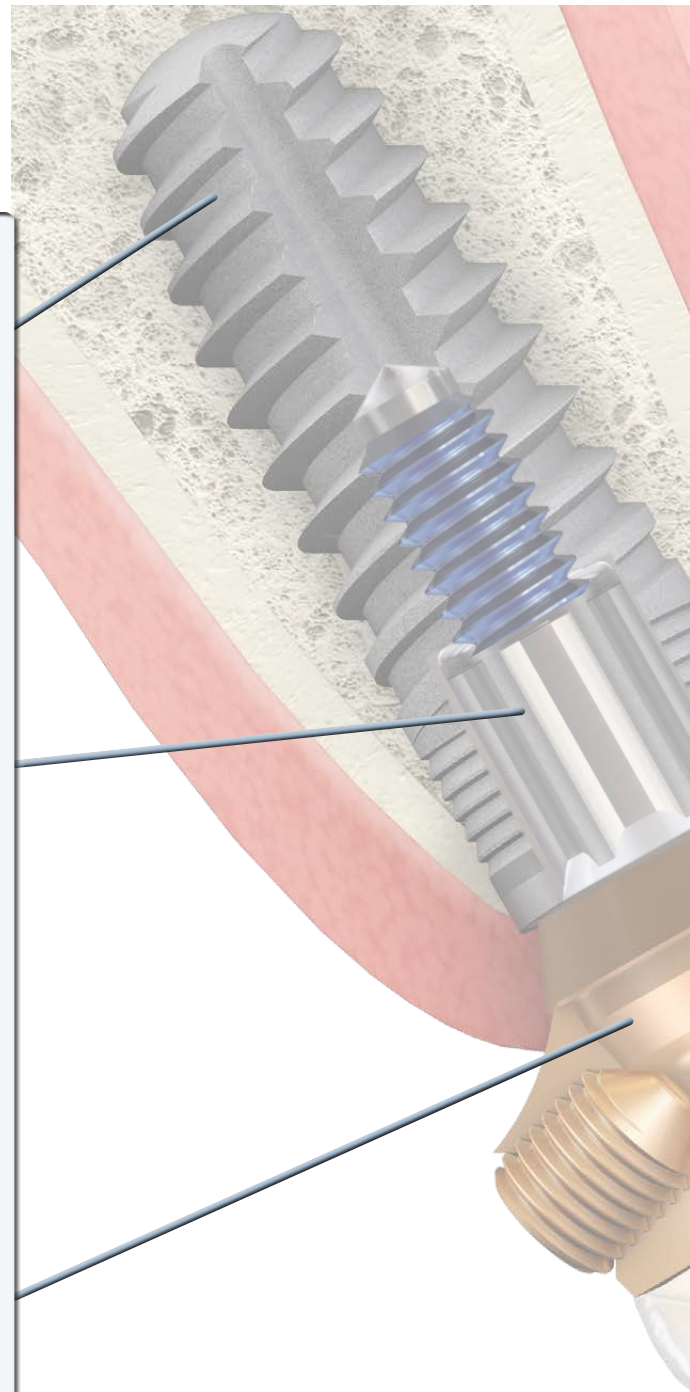
- SKY uni.cone 4.5 mm
- SKY fast & fixed 5.65 mm

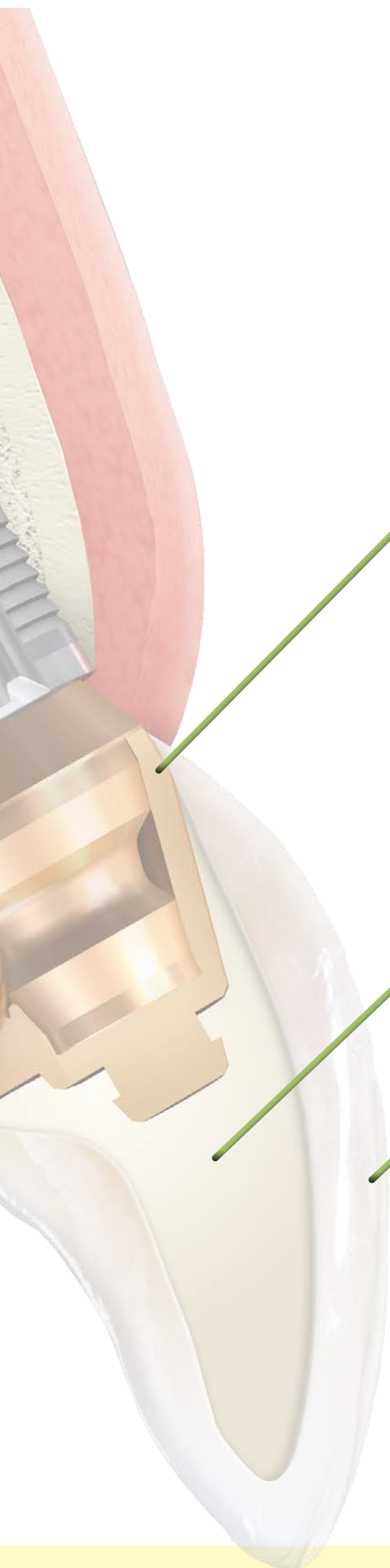
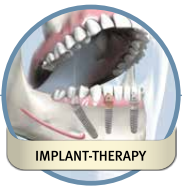
## Smart connections using one abutment

- Occlusal screwing
- Transverse screwing

## All prosthetic options

- Bridge and bar structures
- Conventional or CAD/CAM manufacturing
- All framework and veneer materials can be used





### **Cement-free!**

No risk of "cementitis".

### **Tension-free structures**

Prosthetic copings are bonded into the framework in accordance with the Weigl protocol

### **Immediate temporary bridge**

- Conventional using visio.lign veneers
- Bridge kit available
- visio.lign veneers + top.lign professional
- Wearing time not limited

### **Milled temporary bridge**

- Scanned using 3D planning or after the operation
- Milled from breCAM.multiCOM

### **BioHPP – permanent bionic framework material**

- CAD/CAM – various blanks available
- Conventional – pressed in the *for2press* system

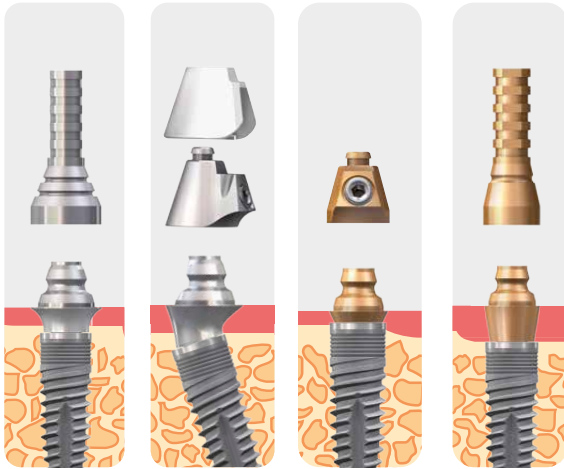
### **visio.lign aesthetic and functional system**

- Veneers and full dentures
- Highly aesthetic results
- Long-term stability
- Easy to modify or repair
- Suitable for all framework materials

### **2-in-1 technique**

- Milled framework made from BioHPP
- Milled veneering made from HIPC
- Combined with the visio.lign system

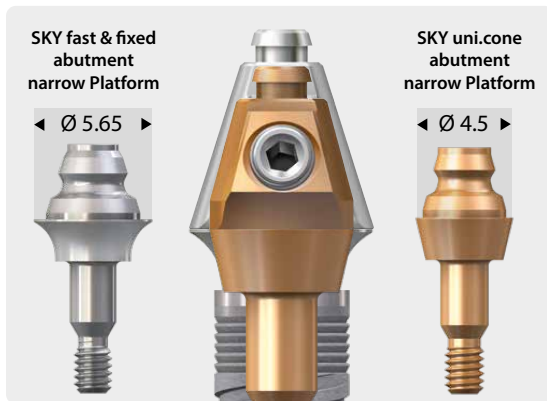
# SKY fast & fixed and SKY uni.cone abutment system



SKY fast & fixed and SKY uni.cone abutments are straight and angled components with occlusally or transversally screwed prosthetic copings for primary interlocked bar and bridge structures.

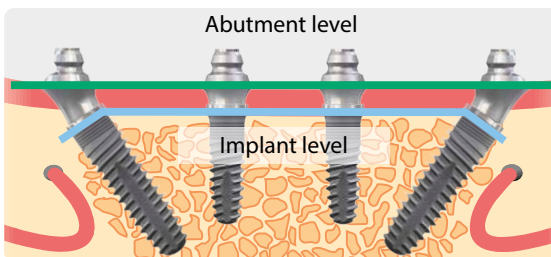
Abutments with a stable conical bonding to the prosthetic copings are the foundation.

SKY fast & fixed abutments enable angulation compensation of up to 35°.



## SKY fast & fixed / SKY uni.cone

- One-time treatment – no change of abutment required
- Two shoulder diameters:
  - SKY fast & fixed: 5.65 mm
  - SKY uni.cone: 4.5 mm
- Two types of screwing:
  - Occlusally screwed
  - Transversally screwed
- Modelling at abutment level
  - Abutment does not need to be removed

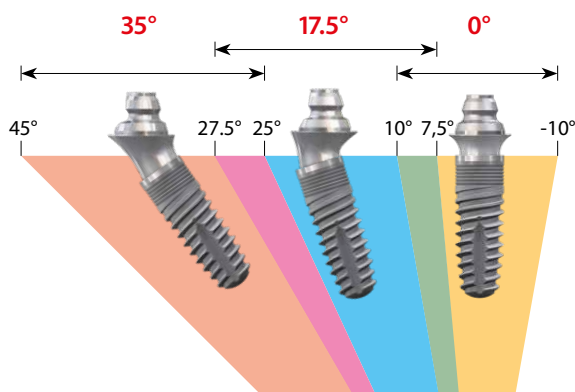


## Abutment level

All additional prosthetic steps are carried out using the copings at abutment level.

## Implant level

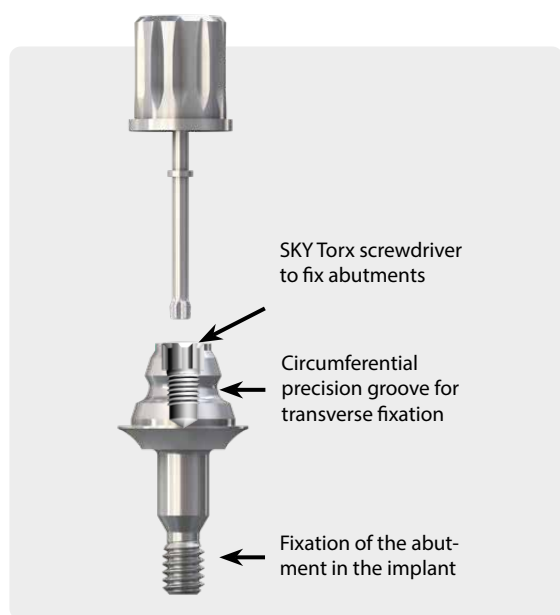
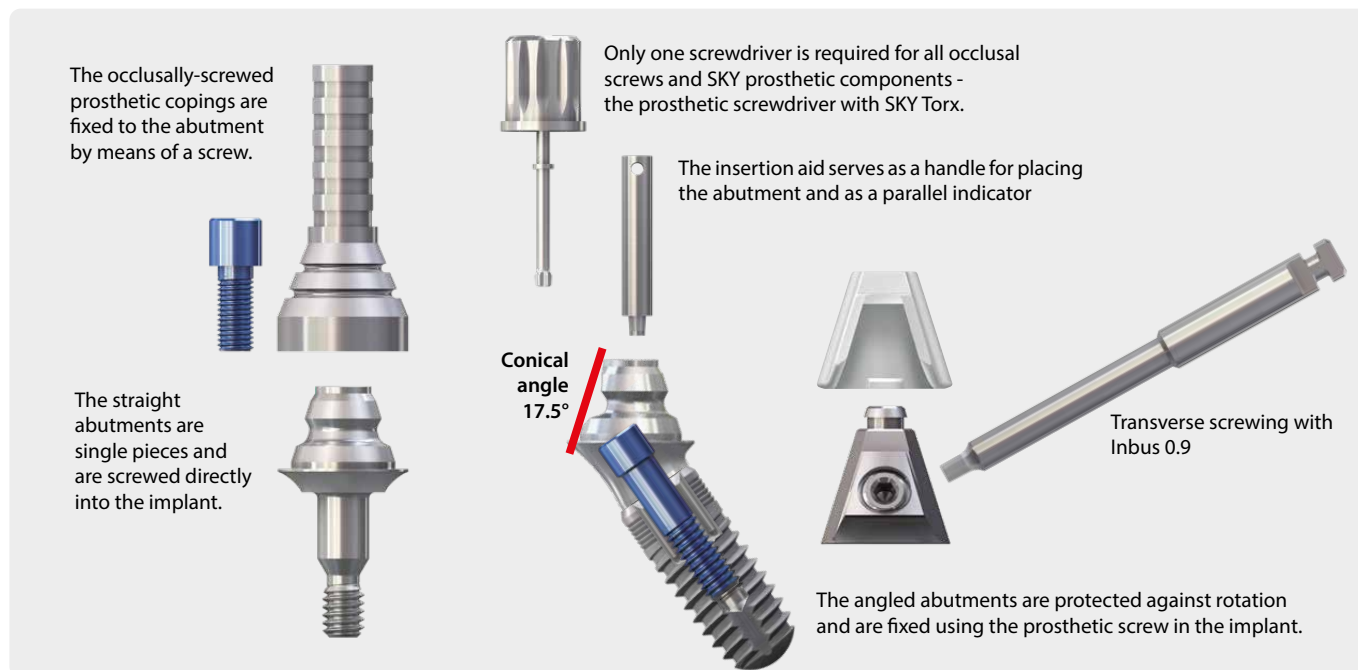
The abutments are fixed securely in six possible positions using 3.5 mm long Torx or as a one-part abutment.



## Divergence compensation using an outer cone

By using a 17.5° outer cone for SKY fast & fixed abutments, compensation with divergent implants is possible. Maximum compensation here is 35°, however we recommend not exceeding the following angulations (see left fig.) for biomechanical reasons.

## Secure, easy handling



### Structure of the SKY fast & fixed and SKY uni.cone abutments

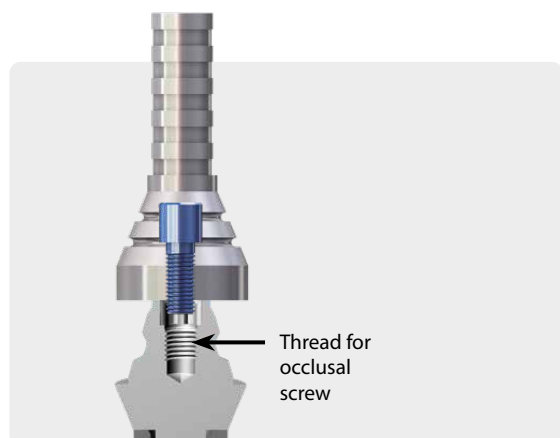
The work level is raised from the implant shoulder to the abutment shoulder. The following parts used are consequently no longer referred to as an abutment, but rather as copings, e.g. impression coping or prosthetic coping.

### Minimum height of the prosthetic copings

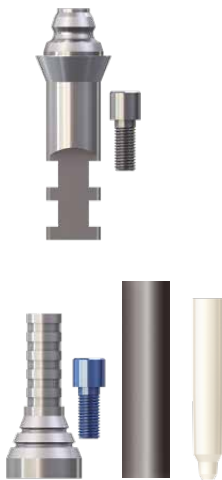
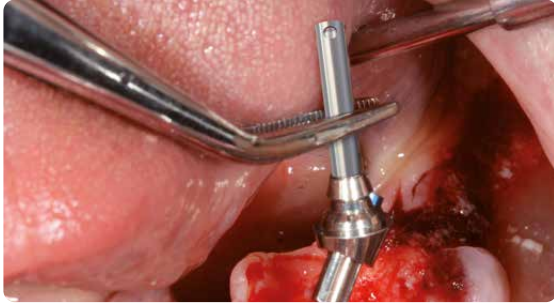
The straight SKY fast & fixed and SKY uni.cone abutments are single pieces and are screwed directly into the implant. The angled SKY fast & fixed abutments are screwed in using SKY prosthetic screws. Occlusally screwed copings are fixed using SKY fast & fixed prosthetic screws.

### Occlusal screwing

The occlusally-fixed prosthetic copings are fixed using the M 1.4 screw in the thread for the abutments under the screwdriver.

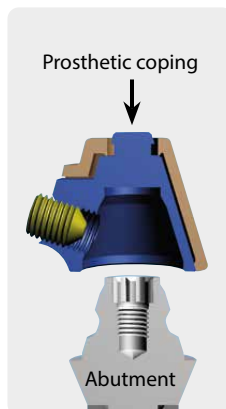
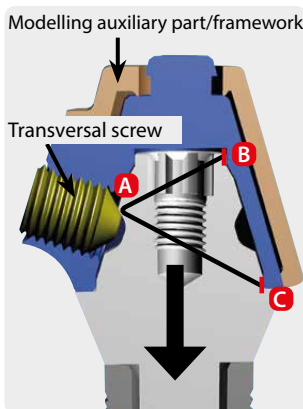


# SKY fast & fixed and SKY uni.cone abutment system



In order to make working with the SKY fast & fixed system as simple and secure as possible, all important components are included in the packaging sets. Such as:

- Angled abutments are supplied with prosthetic screw and insertion aid for simple positioning, alignment and fixation
- All laboratory analogs are supplied with a laboratory screw for use in the laboratory. The blue prosthetic screw will not be contaminated or damaged
- Occlusally screwed titanium prosthetic coping
  - with silicone tubing as a placeholder,
  - with a 1.4 screw to fix the prosthetic coping
  - with a locking pin to protect against plastic shrinkage during insertion



## Transverse screwing

The prosthetic coping is fixed using a triple point attachment with the transverse screw (A) and the short cylindrical surfaces (B and C). Tilting is therefore prevented. Thanks to the slightly inclined position of the transverse screw, the prosthetic coping is pressed on the abutment platform and gap formation is avoided when it is tightened.

## Simple application

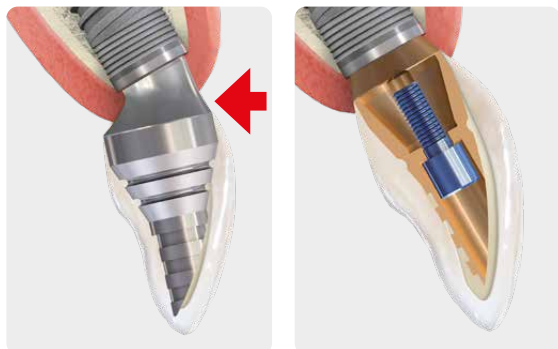
The transverse screw always remains screwed into the prosthetic coping. This enables secure and rapid insertion and removal of the restoration. The screw is tightened or loosened with just a few turns.



### Note:

By using the prosthetic copings, tension-free bonding of the structure is possible in accordance with the Weigl protocol. When working with zirconium and polymer frameworks, bonding of the framework to occlusally or transversally screwed SKY fast & fixed titanium prosthetic copings is recommended. The seat of the screw in titanium ensures a durable fixed connection.



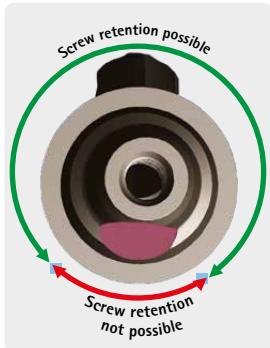
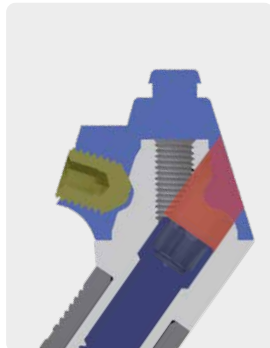


### Application options

Aesthetic impairments can occur in the case of thin gingiva in the maxilla when using angled abutments.

When using straight abutments together with occlusally screwed prosthetic copings, unfavourable positions of the veneering can occur as a result of the screw channel.

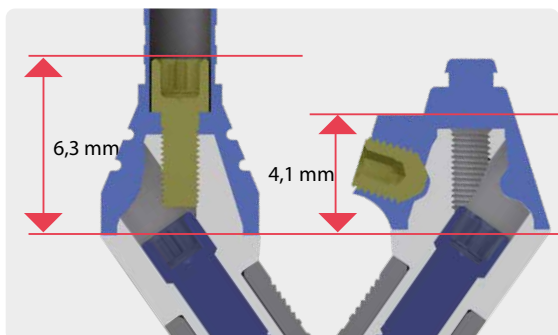
Transverse screwing enables straight abutments with minimal abutment height to be used. There are no screw channels to impair the aesthetic design or restoration.



### Positioning of the screws

In the case of the straight SKY fast & fixed and SKY uni.cone abutments, free positioning of the transversal screws is possible thanks to the circumferential horizontal ridge.

The horizontal ridge on the angled SKY fast & fixed abutments is interrupted by the screw channel (predominantly vestibular). The bolt screws cannot take hold here. This information is not communicated when taking an impression as the SKY fast & fixed impression copings and analogues are not rotationally symmetrical. This information can be passed on to the laboratory using a photo or a drawing. Normally, the screw channel is not in the relevant area.

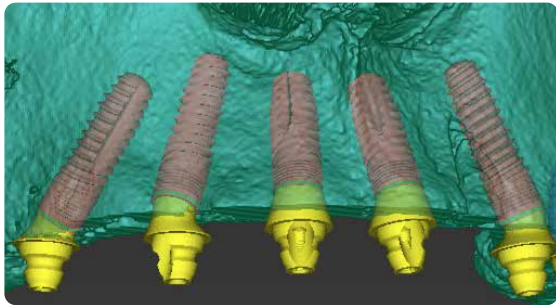


### Shortening the prosthetic copings

For small mouth openings or unfavourable height conditions can be used with the transversal screw connection to achieve a more than 30 % lower overall height (4.1 mm to 6.3 mm).

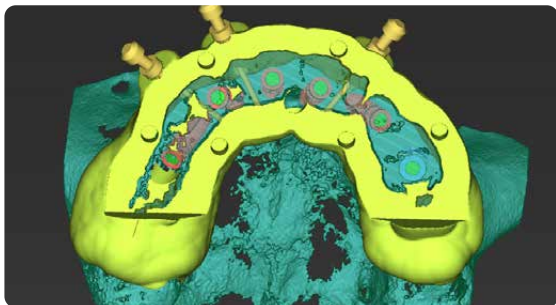
# SKY fast & fixed fully guided

## stackable guide and prefabricated temporary bridge



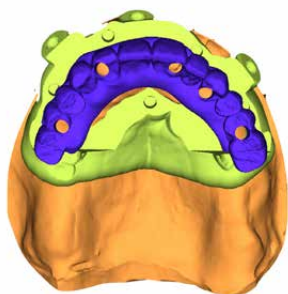
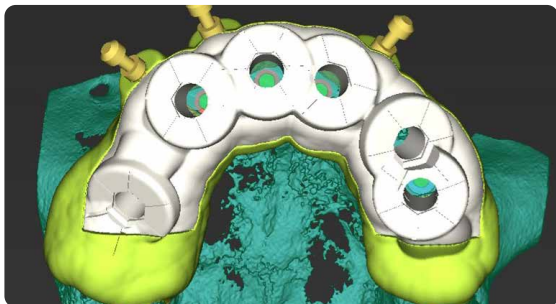
### 3D planning

an implant planning software such as coDiagnostiX® the implant positions are aligned and planned taking into account the bone availability. A mock-up shows the aesthetic and prosthetic specifications. The abutments are selected accordingly.



### The stackable guide has multiple parts:

- bone-fixed base guide
- drilling guide
- temporary bridge



The temporary bridge is designed on the basis of the mock-up and the planned implant positions or prosthetic components.

The fixed points on the template ensure a correct position.



### SKY pro guide

Is a socket-guided system A template-fixed sleeve for all drills and implant mounts.

More about pro guide →





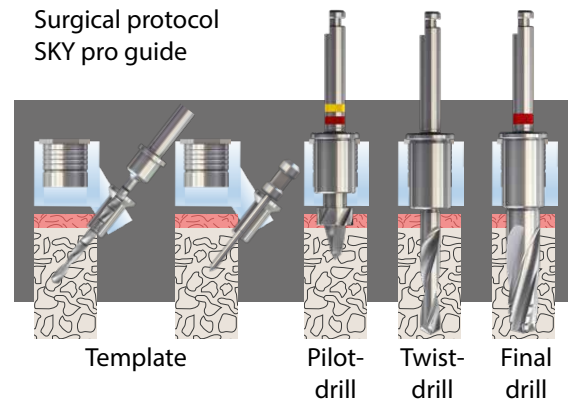
The base template is positioned with the fixation template in place. The 1.3 mm twist drill is guided through the sleeve. The base template is fixed with pins.

The fixation template is removed and the drill guide is placed on the base.



The implant cavity is prepared according to the SKY pro guide protocol.

Surgical protocol  
SKY pro guide



The implant insertion tools are screwed to the implant. The hexagon of the drill sleeve and the insertion tool allow a clear positioning of the interface.



Qu-resin \*



After screwing on the abutments and prosthetic copings, the temporary bridge is placed on the base guide.

Incorporating the prosthetic copings with Qu-resin.



The sealing pins included in the packaging set of the prosthetic copings prevent the Qu-resin from flowing into the screw channel

After hardening the occlusion can be checked and the restoration can be removed for final polishing.



# Surgical procedure

## Freehand implantation



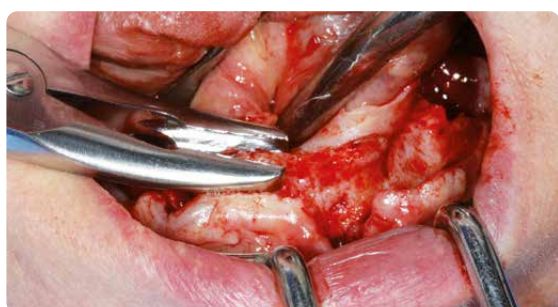
The surgical protocol corresponds, in principle, with the SKY implant system. The individual steps are described below as an example.

The planning is carried out in 3D format using a DVT scan. The procedure is carried out freehand.



### Initial situation:

Residual dentition not worth saving.



After extraction, inflammatory tissue is thoroughly removed and the bone is evened out.



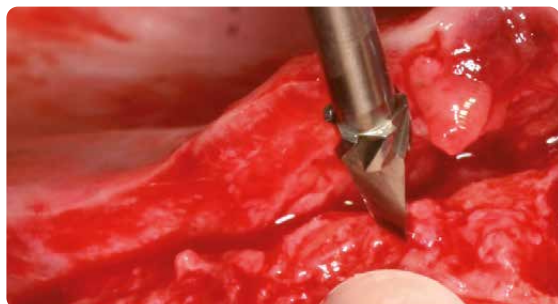
HELBO TheraLite Laser

Application of the antimicrobial photodynamic therapy according to the HELBO procedure.



Visualisation of the mandibular nerve

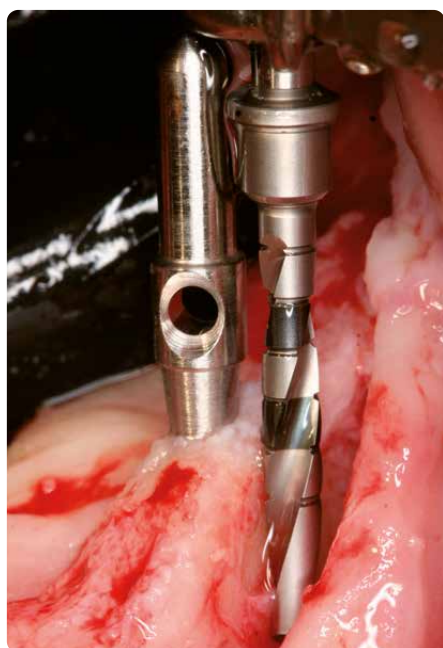
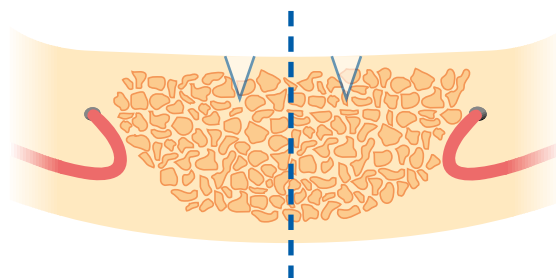




**Pilot drill**  
800-1,000 rpm



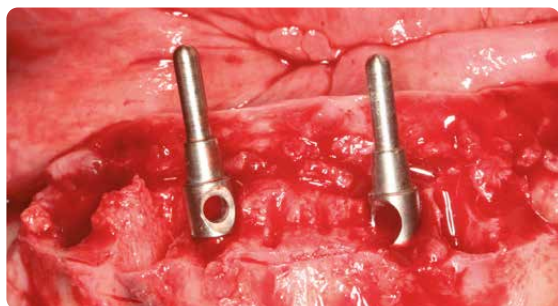
Determination of the midline and the position of the first implant using the pilot drill.



**Twist drill**  
800-1,000 rpm



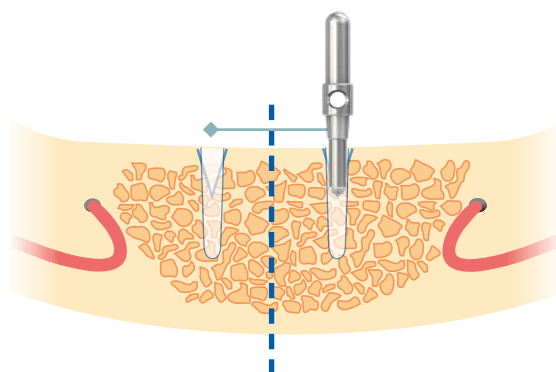
The 2.25 mm diameter twist drill with depth markers can be used with or without depth stop for straight positions. The parallel indicators are positioned after each drilling for better orientation.



**Parallel indicators**



Position of the vertical implants

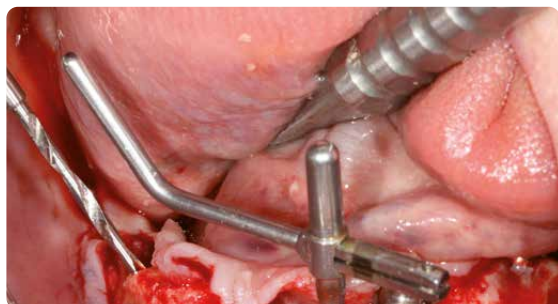
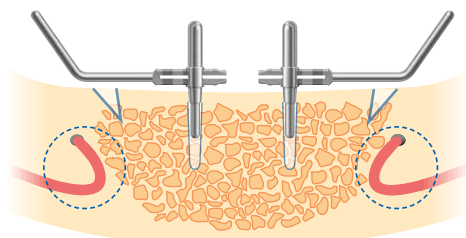




# Surgical procedure



The posterior implants are fitted using almost the same intervals as in the front. The angulation aid shows an angle of 35°. It assists orientation when positioning and angling the implants.



**Twist drill 1.3**  
800-1,000 rpm



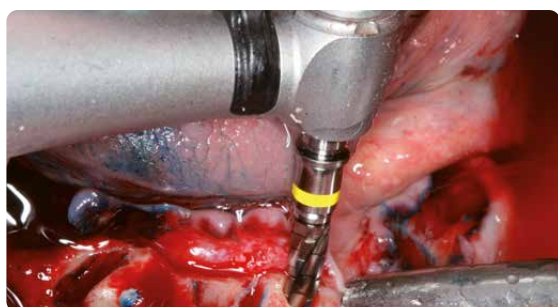
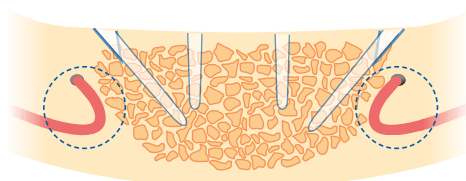
Drilling of the implant cavity paying attention to the mandibular nerve.

To be noted when preparing the maxilla:

Orientation on the maxillary sinus

- Pilot hole based on planning and measurements
- Puncturing and probing

Taking of a control image with a gauge is recommended after pilot drilling.



**Twistdrill 2,25**  
800-1,000 rpm



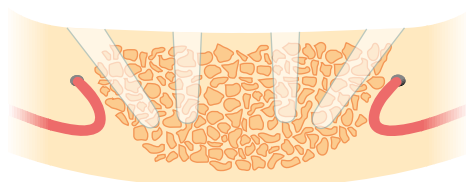
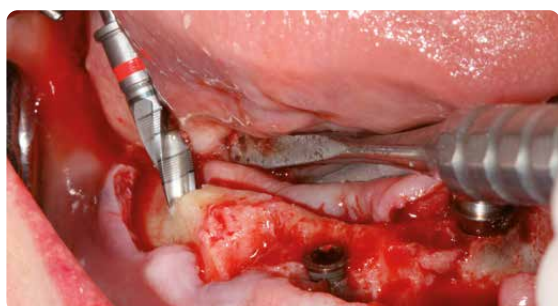
Recommendation:

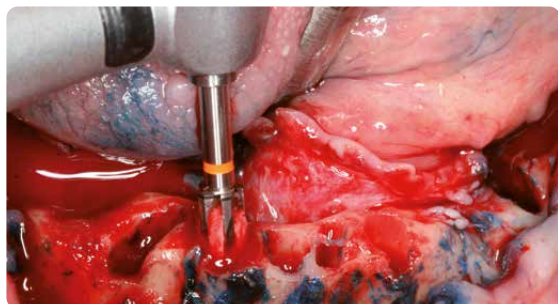
Determine the depth and direction between 25° - 45° using the 1.3 mm twist drill and take a control image.

In accordance with the surgical protocol for SKY implant systems, the cavity is then enlarged:

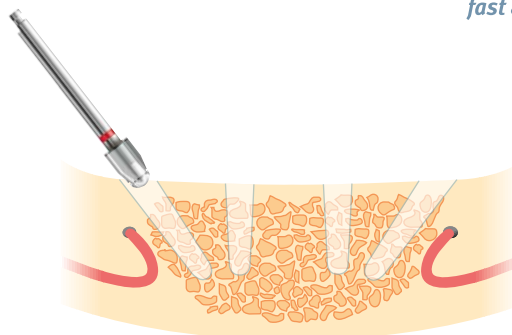
- 2.25 mm twist drill with short SKYDT23K and long shaft SKYDT23L
- Final drill for soft and medium-hard bones SKYD3435
- Final drill for soft and medium-hard bones SKYD3440

**Final drill for soft and medium-hard bones**  
300 rpm





**Crestal drill**  
300 rpm



**Bone burr**  
800-1,000 rpm



**SKY TK screwdriver**



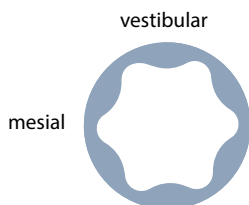
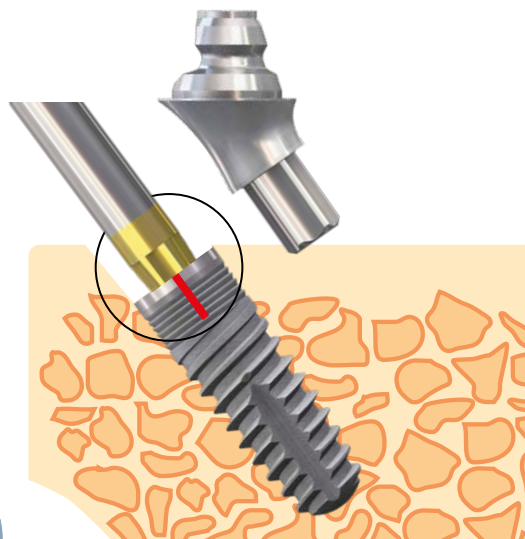
The cortical region is prepared using the appropriate crestal drill.

The recommended primary stability for blueSKY implants for immediate restoration is in the region of 30 – 45 Ncm. If 45 Ncm is exceeded, we recommend the following procedure:

- Screw in the implants as far as the end position
- Loosen the implant by one to two turns
- Wait a short time – approx. 10 seconds
- Screw the implant into the end position again

This procedure reduces tension in the bone and pressure necrosis is avoided.

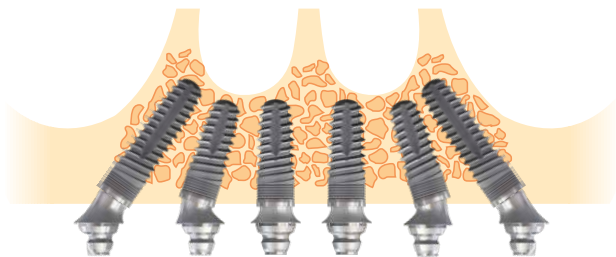
The mesial implant edge should be at the level of the bone.



The position of the Torx in the implant is important for the alignment of the screw channel in the 17.5° and 35° abutments, i.e. it needs to be checked when inserting the implant. The Torx position is clearly identifiable at the insertion instrument.

# Surgical procedure

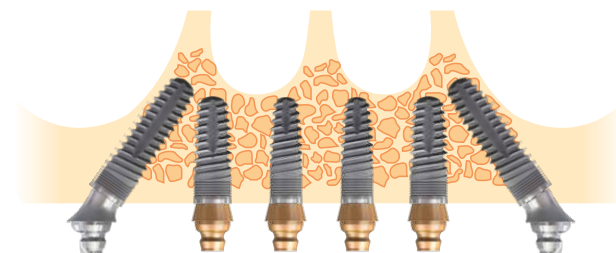
## Implant and abutment selection



### Angled implants posterior:

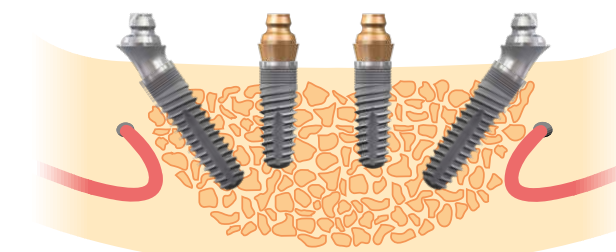
Use of the following implants is proven in both the maxilla and the mandible:

- blueSKY 4.0 length 12 - 16 mm
- blueSKY 4.5 length 12 - 14 mm



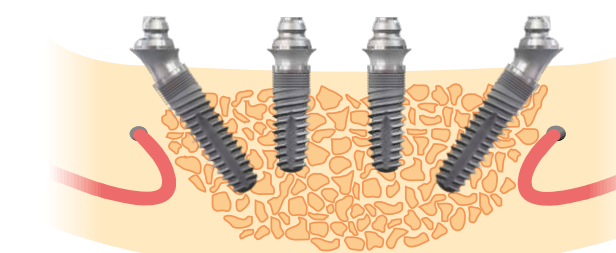
### Anterior:

All blueSKY and narrowSKY implants can be used regardless of the bone width or height. Lengths of 10 and 12 mm are usually used.



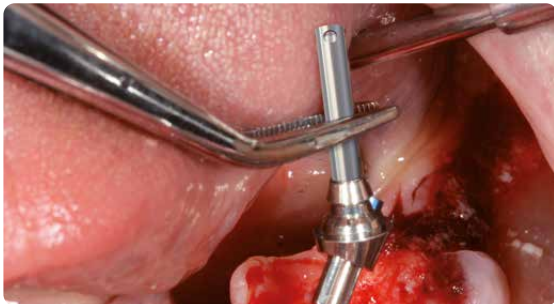
### Mandible (anterior):

In the front of the mandible, it is usually recommended that the SKY uni.cone abutments are used as the final restoration can also be finished in an aesthetically optimal manner due to the narrow gingiva emergence profile.

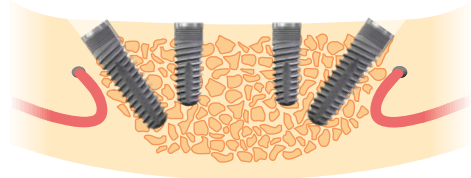


The torsion applied to the mandibular superstructure lies outside the SKY fast & fixed implant beds. The rigid primary interlocked construction is not affected by torsion during mastication.





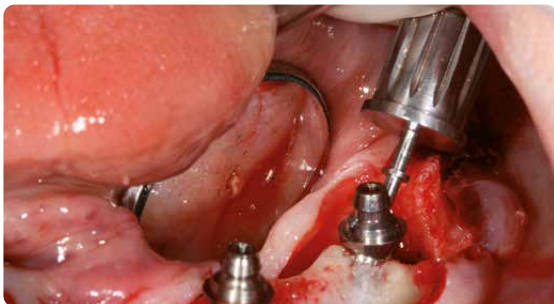
SKY fast & fixed  
abutment with  
insertion aid



### Inserting the abutments

An insertion aid makes inserting the angled abutments easier. At the same time, they permit the position of the abutments to be checked, which makes rapid correction possible.

Despite the six possible positions, if no parallel position is possible, adjustment of the implant using an insertion tool is recommended. The abutment is subsequently fixed using the blue standard screw.



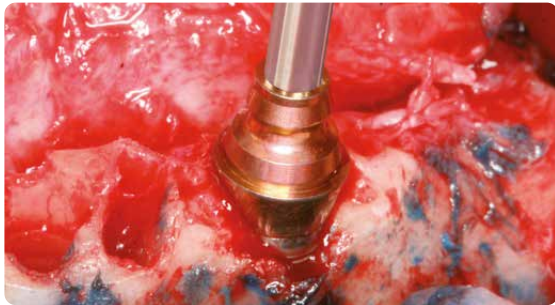
Collisions with the bone during insertion of the angled abutment are ruled out as much as possible by a platform switch and tapered abutments.



If the abutment cannot be fitted flush to the implant, remove it again and screw in the cover screw. The cavity can now be prepared again in the crestal region without damaging the implant platform.

# Surgical procedure

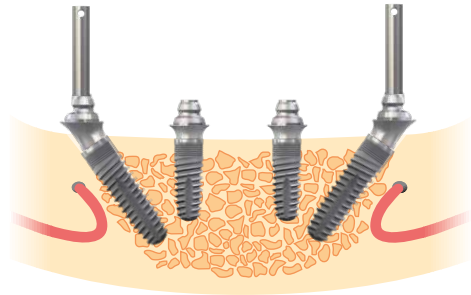
## Positioning the abutments



SKY fast & fixed  
abutment 0°



SKY uni.cone

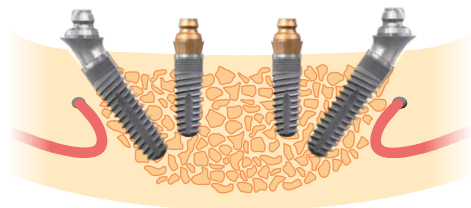
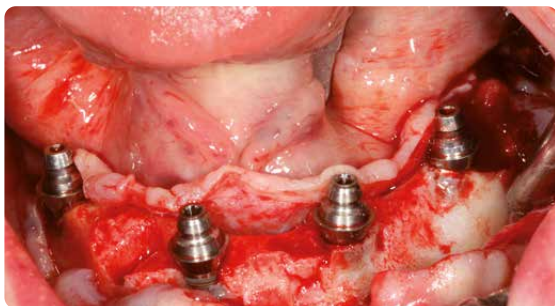


The straight abutments with integrated screw are placed on the screwdriver and can therefore be inserted securely.

### Abutment torque 25 Ncm!

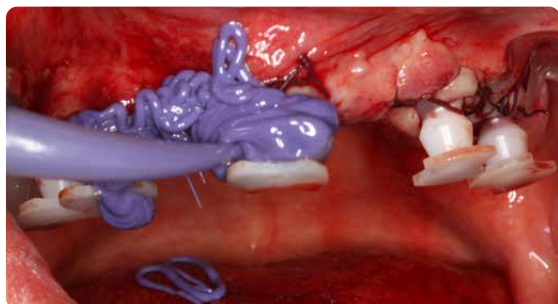
SKY uni.cone abutments can also be used instead of straight SKY fast & fixed.

The corresponding SKY uni.cone components are used in the subsequent prosthetic steps!



When taking a control image after the operation, correct positioning of the abutment is to be ensured! The abutments are generally also used in the sense of "one-time abutment treatment" for the permanent restoration.





### Snap copings for closed modelling

For simple, quick modelling, the SKY fast & fixed or SKY uni.cone snap copings are pressed onto the abutments with a precision groove. When the impression is removed, the copings remain in the impression due to retention wings.

Any minor inaccuracies can be compensated for thanks to the subsequent oral bonding of the titanium prosthetic copings to the temporary restoration.

Closed impression taking with a customisable single-use impression tray is recommended. It is important for the dental technician to include the palate and tuber region in the impression.



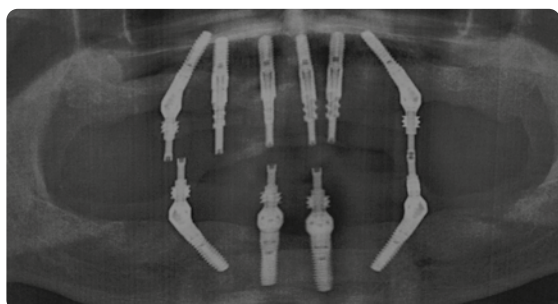
### Screwed copings for closed modelling

The impression copings are screwed in and can remain in the patient's mouth until the temporary bridge is inserted.



### Bite registration

Bite registration is carried out over the screwed impression copings or bite registration copings. A mushbite prior to commencement of the operation is compulsory. It can be supported in the palate or in the tuber region and relined after the operation. A mushbite after articulation of the model is also helpful as a check.



SKY fast & fixed  
open tray



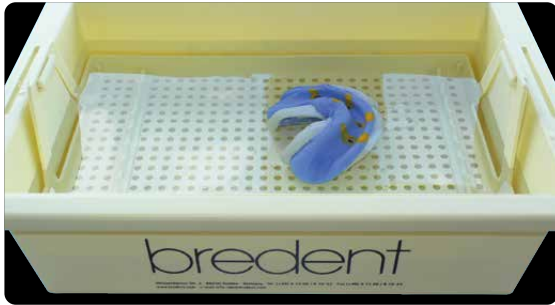
The screw-retained impression copings for open impressions can also be used for impression taking for temporary restorations.

# Immediate restoration - Manufacture in the laboratory

## New manufacture of a temporary visio.lign restoration

Fitting of the temporary restoration is ideally carried out on the day of implant insertion or within 72 hours at the latest for immediate loading. Adjustment of a prepared restoration to the implant positions and mucosa conditions is usually time consuming. Revision of existing

prostheses is also time-consuming and without knowledge of the quality of materials and processing, the risk of breakage is high and it should therefore be avoided. Experience has shown that new manufacture of a temporary restoration as described below represents the recommended method.



Dentaclean



### Disinfection

Dentaclean impression and prosthesis disinfectant takes effect in just one minute!

### Repositioning of the impression copings

After cleaning the impression copings, they are screwed onto the laboratory analogues and repositioned in the impression.



The analogues correspond to an implant with screwed on Abutment.

If snap copings have been used for modelling, the laboratory analogues are pressed into the snap copings and the correct position is then checked.



Multisil-Mask soft



### Gingiva mask

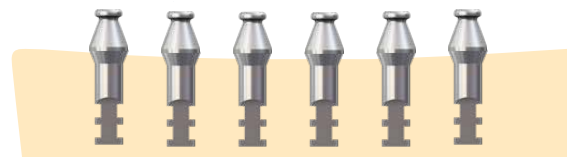
The laboratory analogues are coated with Multisil-Mask soft. This prevents chipping of the plaster around the abutments and therefore the loss of important information regarding the gingival situation.



Exakto-Rock S



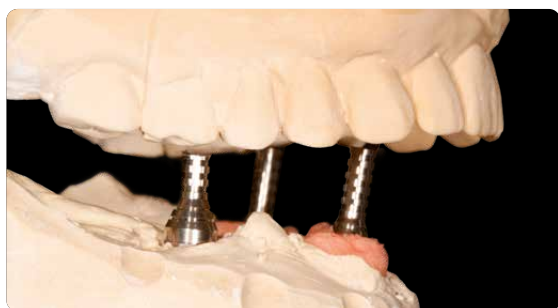
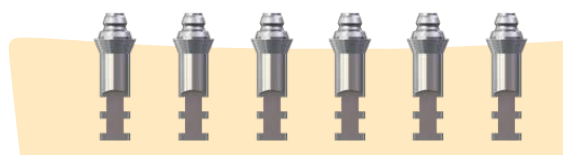
Exakto-Rock S, a rapid curing, dimensionally-stable, formaldehyde-free super-hard class IV plaster, is recommended for the manufacture of the plaster model.





### Creation

The models are created using a mushbite. A second mushbite over the palate and tuber region, taken before commencement of the implantation serves to check the articulation.



The analogues stand straight regardless of the angle of the SKY fast & fixed abutments used for the patient. The position of the abutment shoulder is transferred. Changing the angle is only possible by changing the abutment and taking of another impression!

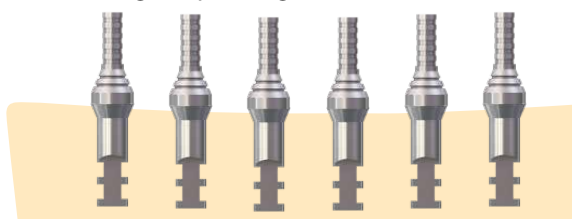


SKY fast & fixed  
titanium prosthetic  
coping



### Adjustment of the prosthetic copings

The impression copings are unscrewed and replaced with prosthetic copings. The height is checked in the articulator and, if necessary, shortened using a separating disc.



### Setup

The setup is produced using novo.lign veneers from the visio.lign veneer system.



In general, temporary restorations for immediate loading are manufactured without extensions.



# Immediate restoration - Manufacture in the laboratory

## New manufacture of a temporary, fixed restoration

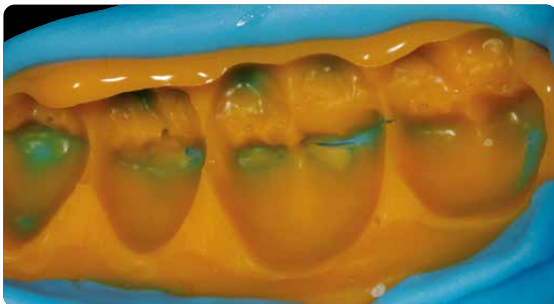


Haptosil D



### Setup

The 1 mm narrow thickness of novo.lign veneers enable rapid setup and provide enough space for a stable bridge body.



visio.sil fix



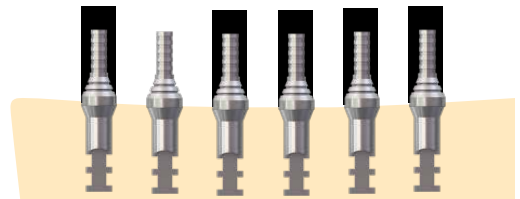
### Matrix

A matrix is taken from the setup using Haptosil D. If a soft silicone is applied directly to the teeth in advance (visio.sil fix), the approximal spaces are well filled and the veneers hold well in the matrix without adhesive.



To ensure positioning of the restoration with no tension, only one prosthetic coping is incorporated on the model. The other are fixed into the patient's mouth, similarly to...

### Place holder

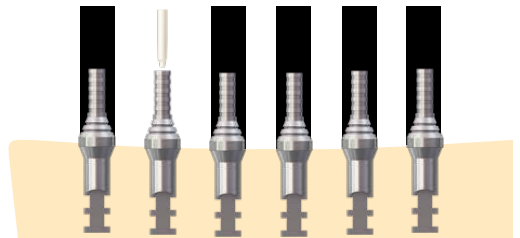


...bonding using galvano technology. Silicone tubes are pulled over the prosthetic copings as a place holder. These are contained in the prosthetic copings packaging.

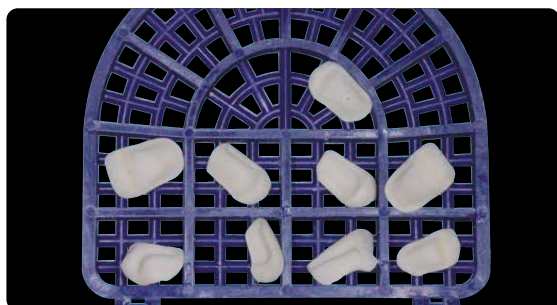


In this case, the screw channel was closed using a long screw.

### Closure of the screw channel



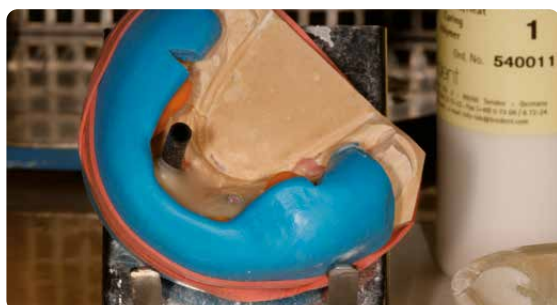
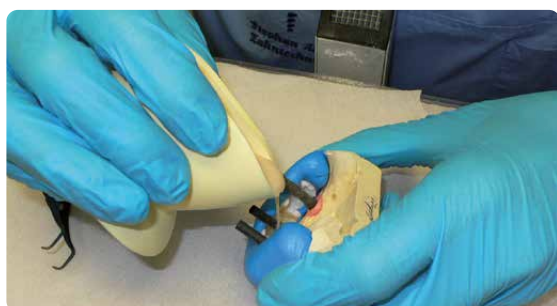
In the case of the prosthetic coping that has to be processed, the screw channel is filled with a locking pin which is included in the package. The work is prepared for completion.



### Conditioning of novo.lign veneers

After they are cleaned, novo.lign veneers are blasted using 110 µm blasting abrasive at 2.5 bar on the inside, and the resulting dust is removed using oil-free compressed air.

Steam blasting would leave a moisture residue and compromise bonding.



### top.lign professional



### Filling of the bridge body

After insulating the model, the matrix is fixed to the model.

The bridge curing is filled with the tooth-coloured cold polymerisable top.lign professional and polymerised in the pressure pot. Top.lign professional is approved for restorations and permanent dental prostheses and is particularly characterised by its excellent mechanical values, colour safety and simple and rapid processing.

### Posi-boy

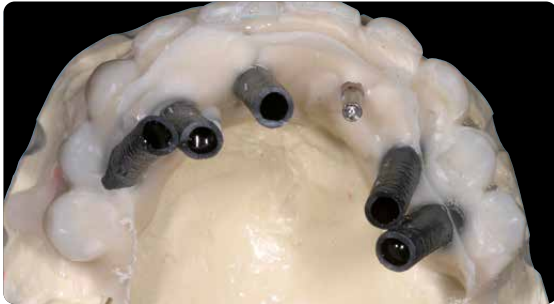


### The perfect "third hand" to hold all models in any desired position.

The Posi-boy makes processing of cold polymerising plastics easier. The heavy metal base guarantees a fixed stand and the correct positioning, even in the pressure pot. As a result, the model is prevented from tipping over and the plastic from running out.



# Immediate restoration - Manufacture in the laboratory



## Completing the restoration

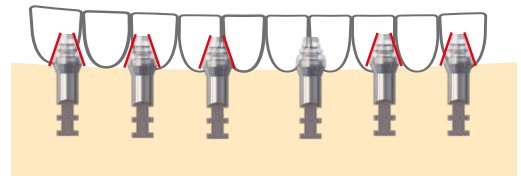
The silicone tubes can be simply pulled off. The screw of the coping affixed to the bridge body is loosened, and the restoration is removed.

The restoration is then processed and the occlusion is checked in the articulator.



The space for the prosthetic coping can be expanded for a passive oral fit.

## Preparation for the patient



The restoration is fixed using the processed prosthetic coping. Tension-free oral fixation is possible due to the free space created by the place holder.

To make application of the Qu-resin easier, additional lateral grooves are ground into the top.lign professional.

After the restoration is finished, all the parts are cleaned and remounted on the model.

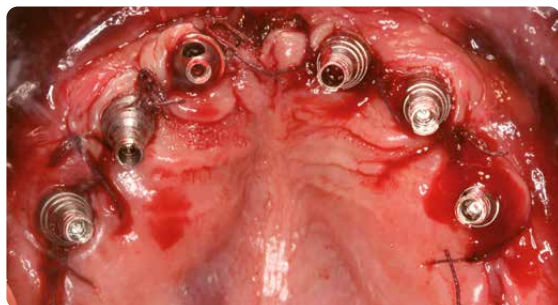
Qu-resin is a rapid-curing, autopolymerising prosthetic system plastic that is available in pink or dentine. It can be used both inside and outside the mouth. Qu-resin is available individually or in a set together with Qu-connector.

Qu-connector



The SKYFFLPK laboratory screws are generally used for work in the laboratory. The screws contained in the prosthetic copings pack are suitable for clinical use.

## Integration practice



### Tightening of the prosthetic copings

The impression copings and the gingiva former are exchanged for prosthetic copings. The position of the prosthetic copings that are already fixed in the restoration remain free.



### Fixing of the restoration

The restoration is attached and tightened with the integrated prosthetic coping. To position the restoration with no tension, there must be no contact between the bridge body and the prosthetic copings that are not yet fixed.

The gingiva must not be compressed in doing this.



The locking pins included in the packaging set for prosthetic copings prevent Qu-resin from flowing into the screw channel.



### Processing of the prosthetic copings with Qu-resin

Qu-resin is easier to apply thanks to the laterally ground grooves. After a brief curing period, the occlusion can be checked and the restoration removed for final polishing.

Qu-resin \*



### Polishing

Particular attention should be paid with a convex design and conscientious high-gloss polishing of the basal region for reasons of hygiene.

# Immediate restoration - Manufacture in the laboratory

## Guide template and milled temporary bridge

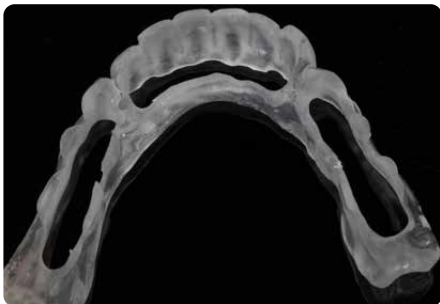


The temporary bridge can be prepared to shorten the length of time the patient is in the practice.

A wax-up has been made on the situation model, then scanned and milled in breCAM.multiCOM. The polychrome composite is suitable for a dental prosthesis with a wearing time of up to two years.



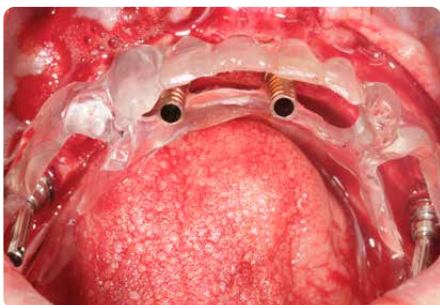
To make a guide template, the structure is milled a second time in the chemoplastic PMMA breCAM.splint transparent.



The free spaces can be ground afterwards or designed in CAD.

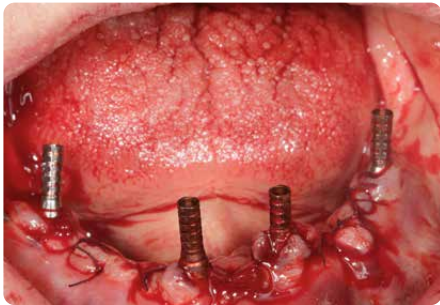


The guide template shows the surgeon the ideal emergence points of the implants after pilot drilling with inserted parallel indicators.



Check on the abutment position. Straight SKY uni.cone abutments have been used in the front and the occlusal titanium prosthetic copings are screwed on. The 35° SKY fast & fixed abutments have been positioned in the region of the side teeth using the insertion aid.

Detailed information relating to the milling blanks:  
breCAM consumables brochure REF 000500GB



The wound is closed after screwing on the SKY fast & fixed titanium prosthetic copings.

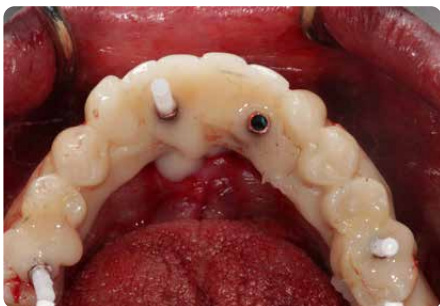
The positions of the prosthetic copings are marked on the guide template. They can then be transferred to the temporary bridge, which is perforated at these positions.

The bridge is checked for imperfections on the prosthetic copings.

Shortening of the copings in accordance with the dimensions of the bridge is recommended so that checking of the occlusion is possible.



The first prosthetic coping is fixed into the bridge using Qu-resin with the help of a bite key. The additional prosthetic copings can be fixed after a check.



The locking pins included in the packaging set for prosthetic copings prevent Qu-resin from flowing into the screw channel.



After removal of the bridge, missing material is added and the bridge is completed.



The temporary bridge can be inserted into the patient's mouth after just a short period.



# Permanent restoration

## Final modelling with the temporary bridge



In addition to the prosthetic parameters, the temporary bridge can be used to enquire about the patient's impression in terms of the aesthetics and care. This information is not just helpful in the patient discussion to determine the permanent restoration; it can also be transferred directly to the master model using the temporary bridge.

This procedure reduces the time and material outlay of an open impression with the same precision.

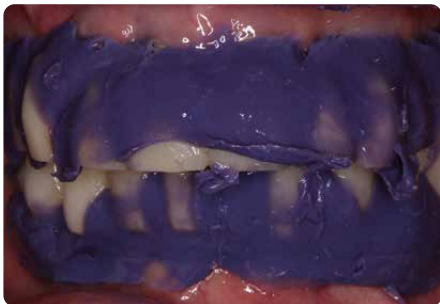


The SKY fast & fixed protocol provides for tension-free oral fixation of the prosthetic copings in the bridge body during manufacture of the temporary bridge. This enables the temporary bridge to be used instead of interlocked impression copings.

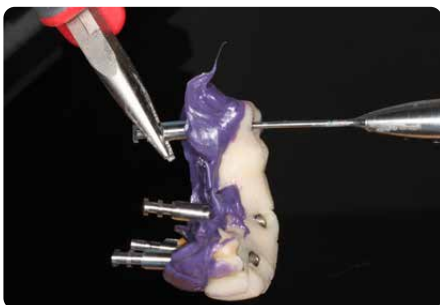
The previous abutments must be retained for the permanent restoration.

### Procedure

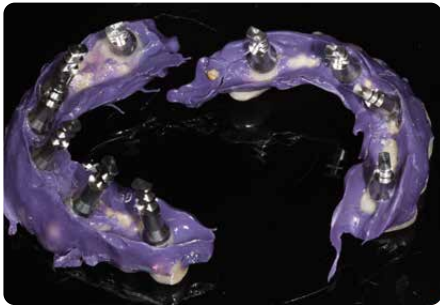
Impression material is injected below the temporary bridge. An impression is taken using a pre-fabricated tray and alginate..



The alginate impression is removed. The bridge screws are loosened and the bridge is also removed. The lining shows the current gingival situation.



After disinfection, the laboratory analogues are held using forceps whilst being screwed to the bridge splint.



The temporary bridges for the maxilla and mandible with laboratory analogues screwed on.



The bridge is repositioned in the alginate impression.



The model is manufactured as normal using gingival mask.



Following deforming, the opposing jaw is fixed using a bite key and the model is articulated.



A matrix or scan captures the temporary bridge situation. This useful information provides a clear specification for the permanent restoration.

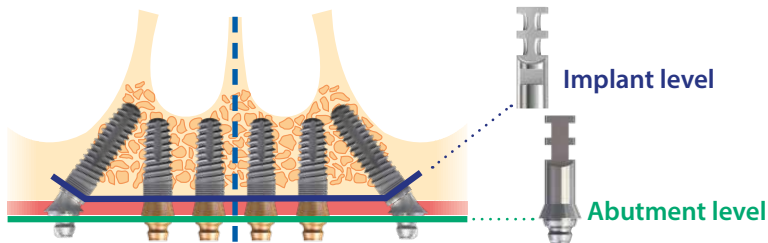


The temporary bridges are reinserted into the patient's mouth following cleaning and disinfection.

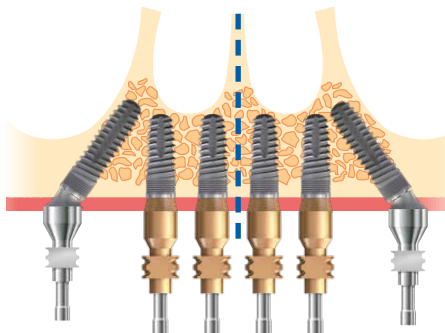
# Permanent restoration

## Impression on abutment and implant level

The final restoration can be carried out using the SKY fast & fixed abutments at abutment level. In the event that final restoration is planned for implant level, additional SKY implant systems can be selected.



If the final restoration is carried out on this abutment level, no additional abutments are required. Exchange of the abutments is not required. This reduces the amount of work required and the use of materials, whereby time and money can be saved. Moreover, the gingiva attached to the abutment is not traumatised again.

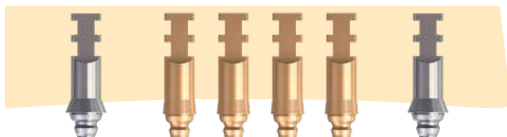


When taking an impression with SKY fast & fixed and SKY uni.cone impression copings, the position of the rotationally symmetrical abutment shoulder is transferred.

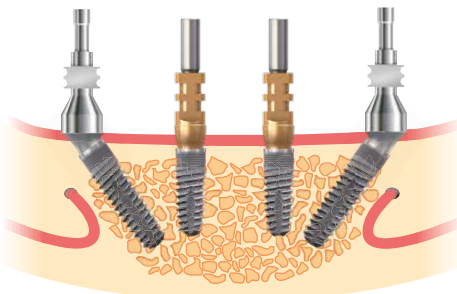
The SKY fast & fixed or SKY uni.cone laboratory analogue is used to manufacture the model. The laboratory analogue corresponds to the implant with screwed abutment.



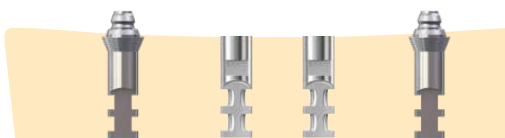
The construction is manufactured according to the manufacturing of the model with SKY fast & fixed or SKY uni.cone prosthetic copings.



Changing the abutment is not possible using this procedure, as the implant interface, the position of the Torx and the implant shoulder are not transferred.

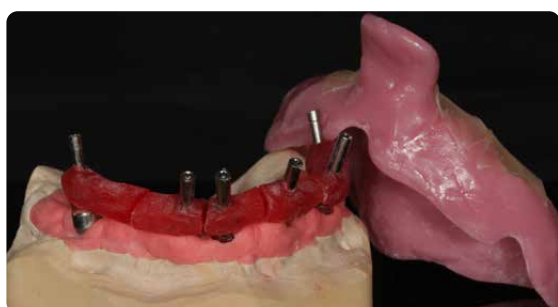
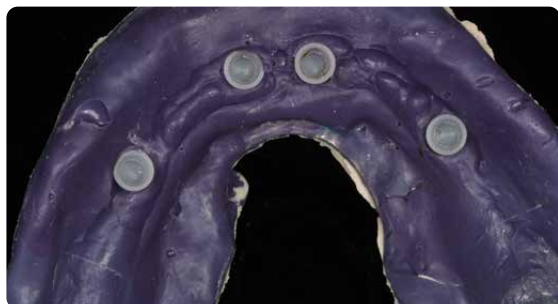


If the option to change the abutment is to be retained, the impression must be taken with the SKY impression abutments at implant level. Another height, angle or change of SKY fast & fixed to SKY uni.cone can thus be facilitated on the model.



Taking an impression at abutment level is recommended with 35° SKY fast & fixed abutments due to the severe angulation, as clamping by the parallel implant interface can occur when removing the impression if the impression is taken at implant level.

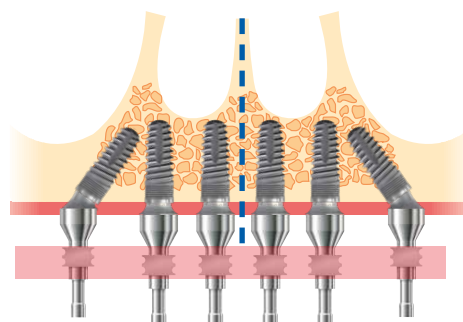
## Partially removable bridge with milled BioHPP framework



SKY fast & fixed  
impression coping  
open tray



10 Ncm



Manufacture of a partially removable bridge with milled BioHPP framework and veneering with materials from the visio.lign system.

If SKY fast & fixed abutments are to be used in the temporary as well as the final restoration, it is important that the selection of abutments is designed during the operation in such a way that no aesthetic problems occur in the final restoration, e.g. SKY uni.cone abutments in the front of the maxilla or SKY fast & fixed angled abutments 17.5°.

### Initial model

For simple, quick modelling, the SKY fast & fixed or SKY uni.cone snap copings are pressed onto the abutments with a precision groove.

### Bite registration

A plastic base plate is fixed to two terminal SKY fast & fixed abutments. Oral positioning is therefore supported by bone and not mucosa. An anterior setup provides an initial idea of the aesthetics.

### Open impression taking

The SKY fast & fixed impression copings for open impression taking are already interlocked with a plastic bar in the laboratory and separated again. Marking of the position helps to avoid mixups.

Taking an X-ray image to check the correct positioning of the impression copings is recommended.

After using dental floss to ensure that there are no undesired contact areas, the individual elements are interlocked. Open impression taking is carried out using customisable breciform D or a laboratory-manufactured individual tray.



# Permanent restoration

## Model manufacture



SKY fast & fixed  
laboratory analogue  
REF SKYFFTLA



Multisil-Mask soft



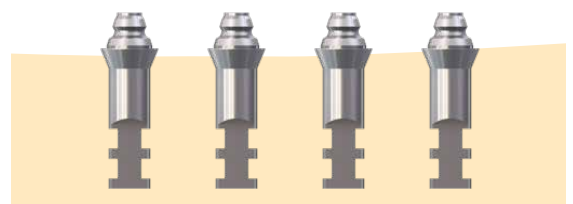
The SKY impression abutments and the SKY fast & fixed impression copings are fixed in the block.

The analogues should always be held with forceps while being screwed on to prevent the impression abutments from rotating in the impression.

The choice of firmness, soft or hard, of the gingiva mask is dependent on the planned restoration and the method chosen by the dental technician. In this case, a removable soft gingiva mask with Multisil-Mask soft was manufactured.

In a SKY fast & fixed impression, only the position of the abutment shoulder is transferred. The height and angulation of the abutments are not!

Use the SKY fast & fixed analogue to manufacture the model. The SKY fast & fixed laboratory analogue corresponds to the implant with screwed abutment.





### Aesthetic try-in

The SKY fast & fixed or SKY uni.cone snap copings for bite registration simplify the aesthetic try-in. Incorporated into the base plate, they stably fix the position of the plate without screw fixation during work in the laboratory and in the try-in in the patient's mouth.



The setup is produced using novo.lign veneers. The visio.lign veneer system is optimally suited to implant constructions with its excellent cushioning properties, particularly in the case of a reduced number of implants.

The aesthetic try-in provides the patient with the first view of his new fixed restoration. "Artificial" gingiva shorten the length of the crowns and also provide support for the cheeks and lips for an optimal aesthetic result. Cleaning options for the patient are checked with the dental hygienist on insertion.



### haptosil D \*



### Matrix

The matrix is manufactured using high-definition and hard Haptosil D silicone. As a result, novo.lign veneers can be fixed without use of an aid. The matrix with the novo.lign veneers facilitates correct positioning of the framework for the analogue and digital framework modelling.

### visio.sil fix \*



novo.lign veneers offer an economic restoration with a predictable aesthetic result. The soft bite is not just advantageous in restorations with a reduced number of implants. The risk of chipping is reduced due to the security and stability properties of the visio.lign veneer system materials.

# Permanent restoration

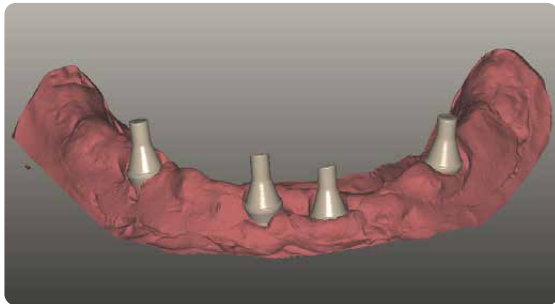


breident Gießtechnik  
(breident casting  
technology) ring binder  
230 pages



## Options for framework manufacture

All materials and manufacturing procedures can be used for the SKY fast & fixed bridge framework, such as cast non-precious metal frameworks or pressed BioHPP frameworks.



SKY fast & fixed  
scan coping



## CAD/CAM bridge framework

### Digitalisation

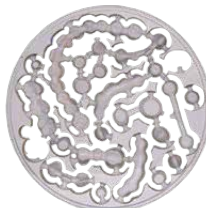
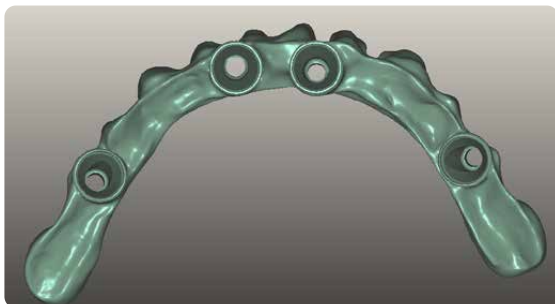
SKY fast & fixed titanium prosthetic copings are exchanged for scan copings for the digitalisation of the model.

Hard silicone injected into the matrix is an alternative to a scan of the matrix with veneers or the set-up. It shows the exact labial space requirement for the novo.lign veneers and therefore facilitates construction of the framework.

### Construction

In the case of metal frameworks, the framework can be constructed directly onto the abutment, without the use of copings. When working with zirconium and polymer frameworks, bonding of the framework to occlusally or transversally screwed SKY fast & fixed titanium prosthetic copings is recommended. The seat of the screw in the SKY fast & fixed titanium prosthetic copings guarantees a permanent, fixed bond.

BioHPP milling blanks can be processed in every standardised milling machine when using a bre-CAM.Cutter (mill) especially developed for this purpose. The framework design is determined by the lowest material thicknesses of BioHPP.

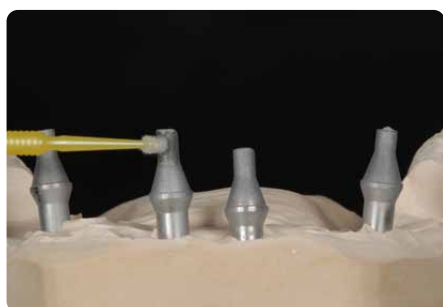
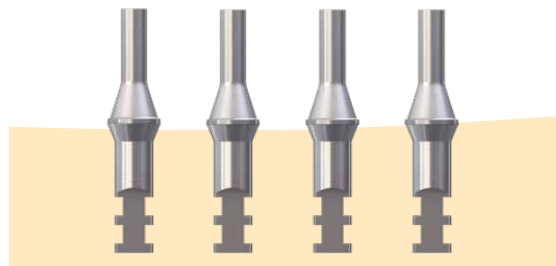




SKY fast & fixed  
prosthetic coping  
CAD/CAM



## Bonding the prosthetic copings in the framework



The straight titanium CAD/CAM prosthetic copings are used in this case. In comparison to the titanium prosthetic copings with retentions, they have a low wall strength. There is therefore more space for framework and veneering. The prosthetic copings are bonded to the bridge framework in the next step.



MKZ Primer



visio.link



## Conditioning

The framework, the copings and abutment regions that are not to be conditioned can be protected using wax or silicone.

After blasting the prosthetic copings with 110 µm aluminium oxide at 3 - 4 bar, clean in oil-free air jet or using a brush. Drip MKZ Primer onto a mixing plate or tray, brush the prosthetic copings using a single-use brush and leave to dry for approximately 30 seconds.

Blast the framework at the bonding sites with 110 µm aluminium oxide at 2 bar and clean. Apply visio.link using a single-use brush and cure with light for 90 seconds.



DTK adhesive\*



## Bonding

Oral bonding of the framework to the prosthetic copings compensates for inaccuracies and prevents the creation of tension. After verifying the precision of the master model using a splint, bonding can also be carried out under laboratory conditions.

DTK adhesive is a dual-curing (light and autopolymerising), paste-like dual component material for the bonding of metal and zirconium oxide.



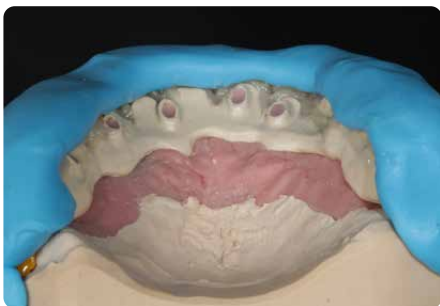
# Permanent restoration



After cleaning the bonding sites, the framework is also conditioned in the procedure described prior to application of the opaquer.



Light channels are drilled with a spiral drill. These channels are required for optimum insertion of the light when fixing novo.lign veneers using combo.lign if no transparent silicone is used.



## novo.lign veneers

After they are cleaned, novo.lign veneers are blasted using 110 µm blasting abrasive at 2.5 bar on the inside, and the resulting dust is removed using oil-free compressed air.

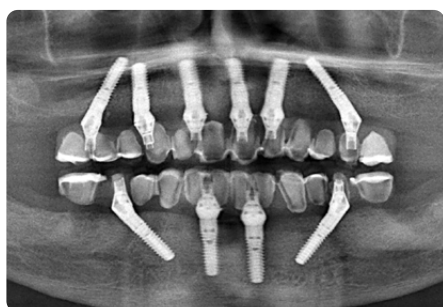
Steam blasting would leave a moisture residue and compromise bonding. Application of the vi-sio.link adhesive is essential for bonding.



The novo.lign veneers are bonded to the bridge framework using dual-curing combo.lign.



The final form is made using crea.lign in different shades.



CPS



flow.sil







### Fitting of the work

Screwing and unscrewing is made easier by using the battery-operated CPS (Cordless Prostodontic Screwdriver). The occlusally screwed prosthetic copings and the lateral screws are tightened to 18 Ncm. In addition to occlusion and articulation, the cleaning option with brushes and super floss is checked and the patient receives instruction. Screwing enables the bridge restoration to be removed easily by the dentist for cleaning or reworking.

### flow.sil microgap sealing

The silicone matrix made of flow.sil with no softener ensures reliable sealing of the microgaps between the abutment and bridge structure. Any excess product can be easily removed without a scalpel.

## Indication and use of visio.lign primer

Material	Conditioning	Primer	Bond to
<b>Ceramic</b> <ul style="list-style-type: none"> <li>Silicate ceramic (CAD blanks/mark II/ Lithium (Di)silicate/glass ceramic</li> <li>Press ceramic/veneer ceramic</li> </ul>	<b>Oral:</b> roughen with a coarse diamond - with no water cooling. No contact with water! Clean with alcohol as required <b>Extraoral:</b> Sandblast using 110 µm Al <sub>2</sub> O <sub>3</sub> .  Zirconium max. 2 bar NPM/titanium/CoCr 3 - 4 bar  2 bar  2 bar	 <b>K-Primer</b> Apply twice and allow to vaporise REF APK25003	<b>Composite</b>
<b>Metal/Titanium</b> <ul style="list-style-type: none"> <li>CoCr (EMF/NPM) alloys</li> <li>Titanium alloys</li> </ul>		 <b>MKZ Primer</b> REF MKZ02004	<b>Opaquer Zirconium liner</b>
<b>Zirconium</b> <ul style="list-style-type: none"> <li>Zirconium dioxide (aluminium oxide/spinel ceramic)</li> </ul>		 <b>MKZ Primer</b> REF MKZ02004 <b>MKZ EM activator</b> REF MKZEM004	<b>Opaquer</b>
<b>Precious metal</b> <ul style="list-style-type: none"> <li>Precious metal alloys (Au/Ag/Pt/Pd)</li> <li>eco alloys (precious metal-reduced alloys)</li> </ul>		 <b>visio.link</b> REF VLPMMMA10 Apply thinly	<b>Opaquer Composite</b>
<b>Polymers/Composites</b> <ul style="list-style-type: none"> <li>High-performance polymers BioHPP/BioXS (PEEK/PEKK)</li> <li>Composites (veneer composite/ composite teeth)</li> <li>PMMA material</li> </ul>			Apply a thin layer of composite/opaque, polymerise with Halogen light or an LED lamp for 30 seconds.  Apply crea.lign composite in thin layers, remove the inhibition layer using alcohol. Polish with pre-polish and high-gloss polish.

You can find more information on the visio.lign aesthetic and functional system and its components (e.g. novo.lign, neo.lign, crea.lign and primer) at [www.visio-lign.com](http://www.visio-lign.com).

(Overview design: Stephan Adler, Landsberg am Lech)

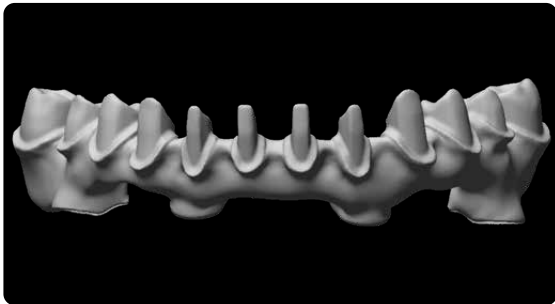
# Permanent restoration

## Two-in-one technique

### CAD/CAM-supported milling of framework and veneering



A data set is created by digitalising the master model and aesthetic try-in.



On the basis of this, the CAD software creates a suggestion for the framework, which is adapted to the individual requirements.



#### One data set – two structures

Two milling orders for veneers and framework are generated from the aesthetic try-in.



The framework material is agreed with the person treating the patient. A CoCr alloy in this case.



### Milled veneering

breCAM.HIPC is an amorphous, cross-linked composite and originates from the development of the visio.lign system and corresponds to novo.lign veneers in chemical terms, with this material being extremely well-suited for a long-term restoration.



After conditioning of the framework and veneering, both structures are bonded in accordance with the visio.lign protocol.



There are no limits for the individual design when manufacturing using crea.lign thanks to dentine, intensive and transpa colours and solutions for gingival design.



The framework was constructed using transversally screwed prosthetic copings and could therefore be bonded free of tension before veneering. A partially removable bridge, fixed simply and without cement.



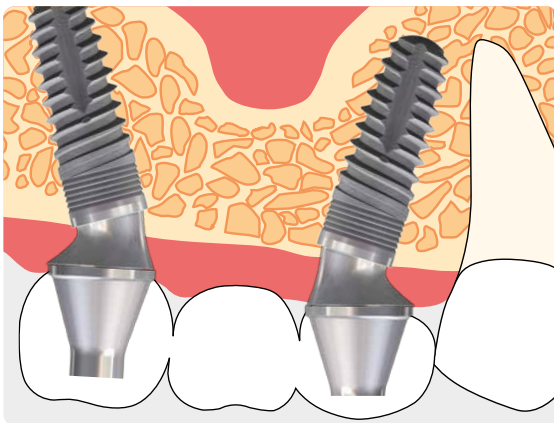
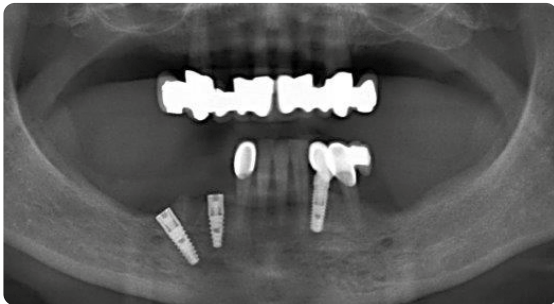
### Benefits:

- Maximum use of the machine
- Custom aesthetics
- A predictable result
- Manageable costs
- No qualitative compromises



# Permanent restoration

## Unilateral free-end situation



The SKY fast & fixed and uni.cone abutment system is designed for primary interlocked, partially removable bridge and bar structures.

- for immediate restoration
- for late restoration
- for partially-edentulous jaws
- for edentulous jaws

Thanks to the combination of implants inserted straight and angled up to 35°, the available bone is used in the best possible manner. Augmentation procedures can often be avoided.

Benefits of using occlusally and transversally screwed prosthetic copings.

- Tension-free fit thanks to bonding
- All materials and manufacturing procedures can be used
- Cement-free fixation
- Partially removable structures

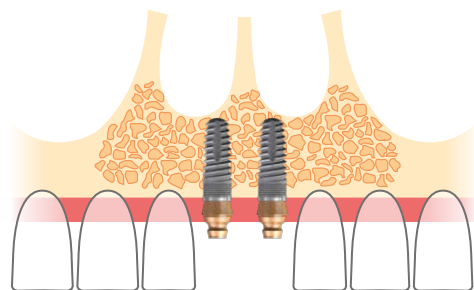
## One-time - cement-free



With the SKY uni.cone abutments, the various heights make is easy to adjust to the mucosal situation.

The additional treatment steps are carried out at the abutment shoulder - the gingival level. The established soft tissue is not disturbed further by this procedure.

The impression copings are fixed in a transfer splint. The dental technician can manufacture two interlocked crowns on transversally or occlusally screwed prosthetic copings.



Interlocking of at least two positions is a prerequisite due to a lack of rotation protection.



The temporary and permanent restoration is fixed using screws. The risk of areas of inflammation due to cement residues is therefore prevented.

# Permanent restoration

## Transversal screwing into the vestibular side



The SKY fast & fixed prosthetic coping transverse screws are not unscrewed completely. This facilitates handling.

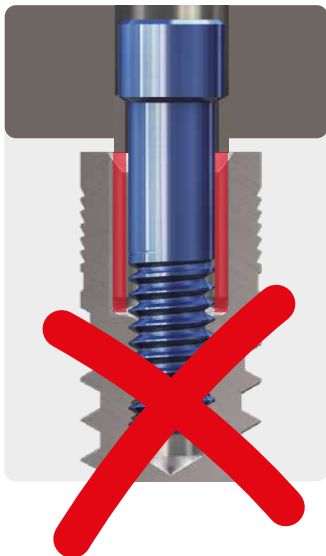
The prosthetic copings for transversal screwing can be positioned freely due to the circumferential ridge.

For CAD/CAM structures, the model is digitalised together with the positioned copings and is treated like a stump in the structure.



### Screwing into the vestibular side

If the lip covers the artificial gingiva, the openings of the screw channels can also be set in a labial or vestibular direction. This facilitates handling for the person treating the patient. The patient has a smooth lingual surface and the tongue is not irritated.

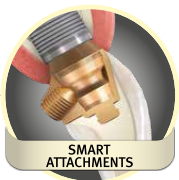


Bridges and bars screwed directly on the SKY implants are contraindicated as the Torx has to be shortened due to the parallel-walled interface. The loading is not absorbed by the Torx but rather lies entirely over the screw, which can lead to loosening and breakage of the screw.



By using the prosthetic copings, tension-free bonding of the structure is possible in accordance with the Weigl protocol.

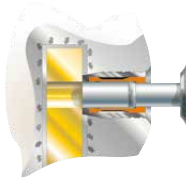
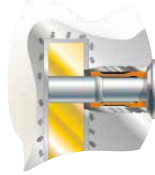
- The complex Sheffield test can now be discarded
- Small inaccuracies can be compensated for by bonding
- In the case of zirconium and polymer frameworks, the titanium seat of the screw ensures a permanent fixed bond.



## Bar restorations

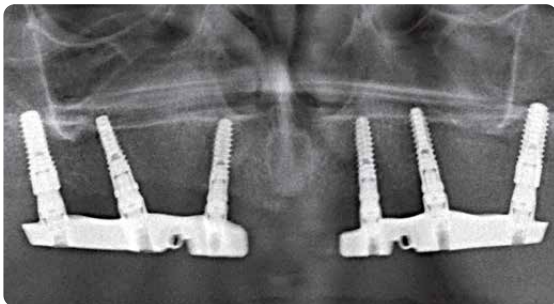


### Locking Pin Snap System



Amongst others, the advantage of a fixed temporary restoration is that the patient is given an idea of the level of care that is required for an implant-supported bridge structure. If the patient desires a solution that is easier to clean, a removable restoration may represent an alternative.

Compensation for unfavourable implant positions and improved support for lips and cheeks is often possible using a bar structure. Angled insertion or immediate loading of the implants is not a prerequisite.



All types of bar structures are possible with the SKY fast & fixed and SKY uni.cone abutments. Tension-free primary interlocking can be implemented by bonding the occlusally and transversally screwed prosthetic copings, regardless of the material and manufacturing process.

An overview of bar structures, auxiliary elements, attachments and bars is given in the bredent catalogue "Design elements".

## Brochures



You can find more  
information in our  
brochures

<https://bredent-group.com/brochures/>



## Physiological restoration



**visio.lign**

DT Antonio Lazetera - Savona - Italy



**BioHPP**



**SKY**   
*fast & fixed*

*narrow*  
**SKY** 

*blue*  
**SKY** 

**5 interdisciplinary core competences support our shared success.**

**WE ARE ONE means: practice – laboratory – manufacturer combine into a high-performance team.**

From periodontium to aesthetics, the breident group has established itself in all 5 areas as a leading company that sets standards in every discipline:

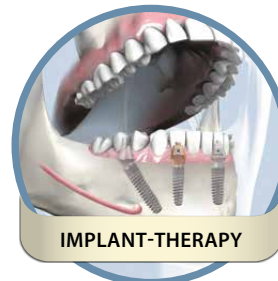
### Regeneration

HELBO – in a class of its own for fighting infection, with no adverse effects.



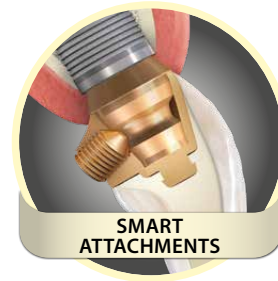
### Implant treatment

The SKY family consistently uses the existing available bone with the highest level of primary stability, simple insertion and durability, which form the foundations for immediate restoration of individual teeth to a full arch.



### Smart connecting elements

Made in Germany: Quality, safety and versatility of the design elements transfer to intelligent, adjustable abutment solutions.



### Bionic framework materials

When technology imitates nature to offer patients the most body-compatible framework restoration. With cushioning of the chewing force peaks and resilience ideal for implant prosthetics.



### Physiological veneering

visio.lign - the aesthetic and functional system combining 6 individual disciplines: free layers, veneers, complete teeth, CAD/CAM blanks and pre-fabs, customisation colours and primer/bonder for optimal bonding to all framework and veneer materials.



## Frequently asked questions

### What is the aim of SKY fast & fixed treatment?

The aim of SKY fast & fixed treatment is to treat the patient immediately with a temporary restoration with the least possible surgical effort, after only one procedure with the appropriate indication, which accommodates the masticatory requirements of a modern prosthesis. This means that augmentative procedures should be avoided during surgery and that the option is created to support the prosthesis in position 5 to 6 by setting the posterior implants at an angle.

### To which user is the SKY fast & fixed treatment suited?

SKY fast & fixed treatment requires optimal coordination between implantologists, prosthetic specialists and dental technicians. It is important for successful restoration of the patient's teeth that the dental technician is nearby and actively contributes when bite registration is recorded. The treatment is only successful and economically integrated into practice when carried out in a team.

### Area of application and indication

SKY fast & fixed is a surgical and prosthetic treatment for immediate restoration for patients on the verge of becoming edentulous or those who are already edentulous. In order to better support the temporary restoration, there is the option of setting the posterior implants at a 35° angle in a distal direction. This angulation is offset by special abutments.

### To which patient is the SKY fast & fixed treatment particularly suited?

Patients with residual dentition not worth saving are particularly worried about being edentulous and wish to be supplied with a fixed prosthesis as quickly as possible, ideally after one procedure. SKY fast & fixed treatment gives you the opportunity to offer these patients a treatment that is simple to use, with an aesthetically predictable result, at a fair price.

### How is the temporary restoration manufactured for the immediate restoration?

This manual provides a step-by-step guide to the manufacture of the temporary restoration and the materials required. We recommend following this tried and tested protocol, even if other manufacturing processes are possible.

### Can the final restoration be used as an immediate restoration?

In the case of restorations for immediate restoration, extensions lead to unfavourable applications of force in the implant. The temporary restorations terminate in the distal implant position, usually in the region of the first premolar. Patients tolerate the shortened rows of teeth in the temporary restoration. In the final restoration, a restoration with 12 units can be used through two cantilevers in the premolar width following successful osseointegration of the implants.

### What are my options for the final restoration?

SKY fast & fixed abutments are suitable for primary interlocked bridge and bar structures with occlusal or transverse screw retention. By using the appropriate prosthetic copings, all types of framework materials can be manufactured with no tension, by bonding in accordance with the Weigl protocol.

### Contraindications:

SKY fast & fixed treatment is **not suitable for patients** who possess the usual contraindications for implantology, e.g. cardiac and circulatory problems, bruxism, osteoporosis, heavy smoker, alcohol abuse, diabetes, etc.

### What are the clinical experiences with SKY fast & fixed treatment?

The original concept was developed by Dr. Malo from Lisbon (Portugal) already in 1998. He has already treated several thousands of patients with great success using this procedure. Further development and adaptation to the SKY implant system was carried out in cooperation with the practice of Dres. Bayer, Kistler and Elbertshagen in Landsberg am Lech, Germany, in 2007. The target of the cooperation was to establish a practice-oriented therapy that ensures simple application, esthetic results and economic success for practices and laboratories.

### How do the angled implants behave in the long term?

Immediate restoration of the implants with the corresponding abutments under sterile conditions is important for permanent bone retention. Using this measure, the problem of microgaps is reduced and permanent success is ensured. The abutment should also not be removed from the final restoration. In the cases treated to date, no increased bone loss has been determined.



## Patient information for SKY fast & fixed implants

**SKY**   
IMPLANT SYSTEM

Page 1 of 2

This explanatory form contains all important information concerning what you should and should not do after your operation. Following the instructions given below will contribute towards a longer life for your implants.

1. **Do not eat and drink** until after the local anaesthetic has worn off. You may bite your cheek without realising.
2. As your ability to react will be impaired after the procedure, you should **not drive a vehicle**.
3. **Cool** the wound area during the first few hours after the operation. Do not leave the cooling pack or a cold wash cloth on one site for longer than 30 seconds, so that no hypothermia occurs.
4. **Avoid** excessive consumption of alcohol and drinks containing caffeine such as coffee, black or green tea, after the operation.
5. **Do not undertake any physical exertion** in the first few days, this includes, amongst others, all sporting activities and heat such as a sauna or sunbathing.
6. **Avoid** any smoking until the day the sutures are removed. Smoking damages the blood supply, which can lead to significant disturbances to wound healing and spontaneous implant loss.
7. A thrombus will form quickly, which contributes to wound healing. The grey coating is also part of the body's own healing process. Do not remove this!
8. Slight bleeding from the wound is normal. You can stop smaller areas of bleeding yourself using pressure on the wound by biting on a gauze pad or a folded handkerchief. Larger areas of bleeding occur very rarely. If this is the case, call us or contact the emergency dental service.
9. Avoid excessive strains on the wound area. You can brush your teeth as normal, but avoid the wound. Do not press around the wound with your fingers. Rinse your mouth out with rinsing solution or sage tea after eating.
10. Do not eat **fresh milk products** containing bacteria cultures (e.g. yoghurt) if possible. The milk acid bacteria contained in these products may lead to infections and disturbances to wound healing.
11. A **soft diet** (noodles, rice, vegetables, fish, tender meat etc.) is prescribed for a duration of 6 weeks. Food such as nuts, crusty bread, tough meat and suchlike, which cause a high chewing load, should be avoided.

» *Turn the page*

Patient information

bredent 





## Patient information for SKY fast & fixed implants

**SKY**   
IMPLANT SYSTEM

Page 2 of 2

12. In rare cases, this can lead to loosening of the screws and sometimes also to breakage of the temporary bridge. In the event that this occurs, you must contact the practice immediately so that the bridge can be re-tightened or repaired. If this is not done, greater damage or loss of implants could potentially occur.
13. Please take the **medication prescribed** by us in the doses stated. In the event of pain, you may take analgesic medication. However, please heed the patient care leaflet in terms of use and tolerance. Do not, however, take ASA (Aspirin®) – this can lead to bleeding.

Should you experience persistent pain or larger areas of bleeding, please call us.

We wish you a speedy recovery!

Your Practice Team

Practice stamp/Signature

Explanation date

Patient signature

Patient information

Subject to errors and changes 000826GB-20150625  
"All names marked with ® or ™ are protected brands  
and/or company names belonging to third-party rights holders."



## Master copy for referring doctors

### Important information for referrers in SKY fast & fixed cases

SKY fast & fixed treatment has been used for immediate restoration.

To avoid excessive surgical measures, implants have been set at a severely angled position. The screwed 35° abutments do not need to be removed for the final restoration and are located in position.....(please enter position).

Only the 35° abutment must remain screwed. In the case of 0° abutments, the regular SKY abutment system should be selected due to improved options for the final prosthetic restoration.

A mixture of SKY fast & fixed abutments and regular abutments from the SKY implant system will not cause any problems.

The SKY implant system possesses two prosthetic platforms. The abutments for the narrow platform are anodised rose gold for improved differentiation. These abutments can be used for both narrowSKY and the regular platform for SKY classic and blueSKY with platform switch.

Abutments with a regular platform can be used for all implant diameters of SKY classic and blueSKY. This makes selection of abutments and the prosthetic restoration simpler.

The SKY implant system contains only one screw driver for all occlusal screws (Torx T6). Abutment restoration can be carried out rapidly without changing tools using one screwdriver.

For further information, please see the SKY fast & fixed manual and the SKY system presentation.

bredent medical is available at any time should you require advice. To request a catalogue or a visit from a regional manager, please call bredent medical on Tel. +49 7309 872-440 or send a fax to +49 7309 872-444.

## ***References***



<https://literatur-sky-dna.info/login/>

## ***CAD Library***



<https://bredent-group.com/bredent-group-cad-library/>

## ***Brochures***



<https://bredent-group.com/brochures/>

## ***Technical product documents***



<http://docs.bredent-group.com/de/bredent/download-center/>

