

HumanTech
Dental



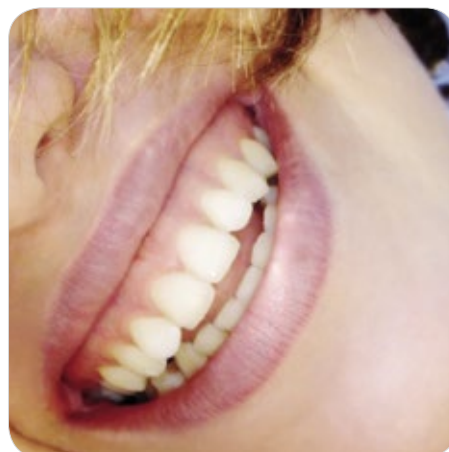
Avantgarde



RatioPlant



About us...



The HumanTech Group is the leading manufacturer of human implants and instruments for spinal and dental surgery. The intelligent, well thought-out implant systems are being used successfully throughout the world. With our own production facility in Steinenbronn, we create guaranteed added value for our users and a noticeable competitive advantages for our distribution partners. All our products bear the seal, "Made in Germany".

The high standards for precision in all production areas perfectly complements the strict requirements for the manufacture of medical devices. Our high-tech machinery and state-of-the-art testing methods guarantee perfect results and the highest quality products.

Teamwork, enthusiasm and commitment are ultimately crucial to the sustainable success of the HumanTech Group. Each and every one of our employees is 100% committed to the wishes and requirements of our users and their patients. In this way, we develop and implement new ideas that always focus on the people.

We manufacture, package and dispatch RatioPlant® dental implants directly to our customers in line with current directives. The diversity of the RatioPlant® implant product line offers a wide range of clinical solutions, such as reconstructions of single teeth, screwed or firmly cemented bridges and partial or full prostheses. The implants are manufactured from biocompatible titanium-alloy and are at the cutting edge of science thanks to their blasted and etched surface. All RatioPlant® implants fulfil the highest international standards.

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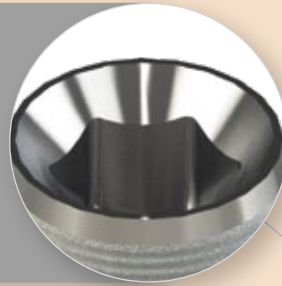
RatioPlant® Avantgarde

Mini

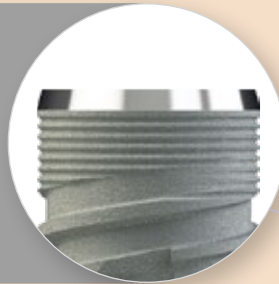
Standard

Large

Tried-and-tested hexagonal connection with a polished edge that is mucosa-friendly



Micro-grooves in the neck area of the implant.



Anatomic root-analogue design for easy placement and excellent cosmetic results.

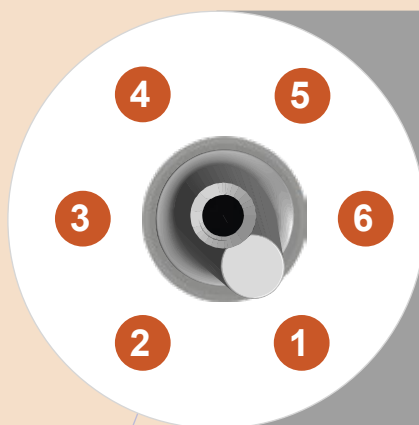


An atraumatic self-cutting thread with 3 extra-long cutting slots to collect bone chips and act as an anti-rotational mechanism.



The Avantgarde line is also suitable for non-invasive use for direct sinus lifts thanks to the rounded surface of the tip of the implant.

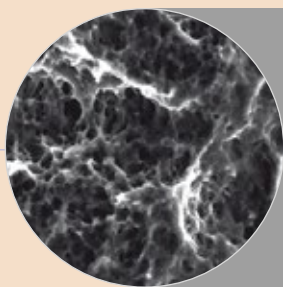




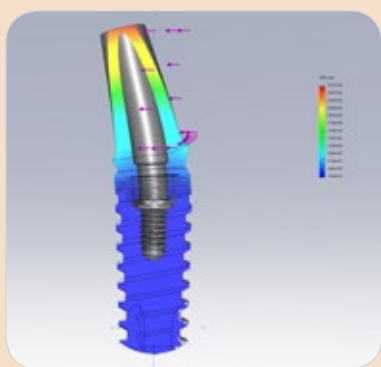
The hexagonal connection allows a high degree of flexibility in orienting the abutment and, therefore, offers the greatest possible freedom for the production of prosthetics. There are 6 possible variations of the abutment-implant position.



The implants have a hexagonal connection, a cone and inner thread in accordance with applicable standards. The sealing is performed by the conical transition from the upper edge of the implant to the hexagonal connection. Easy handling thanks to the tried-and-tested implant/abutment connection. Three platforms – Mini, Standard and Large are distributed over five implant diameters, in order to increase stability.



The implants of the RatioPlant® Avantgarde line are root-analogous screw implants with a sandblasted and acid-etched surface for all indications.





























The stability of the implants under load was ensured with FEM analyses and biomechanical tests.

RatioPlant® Avantgarde

Simple colour system




The RatioPlant® Avantgarde implants and drills are marked, depending on the diameter, in the colours **yellow** (3.2 mm), **red** (3.8 mm), **green** (4.2 mm), **blue** (5.0 mm) and **white** (6.0 mm). This makes it easier to prepare the operating room and provides additional safety when inserting implants.

Avantgarde implant sizes with Art.No.

mm	ø 3.2	ø 3.8	ø 4.2	ø 5.0	ø 6.0
6.0				 5002150060	 5002160060
8.0	 5002132080	 5002138080	 5002142080	 5002150080	 5002160080
10.0	 5002132100	 5002138100	 5002142100	 5002150100	 5002160100
11.5	 5002132115	 5002138115	 5002142115	 5002150115	 5002160115
13.0	 5002132130	 5002138130	 5002142130	 5002150130	 5002160130
16.0	 5002132160	 5002138160	 5002142160	 5002150160	

Platform

RatioPlant® Avantgarde implants are available in five diameters and up to six lengths. All implant sizes are distributed across three platforms. This greatly reduces the number of healing caps, tools and prosthetic components.

mm	ø 3.2	ø 3.8	ø 4.2	ø 5.0	ø 6.0
	Mini	Standard		Large	
					

Packaging

User-friendly, safe and easy...

All RatioPlant® implants are in special tube internal packaging, located in an extra blister pack. User-friendly, safe and sterile packed. This packaging provides soft inclusion with the insertion instrument directly from the tube during the surgery. Patient labels with all relevant data facilitate documentation of the implants used.



Note on packaging



RatioPlant® Avantgarde implants have an improved outer thread. This label is applied to the packaging in order to distinguish these newly-designed implants.

update
new drilling protocol
check protocol

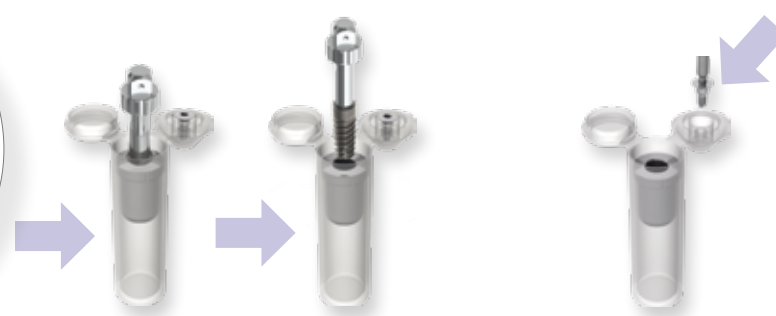
Avantgarde Design



Removing implants



Removing cover screws





Surgical Kit

RatioPlant Avantgarde Kit PPSU

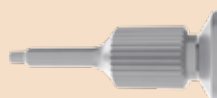
Art. No. 5013904076-4

The RatioPlant® ConeConcept-Kit contains all of the tools and instruments needed for the easy and safe integration of the implants and accessories from the ConeConcept systems. It is very handy thanks to its small dimensions. The snap closure allows easy opening of the set and, if desired, the tray can be placed in different positions in the box for better handling of the instruments. The material is easy to clean due to its smooth surface, and it is suitable for sterilisation in an autoclave.



Instruments

Name	Art. No.
ratchet torque	5012303002
adapter hex ratchet short	5012302003
adapter hex ratchet long	5012302004
adapter hex ratchet extra long	5012302017
adapter hex motor short	5012302001
adapter hex motor long	5012302002
screwdriver hex ratchet short	5012301003
screwdriver hex ratchet long	5012301005
drill extension	5010308002
screwdriver hex hand short	5012301004
screwdriver hex hand long	5012301006
parallel post	5012332240
RatioPlant Avantgarde Kit Prosthetic	5013904076-9

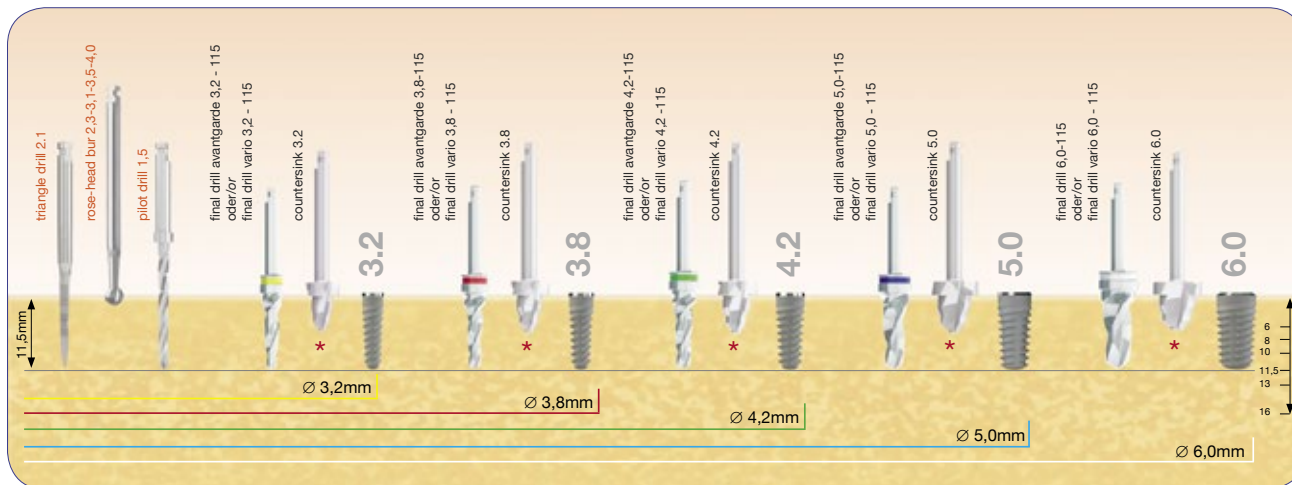


Drills and drill bits

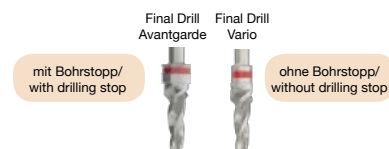
Bohrprotokoll für RatioPlant® Implantate
Drilling protocol for RatioPlant® Implants
 Document No. 5014040112
 Revision 02/2019

Avantgarde

HumanTech
 Dental **HT**



	3 verschiedene Vorbohrer zur Auswahl 3 different gimlet burs at your choice															
Tool	Triangelbohrer triangle drill		Rosenbohrer rosehead bur			Pilotbohrer pilot drill		Versenker countersink			Finalbohrer final drill					
Ø [mm]	2.1	2.3	3.1	3.5	4.0	1.5	3.2	3.8	4.2	5.0	6.0	3.2	3.8	4.2	5.0	6.0
Drehzahl/RpM	800		800			1000		350			500 450 400 350 300					



★ Anzuwenden bei D1 und optional bei D2 Knochen / Use in D1 and optional in D2 type bone!

Tiefenmarkierungen am Pilotbohrer entsprechen den Implantatlängen von 8, 10, 11.5, 13 und 16mm / Depth markings on the pilotdrill according to the implant lengths of 8, 10, 11.5, 13 and 16mm

Um einer Schädigung des Knochengewebes vorzubeugen, ist die abgebildete Bohrfolge einzuhalten! / To prevent damage of the bone tissue, the imaged drilling sequence is observed!

Bei Verwendung des Final Drill Vario auf die Bohrtiefe achten um neuronalen Schäden vorzubeugen. / Control the drilling depth while using the Final Drill Vario to prevent neuronal damage.

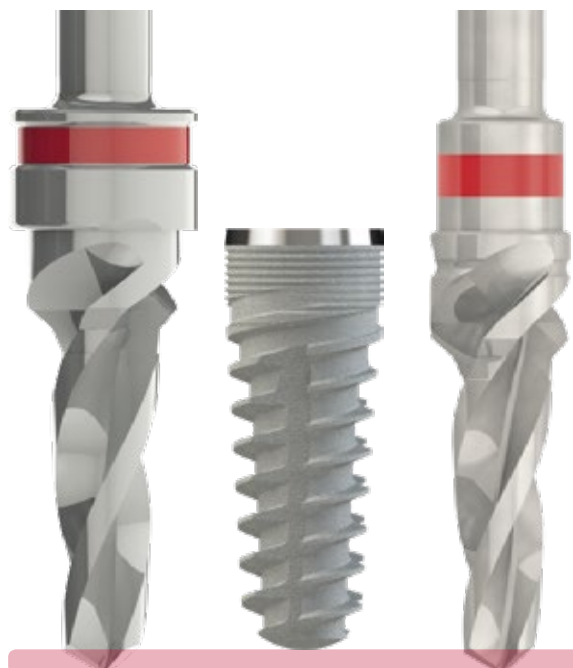
Die sachgemäße Verbindung zwischen Schäften gemäß ISO 1797:2017 und dem Handstück ist vor Verwendung zu prüfen. / Check for a proper connection between shank ref. to ISO 1797:2017 and handpiece before usage.

Final drill Avantgarde

- The drill stop of the final drill is intended for equicrestal positioning of the ConeCept implants.
- Due to the design and function of the drills, the drill tip is longer than the implant insertion depth.

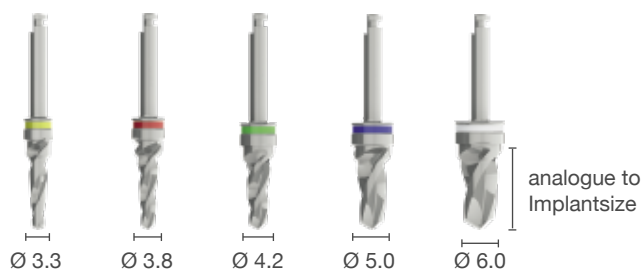
Final drill Vario

- If using the final drill with drill stop is not sufficient due to the bone condition, the desired depth can be created with the final drill Vario bit.



Final drills

Avantgarde



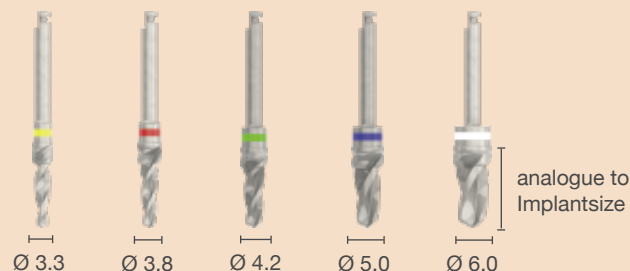
Bezeichnung

Final drill Avantgarde 32 080
Final drill Avantgarde 32 100
Final drill Avantgarde 32 115
Final drill Avantgarde 32 130
Final drill Avantgarde 32 160
Final drill Avantgarde 38 080
Final drill Avantgarde 38 100
Final drill Avantgarde 38 115
Final drill Avantgarde 38 130
Final drill Avantgarde 38 160
Final drill Avantgarde 42 080
Final drill Avantgarde 42 100
Final drill Avantgarde 42 115
Final drill Avantgarde 42 130
Final drill Avantgarde 42 160
Final drill Avantgarde 50 060
Final drill Avantgarde 50 080
Final drill Avantgarde 50 100
Final drill Avantgarde 50 115
Final drill Avantgarde 50 130
Final drill Avantgarde 50 160
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Final drill Avantgarde 60 115
Final drill Avantgarde 60 130

Art. Nr.

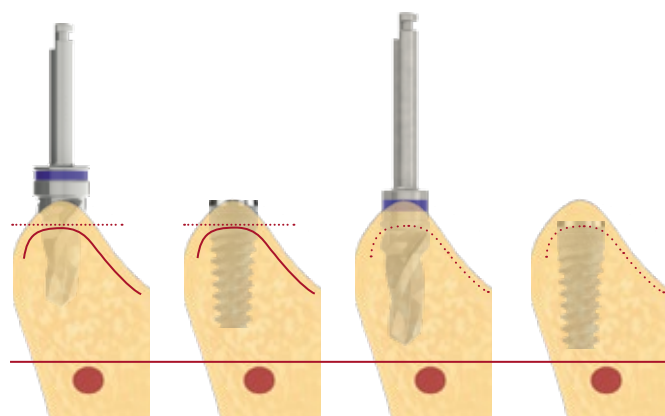
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5010307019

Vario



Final Drill Vario 32/33 080
Final Drill Vario 32/33 100
Final Drill Vario 32/33 115
Final Drill Vario 32/33 130
Final Drill Vario 32/33 160
Final Drill Vario 38 080
Final Drill Vario 38 100
Final Drill Vario 38 115
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Final Drill Vario 60 130

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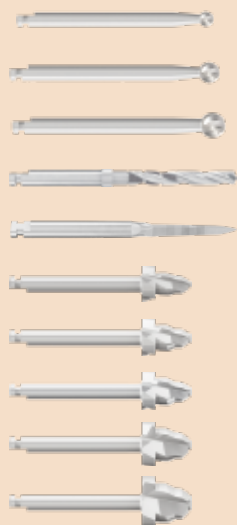


Note: When selecting the drills and implants, the vertical reduction of the bone must be taken into account!

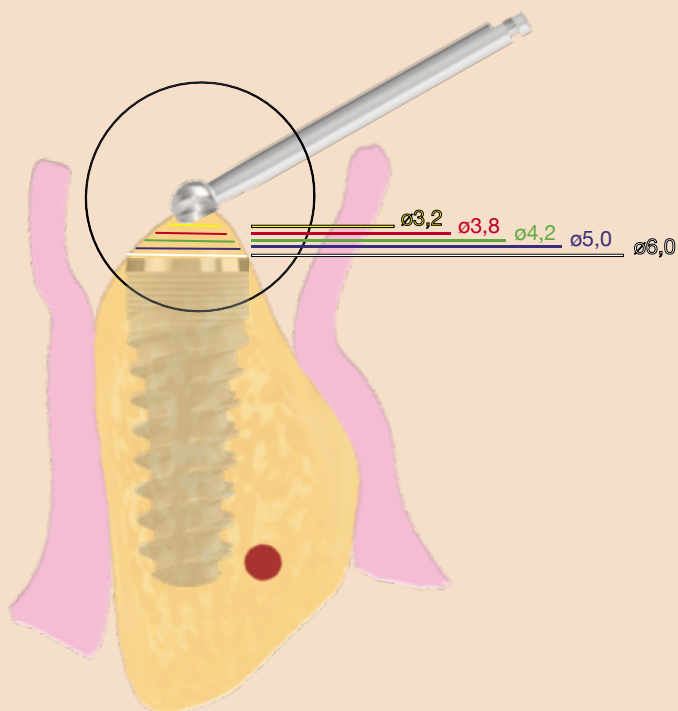
Maintenance, safety and liability

- With regard to the maintenance of the instruments and drills, please observe the RatioPlant® reprocessing instructions.
- Cutting hard bone materials and tooth substance may cause the premature loss of the sharp cutting edges. All drill bits must therefore be inspected for blunt cutting edges or damage after every period of use and, if necessary, replaced.
- To avoid instrument fractures, the prescribed rotational speed must be adhered to.
- Caution: There is a risk of injury due to the sharp blades of the drill! There is a risk of injury due to the drill and drill bit cross-threading and slipping! The user is solely responsible for inspecting the product before its use with respect to its suitability and possible use for the intended purposes. It is the responsibility of the user to use the drill and drill bits correctly.
- Guideline value for the frequency of use: >10 - 20 x (if no wear and tear is evident, prolonged use is also possible).

Drills and drill bits

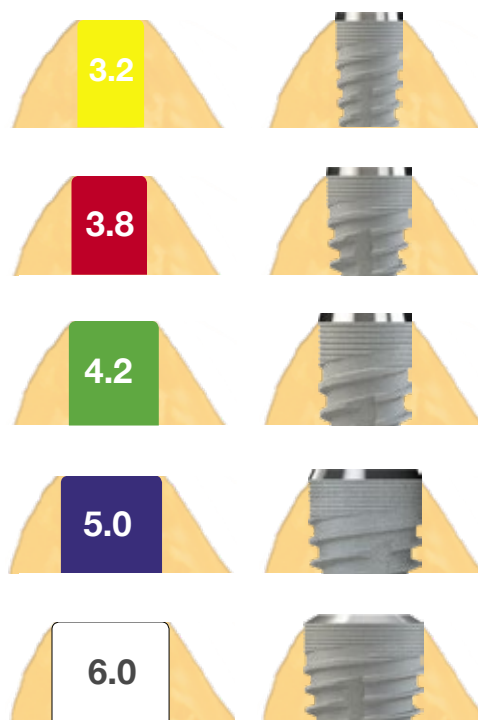


Basic approach to the preparation of the implant bed



Name	Art. No.
rose-head bur 23	5010323340
rose-head bur 35	5010335340
rose-head bur 40	5010340340
pilot drill 15	5010315340
triangle drill	5010315341
countersink 3.2	5010332265
countersink 3.8	5010338265
countersink 4.2	5010342265
countersink 5.0	5010350265
countersink 6.0	5010360265

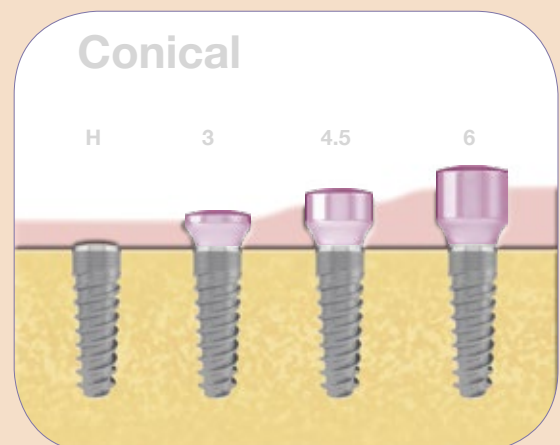
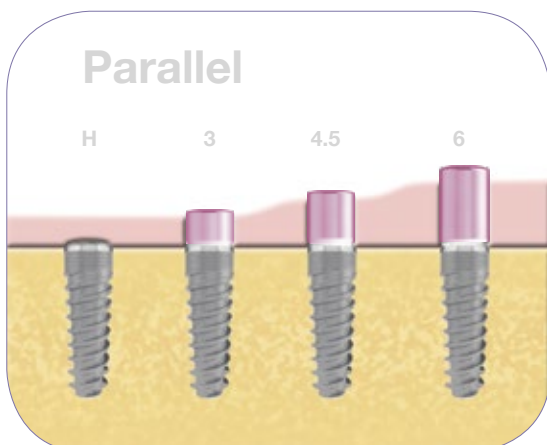
Before preparing the implant bed, especially in the case of a narrow and pointed alveolar ridge, smooth the ridge gently with a large round burr bit or a suitable bone miller. This will give you a flat and sufficiently wide bone surface.



Healing Caps

Name	Art. No.
healing cap par 3.0 Mini a	5011106050
healing cap par 4.5 Mini a	5011106051
healing cap par 6.0 Mini a	5011106052
healing cap par 3.0 S a	5011106056
healing cap par 4.5 S a	5011106057
healing cap par 6.0 S a	5011106058
healing cap par 3.0 L a	5011106062
healing cap par 4.5 L a	5011106063
healing cap par 6.0 L a	5011106064
healing cap con 3.0 Mini a	5011106053
healing cap con 4.5 Mini a	5011106054
healing cap con 6.0 Mini a	5011106055
healing cap con 3.0 S a	5011106059
healing cap con 4.5 S a	5011106060
healing cap con 6.0 S a	5011106061
healing cap con 3.0 L a	5011106065
healing cap con 4.5 L a	5011106067
healing cap con 6.0 L a	5011106068
healing cap par 3.0 L short	5011106037
healing cap par 4.5 L short	5011106038
healing cap par 6.0 L short	5011106039
healing cap individual Peek S	5011206001
healing cap individual Peek L	5011206002

Once the implant has been inserted, the Mini, Standard or Large cover screw is used to lock everything in place. After a healing period of 4 to 6 months, depending on the situation, the implant is expanded up to the desired diameter using the healing screws to prepare for taking impressions and the prosthetic treatment of the gingival part. During this process, the parallel or conical healing screws are used chronologically.

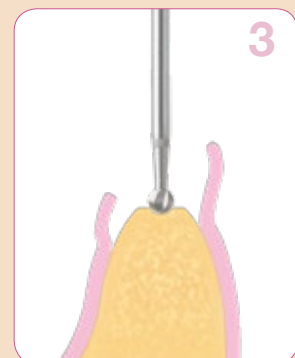
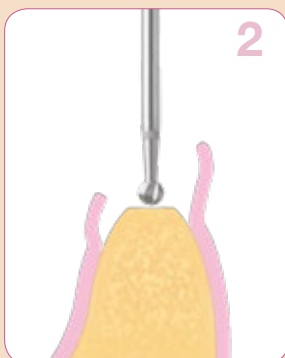


RatioPlant® Avantgarde

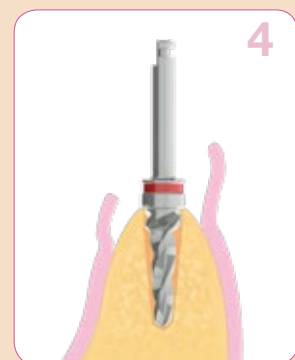
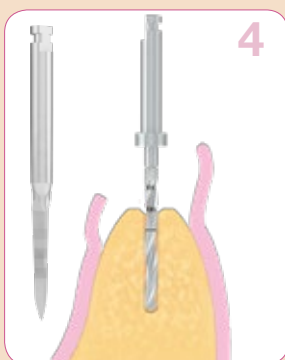
Surgical Phase

for example, RatioPlant® Avantgarde 4.2/11.5

Exposure of the bone using scalpel or mucosal punch.
Removal of the periosteum and preparation of the flap (1).



Marking with a round burr bit; fix the implant position, level the bone plateau by milling if necessary (2).
If the bone crest is tapered, level the plateau using the rosehead drill bit according to the implant diameter (3).
Note that the bone plateau defines the end position of the drilling stop (see page 12).



Pilot drilling with pilot drill bit, alternatively with triangle drill bit (4).

Extension drilling at the corresponding diameter, with final drill bits of the desired length and at an increasing diameter.

Colour markings on the final drill bits:

yellow	for \varnothing 3.2
red	for \varnothing 3.8
green	for \varnothing 4.2
blue	for \varnothing 5.0
white	for \varnothing 6.0

Note:

If the drilling depth cannot be made sufficiently deep due to difficult bone conditions, use the Vario final drills (without stop) as an alternative to the final drills with stop (see page 10).

Countersink according to the implant diameter (Use in D1 and optional in D2 bone quality) to enlarge the cortical area to allow insertion of the implant without excessive pressure.

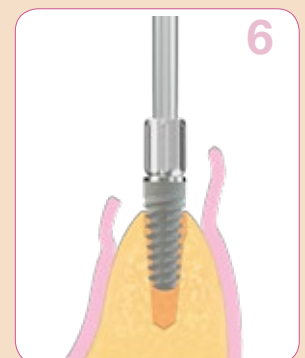
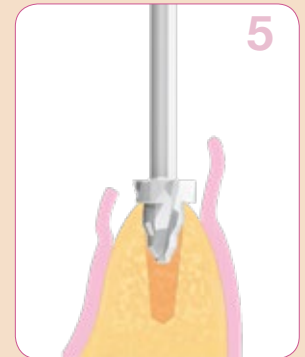
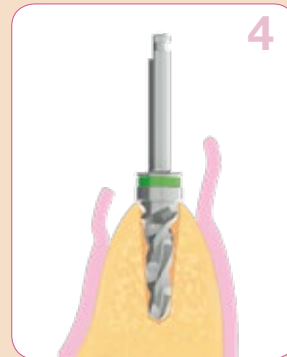
Place implant with inserter for motor, preferably tighten with torque ratchet and inserter for ratchet with max. 40 Ncm (6). Preferably place in an equicrestal position.

Note:

Remove the implant with the adapter for the ratchet or motor directly from the sterile plastic tube after opening the two lids. A cover screw is located in the upper lid. After opening the intermediate cover, the implant can be removed.

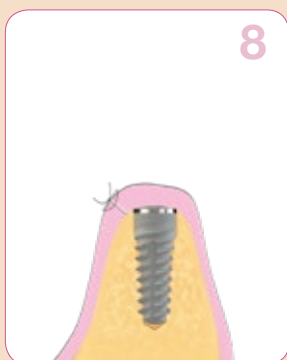
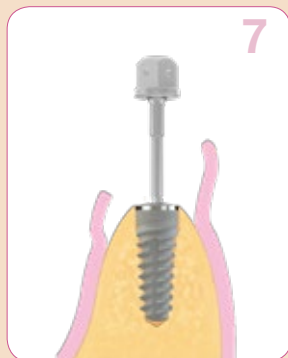
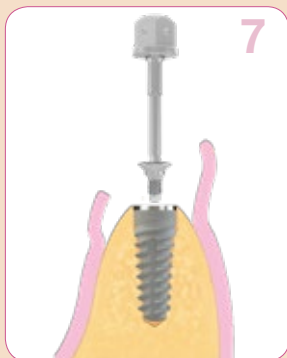
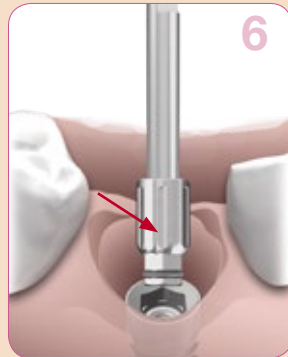
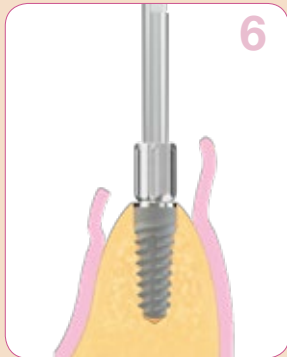


QR code for the user manual



RatioPlant® Avantgarde

Surgical Phase



for example, RatioPlant® Avantgarde 4.2/11.5

Ensure and note the final position:

The marking on the inserter should ideally be orientated towards the buccal! The mark indicates the direction of the inclination in the 15° and 25° abutments (6).

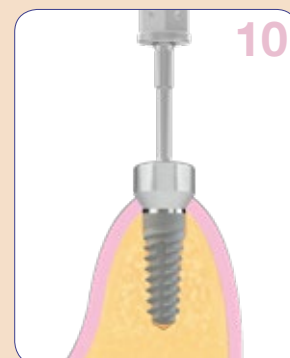
For concealed healing, seal the implant with the cover screw. This is tightened by hand. Alternatively, a corresponding healing cap can be placed to allow open healing. The augmentation material can be placed optionally (7).

Wound closure and subsequent X-ray check (8).

After healing (4 to 6 months re-opening):

Exposing using a scalpel or mucosal punch, remove the cover screw, insert the healing cap and tighten by hand (9-10). If necessary, attach mucosa to the healing caps by placing a suture (10).

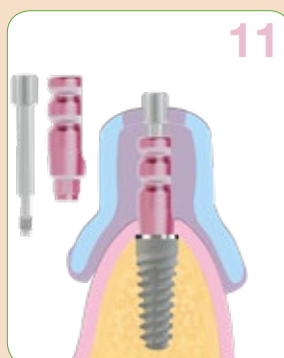
Healing phase



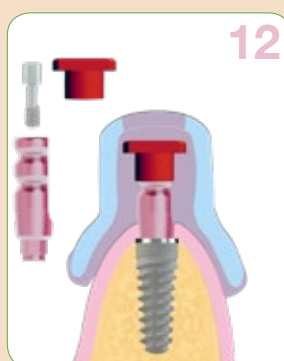
After shaping of the mucosa, impressions can be taken. Impression posts are available for two imprint procedures:

- Open impression method with individual tray – impression posts (Mini, Standard and Large) for open impression with the long screw (11).

Prosthetic treatment



- Closed impression method with Standard or individual tray – impression posts for closed impression (Mini, Standard and Large) with the prosthetic screw and transfer cap (12).



Example of an impression

Sequence of steps for an open impression

Place the impression posts for open impression with the enclosed long screws on the implant and hand tighten (1).

Test the appropriate impression tray (2).

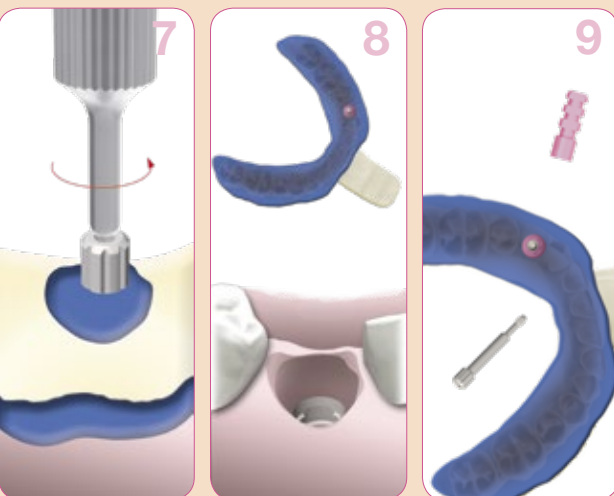
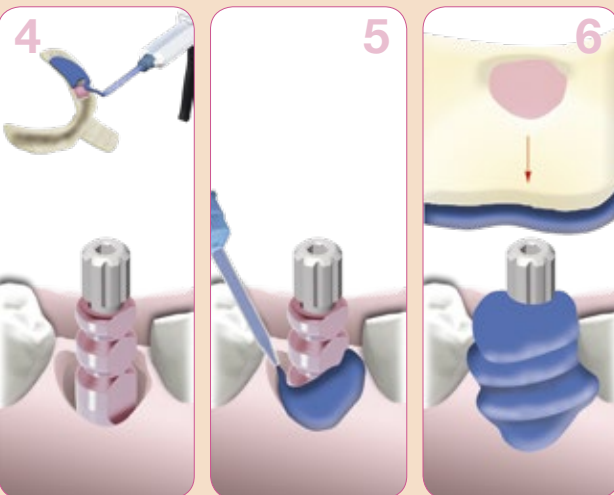
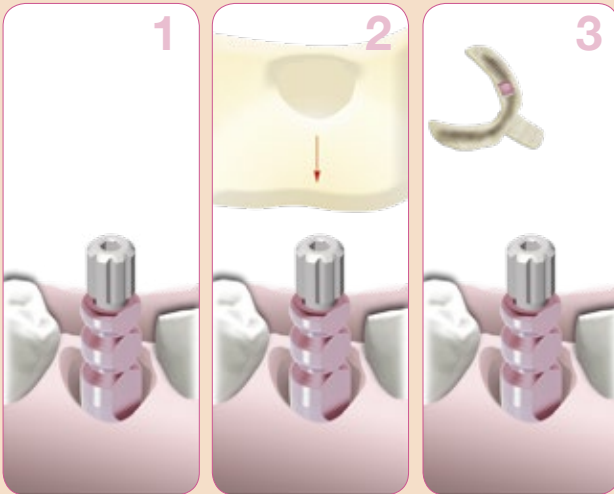
Apply wax sheet or suitable foil on the depression hole and place suitable impression material on the impression tray (3-4).

Apply impression material with fine syringe into the sulcus area, ensure it is free of air pockets and place the prepared impression tray into position without tension (5-6).

Release the impression screw after the prescribed hardening time (7).

Remove the impression and prepare with a suitable disinfection agent (8). Insert healing cap again.

Hand tighten the impression posts with the corresponding laboratory analogue with the long screw (9).



After making the prosthetics in the dental laboratory, remove the healing caps. Insert abutment (13-14) and tighten with new prosthetic screw with max. 25 Ncm using a torque ratchet (see page 31).

Note:

Always repeat tightening with the torque after 5 minutes!

Insert the dental prosthesis (in this case, a crown) (15).

Note:

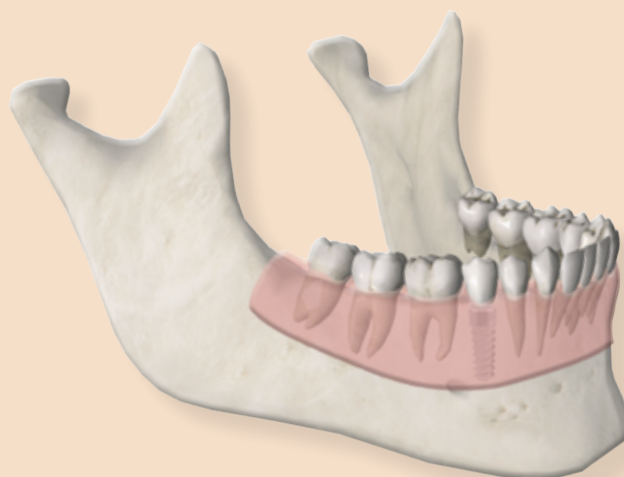
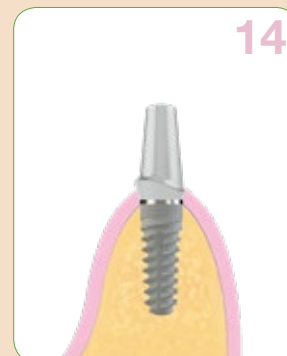
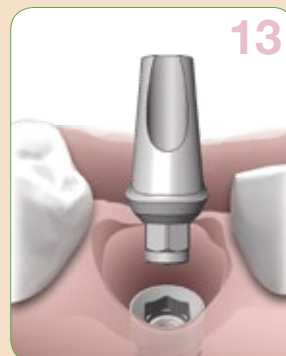
Before cementing, it is essential to apply a retraction thread to prevent cement residues from penetrating into the area of the implant! Otherwise there is a risk of peri-implantitis.

General note

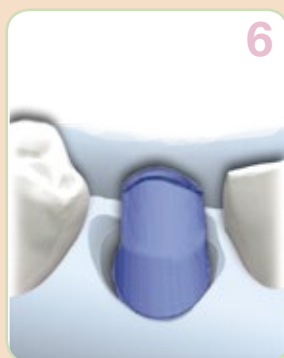
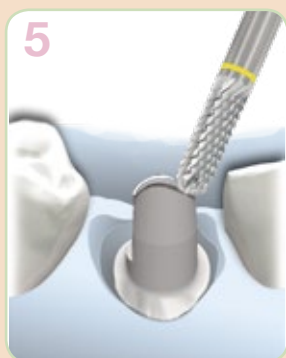
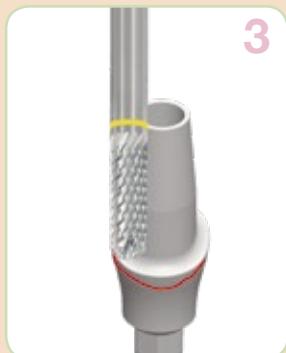
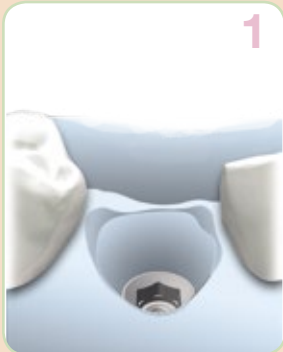
The above-mentioned descriptions are not sufficient for the immediate application of the RatioPlant® implant system. We recommend training from an experienced surgeon in how to use the RatioPlant® implant system. As a rule, the RatioPlant® implant system must only be used by trained dentists, implantologists and dental technicians.

Methodological errors may result in the loss of the implants and damage to the peri-implant bone substance. The products are processed and applied beyond our control and are the sole responsibility of the user. We do not accept any liability for any damage caused in this way.

Please also note and observe our instructions on page 30 of this brochure regarding safety, liability and guarantees.



Example of dental technology



Sequence of steps for a single crown with titanium abutment

Model with model analogue (1).

Select titanium abutment corresponding to implant diameter, angles and depth of mucous membrane and hand tighten with a laboratory screw (violet) (2).

Mark the gingival margin on the model on the abutment, release laboratory screw and remove the abutment. Then remove the excess with a suitable milling cutter. We recommend using a separate laboratory analogue for improved processing (3).

Affix to the model again with the laboratory screw (4).

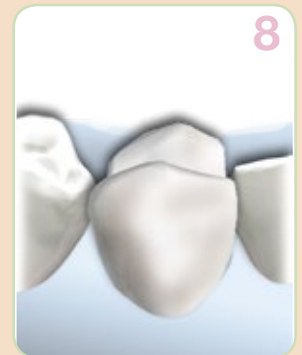
Shorten from occlusal, to make more space for the crown (5).

Modelling of the wax or plastic crown (6).

Example of dental technology

Crown prepared for ceramic veneer after casting (7).

Finished ceramic crown (8).



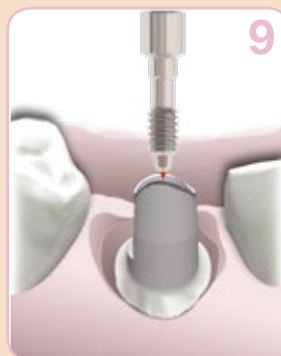
Example of cementing

After removal of the temporary treatment and cleaning, place the abutment into the mouth with the prosthetic screw with the aid of the torque ratchet at a torque of max 40 Ncm (9).

Note:

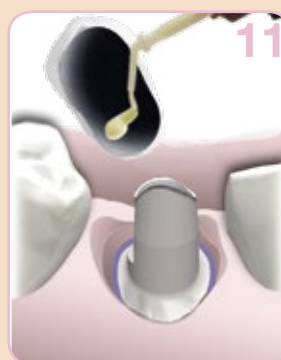
Insert abutment (always tighten with new prosthetic screw with max. 25 Ncm using a torque ratchet. It is essential to repeat this after 5 minutes!)

Always introduce a retraction thread to avoid the excess cement getting into the subgingival space (10)!



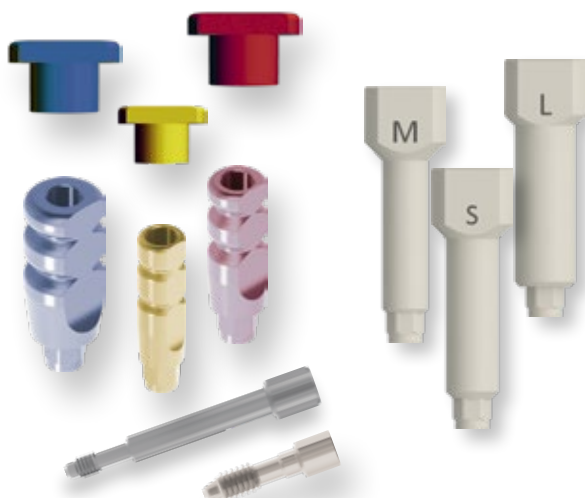
Seal the screw channel on the abutment with a cotton pellet or similar before cementing. Mix suitable material for cementing and fill the crown (11).

Position the crown and allow it to harden with contact to the antagonist. Remove excess cement and retraction thread after the hardening time and clean the entire area (12).



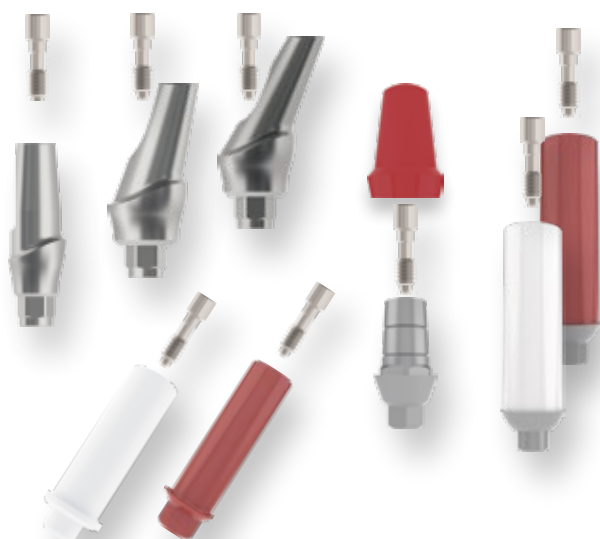
Overview of prosthetic components

Impression posts



RatioPlant®Avantgarde impression posts are available for all platforms, for impression procedures with open or closed tray, as well as for making digital impressions. The perfectly harmonised components guarantee precise transfer of the oral situation to the master model or into the digital work environment.

Cementable abutments



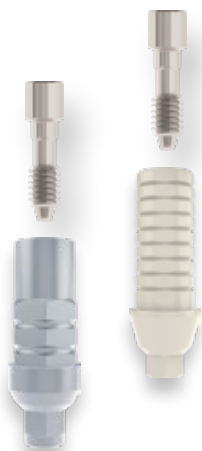
RatioPlant®Avantgarde cemented abutments are available in a range of materials, forms, angles and sizes for all platforms in order to fulfil individual patient requirements.

Aesthetic abutments



CAD-CAM discs allow occlusally-screwed crowns and/or individual abutments to be manufactured in the digital milling process with a precise connection structure. RatioPlant® adhesive abutments were developed specifically for the manufacture of individual hybrid abutments consisting of a prefabricated Ti adhesive base and an individually manufactured zirconium or pressed ceramic base using suitable 2K adhesive and are ideally suited for high-quality front tooth restoration.

Temporary abutments



Temporary abutments offer solutions for the temporary restoration of aesthetics, tissue contouring and immediate function. RatioPlant®Avantgarde offers a wide range of temporary abutments for both screwed and cemented restorations.

MultiUnit abutments

0° 17.5° 30°



The RatioPlant®Avantgarde MultiUnit abutments solve challenging situations in the case of patients without teeth and offer a range of angles, shoulder heights and prosthetic components for individual and optimal treatment. The elaborate design ensures efficient treatment, including with immediate loading of the construction under the right conditions, and features an excellent system overview and a high degree of user friendliness.

Abutments hybrid prosthetics



Implant-supported full prostheses can be used with a minimum of just two supporting implants, resulting in cost benefits for a number of patients. Equator and retentive anchors are ideal for the secure hold of prostheses in both the upper and lower jaw. These hybrid prostheses can also be easily managed by elderly patients and patients with disabilities.

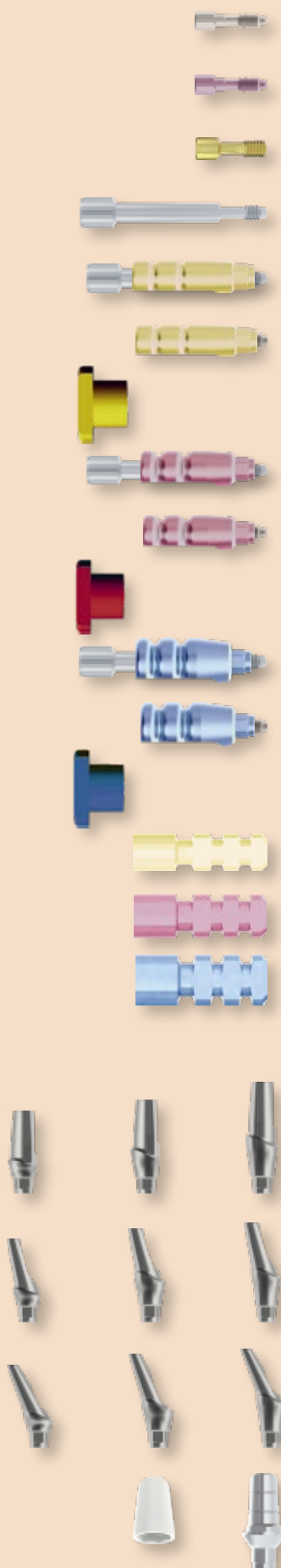
Prosthetic Avantgarde



0°

15°

25°



Screw/impression

Name	Art. No.
prosthetic screw normal	5011109001
lab screw	5011109004
prosthetic screw ZrO	5011109005
impression screw long	5011109006
impression post open tray Mini a incl. impression screw long	5011105050
impression post closed tray Mini a incl. prosthetic screw	5011105053
transfer cap M	5011105008
impression post open tray S a incl. impression screw long	5011105051
impression post closed tray S a incl. prosthetic screw	5011105054
transfer cap S	5011105007
impression post open tray L a incl. impression screw long	5011105052
impression post closed tray L a incl. prosthetic screw	5011105055
transfer cap L	5011105009
lab analog Mini a	5011110005
lab analog S a	5011110006
lab analog L a	5011110007

Titanium abutments Mini

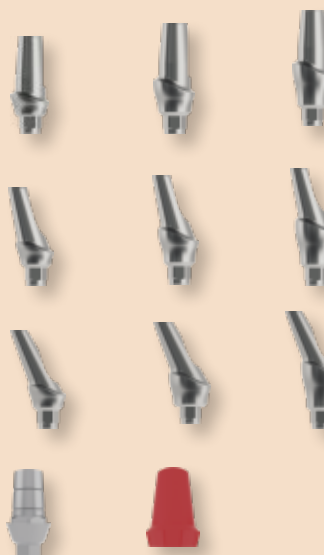
abutment Ti 0 con Mini H1	5011110170
abutment Ti 0 con Mini H2	5011110270
abutment Ti 0 con Mini H3	5011110070
each incl. prosthetic screw normal	
abutment Ti 15 con Mini H1	5011110180
abutment Ti 15 con Mini H2	5011110280
abutment Ti 15 con Mini H3	5011110080
each incl. prosthetic screw normal	
abutment Ti 25 con Mini H1	5011110190
abutment Ti 25 con Mini H2	5011110290
abutment Ti 25 con Mini H3	5011110091
each incl. prosthetic screw normal	
quick-abutment Mini	5011110009
incl. prosthetic screw normal	
quick plastic cap Mini	5011210061

M

Titanium abutments Standard

Name	Art. No.
abutment Ti 0 con S H1	5011110120
abutment Ti 0 con S H2	5011110220
abutment Ti 0 con S H3	5011110020
jewels incl. prosthetic screw normal	
abutment Ti 15 con S H1	5011110130
abutment Ti 15 con S H2	5011110230
abutment Ti 15 con S H3	5011110030
each incl. prosthetic screw normal	
abutment Ti 25 con S H1	5011110140
abutment Ti 25 con S H2	5011110240
abutment Ti 25 con S H3	5011110040
jewels incl. prosthetic screw normal	
quick-abutment S	5011110010
incl. prosthetic screw normal	
quick plastic cap	5011210060

S



0°

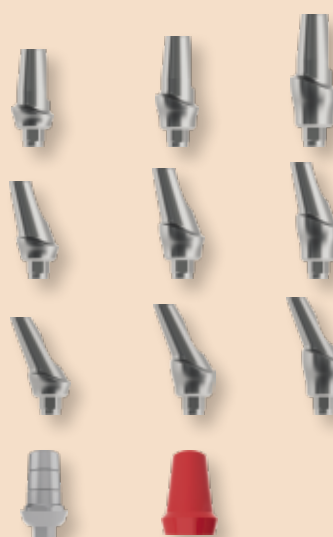
15°

25°

Titanium abutments Large

abutment Ti 0 con L H1	5011110121
abutment Ti 0 con L H2	5011110221
abutment Ti 0 con L H3	5011110021
each incl. prosthetic screw normal	
abutment Ti 15 con L H1	5011110131
abutment Ti 15 con L H2	5011110231
abutment Ti 15 con L H3	5011110031
each incl. prosthetic screw normal	
abutment Ti 25 con L H1	5011110141
abutment Ti 25 con L H2	5011110241
abutment Ti 25 con L H3	5011110041
each incl. prosthetic screw normal	
quick-abutment L	5011110011
incl. prosthetic screw normal	
quick plastic cap	5011210060

L



0°

15°

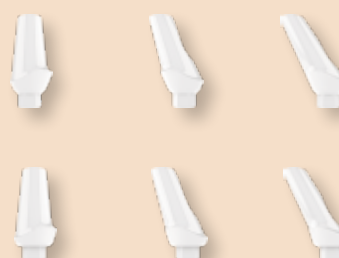
25°

Zirconium oxide abutments

abutment ZrO 0 con a S	5011410022
abutment ZrO 15 con a S	5011410032
abutment ZrO 25 con a S	5011410042
each incl. prosthetic screw ZrO	
abutment ZrO 0 con a L	5011410023
abutment ZrO 15 con a L	5011410033
abutment ZrO 25 con a L	5011410043
each incl. prosthetic screw ZrO	

S

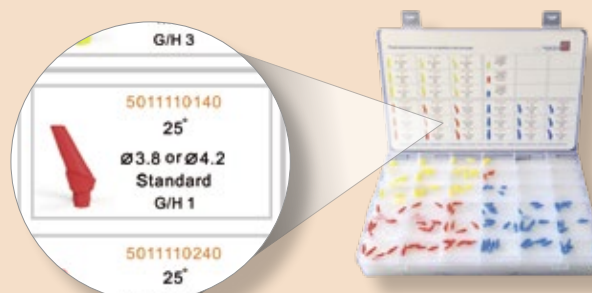
L



Sample Kit

Kit Plastic Abutments for trial platform 5013904085

The RatioPlant® Sample Set contains all the sizes and shapes of common abutments for easy and safe determination of the prosthetic components of the RatioPlant® system. Thus, it is easy to determine the correct abutment on the master model and to place the order without having an original abutment. The Sample Kit is only available as complete kit.



Prosthetic Avantgarde



Prosthetic components CAD-CAM

Name	Art. No.
scan connector M	5011105056
scan connector S	5011105057
scan connector L	5011105058
Abutment Ti Mini CAD CAM	5011110440
Abutment Ti S CAD CAM	5011110441
Abutment Ti L CAD CAM	5011110442

Information CAD-CAM:

When using the CAD CAM abutments, the necessary due diligence must be applied, as the limits given in the software can not take into account all eventualities, and otherwise the required creative freedom would be too limited.

Adhesive abutments

Ti adhesive abutment Mini incl. prosthetic screw normal	5011110049
Ti adhesive abutment Standard incl. prosthetic screw normal	5011110050
Ti adhesive abutment Large incl. prosthetic screw normal	5011110060

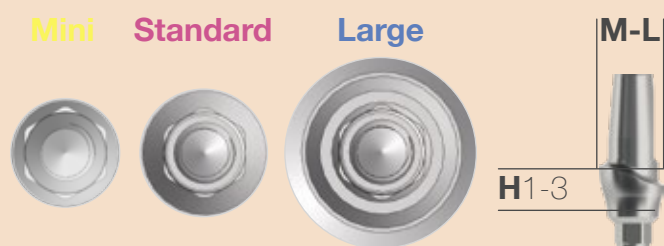


Soft-tissue management

For the Avantgarde system, abutments are available for the 3 platforms – Mini (3.2 mm), Standard (3.8/4.2 mm) and Large (5.0/6.0 mm) and 3 different neck heights (H1 = 1.5 mm, H2 = 3.0 mm and H3 = 5.0 mm) to cover different soft tissue forms. The abutments correspond exactly to the emergence profile of the previously used healing screws and can be used on all Avantgarde implants. This range of options allows the optimal transition between the implant and dental prosthesis.

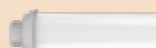
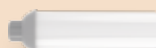
Important information for all abutments

The sealing surfaces at the points at which the abutments come into contact with the implant must not be grinded, polished or processed in any way. It is essential that care be taken to ensure an optimal fit. Machining the sealing surfaces leads to the loss of the guarantee.



Gold-plastic abutments

Name	Art. No.
gold abutment S incl. prosthetic screw normal	5011510001
gold abutment hex S incl. prosthetic screw normal	5011510002
gold abutment L incl. prosthetic screw normal	5011510011
gold abutment hex L incl. prosthetic screw normal	5011510012



Plastic abutments

plastic abutment S incl. prosthetic screw normal	5011210001
plastic abutment hex S incl. prosthetic screw normal	5011210002
plastic abutment L incl. prosthetic screw normal	5011210010
plastic abutment hex L incl. prosthetic screw normal	5011210011

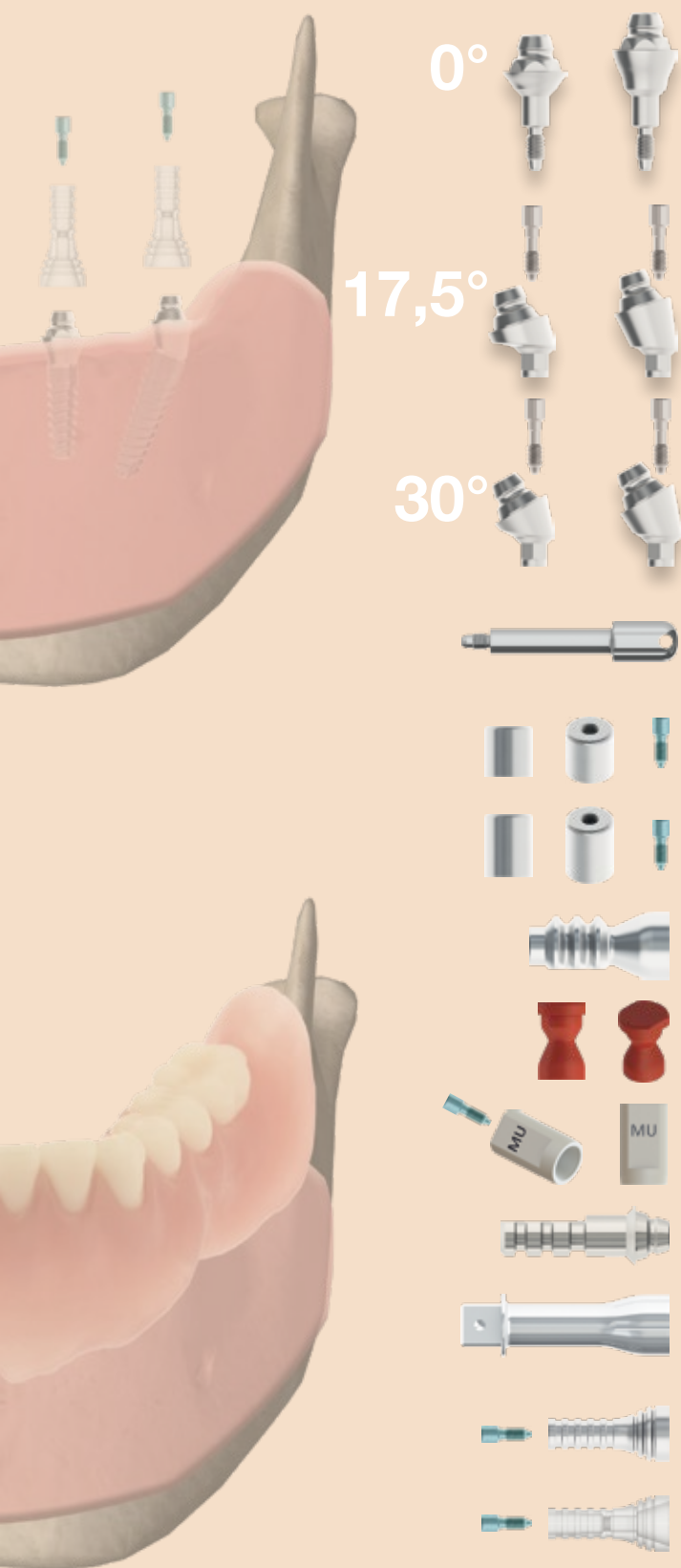


Temporary abutments

PEEK abutment provisional S incl. prosthetic screw normal	5011610101
PEEK abutment provisional L incl. prosthetic screw normal	5011610102
Ti abutment provisional S incl. prosthetic screw normal	5011110101
Ti abutment provisional L incl. prosthetic screw normal	5011110102



Prosthetic Avantgarde



MUA-MultiUnit Abutment

Name	Art. No.
MU abutment S 0° H1	5011110420
MU abutment S 0° H2	5011110421
MU abutment S 17.5° H1 incl. prosthetic screw normal	5011110423
MU abutment S 17.5° H2 incl. prosthetic screw normal	5011110424
MU abutment S 30° H1 incl. prosthetic screw normal	5011110426
MU abutment S 30° H2 incl. prosthetic screw normal	5011110427
MU abutment inserter	5012302022
MU healing cap H1 incl. MU prosthetic screw	5011106100
MU healing cap H2 incl. MU prosthetic screw	5011106101
MU impression post open tray	5011110013
MU impression post closed tray	5011110014
MU scan connector PEEK incl. MU prosthetic screw	5011610000
MU lab analog	5011110004
MU 0° inserter ratchet	5012302020
MU prosthetic cap TI incl. MU prosthetic screw	5011110012
MU prosthetic cap plastic incl. MU prosthetic screw	5011210020

Prosthetic components

Hybrid prosthetics

Name Art. No.

EQUATOR abutment kit A

1 metal casing, 4 plastic caps with different retention (violet-strong; white-standard; pink-soft; yellow-extra soft), 1 distance plate, 1 EQUATOR implant abutment S or L

OT EQUATOR S H05	5011008036
OT EQUATOR S H1	5011008013
OT EQUATOR S H2	5011008014
OT EQUATOR S H3	5011008015
OT EQUATOR S H4	5011008037
OT EQUATOR S H5	5011008038
OT EQUATOR S H6	5011008046
OT EQUATOR S H7	5011008047
OT EQUATOR L H1	5011008016
OT EQUATOR L H2	5011008017
OT EQUATOR L H3	5011008018
OT EQUATOR L H4	5011008068
OT EQUATOR L H5	5011008069

EQUATOR retention caps set 5011008024
(1x metal casing, 1x laboratory cap, 4x retention caps (1x each of extra-soft, 1 soft, 1 standard, 1 strong))

Smartbox Kit EQUATOR 5011008072
(1x metal casing, 1x laboratory cap, 4x retention caps (1x each of extra-soft, 1 soft, 1 standard, 1 strong), 1 distance plate)

EQUATOR retention caps
(VE 4 items per colour)
violet „STRONG“ 5011008026
white „STANDARD“ 5011008027
pink „SOFT“ 5011008028
yellow „EXTRA-SOFT“ 5011008029

4 PROCESSING CAP LABORATORY 5011008031

2 STAINLESS STEEL HOUSING 5011008025

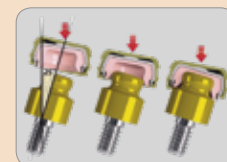
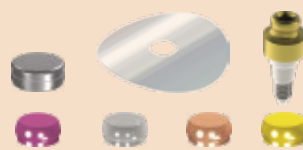
2 IMPRESSION COPING 5011008030

2 LABORTORY ANALOG 5011008032

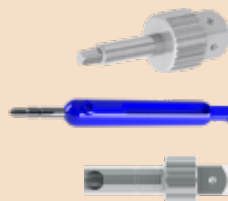
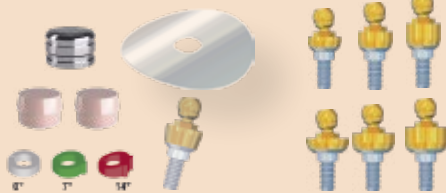
SPHERO abutment kit

1 metal housing, 2 plastic caps pinksoft, 3 alignment rings, 1 distance plate, 1x SPERO BLOCK implant abutment Avantgarde

SPHERO BLOCK S normo H05	5011008033
SPHERO BLOCK S normo H1	5011008001
SPHERO BLOCK S normo H2	5011008002
SPHERO BLOCK S normo H3	5011008003
SPHERO BLOCK S normo H4	5011008034
SPHERO BLOCK S normo H5	5011008035
SPHERO BLOCK S normo H6	5011008039
SPHERO BLOCK S normo H7	5011008045
SPHERO BLOCK L normo H1	5011008004
SPHERO BLOCK L normo H2	5011008005
SPHERO BLOCK L normo H3	5011008006



Prosthetic Avantgarde



Signs and symbols according to DIN EN 980:2008-08



Manufacturer's information



Date of manufacture



To be used until



Order number



Batch number



Sterilisation by irradiation



For single use only



Do not use if the packaging is damaged



Keep dry



Non sterile



Observe the instructions for use



Caution

Name

Art. No.

SPHERO RETENTIVE CAP

(VE 6 items per colour)

silver „EXTRA-RESILIENT“ <small>SOFT RETENTION</small>	
gold „EXTRA-RESILIENT“ <small>MEDIUM RETENTION</small>	5011008062
green „VERY ELASTIC RETENTION“	5011008063
yellow „EXTRA-SOFT“	5011008064
pink „SOFT“	5011008065
clear „STANDARD“	5011008066
	5011008067

SPHERO-FLEX abutment kit

1 metal casing, 2 plastic caps pink-soft,
3 alignment rings, 1 distance plate, 1
SPHERO implant abutment

SPHERO FLEX S H1	5011008007
SPHERO FLEX S H2	5011008008
SPHERO FLEX S H3	5011008009
SPHERO FLEX L H1	5011008010
SPHERO FLEX L H2	5011008011
SPHERO FLEX L H3	5011008012

*SPHERO FLEX ® is a registered trademarks of RHEIN83 SRL, Italy

Hybrid prosthetics instruments

equator inserter	5011008060
TOOL x INSERTING CAPS STANDARD /MICRO	5011008041
ball attachment inserter	5011008061

Security liability guarantee

Security

The RatioPlant® implant system must be used only in accordance with the instructions and recommendations of HumanTech Dental. We cannot accept any liability for the use of components that are not system-related original components because they affect functionality. Consultations on the use of the products are given verbally as well as in the context of demonstration events. It corresponds to the cutting edge of science at the time of placing our products on to the market. This however shall not release the user from his/her obligation to inspect each individual product prior to their intended use with respect to their suitability for the intended purpose. The respective user is responsible for the processing and use of the products. Liability for damage resulting from the use and processing of the product is excluded.

Within the scope of our general terms and conditions, we guarantee that our products are at the cutting edge of science and technology, and are also of impeccable quality in accordance with CE certifications.

Delivery





































The products are supplied only to dentists, doctors, surgeons, implantologists, dental technicians, dental clinics, dental laboratories and their dealers.

Exchange

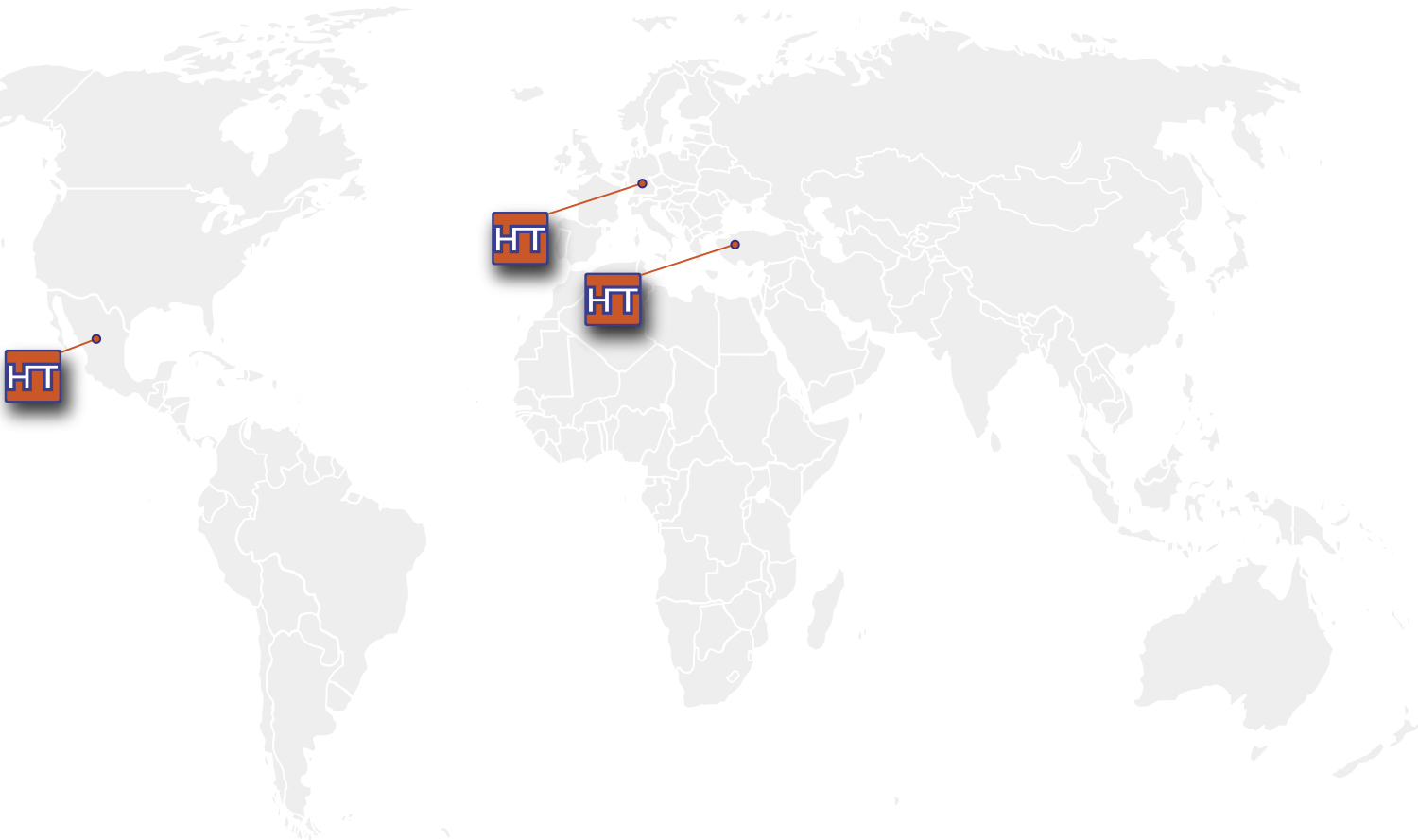
The products can only be returned as part of an exchange. Condition for the redemption of goods:

- Two years before the expiry of the sterile time
- Undamaged, unchanged in appearance and in its original packaging.

Tightening torque

	Screw	Instrument	Tightening torque*
Avantgarde        	 Cover screw  Impression screw long  Lab screw  MU prosthetic screw  Prosthetic screw normal	 Screwdriver hex hand long  Screwdriver hex hand short	Hand-screwed
	 Prosthetic screw normal  Prosthetic screw ZrO  MU prosthetic screw	 Screwdriver hex short  Screwdriver hex long  Ratchet  EQUATOR inserter  Ball attachment inserter	
	 MU prosthetic screw		
 Quick-abutment  Abutment ZrO  Abutment Ti  Gold abutment  Ti abutment provisional  Ti adhesive abutment  Abutment Ti CAD CAM  MU abutment			25 Ncm
 MU prosthetic cap Ti  MU prosthetic cap plastic  EQUATOR abutment  SPHERO abutment			

* The listed tightening torques contain only recommended values. Always retighten prosthetic screws after 5 minutes.



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Fax: +49 (0) 7157/5246-66
sales@humantech-dental.de
www.humantech-dental.de

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HumanTech Med. Sag. Tic. Ltd.

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Turkey

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Fax: +90 (0) 212/485 6674
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Mexico

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Fax: +52 (0) 55/5534 4929
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