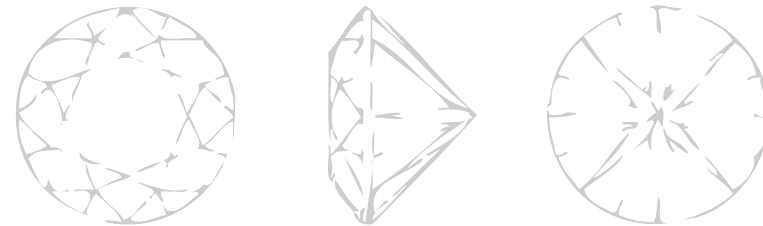




RATIOPLANT®

AVANTGARDE IMPLANTS

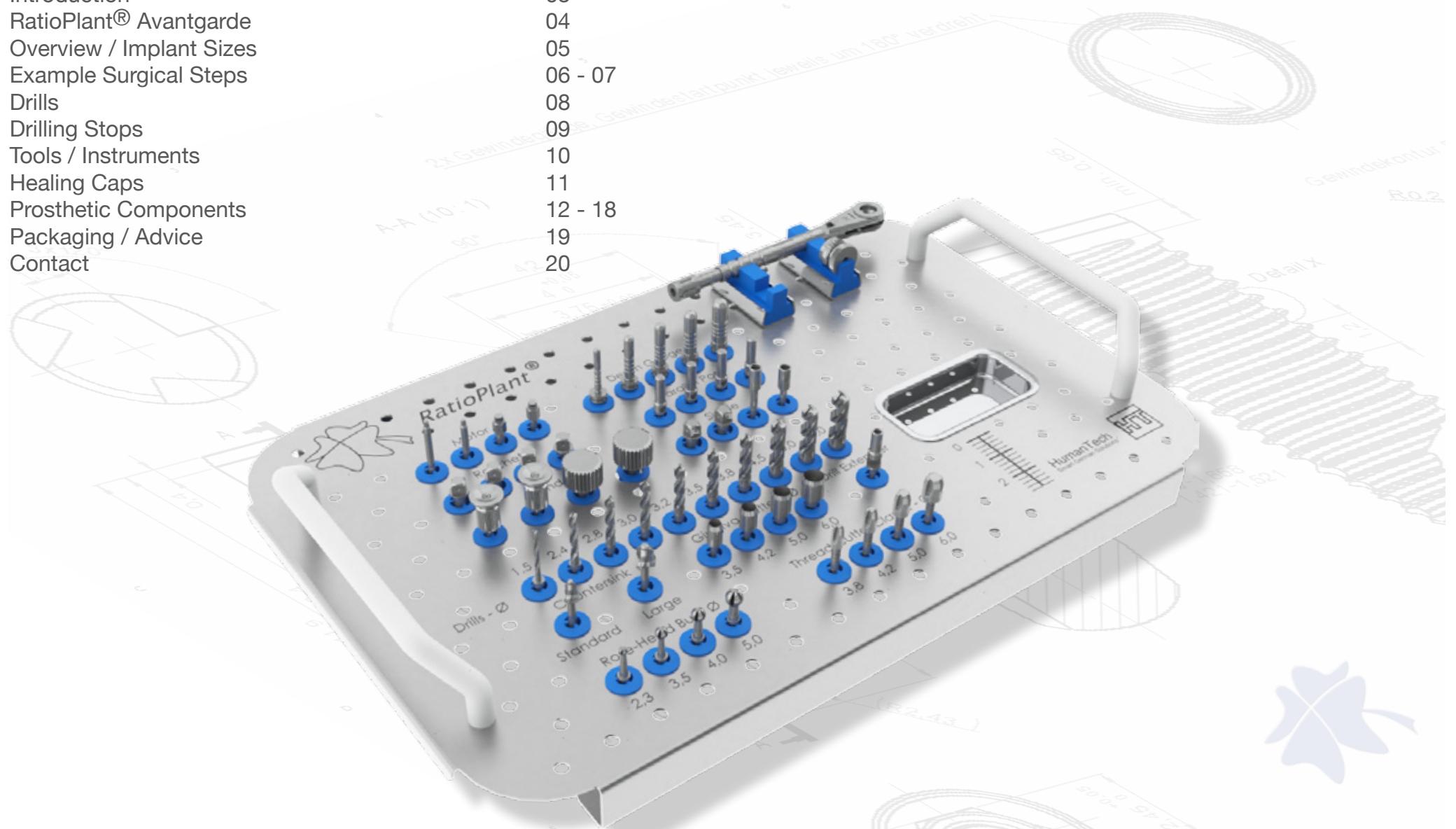


THE ADVANCED WAY TO CARE

Fit for future
Dental care

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Introduction

Our long years of experience in the field of human implantology and our expertise in the development, manufacture and testing of implants and instrument combinations provide the ultimate guarantee of extreme functionality throughout the entire HumanTech product portfolio. Given the growing need to increase the quality of human life and the dynamic market changes marked by rising pressure on costs and profit margins, factors such as cost-oriented manufacture and distribution are increasingly occupying centre stage.

HumanTech is a company group dedicated one hundred percent to the development, deployment and manufacture of implants and instruments in the medical field, and to the on-going search for ever better solutions.

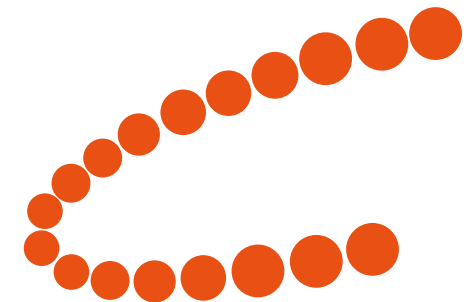
We eliminate unnecessary distribution costs by cutting out the middle man: Customers buy HumanTech products direct from us, the manufacturer:

From development through to the finished product and customer service – all from a single, reliable source.

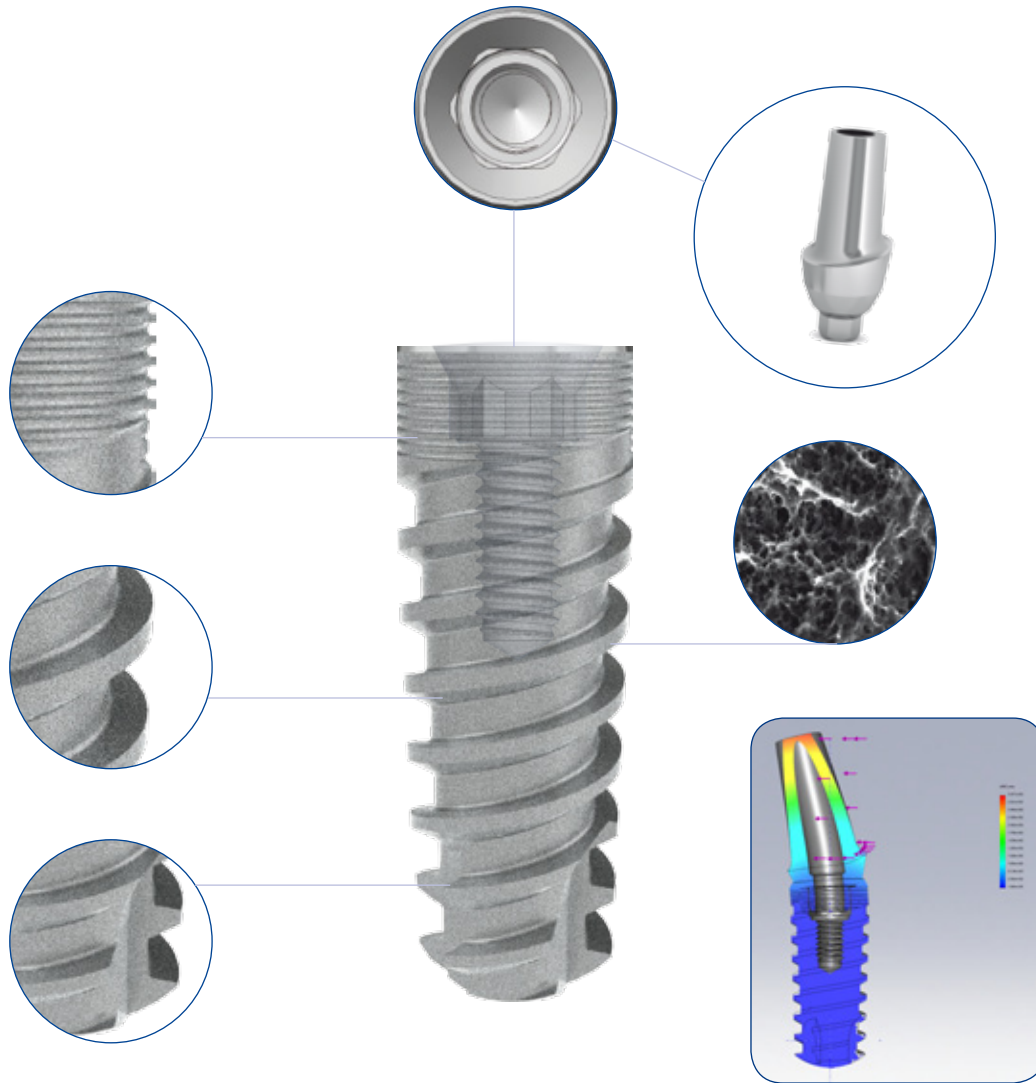
The RatioPlant® implants are manufactured, packed after the up to date guidelines in our house and brought directly to our customers to the dispatch.

The variety of the RatioPlant® implant lines offers a broad range of clinical solutions, up to reconstructions of single crowns, screw connected or fixed cemented bridges and partial or full dentures. Furthermore you can use RatioPlant® of implants in all situations, from the simplest to the most difficult, surgical and bone augmentation procedures. They are manufactured from biocompatible quality titanium and by their blasted and etched surfaces on the state of the art. All RatioPlant® implants fulfill the highest international standards.

We are certified according to DIN EN ISO 13485 as well as appendix II of the guideline 93/42 EEC.



RatioPlant® Avantgarde


















Features

- The implants of the RatioPlant® Avantgarde line are root analogue screw implants with sandblasted and etched surface for all indications.
- The implants show an interior hexagon, a conical edge and an internal thread to US standard.
- Made of Ti6Al4V - ISO 5832-3.
- The Avantgarde line features over an atraumatic cutting thread with three cutting slots to the bone chip admission and rotation protection.
- For an ideal indication with consideration of stability the RatioPlant® Avantgarde implants are available with three different platforms - Mini, Standard and Large.

Advantages

- Easy insertion by double thread guidance at the implant external thread.
- Outstanding a healing with optimum apposition of the osteoblasts to the special nano-surface.
- Familiar handling by the popular hexagonal structure of the connection implant/abutment.
- By the conical transition from the upper edge to the hexagonal the RatioPlant® implants achieves a high sealing between implant and abutment also under load.
- Anatomical root analog design for excellent cosmetic results.

Implant Sizes

					
	3.2	3.8	4.2	5.0	6.0
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	

Simple colour system

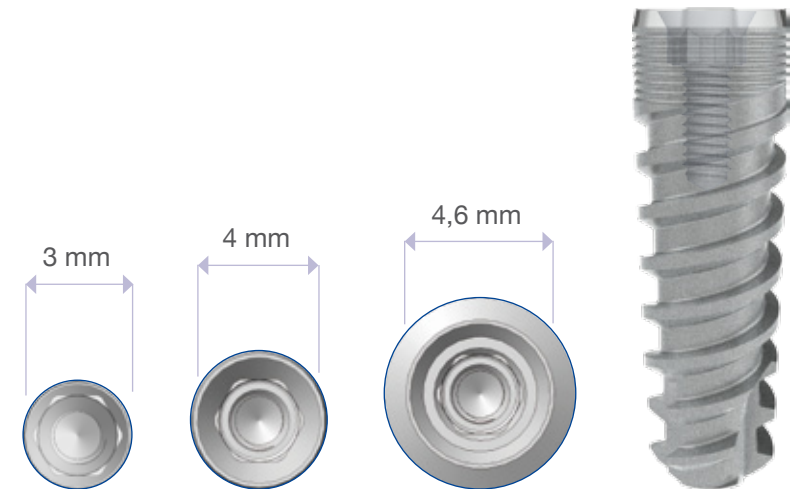
RatioPlant® Avantgarde Implants and drills are marked depending the diameter with the colours **yellow**, **red**, **green**, **blue** and **white**. This will simplify the surgical process already in preparation of the surgery and offers additional safety during the surgery.

Platforms

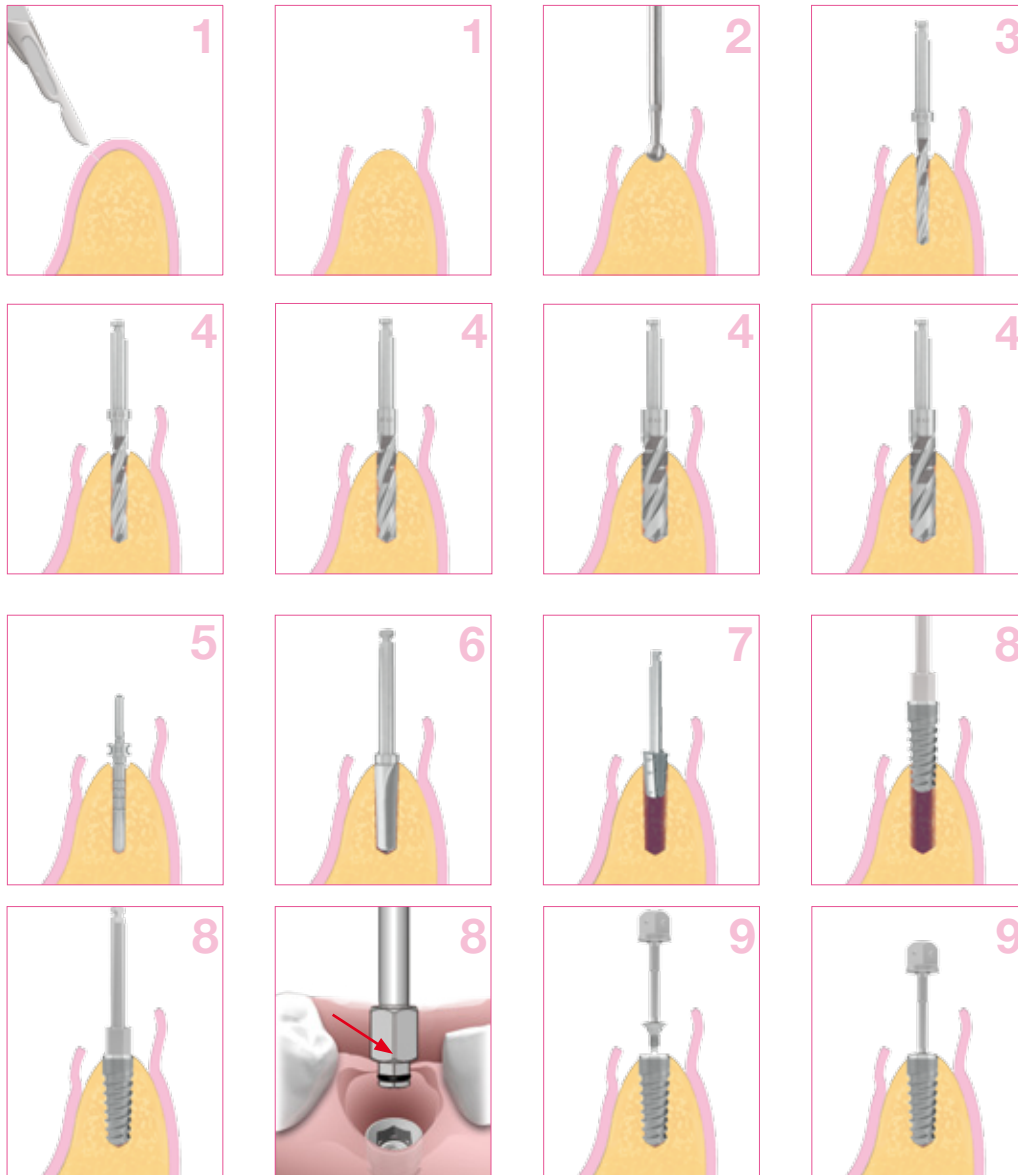
RatioPlant® Avantgarde Implants are available in five diameters and five lengths. All implant sizes are distributed on three platforms:

- Mini - implant diameter 3.2 - all lengths
- Standard - implant diameter 3.8 and 4.2 - all lengths
- Large - implant diameter 5.0 and 6.0 - all lengths excluding 6.0/16.0

Hereby the range of healing caps, tools as well as the prosthetic components is reduced to a minimum.



Surgical steps - example



Surgical Phase - using the example of RatioPlant® Avantgarde 4.2 / 11.5

1. Exposure of the bone using Scalpel or Gingiva cutter
2. Punch-marking - define implant position
3. Pilot drilling
4. Extension drilling to necessary diameter
5. Depth measurement (optional \varnothing 2.2 - 5.3)
6. Final drilling
7. Countersink
8. Setting of the Implantat using adapter for motor, subsequently tighten using torque ratchet and adapter for ratchet with max. 40 Ncm
Pay attention to final position: Hexagon edge in buccal direction!
9. Attach the coverscrew

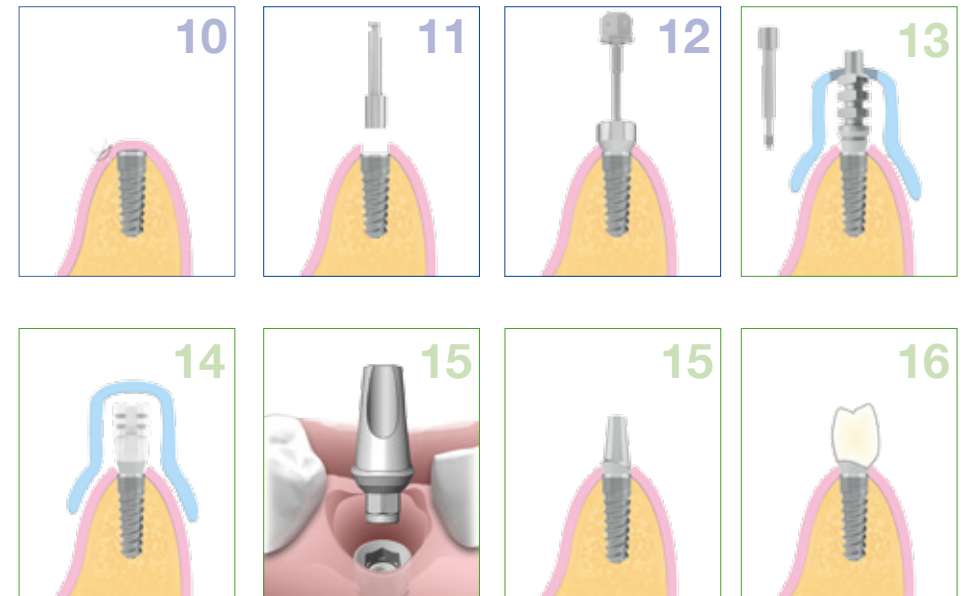
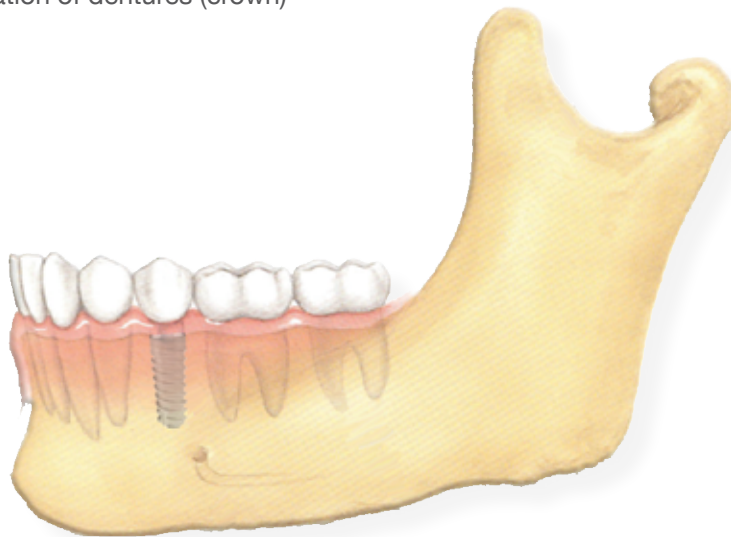


Healing phase

10. Obturation
11. After healing phase (4-6 months) Exposure using Scalpel or Gingiva cutter
12. Use of the healing caps

Prosthetic treatment

13. Impression post (open tray)
14. Impression post (closed tray)
15. Setting of the Abutment (Prosthetic screw max. 25 Ncm by using torque ratchet!)
16. Incorporation of dentures (crown)



Advice

The following descriptions are not sufficient for the immediate application of the RatioPlant® Implant System. We recommend the briefing into the handling of the RatioPlant® Implant System by an experienced surgeon. Fundamentally the RatioPlant® Implant System only should be used by trained dentists, implantologists and dental technicians.

Methodological errors can lead to the loss and damage to the peri-implant bone. Processing and application of the products are beyond our control and are under the responsibility of each user. Any liability for damage which caused in this case is excluded.

Please also see our information on safety, liability and warranty on page 19.

Drill bits

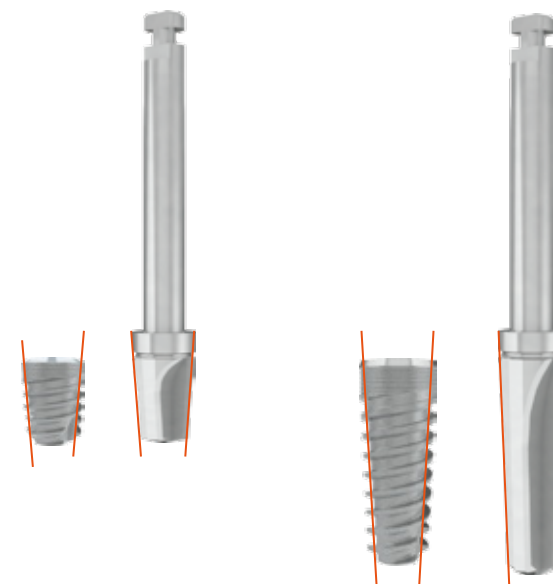
Safety and Liability

- During use of hard materials like bone and tooth substance can cause the premature loss of the cutting edges. Therefore, the drills must be checked after each use for blunt cut or damages and replaced as necessary.
- To avoid instrument fracture, the specified speed is observed.
- Caution: Risk of injury by the sharp edges of the drill! Risk of injury from twisting and slipping of the drill! The user is obliged to inspect the product to accept responsibility for its use before the suitability and the possible uses for the intended purposes. The use of the drill is the responsibility of the user.
- Guideline for the frequency use > 10 - 20 x (assuming no wear is evident, even prolonged use is possible).

rose-head bur 2.3 - 3.1 - 3.5 - 4.0 mm	5010323340, 5010331340, 5010335340, 5010340340	
pilot drill 1.5 mm	5010315340	
twist drill 2.4 mm	5010324374	
twist drill 2.8 mm	5010328374	
twist drill 3.0 mm	5010330376	
twist drill 3.2 mm	5010332376	
twist drill 3.5 mm	5010335377	
twist drill 3.8 mm	5010338378	
twist drill 4.5 mm	5010345382	
twist drill 5.0 mm	5010350382	
twist drill 5.5 mm	5010355382	
countersink Standard	5010342260	
countersink Large	5010360268	

For each RatioPlant® Avantgarde Implant a corresponding final drill is designated:

3.8/080	5010307001	5.0/080	5010307011
3.8/100	5010307002	5.0/100	5010307012
3.8/115	5010307003	5.0/115	5010307013
3.8/130	5010307004	5.0/130	5010307014
3.8/160	5010307005	5.0/160	5010307015
4.2/080	5010307006	6.0/080	5010307016
4.2/100	5010307007	6.0/100	5010307017
4.2/115	5010307008	6.0/115	5010307018
4.2/130	5010307009	6.0/130	5010307019
4.2/160	5010307010		



Drilling Stops



All drills drilling stops are available for the shaft diameters of 3.5 mm and 5.5 mm respectively in lengths of 8.0 mm, 10.0 mm, 11.5 mm, 13.0 mm and 16.0 mm, corresponding to the RatioPlant® implants.

The example below illustrates this with reference to a RatioPlant® Avantgarde implant with a length of 11.5 mm.

The sleeve is simply pushed onto the appropriate drill down to the shank, until it clicks in. The Drilling Stops are easy to change and to clean.



Drilling Stop Ø3.5 - L8.0	5012307020	
Drilling Stop Ø3.5 - L10.0	5012307021	
Drilling Stop Ø3.5 - L11.5	5012307022	
Drilling Stop Ø3.5 - L13.0	5012307023	
Drilling Stop Ø3.5 - L16.0	5012307024	
Drilling Stop Ø5.5 - L8.0	5012307025	
Drilling Stop Ø5.5 - L10.0	5012307026	
Drilling Stop Ø5.5 - L11.5	5012307027	
Drilling Stop Ø5.5 - L13.0	5012307028	
Drilling Stop Ø5.5 - L16.0	5012307029	

Tools / Instruments

adapter hex ratchet short	5012302003	
adapter hex ratchet long	5012302004	
adapter hex motor short	5012302001	
adapter hex motor long	5012302002	
screwdriver hex motor short / ISO	5012301001	
screwdriver hex motor long / ISO	5012301002	
screwdriver hex ratchet short	5012301003	
screwdriver hex ratchet long	5012301005	
drill extender	5010308001	
screwdriver hex hand short	5012301004	
screwdriver hex hand long	5012301006	
parallel post	5012332240	
depth gauge 2.2	5012307001	
depth gauge 3.3	5012307002	
depth gauge 3.6	5012307003	
depth gauge 4.3	5012307004	
depth gauge 5.3	5012307005	

ratchet basic	5012303001	
torque-ratchet	5012303002	
ISO insert for ratchet drill	5012303003	
square insert for ratchet drill	5012303004	
Gingiva cutter 3.5	5012307010	
Gingiva cutter 4.2	5012307011	
Gingiva cutter 5.0	5012307012	
Gingiva cutter 6.0	5012307013	
Multiplex Handle	5012301007	

Care instructions for tools and drill bits

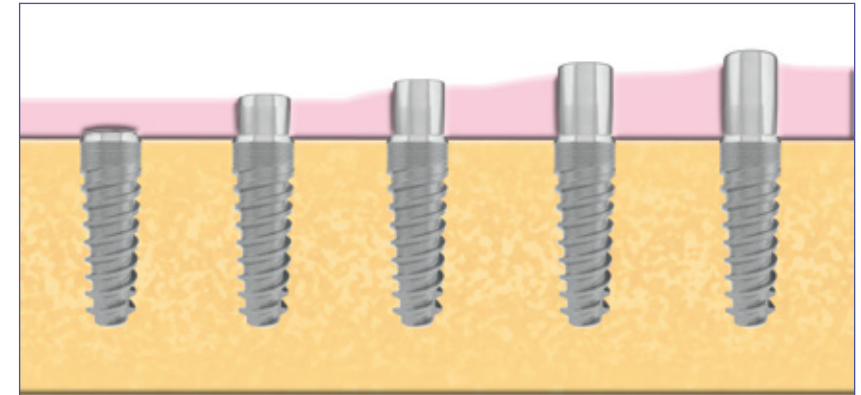
Please pay attention to the reconditioning instructions in accordance with DIN EN ISO 17664:2004!

Healing Caps

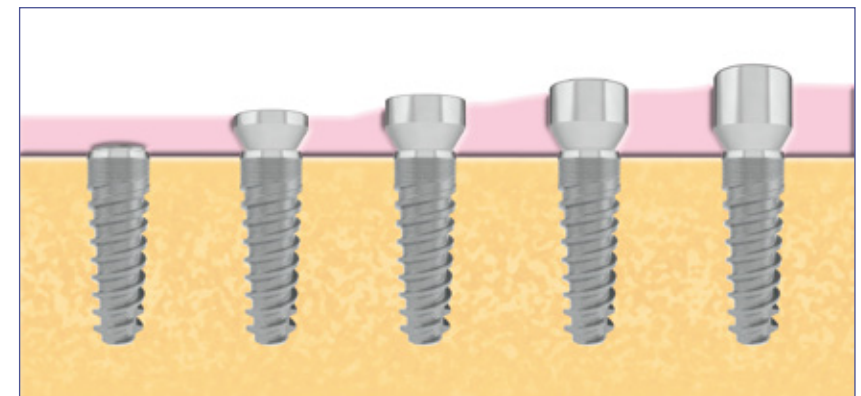
After insertion of the implant cover screw Standard or Large is used. After a healing period of 4-6 months, depending on the situation, the soft tissue will be expanded using the healing caps to the desired diameter, in preparation for taking the impression and the prosthetic restoration. Hereby, the healing caps conical or parallel are used chronologically. For individual indication the Peek healingcaps Standard or Large can be customized directly chairside.

healing cap parallel - Mini Ø Mini 3 mm height 3, 4, 5, 6 mm	5011106022 5011106023 5011106024 5011106025	
healing cap parallel - Standard Ø Standard 4mm height 3, 4, 5, 6mm	5011106003 5011106004 5011106005 5011106006	
healing cap conical - Standard Ø Standard 5mm height 3, 4, 5, 6mm	5011106011 5011106012 5011106013 5011106014	
healing cap parallel - Large Ø Large 5.5 mm height 3, 4, 5, 6mm	5011106007 5011106008 5011106009 5011106010	
healing cap conical - Large Ø Large 6.3mm height 3, 4, 5, 6mm	5011106015 5011106016 5011106017 5011106018	
healing cap individual Peek Standard Ø Large Ø	5011206001 5011206002	

Parallel



Conical



Prosthetic Components Mini

prosthetic screw normal	5011109001		Ti-abutment Mini 0° conical H1 Ti-abutment Mini 0° angled 15° H1 Ti-abutment Mini 0° angled 25° H1	5011110170 5011110180 5011110190	  
lab screw	5011109004		Ti-abutment Mini 0° conical H2 Ti-abutment Mini 0° angled 15° H2 Ti-abutment Mini 0° angled 25° H2	5011110270 5011110280 5011110290	  
prosthetic screw for Zirkonia	5011109005		Ti-abutment Mini 0° conical Ti-abutment Mini 0° angled 15° Ti-abutment Mini 0° angled 25°	5011110070 5011110080 5011110090	  
impression screw long	5011109006		Quick-Abutment Mini Quick-plastic cap Mini	5011110009 5011210061	 
impression post open tray Mini	5011105030				
impression post closed tray Mini	5011105031				
ab analog Mini	5011110000				

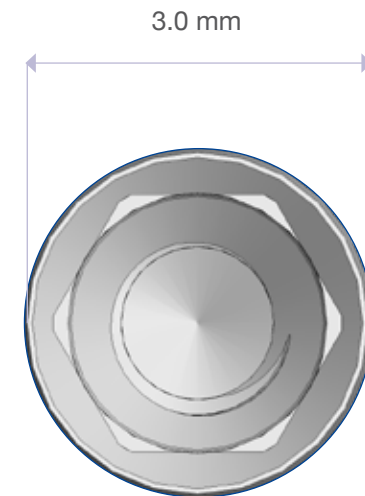
New AVANTGARDE Mini




Ø3.2

Platform - Mini

for implants with a diameter of 3.2mm



Prosthetic Components Standard

prosthetic screw normal	5011109001		abutment Ti 0 con Standard H1 abutment Ti 15 con Standard H1 abutment Ti 25 con Standard H1	5011110120 5011110130 5011110140	
lab screw	5011109004		abutment Ti 0 con Standard H2 abutment Ti 15 con Standard H2 abutment Ti 25 con Standard H2	5011110220 5011110230 5011110240	
prosthetic screw for Zirkonia	5011109005		abutment Ti 0 con Standard abutment Ti 15 con Standard abutment Ti 25 con Standard	5011110020 5011110030 5011110040	
impression screw long	5011109006		abutment Ti 0 con esthetic Standard abutment Ti 15 con esthetic Standard abutment Ti 25 con esthetic Standard	5011110022 5011110032 5011110042	
impression post open tray Standard	5011105001		abutment ZiO 0 con esthetic Standard abutment ZiO 15 con esthetic Standard abutment ZiO 25 con esthetic Standard	5011410022 5011410032 5011410042	
impression post closed tray Standard	5011105005		quick-abutment Standard quick-plastic cap	5011110010 5011210060	
transfer cap	5011105003				
lab analog Standard	5011110001				

gold-abutment Standard	5011510001	
gold-abutment Standard hex	5011510002	
plastic-abutment Standard	5011210001	
plastic-abutment Standard hex	5011210002	
PEEK-abutment for provisional care Standard	5011610101	
Ti-abutment for for provisional care Standard	5011110101	
Ti-adhesive abutment Standard	5011110050	















Platform - Standard

for implants with a diameter of 3.8mm and 4.2mm



Ø3.8 und 4.2

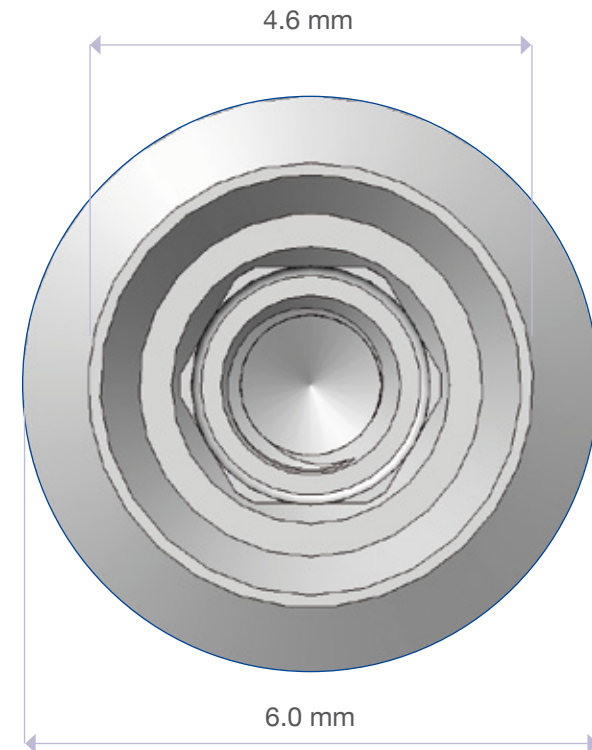
Prosthetic Components Large

prosthetic screw normal	5011109001		abutment Ti 0 con Large H1 abutment Ti 15 con Large H1 abutment Ti 25 con Large H1	5011110121 5011110131 5011110141	
lab screw	5011109004		abutment Ti 0 con Large H2 abutment Ti 15 con Large H2 abutment Ti 25 con Large H2	5011110221 5011110231 5011110241	
prosthetic screw for Zirkonia	5011109005		abutment Ti 0 con Large abutment Ti 15 con Large abutment Ti 25 con Large	5011110021 5011110031 5011110041	
impression screw long	5011109006		abutment Ti 0 con esthetic Large abutment Ti 15 con esthetic Large abutment Ti 25 con esthetic Large	5011110023 5011110033 5011110043	
impression post open tray Large	5011105002		abutment ZrO 0 con esthetic Large abutment ZrO 15 con esthetic Large abutment ZrO 25 con esthetic Large	5011410023 5011410033 5011410043	
impression post closed tray Large	5011105006		quick-abutment Large quick-plastic cap	5011110011 5011210060	
transfer cap	5011105003				
lab analog Large	5011110002				

gold-abutment Large	5011510011	
gold-abutment Large hex	5011510012	
plastic-abutment Large	5011210010	
plastic-abutment Large hex	5011210011	
PEEK-abutment for provisional care Large	5011610102	
Ti-abutment for for provisional care Large	5011110102	
Ti-adhesive abutment Large	5011110060	

Platform - Large

for implants with a diameter of 5,0mm and 6,0mm



Ø5.0 und 6.0

Components for Hybrid Prosthetics

EQuator-Kit

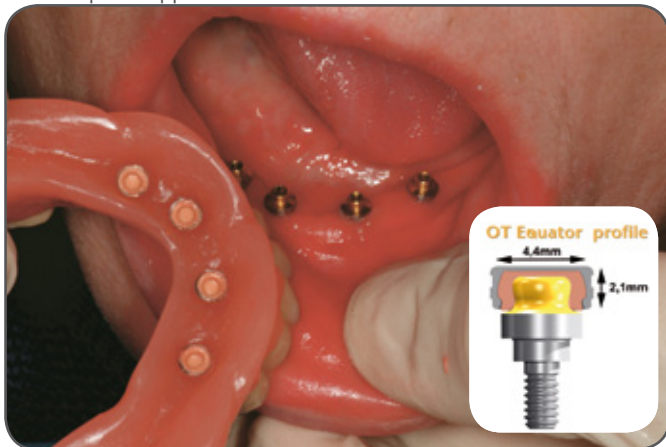


Available for all platforms with gingiva height from 0.5 to 7.0mm

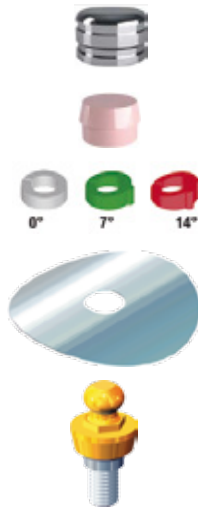
The kit contains:
 1 stainless steel housing
 4 plastic caps with different retention (violet-strong; white-standard; pink-soft; yellow-extra soft)
 1 protective disk
 1 OT EQuator profile implant abutment

Please ask about the possibilities.

example of application



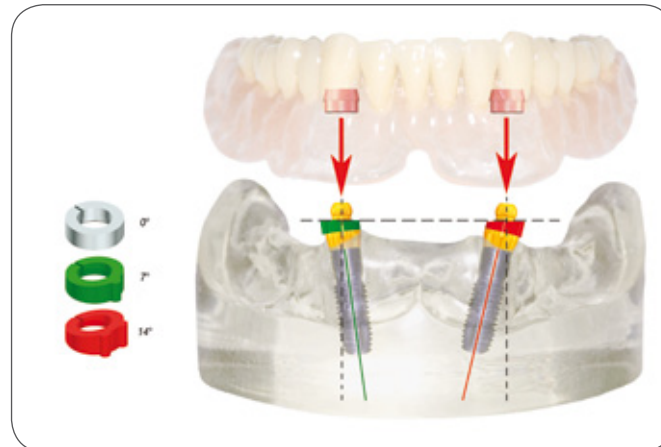
SPHERO BLOC-Kit



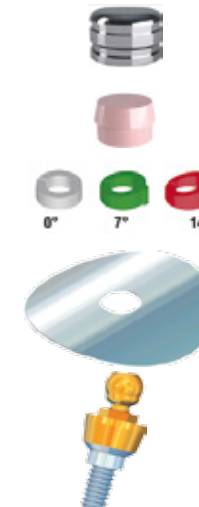
Available for all platforms with gingiva height from 0.5 to 7.0mm

The kit contains:
 1 metal housing
 2 plastic caps pink-soft
 3 directional rings
 1 protective disk
 1 SPHERO BLOCK implant abutment

Please ask about the possibilities.



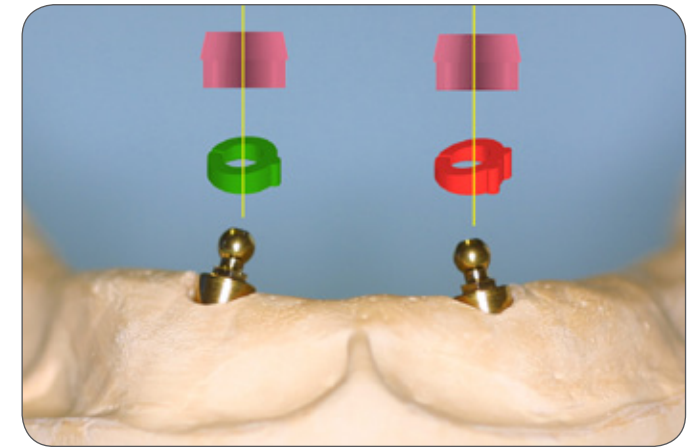
SPHERO FLEX-Kit



Available for all platforms with gingiva height from 0.5 to 7.0mm

The kit contains:
 1 metal housing
 2 plastic caps pink-soft
 3 directional rings
 1 protective disk
 1 SPHERO FLEX implant abutment

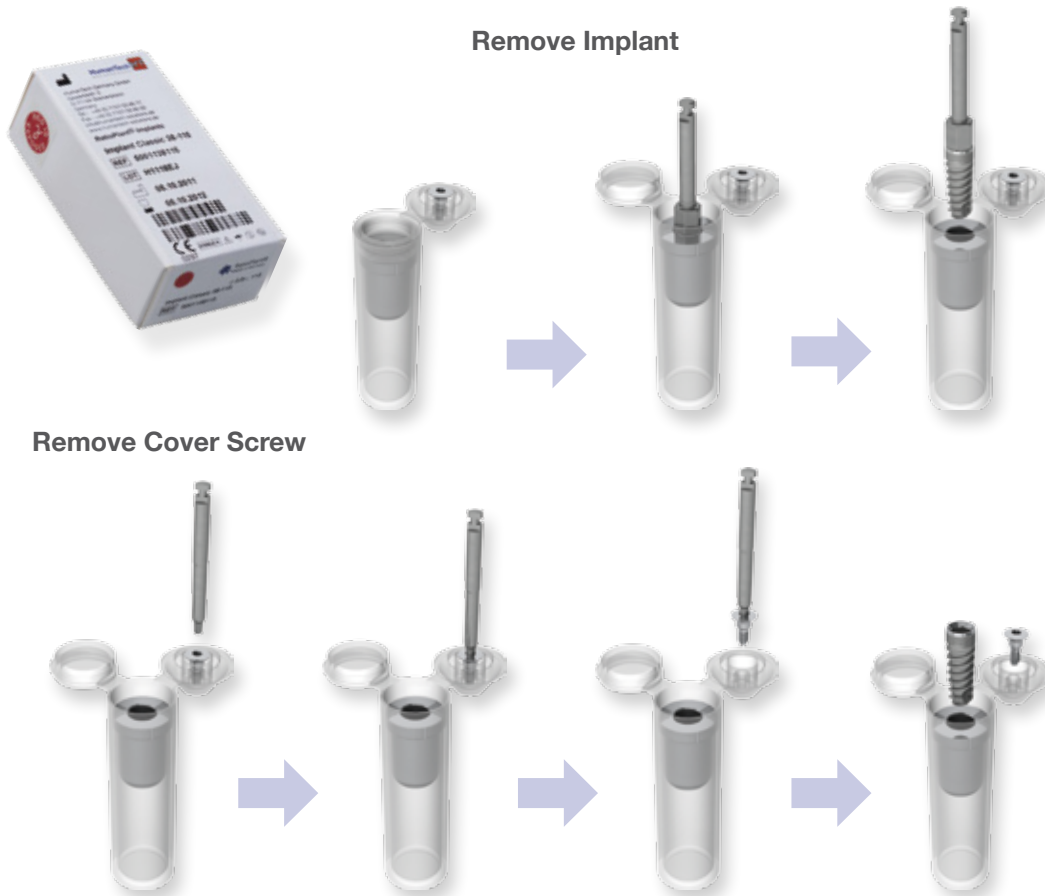
Please ask about the possibilities.



*Equator® is a registered trademark of RHEIN83 SRL, Italia

Packaging

- All RatioPlant®-Implants are available in a new tube packaging, which is packed in a separate blister - user-friendly, safe and double sterile.
- This package provided an easy take out with the adapter directly from the tube during surgery.
- Patients labels with all relevant data enable an easy documentation of the used implants.



Safety, liability and warranty

Safety

The RatioPlant®-implant system may be used only under the guidance and recommendation of the HumanTech Germany GmbH.

The use of components which are not corresponding original components to the system will impede the functionality and exclude our liability. Guidance on the use of products made verbal and in demonstration events. It corresponds to the current state of knowledge at the time of distributing our products. This does not absolve the user from his obligation to the individual product in each case before the proposed use on its suitability for the intended purpose to verify. The processing and application of the products is up to the responsibility of each user. The liability for damage resulting from the use and application of the product is excluded.

As part of our general business conditions we confirm the product quality of our products with CE certification, according to the current state of science and technology.

Dispensing

The products are delivered only to dentists, doctors, surgeons, dental technicians, dental clinics and dental laboratories.

Replacement

The withdrawal of the products can only be done in the course of an exchange. Condition for redemption of goods:

1. Two years before the end of sterility
2. Undamaged, optically modified and original packed.



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