

Components for fixed prosthesis

CATALOG/TECHNICAL MANUAL
CODE LIST
for Dentists and Dental Technicians



5thEdition

World Leader in Dental Attachments

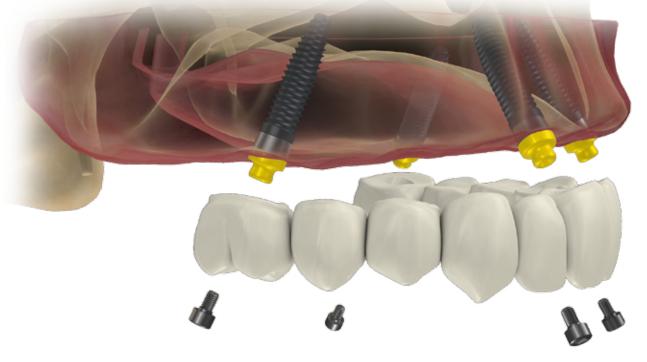


The fixed prosthesis by Rhein 83

The partially or totally edentulous patient experiences a condition of strong physical and social discomfort. Nowadays, the role of the dentist and the dental technician is of primary importance. Working in a team donates to the patient the "smile and function"; this changes, literally, the individual life allowing to reach a true aesthetic rejuvenation and a psychological benefit. The prosthetist must always evaluate, realistically, the best therapy de-

pending on the patient characteristics. The prosthetist's job is to study the appropriate prosthetic project evaluating costs, benefits and the expectations of the patient. RHEIN 83 group, during the past 35 years of activity, has invested resources and energies in the search of simple, repeatable and reliable working protocols to make the everyday dentist and dental technician work easy and, above all, with no unexpected variables. The removable implant retained denture is a proven and reliable treatment that often remains the first choice for a professional. The fixed screwed denture is a solution for the edentulism that completely changes the patient's perspective. The project "OT BRIDGE" was born and developed in the RHEIN 83 Research and Development Department, in cooperation with some of the most prestigious Italian Universities; the low profile attachment "OT EQUATOR", born in the 2007, is an evolution of the well-known spherical system OT Cap; OT EQUATOR minimizes the vertical dimensions while preserving the same retentive and functional area.

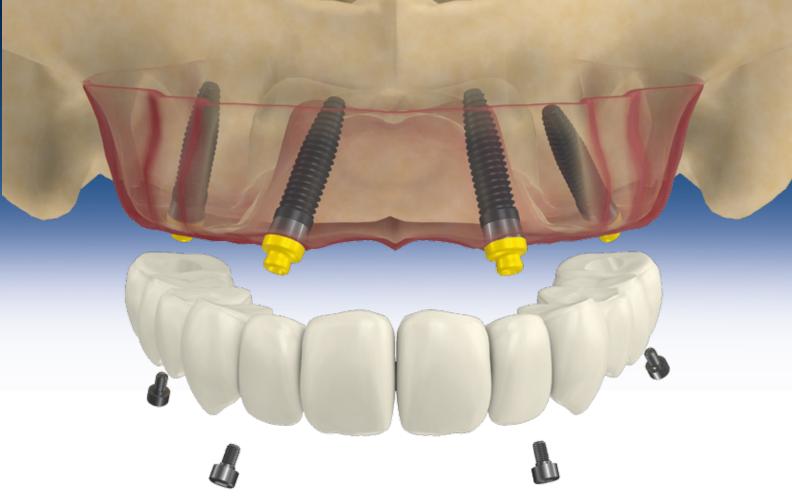








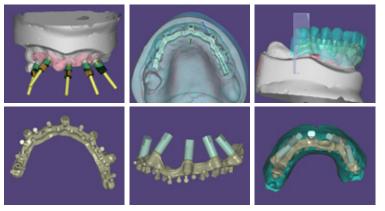




OT EQUATOR system is a global, well-established reality in the removable prosthetic protocols. Today our research allows its use in a fixed denture treatment. This is possible thanks to the Seeger system, a novelty and a revolution in the "fixed implant prosthetics" that allows to reduce the number of the prosthetic screw holes in the aesthetic areas. The sub-equatorial component, an interchangeable acetal ring, will be housed into the cylindrical "Extragrade" abutment; this acetal seeger spring, is one of the original elements of this product and represents a systematic alternative to the screwed and cemented dentures.

The OT Equator abutment has a blind threaded hole that does not communicate with the implant; this avoids any bacterial infiltration into the implant. The main mechanical advantage of the system is its multifunctionality in overcoming the implant divergence, even in extreme cases over 80° without resorting to components like MUA or without using time-consuming milled abutments techniques.

The real revolution offered by Ot Equator system is in the versatility; you can use the same abutment, regardless if it is a removable or fixed denture. Saving materials, tools and working time is a key point both for the clinic and the laboratory; moreover, the OT Equator system is also available in the digital dental field in the most advanced cad-cam software.

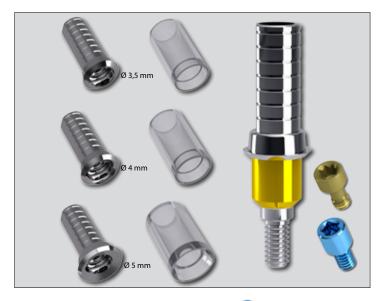






TITANIUM ABUTMENTS WITH THROUGH HOLE SCREW AND CASTABLE SLEEVE

The titanium abutments with through hole screw are used in all dentures where the divergence does not create any aesthetic problem for the access to the prosthetic screw in the dental arch



TITANIUM ABUTMENTS INCLINED AT 15° AND CASTABLE SLEEVE

The Extragrade titanium abutments are used to create a fixed denture "Seeger Bridge" even on very divergent implants, exploiting, with the Seeger, the abutment undercuts as an anchoring area obtaining in this way a "snap" retention.





OT BRIDGE DIGITAL SOLUTION

SOLUTION A



Model scan with the titanium through hole abutments for a CAD design.

SOLUTION **B**



Scan of the model with the scan abutments for the digital flow. The top beveled surface matches with the Extragrade incision of the titanium abutment; the Extragrade must always be positioned in correspondence of the maximum undercut created by the tilted implant.



Digital structure CAD designed, ready to be realized. The Extragrade titanium abutments will be cemented into the holes.



MONCONI IN TITANIO CON E SENZA VITE + GUAINA CALCINABILE



Model analysis with the Rhein83 parallelometer.



Implants divergency analysis.



Analysis of the teeth set-up dimensions. The project is made with the titanium abutments with screws, sleeves to be bonded and titanium abutments inclined at 15° without screws.



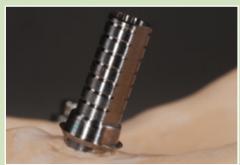
Long screw on Ot Equator analog to check where the prosthetic screw hole will be located.



Extragrade Titanium Abutment inclined at 15°. The white Seeger must be positioned with its open side towards the Extragrade bevel.



In case of an excessive implant inclina-In case of an excessive implant inclina-tion, it is suggested to use an Extragrade titanium abutment inclined at 15° with-out screw and a castable sleeve to be bonded. The abutment will be retained by the white Seeger only. The percent-age of abutments without screws should be limited to 25% of the total number of abutments (in this case 1 out of 4).



It is important to position the flat surface of the titanium abutment in correspondence with the un-dercut created by the inclination of the implant; the flat surface indicates the location of the Extragrade bevel, which will allow the denture to overcome the undercuts created by the tilted implant.



The open side of the Seeger must be positioned towards the Extragrade, a position that is forced by an anti-rotational device located into the abutment.



The castable sleeve allows the construction of a structure that later will be cast. Then the Extragrade titanium abutments will be passively bonded.



The castable structure must be as passive as possible. Passivity is facilitated by the use of castable gingival connectors that can be adapted, cut and shaped, trying to leave as little space as possible between these and the implant abutment.



The castable structure ready to be cast.



Before bonding, the fitting of the framework should be tested. it is important to cement the elements one at a time. The use of the Ot Cem composite cement from Rhein83 is recommended.



Place the Extragrade titanium abutment with the short screw onto the Ot Equator attachment, making sure to place the flat surface of the titanium abutment in correspondence with the undercut created by the implant inclination. It is recommended to protect the screw hole with a wax pin.



The cement should be put on the external part of the Extragrade titanium abutment and into the internal surface of the metal cast sleeve. The wax pin will seal and protect the entrance of the prosthetic screw. prosthetic screw.



Alternatively: screw the titanium abutment and smear the screw with vaseline, keeping the Extragrade abutment in the exact position; respect the setting time of the composite cement as reported in the instructions for use.



Work polished, assembled, ready to be coated with the aesthetic material. Please note the white Seegers inserted in the Extragrade abutment housing.



CASTABLE ABUTMENT WITH PASSING THROUGH HOLE FOR SCREW AND SEEGER

CASTABLE ABUTMENT WITHOUT PASSING THROUGH HOLE FOR SCREW AND SEEGER







CASTABLE ABUTMENTS



Model analysis with the help of the diagnostic teeth set-up mask. Where the space is limited, the Extragrade castable abutment is advisable which, while allowing a passive insertion, overcomes the divergencies and can be shaped accordingly to the available spaces.





Into the castable The Extragrade position is indicated by Cast and sand-blasted bar with 150 micron parabutment with the flat surface outside the abutment; ticle size aluminum dioxide at 3 atmospheres. screw, likewise the this must always be positioned in corretitanium abutment spondence with the undercut created by with screw, you can the tilted implant. see the bevel called Extragrade.







Detail of the castable Special bur to clean any oxides, micro-imperfections Test with the OT Equator rabutment after the cast- or bubbles inside the Seeger housing in those areas analog, before proceeding and the sandblasting. where the sandblasting is not effective.

Test with the OT Equator Framework polished and ready to be finished with the aestandog, before proceeding with the trimming and the polishing of the framework.







Insert the Seeger as shown in Work finished; caudal view. the photo by placing the open section in correspondence with the undercut created by the inclination of the implant.

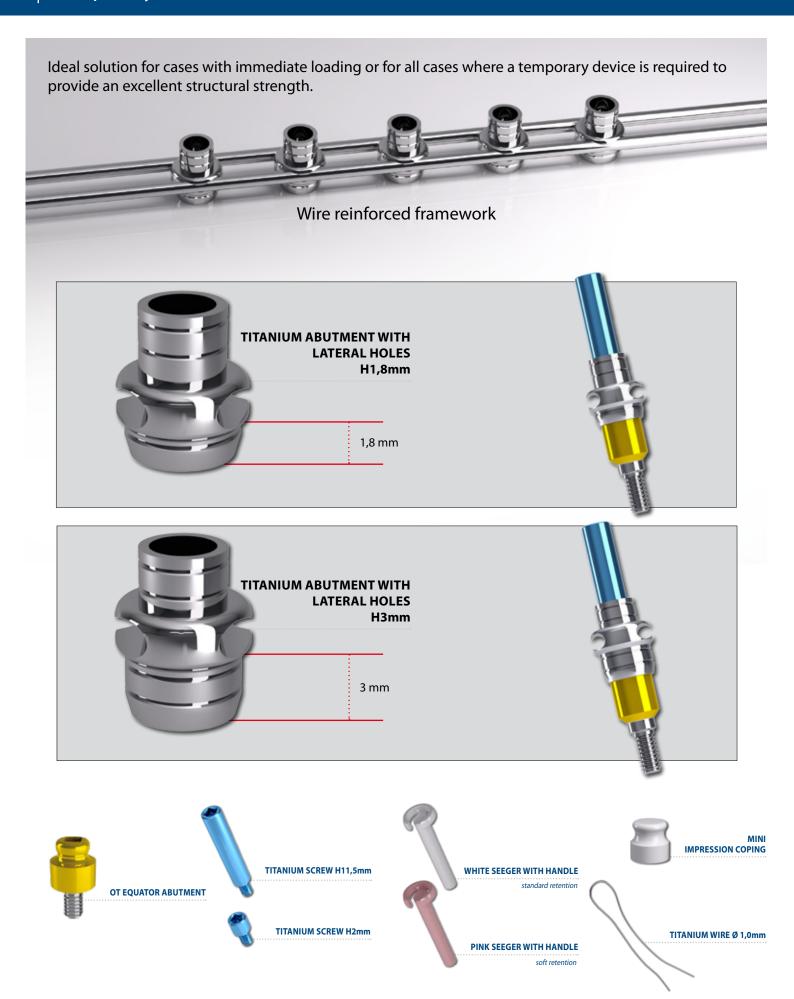




Vestibular view. Please note that thanks Denture completed. to the pre-angled abutments and the Seeger there are no vestibular prosthetic screw holes.



OT BRIDGE temporary denture with wire reinforcement



mounting technique



Titanium wire for the construction of wire reinforced frameworks.



lateral hole (ø 1mm) of the abutabutments.



Titanium wire inserted into the Insert the titanium wire into all lateral holes of the the titanium



Screw the titanium abutments with lateral holes one at a time and bend the titanium wire accordingly so to follow the correct gingival and prosthetic profile.



the mask and the available spaces.



The teeth are positioned and shaped accordingly to The titanium abutments with lateral holes can be adapted accordingly to the available spaces and being properly opacified and then embodied with self-curing aesthetic resin.



the Extragrade bevel, so if necessary it can be made their open side is in correspondence with the manually, once the work is finished, paying the utmost attention in doing it always on the divergent side.







Even with the temporary dentures, the insertion pat-terns must be followed accordingly to the implant divergences both on the model and into the patient's



In case of strong disparallelisms (like an all-on-four) it is advisable to insert the bridge first on the most inclined attachments, which in this case are those located on the incisor area, then moving to the posterior area, making the denture snap into the correct position.



The resin-wire-reinforced bridge is finished and delivered to the dentist in about 2 hours.



HEALING ABUTMENTS



SCREW AND HEALING RING



OT EQUATOR SEEGER AND HEALING RING

OT EQUATOR SEEGER



OT EQUATOR SEEGER AND SELF-EXTRACTING PEEK RING

OT EQUATOR STAINLESS STEEL ANALOGS





TITANIUM LONG IMPRESSION COPING WITH LONG SCREW FOR PICK-UP IMPRESSION

IMPRESSION COPINGS



TITANIUM IMPRESSION COPING WITH SCREW FOR PICK-UP IMPRESSION



PLASTIC IMPRESSION



PLASTIC MINI IMPRESSION COPING

OT EQUATOR ANALOGS WITH TITANIUM SCREW FOR CAD/CAM





mounting technique

Option 1: Healing screw screwed onto the Ot Equator abutment.

HEALING ABUTMENTS



Option 2: Ot Equator Seeger screwed onto the Ot Equator abutment.



Example of the two options screwed onto the Ot Equator abutment.

OT EQUATOR SEEGER



Insertion of the Ot Equator seeger inside the selfextracting peek ring already in position.



Like the titanium seeger screw, the Ot Equator seeger also removes the self-extracting peek ring during unscrewing



2 threaded Ot Equator for cam and 2 Ot Equator seeger in position, in case of divergence (the Ot Equator seegers follow the direction of the implants) the use of Smart box housings is recommended.

OT EQUATOR STAINLESS STEEL ANALOGS





Elastomer impression with Ot Equator analogs Often the plastic impression copings remain in the matching the diameter of the inserted implants.

Most place impression copings remain in the mouth; remove and reposition them into the impression; the right position can be easily found before pouring the model.

IMPRESSION COPINGS







Impression with the titamium impression copings with screws.

Impression with the plastic impression copings.

Impression copings, ideal solution when there is not enough vertical dimension.

OT EQUATOR ANALOGS WITH TITANIUM SCREW FOR CAD/CAM



In case of an immediate loading denture, the impression can be taken with the mini impression mascherina di silicone. copings and collecting all the necessary data just after the surgery.

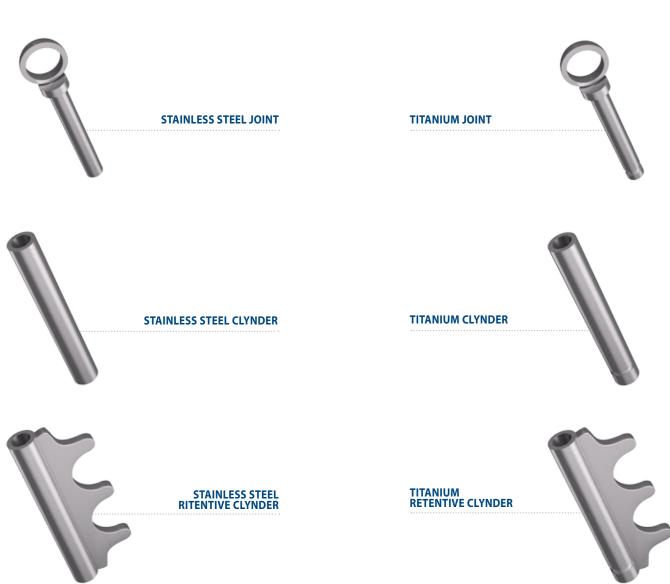






OT BRIDGE T-BAR telescopic bar for immediate loading dentures





Telescopic bar designed for screwed structures without stress on implants for immediate loading dentures using the bonding technique without casting and welding; available with retentive cylinders (optional) for a better tooth retention. the system can also be used for screwed bridges. Available in medical grade stainless steel and in grade 5ELI Titanium. The Titanium version joints can be welded to the Extragrade abutments.







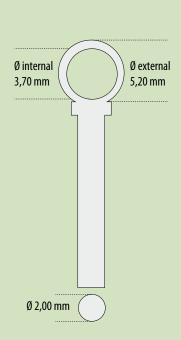




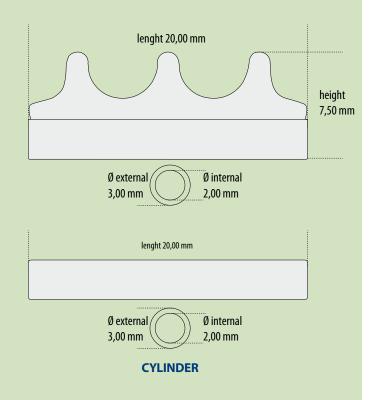




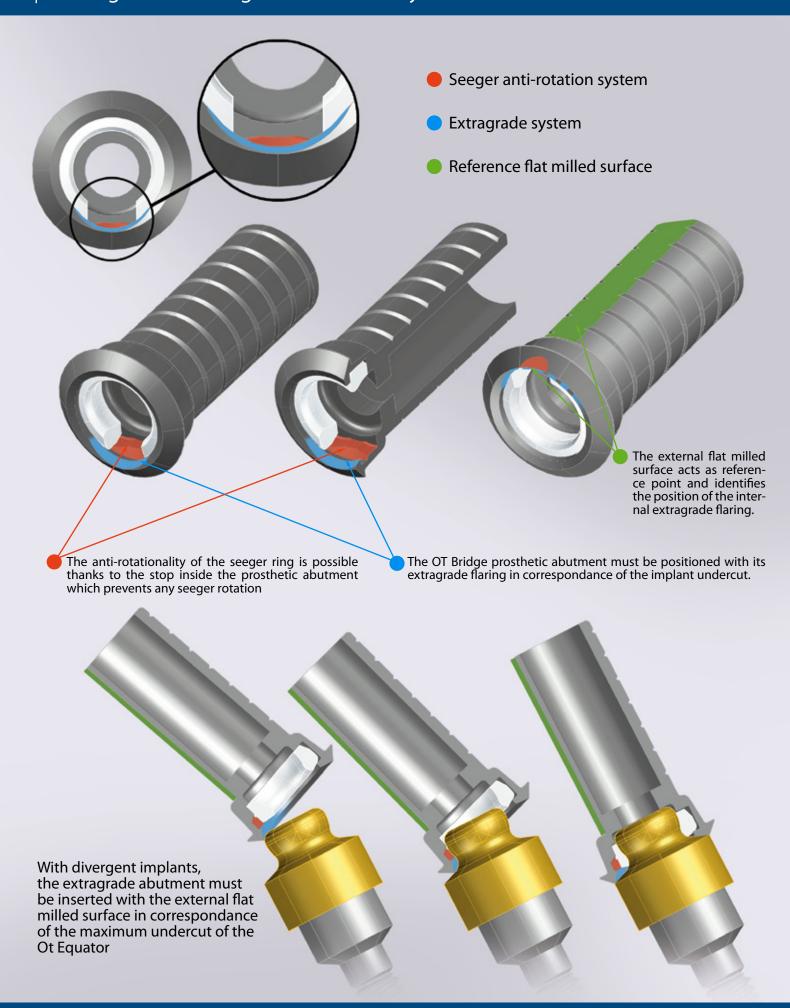
JOINT



CYLINDER WITH RETENTIVE PINS



OT BRIDGE Extragrade and seeger anti-rotation systems



The autoclavable Set42 (BE42 + 42 Ot Equator of your choice) is suitable when an implant immediate loading procedure is preferred. It allows, indeed, to have available and ready to use different heights of OT Equator abutments. The Set 42 can be customized accordingly to the preferred brands, diameters and heights.



The Set 42 is produced and shipped within 5 days from the order, it is mandatory to indicate: implant brand, implant diameter and cuff height.

Available heights:

for internal hexagon implants from 0.5 to 7mm for external hexagon implants from 2 to 7mm





OT EQUATOR ABUTMENT



Ref. 030

OT EQUATOR TITANIUM ABUTMENT WITH TIN COATING

SET 42



Ref. BE42 + n° 42 Ot Equator (Ref. 030 to be chosen) ASSORTMENT SET (autoclavable) + 42 OT EQUATOR +TIN ABUTMENTS THE SET42 CAN BE CUSTOMIZED ON THE BASIS OF THE IMPLANTS BRANDS, IMPLANTS DIAMETERS AND CUFF HEIGHTS DESIRED. PLEASE INDICATE, IN THE ORDER, THE QUANTITY AND THE ABOVE SPECIFICATIONS FOR EVERY KIND OF ABUTMENT.



Ref. BE42

EMPTY BOX FOR ASSORTED OT EQUATOR ABUTMENTS (ABUTMENTS NOT INCLUDED)

ABUTMENTS FOR FIXED PROSTHESIS -



Ref. MTSEG

Ø 3,5 mm

EXTRAGRADE TITANIUM ABUTMENT Ø3,5 mm

SET CONTENT

- EXTRAGRADE TITANIUM ABUTMENT TO BE CEMENTED h9,5mm Ø 3,5mm TITANIUM SCREW h2mm
- WHITE SEEGERS WITH HANDLE
- PINK SEEGER WITH HANDLE

Ref. MT40SEG

Ø 4,0 mm

EXTRAGRADE TITANIUM ABUTMENT Ø 4,0 mm

EXTRAGRADE TITANIUM ABUTMENT Ø 5,0 mm

SET CONTENT

- EXTRAGRADE TITANIUM ABUTMENT TO BE CEMENTED h9,5mm Ø4,0mm
- TITANIUM SCREW h2mm WHITE SEEGERS WITH HANDLE
- PINK SEEGER WITH HANDLE



Ref. MT50SEG

Ø 5,0 mm

- EXTRAGRADE TITANIUM ABUTMENT FOR CEMENTATION h9,5mm Ø 5,0mm TITANIUM SCREW h2mm
- WHITE SEEGERS WITH HANDLE PINK SEEGER WITH HANDLE

Ref. MTSFEG

SET CONTENT

EXTRAGRADE TITANIUM ABUTMENT INCLINED AT 15° TO BE CEMENTED Ø 3,5mm TITANIUM SCREW FOR INCLINED ABUTMENT WHITE SEEGERS WITH HANDLE

EXTRAGRADE TITANIUM ABUTMENT INCLINED AT 15° Ø3,5 mm

- PINK SEEGER WITH HANDLE



Ref. MTEG15SF

Ø4,0 mm

EXTRAGRADE TITANIUM ABUTMENT INCLINED AT 15° Ø4,0 mm

SET CONTENT

- EXTRAGRADE TITANIUM ABUTMENT INCLINED AT 15° TO BE CEMENTED Ø 4,0 mm
- TITANIUM SCREW FOR INCLINED ABUTMENT WHITE SEEGERS WITH HANDLE
- PINK SEEGER WITH HANDLE



Ref. CMEG40C

Ø4,0 mm

SET CONTENT

EXTRAGRADE CASTABLE ABUTMENT WITH HOLE

EXTRAGRADE CASTABLE ABUTMENT

- TITANIUM SCREW h2mm WHITE SEEGERS WITH HANDLE PINK SEEGER WITH HANDLE



Ref. MCEG15SF

Ø4,0 mm

EXTRAGRADE CASTABLE ABUTMENT WITHOUT HOLE

SET CONTENT

- EXTRAGRADE CASTABLE ABUTMENT WITHOUT HOLE (ONLY AVAILABLE WITH \emptyset 4,0mm) WHITE SEEGERS WITH HANDLE
- PINK SEEGER WITH HANDLE



Ref. CMTFP

h 1,8 mm

TITANIUM ABUTMENT WITH LATERAL HOLES FOR TEMPORARY **RESIN BRIDGE WITH WIRE-REINFORCMENT**

SET CONTENT

- TITANIUM ABUTMENT WITH LATERAL HOLES h1,8mm (ONLY AVAILABLE WITH Ø4,0mm)
- TITANIUM SCREW h2mm
 WHITE SEEGERS WITH HANDLE
- PINK SEEGER WITH HANDLE





Ref. CMTB30FP

Ref. MT40GL

h 3,0 mm

TITANIUM ABUTMENT WITH LATERAL HOLES FOR TEMPORARY **RESIN BRIDGE WITH WIRE-REINFORCMENT** SET CONTENT

- TITANIUM ABUTMENT WITH LATERAL HOLES h3mm (ONLY AVAILABLE WITH Ø 4.0mm)
- TITANIUM SCREW h2mm WHITE SEEGERS WITH HANDLE
- PINK SEEGER WITH HANDLE

TITANIUM NORMO ABUTMENT FOR INTRA ORAL WELDING

SET CONTENT

- TITANIUM NORMO ABUTMENT FOR INTRA ORAL WELDING h9,5mm Ø 4,0 mm TITANIUM SCREW h2mm
- WHITE SEEGERS WITH HANDLE
- PINK SEEGER WITH HANDLE

IMPRESSION COPINGS

Ø4.0 mm



Ref. 144TTLE • 1 TITANIUM LONG IMPRESSION COPING + TITANIUM LONG SCREW

TITANIUM IMPRESSION COPING + TITANIUM SCREW Ref. 144TTE

Ref. 144MTE

IMPRESSION COPINGS FOR INDIVIDUAL TRAY

Ref. TPM2

• 2 MINI IMPRESSION COPINGS h3,7mm

OT EQUATOR SCAN ABUTMENT



Ref. 145SAE

OT EQUATOR TITANIUM SCAN ABUTMENT + TITANIUM SCREW

HEALING ABUTMENTS



Ref. 159VAG

SCREW AND HEALING RING

SET CONTENT

HEALING TITANIUM SCREW
TITANIUM SELF-EXTRACTING HEALING RING

Ref. 159EAG

OT EQUATOR SEEGER AND HEALING RING

SET CONTENT

TITANIUM + TIN OT EQUATOR SEEGER TITANIUM SELF-EXTRACTING HEALING RING



Ref. 159VEA

OT EQUATOR SEEGER

LABORATORY ANALOGS



Ref. 144AE

2 LABORATORY ANALOGS ø 4mm

Ref. AI502

2 LABORATORY ANALOGS ø 5mm



Ref. 144AVC4

LABORATORY ANALOG WITH SCREW FOR CAD/CAM ø 4mm

(for self-extracting peek ring or titanium self-extracting healing ring)

Ref. 144AVC5

LABORATORY ANALOG WITH SCREW FOR CAD/CAM ø 5mm • 1

SCREWS



Ref. 147VME

TITANIUM SCREW FOR EXTRAGRADE ABUTMENT (for screwdriver/stem for inclined Channel)



Ref. 146VMI

SPHERICAL TITANIUM SCREW FOR INCLINED ABUTMENT • 1



Ref. VC

TITANIUM SCREW h2mm (for extragrade abutment)

Ref. VXL

• 1 TITANIUM SCREW h11,5mm (for extragrade abutment)





TOOLS -

	Ref. 774CHE	• 1	SQUARE SCREW DRIVER + OT EQUATOR HOLDER (SQUARE TIP 1.25mm) (USABLE WITH THE MANUAL TORQUE WRENCH)	
	Ref. 775CLE	• 1	LONG SQUARE SCREW DRIVER + OT EQUATOR HOLDER (SQUARE TIP 1.25mm) (USABLE WITH THE MANUAL TORQUE WRENCH)	
	Ref. 760CS	•1	LONG SCREWDRIVER/STEM FOR ANGULATED CHANNEL FOR TORQUE CONTROLLER CONTRA ANGLE (SQUARE 1.25mm)	
	Ref. 760CSC	• 1	SCREWDRIVER/STEM FOR ANGULATED CHANNEL FOR TORQUE CONTROLLER CONTRA ANGLE (SQUARE 1.25mm)	
	Ref. 760ACC	• 1	SCREWDRIVER/STEM FOR ANGULATED CHANNEL ADAPTER (USABLE WITH MANUAL TORQUE WRENCH)	
0	Ref. 774HC	• 1	INTERCHANGEABLE HOLDER	
	Ref. 760CE	• 1	OT EQUATOR SCREWDRIVER/STEM READY FOR HOLDER, FOR TORQUE CONTROLLER CONTRA ANGLE (SQUARE 1.25mm)	
	Ref. 760CRD	• 1	MANUAL TORQUE WRENCH For Ot Equator and Sphero Block/Flex (TORQUE RANGE: 15-35 Ncm - MAX. ALLOWED 50Ncm)	
	Ref. 124ICP	• 1	UNIVERSAL HANDLE	

MEDICAL STEEL T-BAR



Ref. G80A • 4 MEDICAL STEEL JOINTS

Ref. T20A • 4 MEDICAL STEEL CYLINDERS

Ref. T20Ai • 4 MEDICAL STEEL RETENTIVE CYLINDERS

TITANIUM T-BAR



Ref. G80T • 4 TITANIUM JOINTS

Ref. T20T • 4 TITANIUM CYLINDERS

Ref. T20Ti • 4 TITANIUM RETENTIVE CYLINDERS

T-BAR STRUMENTI



Ref. TA • 2 T-BAR ADAPTERS



SPARE PARTS -

% 0	Ref. RMTSFEG	•1	EXTRAGRADE TITANIUM ABUTMENT INCLINED AT 15° Ø 3,5mm	
% .	Ref. RMTEG15SF	•1	EXTRAGRADE TITANIUM ABUTMENT INCLINED AT 15° Ø 4,0mm	
& 0	Ref. RMTSEG	•1	EXTRAGRADE TITANIUM ABUTMENT Ø 3,5mm	
	Ref. RMT40SEG	•1	EXTRAGRADE TITANIUM ABUTMENT Ø 4,0mm	
	Ref. RMT50SEG	•1	EXTRAGRADE TITANIUM ABUTMENT Ø 5,0mm	
	Ref. GCMR	•1	CASTABLE SLEEVE FOR INCLINED TITANIUM ABUTMENT WITHOUT HOLE Ø 3,5mm	
	Ref. GCMR4	•1	CASTABLE SLEEVE FOR INCLINED TITANIUM ABUTMENT WITHOUT HOLE Ø 4,0mm	
8	Ref. GC	•1	CASTABLE SLEEVE FOR TITANIUM ABUTMENT Ø 3,5mm	
6	Ref. GC4	•1	CASTABLE SLEEVE FOR TITANIUM ABUTMENT Ø4mm	
O o	Ref. GC5	•1	CASTABLE SLEEVE FOR TITANIUM ABUTMENT Ø5mm	
₩ h	Ref. MTFP	•1	TITANIUM ABUTMENT WITH LATERAL HOLES FOR TEMPORARY RESIN BRIDGE WITH WIRE-REINFORCMENT h1,8mm (ONLY AVAILABLE WITH Ø 4,0mm)	
A h	Ref. MTB30FP	•1	TITANIUM ABUTMENT WITH LATERAL HOLES FOR TEMPORARY RESIN BRIDGE WITH WIRE-REINFORCMENT h3mm (ONLY AVAILABLE WITH Ø 4,0mm)	
	Ref. HR800	•1	TITANIUM WIRE WITHOUT ELASTIC MEMORY Ø 1,0mm	
.	Ref. MEG40C	•1	EXTRAGRADE CASTABLE ABUTMENT Ø 4,0 mm	
٥ و	Ref. RMCEG15SF	•1	EXTRAGRADE CASTABLE ABUTMENT WITHOUT HOLE (ONLY AVAILABLE WITH Ø 4,0mm)	
	Ref. SM6	• 6	WHITE SEEGERS WITH HANDLE (STANDARD RETENTION)	
	Ref. SRM6	•6	PINK SEEGERS WITH HANDLE (SOFT RETENTION)	
	Ref. 022RGO	•3	CASTABLE CONNECTION BAR	
	Ref. FSS	•1	BUR FOR THE SEEGER HOUSING POLISHING	



