RHEIN83

# TECHNICAL MANUAL

## FIXED AND REMOVABLE PROSTHESIS

*for dentists and dental technicians*

All on 4

1983-2023

THE DENTAL ATTACHMENTS COMPANY

**Gianni Storni**
**Rhein83 CEO and Technical Director**

**Nicolò Scaglia**
**Export Manager**

**Raffaele Lombardo**
**Commercial Director Italy**

***Rhein83 was founded in Bologna in 1983 and established its headquarters and production site in Bologna. Over 30 employees work with passion and dedication, leading the company to become the market leader in Italy and successfully exporting to over 100 countries. A training centre, Rhein83 Academy, welcomes dentists and dental technicians from all over the world, offering a comprehensive programme of courses dedicated to removable and fixed dentures on attachments.***

*Ball attachments had already existed for many years: a metal ball and a retentive cap, also made of metal. But these attachments met with neither favour nor market. Hence the intuition to make the mechanism elastic, flatten the ball head and build a plastic cap. The idea was a winner and today this technique is one of the most widely used. Rhein83 has been in existence since 1983 and its products have various copies all over the world, copies that in many cases reflect the shapes of the objects but not the materials they are made of, so the functional result changes significantly. Research is devoted to the study of new products, but also constantly to perfecting the functioning of those that have been in use for years. Dental brackets are small mechanisms in constant motion and stressed in an unpredictable manner, so they need to be maintained and updated. Some of the products in the catalogue are made to maintain and restore functionality, in all prostheses, if necessary directly in the mouth of patients. Rhein83's commitment, with its expertise continually enriched by external collaborations with dentists and dental technicians, is to improve current standards and develop new products through original designs.*

*Ezio Nardi*
(founder)

All on 4 th
1983-2023

# For forty years we have been writing the future together!

***Production***

*Rhein83 manufactures at the Bologna site. The in-house workshop produces components for many implant manufacturers and individual customised parts on request*

***Technical Support***

*Dental technicians in the in-house laboratory provide technical advice by telephone and organise free one-to-one in-person and online courses.*

***Offices***

*A young and competent team responds daily to Italian and foreign customers offering advice for every need.*

***Warehousing and packaging***

*The warehouse is always ready for customers' requests, being able to dispatch products in a very short time.*

## Scientific training

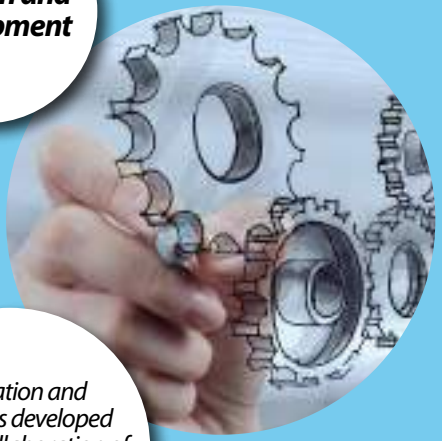
*Different approaches to dentistry are proposed, from traditional techniques to the most advanced digital solutions.*

## Live courses

*The surgical-prosthetic process in all its phases, an excellent tool to facilitate learning new protocols.*

RHEIN83
All on 4 1983-2023

## Research and Development



*Innovation and research is developed with the collaboration of numerous universities, both Italian and foreign.*

## Academy Rhein83

*Conferences, events and practical courses, welcoming professionals from all over the world for training in fixed and removable prosthetics.*

***View Rhein83 calendar courses***

***Consult the Rhein83's scientific literature***

***Watch Rhein83's clinic videos***

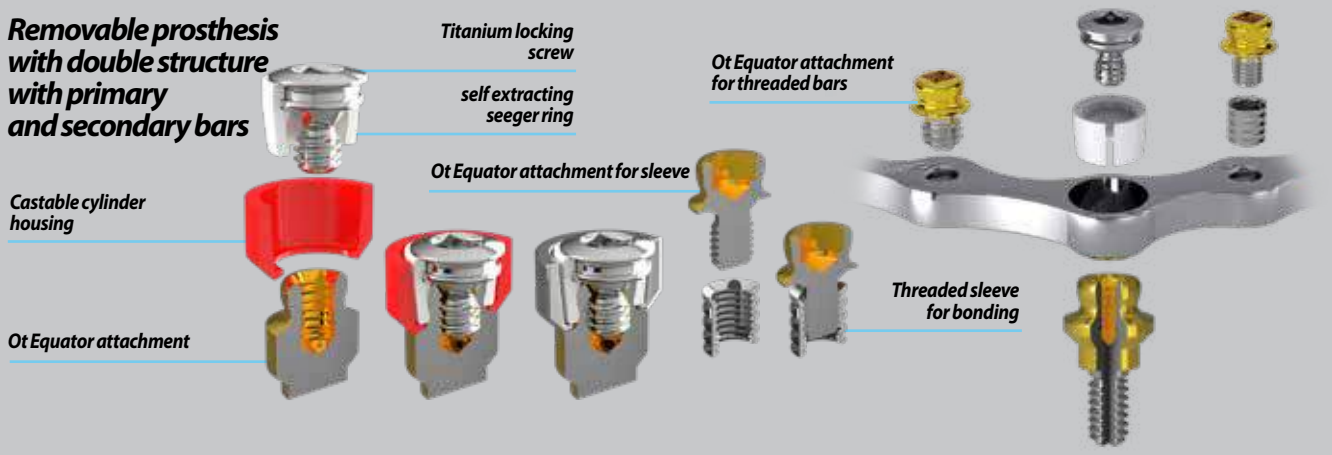
# INDEX

*Rhein83 created the Ot Equator design in 2007 as a direct overdenture attachment. Subsequently, the attachment was modified by creating a thread inside the ball so that the Ot Equator attachment could also be used for screwed-on prostheses, using it exactly like a M.U.A. with all the advantages of having many adjustable heights available. Ot Equator maintains its small size throughout the entire transmucosal path.*

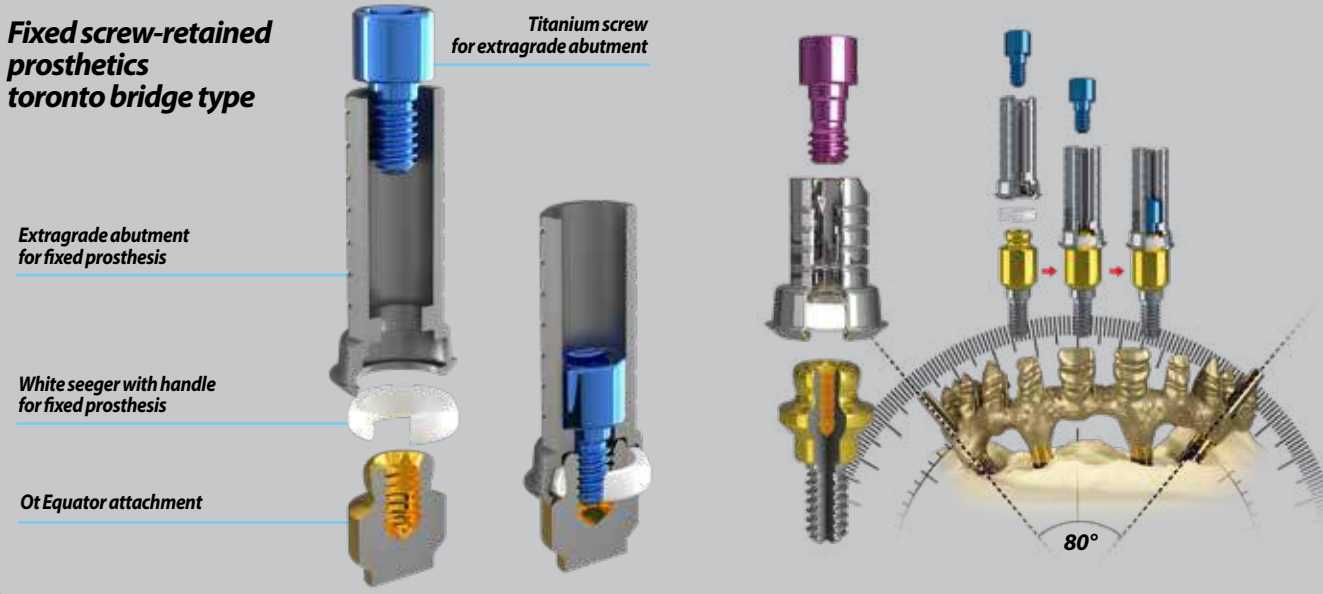
*The ductility and multifunctionality of the Ot Equator attachment allows users to have* ***a single attachment for all types of implant prosthetics.***

## *Direct overdenture prosthesis*


## *Removable prosthesis with double structure with primary and secondary bars*




## *Fixed screw-retained prosthetics toronto bridge type*



### *Some advantages of using the Ot Equator attachment*

*Operating personnel will find themselves greatly facilitated by handling a single component during all surgical and prosthetic phases, significantly reducing time and handling of components and accessories. The real revolution offered by the system such as the saving of materials, instruments and working time is a fundamental aspect for the clinic and laboratory, which will also be able to use the Ot Equator attachment with the most modern digital techniques compatible with the most important cad-cam software. The Ot Equator attachment is produced for all known and unknown implant manufacturers in the world; therefore, it allows all prosthetic platforms to be unified, enabling the surgeon to use even different types of implants in the same clinical case.*

**1** ***Only driver for screwing all components in the studio and laboratory*** ✓

**1** ***Only transfer for impression taking*** ✓

**1** ***Only laboratory analogue for all implant houses*** ✓

OT Bridge

Scientific research has now made it possible to use the Ot Equator attachment also in screw-retained fixed dentures, thanks to the thread located inside the ball. This complete line, an alternative to cemented or screw-retained prostheses on M.U.A., revolutionises screw-retained fixed prostheses by using the "Seeger", an acetal ring that is inserted inside the Extragrade prosthetic abutment, obtaining a double seal on the Ot Equator attachment, both mechanical and retentive. The anchoring force of this Seeger ring, together with the screwed components, allows the elimination of 25% of the prosthetic screws, obtaining an eNORMALus advantage for the aesthetics and hygiene of fixed prostheses on implants. By using the Extragrade titanium abutment correctly, undercuts between implants of even more than 80° can be overcome without the use of milling components or angled M.U.A.'s.

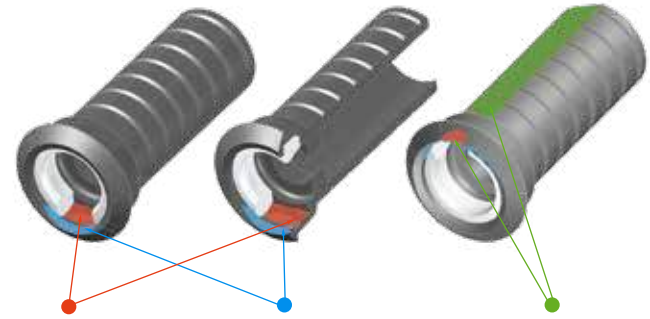
### *Set 42*

The 42 autoclavable Set (BE42 + 42 Ot Equator as a choice) allows the clinician to have all Ot Equator attachment heights available at all times for all cases of implant-supported prosthetics: direct removable prosthetics, removable prosthetics with bar and double framework, screw-retained fixed prosthetics, with particular indication for those performing immediate load surgery.

Set 42 is produced and dispatched within 5 days of order, please indicate:
make of plant, diameter and height. Available heights
for internal hex implants from 0.5 to 7mm
for external hex implants from 2 to 7 mm

### *Extragrade and seeger anti-rotation systems*

- Seeger anti-rotation system
- Extragrade system
- Reference flat milled surface



The anti-rotationality of the seeger ring is possible thanks to the stop inside the prosthetic abutment which prevents any seeger rotation.

The OT Bridge prosthetic abutment must be positioned with its extragrade flaring in correspondance of the implant undercut.

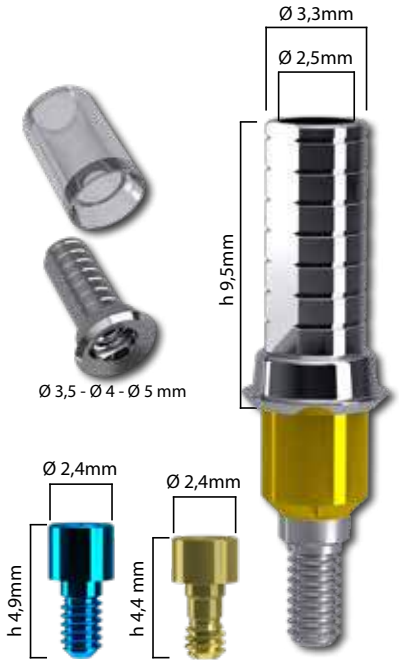
The external flat milled surface acts as reference point and identifies the position of the internal extragrade flaring.

With divergent implants, the extragrade abutment must be inserted with the external flat milled surface in correspondance of the maximum undercut of the Ot Equator.

## TITANIUM ABUTMENTS WITH THROUGH HOLE SCREW AND CASTABLE SLEEVE

***The titanium abutments with through hole screw are used in all dentures where thedivergence does not create any aesthetic problem for the access to the prosthetic screw in the dental arch. Extragrade titanium abutments are available in Standard and Mini size.***

### STANDARD
### Extragrade Abutment

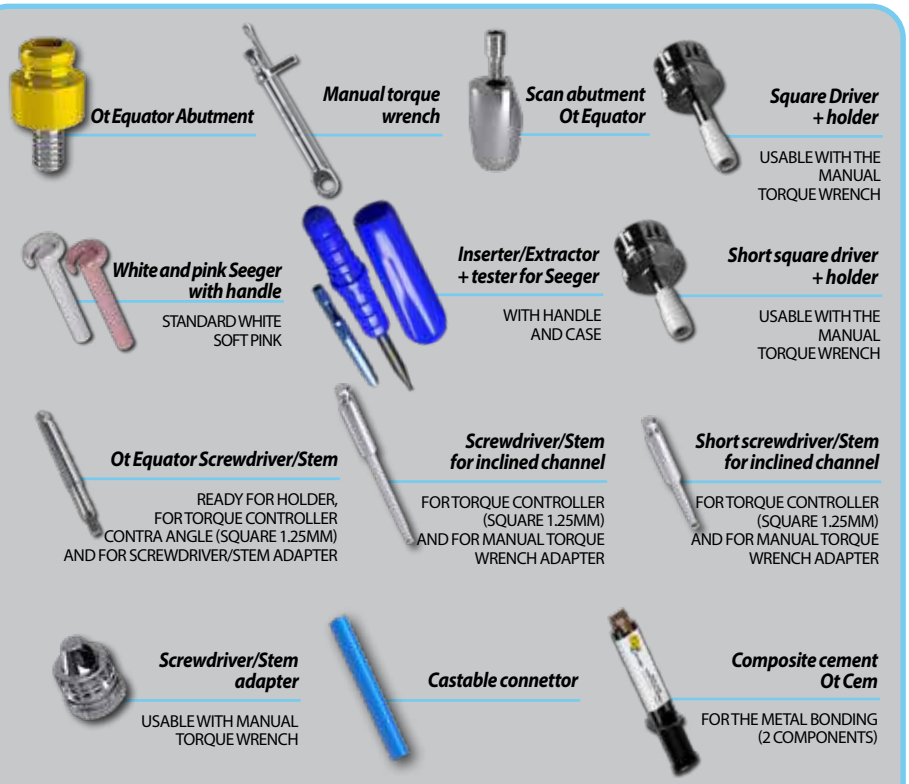


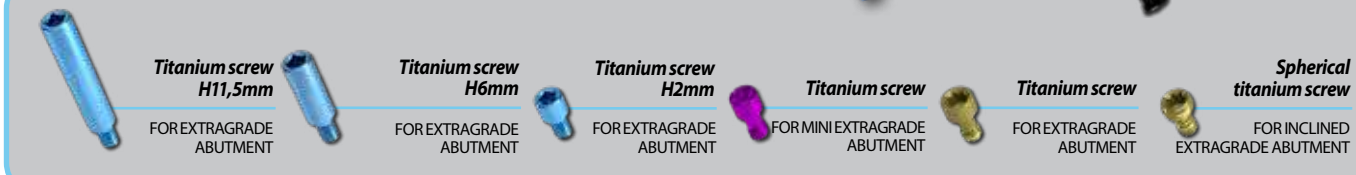

## TITANIUM ABUTMENTS INCLINED AT 15° AND CASTABLE SLEEVE

***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.***

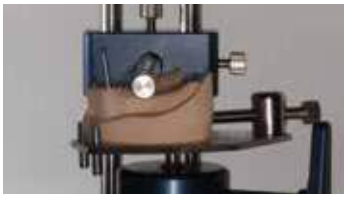
### INCLINED AT 15°
### Extragrade Abutment


### MINI
### Extragrade Abutment

## LABORATORY — *Titanium abutments with and without screw + castable sleeve*

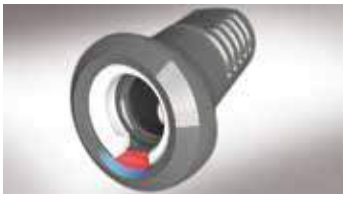


Model analysis using the Rhein83 Parallelometer

Implants divergency analysis.

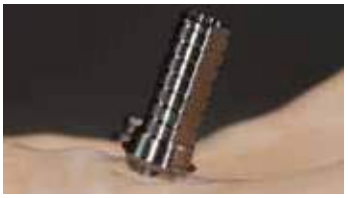
Analysis of the teeth set-up dimensions. The project is made with the titanium abutments with screws, sleeves to be bonded and titanium abutments inclined at 15° without screws.

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.

If the screw hole creates aesthetic problems, the titanium abutment pre-angled at 15° with the screw can be used. If the problem persists, it can only be used with the Seeger, but the percentage of abutments without a fixing screw must be limited to 25% (in this case 1 in 4).



It is important to position the titanium abutment with the flat wall on the divergent side, because this corresponds to the chamfer called the Extragrade, which will allow the girdle to bridge considerable undercuts between the implants.

The Seeger must also have its side open on the divergent side, a position that is forced by an anti-rotational step inside the hole.

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

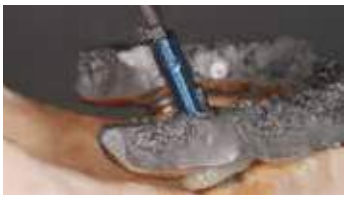
The castable structure must be as passive as possible. Passivity is facilitated by the use of castable gingival connectors that can be adapted, cut and shaped, trying to leave as little space as possible between these and the implant abutment.

Castable structure ready for casting.

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 extra-grade titanium abutment on the Ot Equator abutment making sure that the milled wall faces the undercut.

Sprinkle both the outer part of the titanium abutment and the inner surface of the canal to be bonded with cement. Take care to sprinkle the screw with Vaseline.



Ensure that the milled wall of the extra-grade abutment remains in the correct position.

Work polished, assembled, ready to be covered with the aesthetic material.

## CLINIC — LABORATORY — *Digital solutions for Ot Bridge line*

Scan the scanbody in the mouth. The milled wall of the scan body must face the undercut of the implant.

***SOLUTION A***

Scan Abutment scan for Cad design. The milled wall of the scan abutment corresponds to the extragrade part of the titanium abutment and must face the undercut of the implant.

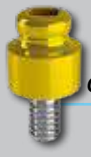
***SOLUTION B***

Direct scanning of the titanium abutment for Cad design.

***Watch the Ot Bridge video on Youtube***

## *Castable abutment with through-screw and seeger*

## *Castable abutment without screw, only seeger*



***Ot Equator Abutment***

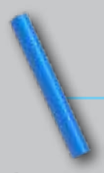
***Manual torque wrench***

***Square Driver + holder***

USABLE WITH THE MANUAL TORQUE WRENCH

***Short square driver + holder***

USABLE WITH THE MANUAL TORQUE WRENCH



***Castable connettor***

***White Seeger with handle***

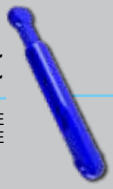
STANDARD

***Pink Seeger with handle***

SOFT

***Inserter/Extractor + tester for Seeger***

WITH HANDLE AND CASE



***Insertion handle***

MINI TRANSFER

***Special bur***

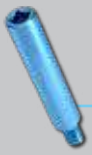
FOR THE POLISHING OF THE ABUTMENT HOUSING

***Ot Equator Screwdriver/Stem***

READY FOR HOLDER, FOR TORQUE CONTROLLER CONTRA ANGLE (SQUARE 1.25MM) AND FOR SCREWDRIVER/STEM ADAPTER

***Screwdriver/Stem adapter***

USABLE WITH MANUAL TORQUE WRENCH



***Titanium screw H11,5mm***

FOR EXTRAGRADE ABUTMENT

***Titanium screw H6mm***

FOR EXTRAGRADE ABUTMENT

***Titanium screw H2mm***

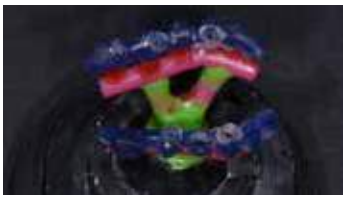
FOR EXTRAGRADE ABUTMENT

## LABORATORY *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 abutment with screw, likewise the titanium abutment with screw, you can see the bevel called Extragrade.

The Extragrade position is indicated by the flat surface outside the abutment; this must always be positioned in correspondence with the undercut created by the tilted implant.



Moulded barwith casting pins ready for investment.

Detail of the castable abutment after casting and sandblasting.

Special cutter used to clean off oxide or any small bubbles inside the cast core.

Test the accuracy of the casting with the Ot Equator analogue before proceeding with the finishing and polishing of the structure.

Polished and ready to be finished with aesthetic coating.

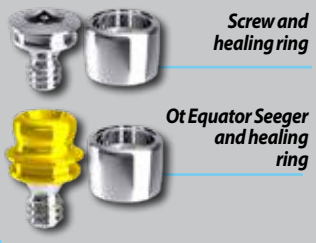
Insert the Seeger as in the photo, placing the open part in the Extragrade portion of the titanium abutment.

Finished work seen from below (caudal).

Vestibular view. It can be seen that thanks to the pre-angled stumps and Seeger there are no vestibular holes.

Work completed.

## CLINIC — *Healing abutments*

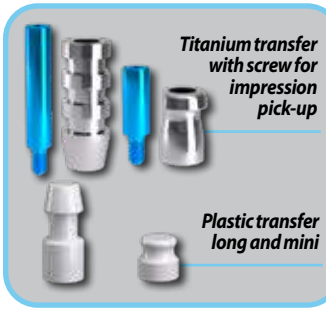



Option 1: Healing plug screwed onto the Ot Equator abutment.

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

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

## CLINIC — *Impression transfer*

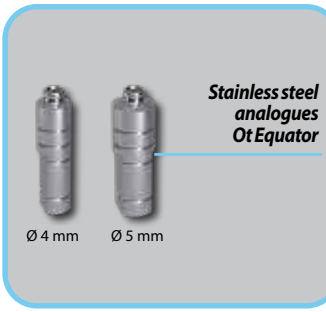


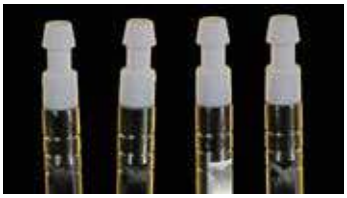

Titanium transfer with pick-up impression screw

Long plastic transfers for tear-off impressions

Mini plastic transfer, ideal in situations where we have little vertical space or immediate loads.

## LABORATORY — *Ot Equator stainless steel analogues*



If the tear-off transfers remain in the mouth, detach them and connect them to the laboratory analogue and reposition them in the impression.

With the help of the laboratory analogue, correctly reposition the plastic transfers in the impression.

Imprint prepared to be cast in plaster.

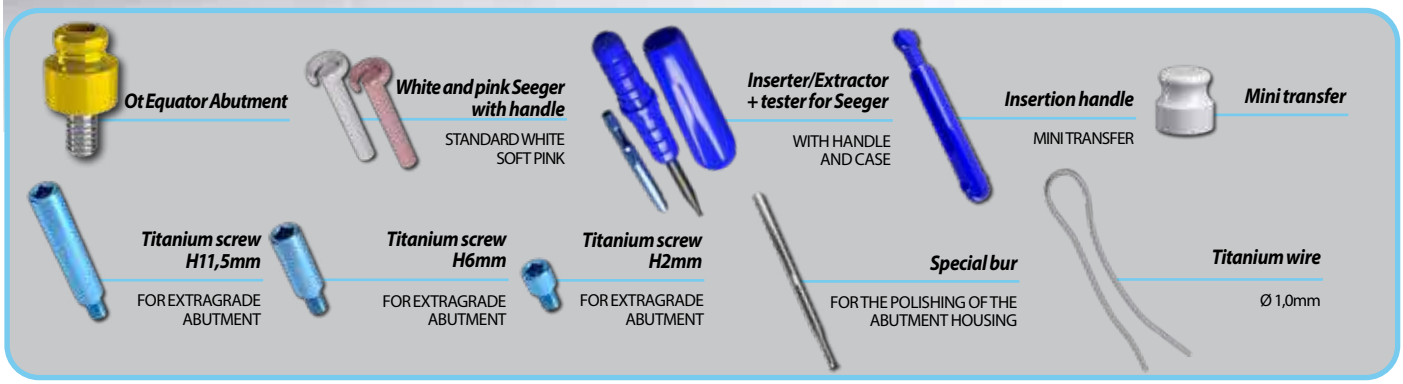
## LABORATORY — *OT Equator stainless steel analogues with titanium screw for Cad/Cam*


Moulded model with triangular housing for stainless steel analogue Cad/Cam.

The analogue is stopped with a screw inserted from below.

Finished model.


***Ideal solution for cases with immediate loading or for all cases where a temporary device is required to provide an excellent structural strength.***




## LABORATORY *Temporary denture with wire reinforcement*


Titanium wire for the construction of wire reinforced frameworks.

Titanium wire inserted into the lateral hole (ø 1mm ) of the abutment.

Insert the titanium wire into all lateral holes of the the titanium abutments.

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 teeth are positioned and shaped accordingly to the mask and the available spaces.

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 titanium abutments with lateral holes do not have the Extragrade bevel, so if necessary it can be made manually, once the work is finished, paying the utmost attention in doing it always on the divergent side.

It is fundamental to position the Seegers so that their open side is in correspondence with the undercut created by the tilted implant.

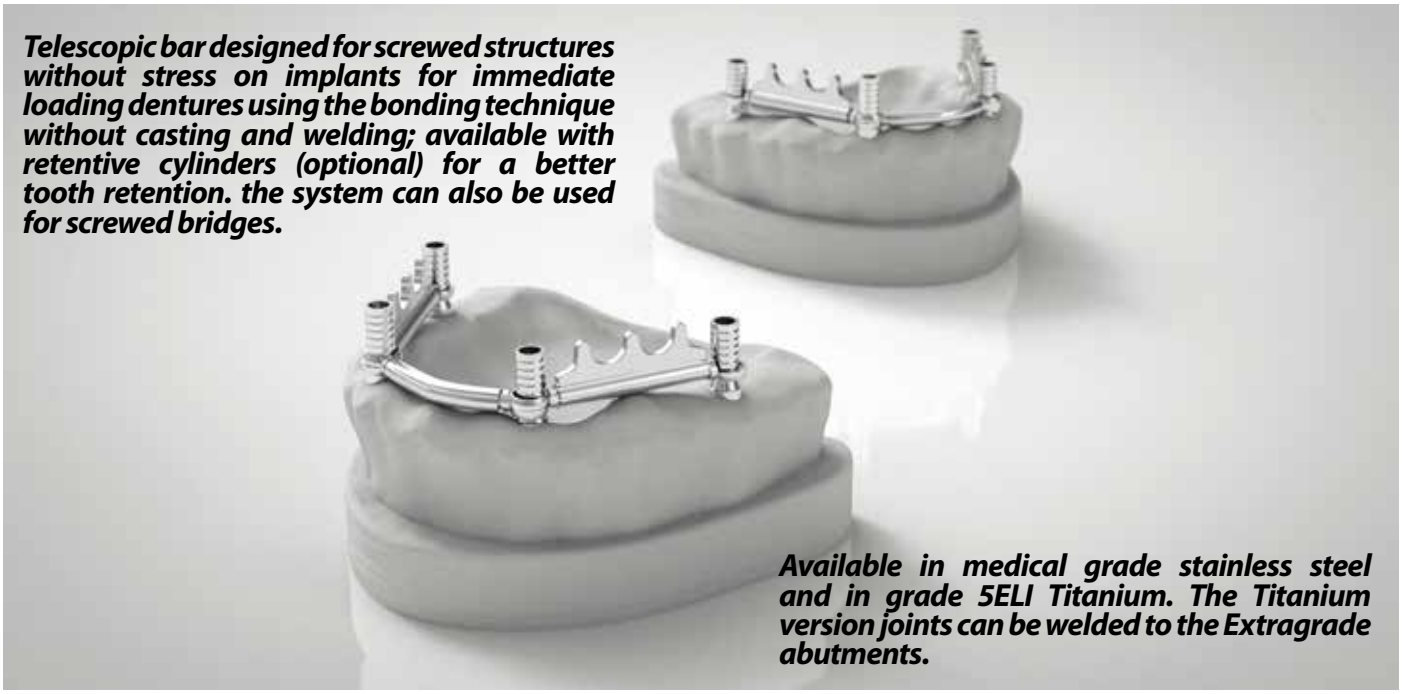
Insertion of the Seegers into all the titanium abutments.

Even with the temporary dentures, the insertion patterns must be followed accordingly to the implant divergences both on the model and into the patient's mouth.

In the case of strong disparallelism (all-on-four type), it is advisable to insert the bridge first on the most inclined implants.

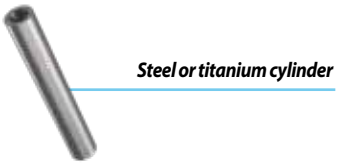
The resin-wire-reinforced bridge is finished and delivered to the dentist in approximately two to three hours.

***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.***

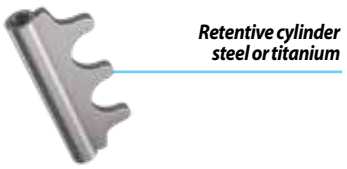


***Available in medical grade stainless steel and in grade 5ELI Titanium. The Titanium version joints can be welded to the Extragrade abutments.***

***Steel or titanium joint***

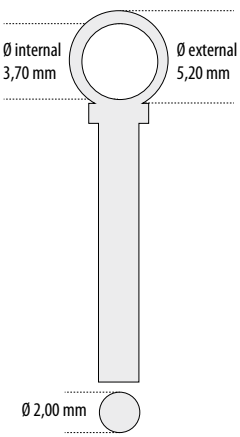


***Steel or titanium cylinder***

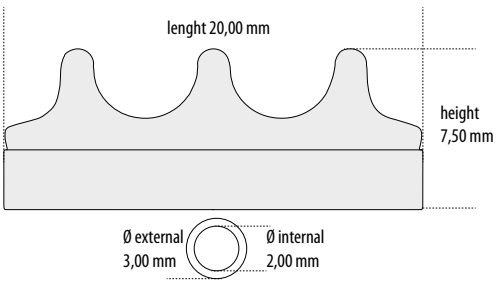


***Retentive cylinder steel or titanium***

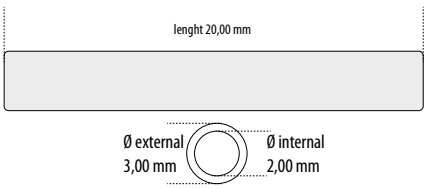
***Joint***




***Cylinder with retention inserts***




***Cylinder***



OT EQUATOR

***Ot Equator attachment***

THE HEIGHT OF THE EDGE OF HEALING IS AVAILABLE FROM 0.5 to 7mm

***Impression transfer tear-off***

***Impression transfer***

***Stainless steel analog for plaster model***

***Square screwdriver + Ot Equator Holder***

USABLE WITH MANUAL WRENCH TORQUE DEVICE

***Screw driver connector***

SQUARE 1,25mm

***Interchangeable holder***

FOR OT EQUATOR

***Housing spacer***

OT EQUATOR

***Protective discs***

***Ratchet torque control device***

***Ot Equator Caps Inserter/Extractor tool***

NORMAL/MICRO - OT EQUATOR

***Caps housing***

Stainless steel

***Caps housing***

Titanium

***Smartbox caps housing***

with black positioning housing

***Black Smartbox cap***

Positioning

***Violet cap***

Rigid retention
2700g

***White cap***

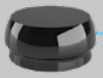
Standard retention
1800g

***Pink cap***

Soft retention
1200g

***Yellow cap***

Extra soft retention
600g



***Black cap***

No retention
Exclusively for the laboratory

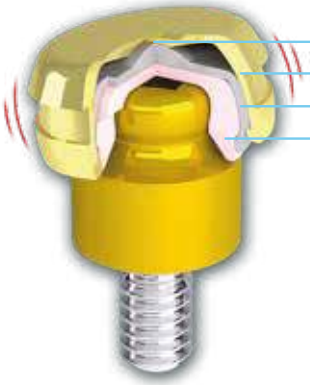
***Reduced internal diameter aqua cap***

Strong
1300g

***Reduced internal diameter orange cap***

Very elastic
350g

Smart BOX *the self-aligning Ot Equator Housing*



***Metal to metal rotational core***

***Titanium anodized housing***

***Titanium liner***

***Elastic cap***

***Passive insertion reduces trauma***

***Correct divergency up to 50°***

*The geometries of the Ot Equator attachment together with the traditional coping box allow the prosthesis to have superior retention than the traditional spherical attachment, correcting divergences of up to 15° between implants, without affecting the function of the retentive copings.*

## CLINIC — Attaching the caps in clinic

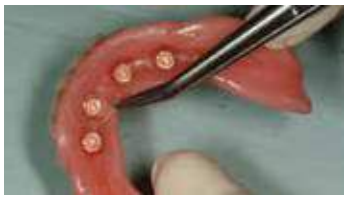
Select the OT Equator with the appropriate cuff height. Screw the OT Equator into the implant.

Place the protective disk over the OT Equator. Then, place the stainless steel housing with cap on the attachment.

Verify the positioning of the prosthesis before bonding the stainless steel housing.

On the prosthesis, fill the implant sites with a self curing resin and insert into the patient's mouth.

Remove the prosthesis and verify that the positions of the attachments are correct.



Remove the protective disks.

Carefully trim away the excess resin.

The completed prosthesis.

## CLINIC — Impression transfer

Place the impression coping on the OT Equator.

Insert the analog into the impression coping and pour the master model.

## LABORATORY — Reinforcement construction on master model

Add sprues to the framework and remove it from the model. Be sure that the stainless steel housing does not remain inside.

The metal frame with stainless steel housings bonded in place.

## CLINIC — Chairside procedure for Smartbox positioning

Screw in the appropriate OT Equator attachment at the height of the gingival margin.

First place the protective disk and then the Smartbox on the OT Equator.

Place a drop of resin in the space prepared to accommodate the Smartbox and insert the prosthesis in the mouth.

When polymerisation is complete, remove the prosthesis with the Smartboxes enclosed, taking care to also remove the protective discs.

Finish the prosthesis while still retaining the black cap protecting the Smartbox.

When the prosthesis is finished, remove the black cap. The Smartbox mechanism is now free to move.

Insert the desired retention cap with the insertion tool.

Work finished.

*Watch the Ot Equator Video on Youtube*

*Watch the Ot Equator Smartbox Video on Youtube*

# SPHEROFLEX/SPHERO BLOCK
## *Rotating & Stationary Ball Abutments For Divergence Correction*

Sphero FLEX

Sphero BLOCK

NORMAL/MICRO


The Sphero Flex implant overdenture attachment is compatible with all implant systems currently on the market.. Featuring a rotating ball with a diameter of 2.5 mm that is flexible to 7.5° in all directions. When used with a 14° directional ring, Sphero Flex corrects divergence up to 43° between two implants. Sphero Flex creates a passive path of insertion which reduces trauma to the implant. Sphero Block is a "one-piece" milled stationary ball implant attachment. It is available in 2.5 mm and 1.8 mm diameters. Sphero Block provides exceptional stability and corrects divergence up to 28° between 2 implants Sphero Block implant attachments are compatible with all implant systems currently on the market. Sphero Flex and Sphero Block are manufactured with cuff heights ranging from 1 mm to 7 mm. NOTE: The Sphero Flex and Sphero Block attachments are available for all platform
diameters.

OT BOX Classic

NORMAL MICRO

OT BOX Special

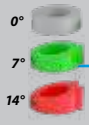
NORMAL MICRO

***Analogs***

SPHERO FLEX/SPHERO BLOCK

***Transfer***

NORMAL / MICRO




***Directional rings***

REQUIRED FOR LAB AND CLINICAL PROCEDURES

***Manual torque wrench***

***Castable connector***

UNIVERSAL CONNECTOR FOR JOINING OT BOXES

***Protective Disk***

***Universal Key***

AND HANDPIECE CONNECTOR

***Caps Inserter/extractor***

NORMAL/MICRO - OT EQUATOR

***Stainless Steel housings***

for curing welding or bonding

***Titanium housings***

For resin and soldering - Fuchsia anodising improves camouflage in resin prostheses

***NORMAL/MICRO Housings spacers***

***White caps***

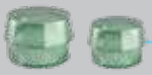
Standard
NORMAL 1300g / MICRO 1100g

***Pink caps***

Soft
NORMAL 900g / MICRO 800g

***Yellow caps***

Extra soft
NORMAL 500g / MICRO 450g



***Green caps***

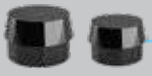
Elastic gummy
NORMAL 350g / MICRO 200g

***Gold Extra resilient caps***

Elastic
NORMAL 500g / MICRO 450g

***Grey Extra resilient caps***

Elastic Gummy
NORMAL 350g / MICRO 200g

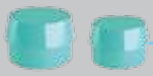


***Black caps***

No retention
for laboratory

***Titan caps***

NORMAL 1500g / MICRO 1300g



***Aqua undersized internal diameter caps***

Standard
NORMAL 1300g / MICRO 1100g

***Pink undersized internal diameter cap***

Soft
NORMAL 900g

***Yellow undersized internal diameter cap***

Extra soft
NORMAL 500g

***Orange undersized internal diameter caps***

Elastic gummy
NORMAL 350g / MICRO 200g

## LABORATORY

Directional rings (green) on the base of the attachment. Green OT BOX position ring inserted on top. OT BOX bars glued on.Cut off the excess OT BOX bar, only one part of the container is used for the retention cap

## CLINIC — Directional rings correct placement





Wrong placement

Correct placement

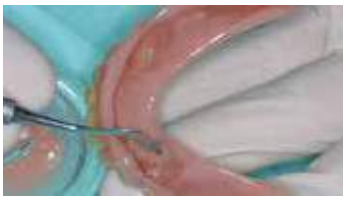

Before placing the impression abutment on the implant it is suggested to put a gray directional ring (for parallel systems) or a ring for angled implants if not parallel. This will keep the impression coping "on level" during the impression. The directional rings have only one direction of insertion.

## CLINIC — Chairside procedure for positioning the caps


Screw the attachment into the implant. For best results, unscrew and screw the attachment 3/a times and then tight firmly.


Select the appropriate directional rings and place them over the spheres. Be sure that the ring is aligned with the hex and seated properly on the platform.


Once the directional rings have been positioned, it is advisable to remove the rententive caps and place a protective disk over the spheres. Replace the retentive caps in original position when finished.


Try the prosthesis in the mouth. Check to see if there is enough space for the retentive caps. Fill the holes with self-curing resin and position the prosthesis over the caps and spheres in the patient's mouth.


Once the resin has hardened, remove the prosthesis. Remove the protective disk along with any excess resin.


Prosthesis finished

***Watch the Sphero Flex and Sphero Block Video on Youtube***

## CLINIC — Taking impression transfer


Place the directional ring over the sphere with the flat side facing down. Place the impression coping over the sphere.


Rotate the directional rings to achieve a common axis parallel to the occlusal plane and take the impression.


Remove impression. Directional rings must be removed from the impression and spheres.


Place the analogs into the impression copings and send to the laboratory for model fabrication.

## LABORATORY — Ot Box Classic NORMAL - Cast reinforced acrylic prosthesis using directional rings


Place directional rings over the spheres. OT BOX is placed over the directional rings, ensuring that the horizontal plane is level. Connect with resin.

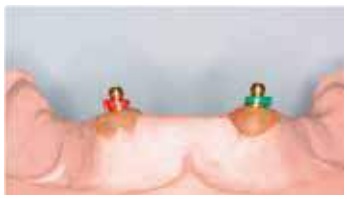

The constructed OT BOX substructure with reinforced wax pins. Sprued and ready for casting.


The cast substructure on the model. The metal reinforcement pins for each tooth are positioned according to the silicone mask.


Finished prosthesis with caps inserted in the cast OT BOX housings.

## LABORATORY — Resin-only prosthesis construction with directional rings


Screw the abutment into the analog. Be sure to use the abutment with the proper cuff height.

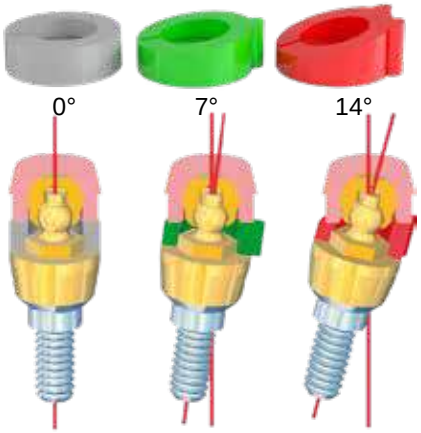

Directional rings are placed over the abutments and must be fully seated on the platform. Rotate rings until they are parallel in the same horizontal plane.

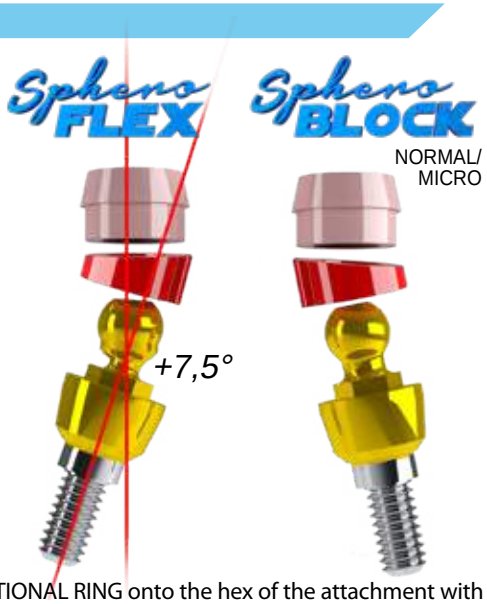

The nylon caps are inserted into the stainless steel housings and placed on top of the directional rings. Verify that the caps are still in the same horizontal plane.


The finished prosthesis with stainless steel housings and retentive caps in final position.

## CLINIC *Sphero flex - Sphero block*

### *DIRECTIONAL RINGS*
*FOR ANGLE CORRECTION*




In order to achieve a passive fit for the final prosthesis using the SPHERO FLEX and SPHERO BLOCK attachment systems, it is necessary to use DIRECTIONAL RINGS. When not used, there is a high possibility that the attachments will not seat properly into the prosthesis due to incorrect positioning of the caps. This misalignment will result in premature wear of the caps causing additional trauma to the implant. SELECTION OF DIRECTIONAL RINGS: The position and angulation of the implant will determine which directional ring will be used. For parallel implants, a 0° DIRECTIONAL RING can be used. For implants that have greater divergence, a 7° or 14° ring can be used. Place the DIRECTIONAL RING onto the hex of the attachment with the flat side down. Be sure that the ring is fully seated. Next, place the retentive cap onto the sphere and rotate the DIRECTIONAL RING until the cap is parallel with the other caps and are in the same horizontal plane. This ensures that the retentive caps are correctly alligned inside of the final prosthesis.

## CLINIC *Instruction for use of abutment driver/wrench*

Clamping mechanism | Incompletely seated driver | Driver fully seated

Abutment Driver has a sliding mechanism that locks it onto the ball abutment. This needs to be fully engaged to properly tight the abutment without damaging the abutment. To dis-engage driver once the abutment is tightened in the mouth push down on the silver portion to loosen the driver from the abutment (Please screw and unscrew the abutment 3/4 times in order to achieve a fine adaption of the two threads). Then tight the abutment with a torque controller or the manual torque wrench.

## CLINIC *Sphere measuring gauge*


Rhein83, always aware of the needs of dentists and dental technicians, created a very simple but essential tool. The sphere measuring gauge provides an easy and safe way to check the diameter of spherical attachments through his four holes corresponding to the most common sizes: 1.6-1.8-2.2-2.5mm.


## CLINIC *Elastic insert*

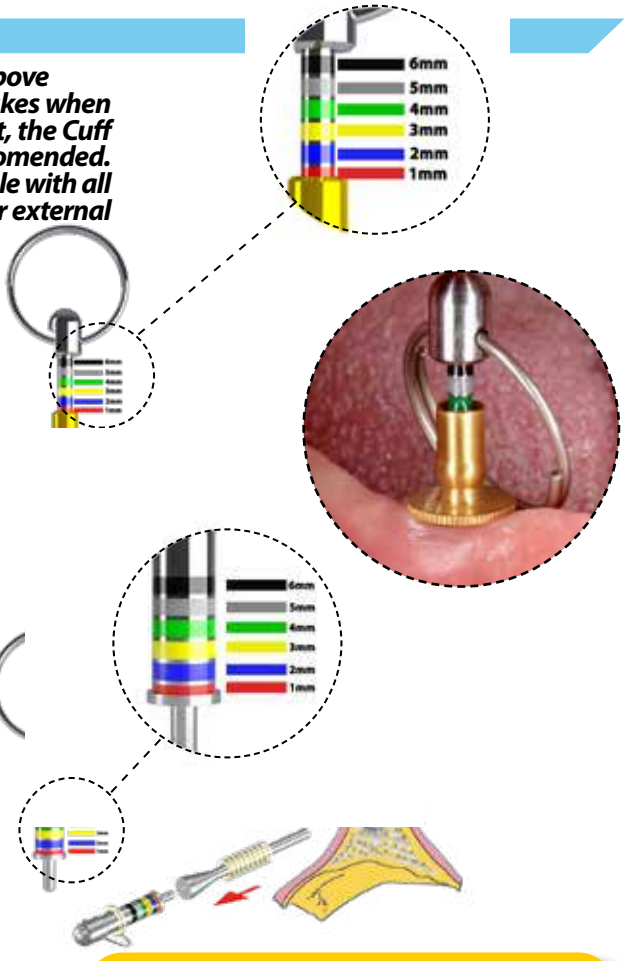
### *UNIVERSAL "ANTI-UNSCREWING" SYSTEM WITH ELASTIC INSERT*

This component is manufacutred from bio-compatible materials with an "elastic" memory. While screwing in the attachment, the insert is compressed. When the threaded attachment is fully seated, the elastic insert will expand and return to it's original form, which prevents rotation and unscrewing of the device.The insert is applied at the manufacturing facility UPON REQUEST. It can be applied to any screw with a diameter greater than 1.8 mm.

**CLINIC** *Cuff height measurer for implants*

CH Measurer

***To determine the tissue height above the implant and eliminate mistakes when choosing the correct attachment, the Cuff Height Measuring tool is reccomended. The Cuff Height Tool is compatible with all implants that have an internal or external hex connection.***




### *UNIVERSAL "C.H." GAUGE SLIDE RULE WITH COLOUR GRADUATED ROD*

Hold the rotating disc of the gauge screwed up, away from the pin with the perimeter base resting on the implant. Insert the stem of the measuring instrument into the implant, until the perimeter base is supported. The rotating plate will be away from the gingiva. Hold the gauge firmly in place and use your fingers to rotate the rotating plate clockwise towards the gingiva. When the base of the rotating plate touches the gingiva, it will mark the height of the gingival margin. Remove the gauge from the mouth, read the colour. The sector of colour where the gauge stops indicates the height of the attachment, which should be referred to and rounded to the nearest millimetre. When a colour is totally or nearly totally covered, it is best to refer to the colour above to order the measuring port. EXAMPLE: to order a coupling, specify type and make of installation and diameter, colour of the indicated height. This colour corresponds to a millimetre code, which, starting from the base of the implant, measures the height of the healing edges of the attachments, ranging from 0.5 to 7 mm for implants with an internal hexagon. For implants with an external hexagon, the height varies from 1 mm to 7 mm depending on the size of the hexagon on the implant.

### *UNIVERSAL "C.H." GAUGE WITH FIXED, GRADUATED COLOUR ROD*

It is used to define the height of a gingival margin, where the measurement of the rotating plate could create difficulties or interference with neighbouring teeth, adjacent implant abutments, etc. It can also be useful for measuring the height of edges on implants with particular sizes and shapes. Elastic O-rings are not sterilisable (disposable). Replacement packs exist. To mount the elastic O-rings on the measuring device, it is essential to use the DISPENSER inserter.

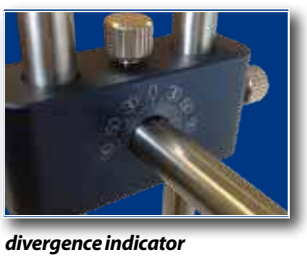
***Watch the Cuff heigh measurer video on Youtube***

**LABORATORY** *Mini parallelometer*

## FEATURES:

- ***EASY TO USE***
- ***COMPACT***
- ***PRECISE***
- ***ECONOMICAL***

***Height of the mini-parallelometer: 17cm***



***divergence indicator***

The MINI-PARALLELOMETER allows accurate positioning of attachments without the need for an expensive milling machine. The MINI-PARALLELOMETER is a useful and economical device for the laboratory technician that can be used in day-to-day operations or in a training environment. INSTRUCTIONS FOR USE Place the stone model on the swivel base. Rotate the base until the ideal model position is found. Insert the mandrel into the notch on the horizontal extension arm and lock it into place by tightening the screw. Adjust the height by moving the horizontal arm up and down. Once the correct height has been found, lock the arm into position by tightening the rear locking screw.

# BROKEN SCREW EXTRACTOR KIT FOR IMPLANTS
*For removal of broken implant screws*

A broken screw inside an implant is a serious, even if not so frequent, problem. With the BROKEN SCREW EXTRACTOR KIT, you can remove the broken screw fragment from the implant if it has not been cemented or if the implant internal thread has not been damaged in a previous removal attempt. In 90% of the cases the broken screw can be easily unscrew but, the operation must be carried out with great skill, patience and attention. The time necessary for the removal may depend on a number of factors, including the location of the implant which may facilitate or complicate the operation. Once the screw has been removed, the leftovers must be removed from the implant with air, water, and suction.

WARNING:
During the use it is mandatory to cool down the CENTERING DEVICE (A), the CLAW REAMER BUR (C) and the REVERSE CUTTING BUR (D) with a lot of water in order to not overheat the implant; consequently, the bone will be protected from any risk of overheating and necrosis. The effectiveness of the CLAW REAMER BUR and of the REVERSE CUTTING BUR is optimal for three extractions of broken screws. The REVERSE CUTTING BUR is extremely hard but brittle to bending; in order to avoid its breaking it is absolutely necessary to that the CENTERING DEVICE does not move during the entire operation. For some types of connection the BROKEN SCREW EXTRACTOR KIT is available in stock; for other types of connection it is necessary to start production and the production time increases to a maximum of 10 working days.

Radiography of the broken piece screw

Broken screw out

Broken screw being removed



inserted the CLAW REAMER BUR (C) in the MANUAL DEVICE (B) for the manual removal of the broken screw

## *AVAILABLE FOR:*

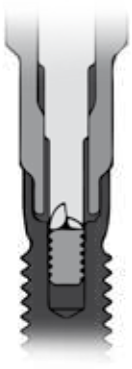
- Implants with INTERNAL HEXAGON (type SCREW VENT and similar)
- Implants with EXTERNAL HEXAGON (type BRANEMARK and similar)

***Reverse cutting Bur (D)***

***Claw reamer Bur (C)***

***Manual device (B)***

***Centering device (A)***



***Claw reamer Bur (C)*** ***Reverse cutting Bur (D)***

## *COMPONENTS AND ACCESSORIES*

A CENTERING DEVICE
B MANUAL DEVICE
C CLAW REAMER BUR
D REVERSE CUTTING BUR

## CLINIC *Broken screw extractor kit - claw reamer bur with manual device*

Broken screw inside the implant

Insert the claw reamer bur in the centering device with the manual device.

Insert them into the implant and with constant pressure on the broken screw using the manual device, unscrew it and remove it from the implant by turning anti-clockwise.

## CLINIC *Broken screw extractor kit - claw reamer bur with contra-angle handpiece*

Use the claw reamer bur together with the contra-angle handpiece in case the screw gets stuck inside the implant.

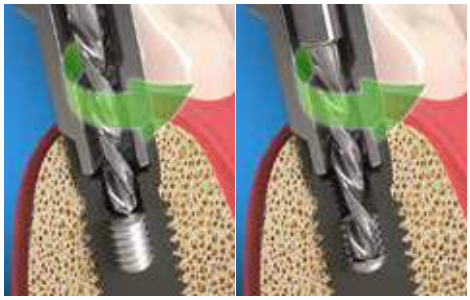
Use the claw reamer bur together with the contra-angle handpiece in case the screw gets stuck inside the implant. Use the claw drill together with the contra-angle handpiece in case the screw gets stuck inside the implant.

Use a speed of between 10 and 30 rpm, and prepare it for the reverse cutting bur that will destroy it.

## CLINIC *Broken screw extractor kit - reverse cutting bur with contra-angle handpiece*

Insert the reverse cutting bur into the implantology contra-angle 20:1. Set the programme anti-clockwise with a speed between 500 and 600 rpm.

Cool with plenty of water during this operation. Insert the reverse cutting bur into the centering device, start rotation, hold it for no more than 3 seconds on the broken screw and release. This alternating movement facilitates the entry of water to cool the system and the bur.



It is imperative that the centering device does not move during the entire operation. If the centering device moves, the reverse cutting bur will break. Once all the laser engravings of the reverse cutting bur disappear in the centering device the operation is complete and the screw is completely destroyed. Once the screw is destroyed, any swarf can be removed from the cavity with air, water and suction.

***THE BROKEN SCREW EXTRACTOR KIT MAY HAVE SPACE PROBLEMS IN THE REAR SECTION, WHICH COULD AFFECT ITS PERFORMANCE. IT'S IMPORTANT TO ANALYZE THE SITUATION BEFORE USING THE KIT.***

***Watch the Broken screw extractor kit video on Youtube***

# CAD/CAM LINE - THREADED ATTACHMENTS

***Attachments for bars already threaded with standard 2 mm thread***

OT CAP

*NORMAL/MICRO*

***NORMAL SPHERE HEX 1.3 mm***

2 mm
standard thread

***MICRO SPHERE HEX 0.9 mm***

2 mm
standard thread

OT EQUATOR

***OT EQUATOR SQUARE HEAD***

2 mm
standard thread

***Ot Cap sleeve spacers***

NORMAL/MICRO

***Hex screwdriver***

HEX 1.27mm/HEX 0.9mm

***Stainless steel housings***

***Titanium housings***

***White caps***

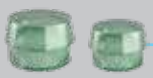
Standard
NORMAL 1300g / MICRO 1100g

***Pink caps***

Soft
NORMAL 900g / MICRO 800g

***Yellow caps***

Extra soft
NORMAL 500g / MICRO 450g



***Green caps***

Elastic gummy
NORMAL 350g / MICRO 200g

***Blac caps***

No retention - processing

***Sleeve spacer***

OT EQUATOR

***Screw driver***

with interchangeable holder

***Ot Equator caps housing***

Stainless steel

***Ot Equator caps housing***

Titanium

***Violet caps***

Strong
2700g

***White caps***

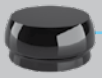
Standard
1800g

***Pink caps***

Soft
1200g

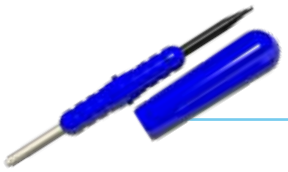
***Yellow caps***

Extra soft
600g



***Black caps***

No retention
Exclusively for the laboratory



***Inserter extractor tool***

NORMAL/MICRO - OT EQUATOR

***Parallelometer mandrel***

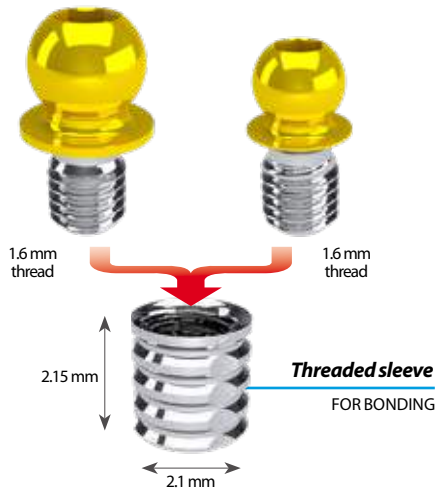
NORMAL/MICRO - OT EQUATOR

***Composite material Ot Cem***

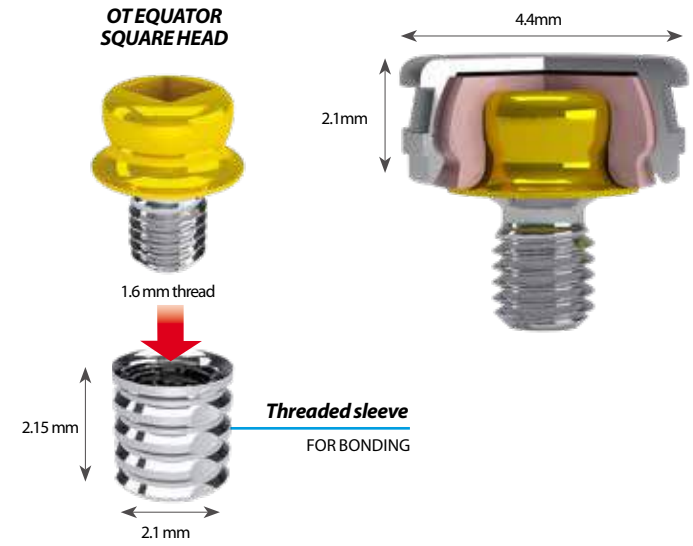
Metal to metal bonding

## OT CAP

*NORMAL/MICRO*




## OT EQUATOR




## LABORATORY — *Threaded sleeve bonding procedure*

Once the bar has been connected with wax, create an area where the attachment spacer will be placed.

Apply separator to the base of theattachment spacer and postion using the parallelometer key.

With the attachment spacer in position, complete the wax-up design.

Carefully remove the attachment spacers and proceed with the NORMAL casting procedure.

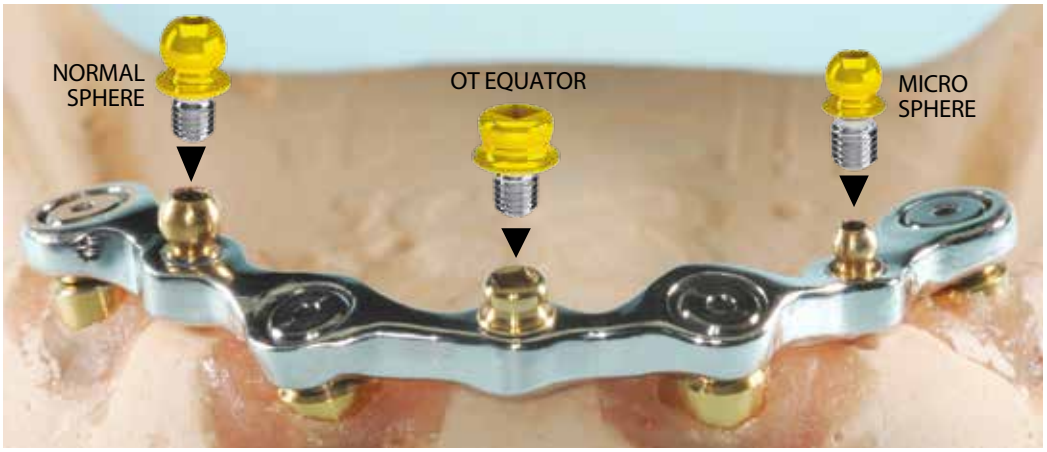
Screw the threaded attachment of choice (MICRO Ball shown) into the threaded sleeve.

Place the assembled attachment into the parallelometer key. Use a self curing metal to metal bonding composite on the sleeve and in the cylinder.

After the composite is cured, remove anyexcess material.

Unscrew the attachment to verify if the threaded sleeve is securely bonded in place.

The finished bar complete with attachments.




***The technique is the same for all three attachment models***

***Watch the threaded attachments video on Youtube***

OT EQUATOR New SEEGER

***The purpose of the OT Equator "seeger" system is to create a passive connection for implant supported bars. The elastic seeger will correct small imperfections created by the chairside impression technique or laboratory casting process. This reduces the risk of the implant bar to not seat passively.***

***Titanium locking screw***

***Self-extracting Seeger ring***

IN PEEK

***Castable container cylinder***

FOR SEEGER RING

***Ot Equator***

TITANIUM + TIN ATTACHMENT

***Ot Equator Seeger***

FOR SELF-EXTRACTING PEEK RING OR TITANIUM HEALING RING

***Square screwdriver 1,25mm + Ot Equator Holder***

FOR IMPLANT ABUTMENT USABLE WITH MANUAL WRENCH TORQUE DEVICE

***Stainless steel analog***

***Caps extractor with housing for inserter***

CURVED TOOL FOR SELF-EXTRACTING RING INSERTION

## *Ot Equator Seeger option*

## CLINIC — Positioning system with elastic Seeger Bar

OT Equator titanium attachments screwed into the implants. The elastic seeger system will be used to position the bar.

The cast bar in position. Insert the PEEK elastic seeger ring into the cylindrical space.

Using the insertion tool, push down the PEEK elastic seeger ring until it is fully seated.

PEEK seeger ring in position, ready to screw the titanium locking screw.

After the elastic seeger ring has been inserted, lock the bar into place using the titanium locking screw, (Torque suggested 15 Ncm)

The finished bar secured in the mouth. A passive connection has been achieved due to the elastic PEEK seeger rings.

The completed prosthesis. For best results a reinforced superstructure is always recommended.

In case of a future check, the special internal design of the PEEK seeger ring allow the self extraction together with the titanium locking screw

## LABORATORY — Wax-Up of the bar directly on model master

Screw the OT Equator attachments into the implant analogs.

Position the seeger castable cylinders, followed by the red plastic seeger for laboratory use on the attachments (Thinner part lower). Screw the titanium sealing lid into position. Do not overtighten.

OT EQUATOR castable attachments are placed on the connecting bar creating a "balance" with the removable prosthesis. Alloys with a Vickers Hardness of 240 or greater are recommended for casting.

Connect the castable abutments with wax or resin.

The cast bar in position on the model.

The cast framework in position. Undercuts on the stainless steel housing can be blocked out using composite material to maintain a passive connection.

Fit and stability of the prosthesis can be regulated using nylon caps.Various levels of retention are available.

The final prosthesis.

## LABORATORY — Ot Equator Seeger

Insertion of the Ot Equator seeger inside the self-extracting peek ring already in position.

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

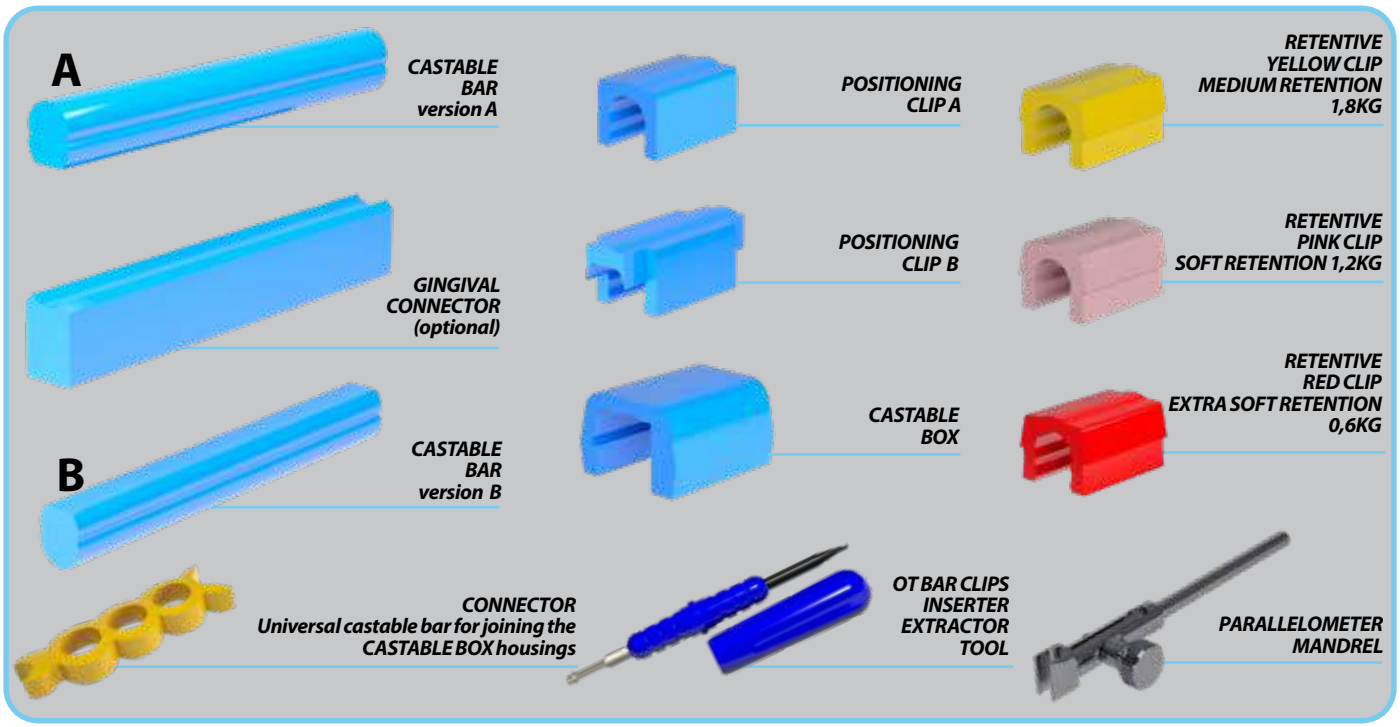
2 threaded Ot Equator for cam and 2 Ot Equator seeger in position, in case of divergence (the Ot Equator seegers follow the direction of the implants) the use of Smart box housings is recommended.

***Watch the Seeger New video on Youtube***

# OT BAR MULTIUSE - CASTABLE BAR
*On the master model without duplication*

OT Multiuse BAR + CONNECTOR

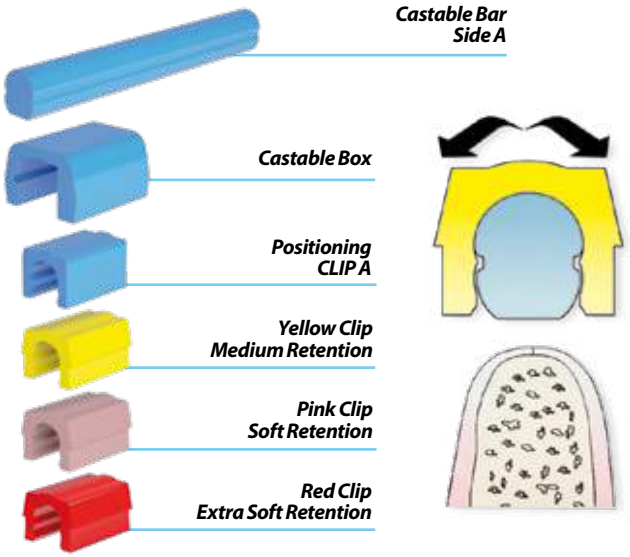
***The OT BAR MULTIUSE is designed with a 4 point retentive system.This unique system provides superior retention and can be utilized for both rigid and resilient functionality. With it's innovative two-sided design (Side A is rounded and Side B side is flat), depending on the indication, either side can be used. If a resilient solution is required the bar is positioned with the flat side facing up or if a rigid solution is required then the bar is positioned with the round side facing up. OT BAR MULTIUSE can also be used as a connecting bar between canines in the anterior region. OT BAR MULTIUSE and the cast housing are fabricated directly on the master model saving time by eliminating the need for duplication.***

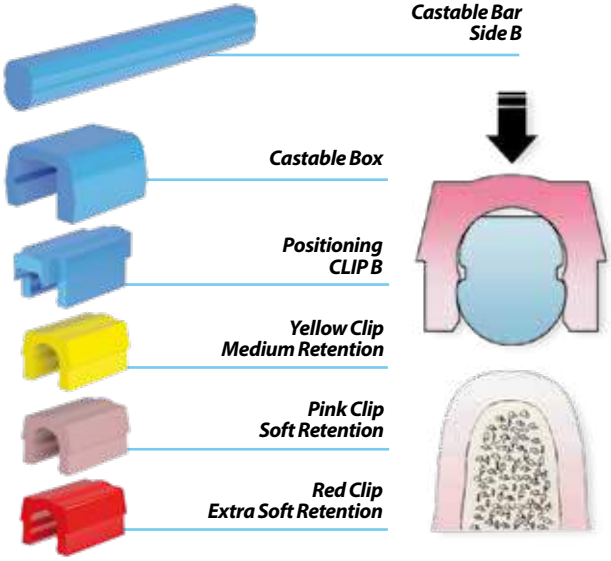



## LABORATORY

### *Side A*
The rigid bar is used as a "connection" between two stable teeth where a "back and forth" motion is required. The bar can also be used in scenarios involving multiple abutments where the prosthesis is supported by a thin layer of soft tissue.

### *Side B*
The resilient bar is most often used in scenarios involving multiple abutments where the prosthesis is supported by a "NORMAL" layer of soft tissue.

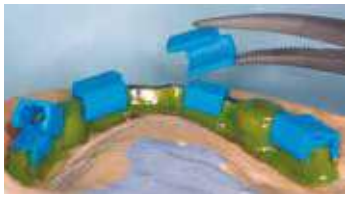


## CLINIC



## LABORATORY *Fabrication of the superstructure on the master model without duplication*



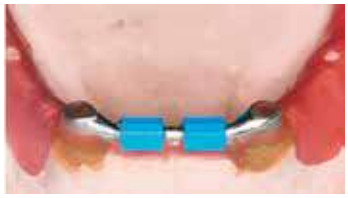


*Guarda il video*
*Ot Bar su Youtube*

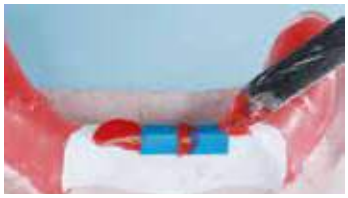
## LABORATORY *Side A - Rigid*


Mount the bar using Side A of the mandrel. Using resin or wax, complete the model.


The finished casting. Be careful not to wear out the retentive surfaces when polishing


Block out any undercuts using wax and place Positioning Clips A on the bar.


To isolate, apply a small piece of tape (ex: teflon, Scotch) on the Positioning Clips A and on the cast bar. Insert the castable box housings.


To prevent resin from adhering to the bar, place a small piece of adhesive tape (ex: teflon, Scotch tape) over the bar. Use self-curing resin to connect the castable boxes.


Complete the model using wax and add castable connectors for extra reinforcement of acrylic. Sprue the model and cast.

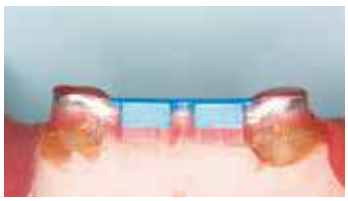

The completed casting with retentive clips snapped in place.


The finished denture withcast reinforcment and retentive clips in place.

## LABORATORY *Side B - Resilient*


Mount the bar using Side B of the mandrel. Using resin or wax, complete the model.


The completed casting. Use caution when polishing the surface. Be sure not to wear out the retentive undercuts.


Use wax to remove all undercuts. Apply a thin layer of wax on the top of the bar to create a cushion. Insert Positioning Clips B.


To isolate, apply a small piece of tape (ex: teflon, Scotch) on the Positioning Clips B and on the cast bar. Insert the castable box housings.


To prevent resin from adhering to the bar, place a small piece of adhesive tape (ex: teflon, Scotch tape) over the bar. Use self-curing resin to connect the castable boxes.


Complete the model using wax and add castable connectors for extra reinforcement of acrylic. Sprue the model and cast.


The completed casting with retentive clips snapped in place.


The finished denture with cast reinforcment and retentive clips in place.

***Ot Equator caps housing***
Stainless steel

***Ot Equator caps housing***
Titanium

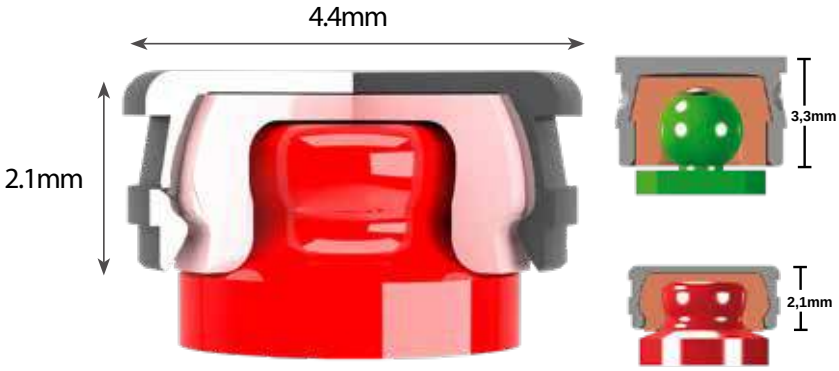
***Violet caps***
Strong
2700g

***White caps***
Standard
1800g

***Pink caps***
Soft
1200g

***Yellow caps***
Extra soft
600g

***Black caps***
No retention
Exclusively for the laboratory




***Ot Equator***
CASTABLE ATTACHMENT

***Housing spacer***
OT EQUATOR

***Impression transfer***

***Impression transfer***
INDIVIDUAL TRAY

***Stainless steel analog***
FOR PLASTER MODEL

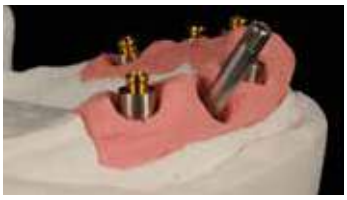
***Caps Inserter/extractor***
NORMAL-MICRO-OT EQUATOR

If additional retention is needed to secure the prosthesis, OT Cap NORMAL retentive caps and metal housings can be placed over any OT Equator spheres. The prosthesis will be retained in the same way and the connection will be more rigid. Only the dimension of the attachment will be changed.

## CLINIC

***Watch the Ot Equator castable video on Youtube***

## LABORATORY



Where space is limited, the Ot Equator castable can be positioned in combination with the castable ucla.

## LABORATORY *Ot Equator castable = indirect tecnique*

Use separating material on the stone model in the prepared areas to receive the castable posts.

Use longer castable posts in the root channels for easy removal. Reline with castable resin, for higher accuracy.

Place posts and finish margins with composite material. Once resin is cured, cut posts to the required length at root level.


Position OT Equator on the occlusal surface with the paralleling key and continue waxing technique.

OT Equator in the final position. The waxup has been completed.

For the best results, create the casting with an alloy that has a vickers hardness of 220 or greater.

## LABORATORY *Build the frame directly on master model*

The plaster model with the OT Equator analog in position. The stainless steel housing and black processing cap are also visible.

Apply a thin layer (.5mm) of wax to the model. Fill the undercuts on the stainless steel housing and attach the connectors.

Connect the parts using a castable resin. Be sure to cover the stainless steel housing.

Add sprues to the framework and remove it from the model. Be sure that the stainless steel housing does not remain inside. The framework is now ready to be invested.

Cast the metal frame and verify the position on the model.

Use composite to bond the stainless steel housing to the frame.

The metal frame with the stainless steel housing in place.

The finished prosthesis on metal frame. After processing, the black caps are replaced with pink caps.

***CASTABLE SINGLE SPHERES***

***NORMAL***

GREEN
Ø 2,5mm

***MICRO***

RED
Ø 1,8mm

***PERNI IN PLASTICA***
Non utilizzare la testa sferica

***NORMAL***

***MICRO***

***The design of the sphere with a FLAT head in addition to the spherical inner surface of the elastic cap, permits vertical movement during mastication. Rhein83 female caps are manufactured out of a special nylon material that remains stable and continues to function in the oral cavity over long periods of time. Clinical data is available showing that stability is obtained with a minimal amount of trauma.***

***WARNING***
These attachments can be cast with all types of alloys, but it is important to use a metal with a high Vikers hardness in order to avoid the risk of wearing the spheres.

***Transfer***
NORMAL/MICRO

***Pivot analogs***
NORMAL/MICRO pivot analogue pins are used in all cases where a metal ball is needed on the model: relining, repairs, etc.

***Stainless Steel housings***
for curing welding or bonding

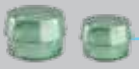
***Titanium housings***
Per resina e da saldare - L'anodizzazione fucsia migliora la mimetizzazione nella protesi in resina

***NORMAL/MICRO Housings spacers***

***White caps***
Standard
NORMAL 1300g / MICRO 1100g

***Pink caps***
Soft
NORMAL 900g / MICRO 800g

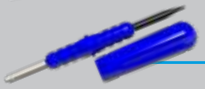
***Yellow caps***
Extra soft
NORMAL 500g / MICRO 450g



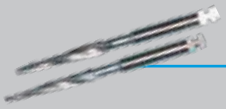
***Green caps***
Elastic gummy
NORMAL 350g / MICRO 200g

***Black caps***
No retention
for laboratory

***Parallelometer mandrel***
NORMAL/MICRO



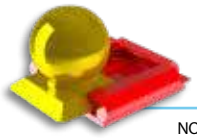
***Caps inserter/extractor***
NORMAL/MICRO - OT EQUATOR



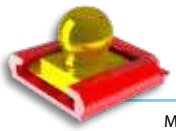
***Burs***
MOOSER

***Protective Disk***

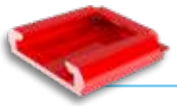
***SINGLE SPHERES TITANIUM + TIN***
(Over 1600 Vickers)
to be bonded or welded



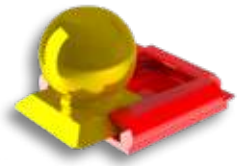
***Titanium sphere***
NORMAL Ø 2,5mm

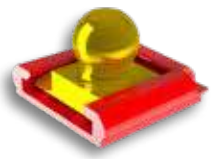


***Titanium sphere***
MICRO Ø 1,8mm



***Sliding base***
CASTABLE





***Watch the Ot cap overdenture roots video on Youtube***

## CLINIC *Transfer impression technique*

Place the transfer on the sphere in the patient's mouth.

Transfer in position, the outer profile ensures a stable position in the impression.

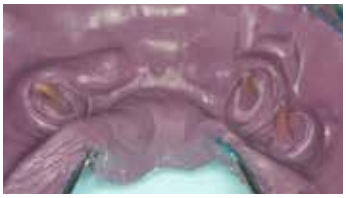
Insert the analogues inside the transfers and cast the model.

Stone model with analogs in place.

## CLINIC *Impression of root canals*

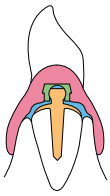
Prepare the roots.


Apply adhesive to the post.



Impression with elastomer.

**WARNING:**
To obtain proper function, it is important to mill the resin with a bur to create a space (highlighted in blue) between the root and the prosthesis.



## LABORATORY *Ot Cap castable single sphere technique*

Insert the castable plastic post into the prepared root cavity. Don't use the post sphere!

Cut the post to the level of the root and remove the sphere.

Position the single spheres in parallel with each other.

Cast post and sphere. It is also possible to place the sphere off center in respect to the long axis of the post.

## LABORATORY *Ot Cap titanium single spheres + Tin for curing welding or bonding*

Wax-up the root cap. Insert the titanium sphere into sliding base and position it on the root cap.

Wax-up with titanium sphere in position. Do not cover the "open" side of the base with wax.

Remove the titanium sphere from the base before attaching sprue.

The finished wax-up with sprue. The root cap and post is ready to be invested.

Using the tool, check the fit of the cast cap by inserting the sphere into the base.

Titanium sphere inserted in the cast root cap base.

Bond the titanium sphere to the base using anaerobic or self curing composite material.

Finished root cap. The sphere is bonded and locked in position.

# OT BOX CASTABLE HOUSINGS

OT Classic BOX + CONNECTOR

***OT BOX CLASSIC***
NORMAL = Green + Yellow
MICRO = Red + Yellow

OT Special BOX + CONNECTOR

***OT BOX SPECIAL***
NORMAL =Gren
MICRO = Red

OT MONO BOX

***OT BOX MONO***
NORMAL = Green
MICRO = Red

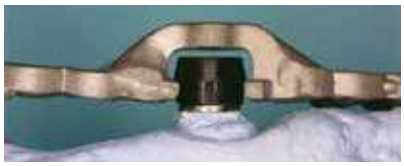
***Watch the Ot Box video on Youtube***

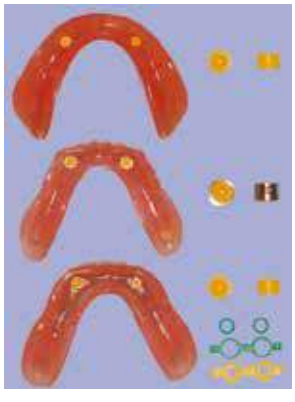
## *OVERSIZED CASTABLE HOUSING*

for repositioning the caps directly in the patient's mouth

OT LARGE BOX
***NORMAL/MICRO***
***+ CONNECTOR***

***The OT Box Large casting compensates for the distance between the cap and the housing. It is manufactured to reposition the cap charside into the frame.***





## *TO BUILD A CAST REINFORCEMENT*

***In the case of ball attachments already fixed in the mouth, the dentist must provide the laboratory with an impression so that the plaster model can be developed with the metal ball analogues.***

*Overdentures with attachments of any make or type are exposed to possible fractures where the attachments are present. With a cast reinforcement, fractures are avoided. With OT BOX bars, the reinforcement is moulded directly onto the MASTER model without duplicating it in the lining. Every workshop is able to cast the complete cast reinforcement without special equipment. Any alloy can be used for casting. The optimum performance of the retention copings is achieved in cast or prefabricated metal containers with a small internal tolerance. The latter allows the entry perimeter of the spring cap to widen during insertion on the ball's equator. If the caps are fixed directly into the resin, it is possible, albeit to a lesser degree, for their perimeter to yield elastically. Metal housings also offer a considerable advantage when it comes to replacing the caps, which is quick and easy.*

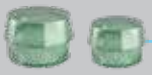
***Analogs***
NORMAL/MICRO

***Transfer***
NORMAL / MICRO

***White caps***
Standard
NORMAL 1300g / MICRO 1100g

***Pink caps***
Soft
NORMAL 900g / MICRO 800g

***Yellow caps***
Extra soft
NORMAL 500g / MICRO 450g



***Green caps***
Elastiche gommose - Tenuta in grammi:
NORMAL 350g / MICRO 200g

***Gold Extra resilient caps***
Elastic
NORMAL 500g / MICRO 450g

***Grey Extra resilient caps***
Elastic Gummy
NORMAL 350g / MICRO 200g

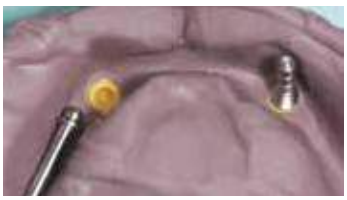
***Castable connector***
UNIVERSAL CONNECTOR FOR JOINING OT BOXES

***Caps Inserter/extractor***
NORMAL/MICRO - OT EQUATOR

## CLINIC — *Impression with posts fixed in the mouth*

Titanium posts cemented into the root.

Before taking the imprint place the transfert over the spheres supported by the proper directional ring.

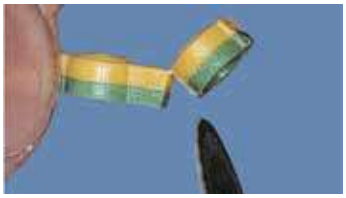


Insert analogs into the impression copings and pour the model.

Plaster model with metal-fused components.

## LABORATORY — *Direct Wax-Up on master model*

OT Box Classic. Glue the two OT Box bars together.



Separate the housing from the OT Box bar connector.

OT BOX SPECIAL is a "one-piece" mono bar. Separate the bar and use only the section needed.

Apply a layer of wax on the ridge. Create three holes in contact with the stone model. Place the positioning rings over the spheres. Be sure to place the ring with the "flared" end towards the coping.

Position the OT Box Classic or Special housings over the rings. Complete the reinforcement using the connectors and join the pieces together with selfpolymerising resin.

Finished wax-up with sprue; ready to be invested.

Finished casting with black retentive caps in housing.

Complete prosthesis with cast reinforcement.

Easy replacement of caps with retentive cap inserter/extractor

Spherical Pivot Line TITANIUM

***PIVOT FLEX***
***TITANIUM +TiN***
***1600 Vickers Hard***
***"self-paralleling" sphere***

***3 lenghts: 10, 9, 7mm***

***TITANIUM***
***PIVOT BLOCK***
***NORMAL Ø 2,5 mm***
***MICRO Ø 1,8 mm***

***3 lenghts: 10, 9, 7mm***

OT EQUATOR Pivot

***PIVOT OT EQUATOR***
***LOW PROFILE***
***TITANIUM + TiN PIVOT***

***3 lenghts: 10, 9, 7mm***

OT Reverse 3

***Housing***
TITANIUM

***Housing***
S/STEEL

***Male retentive***
Ø sphere
1,8mm

***Connection root pivot***
TITANIUM + TIN

***Stainless Steel housings***
for curing welding or bonding

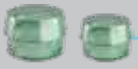
***Titanium housings***
For resin and soldering - Fuchsia anodising improves camouflage in resin prostheses

***NORMAL/MICRO Housings spacers***

***White caps***
Standard
NORMAL 1300g / MICRO 1100g

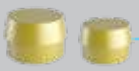
***Pink caps***
Soft
NORMAL 900g / MICRO 800g

***Yellow caps***
Extra soft
NORMAL 500g / MICRO 450g



***Green caps***
Elastic gummy
NORMAL 350g / MICRO 200g

***Black caps***
No retention
for laboratory



***Gold Extra resilient caps***
Elastic
NORMAL 500g / MICRO 450g

***Grey Extra resilient caps***
Elastic Gummy
NORMAL 350g / MICRO 200g

***Caps housing***
Stainless steel

***Caps housing***
Titanium

***Housing spacer***
OT EQUATOR

***Smartbox caps housing***
with black positioning housing

***Black Smartbox cap***
Positioning

***Violet cap***
Rigid retention 2700g

***White cap***
Standard retention 1800g

***Pink cap***
Soft retention 1200g

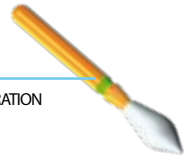
***Yellow cap***
Extra soft retention 600g

***Black cap***
No retention
Exclusively for the laboratory

***Manual tool***

***Protective disk***

***Insertion tool***
TO MATCH HANDLE
INSERTER/EXTRACTOR



***Diamond sizing bur***
FOR ROOT PREPARATION

## CLINIC Directional rings - for fixed and rotating spheres

Pivot Flex posts in divergent roots.

Nylon caps without directional rings. Caps are not supported in the same horizontal plane.

Nylon caps with directional rings. Caps are now supported in the same horizontal plane.


## CLINIC Pivot block for temporary or permanent economical solutions

Pivot Block cemented with oxyphosphate cement for a temporary solution.

To remove the post from the root, grasp the sphere with the pliers and rotate carefully in both directions.

Due to the conical shape and smooth surface, the post is removed easily.

For permanent solutions, create notches in the post and roughen the surface before cementation.

## CLINIC Pivot block and Ot Equator, permanent fixation in the patient's mouth

Prepare the root by the mucosal level and adjust the radicular cavity by using a Mooser Bur with the proper dimensions.

Fill-up the radicular cavities with proper composite cements, insert than the spherical titanium pivots.

Cemented MICRO block pivot in position, retentive notches were applied to support the permanents fixation.

Place the directional rings in position between the roots and retentive caps. Proceed by taking the imprint.

Alginate impression: attachment placements in evidence.

Place the protective disks between the directional rings and the retentive caps. Feel with self curing resin and than place the prosthesis in the patient's mouth.

When the resin will be hard enough remove the protective disk and clean up any excess of resin.

Completed prosthesis.

## CLINIC Ot Reverse3, retentive male fixation in the patient's mouth with self-curing resin

By inserting the hand tool, cutting the positioning pin, an impression can be taken to lock the retention male into the prosthesis using the indirect technique.

If you proceed with direct fixation of the retentive male inside the prosthesis, always use the protective disc or a small dam flap to avoid resin infiltration and to protect the patient's gingiva.

Create enough space inside the prosthesis to incorporate the retention male. Add a drop of liquid resin and insert into the mouth.

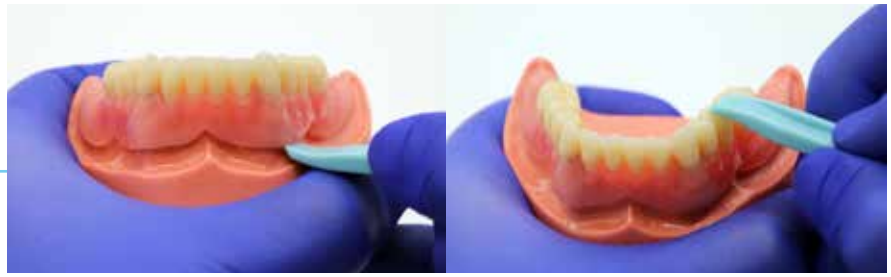
Once the resin has cured, remove the protective discs and trim all excess.

***Watch the Overdentures pivot video on Youtube***

***OT Lever, a patented system to make fast safe and hygienic removal of any dental prosthesis, braces or aligners.***

## *OT Lever is effective on:*

*Total prosthesis*



*Aligners*

*Combined prosthetics*

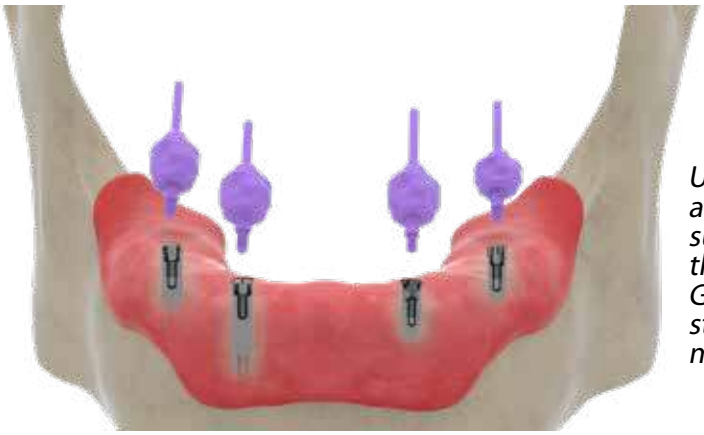
***Watch the Ot Lever Video on Youtube***

### *"UNKNOWN" DENTAL IMPLANTS*

*Every year, several million dental implants are placed worldwide. Unfortunately, the follow-up of each implant is not always well ensured. Many dentists are therefore faced with the problem of having to identify the connection relying on little or no information. Rhein83 has developed a simple and effective protocol to identify any type of implant connection offering several options to the dentist for prosthetic, fixed or removable rehabilitation.*

### *First option: HOW TO IDENTIFY A DENTAL IMPLANT*

*The safest and most accurate way to recognise the unknown implant is to send a component already screwed onto the implant in question. In fact, an abutment, healing screw or attachment, as long as it has an intact thread and connection, will be sufficient for our specialists to obtain all the desired information.*

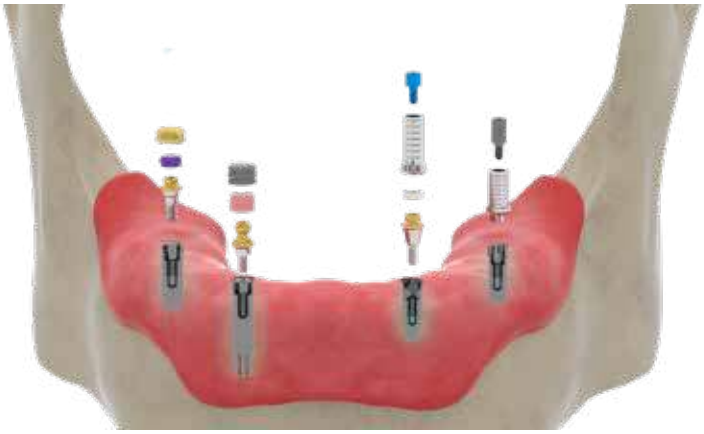


### *Second option: IMPRESSION TAKING*

*Use impression material (impregum with a plastic pin) and proceed with implant cleaning if necessary. Make sure that you have taken an accurate impression of the thread and proceed to send it in a sealed envelope. DIGITAL IMPRESSION: It is possible to carry out the same steps with a 3D scanner by sending the file in STL format to Rhein83 technicians.*

### *NEW PROSTHETIC REHABILITATION*

*The Rhein83 solutions available to the clinic are manifold. From removable dentures with Sphero Block and Sphero Flex ball attachments to the low-profile OT Equator system. For fixed rehabilitations, the OT Brdige protocol makes it possible to optimise any treatment with a protocol that standardises the different prosthetic connections by relying on a single component (OT Equator abutment). For each component it will be necessary to indicate the desired gingival height.*



OT Cap is a resilient distal extension attachment. It is indicated to be used with combined prostheses and removable partial dentures. For treatment plans that require a rigid substructure with milling and adequate counter attachments, OT Cap functions as a stabilizing retentive connector. In addition, for treatment plans which require resiliency, OT Cap provides a "Cushion Effect" similar to a shock absorber. This is achieved by the design of the sphere in conjunction with the elastic retentive caps. The OT Cap Tecno consists of a titanium sphere and ring that is incorporated into the nylon cap which has been machined with a tolerance that assures high precision. While fabricating the prosthesis, the Tecno titanium sphere is not exposed to any of the risks associated with the laboratory fabrication procedures and ceramic firing cycles.

***Stainless Steel housings***

for curing welding or bonding

***Titanium housings***

For resin and soldering - Fuchsia anodising improves camouflage in resin prostheses

***White caps***

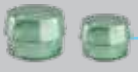
Standard
NORMAL 1300g / MICRO 1100g

***Pink caps***

Soft
NORMAL 900g / MICRO 800g

***Yellow caps***

Extra soft
NORMAL 500g / MICRO 450g



***Green caps***

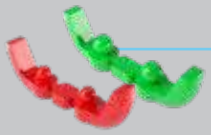
Elastic gummy
NORMAL 350g / MICRO 200g

***Black caps***

No retention
for laboratory

***Titan caps***

NORMAL 1500g / MICRO 1300g



***Castable bars***

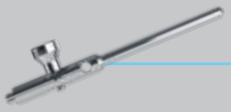
NORMAL/MICRO

***Ot Box mono***

NORMAL/MICRO

***Parallelometer mandrel***

forr Ot Cap NORMAL/MICRO

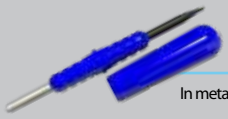


***Parallelometer mandrel***

for Ot Cap Tecno NORMAL/MICRO

***Regulation tool for retention***

NORMAL/MICRO



***Caps inserter/extractor NORMAL/MICRO/Ot Equator***

In metal housingsvv and in the patient's mouth

## *OT CAP TECNO*

View of the Ot Techno system, NORMAL or MICRO sphere can be used with the same threaded sleeve.

## *OT BOX MONO*

The positioning ring to be inserted on the sphere before model duplication.

***Watch Extracoronal attachments Ot Cap on Youtube***

## CLINIC

## LABORATORY *Ot Cap castable*

Detach the portion of the bar to be used

Mount the spheres in parallel with the appropriate spanner and complete the modelling by respecting the support plate of the calcinable arm adjacent to the distal crown..

The cast crowns. It is suggested to use a retentive cap to protect the sphere from any damage.

The cast attachment. The "ledge" along the crown helps select and redirect the vertical loads.

## LABORATORY *Ot Cap Tecno*

Using the mandrel, position the Ot Tecno castable extension in parallel, Complete the wax-up with a "ledge" along the crown and cast.

Place the assembled attachment into the parallelometer key. Use a self curing metal to metal bonding composite on the sleeve and in the cylinder.

After the composite is cured, remove any excess material.

Unscrew the attachment to verify the threaded sleeve is securely bonded in place.

## LABORATORY *Ot Box Mono: coast housing with duplicated models*

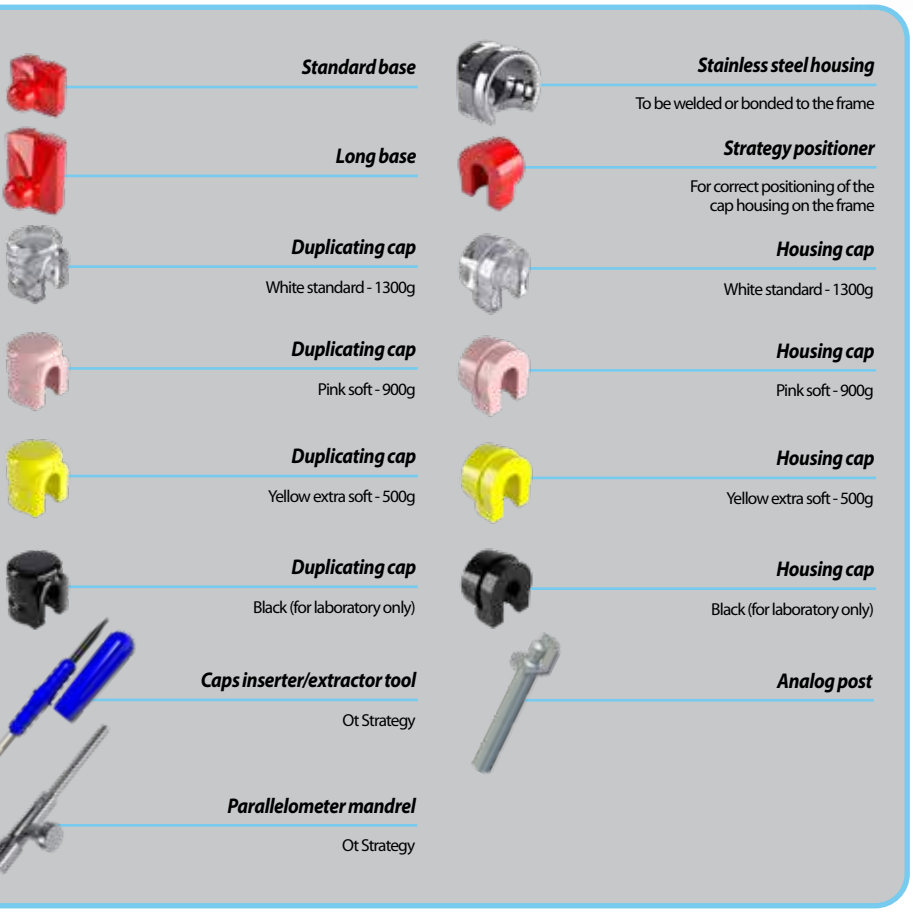
The OT Cap positioning ring on the sphere.

Duplicated model in coating

The OT Mono Box castable housing in position and incorporated into the final wax design.

The final OT Mono Box casting with retentive caps inserted into the housing.


**Watch the Ot Strategy video on Youtube**

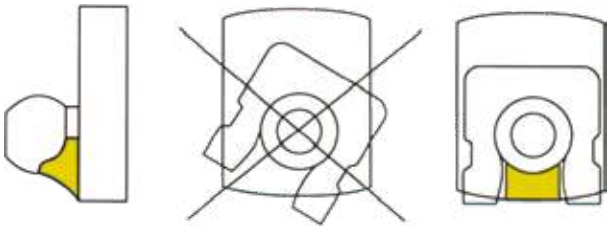



OT STRATEGY attachments are precision attachments. It is important to mount the balls in parallel as the correct functioning depends to a large extent on this. OT STRATEGY attachments are the only attachments of this type to have a parallel line support under the ball (patented) that automatically aligns automatically aligns the copings, which is important for the insertion of the prosthesis and the durability of the copings, avoiding the risk of ball wear. The small size of these attachments allows them to be fitted even in the smallest spaces and makes them suitable for removable prostheses, always combined with appropriate milling. If milling is not used, the STEADY option should be used.

## PARALLELOMETER KEY PROFILE

***SIDE A: For SPHERE positioning***
***SIDE B: For STEADY positioning***

## REINFORCEMENT FOR THE SPHERE



***More balanced cast metal cooling***
***Sphere stiffening rib***
***Cap alignment guide***

## CLINIC







## LABORATORY *Duplication technique using castable housing*

Insert the Sphere base into the key at the end of the stroke: place the spindle on the wax model and touch the plaster with the key

OT Strategy crowns with milling finished and polished.

Retentive cap inserted on the sphere. Waxed model (care must be taken not to sprinkle the coping with wax before duplication)

Duplicate model in coating with reproduction of coping format

Format of wax-covered cap. Wax-moulded frame

Finished casting. Insert the black laboratory cap with the appropriate inserter

Finished frame, assembled on model

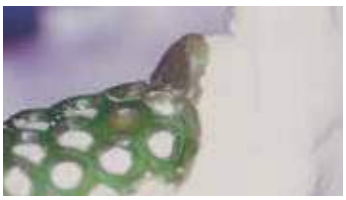

Insertion of the duplicated cap in a vertical direction. Finished prosthesis.

## LABORATORY *Welding technique using pre-fabricated stainless steel housing*

Crown and OT Strategyattachment cast. Positioning ring and housing.

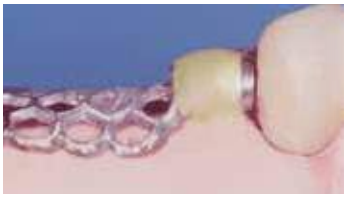
Container positioner on the coupling

S/steel container in position on the attachment



Wax-up on the duplicated model.

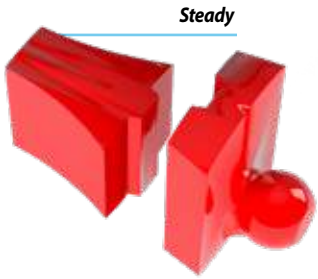
First Option: Stainless Steel Housing welded to the frame.



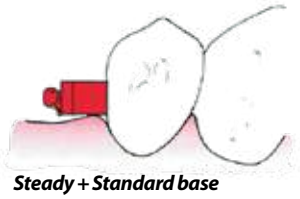
Second Option: Stainless Steel Housing bonded to frame with anaerobic selfcuring resin.

Insertion of the cap from the mesial.

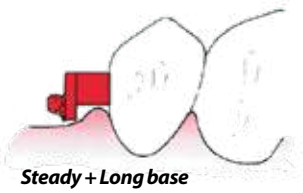
Once the casting is complete, proceed to use the cap and the prefabricated STAIN LESS STEEL HOUSING. The housing can bonded or laser welded to the frame. In addition, it can also be used for direct chairside procedures.


***Optional = STEADY***



***Steady + Standard base***



***Steady + Long base***

The castable Steady is an optional conical shaped support intended for use in cases where milling is not performed. Steady can be used with the OT Strategy Standard or Long base. It is an object in line with the philosophy of the personalization of each single prosthesis and is used with both the OT Strategy bases; Standard or Long and offer various technical solutions.

## LABORATORY *Technique with standard base*

Lute the two parts together using an adhesive and insert the sphere into the mandrel of the parallelometer.

The Steady can be used with it's original height or it can be shortened and modified to accommodate the adjacent tooth and ridge.

Finish the wax-up and give the Steady the necessary shape for duplication in the sphere.

The duplicated model.

The frame wax-up.

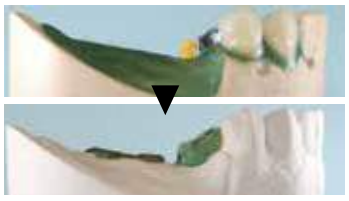
The finished casting.

## LABORATORY *Technique with long base*

Lute the Steady to the Long base. Be sure to position the two parts according to the resorption of the ridge.

Posizionare la patrice a sfera nella chiavetta (lato A) e unirlo al componente STEADY nella posizione ottimale.

The finished attachment design. The Steady has been adapted to the contour of the ridge.



Crown and Steady for duplication and retentive cap on the sphere.

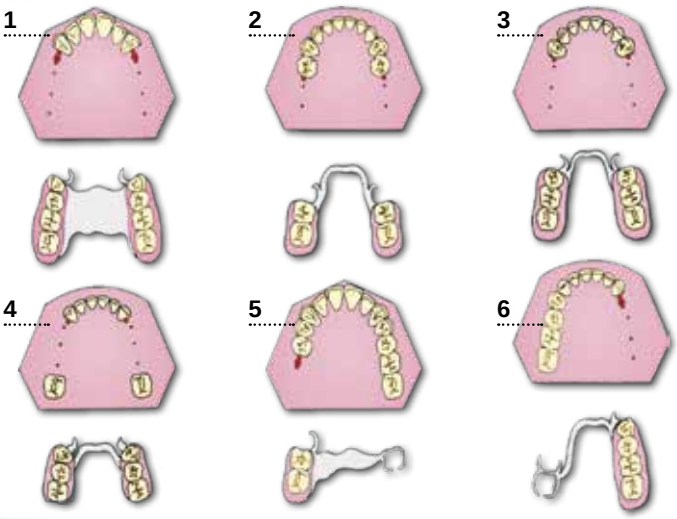
Cast framework seated on the model.

Finished prosthesis.

***When the STEADY base is utilized it provides superior lateral support when milling is not indicated. In the case of free saddles, the STEADY base avoids movement in all directions during mastication.***

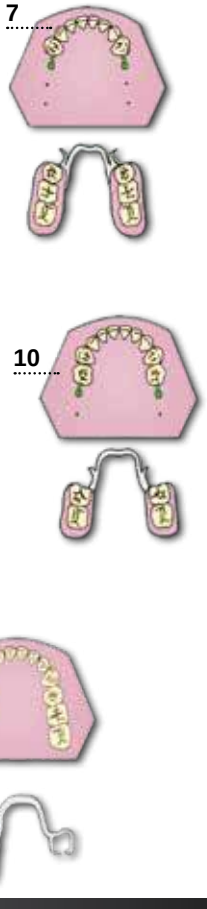
## CLINIC

## CLINIC *Ot Strategy* — LABORATORY *Ot Strategy, case design*

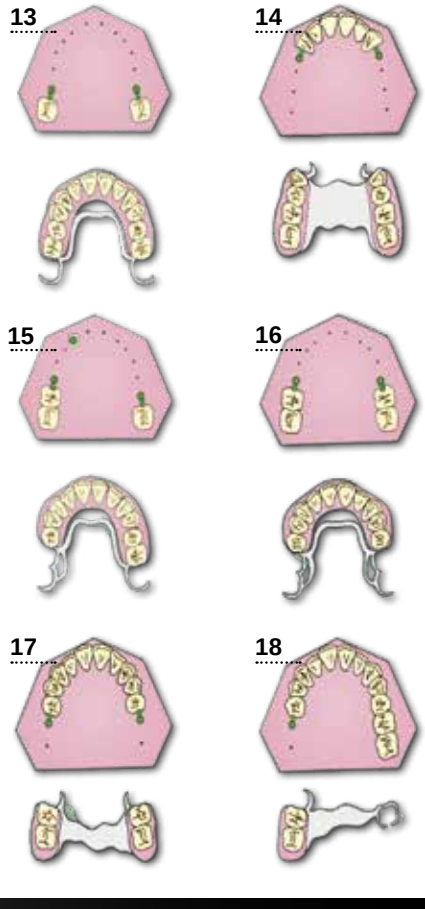



## CLINIC *Ot Cap* — LABORATORY *Ot Cap, case design (Lower and upper arch)*

*Lower arch*




*Upper arch*



OT Unilateral is a single-sided attachment that is practical for the dental technician and works well. The prosthesis mounted in the patient's mouth gives the impression of a fixed prosthesis. The technically desired space between the cast bar and the removable denture, combined with the flattened head spheres and the elastic retentive caps ensures good adhesion of the denture to the gingival site, The combination during chewing increases the compression of the saddle on the mucous membrane, preventing or limiting trauma to the supporting abutments.

***Uni-Box castable***

***Ot Cap***

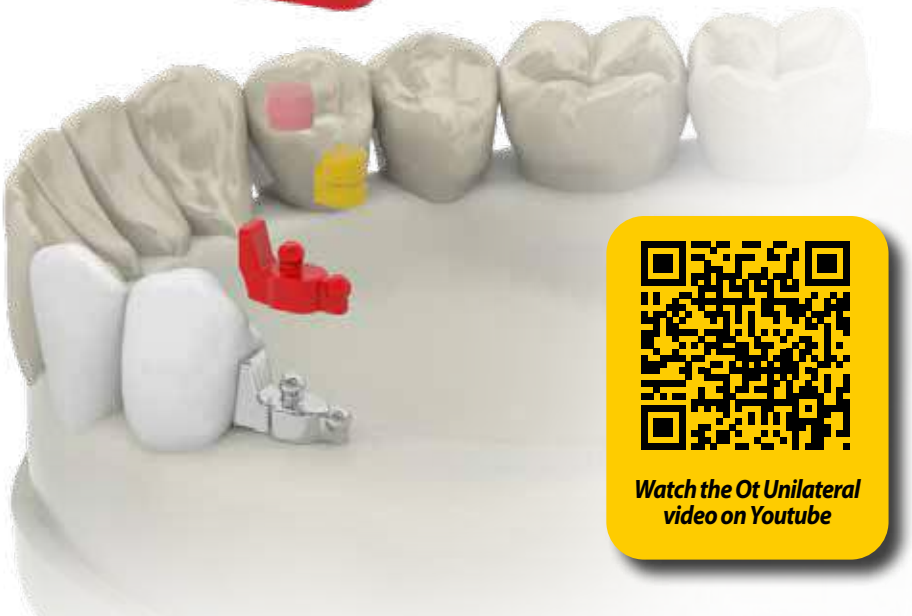
MICRO

***Ot Strategy cap***

for duplication

***Castable attachment***

Ot Unilateral



***Watch the Ot Unilateral video on Youtube***

## OT CAP CAPS

***White***

Standard
MICRO 1100g

***Pink***

Soft
MICRO 800g

***Yellow***

Extra soft
MICRO 450g

***Green***

Elastic gummy
MICRO 200g

***Black***

for laboratory use only

***Caps inserter/extractor for Ot cap caps***

## OT STRATEGY CAPS

***Duplicating cap***

White standard - 1300g

***Duplicating cap***

Pink soft - 900g

***Duplicating cap***

Yellow extra soft - 500g

***Duplicating cap***

Black (for laboratory only)

***Parallelometer mandrel***

for Ot Cap MICRO

***Caps inserter/extractor for Ot Strategy caps***

## LABORATORY

Technical characteristics: Flat spheres at the top ensure equal load distribution

By exploiting the different elasticities of the copings, the resilience of the attachment can also be adjusted according to mucosal thickness

## LABORATORY *Unilateral saddle:attachment and overstructure unique phase setting up*

Positioning of the OT UNILATERAL bar using the OT CAP paralleling mandrel by starting with the analysis of the masticatory plan. Proceed by connecting the bar to the last modeled wax crown.

Place the positioning ring over the OT CAP MICRO sphere. Place the castable OT BOX component in position, the positioning ring will assure the proper position.

Join the Uni-Box component to the connector by using a pattern resin in order to reinforce the structure. Be careful not to have any material inside the Uni-Box component.

Remove the positioning ring by the OT CAP sphere and proceed with the sprue procedure.

Unique fusion is one of the best features of the UNILATERAL attachment.

Fused UNILATERAL and Uni-Box. Sandblast the casting by keeping attention not to "over-sandblast" the spheres. Insert the black laboratory caps and proceed by polishing the sphere.

In order to provide the optimal stability, wax-up carefully the saddle in order to embrace the ridge as much as possible.

Completed procedure: proper retentive caps (adeguate degrees of elasticity) are placed inside the fused Uni-Box component

## LABORATORY *Bilateral structure: resilient functionality and free milling procedure*

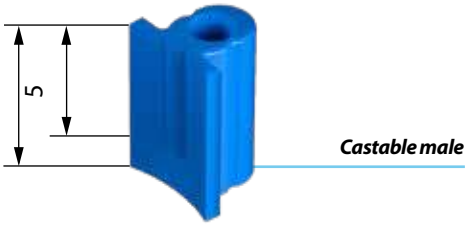
Place the positioning ring over the OT CAP MICRO sphere. Place the castable OT BOX component in position, the positioning ring will assure the proper position.

Finished work: Ot cap and Ot Strategy caps, with the proper retention features, are inserted inside the Ot-Box component.

## LABORATORY *Implant supported bar: distal extensions and combined functionality*

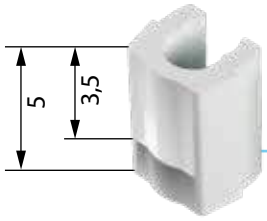
Once the components to build the bar are inserted, place the OT UNILATERAL bar by using the OT CAP mandrel and by analyzing the masticatory plan. Connect it then distally to the modeled bar.

Cast bar thank to the combined functionality of the OT UNILATERAL. The prosthesis will count on a improved stability without any additional stress over the implants.


***Parallelometer key***

***Castable male***




***White Clip***

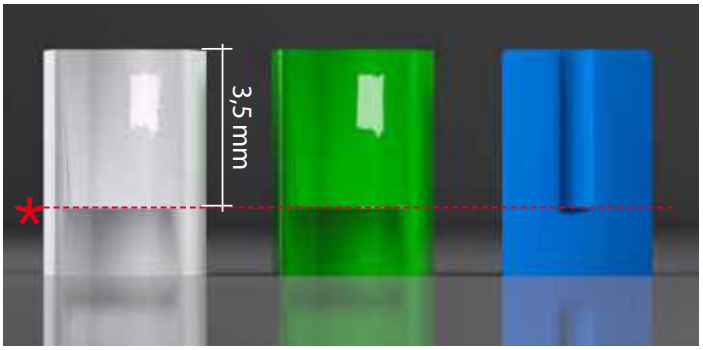
Standard retention

***Optional Steady***

***Inserter/extractor***

For OT Vertical clips

The OT VERTICAL attachment and retention clip are 5 mm high; they can be shortened to the indicative mark to achieve a height of 3.5 mm. The same indicative mark will also be useful for the dentist if he has to change the clip in the patient's mouth in the future..




The ot vertical attachments and retentive clips can be lowered in height, in order not to risk inconveniences, it is advisable not to shorten them beyond the indicative sign * of 3.5 mm.

***Watch the Ot Vertical Video on Youtube***

## LABORATORY *Sinle castable male assembly*

Parallelometer Key: insert the plug into the hole of the attachment, rotate a few times to obtain the correct seal and be able to slide it out comfortably after fixing the attachment in the wax.

Completed the assembly and the wax modeling, close the hole with wax and create a lingual drilling, proceed with the sprue of the product.

Crowns with cast connection, finished and polished milling.

Retentive clip inserted on the cylindrical male. Waxed model (be careful not to dirty the coping with wax before duplication).

Duplicate model in coating with reproduction of the clip format.

Melted and sanded framework.

Finished work, green retentive clip inserted into the framework.

Work finished.

## LABORATORY *Castable male + steady assembly*

Parallelometer key: insert the plug into the hole of the adapted Steady to follow the mucous profile, rotate to remove the key after fixing it.

Place the Ot Vertical male gluing it lingually to the Steady and complete the waxing.

Crowns with molten attachment, the Steady and Vertical have been adapted to the mucosal profile.

Retentive clip inserted on the cylindrical male. Model discharged with wax (be careful not to dirty the coping with wax before duplication).

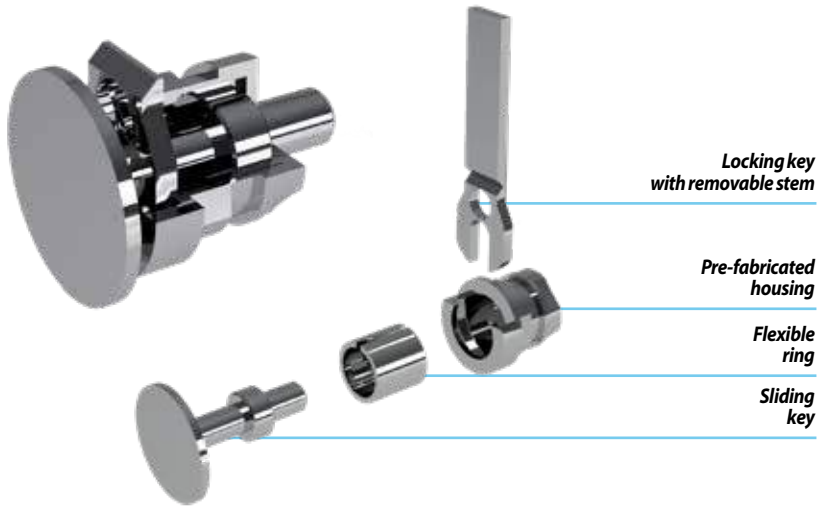
Duplicate model in coating with reproduction of the Steady format and clip.

Framework molded, cover with the wax the Steady portion to have an insertion guide and stability when melted.

Framework placed on the Steady

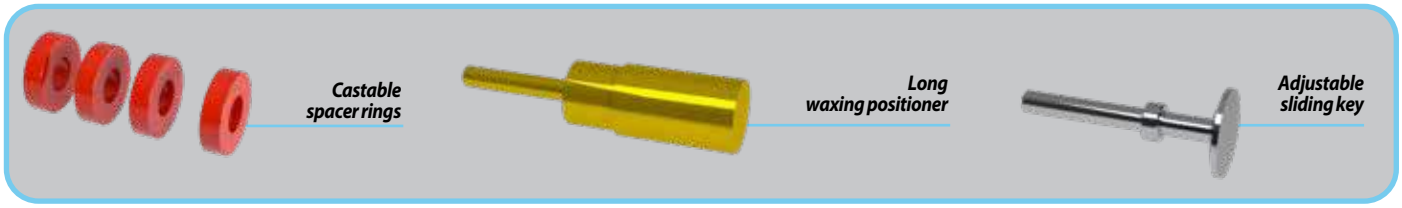
Framework on the model. Stability is guaranteed even without milling, thanks to the Steady

OT LOCK
TITANIUM

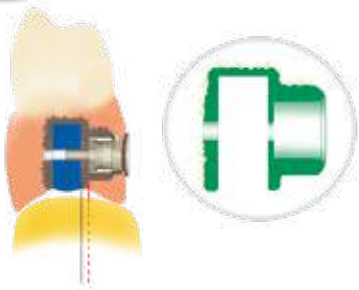



## ADJUSTABLE TITANIUM LOCKING PIN

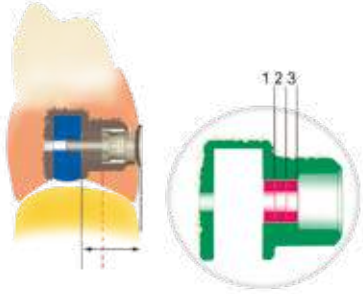
***Spacer ring system to position the key to the desired shape***




**LABORATORY** ***Adjustable locking pin in titanium***



Locking key in position without spacer rings




Locking key positioned using spacer rings to follow the contour of the denture

Model the bar in resin and drill a 0.8 mm hole in the most ideal position. Insert the ceramic pin through the hole.

The finished and polished bar.


Insert the housing shaper into the hole and lock it in place using resin. Be sure not go past the "STOP"when appling resin

Using resin, complete the model of the superstructure up to the "STOP". Remove the housing shaper and cast.

Pull out the brass positioner and cast.

Insert the pre-fabricated housing and bond.

Insert the positioner again. Proceed with wax and cure the resin.

Insert the locking key into the prefabricted housing guide. The "keyring" mechanism is now locked.

Bend the locking key and brake it.

Apply the self-hardener composite material to stop the locking key and insert the locking pin in the hole.

Locking Pin locked in position. Finish and polish.

Finished prosthesis. Determine whether or not to use the EXTRACTOR KEY

# Concave RECONSTRUCTIVE Sphere

## OT EQUATOR

*AVAILABLE FOR ANY IMPLANT SYSTEM ON THE MARKET*

***ø1,8*** ***ø2,25*** ***ø2,5*** ***ø2,5 OT Equator***

***Watch the Reconstructive spheres video on Youtube***

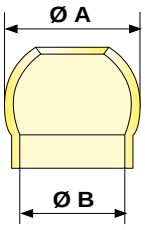
Dental attachments, like most other mechanisms, are subject to wear out. Rhein83 produces spheres for restoring worn ball attachments which restore and stabalize the prosthesis in a single appointment. Reconstructive spheres are bonded over the worn ball restoring the attachment to it's original size.

***CONCAVE SPHERE***
***3 Sizes available:***

| ØA | ØB |
|---|---|
| 2,5 mm | 1,9 mm |
| 2,25 mm | 1,55 mm |
| 1,8 mm | 1,4 mm |

***OT EQUATOR***

| ØA | ØB |
|---|---|
| 2,5 mm | 2,1 mm |





***A - Sphere support***
***B - Sphere holder***
***C - Strip holder***
***D - Spatula for applying cement inside of the sphere***

For existing cases with worn spherical attachments which no longer provide adequate retention, the DR8 UNDERSIZED CAP can be used in the early stages of wear of the male component. This elastic cap offers an inner dimension of 1.7 mm and 2.2 mm which is smaller than Rhein83 NORMAL and MICRO size caps and can be used with standard Rhein83 stainless steel housings. When ball attachments show excessive wear, the CONCAVE RECONSTRUCTIVE SPHERES are recommended as the best long term restorative option. The CONCAVE RECONSTRUCTIVE SPHERES restore the worn male to it's original size of 1.8 mm, 2.2 mm or 2.5 mm diameter. CONCAVE RECONSTRUCTIVE SPHERES are manufactured with a Titanium Nitrite coating and are rated over 1600 Vickers hard. The chairside procedure for using the reconstructive spheres is fast, easy and provides an economicalalternative to replacing the old restoration.

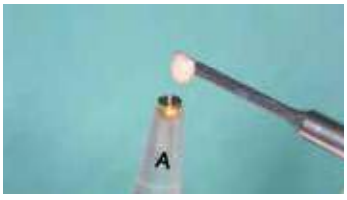
## CLINIC *Restoring a worn out sphere*


Insert the concave sphere into side A of the plastic tool. Fit over the worn out sphere in the mouth.

If the concave sphere does not fit passively, use a cylindrical bur (diamond or carbide) to slightly reduce the diameter. Check the fit again and repeat as needed.


Check the position of the concave sphere on the worn out sphere and finish by cleaning the two parts.

Additional surface can be removed by using side C of the tool. Insert a diamond strip into the notches, place the tool over the sphere and turn the manually.




Place a small amount of two-part self curing "metal to metal" resin inside the sphere.


Place the concave sphere over the worn sphere and wait for the resin to cure.

Once the resin has cured, remove any excess material.

The completed repair. The cap can be repositioned if necessary.

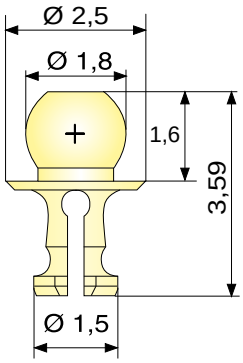
# SOLID RECONSTRUCTIVE SPHERE
*In titanium + TiN coating*

Solid RECONSTRUCTIVE Sphere

*TO REBUILD ANY "RING" TYPE ATTACHMENT SUCH AS: ERA® AND CEKA®*

The SOLID RECONSTRUCTIVE SPHERES can be bonded to the inside of hollow attachments or those with a female ring such as ERA ® and CEKA ® Reconstructive Spheres can be used to repair various attachments available on the market. These attachments can be found in many types of prosthesis including overdentures, implants, roots and frameworks. If worn out or broken, they cannot be repaired easily. The SOLID RECONSTRUCTIVE SPHERES offer a fast and easy cost effective alternative, transforming a female ring attachment into a male MICRO OT CAP attachment. This repair can be completed chairside in a single appointment.

***MULTIUSE***
SOLID "RECONSTRUCTIVE"
TITANIUM + TIN COATING
rated over 1600 Vickers




***SOLID SPHERE MICRO Ø 1,8 mm***

***TOOL to hold the sphere***

OT Cem


OT CEM is a self and photo curing cement. It is designed for permanent metal to metal bonding in the use of attachments in prosthetic implant solutions. Recommended for the following products: OT CAP TECNO - CONCAVE SPHERE - SOLID SPHERE - COPING COVER - THREADED SPHERICAL - ATTACHMENTS WITH THREADED SLEEVE

## CLINIC *Restoring a worn out ring attachment*

The worn-out female ring attachment.

Apply a small amount of two-part self curing "metal to metal" resin on the bottom of the sphere. Insert the sphere into the attachment using the tool. Wait for the resin to cure.

The female attachment was converted into a male OT Cap MICRO directly in the patient's mouth.

## CLINIC *Restoring a worn out overdenture bar*

Create a hole in the wall of the bar using a 1.6 mm ball drill.

Apply a two part composite to the shank of the sphere. Using the tool, insert the sphere into the hole. Wait for the composite to cure.

The sphere firmly cemented in place. The OT Strategy Cap can now be used in the prosthesis resulting in stability and retention.

## CLINIC *Recovery of titanium abutments*

A case with unknown titanium abutments. Worn out openings are present on top of the fixtures.

Solid Reconstructive Spheres are placed into the openings. A two-part self curing "metal to metal" resin is applied.

Retentive caps are positioned into the existing denture. The denture is now stable and secure.

# DIRECT SERVICES

A telephone service is available during office hours,
it furnishes direct answers for technical questions.
You can address to Rhein83 for knowing the address of foreign distributors

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