Attachments and Pre-fabricated Castable Components

CATALOG/TECHNICAL MANUAL for Dentists and Dental Technicians

2017

World Leader in Spherical Attachments

CLINICAL WORKSHOP

OVERDENTURE ON NATURAL TEETH IMPLANTOLOGY AND CAD CAM

The primary goal of the workshop is to learn the best procedures in planning and developing implant supported bars with detailed focus on conservative and radicular prosthesis. Rhein83 wants to support the dentist with innovative working procedures in over-denture and peri-overdenture by analyzing the most modern bar applications and cad-cam procedures.

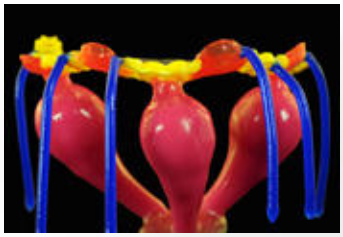
UNIVERSITY PROGRAMS

REMOVABLE PROSTHESIS MASTER COURSES, TRADITION AND INNOVATION OF THE RETENTIVE SYSTEMS

Courses dedicated to universities presenting innovative solutions and procedures in planning the prosthetic projects. Functional, aesthetical and phonetical evaluation of the patient by considering the social conditions and background. Real clinical cases presentation and analysis supported by live working procedures on models with students from universities worldwide. Cultural interchange programs with international universities, post graduate degree programs, international contests and much more!

BASIC LEVEL

Introduction to the Rhein83 techniques in intra-coronal and extra-coronal prosthesis. Innovative procedures allowing to reduce working times and costs by using pre fabricated castable components. Direct overdenture concepts in implantology on all implant brands and platforms.



MASTER LEVEL

Deeper insight into the themes presented during the basic course with special focus on implant prosthesis and new digital cad cam working procedures. Simple and useful solutions in complex implantology clinical cases.

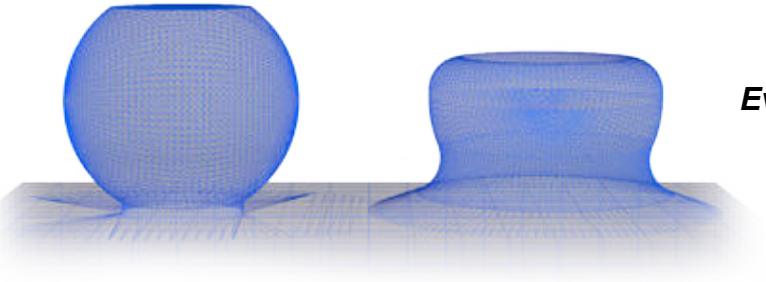
RHEIN83 BIRTH, GROWTH AND EVOLUTION

Metallic spherical attachments exist since many years. But these attachments were not widely accepted, by the dental professionists. Then came the idea to render these mechanisms elastic! A smoothed head and the elastic cap are the result of these innovative changes; today this technique is amongst the most widely used. Rhein83 has been in business since 1983 and today these products have been copied throughout the entire world, copies that in many cases reflect the forms of the objects but not the materials they are made from, and therefore it significantly changes the functional result. Research is not only oriented towards the study of new products, but also continually trying to perfect those that have been used for many years. Dental attachments are small mechanisms subjected to continuous movement, stresses and oral changing, requiring periodic maintenance and revisions. Some products in this have been made for maintaining and restoring the functionality, to all the prostheses, directly while they are in the mouth of the patients. The commitment of Rhein83 with its knowledge and skills continually being enriched by the contributions of dentists and laboratory technicians, is to be able to improve the actual standards and develop new products by means of original projects.

Ezio Nardi

RESEARCH AND INNOVATION TODAY

By over 34 years Rhein83 is continuously innovating the dental attachments world with materials and designs allowing to satisfy the technical requests of the dental specialists.

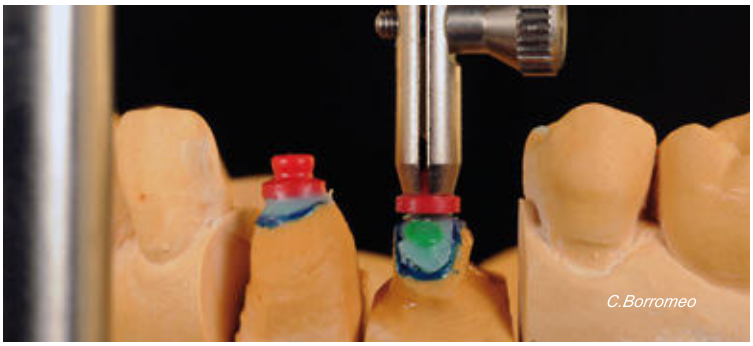


NEW OT EQUATOR PROFILE

Evolution from the sphere to the semi-sphere, reduced dimensions allowing the same stability and functionality!

TECHNICAL INNOVATIONS AVAILABLE TO ALL!

C.Borromeo


C.Borromeo

Dr.G.Schiatti
C.Borromeo

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COMPARISON OF RIGID CAPS vs. ELASTIC CAPS

Characteristics and retentive functionality

FRICTION FIT CAPS: RIGID MATERIALS

- ACETALIC PLASTICS
- METALS

(thin layer)

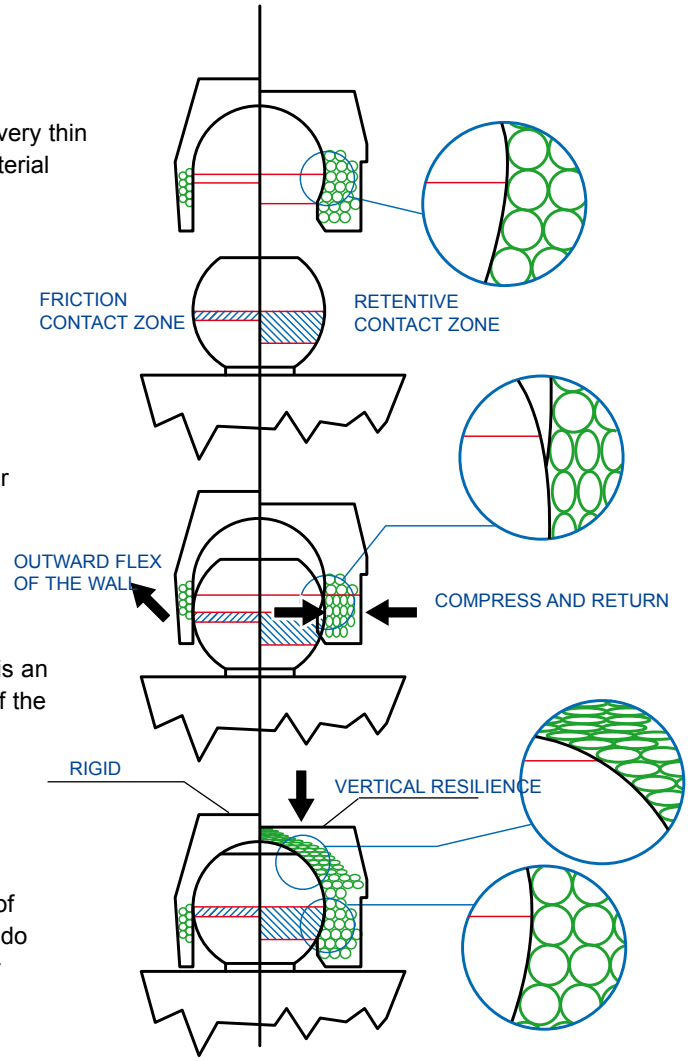
Friction fit contact zone is very thin because of non-elastic material

RETENTIVE FIT CAPS: ELASTIC MATERIALS

- NYLON

(thick layer)

The elastic materials allow a wide contact zone of retention by the equator on the undercuts of the sphere



FRICTION CONTACT ZONE

With rigid materials, only minimal friction retention is achieved due to the smaller friction contact zone

RETENTIVE CONTACT ZONE

With elastic materials, greater friction and mechanical retention is achieved with a higher degree of functionality

FLEXION OF THE WALL

With rigid materials, there is an “outward flex” of the wall of the cap

COMPRESS AND RETURN

With elastic materials, the wall of the cap is compressed and then returns to its original shape

RIGID RESILIENCE

In spite of the flat surface of the sphere, rigid materials do not allow vertical resiliency

VERTICAL RESILIENCE

The space between the flat surface of the sphere and elastic cap allows for vertical resiliency and reduces stress

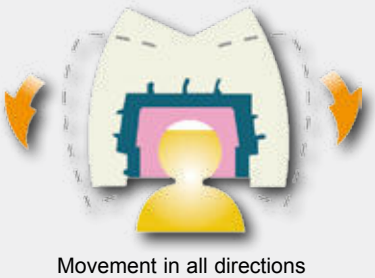
RHEIN83 - DESIGN AND FUNCTION

Rhein83 continues to manufacture female caps with elastic retention with the intention of eliminating as much vertical stress and trauma to the restoration as possible. For Rhein83 the important thing is to make a system of components available to the dental technician and dentist that will allow for the fabrication of a rigid, shock absorbing or resilient prosthesis. With the use of elastic retention, the function of Rhein83 attachments are extended.

With overdenture prosthetic devices or cases involving edentulous saddles, resiliency can be controlled with a wide range of retentive caps that have various levels of elasticity and retention.

Vertical movement

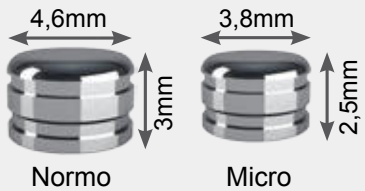
Rigid retention



Movement in all directions

CLEAR CAPS STANDARD RETENTION		**Slightly Elastic** Maximum suggested time of duration in mouth: 12 months Retention in grams: Normal 1300g / Micro 1100g
PINK CAPS SOFT RETENTION		**Elastic** Maximum suggested time of duration in mouth: 12 months Retention in grams: Normal from 900g / Micro 800g
YELLOW CAPS EXTRA SOFT RETENTION		**Very elastic** Maximum suggested time of duration in mouth: 12 months Retention in grams: Normal 500g / Micro 450g
GREEN CAPS ELASTIC AND GUMMY		**Characteristics** Extremely elastic retention, “GUMMY” type. Minimally hydroscopic, with a good adhesion on the sphere. Retention in grams: Normal 350g / Micro 200g
EXTRA RESILIENT GOLD CAPS SLIGHTLY ELASTIC		**Characteristics** To be used in overdenture prostheses, where resilience and vertical movements are necessary. Retention in grams: Normal 500g / Micro 450g
EXTRA RESILIENT SILVER CAPS ELASTIC AND GUMMY		**Characteristics** To be used in overdenture prostheses, where a vertical movement is necessary and a light initial retention is requested. Retention in grams: Normal 350g / Micro 200g
PROCESSING CAPS		**Characteristics** Caps to be used only for laboratory processing.
TITAN CAPS NYLON CAPS WITH INTERNAL TITANIUM RING		**Characteristics** Extremely durable. To be used especially in combination with pre-fabricated spheres such as titanium spheres, concave spheres, etc. Retention in grams: Normal 1500g / Micro 1300g
UNDERSIZED INTERNAL DIAMETER CAPS STANDARD RETENTION		**Characteristics** Internal diameter reduced (Normal 2.2mm | Micro 1.6mm), for 2.25mm - 1.6 spheres Retention in grams: Normal 1300g / Micro 1100g
UNDERSIZED INTERNAL DIAMETER CAPS SOFT RETENTION		**Characteristics** Internal diameter reduced (Normal 2.2mm), for 2.25mm spheres Retention in grams: Normal 900g
UNDERSIZED INTERNAL DIAMETER CAPS EXTRA SOFT RETENTION		**Characteristics** Internal diameter reduced (Normal 2.2mm), for 2.25mm spheres Retention in grams: Normal 500g
UNDERSIZED INTERNAL DIAMETER CAPS ELASTIC AND GUMMY		**Characteristics** Internal diameter reduced (Normal 2.2mm | Micro 1.6mm), for 2.25mm - 1.6 spheres Retention in grams: Normal 350g / Micro 200g

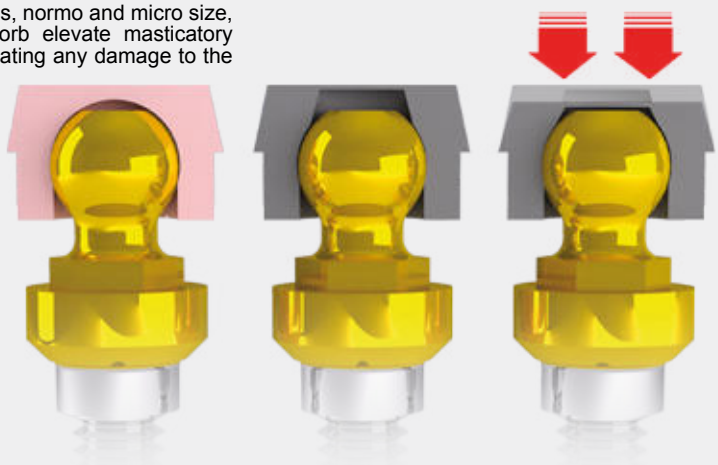
STAINLESS STEEL AND TITANIUM HOUSING FOR CAPS, PRE-FABRICATED, NORMAL AND MICRO SIZES



The new stainless steel housing design offer reduced size and additional stability, it can be enbodied directly in the resin, welded or bonded to the frame. The new design is also available in titanium.

EXTRA RESILIENCY FUNCTIONALITY

Extra resilient caps, normo and micro size, will allow to absorb elevate masticatory forces without creating any damage to the implant or root.



OT EQUATOR CASTABLE
Single Attachment for Overdentures

OT EQUATOR

OT EQUATOR
CASTABLE MALE ATTACHMENT

RETENTIVE CAPS
OT EQUATOR

STAINLESS STEEL HOUSING

TITANIUM HOUSING

VIOLET CAP
RIGID RETENTION (2.7Kg)

CLEAR CAP
STANDARD RETENTION (1.8Kg)

PINK CAP
SOFT RETENTION (1.2Kg)

YELLOW CAP
EXTRA-SOFT RETENTION (0.6Kg)

BLACK CAP
PROCESSING

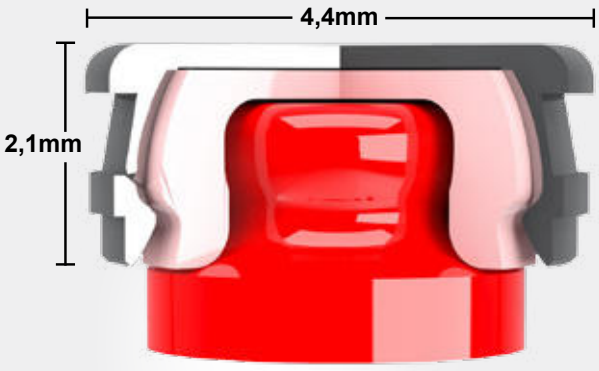
IMPRESSION
TRANSFER
pick-up impression

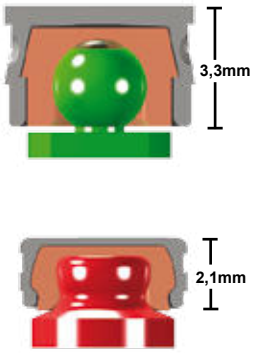
IMPRESSION
TRANSFER
individual tray

STAINLESS STEEL
ANALOG FOR
PLASTER MODEL

OT EQUATOR CAPS
INSERTER/EXTRACTOR TOOL
for the insertion/removal of the caps
into/from the metal housing

PARALLELOMETER
MANDREL





If additional retention is needed to secure the prosthesis, OT Cap Normal retentive caps and metal housings can be placed over any OT Equator Profile 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

SEVERE DIVERGENCY MAY REQUIRE THE OT EQUATOR IN COMBINATION WITH A CASTABLE UCLA

LABORATORY

OT EQUATOR CASTABLE = INDIRECT TECHNIQUE

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 wax-up has been completed.

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

BUILD UP 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.

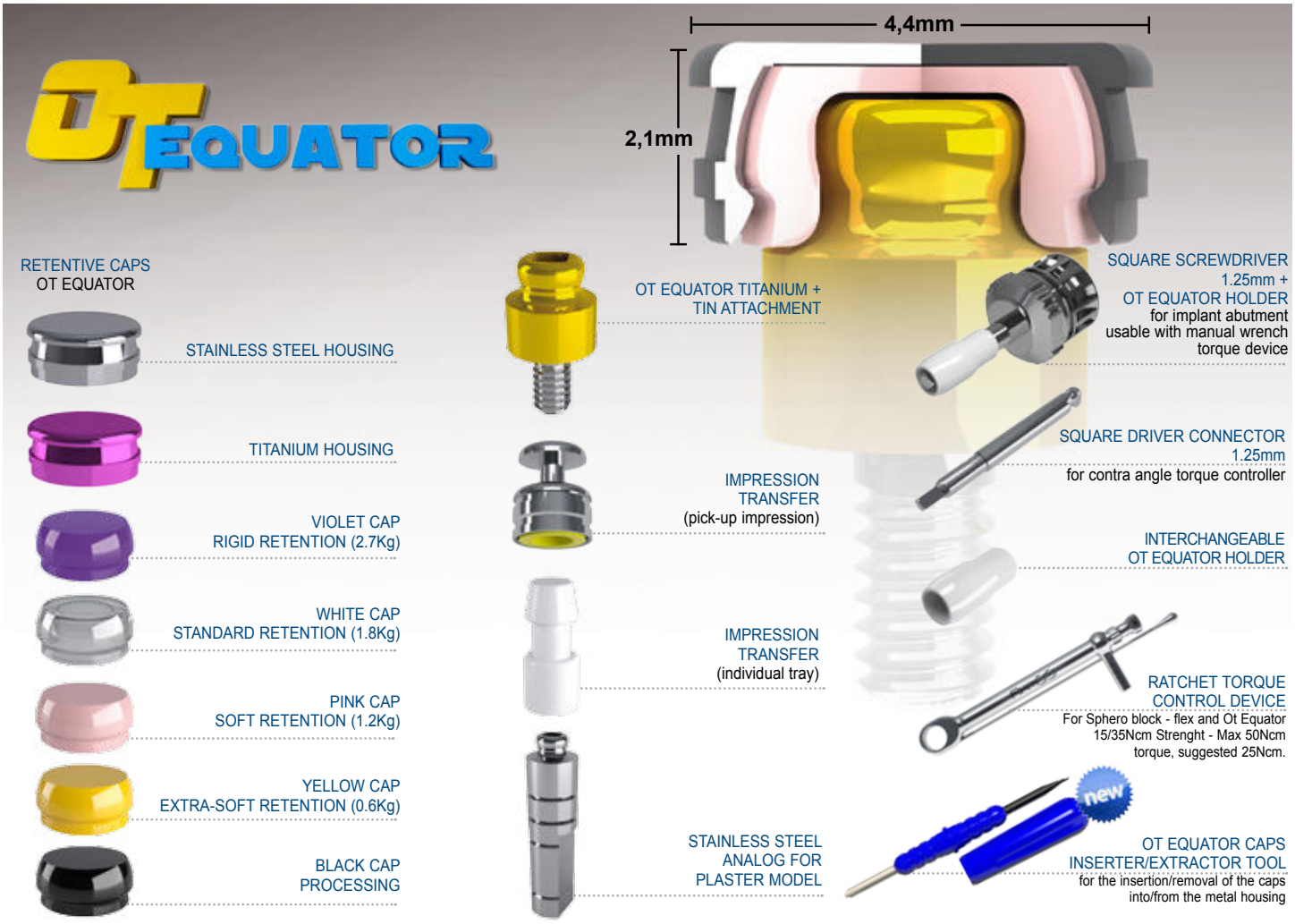
Cast the metal frame and verify the position on the model.

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

The metal frame with the stainless steel housing in place.

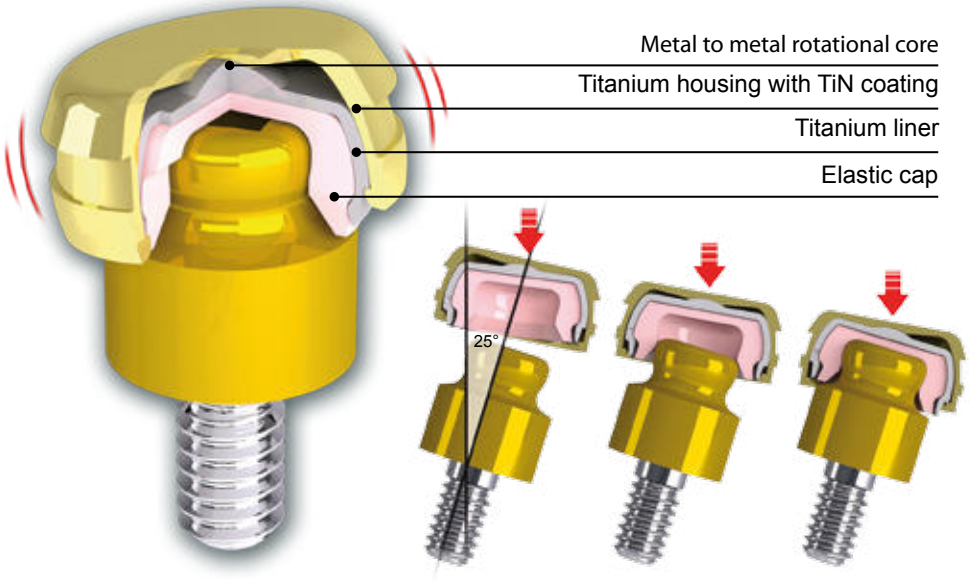
The finished prosthesis on metal frame. After processing, the black caps are replaced with pink caps.

OT EQUATOR FOR IMPLANTS
Low Profile Titanium Abutment



The unique design and exceptionally low 2.1mm profile of the OT Equator 4 in 1 System provides exceptional stability and superior retention when compared with other attachment systems. Due to its lower radius, OT Equator is indicated to correct divergence up to 25 degrees between implants without affecting the functionality of the elastic nylon cap. Caps are available in a wide variety of retention levels. ATTENTION; Where implant divergence exceed the maximum 25 degrees, Sphero Block and Sphero Flex are recommended case plan options. See Sphero Block and Sphero Flex page 40-41

Smart BOX — *the **self-aligning** Ot Equator Housing*



Passive insertion reduces trauma

Correct divergency up to 50°

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.

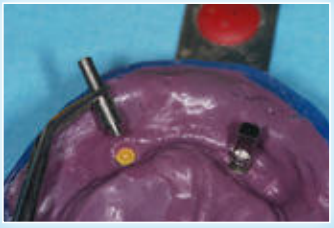
Remove the protective disks.

Carefully trim away the excess resin.

The completed prosthesis.

IMPRESSION TRANSFER

Place the impression coping on the OT Equator.



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

BUILD UP THE FRAME DIRECTLY

(for the full technique go to pag.7)

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.

LABORATORY

CHAIRSIDE PROCEDURE FOR SMARTBOX POSITIONING

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

Position the protective disk over the OT Equator.

Fully engage SMARTBOX with Black cap securely onto OT Equator.

Fill the space corresponding to the housings with self curing resin. Insert the prosthesis into the final position.

Once the resin has cured, remove the protective disk.

Remove excess resin with bur and polish for passive connection.

Remove SMARTBOX black cap with cap extractor tool.

Using the cap insertion tool, select 1 of 4 Ot Equator femal caps for desired retention.

ELASTIC SEEGER
Passive bar connection

OT EQUATOR

New SEEGER

TITANIUM LOCKING SCREW

SELF-EXTRACTING ELASTIC SEEGER

CASTABLE CONTAINER CYLINDER FOR SEEGER

OT EQUATOR PROFILE TITANIUM + TIN ATTACHMENT

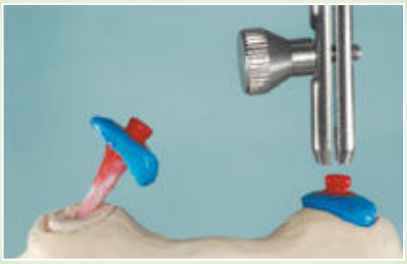
SQUARE SCREWDRIVER 1.25mm + EQUATOR HOLDER
for implant abutment
usable with manual wrench torque device

CAPS EXTRACTOR WITH HOUSING FOR INSERTER
curved tool for seeger insertion

STAINLESS STEEL ANALOG
for plaster model

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.

LABORATORY



OT EQUATOR castable attachments for direct overdentures on endodontically treated roots

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.

CLINIC POSITIONING SYSTEM WITH BAR “ELASTIC SEEGER”

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.

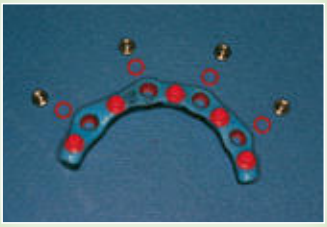
In case of a future check, the special internal design of the PEEK seeger ring allow the self extraction together with the titanium locking screw

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.

Connect the castable abutments with wax or resin.



Before casting, remove the red plastic seeger ring.

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.

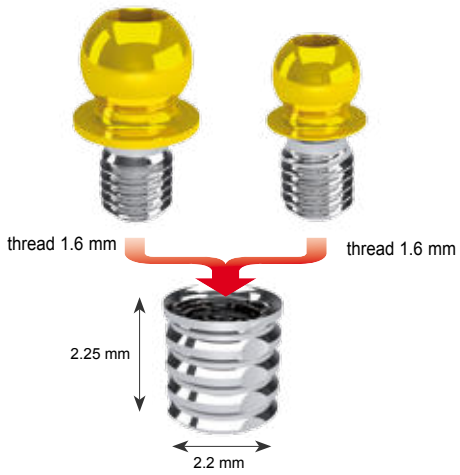
The final prosthesis.

INTERCHANGEABLE THREADED ATTACHMENTS
with threaded sleeve system

OT CAP
NORMAL/MICRO

NORMAL SPHERE
HEX 1.3 mm

MICRO SPHERE
HEX 0.9 mm



THREADED SLEEVE FOR BONDING

OT CAP SLEEVE SPACERS
Normal/Micro

HEX SCREWDRIVER
HEX 0.9 mm

HEX SCREWDRIVER
HEX 1.3 mm

RETENTIVE CAPS
OT CAP

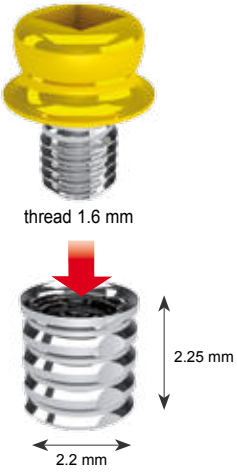
Clear Standard | Pink Soft | Yellow Extra Soft | Green Elastic | Black Processing

S.STEEL HOUSING
OT CAP NORMAL / MICRO

TITANIUM HOUSING
OT CAP NORMAL / MICRO

OT EQUATOR

OT EQUATOR
SQUARE HEAD



THREADED SLEEVE FOR BONDING

SCREWDRIVER
OT EQUATOR SQUARE
+ INTECHANGEABLE HOLDER

S.STEEL OR TITANIUM HOUSINGS
OT EQUATOR

OT EQUATOR SLEEVE SPACER

RETENTIVE CAPS
OT EQUATOR

Violet Strong | Clear Standard | Pink Soft | Yellow Extra Soft | Black Processing

PARALLELOMETER
MANDREL Normal / Micro

OT EQUATOR CAPS
INSERTER/EXTRACTOR TOOL
for the insertion/removal of the caps into/from the metal housing

OT CEM COMPOSITE MATERIAL
Metal to Metal Bonding

OT CAP - OT EQUATOR FOR CAD-CAM MILLED BARS

NORMAL SPHERE

Standard
2 mm Thread

MICRO SPHERE

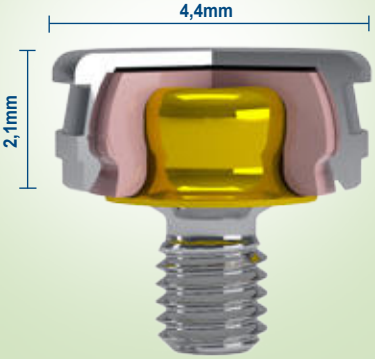
Standard
2 mm Thread

OT EQUATOR

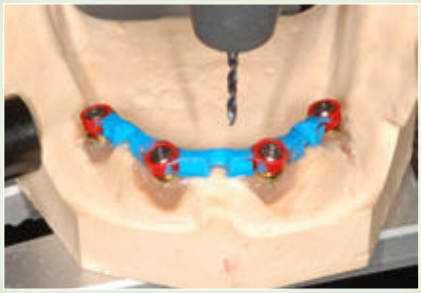
Standard
2 mm Thread

LABORATORY

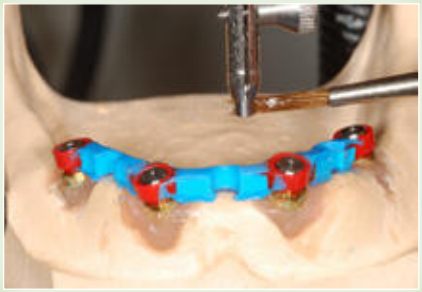
OT EQUATOR



STEP BY STEP THREADED SLEEVE BONDING PROCEDURE



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



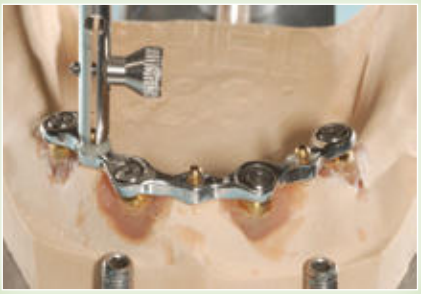
Apply separator to the base of the attachment spacer and postion using the parallelometer key.

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.

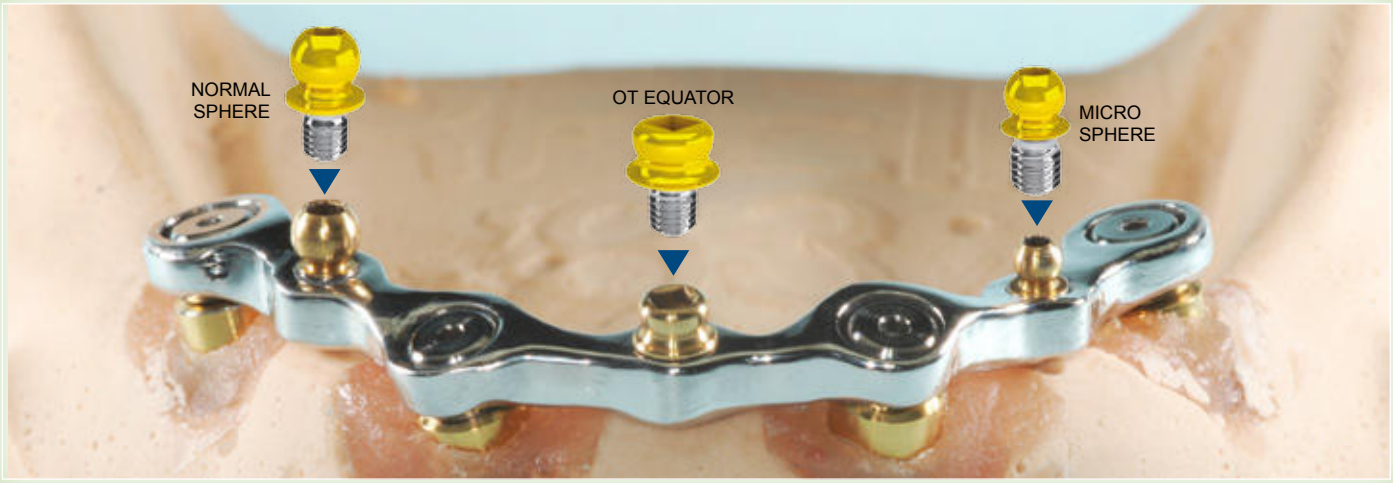


After the composite is cured, remove any excess material.

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

The finished bar complete with attachments.

3 ATTACHMENT OPTIONS



THE TECHNIQUE IS THE SAME FOR ALL THREE OPTIONS

EXTRACORONAL CASTABLE ATTACHMENTS
OT CAP - OT CAP TECNO

STAINLESS STEEL
AND TITANIUM HOUSINGS
Normal / Micro
for curing, welding or bonding

OT BOX MONO
Normal / Micro

RETENTIVE CAPS
Normal / Micro

TITAN CAP
Normal / Micro

CASTABLE BARS
Normal / Micro

PARALLELOMETER
MANDREL
FOR OT CAP TECNO
Normal and Micro

PARALLELOMETER
MANDREL FOR OT CAP
Normal / Micro

REGULATING TOOL FOR
RETENTION
Normal / Micro

OT EQUATOR CAPS
INSERTER/EXTRACTOR TOOL
for the insertion/removal of the caps
into/from the metal housing

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.

LABORATORY

OT CAP TECNO

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

OT MONO BOX

OT BOX MONO: The positioning ring to be inserted on the sphere before model duplication.

CLINIC

OT CAP CASTABLE

Cut the plastic bar and use only the section that you need.

Using the mandrel, position the spheres in parallel. Complete the wax-up with a “ledge” along the crown. The “ledge” must not be lower than the sphere.

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.

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.

CAST HOUSING WITH DUPLICATED MODELS

The OT Cap positioning ring on the sphere.

The duplicated model in investment.

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.

The castable OT MONO BOX reproduces the shape of the housing which incorporates the retentive cap into the framework.
Use the OT CAP insertion tool to place the retentive cap into the housing.

CASTABLE HOUSING

Customized solution for frames with single castable sphere housing for caps

OT BOX

CASTABLE HOUSING

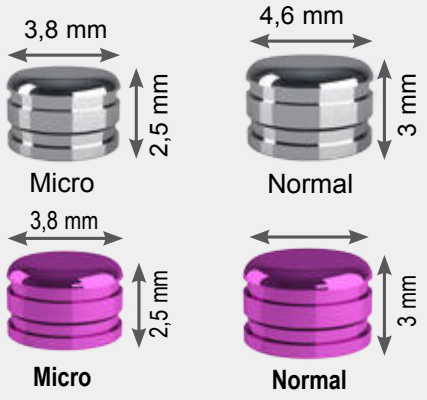
HOUSINGS:

STAINLESS STEEL - TITANIUM

The new stainless steel housing design offer reduced size and additional stability, it can be embodied directly in the resin, welded or bonded to the frame.

The new design is also available in titanium.

SIZE FOR RESIN OR SOLDERING



LABORATORY

When vertical space is limited, use reinforced pins to reduce the risk of breakage of the denture teeth.

SOLUTION A

Place a piece of .5mm calibrated wax over the wax-up design for additional protection.

The finished casting with retentive cap in place.

SOLUTION B

Small wax pins are added for reinforcement of the denture acrylic as well as additional retention for the denture teeth.

The final cast housing with reinforced metal pins.

STAINLESS STEEL PRE-FABRICATED HOUSINGS

For bonding or soldering to the frame

To obtain the right position use the POSITIONING RINGS.
NORMAL and MICRO sizes are available.

Rhein83 continues to be the world leader in spherical attachments and implant components. Largely due to continuous research and development, active participation in exhibitions as well as providing practical hands-on technical training for dentists and dental laboratory technicians. In addition, the company utilizes state of the art technology to constantly develop new products and improve existing product design as well as promote product awareness.

Rhein83 attachment systems are technically supported in over 75 countries worldwide.

Ezio Nardi
Founder

Claudia Nardi
President

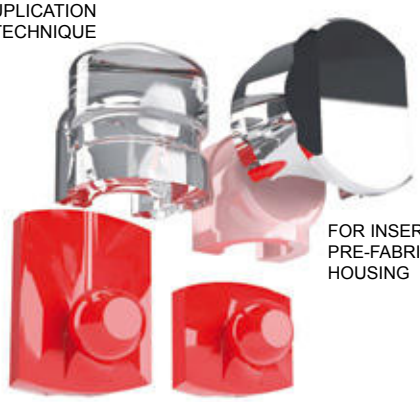
Gianni Storni
VP Technology

CERTIFICATIONS:
Since 1996 Rhein83 has been operating with a quality control system that conforms to:
UNI EN ISO 9001:2008 Standards
UNI CEI EN ISO 13485:2012 Standards
Directive 93/42/EEC
Rhein83 received this certification from Clementi, Italy, which is the certifying body for all activities associated with CE certification.
That same year, the company passed the rigorous requirements for the United States Food and Drug Administration, permitting it to sell attachments and implant components in the United States market.
All of the components are designed, manufactured and sold with respect to the D.Lgs 37/10.

CASTABLE VERTICAL ATTACHMENT MICRO

OT STRATEGY

FOR DUPLICATION TECHNIQUE



FOR INSERTION INTO THE PRE-FABRICATED HOUSING

CAPS

- Clear • Standard
- Pink • Soft
- Yellow • Extra Soft
- Black • Processing

STANDARD BASE
Sphere Ø 1.8 mm
LONG BASE
Sphere Ø 1.8 mm

ANALOG POST

CAPS

- Clear • Standard
- Pink • Soft
- Yellow • Extra Soft
- Black • Processing

OT STRATEGY CAPS INSERTER/ EXTRACTOR TOOL

STAINLESS STEEL HOUSING
to be welded or bonded to the frame

PARALLELOMETER MANDREL

STRATEGY POSITIONER
for correct positioning of the cap housing on the frame

PARALLELOMETER KEY PROFILE

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

REINFORCEMENT FOR THE SPHERE

- Increased shear force strength
- Prevents rotation of female cap
- Increased lateral stability

OT Strategy from Rhein83 is a vertical micro-sized 1.8 mm castable sphere that is placed distally on abutments for removable partials or utilized in implant bar combination case design. The male component is designed with an additional support strut located under the sphere, increasing strength and preventing rotation of the female cap during paralleling. The optional Steady, when connected to OT Strategy, provides lateral stability without any additional milling.

OT Strategy caps are available for both duplication and fabrication using a stainless-steel housing technique. Rhein83 caps are manufactured from an elastic material that increases the contact zone with the sphere, giving mechanical and friction retention. Caps are color-coded indicating five levels of retention. Tools for paralleling, inserting, and removing caps are available.

CLINIC

LABORATORY

Insert the OT Strategy male into the mandrel and place in position with base of attachment in contact with the stone.

The entire cap must be covered with a thin layer of wax during the frame wax-up procedure.

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

For best results during the DUPLICATION TECHNIQUE, it is suggested to use the YELLOW retentive cap.

DUPLICATION TECHNIQUE: USING CASTABLE HOUSING

OT Strategy casting is complete with mandatory lingual milling to accept partial bracing arm.

Yellow retentive cap is placed on the sphere and the model is ready for duplication. Use wax to remove any undercuts.

Model is duplicated and the shape of the cap is reproduced.

Insert the black cap into the skeletal cast frame cast partial with the OT Strategy Insertion Tool.

Frame is complete and placed on the model.

Using the insertion tool, insert the cap.

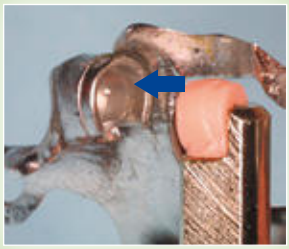
The finished prosthesis.

WELDING TECHNIQUE: USING PRE-FABRICATED STAINLESS STEEL HOUSING

Crown and OT Strategy attachment cast. Positioning ring and housing.

Positioning ring on the sphere.

Stainless Steel Housing in position on the attachment.



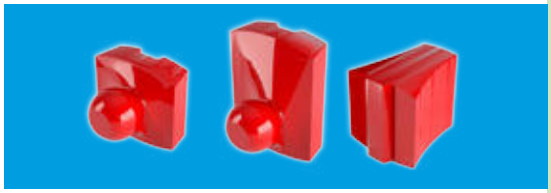
ATTENTION:
Insertion of the cap from the mesial.

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 self-curing resin.

CASTABLE VERTICAL MICRO ATTACHMENT STRATEGY + OPTIONAL STEADY



CLINIC

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.

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.

Position the attachment as close to the ridge as possible. Fill the space between the Steady and the ridge with wax.

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

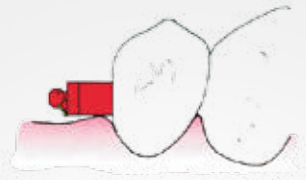
Crown and Steady for duplication and retentive cap on the sphere.

Cast framework seated on the model.

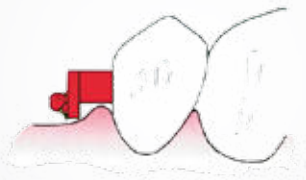
Finished prosthesis.

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.

Optional = STEADY



Steady + standard base



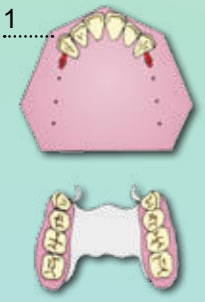
Steady + long base

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.

CLINIC LABORATORY

OT STRATEGY

1 

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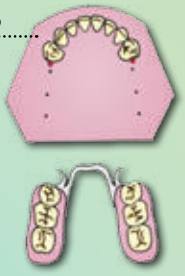
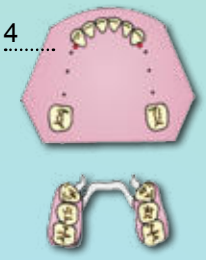
3 

4 

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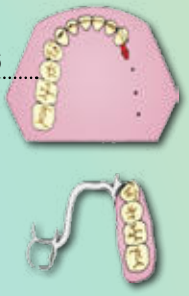
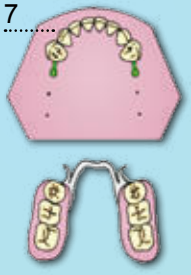
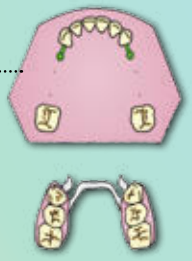
6 

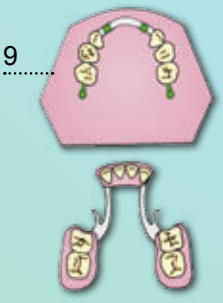
OT CAP

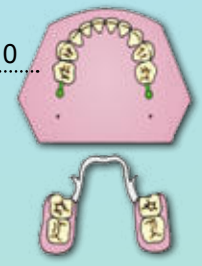
OT CAP LOWER ARCH

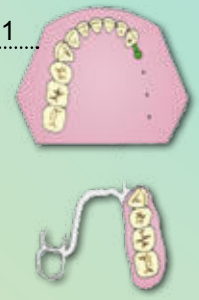
OT CAP UPPER ARCH

7 

8 

9 

10 

11 

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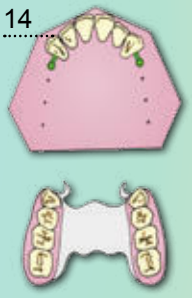
14 

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17

SINGLE SPHERES OT CAP

OT CAP

STAINLESS STEEL AND TITANIUM HOUSINGS
Normal / Micro size for curing welding or bonding

Spherical Pivot Line TITANIUM

SINGLE SPHERES TITANIUM + TIN
1600 Vickers Hard
FOR WELDING OR BONDING

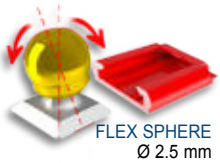
CASTABLE SINGLE SPHERES

NORMAL
Green
Ø 2.5 mm

MICRO
Red
Ø 1.8 mm

ELASTIC RETENTIVE CAPS
Normal / Micro

Undersized caps for worn or damaged spheres are also available. They are also compatible with 1.7mm and 2.2mm spheres.
See parts list for item codes and descriptions.



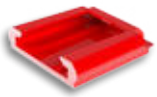
FLEX SPHERE
Ø 2.5 mm

FIXED SPHERE
NORMAL SIZE
Ø 2.5 mm

FIXED SPHERE
MICRO SIZE
Ø 1.8 mm

IMPRESSION COPING
Normal / Micro

PLASTIC PIVOTS
for impression of the root canals



CASTABLE SLIDING BASE

PIVOT ANALOGS
Normal / Micro

MOOSER BURS

PROTECTIVE DISKS

PARALLELOMETER MANDREL
Normal/Micro size

OT EQUATOR CAPS INSERTER/EXTRACTOR TOOL
for the insertion/removal of the caps into/from the metal housing

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.

CLINIC

TRANSFER IMPRESSION TECHNIQUE

Put the impression coping on the sphere in the patient's mouth. Different levels of retention are available depending on the color of the cap used.

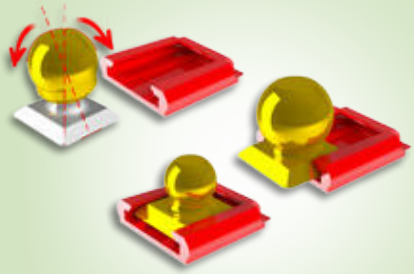
Impression coping in position, the external profile ensures a stable position in the impression.

Insert analogs into the impression copings and pour the model.

Stone model with analogs in place.

LABORATORY

ATTENTION:
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.



NEW DESIGN

EASY FIT

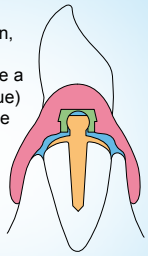
IMPRESSION OF ROOT CANALS

Prepare the roots.

Apply adhesive to the post.

Impression with elastomer.

ATTENTION:
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.



OT CAP - EMBODING STAINLESS STEEL HOUSING TO DENTURE

Protective discs on the cast metal spheres.

Fill the space corresponding to the housings with self curing resin. Insert the prosthesis into the final position.

Once the resin has cured, remove the disc and trim the excess material around the housing.

Finished prosthesis.

OT CAP - CASTABLE SINGLE SPHERE TECHNIQUE

Insert the castable plastic post into the prepared root cavity.

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.

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.

PIVOTS FOR DIRECT OVERDENTURE

PIVOT FLEX
TITANIUM +TIN
1600 Vickers Hard
“self-paralleling” sphere

STAINLESS STEEL AND
TITANIUM HOUSINGS
Normal / Micro size curing
welding or bonding

ELASTIC RETENTIVE CAPS
Normal / Micro

SUPER-RESILIENT CAPS

TITANIUM
PIVOT BLOCK

PIVOT FLEX
TITANIUM + TIN
Ø 2.5 mm
3 lengths

PIVOT BLOCK
TITANIUM WITH STATIONARY SPHERE
NORMAL Sphere
Ø 2.5 mm
3 lengths

PIVOT BLOCK
TITANIUM WITH STATIONARY SPHERE
MICRO Sphere
Ø 1.8 mm
3 lengths

MOOSER BURS

PROTECTIVE
DISKS

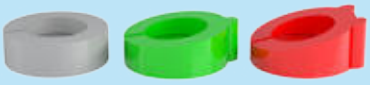
The Pivot Flex line of titanium posts was developed as an economical solution for direct “in root” supported overdentures. The self-aligning Pivot Flex post features a rotating ball with a 2.5 mm diameter and is indicated for divergent roots. When the posts are used with directional rings to align retentive caps before the resin curing stage, the insertion of the denture is easy and trauma-free.

The Pivot Block line of milled titanium posts has a stationary ball and can be used for a temporary or as a permanent solution. The Pivot Block titanium posts are available in 2.5 mm and 1.8 mm sphere diameters. The Rhein83 elastic caps ensure optimal retention and function while minimizing wear.

There are five levels of retentive caps, including extra resilient caps for precarious root situations. The levels of retention are identified by different colored caps.

CLINIC

DIRECTIONAL RINGS



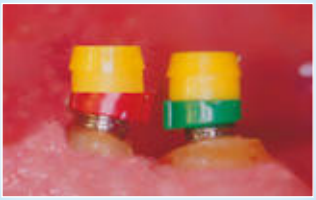
The WHITE directional ring is used for parallel roots. GREEN and RED directional rings are used when angle correction is indicated. Directional rings must be used to position the retentive caps in parallel and in the same horizontal plane to correct the divergence.

PIVOT FLEX AND PIVOT BLOCK

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.

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.

TITANIUM PIVOT BLOCK: 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.

Pivot block micro cementati in posizione, sono state create tacche ritentive sui perni in titanio visto il fissaggio definitivo

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.

CASTABLE BAR CAP HOUSINGS

OT BOX Classic + CONNECTOR

CLASSIC BARS
NORMAL- Green + Yellow
MICRO - Red + Yellow

CONNECTOR
Universal castable bar for joining the OT BOX housings

ELASTIC RETENTIVE CAPS
Normal / Micro size

- Clear • Standard
- Pink • Soft
- Yellow • Extra Soft
- Green • Elastic
- Black • Processing

EXTRA-RESILIENT CAPS

- Gold • Slightly Elastic
- Silver • Elastic and Gummy

IMPRESSION COPING
Normal / Micro

OT BOX Special + CONNECTOR

SPECIAL BARS
NORMAL - Green
MICRO - Red

ANALOGS
Normal / Micro

CLINIC

Cast reinforcement wax-up on the master model without duplication.

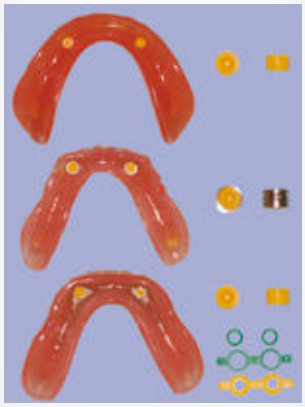
LABORATORY

OVERSIZED CASTABLE HOUSING
for repositioning the caps directly in the patient's mouth

OT BOX LARGE NORMAL + CONNECTOR

OT BOX LARGE 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.



A fracture is more likely to occur where the overdenture attachments are inserted in a prosthesis fabricated entirely of resin. With a cast superstructure reinforcement, the denture will be less likely to fracture. Fast and simple, the OT Box bar components are used to fabricate the superstructure directly on the master model, eliminating duplication and saving time. A non-precious or chrome cobalt alloy is recommended for best results.

It is recommended that all nylon caps are inserted into a stainless steel housing or cast reinforced frame. The stainless steel housing offers a considerable advantage when the cap has to be removed and replaced for routine maintenance or repositioned. Adjustments or repairs can be performed chairside quickly and easily.

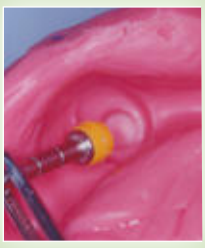
Option 1: OT CAP
OT Cap cured directly into the prosthesis.

Option 2: OT Cap + Stainless Steel Housing
OT Cap with housing cured directly into the prosthesis or bonded into frame.

Option 3: OT Cap + OT Box
OT Cap inserted into OT Box cast reinforced frame.

LABORATORY REQUIREMENTS FOR THE MASTER MODEL

When a new denture is being fabricated utilizing existing spheres, the dentist must provide the laboratory with an impression using the YELLOW CAP. The laboratory will place the analog into the cap and pour the stone model.



IMPRESSION WITH POSTS FIXED IN THE MOUTH

Titanium posts cemented into the root.

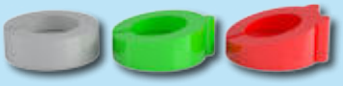
Before taking the imprint place the transfert over the spheres supported by the proper directional ring.

Insert analogs into the impression copings and pour the model.

Stone model with analogs in place.

Plaster model with metal-fused components.

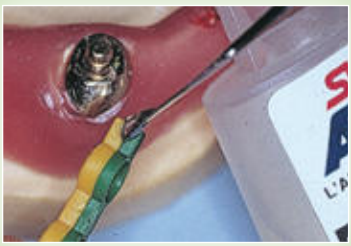
*directional rings



OT Box Classic + CONNECTOR

OT Box Special + CONNECTOR

DIRECT WAX-UP ON THE MASTER MODEL



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

Separate the housing from the OT Box bar connector.

"ONE-PIECE" MONO BAR

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 self-polymerising resin.

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

Finished casting with black retentive caps in housing.

Complete prosthesis with cast reinforcement.

For additional reinforcement...with the silicon mask in position, insert a wax pin to support each tooth before casting.

ROOT TITANIUM + TiN ATTACHMENT

STAINLESS STEEL AND TITANIUM HOUSINGS

ABUTMENT TRANSFER COPING

MANUAL TOOL

ANALOG FOR ROOTS

MALE RETENTIVE ø 1.8 mm

CAPS EXTRACTOR WITH HOUSING FOR INSERTION TOOL

PROTECTIVE DISK

CONNECTION ROOT PIVOT TITANIUM + TIN

Male insertion tool
OT REVERSE 3

DIAMOND SIZING BUR
For root preparation

PROSTHESIS WITH REINFORCEMENT IN CAST METAL

POSITIONER FOR DUPLICATION

STAINLESS STEEL AND TITANIUM HOUSINGS

CONNECTORS

ANALOG FOR ROOTS

MANUAL TOOL

ANALOG FOR MODEL

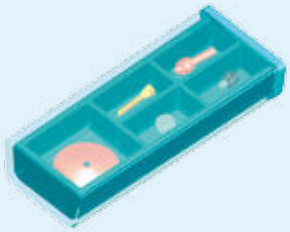
OT BOX LARGE

OT BOX SPECIAL

OT BOX CLASSIC

OT REVERSE 3 is a root supported direct pivot attachment system which provides retention and stabillity for full dentures. The “split” male portion of the attachment is manufactured from titanium that is embedded into a soft nylon material. The female pivots have a unique shape that is designed to fit most remaining root structures. OT REVERSE 3 is successful even with minimal bone support of the remaining dentition. The system is cost effective with simple laboratory and chairside procedures.

CLINIC



Ref. 034 PRK - PACK:
N. 2 Root Pivots in Titanium+TiN
N. 2 Retentive Males in Titanium + NYLON
N. 2 Plastic Hand Tools
N. 2 Stainless Steel Container
N. 2 Protective Disks

LABORATORY

ROOT PREPARATION AND IMPRESSION

Use the diamond sizing bur to prepare the root for the attachment. Using the hand tool, insert the plastic pivot and apply cement.

Pivots cemented into the roots. Insert the male transfer coping into the pivot and take the impression. For best results, use a stiff bodied impression material.

The laboratory will place the analog and pour the stone model.

The stone model with the OT REVERSE 3 analog in position.

CHAIRSIDE PROCEDURES

If you are using the plastic retentive male, remove the stem.
Caution: If the prosthesis is inserted incorrectly, it could bend and it will not fit into the female housing.

Place the attachment with self-curing resin. It is important to always use the protective disk around the perimeter of the attachment.

When OT Box Large is used, enlarge the space using a carbide bur to reduce interference with the male.

Fill the spaces with self-curing resin. Insert the prosthesis into the patient's mouth and have them bite down until the resin has cured.

Remove the prostheses and trim the excess resin.

FABRICATION OF FRAME FOR DIRECT ROOTS OR IMPLANTS

OT BOX CLASSIC
Glue the two OT Box sections together.

OT BOX CLASSIC
Separate the two housings and trim any excess material. Use only the part that is needed.

OT BOX SPECIAL
Separate the two housings and use only the part that is needed.

OT BOX LARGE
Separate the two housings and use only the part that is needed.

OT REVERSE 3
Stone model with analogs, denture setup and silicon guide.

Insert positioners in the analogs. Apply wax on the gingival crest. Make holes in the wax in contact with the stone. Be sure to use stone separator.

Position the sectioned OT Box housing of choice. Complete the reinforcement by using the castable connectors.

Join all of the components with self-curing resin.With the silicon mask in place, insert a wax pin for each tooth for additional support.

Remove the OT Box frame from model. Fill in any voids with wax.

Sandblasted
Cast Reinforcement

White or pink opaque can be used to block out the metal frame.

The finished prosthesis. Attachments are inserted into the cast housings.

The finished prosthesis on the stone model.

RECONSTRUCTIVE SPHERES - OT EQUATOR

Titanium + TiN coating

Concave RECONSTRUCTIVE Sphere

OT EQUATOR

MULTIUSE

TITANIUM +
TiN COATING
more than 1600 Vickers

Available for any implant system on the market!

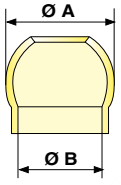
Ø1,8 ***Ø2,2*** ***Ø2,5*** ***OT Equator***

CONCAVE SPHERE
3 Sizes available:

Ø A	Ø B
2,5 mm	1,9 mm
2,2 mm	1,55 mm
1,8 mm	1,4 mm

OT EQUATOR
Size:

Ø A	Ø B
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 economical alternative to replacing the old restoration.

Aqua caps are shown

DR8 Undersized Caps are available in 3 levels of retention for normal and 2 levels of retention for the micro size.

CLINIC

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.

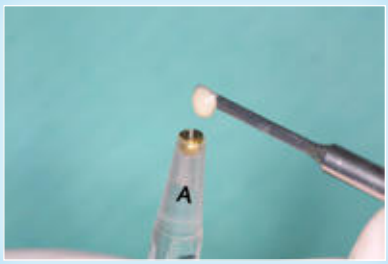
CONCAVE RECONSTRUCTIVE SPHERE RESTORING A WORN OUT SPHERE

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.

Rhein83 offers two types of reconstructive spheres; A solid sphere and a concave sphere. Both types are titanium nitrate coated with a Vickers hardness rated over 1600. The Concave Reconstructive Spheres are available in 1.8 mm, 2.2 mm and 2.5 mm ball diameter. The Solid Reconstructive Spheres are only available with a 1.8 mm ball diameter. The Concave Sphere is used for restoring worn ball attachments and the Solid Sphere is used for restoring ERA ® and CEKA ® type attachments.

SOLID RECONSTRUCTIVE SPHERE 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.

SOLID RECONSTRUCTIVE SPHERE 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.

SOLID RECONSTRUCTIVE SPHERE 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.

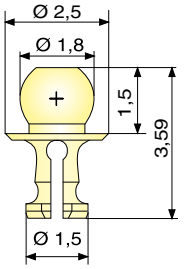
Retentive caps are positioned into the existing denture. The denture is now stable and secure.

Solid RECONSTRUCTIVE Sphere

MULTIUSE

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

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



SOLID SPHERE
Micro Ø 1.8 mm

TOOL
to hold the sphere

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 SLEEVES

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.

BAR AND CAST OVERSTRUCTURE
on the master model without duplication

OT Multiuse BAR
+ CONNECTOR

A
CASTABLE BAR
version **A**

GINGIVAL
CONNECTOR
OPTIONAL

B
CASTABLE BAR
version **B**

CONNECTOR
Universal castable bar for joining the CASTABLE BOX housings

POSITIONING
CLIP A

POSITIONING
CLIP B

CASTABLE BOX

RETENTIVE
YELLOW CLIP
MEDIUM RETENTION 1,8KG

RETENTIVE
PINK CLIP
SOFT RETENTION 1,2KG

RETENTIVE
RED CLIP
EXTRA SOFT RETENTION
0,6KG

PARALLELOMETER
MANDREL

new

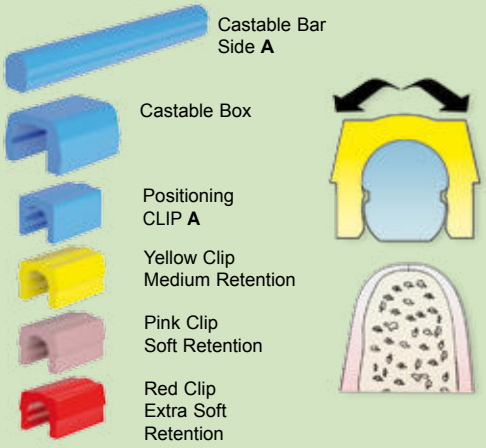
OT BAR CLIPS
INSERTER/EXTRACTOR TOOL

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.

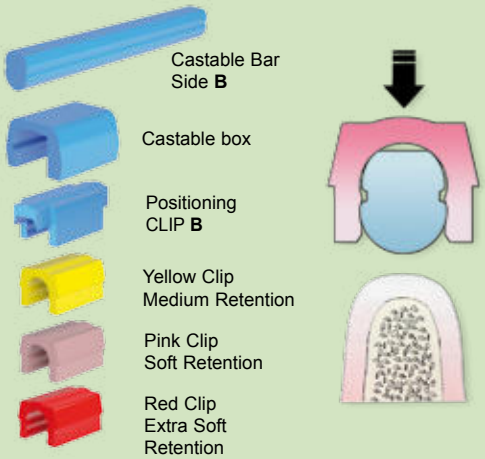
OT BAR MULTIUSE and the cast housing are fabricated directly on the master model saving time by eliminating the need for duplication.

CLINIC

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 multuple abutments where the prosthesis is supported by a "normal" layer of soft tissue.

FABRICATION OF THE SUPERSTRUCTURE ON THE MASTER MODEL WITHOUT DUPLICATION

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.

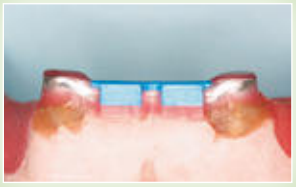
The completed casting with retentive clips snapped in place.

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

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.

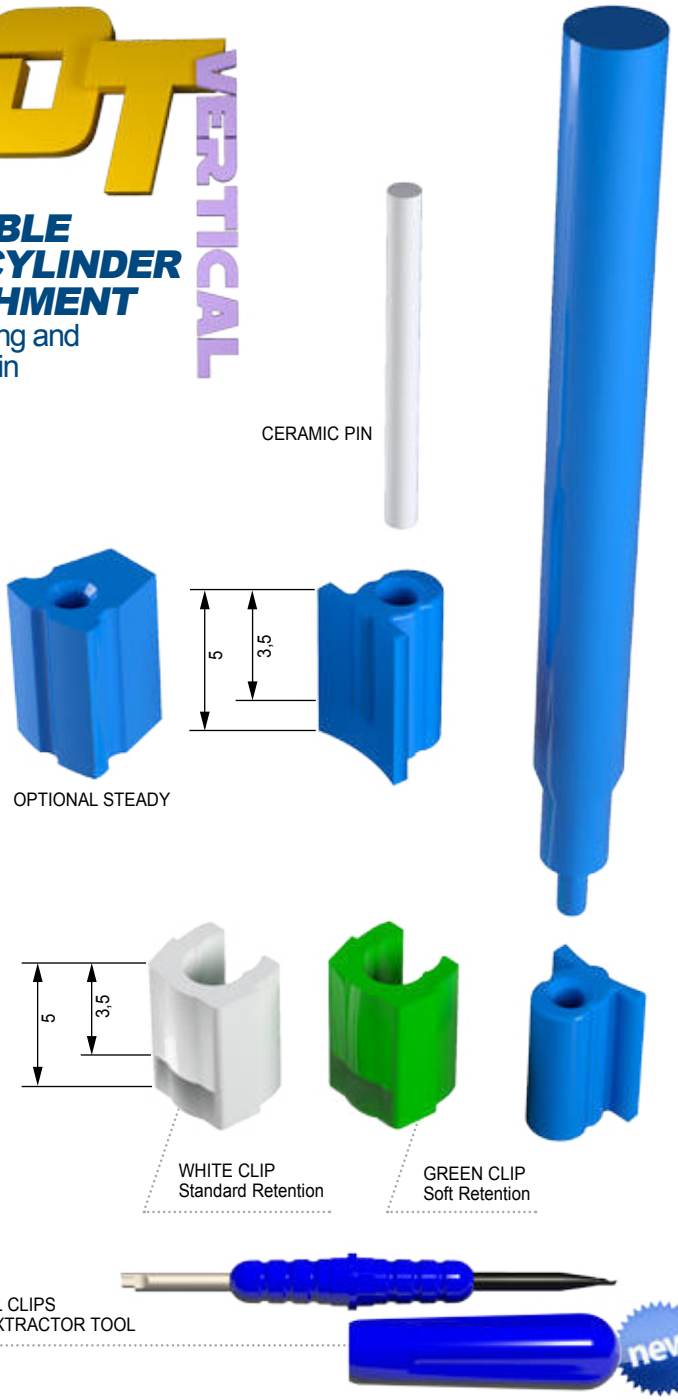
The completed casting with retentive clips snapped in place.

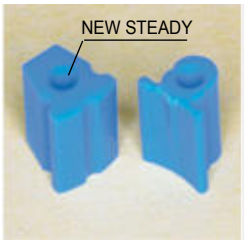
The finished denture with cast reinforcment and retentive clips in place.

OT VERTICAL

CASTABLE TWIN CYLINDER ATTACHMENT

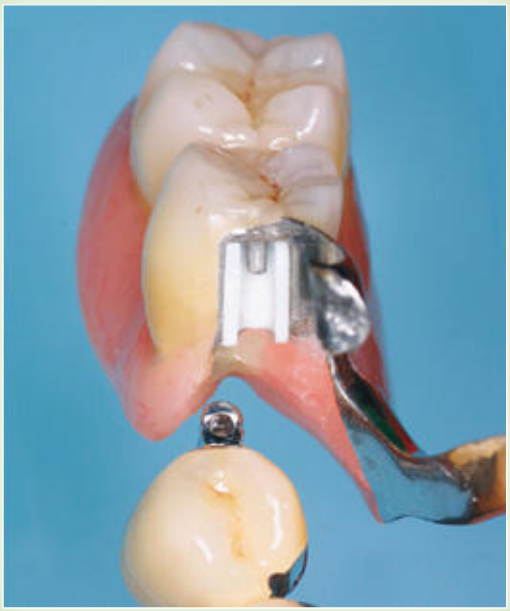
with centering and balancing pin

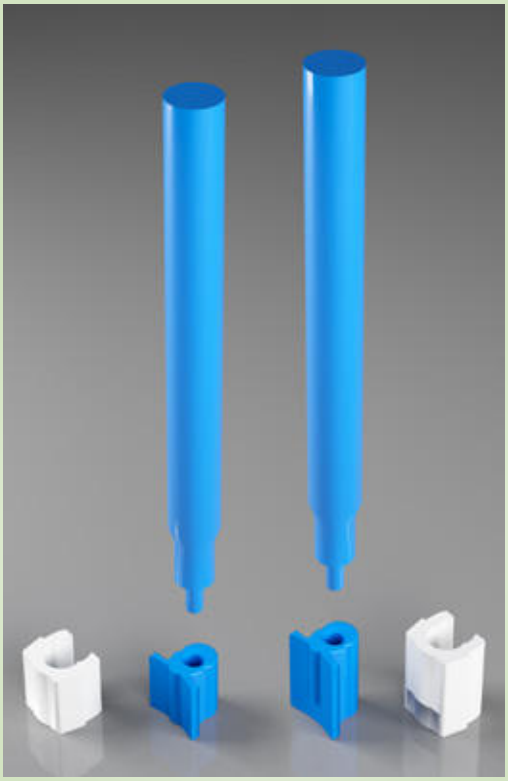




The cast metal guide pin is necessary to center, connect and balance the prosthesis during the final insertion. When milling or “cross arch” stabilization are not possible, the guide pin along with the NEW STEADY will provide lateral stability to the prosthesis. This ensures a longer life for the retentive clips. The vertical height of the attachment can be adjusted by reducing both male and female parts from the original length of 5 mm down to 3.5 mm according to the pre-marked notches. Reducing the vertical height creates no difference in functionality. Removal and replacement of clips can be easily performed by the Dentist chairside.

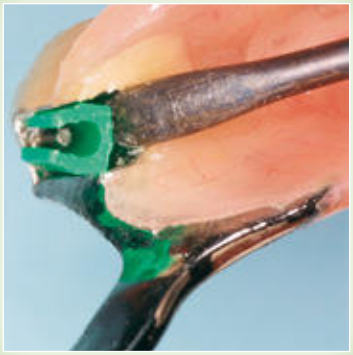
LABORATORY





ATTENTION

When shortening the OT VERTICAL attachment, it is suggested not to reduce the attachment more than 3.5mm to prevent excessive wear or failure. The limit is indicated by a notch on both male attachments and clips.



Remove the clip using a flat round instrument.

Once it has been removed, compare the height of the old clip to the height of the new clip.

If the clip needs to be reduced, use a rotary instrument to shorten according to the notch on the back.

Insert the new clip using the OT VERTICAL insertion tool.

The attachment and the clip can be mounted with it's original height (5 mm) or shortened (3.5 mm) by filing the side opposite the hole.

Once the assembly and the wax model have been completed, insert the ceramic cylinder into the hole of the attachment and cast.

After the attachment has been connected with wax, insert the pin into the hole on the top of the attachment. Rotate the pin until a proper fit is obtained and it is easily removed.

Sandblast the casting. Use a round bur or appropriate acid to remove any ceramic materal that may be present in the hole.

Before duplicating the model, remove the tip of the plastic pin that is located on the end of the parallelometer key mandrel from the rest of the shank.

Insert the pin into the hole of the attachment and pour the duplicating material (silicone or gelatin).

The castable plastic pin in the duplicated model. The pin can either be removed or remain in the model.

Complete the wax-up of the frame and proceed with casting.

The cast framework.

The finished framework. Insert the retention clips using the OT VERTICAL insertion tool.

The finished framework on the model. Even without milling, the cast pin provides stability to the prosthesis.

Lowering the male portion of the attachment increases the gingival load and reduces the vertical stress on the supporting teeth.

COMBINED RETENTION ATTACHMENT
For Multi-Functional Prosthetics

OT UNILATERAL

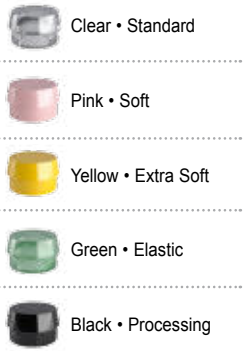
UNI-BOX CASTABLE

OT CAP Micro

OT STRATEGY CAP For Duplication

UNILATERAL SPHERICAL CASTABLE ATTACHMENT

RETENTIVE CAPS
OT CAP Micro



- Clear • Standard
- Pink • Soft
- Yellow • Extra Soft
- Green • Elastic
- Black • Processing

RETENTIVE CAPS
OT Strategy for duplication

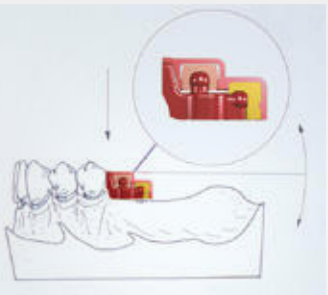
- Clear • Standard
- Pink • Soft
- Yellow • Extra Soft
- Black • Processing

TOOLS

PARALLELOMETER MANDREL OT CAP MICRO

OT STRAGEGY CAPS INSERTER/EXTRACTOR TOOL

The OT UNILATERAL castable attachment from Rhein83 is specifically intended for unilateral, bilateral or implant bar applications without additional support from milled bracing arms.



OT UNILATERAL's exclusive design features a two-in-one combination of 1.8 mm horizontal and vertical spheres utilizing OT CAP and OT STRATEGY micro size female caps. The male section of the attachment is engineered with a vertical strut which extends through the base of the attachment providing exceptional lateral stability and distal support to the prosthesis.

The Uni-Box female component is a one piece castable housing that covers the entire male section, adding superior strength to the acrylic.

LABORATORY

EXCLUSIVE FEATURE

2-IN-1 DESIGN - A COMBINATION OF HORIZONTAL AND VERTICAL MICRO SPHERES ARE USED WITH THE OT CAP AND OT STRATEGY ATTACHMENT SYSTEMS

MULTIPLE BENEFITS

BECAUSE OF IT'S UNIQUE DESIGN, OT UNILATERAL PROVIDES:

* LATERAL STABILITY
* NO MILLING REQUIRED
* SUPERIOR RETENTION
* CONTROLLED RESILIENCY
* OVERALL FUNCTIONALITY
* ECONOMICAL SOLUTIONS

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

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.

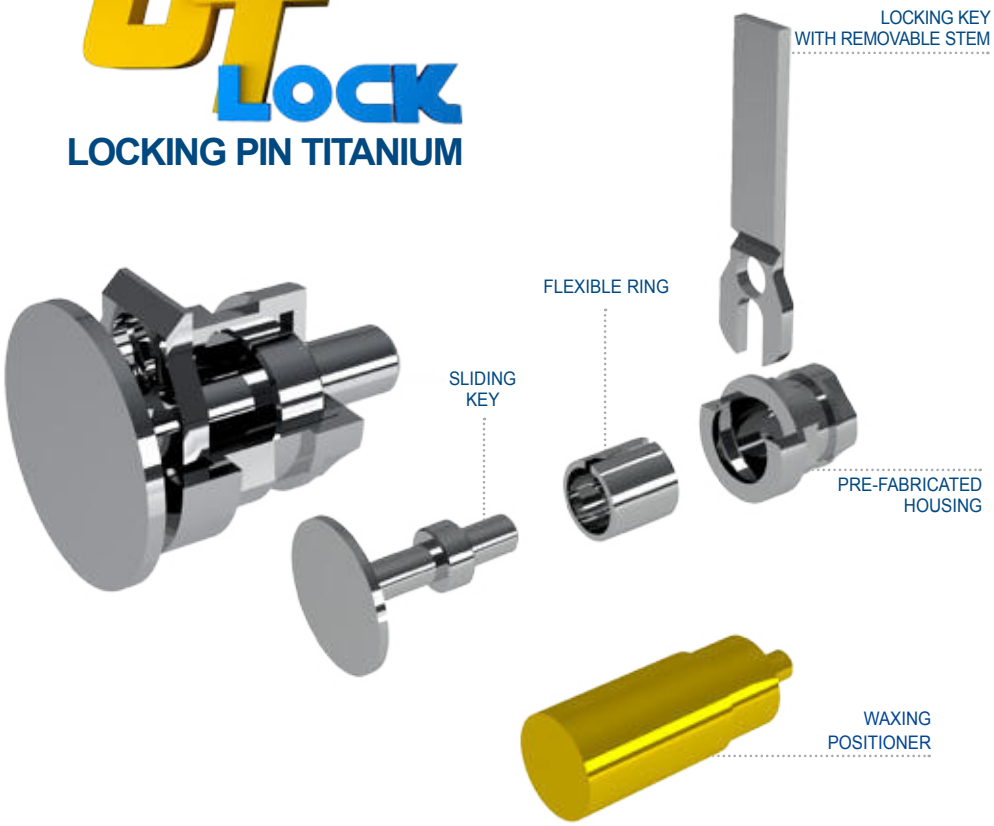
Finished work: Ot cap and Ot Strategy caps, with the proper retention features, are inserted inside the Ot-Box component.

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.

OT LOCK
LOCKING PIN TITANIUM



CLINIC

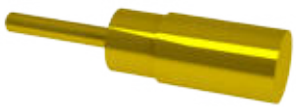
OPTIONAL
for the patient

CONICAL GUIDE AND UNLOCKING TOOL

UNLOCK THE PROSTHESIS BY INSERTING THE UNLOCKING TOOL INTO THE CONICAL GUIDE.

ADJUSTABLE TITANIUM LOCKING PIN
SPACER RING SYSTEM TO POSITION THE KEY TO THE DESIRED SHAPE

CASTABLE SPACER RINGS

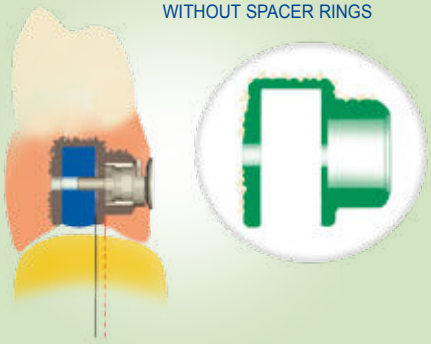


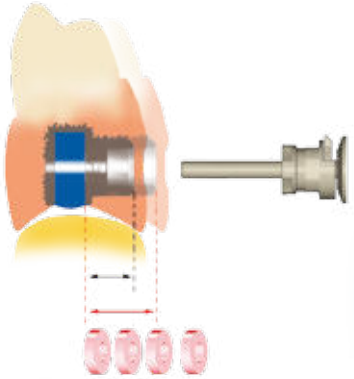
LONG WAXING POSITIONER

ADJUSTABLE SLIDING KEY

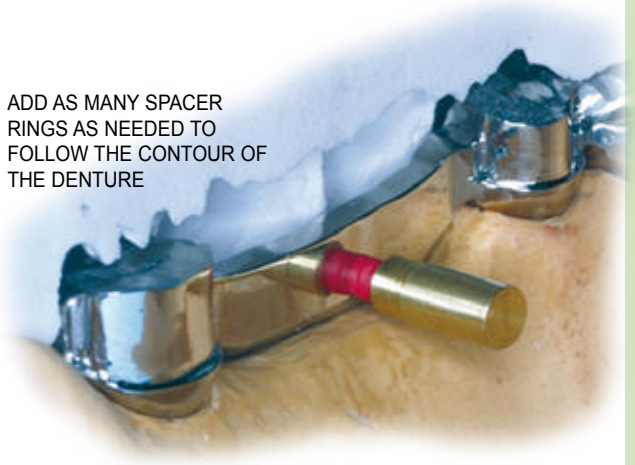
LABORATORY

LOCKING KEY IN POSITION WITHOUT SPACER RINGS

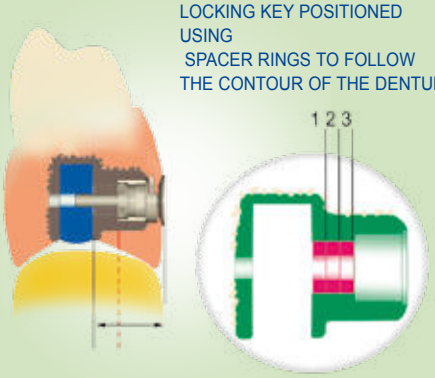




ADD AS MANY SPACER RINGS AS NEEDED TO FOLLOW THE CONTOUR OF THE DENTURE

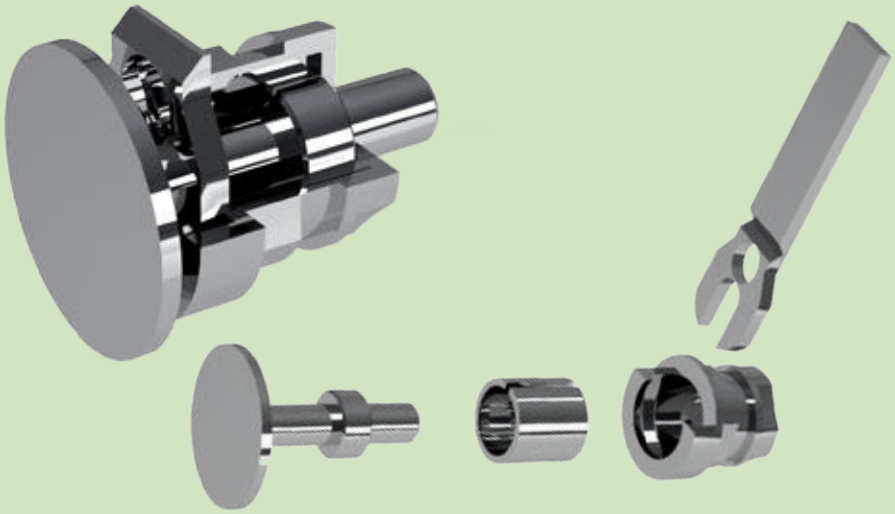


LOCKING KEY POSITIONED USING SPACER RINGS TO FOLLOW THE CONTOUR OF THE DENTURE



LABORATORY

OT LOCK TITANIUM



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 pre-fabricted housing guide. The "key-ring" 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

OVERDENTURE ATTACHMENTS - SPHERO FLEX - SPHERO BLOCK

Rotating & Stationary Ball Abutments For Divergence Correction

TITANIUM + TIN COATING PROVIDES 1600 VICKERS HARDNESS

Sphero FLEX

"SELF-PARALLELING" SPHERES

2.5 mm

Sphero BLOCK

STATIONARY BALL ABUTMENT

1.8 mm

2.5 mm

OT Special BOX

NORMAL- Green MICRO - Red

IMPRESSION COPING
Normal / Micro size

ANALOGS
SPHERO FLEX / SPHERO BLOCK

PROTECTIVE DISK

UNIVERSAL KEY + HANDPIECE CONNECTOR

MANUAL TORQUE WRENCH

For Sphero block - flex and Ot Equator 15/35Ncm Strenght - Max 50Ncm torque, suggested 25Ncm.

STAINLESS STEEL AND TITANIUM HOUSINGS
Normal / Micro
for curing welding or bonding

ELASTIC RETENTIVE CAPS
Normal / Micro

Clear • Standard
Pink • Soft
Yellow • Extra Soft
Green • Elastic
Black • Processing

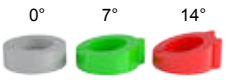
TITAN CAP
Normal / Micro

EXTRA RESILIENT CAPS

Gold • Elastic
Silver • Elastic Gummy

OT Classic BOX

BARS
NORMAL SIZE = Green + Yellow
MICRO SIZE = Red + Yellow



0° 7° 14°

DIRECTIONAL RINGS
(REQUIRED FOR LAB AND CLINICAL PROCEDURES)

CONNECTOR
For OT Box

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.

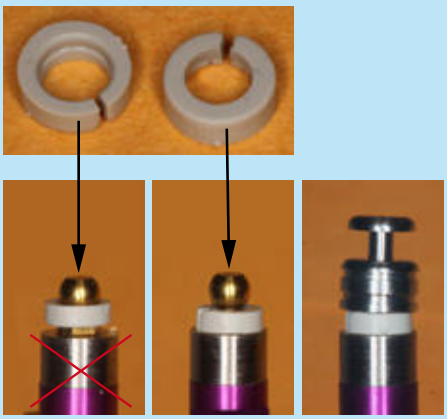
Sphero Block is a "one-piece" milled stationary ball implant attachment. It is available in 2.5 mm and 1.8 mm diameters. Sphero Block provides exceptional stability and corrects divergence up to 28° between 2 implants Sphero Block implant attachments are compatible with all implant systems currently on the market.

Sphero Flex and Sphero Block are manufactured with cuff heights ranging from 1 mm to 7 NOTE: The Sphero Flex and Sphero Block attachments are available for all platform diameters.

CLINIC

DIRECTIONAL RINGS 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.



Wrong placement

Correct placement

LABORATORY

3 EASY STEPS

1. Place directional rings (green and red are shown here) over the spheres establishing a level plane.

2. OT BOX positioners are placed over spheres to support box housing during framework fabrication.

3. After gluing the 2 OT BOX parts, cut and use the necessary pieces for the housing.

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.

Finished prosthesis

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.

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.

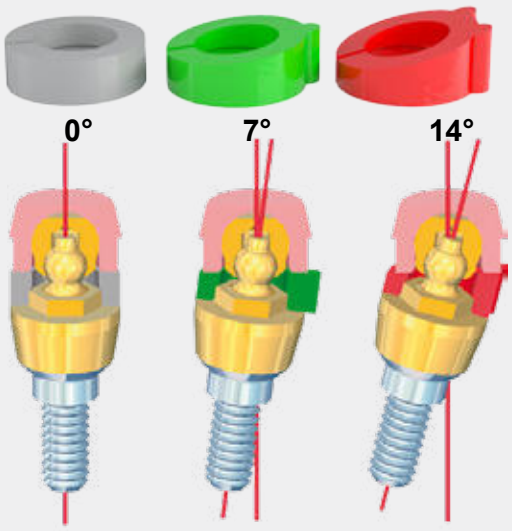
Screw the abutment into the analog. Be sure to use the abutment with the proper cuff height.

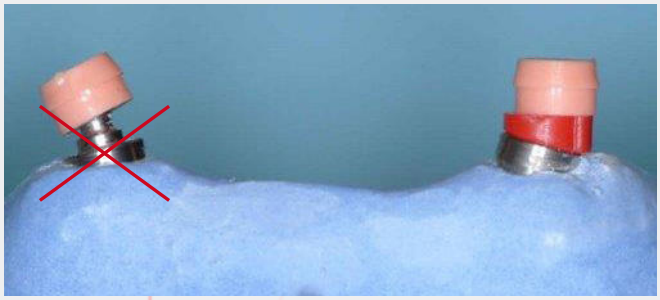
Directional rings are placed over the abutments and must be fully seated on the platform. Rotate rings until they are parallel in the same horizontal plane.

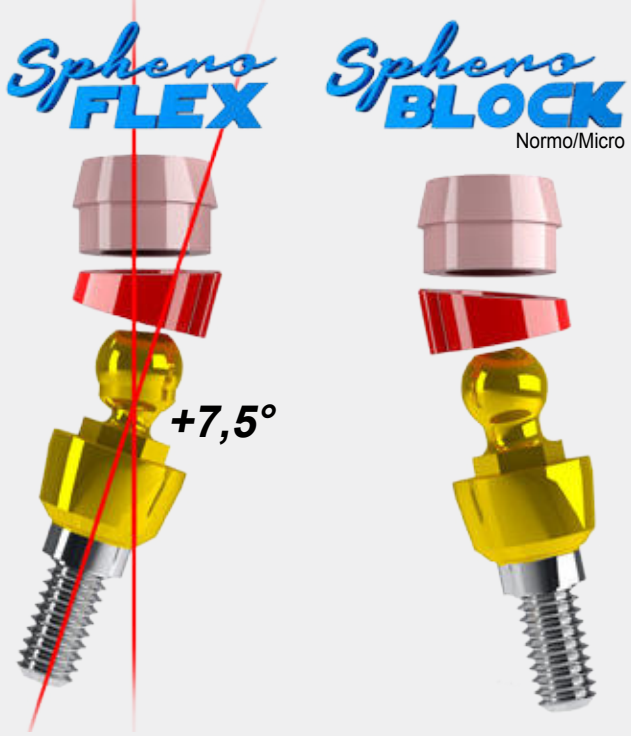
The nylon caps are inserted into the stainless steel housings and placed on top of the directional rings. Verify that the caps are still in the same horizontal plane.

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

DIRECTIONAL RINGS
for angle correction





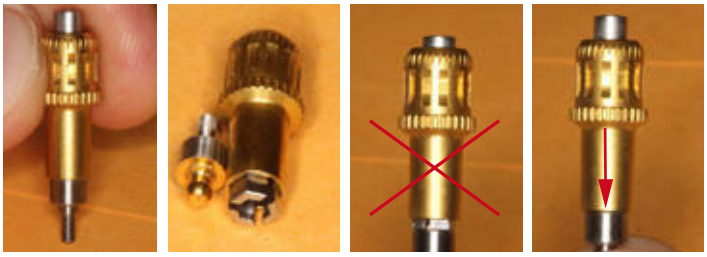


SPHERO FLEX - SPHERO BLOCK

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 mis-alignment 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.

INSTRUCTIONS FOR USE OF ABUTMENT DRIVER / WRENCH

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.



Clamping mechanism | Incompletely seated driver | Driver fully seated

UNIVERSAL “ANTI-UNSCREWING” SYSTEM WITH ELASTIC INSERT

Recommended for Sphero Flex, Sphero Block and OT Equator attachments with a cuff height over 5 mm. This system can also be used for single screws.
(Core Vent, Branemark, Pitt Easy, Bona Fit)

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.

MINI-PARALELLOMETER

FEATURES:
- EASY TO USE
- COMPACT
- PRECISE
- ECONOMICAL

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.

CUFF HEIGHT MEASURING TOOL FOR IMPLANTS

INSTRUCTIONS FOR USE

1. Rotate upwards the gold colored plate until the tool is completely open.
2. Insert the tool into the implant. Be sure that it is fully seated on the top of the implant.
3. Firmly hold the tool and rotate the gold plate clockwise until it contacts the ridge.
4. Remove the tool and read the color coded rings indicated on the pin to determine the cuff height.

NOTE:

When a colored ring is completely covered, and only the silver band between colors is visible, it is recommended to utilize the next (higher) color.

IMPORTANT:

Before ordering an attachment, it is necessary to specify: Implant manufacturer, implant brand, diameter, internal or external hex connection and cuff height. The cuff height is determined by taking the corresponding color from the cuff height measuring tool. For implants with an internal hex connection the cuff height will range from .5 mm to 7 mm and for implants with an external hex connection, the cuff height will range from 1 mm to 7 mm.

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.

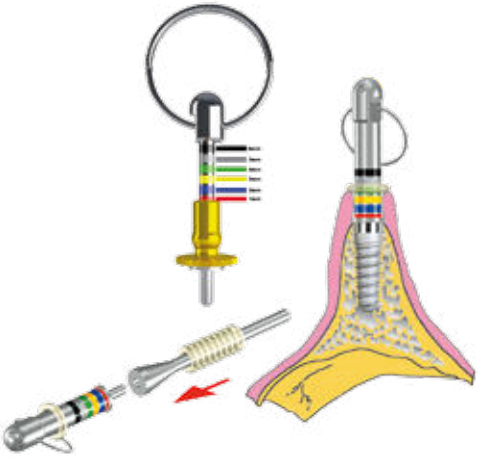
The Cuff Height Tool is compatible with all implants that have an internal or external hex connection.

Cuff Height Measuring Tool
With Threaded Pin And Ball Indicator

With easy to read color-coded millimeter measurements, Dentists and dental laboratories can accurately measure tissue height between .5 mm and 7 mm. The ball indicator outlines where the male component of the attachment will seat above the tissue.

Cuff Height Measuring Tool
With Stationary Pin

The cuff height measuring tool with stationary pin provides the same functionality as the tool with a threaded pin, however it is used in cases where there is limited space between two implants.



BROKEN SCREW EXTRACTOR KIT FOR IMPLANTS

FOR REMOVAL OF BROKEN IMPLANT SCREWS

READILY AVAILABLE FOR CORE VENT AND BRANEMARK COMPATIBLE IMPLANTS
EXTRACTOR KITS CAN BE MADE TO ORDER FOR MOST common IMPLANT BRANDS WITH AN INTERNAL OR EXTERNAL HEX CONNECTION

Claw reamer bur (C) inserted in the positioner (B) for manual removal of the broken screw

PARTS AND ACCESSORIES:

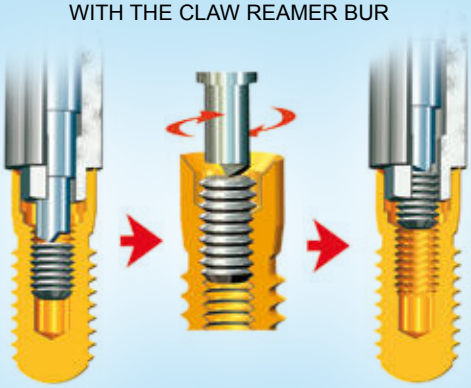
A MANUAL CENTERING DEVICE
B POSITIONER
C CLAW REAMER BUR
D REVERSE CUTTING BUR

CLINIC

BROKEN SCREW VISIBLE IN X-RAY OF IMPLANT

BROKEN SCREW REMOVED

REMOVING THE BROKEN SCEW WITH THE CLAW REAMER BUR



With the Rhein83 Broken Screw Extractor Kit, it is possible to remove a broken screw from an implant if it has not been bonded or damaged during previous attempts to remove it.

The extractor kit includes two types of burs; a claw reamer bur and reverse cutting bur. In addition, the kit includes manual centering devices to hold the burs in place during the procedure. In 90% of cases, the broken screw can be removed easily with the claw reamer bur. However if the broken screw is firmly stucked inside the implant, the reverse cutting bur must be used.

Broken Screw Extractor Kits are readily available for Core Vent and Branemark compatible implant systems. Other kits, both with internal and external key can be ordered upon request.

To order a custom kit or for technical support, please contact your local Rhein83 distributor.

USING THE REVERSE CUTTING BUR TO EXTRACT A BROKEN SCREW

Operate between and 2000 rpm

Place the reverse cutting bur into the angled handpiece and then insert it into the respective extractor. Before activating the handpiece it is essential that the bur is in contact with the broken screw. Activate the handpiece in a counter clockwise direction and be sure that firm downward pressure is maintained throughout the procedure. It is mandatory to set the rotating ratio between 400 and 600 rpm in order to avoid the implant and the bone overheating.To prevent the implant fixture from overheating, it is necessary to move the reverse cutting bur in an up and down motion intermittently. Upon removing the broken screw, be sure to clean the implant fixture thoroughly to remove any residual metal leftover that remain from the extraction procedure.

NOTE: Before using, fill the bottom hole (side with the hex) of the centering device with petroleum jelly. In addition to lubricating the device, in some cases, it will hold the broken screw in the extractor upon removal.

USING THE CLAW REAMER BUR WITH THE MANUAL CENTERING DEVICE

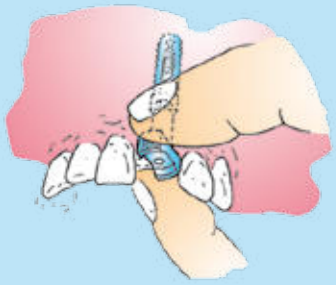


Fig.1

While holding the manual centering device firmly, insert the device (A) into the fixture and make sure that the hexagon is fully engaged into the implant fixture.

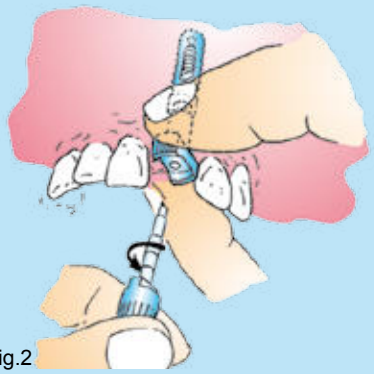


Fig.2

Insert the claw reamer bur (C) into positioner (B). Insert the bur into the centering device until it comes into contact with the broken screw. Rotate in a counter clockwise direction while maintaining constant downward pressure. After a few turns the notch in the bur should reappear. Manually remove the centering device which will contain the screw, if not it will remain inside the implant and can easily be removed with tweezers.

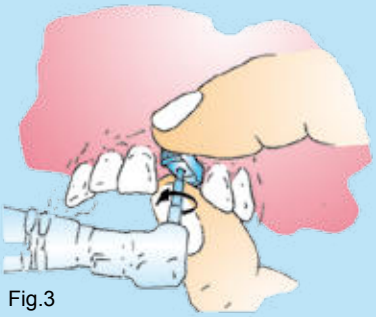


Fig.3

In certain cases, it may be easier to use the claw reamer bur (C) with a contrangle handpiece. With the motor stopped, insert the claw reamer bur into the centering device (A) until the tip touches the broken screw.

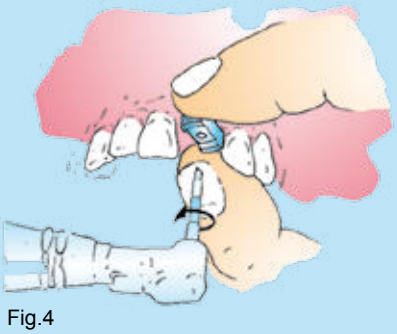


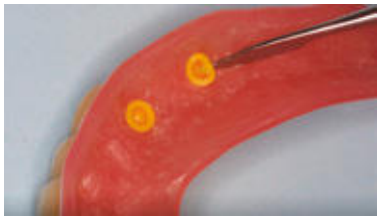
Fig.4

While applying pressure to the broken screw, start the motor in a COUNTER CLOCKWISE direction at a low RPM. After a few turns the notch in the bur should reappear. Manually remove the centering device which will contain the screw, if not it will remain inside the implant and can easily be removed with tweezers.

IMPORTANT: Please follow the instructions closely when using the Broken Screw Extractor Kit. Although the Reverse Cutting Bur has been hardened by a tempering process, it should always remain vertical (parallel with the screw hole) during the procedure to prevent breakage. The Reverse Cutting Bur and Claw Reamer Bur are subject to wear. These burs should be inspected for wear prior to each procedure and replaced if necessary. Finally, it is very important that the motor direction is set to COUNTER CLOCKWISE when using this kit.

REPLACEMENT OF CAPS

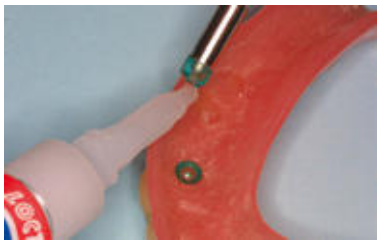
Rhein83 recommends that caps should be replaced every 12 months. The longevity of the caps is affected by many variables including: original case design, patient hygiene and general maintenance of the prosthesis.



HOW TO REPLACE THE CAPS

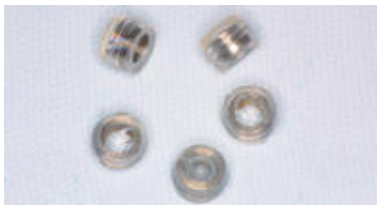
In a prosthesis with metal housings, the cap can be removed by using the extractor tool for caps; otherwise use a spherical bur at low RPM without damaging the housing.

In a prosthesis where the cap is incorporated directly into the resin, it can be removed by hand with a pointed instrument (such as a spatula) or the Rhein83 cap extractor tool. If a bur is used, be careful to remove only the retentive cap and to not modify the form that remains in the resin. If the resin site is damaged during the removal of the cap, repair the area with self curing resin before inserting the new cap. The cap insertion tool is used for this procedure.



GREEN ELASTIC CAPS

These caps are highly elastic and have a medium level of retention. In cases where metal housings are used, it is recommended to apply a drop of adhesive (cyanoacrylic) on the inside of the housing before inserting the cap.



TITAN CAPS

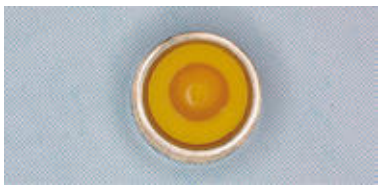
These caps were designed to be used on the OT CAP TECNO as well as the Normal and Micro attachments with machined titanium spheres.

CAP INSERTION TOOL

When using high retention caps, it is recommended to insert them directly in the clinic into the housing using the cap insertion tool.
OT CAP Normal / Micro OT Reverse.

PROSTHESES WITH MULTIPLE ATTACHMENTS

In order to balance the retentive levels of a prosthesis with multiple attachments, it is possible to use caps with different levels of retention.
REAMERS AND CAP TESTERS: if the retention of the caps is too hight, insert the reamer into the caps and rotate it in a clockwise direction, after only a few rotations it will wear down the perimeter which will reduce the retention. Try the prosthesis in the mouth, if it is still too retentive, repeat the operation with the reamer, In order to avoid trying the prosthesis in the mouth too many times, one can use the spherical tester, in order to evaluate the holding strength.



HOW THE RETENTIVE CAP FUNCTIONS

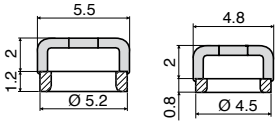
The Rhein83 caps are manufactured with a high elasticity which creates both mechanical and frictional retention resulting in a larger contact zone between the cap and the lower portion of the sphere. A small space between the metal housing and the cap allows the cap to expand as it passes over the equator of the sphere. Once completely engaged, the cap returns to its original form.

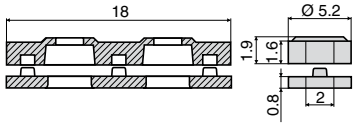
POLISHING OF THE “CAST” ATTACHMENTS:

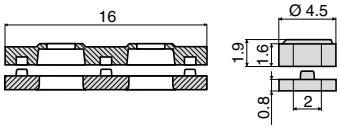
It is recommended that only glass beads or a soft cloth wheel are used to polish attachments. In order to avoid damage to the sphere duing these procedures, it is a good practice to cover the spheres with a retentive cap. The retentive caps can be reused again for this procedure.

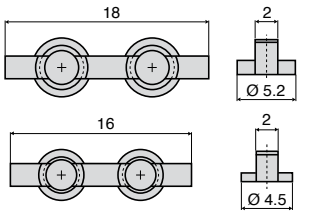
TRADITIONAL PROSTHESES	REF.	DESCRIPTION
	06P	Model with upper prosthesis with OT Cap Normal / Micro size attachments: 1 OT CAP NORMAL 1 OT CAP MICRO 1 Frame with OT BOX mono housings 5 Acrylic teeth
	07P	Model with lower prosthesis with OT Strategy 1 OT STRATEGY 1 OT STRATEGY + STEADY 1 Frame with caps and duplicated housings 5 Acrylic teeth
		PROSTHESIS ON NATURAL TEETH
	04P	Model with lower “Overdenture” prosthesis: 1 PIVOT FLEX titanium post 1 Cast post with OT CAP sphere 1 Complete denture with 14 teeth 1 Cast OT BOX reinforcement incorporated in the denture
	04P/A	Same model as 04P. Denture with pre-fabricated STAINLESS STEEL HOUSINGS for retentive caps
	09P	MODEL WITH LOWER PROSTHESIS WITH OT VERTICAL 1 OT VERTICAL 1 OT VERTICAL + STEADY 1 Frame with clips and duplicated housing 6 Acrylic teeth
		IMPLANT MODELS
	031	Model with lower prosthesis with SPHERO FLEX abutments: 2 Implant analogs 1 SPHERO FLEX 1 SPHERO BLOCK 1 Complete denture with 14 teeth 1 Cast OT BOX reinforcement incorporated in the denture
	031/A	Same model as 031. Denture with pre-fabricated STAINLESS STEEL HOUSINGS
		PROSTHESIS ON FIXTURES
	08B	Model with lower prosthesis with OT Bar Multiuse: 2 Implant analogs 1 Cast bar with copings 1 OT BAR MULTIUSE 1 Cast superstructure with two retentive clips 1 Complete denture with 14 teeth

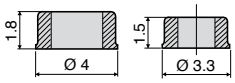
PRODUCT SPECIFICATIONS

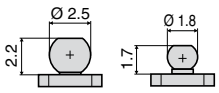


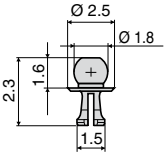


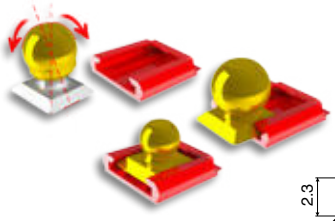
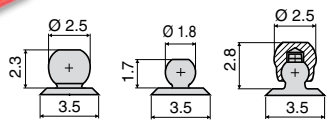


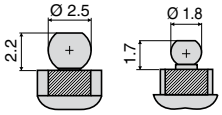


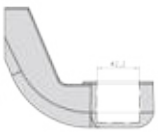


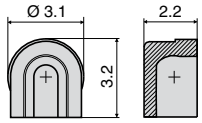


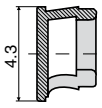


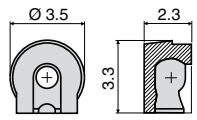



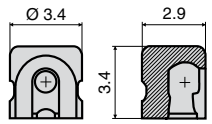


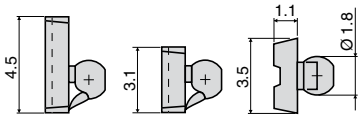


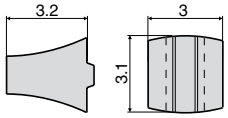


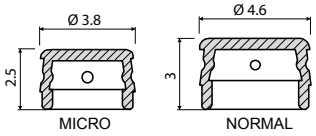








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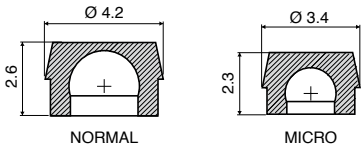
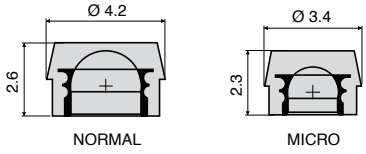
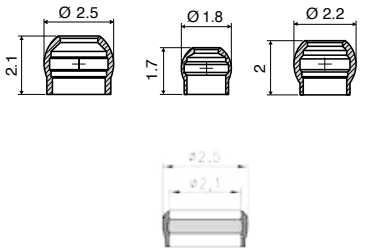
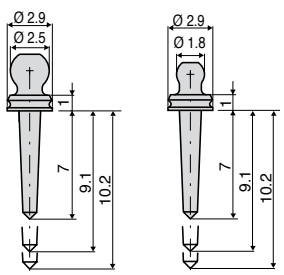
2.5
MICRO
Ø 4.6
3
NORMAL


Ø 4.2
2.6
NORMAL
Ø 3.4
2.3
MICRO


Ø 4.2
2.6
NORMAL
Ø 3.4
2.3
MICRO


Ø 2.5
2.1
Ø 1.8
1.7
Ø 2.2
2


Ø 2.9
Ø 2.5
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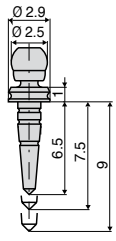
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Ø 2.5
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6.5
7.5
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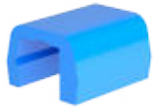

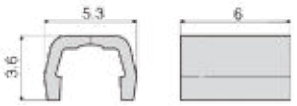
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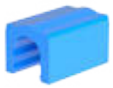

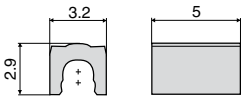
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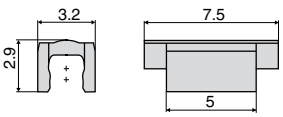
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2.9
7.5
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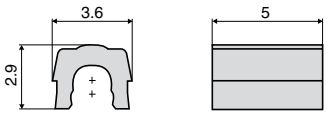
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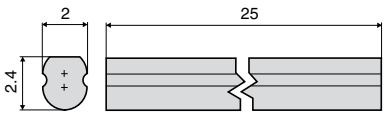
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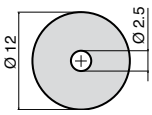
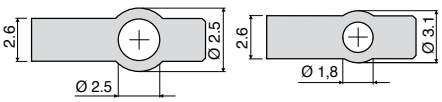

Ø 12
Ø 2.5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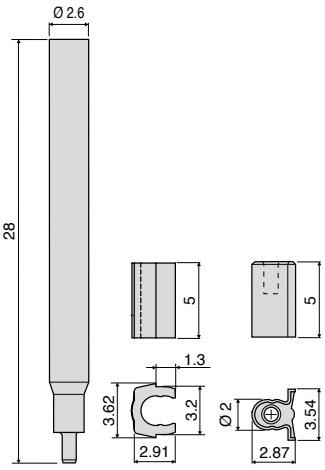
Ø 2.5
Ø 2.5
2.6
Ø 3.1
Ø 1,8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2.91
Ø 2
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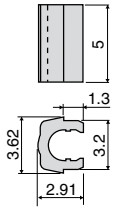
2.87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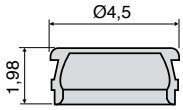
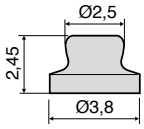
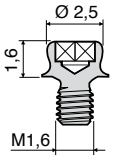
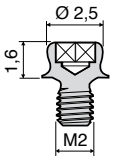
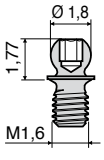
PRODUCT SPECIFICATIONS

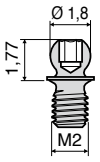


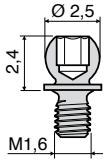


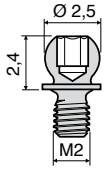


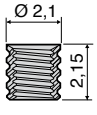


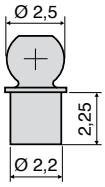


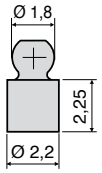


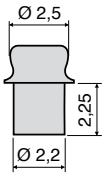


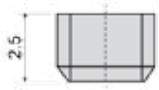


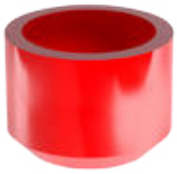


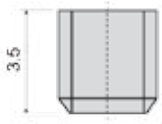


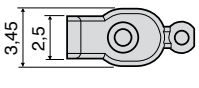


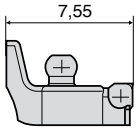


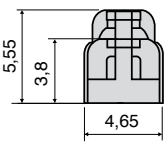


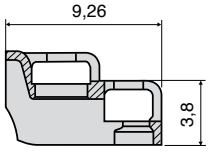








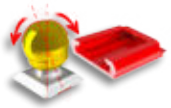




Ref.: 005SKLUS
INTRODUCTORY KIT FOR LABORATORY contains assorted attachments and tools

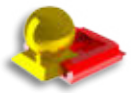
Ref.: 011SPL
S.P.L. INTRODUCTORY KIT contains assorted titanium BLOCK pivots, castable pivots, retentive caps and two regulating tools

ATTACHMENTS OT CAP SYSTEM



Ref.: 038STF

TITANIUM FLEX SINGLE SPHERE NORMAL SIZE + TiN
Kit contains
2 SINGLE TITANIUM SPHERES
2 PINK CAPS - SOFT RETENTION
1 SPHERE HOLDER
2 CASTABLE SLIDING BASES



Ref.: 038STN

TITANIUM SINGLE SPHERE NORMAL SIZE + TiN
Kit contains
2 SINGLE TITANIUM SPHERES
2 PINK CAPS - SOFT RETENTION
1 SPHERE HOLDER
2 CASTABLE SLIDING BASES

Ref.: 038STM

TITANIUM SINGLE SPHERE MICRO SIZE + TiN
Kit contains
2 SINGLE TITANIUM SPHERES
2 PINK CAPS - SOFT RETENTION
1 SPHERE HOLDER
2 CASTABLE SLIDING BASES

Ref.: 093CTN
NORMAL

Ref.: 093CTM
MICRO

OT CAP TECNO - NORMAL/MICRO
Kit contains
2 PRE-ANGULATED CASTABLE EXTENSIONS
2 TITANIUM SINGLE THREADED SPHERES
2 TRANSPARENT CAPS NORMAL/MICRO
2 PINK CAPS NORMAL/MICRO
2 YELLOW CAPS NORMAL/MICRO

Ref.: 092CAN

OT CAP NORMAL SIZE
Kit contains
4 SINGLE SPHERES
4 PINK RETENTIVE CAPS
4 STAINLESS STEEL HOUSINGS
(2 for resin - 2 for soldering)
4 PLASTIC POSITIONING RINGS

Ref.: 092CAM

OT CAP MICRO SIZE
Kit contains
4 SINGLE SPHERES
4 PINK RETENTIVE CAPS
4 STAINLESS STEEL HOUSINGS
(2 for resin - 2 for soldering)
4 PLASTIC POSITIONING RINGS

Ref.: 196BCN

"ECONOMIC" OT CAP NORMAL SIZE
Kit contains
1 CASTABLE BAR
1 CASTABLE BEVELLED BAR
4 CLEAR RETENTIVE CAPS
(Standard retention)

Ref.: 197BCM

"ECONOMIC" OT CAP MICRO SIZE
Kit contains
1 CASTABLE BAR
1 CASTABLE BEVELLED BAR
4 CLEAR RETENTIVE CAPS
(Standard retention)

Ref.: 099BSN

OT CAP & MONO OT BOX FOR FRAME NORMAL SIZE
Kit contains
2 CASTABLE BARS (1 straight - 1 bevelled)
4 CLEAR RETENTIVE CAPS
4 CASTABLE MONO OT BOX
4 PLASTIC POSITIONING RINGS

Ref.: 099BSM

OT CAP & MONO OT BOX FOR FRAME MICRO SIZE
Kit contains
2 CASTABLE BARS (1 straight - 1 bevelled)
4 CLEAR RETENTIVE CAPS
4 CASTABLE MONO OT BOX
4 PLASTIC POSITIONING RINGS

Ref.: 058BSN

OT BOX SPECIAL NORMAL SIZE + CONNECTORS
Kit contains
2 OT BOX SPECIAL BARS
4 PLASTIC POSITIONERS
4 CONNECTORS

Ref.: 058BSM

OT BOX SPECIAL MICRO SIZE + CONNECTORS
Kit contains
2 OT BOX SPECIAL BARS
4 PLASTIC POSITIONERS
4 CONNECTORS

Ref.: 153BCN

OT BOX CLASSIC NORMAL SIZE + CONNECTORS
Kit contains
2 UPPER BARS
2 LOWER BARS
4 PLASTIC POSITIONERS
4 CONNECTORS

Ref.: 153BCM

OT BOX CLASSIC MICRO SIZE + CONNECTORS
Kit contains
2 UPPER BARS
2 LOWER BARS
4 PLASTIC POSITIONERS
4 CONNECTORS

Ref.: 087CRS

CONCAVE RECONSTRUCTIVE SPHERE
Kit contains
2 CONCAVE SPHERES IN TITANIUM - TiN COATED
2 PINK CAPS SOFT RETENTION
1 INSERTION TOOL
1 GAUGE AND STRIP HOLDER
Available in 1.8 mm, 2.2 mm, 2.5 mm diameters

Ref.: 087CRE

CONCAVE REPAIR OT EQUATOR
Kit contains
2 CONCAVE OT EQUATOR IN TITANIUM - TiN COATED
2 PINK CAPS SOFT RETENTION
1 INSERTION TOOL
1 GAUGE AND STRIP HOLDER

Ref.: 089SRS

SOLID RECONSTRUCTIVE SPHERE
Kit contains
2 SOLID SPHERES IN TITANIUM - TiN COATED
2 PINK CAPS SOFT RETENTION
2 PROTECTIVE DISKS
1 KEY
Available in 1.8 mm diameter

Ref.: 064ACN NORMAL

ASSORTED RETENTIVE CAPS
Kit NORMAL - Kit MICRO
6 CLEAR CAPS - STANDARD RETENTION
6 PINK CAPS - SOFT RETENTION
6 YELLOW CAPS - EXTRA SOFT RETENTION
6 GREEN CAPS - VERY ELASTIC RETENTION

Ref.: 064ACM MICRO

ASSORTED RETENTIVE CAPS
Kit NORMAL - Kit MICRO
6 CLEAR CAPS - STANDARD RETENTION
6 PINK CAPS - SOFT RETENTION
6 YELLOW CAPS - EXTRA SOFT RETENTION
6 GREEN CAPS - VERY ELASTIC RETENTION

S.P.L. PIVOTS

Ref.: 033PSF

PIVOT FLEX - TITANIUM PIVOT WITH SWIVEL SPHERE NORMAL SIZE (Ø 2.5 mm) FOR DIRECT OVERDENTURE
(3 Sizes available)
Kit contains
1 TITANIUM PIVOT WITH ROTATING SPHERE (adapted for COPING COVER)
1 STAINLESS STEEL HOUSING FOR RESIN
2 PINK CAPS Normal Size - Soft retention
1 ALUMINIUM DISK
3 DIRECTIONAL RINGS

Normal Sphere ø 2,5
Micro Sphere ø 1,8

Ref.: 036PTN

TITANIUM PIVOTS Normal Size Adapted for COPING COVER
Kit contains
5 TITANIUM PIVOTS Sphere 2.5 mm

Ref.: 036PTM

TITANIUM PIVOTS Micro Size Adapted for COPING COVER
Kit contains
5 TITANIUM PIVOTS Sphere 1.8 mm

Ref.: 010PSP **CASTABLE PIVOTS NORMAL SIZE**

Ref.: 012PSM **CASTABLE PIVOTS MICRO SIZE**

Ref.: A01MOG **MOOSER BUR** Reamer for post 7 mm, 9 mm, 10 mm

Ref.: A03MOB **MOOSER BUR** Reamer for post 12 mm, 14 mm

Ref.: 485IC **OT CAP NORMAL AND MICRO SIZE CAPS INSERTER/EXTRACTOR TOOL**

Ref.: 74AC01 **PARALLELOMETER MANDREL FOR OT CAP NORMAL SIZE**

Ref.: 74AC02 **PARALLELOMETER MANDREL FOR OT CAP MICRO SIZE**

Ref.: 74AC03 **PARALLELOMETER MANDREL FOR OT CAP TECNO NORMAL AND MICRO SIZE**

Ref.: 080RCN **REAMER TOOL FOR CAPS OT CAP NORMAL SIZE**

Ref.: 080RCM **REAMER TOOL FOR CAPS OT CAP MICRO SIZE**

Ref.: 082ATN **TOOL FOR TESTING CAP RETENTION OT CAP NORMAL SIZE**

Ref.: 083ATM **TOOL FOR TESTING CAP RETENTION OT CAP MICRO SIZE**

Ref.: 491EC

CAPS EXTRACTOR TOOL
WITH MULTIUSE HOUSING FOR CLIPS AND CAPS INSERTION

OT STRATEGY ATTACHMENTS

Ref.: 098SSS

OT STRATEGY
CAPS FOR DUPLICATION TECHNIQUE
Kit contains
4 CASTABLE MALES 2 Standard + 2 High
2 CASTAB:LE STEADY
4 RETENTIVE CAPS

Ref.: 098CAL

OT STRATEGY
CAPS FOR DUPLICATION TECHNIQUE
Kit contains
4 CASTABLE MALES (2 Standard + 2 High)
2 CASTABLE STEADY
4 STAINLESS STEEL HOUSINGS
2 POSITIONING RINGS
4 RETENTIVE CAPS

Ref.: 047ACS

OT STRATEGY ASSORTMENT CAP KIT
FOR DUPLICATION TECNIQUE
Kit contains
4 YELLOW CAPS - EXTRA SOFT RETENTION
4 PINK CAPS - SOFT RETENTION
4 CLEAR CAPS - STANDARD RETENTION

Ref.: 045ACS

OT STRATEGY ASSORTMENT CAP KIT
FOR STAINLESS STEEL HOUSINGS
Kit contains
4 YELLOW CAPS - EXTRA SOFT RETENTION
4 PINK CAPS - SOFT RETENTION
4 CLEAR CAPS - STANDARD RETENTION

Ref.: 486ICS **OT STRATEGY CAPS INSERTER/EXTRACTOR TOOL**

Ref.: 75AC04 **PARALLELOMETER MANDREL FOR OT STRATEGY**

Ref.: 081RCS **REAMER TOOL FOR OT STRATEGY CAPS**

OT BAR MULTIUSE ATTACHMENTS

Ref.: 021OBM

OT BAR MULTIUSE
Kit contains
2 BARS
4 POSITIONING CLIPS A
4 POSITIONING CLIPS B
4 BOXES
4 RETENTIVE PINK CLIPS
4 RETENTIVE YELLOW CLIPS
2 CONNECTORS
1 GINGIVAL CONNECTOR

Ref.: 429IOBM **OT BAR CLIPS INSERTER/EXTRACTOR TOOL**

Ref.: 028OCP **PARALLELOMETER MANDREL FOR OT BAR MULTIUSE**

OT VERTICAL ATTACHMENTS

Ref.: 071OBV

OT VERTICAL
Kit contains
4 CASTABLE MALES
4 CASTABLE STEADY
4 RETENTIVE WHITE CLIPS
2 RETENTIVE GREEN CLIPS
4 CERAMIC PINS
4 CASTABLE PARALLELOMETER KEYS + PIN

Ref.: 472ICV **OT VERTICAL CLIPS INSERTER/EXTRACTOR TOOL**

OT EQUATOR CASTABLE

Ref.: 092ECQ

OT EQUATOR CASTABLE

Kit Contains:
- 2 CASTABLE MALES
- 2 TITANIUM HOUSINGS
- 4 RETENTIVE CAPS

OT EQUATOR FOR IMPLANTS

Ref.: 130

OT EQUATOR FOR IMPLANTS

Kit Contains:
- 1 OT EQUATOR
- 1 TITANIUM HOUSING
- 1 PROTECTIVE DISK
- 4 RETENTIVE CAPS

Ref.: 030

- 1 OT EQUATOR ABUTMENT
  *Compatible with ALL implant systems

Ref.: 335SBC

OT EQUATOR SMARTBOX KIT
self-aligning caps housing

Kit Contains:
- 1 SMARTBOX HOUSING WITH BLACK CAP FOR LABORATORY
- 1 PINK PROTECTIVE DISK
- 4 RETENTIVE CAPS
  (1 EXTRA-SOFT, 1 SOFT, 1 STANDARD, 1 STRONG)

Ref.: 330SBE

Kit Contains:
- 1 SMARTBOX HOUSING WITH BLACK CAP FOR LABORATORY

OT EQUATOR BAR

Ref.: 160EQB

OT EQUATOR WITH
THREADED SLEEVE
For Bonding

Kit Contains:
- 2 THREADED OT EQUATOR-1.6 mm thread
- 2 THREADED SLEEVES-1.6 mm thread
- 2 STAINLESS STEEL HOUSINGS
- 2 WAXING SPACERS
- 8 RETENTIVE CAPS
  2 YELLOW - EXTRA SOFT
  2 PINK - SOFT
  2 CLEAR - STANDARD
  2 BLACK - PROCESSING

Ref.: 039SFE2

- 1 THREADED OT EQUATOR
  2 mm universal thread

OT EQUATOR ELASTIC SEEGER

Ref.: 158ESA

Passive Bar Connection

ELASTIC SEEGER

Kit Contains:
- 1 CASTABLE CYLINDER HOUSINGS FOR SEEGER
- 1 SELF-EXTRACTING SEEGER
- 1 TITANIUM LOCKING SCREW FOR SELF-EXTRACTING SEEGER

TOOLS

Ref.: 74AC01 • PARALLELOMETER MANDREL NORMAL

Ref.: 774CHE • OT EQUATOR SQUARE DRIVER 1.25 mm + HOLDER

Ref.: 760CE • OT EQUATOR HANDPIECE CONNECTOR 1.25 mm

Ref.: 085SIS • STEEL INSERTION TOOL FOR SEEGER

Ref.: 491EC • CAPS EXTRACTOR TOOL WITH UNIVERSAL INSERTER HOUSING

ACCESSORIES

Ref.: 044CAIN • 2 IMPRESSION TRANSFER (pick up impression)

Ref.: 144MTE • 2 IMPRESSION TRANSFER

Ref.: 144AE • 2 STAINLESS STEEL ANALOGS For OT Equator

Ref.: 485IC • CAPS INSERTER/EXTRACTOR TOOL (OT EQUATOR-NORMO-MICRO)

SPARE PARTS

OT EQUATOR CAP ASSORTMENT KIT

Ref.: 192ECE

Kit Contains:
- 1 TITANIUM HOUSING
- 1 BLACK CAP - PROCESSING
- 4 RETENTIVE CAPS:
  1 YELLOW - EXTRA SOFT - 1 PINK - SOFT
  1 CLEAR - STANDARD - 1 VIOLET - RIGID
  1 BLACK - PROCESSING - 1 PROTECTIVE DISK

KITS AND CODES

OT CAP / OT EQUATOR IMPRESSION COPINGS

Ref.: 044CAIN
- 2 STAINLESS STEEL IMPRESSION COPINGS
  For OT CAP Normal and OT EQUATOR

Ref.: 044CAI22
- 2 STAINLESS STEEL IMPRESSION COPINGS
  Ø 2,25mm Spheres with interchangeable cap

Ref.: 044CAIM
- 2 STAINLESS STEEL IMPRESSION COPINGS
  For OT CAP Micro

TOOLS

Ref.: 772CSF
- HEX DRIVER - 0.9 mm
  For Threaded Micro Sphere

SINGLE THREADED SPHERES

WITH THREADED BONDING SLEEVE

Ref.: 139KSFN

Titanium + TiN Threaded Sphere With Sleeve For Bonding Kit - NORMAL SIZE

Kit contains:
- 2 TITANIUM SINGLE THREADED SPHERES
  1.3 mm Hex, 1.6 mm Thread
- 2 TITANIUM THREADED SLEEVES
  For Bonding
- 2 WAXING SPACERS
  For Threaded Sphere - Normal Size

Ref.: 139KSFM

Titanium + TiN Threaded Sphere With Sleeve For Bonding Kit - MICRO SIZE

Kit contains:
- 2 TITANIUM SINGLE THREADED SPHERES
  0.9 mm Hex, 1.6 mm Thread
- 2 TITANIUM THREADED SLEEVES
  For Bonding
- 2 WAXING SPACERS
  For Threaded Sphere - Micro Size

SINGLE THREADED SPHERES

NORMAL - MICRO

Ref.: 039SFN2
- 1 TITANIUM + TiN THREADED SPHERE
  NORMAL 1.3 mm Hex, 2.0 mm Thread

Ref.: 039SFM2
- 1 TITANIUM + TiN THREADED SPHERE
  MICRO 0.9 mm Hex, 2.0 mm Thread

OT LOCK

Ref.: 880CLT

OT LOCK KIT

Kit contains:
- 1 COMPLETE OT LOCK
- 1 BRASS POSITIONER
- 1 CERAMIC PIN

Ref.: 880CLR

ADJUSTABLE OT LOCK KIT

Kit contains:
- 1 COMPLETE ADJUSTABLE OT LOCK
- 1 EXTENDED BRASS POSITIONER
- 1 CERAMIC PIN
- 9 CASTABLE SPACER RINGS

OT LOCK SPARE PARTS

Ref.: 882CG
- CONICAL GUIDE

Ref.: 882CAS
- UNLOCKING TOOL

INCLUDES OT CAP & OT BOX - OT STRATEGY - OT BAR - OT VERTICAL - OT UNILATERAL - OT EQUATOR

"BASIC" PROMOTIONAL KIT FOR LABORATORY

Ref.: 005SKLBUS

TOOLS:
- 1 TWEEZER
- 1 PARALLELOMETER MANDREL OT CAP NORMO
- 1 PARALLELOMETER MANDREL OT CAP MICRO
- 1 PARALLELOMETER MANDREL OT STRATEGY
- 1 PARALLELOMETER MANDRELOT BAR MULTIUSE
- 1 BLUE PLASTIC UNIVERSAL INSERTION HANDLE
- 1 INSERTION TOOL - OT CAP NORMAL / MICRO
- 1 INSERTION TOOL - OT STRATEGY
- 1 INSERTION TOOL - OT BAR MULTIUSE
- 1 INSERTION TOOL - OT VERTICAL

Kit contains:

OT CAP - OT BOX:
- 16 ASSORTED CASTABLE PIVOTS NORMAL / MICRO
- 4 CASTABLE SPHERES NORMAL / MICRO
- 2 CASTABLE OT CAP BARS NORMAL / MICRO
- 2 CASTABLE OT BOX BARS CLASSIC (top + bottom) NORMAL / MICRO
- 1 CASTABLE OT BOX SPECIAL BARS NORMAL / MICRO
- 6 CASTABLE OT BOX CONNECTORS
- 4 CASTABLE OT BOX MONO HOUSING NORMAL / MICRO
- 8 POSITIONER RINGS NORMAL / MICRO
- 28 OT CAP RETENTIVE CAPS NORMAL / MICRO YELLOW, PINK, CLEAR, GREEN
- 9 BLACK CAPS - FOR PROCESSING NORMAL / MICRO
- 4 STAINLESS STEEL HOUSINGS NORMAL / MICRO FOR RESIN

OT STRATEGY:
- 4 OT STRATEGY MALES - 2 STANDARD BASE - 2 LONG BASE
- 2 CASTABLE STEADY
- 6 OT STRATEGY CAPS FOR STAINLESS STEEL HOUSING YELLOW, PINK, CLEAR

OT STRATEGY CONTINUED:
- 2 OT STRATEGY STAINLESS STEEL HOUSINGS
- 2 OT STRATEGY PLASTIC POSITIONING RINGS
- 6 OT STRATEGY CAPS FOR DUPLICATION TECHNIQUE YELLOW, PINK, CLEAR
- 4 BLACK CAPS - PROCESSING (for wax and for duplication technique)

OT EQUATOR:
- 2 CASTABLE MALES
- 2 STAINLESS STEEL HOUSINGS
- 4 RETENTIVE CAPS - 2 PINK, 2 CLEAR
- 2 BLACK CAPS FOR LABORATORY USE

OT UNILATERAL:
- 1 CASTABLE ATTACHMENT WITH COMBINED SPHERES
- 1 CASTABLE UNI-BOX
- 1 MICRO POSITIONING RING
- 2 OT CAP MICRO CAPS - 1 PINK, 1 BLACK
- 2 OT STRATEGY CAPS - 1 PINK, 1 BLACK For Duplication Technique
- 1 CONNECTOR

OT BAR MULTIUSE:
- 1 CASTABLE BARS
- 1 BAR EXTENSION
- 4 POSITIONING CLIPS (Type A - Type B)
- 2 CASTABLE BOXES
- 4 CLIPS - 2 PINK, 2 YELLOW

OT VERTICAL:
- 2 CASTABLE MALES
- 2 CASTABLE STEADY
- 4 CLIPS - 2 WHITE, 2 GREEN
- 2 PARALLELOMETER KEYS + PIN
- 2 CERAMIC PINS

IMPLANTOLOGY

SPHERO FLEX - BLOCK SYSTEM
TITANIUM ATTACHMENTS FOR OVERDENTURES

Ref.: 109

SPHERO FLEX
- 1 Titanium Abutment with self-aligning 2.5mm sphere
- 2 Pink Caps - Soft Retention
- 1 Stainless Steel Housing
- 1 Protecitve Disk
- 3 Directional Rings

Ref.: 002

SPHERO BLOCK NORMAL
- 1 Titanium Abutment with stationary 2.5mm sphere
- 2 Pink Caps - Soft Retention
- 1 Stainless Steel Housing
- 1 Protective Disk
- 3 Directional Rings

Ref.: 003

SPHERO BLOCK MICRO
- 1 Titanium Abutment with stationary 1.8mm sphere
- 2 Pink Caps - Soft Retention
- 1 Stainless Steel Housing
- 1 Protective Disk
- 3 Directional Rings

ANCILLARY ITEMS

14 cm height

Ref.: 00PB

MINI PARALLELOMETER
WITH UNIVERSAL TILTING MODEL TABLE
(FOR LABORATORY USE, COURSES, ETC.)

Ref.: OC

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.

SPHERO FLEX / SPHERO BLOCK TOOLS

Ref.: 771CEF

UNIVERSAL KEY FOR SPHERO FLEX
AND SPHERO BLOCK - NORMAL / MICRO
Hex 2.3 mm

Ref.: 760CBM

HEX DRIVER
FOR CONTRA-ANGLE TORQUE CONTROLLER

Ref.: 760CBR

SCREW DRIVER FOR OT REVERSE
THREADED SPHERE NORMAL
Hex 1.3 mm

SPECIALTY ITEMS FOR IMPLANTS

Ref.: 008MBG

CUFF HEIGHT MEASURING TOOL
Kit contains:
- 1 CUFF HEIGHT SLIDER GAGUE
- 1 CUFF HEIGHT FIXED ROD GAGUE
- 1 SILICON RINGS DISPENSER
- 20 SILICON RINGS

Ref.: 680

BROKEN SCREW EXTRACTOR KIT
For removing broken screws from implants

Kit contains:
- 1 MANUAL CENTERING DEVICE
- 1 POSITIONER
- 1 CLAW REAMER BUR
- 1 REVERSE CUTTING BUR

Ref.: 680FS **1 REVERSE CUTTING BUR**
Ref.: 680FL **1 FCLAW REAMER BUR**

Kit contains:
- 1 CLAW REAMER BUR
- 1 REVERSE CUTTING BUR

IMPLANTOLOGY

ACCESSORIES FOR IMPLANTS

For information on abutments for other implant systems please contact Rhein83

Ref.: 108CV

Screw Vent Castable Abutment
Non-Rotating with titanium screw
White - Precision Hex
3.5 mm diameter

Ref.: 108AVB

Screw Vent Castable Abutment
Non-Rotating with titanium screw
Red - Conical Hex For Bar Connections
3.5 mm diameter

Ref.: 108BRK

Branemark Castable Abutment
Rotating with titanium screw
3.75 mm - 4.0 mm diameter

Ref.: 108BRK-NR

Branemark Castable Abutment
Non-Rotating
with titanium screw
3.75 mm - 4.0 mm diameter

Ref.: 108PE

Pitt Easy Castable Abutment
Non-Rotating with titanium screw
3.25 mm - 3.75 mm - 4.0 mm diameter

Ref.: 108BFT

Straumann ITI Castable Abutment - Rotating
with titanium screw for bar connections

Ref.: 113BFT

Steel Transfer Abutment For Straumann ITI Implant
with titanium screw

Ref.: FA004

Steel Analog For Straumann ITI Implant

Rhein83 manufacutres castable abutments and titanium screws for most implant systems. For implant systems that are not listed in this catalog, please contact **Rhein83** for additional information.

A GLOBAL VISION WITH A COMMON TARGET

Our mission is to offer to the professionals of the dental field, different quality solutions allowing to reach the patient's comfort and satisfaction regardless the different social and financial situations. This is possible to the precious support of our partners worldwide!

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The unique feature of the dental world consists in different techniques, knowledges and procedures used by the dental specialists. This is the reason why Rhein83 receives and publish every day clinical cases from over 100 world countries! Share your talent, and passion with us and learn new interesting working protocols by the best experts!

Rhein Attachments

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rhein83 ita

Rhein83 is proud to be partner in the scientific research leading to the publication of the first international book dedicated to combined prosthesis. 27 authors involved (dentists and dental technicians) presenting interesting clinical cases with innovative overdenture solutions. Professors from 3 different dentistry Universities involved in writing the book: Università Vita-Salute San Raffaele di Milano University, Torino Dental School University, Siena Dentistry University.

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