

TRI  **ACADEMY**

TRI 
dental implants

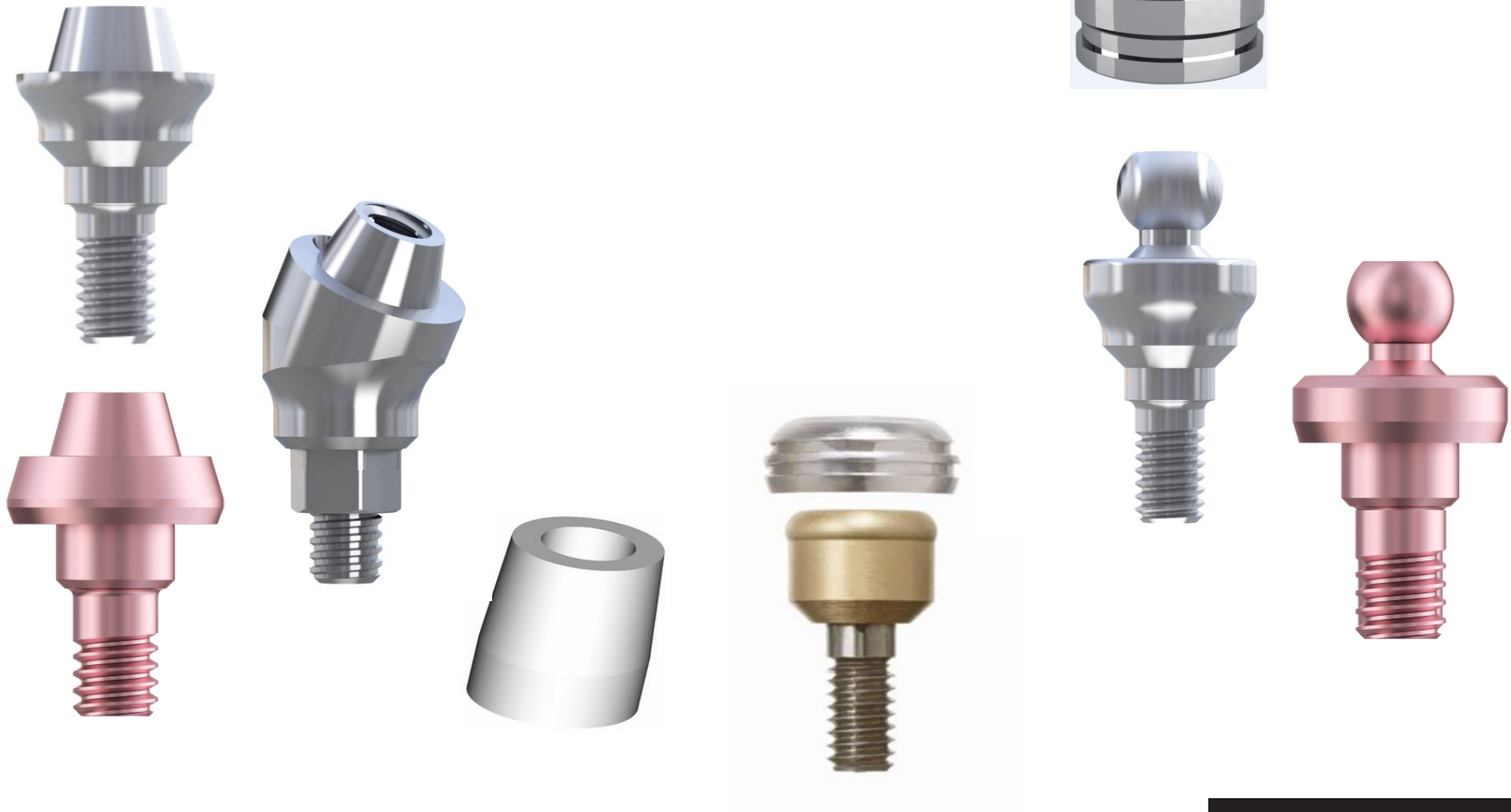
Screw Retained Restorations

Version 2

Through Research Innovative
www.tri-implants.com

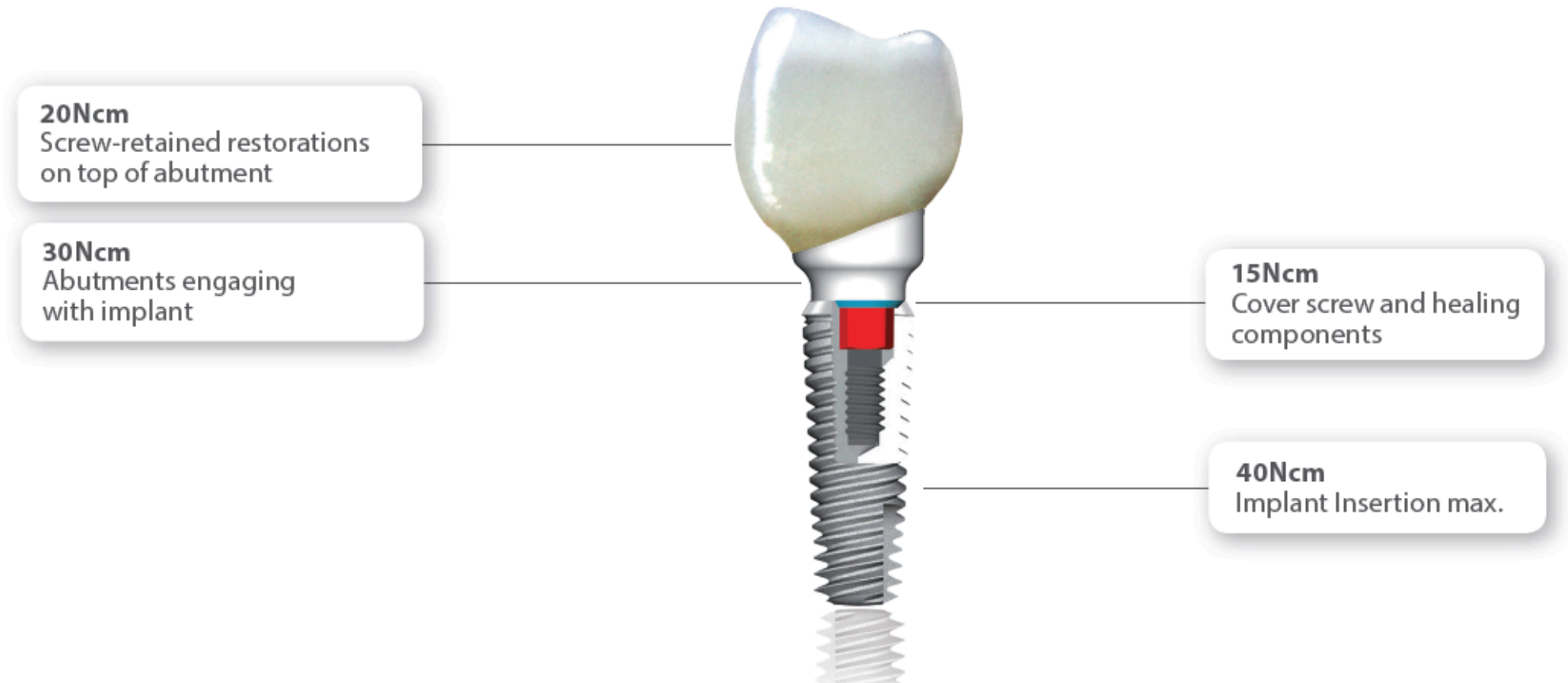
Screw Retained Prosthetics

TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa



Torques

Torques to be used with the TRI® Dental Implant System



Screw Retained Prosthetics

Universal Screw Retained Abutment – Straight
TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa
30° angled TRI[®] -Vent

- Screw retained bridge
- Bar treatment



Screw Retained Prosthetics

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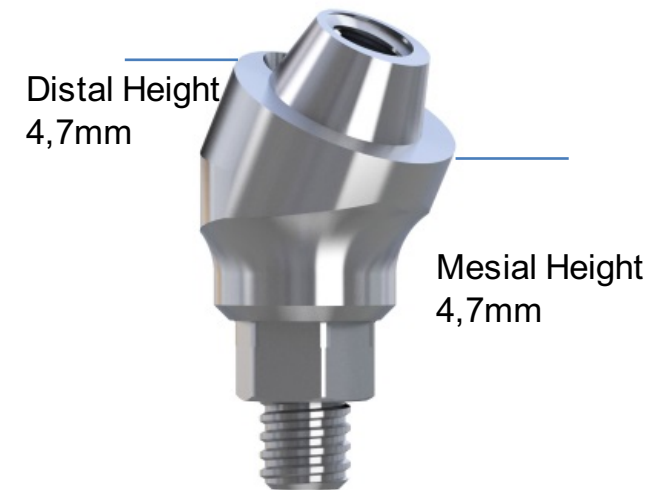
Available
Cuff Heights
TRI[®] -Narrow

1mm
2mm
4mm



Available
Cuff Heights
TRI[®] -Vent

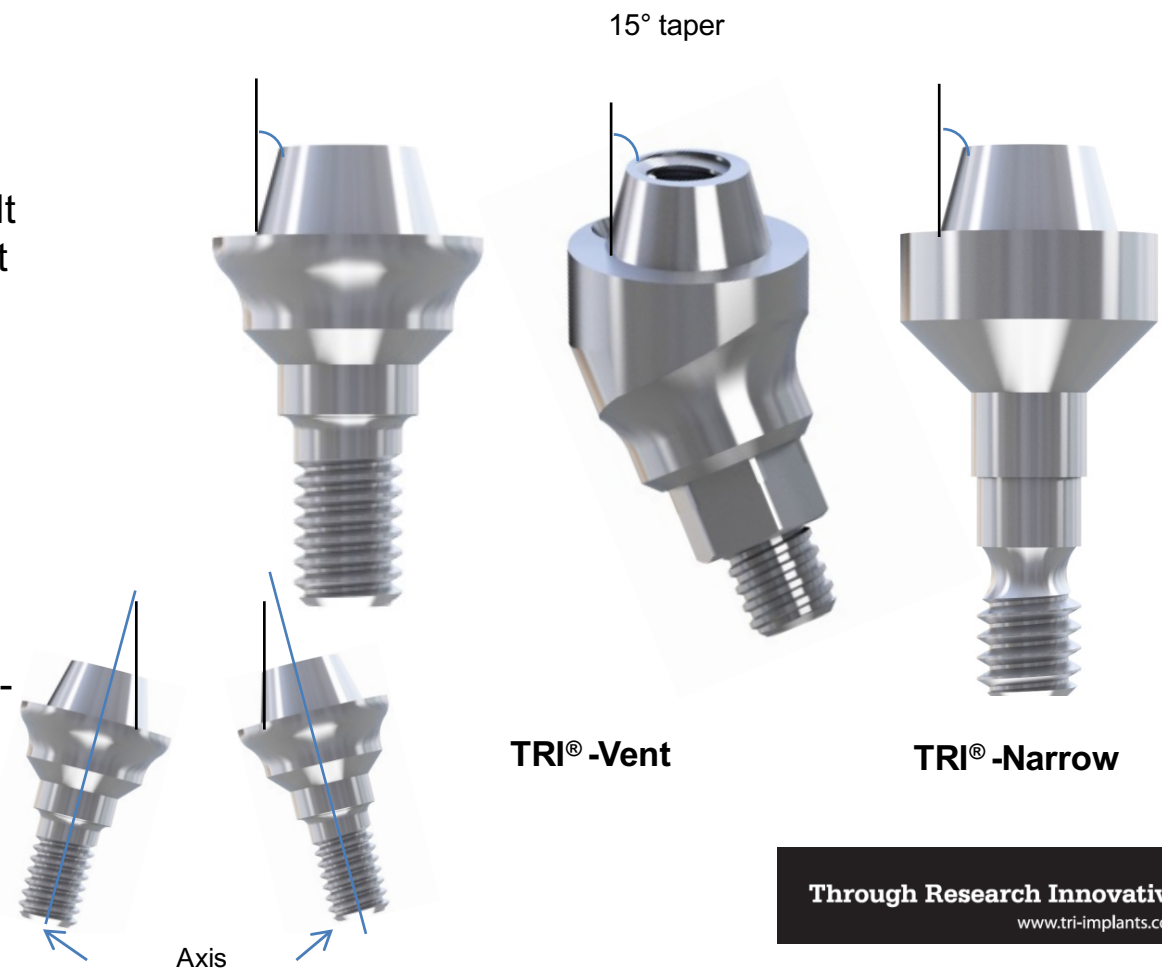
1mm
2mm
4mm
6mm



Screw Retained Prosthetics

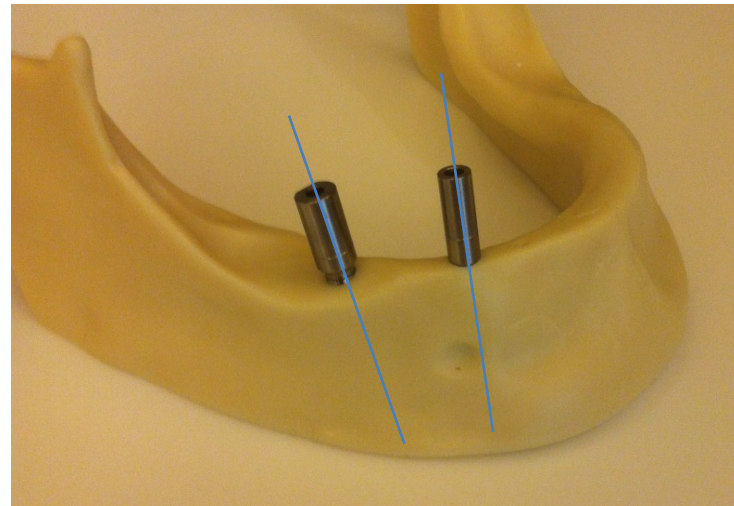
Universal Screw Retained Abutment – Straight TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa 30° angled TRI[®]-Vent

- The Universal Screw Retained Abutment is a one-piece component having a 4.5mmD platform with a raised central section having 15° tapered walls. It is the same platform for TRI[®]-Vent as well as for TRI[®]-Narrow.
- The 15° cone enables to splint implants which a passive path of insertion up to 30° out of parallelism.
- The Universal Screw Retained Abutment is also available as STL-file. Hereby CAD-CAM treatments on it are possible.



Screw Retained Prosthetics

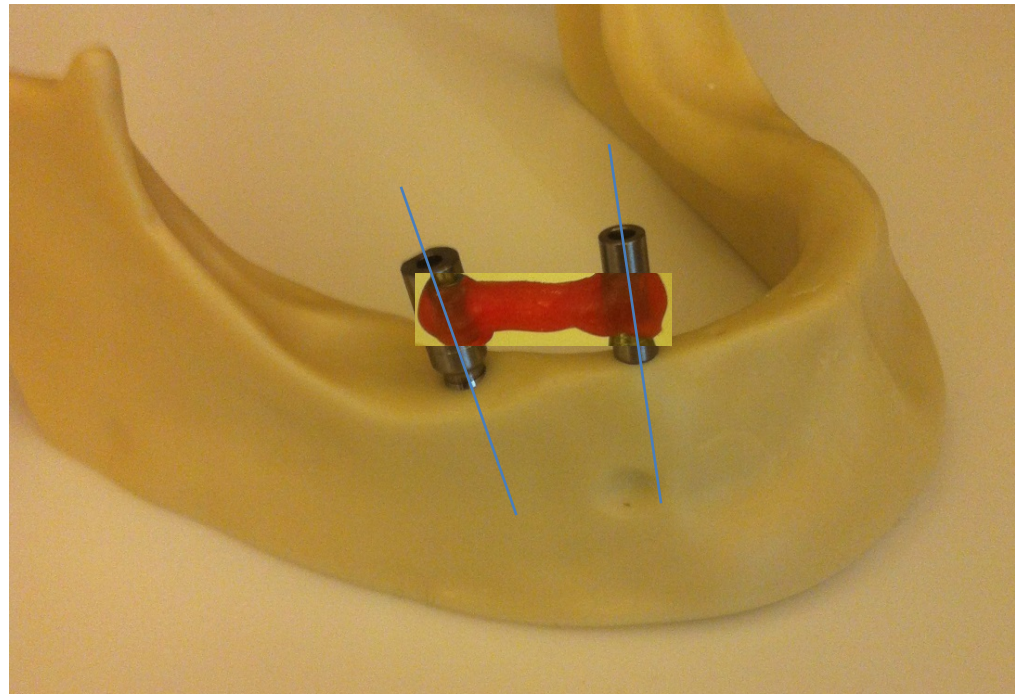
Universal Screw Retained Abutment – Straight
Abutments for screw-retained bridge or bar



Non parallel
axis
?

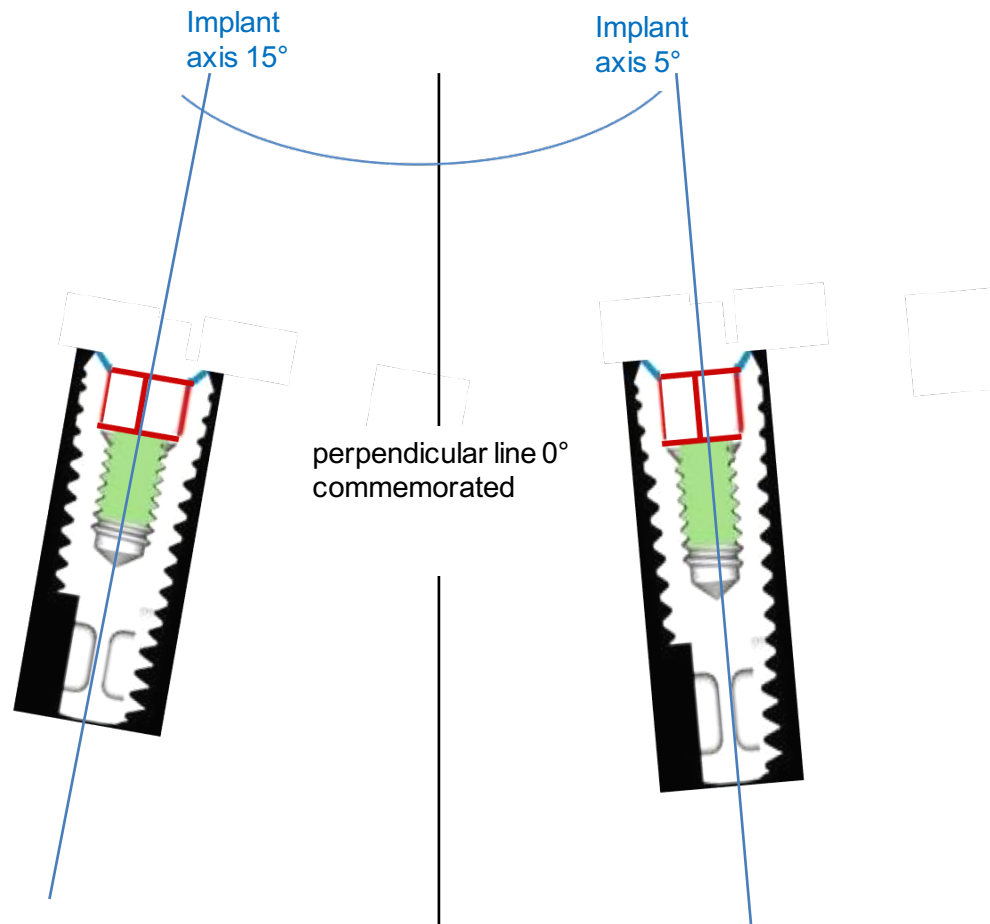
Screw Retained Prosthetics

Universal Screw Retained Abutment – Straight
Abutments for screw-retained bridge or bar



Screw Retained Prosthetic

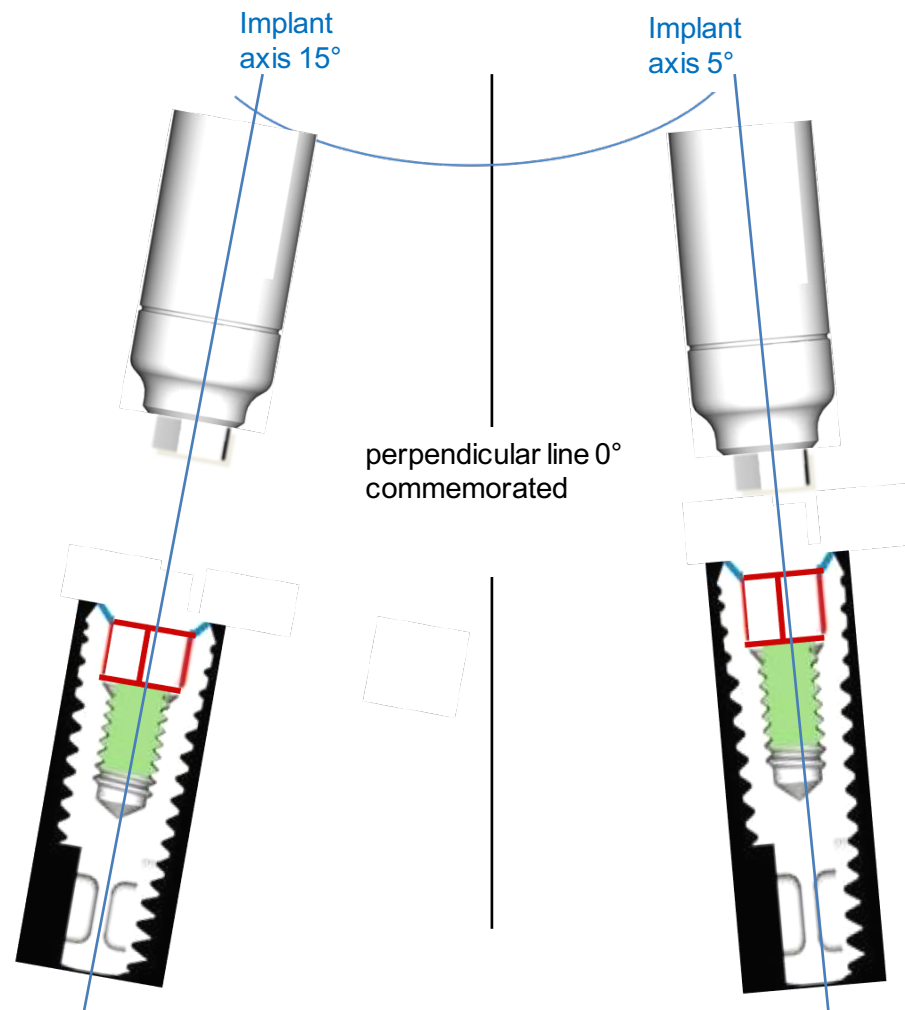
Universal Screw Retained Abutment – Straight
TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa



Two adjacent implants have always two different axis!
(Example: 15° and 5°)

Screw Retained Prosthetic

Universal Screw Retained Abutment – Straight
TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa

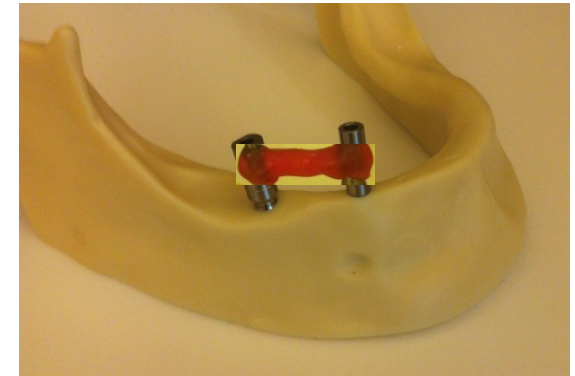
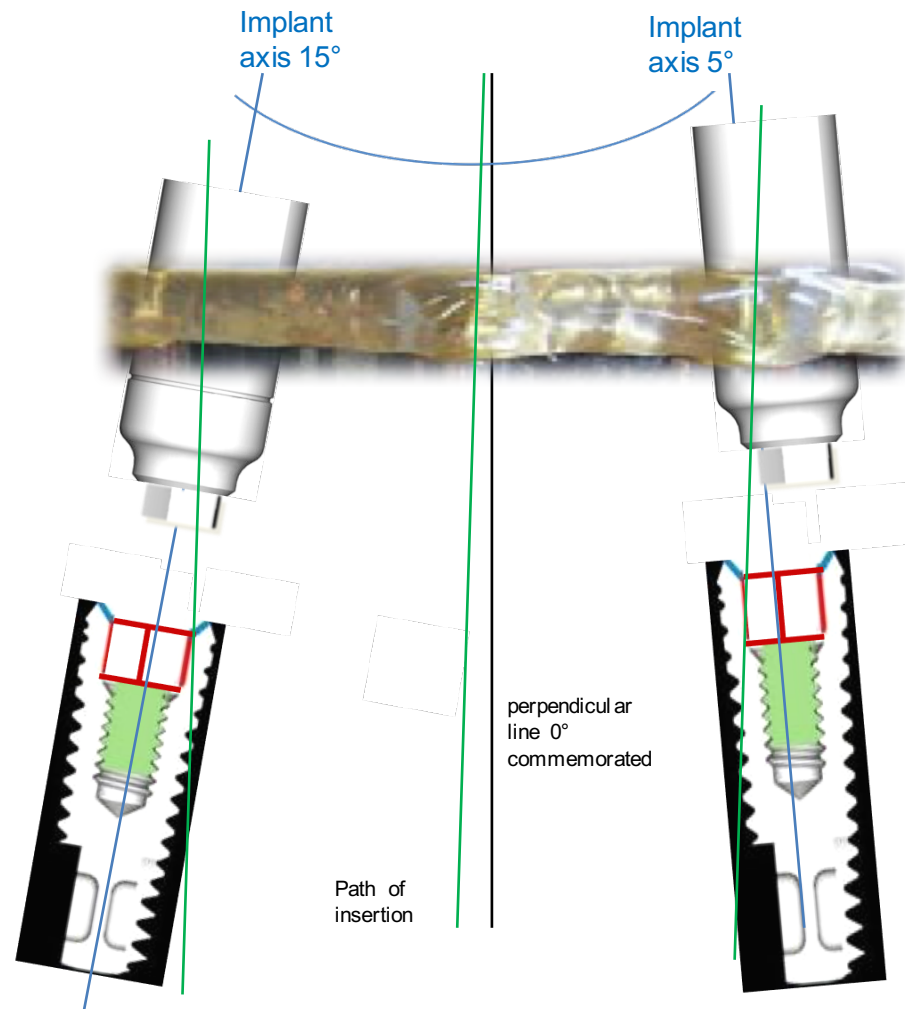


Single unites:

Implant axis = Path of insertion

Screw Retained Prosthetic

Universal Screw Retained Abutment – Straight
TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa

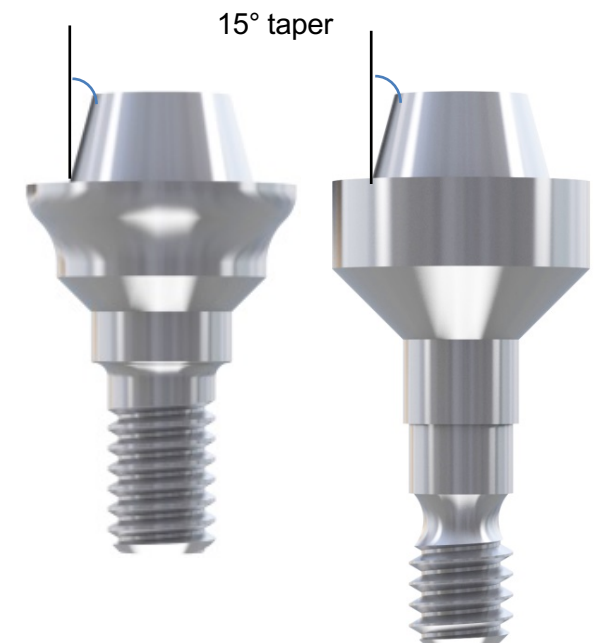


Splinted unites:

Implant axis \neq Path of insertion

Screw Retained Prosthetics

Universal Screw Retained Abutment – Straight
TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa

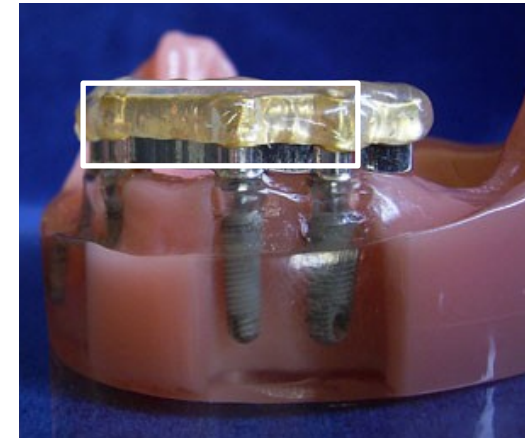
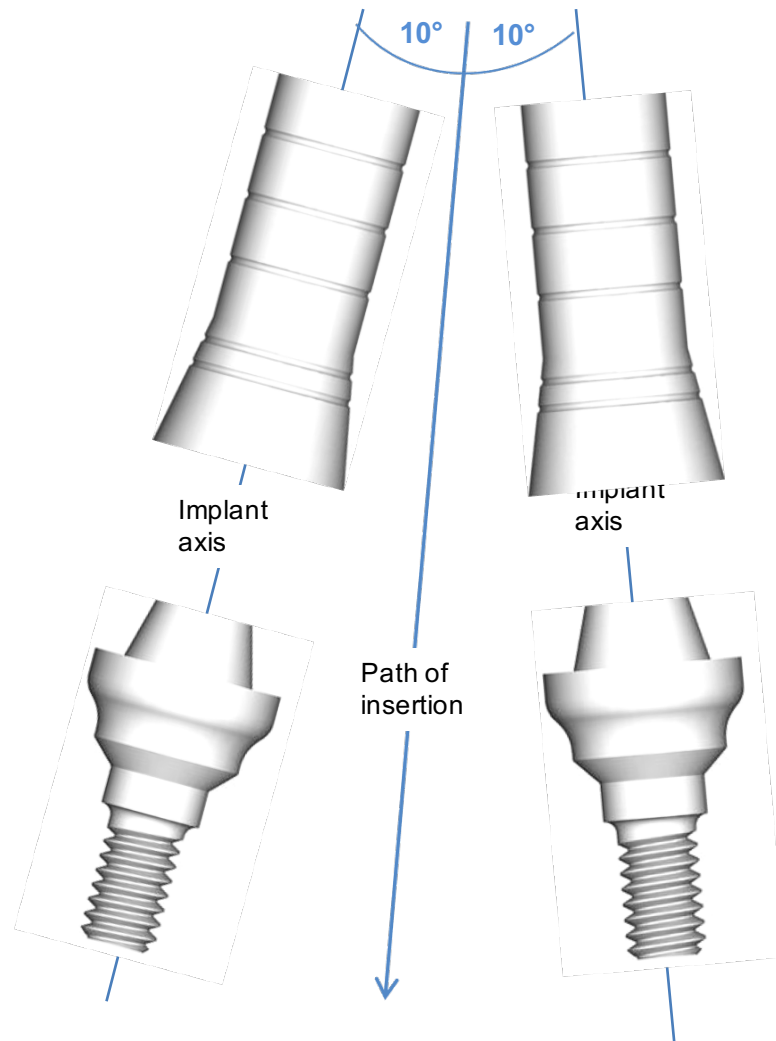


TRI[®]-Vent

TRI[®]-Narrow

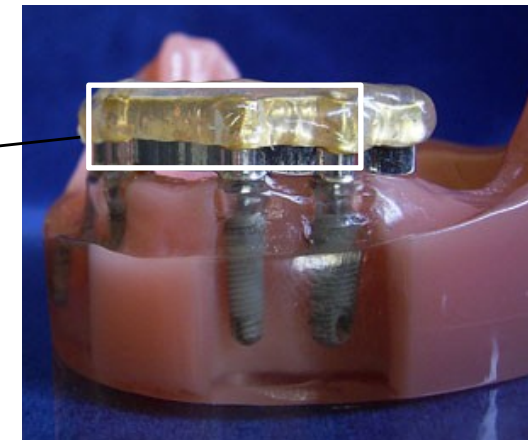
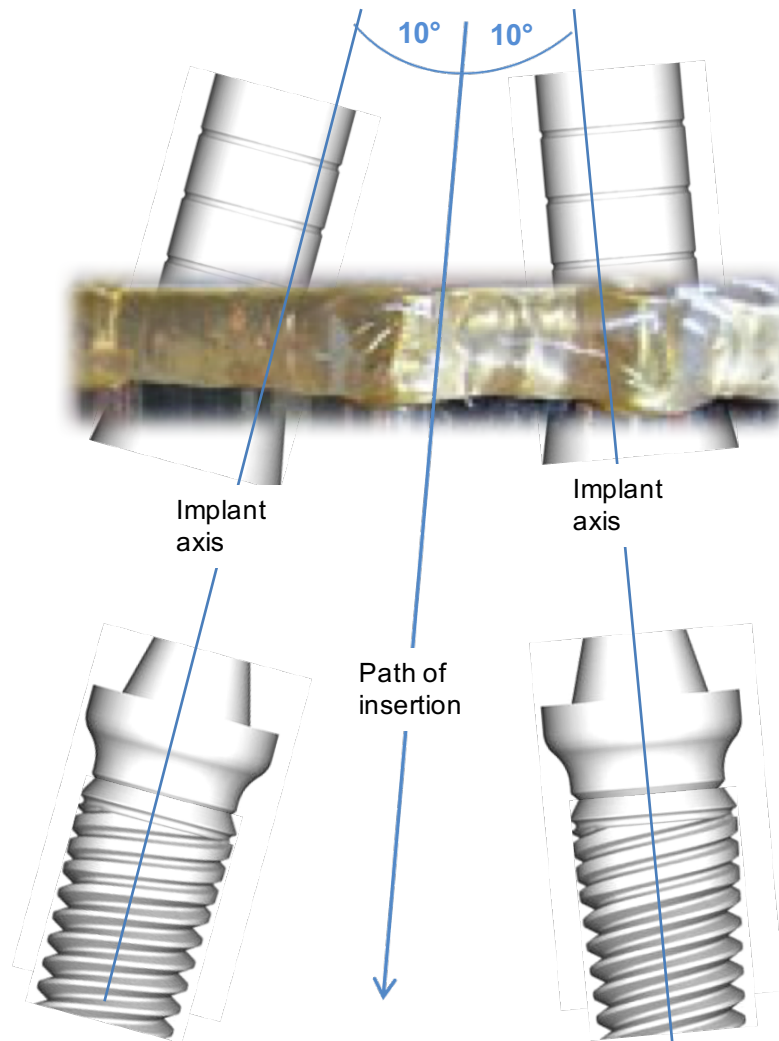
Screw Retained Prosthetic

Universal Screw Retained Abutment – Straight
TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa



Screw Retained Prosthetic

Universal Screw Retained Abutment – Straight
TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa



Screw Retained Prosthetic

Screw Retained Abutment – Angled 30°, with TRI®-Friction TRI®-Vent

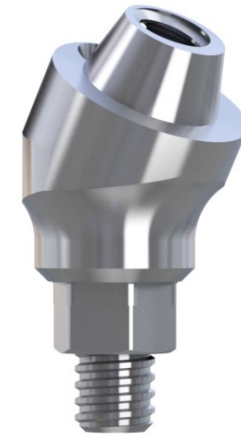
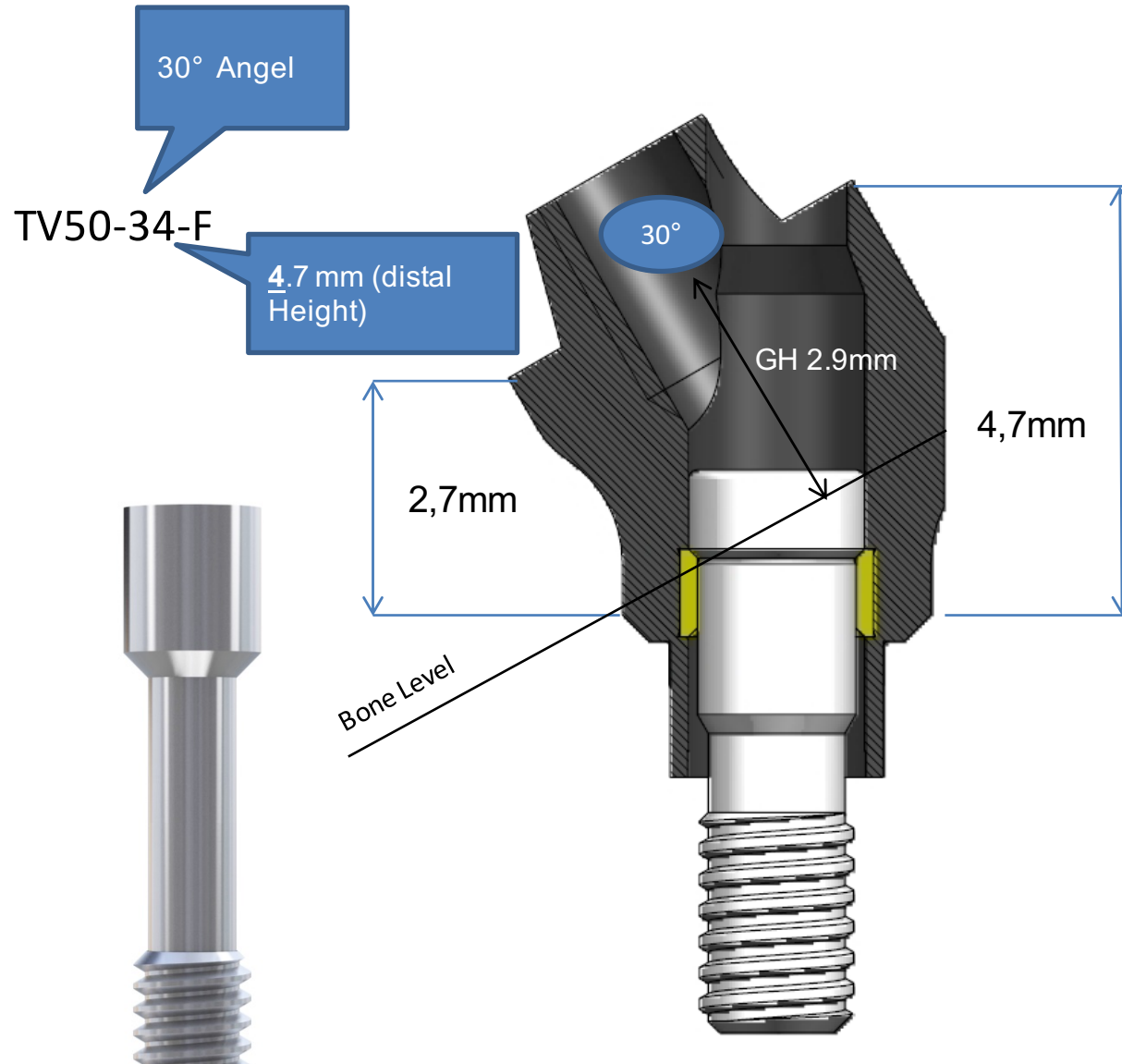
- The Screw Retained Angled Abutments are two-piece components having a 4.5mmD
- 30° angled platform with a raised central section having 15° tapered walls.

Available
Cuff Height
2,5mm



Screw Retained Prosthetic

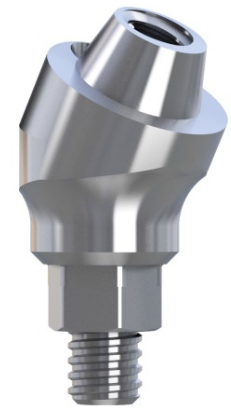
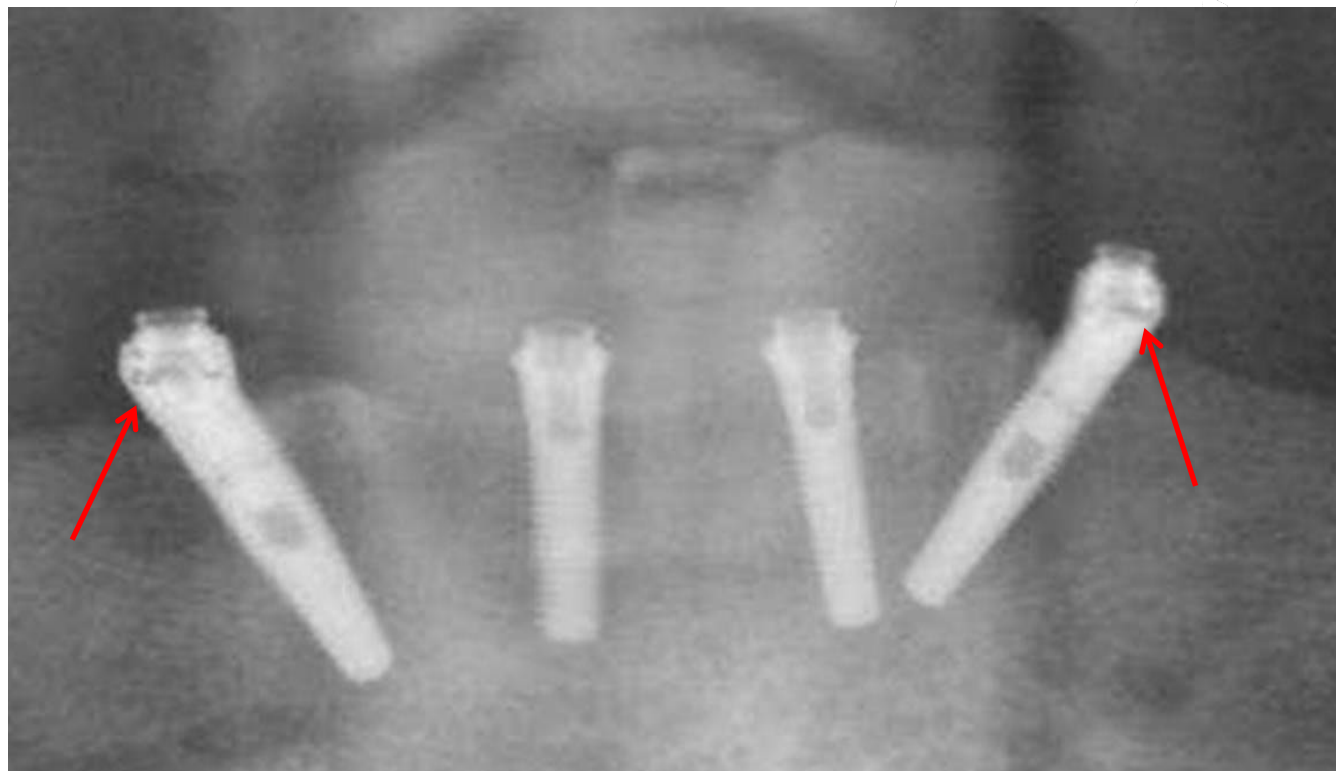
Screw Retained Abutment – Angled 30°, with TRI®-Friction



Screw Retained Prosthetic

Screw Retained Abutment – Angled 18° & 30°, with TRI® -Friction
TRI-Vent®

Example: All-On-Four technique with 2 screw retained abutments - angled



Screw Retained Prosthetics

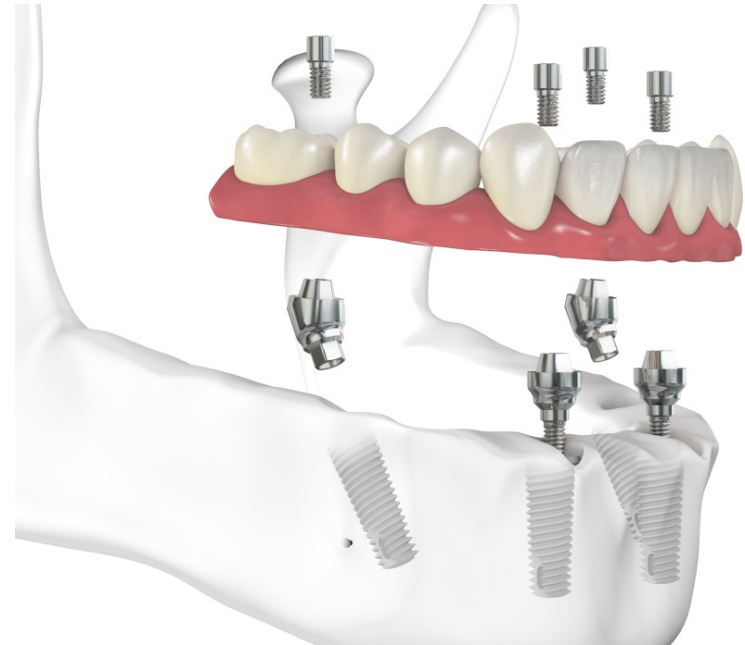
“All-on-TRI” Treatment Protocol

Background

- The “All-on-TRI” treatment protocol has been developed based on the “All-on-four” treatment concept by Nobel Biocare.
- The “All-on-four” treatment protocol was developed by Nobel Biocare in collaboration with Dr. Paulo Malo.
- The “All-on-four” (in our words “All-on-TRI”) treatment concept is today widely used and accepted. Many implant manufactures offer suitable components.

About the treatment protocol

- The restoration in the edentulous jaw is supported by four implants.
- The two molar implants are placed with a 30 degree angulation. This offers the advantage to use a longer implant without complex bone grafting procedures also with limited bone. This results in an immediate and stable support of the prosthetic restoration.
- Angulated implant positioning requires and experienced implantologists. A guided surgery template is often used in combination with this treatment protocol.



Screw Retained Prosthetics

TV50-30 and TV50-17 for “All-on-TRI” Solution



TV50-34-F

+ ‘All-on-TRI’ treatment protocol

Immediate stability with a proven protocol in minimum bone volume.

+ One size fits all

All existing impression posts, temporary and final components t!

+ Superior Design Features

Including the proven TRI® Friction and TRI® Soft Tissue Concept.

+ Supported by TRI+

Plan, place and restore your “All-on-TRI” case via the TRI+ interface with your preferred digital technology.



Full compatibility with TV40 components.

Screw Retained Prosthetics

Dimensions of the TV50-30

- The dimensions of the abutment are optimized in a way that it fits for anatomical conditions of all patients.
- This offers **MAXIMUM SIMPLICITY** by adding only one single component to the portfolio and therefore making the life of the practitioner easier.
- Compared to the straight screw-retained abutments, the height of the TV50-34-F corresponds to a gingiva height (GH) of 2.9 mm.

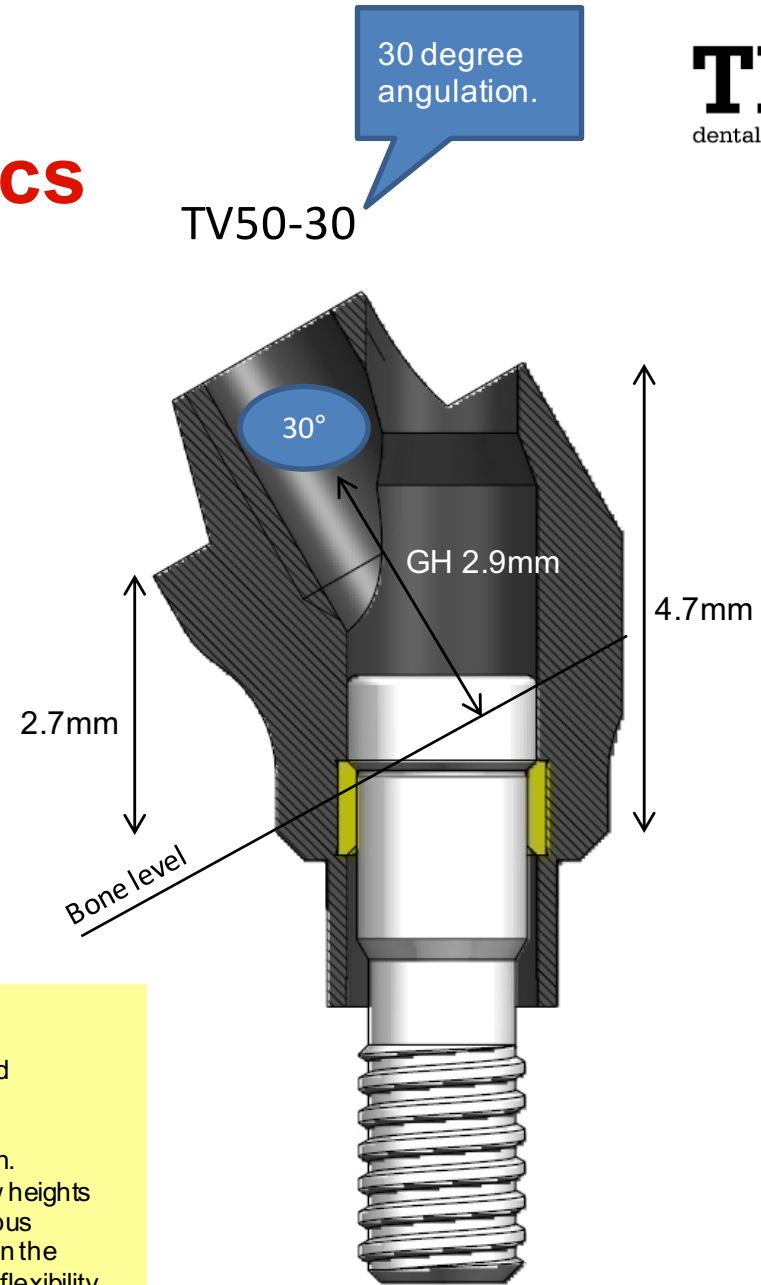
SCREW-RETAINED, MULTI UNIT ABUTMENT, STRAIGHT						
Catalog Number		Ø	Cuff Height	Material	Qty	Sterile
TV40-01	Screw-Retained Abutment, Straight	4.5 mm	1 mm	Ti-6Al-4V	1	☑
TV40-02	Screw-Retained Abutment, Straight	4.5 mm	2 mm	Ti-6Al-4V	1	☑
TV40-04	Screw-Retained Abutment, Straight	4.5 mm	4 mm	Ti-6Al-4V	1	☑
TV40-06	Screw-Retained Abutment, Straight	4.5 mm	6 mm	Ti-6Al-4V	1	☑



FAQ

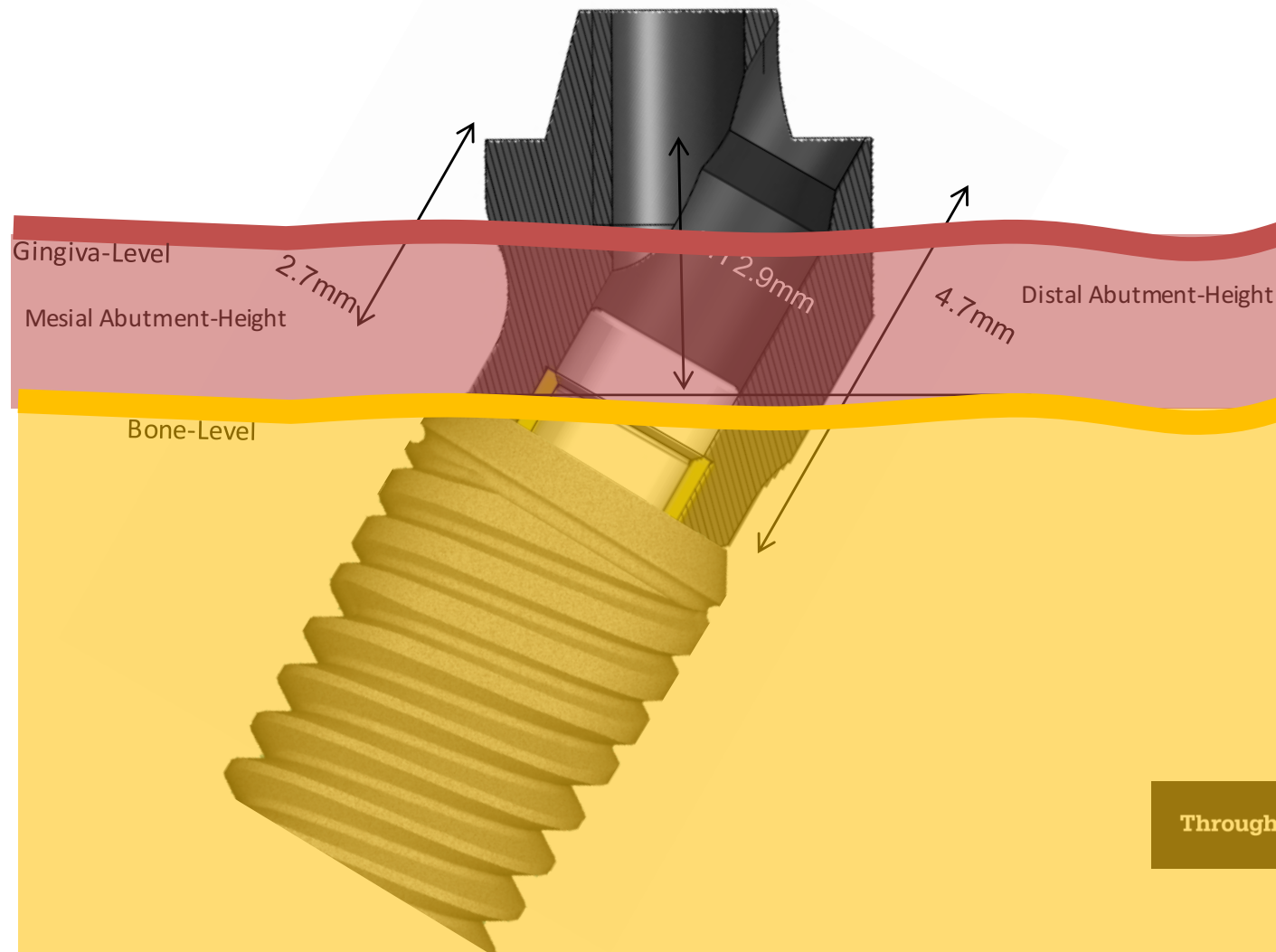
Doctor: Many companies have different heights of the 30 degrees angulated abutments. Why is one dimension sufficient with the TRI solution?

TRI: The 30 degrees angulated abutments are place only in the molar region. Therefore, there are only limited aesthetic requirements. Therefore, very low heights are not required. If the gingiva is very thick (this is unlikely with fully edentulous patients), the height can be extended with the bar or bridge. We have chosen the height at the lower end compared to competitive products. This brings more flexibility. For the straight screw-retained abutments there are higher aesthetic requirements. Therefore, TRI offers four different heights.



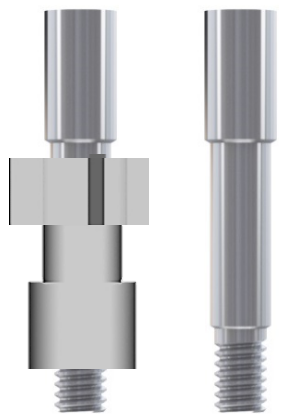
Screw Retained Prosthetics

Dimensions of the TV50-30



Screw Retained Prosthetics

Helpful Insertion Part TV50-30 & TV50-17



DTC-SRA
Direct Transfer
Component
Incl. DTRS-SRA

DTRS-SRA



Titanium
Temporary Coping
incl. Retaining Screw

RS-TTA

Retaining Screw - long
for Titanium Abutment

Both screws are suitable
as seating instrument!

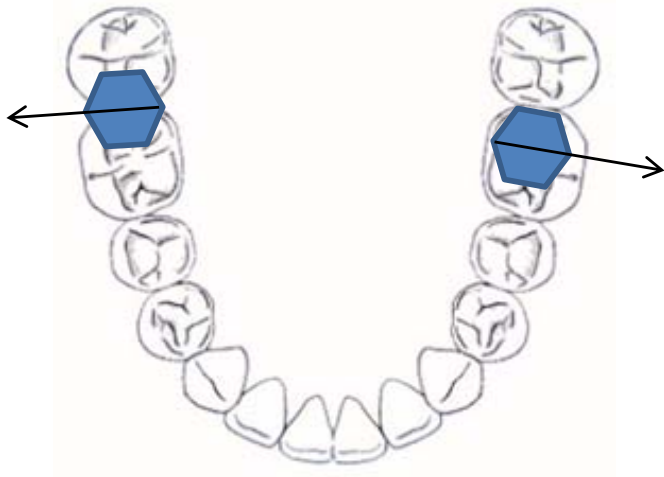
Screw Retained Prosthetics

Important Instructions for use - TV50-30

Orientation of the hexagon



- The internal hexagon of the TRI Vent implant has to be oriented with the flat towards distal (not towards bucal like other angulated abutments).
- This is contrary compared to normal angulated abutments as the abutment angulation for “All-on-TRI” restorations is inclined towards mesial, while normal angulated abutments are inclined towards lingual.



Screw Retained Prosthetic

Screw Retained Abutments – Temporary Treatment -
Option with the patients existing prosthesis



TTA with
RS-TTA



TTA with
RS-TTAL



Screw Retained Prosthetics

**Screw Retained Abutments – Temporary Treatment -
Option with the patients existing prosthesis**



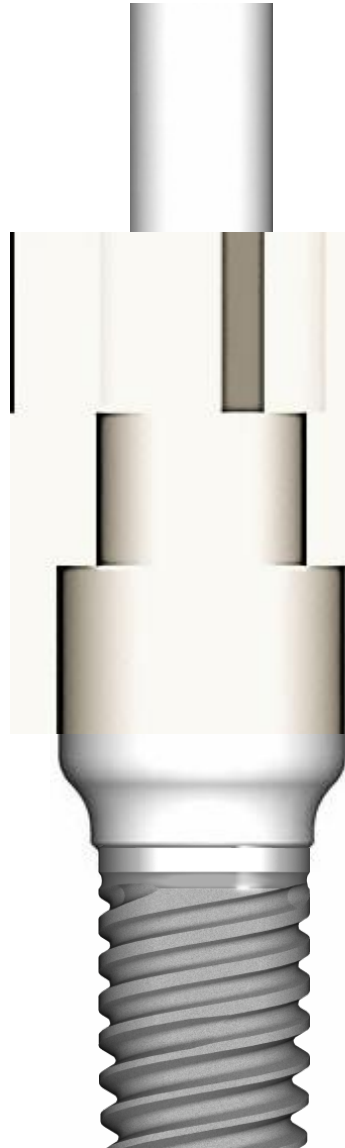
Immediate loading a prosthesis with TTA together
with the long retaining screw RS-TTAL.

Screw Retained Prosthetics

Universal Screw Retained Abutment – Impression

TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa

Impression post for open tray fits on the platform of the straight conical universal abutments.

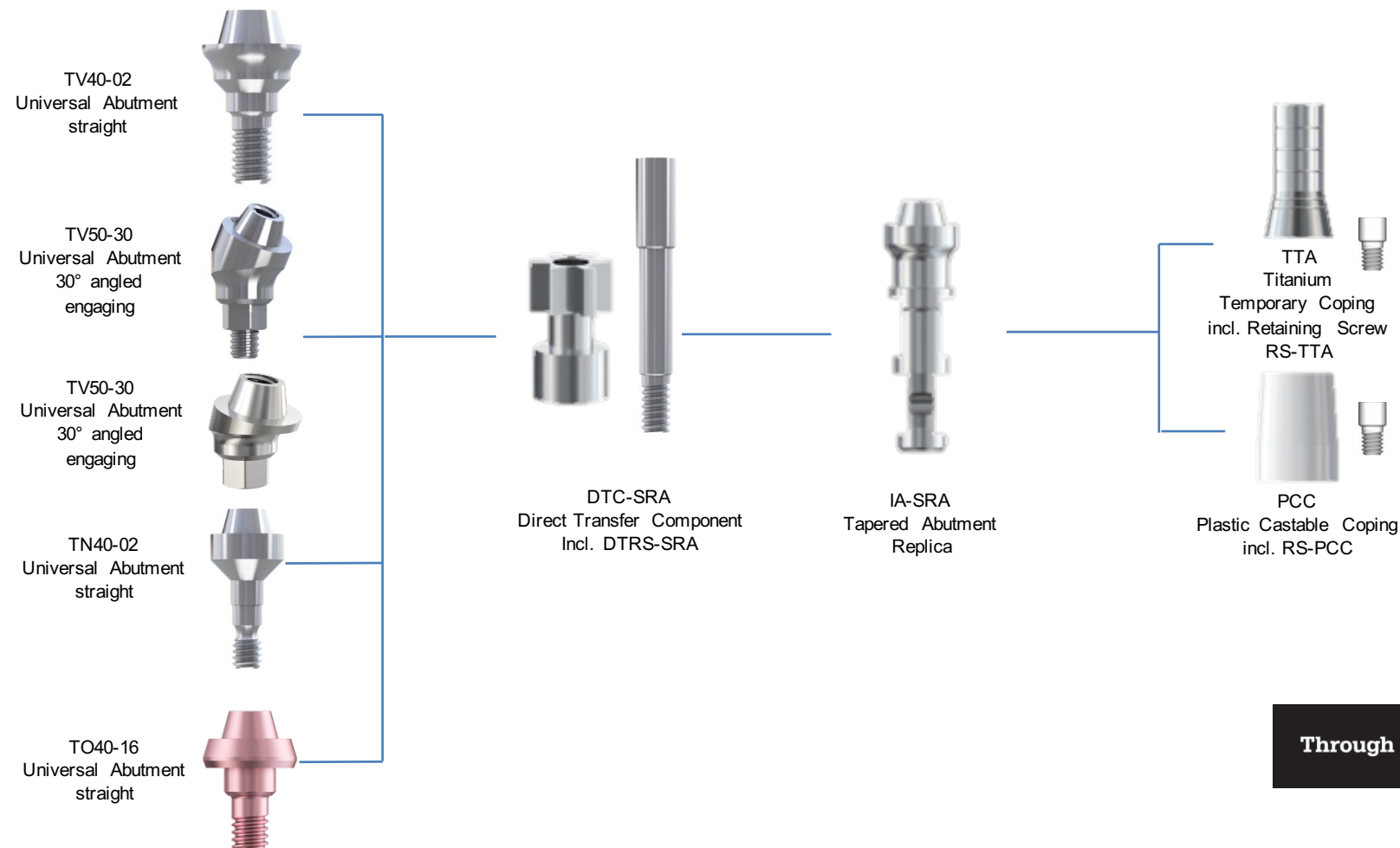


Screw Retained Prosthetic

Components for Screw Retained Universal - Abutments

Straight: TRI®-Vent, TRI®-Narrow & TRI®-Octa
Angled: TRI®-Vent

- Flow Chart**



Screw Retained Prosthetics

Universal Screw Retained Abutment – Straight Product Catalogue TRI® -Vent, TRI® -Narrow & TRI® -Octa

Components for Screw-Retained Restorations

SCREW-RETAINED ABUTMENT




Catalog Number		Ø	CH	Material	Qty	Sterile
TV40-01	Screw-Retained Abutment, Straight	4,5 mm	1,0 mm	Ti-6Al-4V	1	
TV40-02	Screw-Retained Abutment, Straight	4,5 mm	2,0 mm	Ti-6Al-4V	1	
TV40-04	Screw-Retained Abutment, Straight	4,5 mm	4,0 mm	Ti-6Al-4V	1	
TV40-06	Screw-Retained Abutment, Straight	4,5 mm	6,0 mm	Ti-6Al-4V	1	
TV50-34-F	Screw-Retained Abutment, 30° with TRI®-Friction	4,5 mm	3,0 mm	Ti-6Al-4V	1	
HCSRAS	Healing Cap for Screw-Retained Abutment, Straight			Ti-6Al-4V	1	



Catalog Number		Ø	CH	Material	Qty	Sterile
TN40-02	Screw-Retained Abutment, Straight	4,5 mm	2,0 mm	Ti-6Al-4V	1	
TN40-04	Screw-Retained Abutment, Straight	4,5 mm	4,0 mm	Ti-6Al-4V	1	
HCSRAS	Healing Cap for Screw-Retained Abutment			Ti-6Al-4V	1	



SCREW-RETAINED, MULTI UNIT ABUTMENT, STRAIGHT

Catalog Number		Ø	GH	Material	Qty	Sterile
TO40-16	Screw-Retained Abutment, Straight	4,5 mm	1,6 mm	Ti-6Al-4V	1	
TO40-30	Screw-Retained Abutment, Straight	4,5 mm	3,0 mm	Ti-6Al-4V	1	
HCSRAS	Healing Cap for Screw-Retained Abutment, Straight			Ti-6Al-4V		



TTA	Titanium Temporary Abutment incl. screw RS-TTA			Ti-6Al-4V	1	
RS-TTA	Replacement Retaining Screw for TTA			Ti-6Al-4V	1	
RS-TTAL	Replacement Retaining Screw Long for TTA			Ti-6Al-4V	1	
DTC-SRA	Direct Transfer Component for Screw-Retained Abutment incl. DTRS			Ti-6Al-4V	1	
DTRS-SRA	Direct Transfer Retaining Screw			Ti-6Al-4V	1	
IA-SRA	Tapered Abutment Replica			Ti-6Al-4V	1	
PCC	Plastic Castable Coping incl. screw RS-PCC			POM	1	
RS-PCC	Replacement Retaining Screw for PCC			Ti-6Al-4V	1	
RS-PCC-Lab	Replacement Retaining Screw - Lab Use - Blue			Ti-6Al-4V	1	



CH = Cuff Height

Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

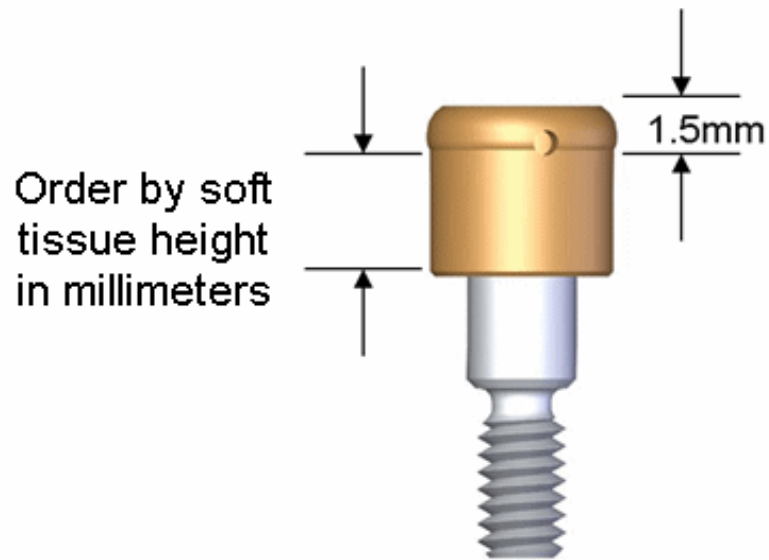
Locator[®] Overdenture Attachment System



Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System



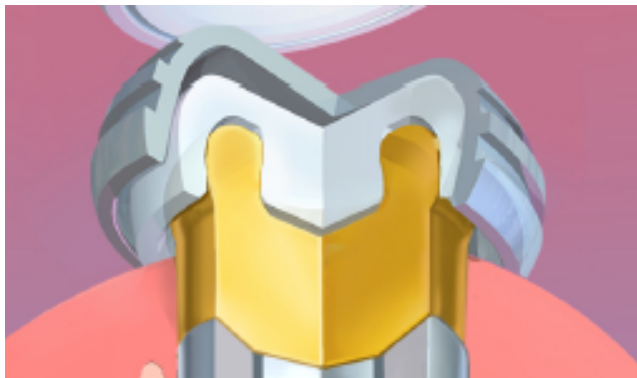
Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

Why choose Locator Attachments?

- Low profile
- Durability
- Easy for the patient to use
- Versatility



Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

Very Low Profile

- Total attachment height as low as **2.5mm** on internal connection implants
- 3.17mm height for external hex is pictured at right
- Great for cases with limited interocclusal space



Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

- Comparison with Ball Abutment



Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

Durability

- **Attachment Durability** means fewer recall visits for the patient
- **Dual Retention** means the cap retains on the inside and outside of the abutment for a strong, stable attachment
- **Metal housing** pivots over nylon male, reducing wear
- Proven to be **long-lasting** attachments¹



Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

Self-Aligning Male

- Makes it **easy for patients** to position and correctly seat their denture.
- **Unique design** helps guide the housing with nylon liner into the abutment
- **Reduces wear** of attachment components due to improper seating



Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

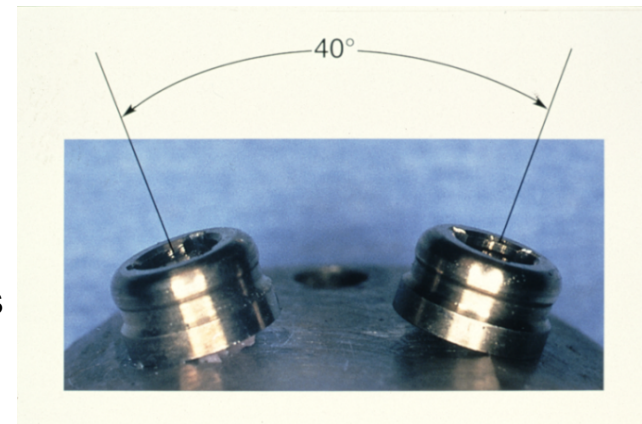
Flexibility in Angles and Retention

Straight males

- 3 levels of retention
 - 680g(blue)
 - 1360g(pink)
 - 2265(white)
- Angle correction up to 10 degrees per abutment

Angled males

- 2 levels of retention
 - 680g(red) and 1815g(green)
- Angulation correction up to 20 degrees on each abutment
- No need for angled abutment



Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

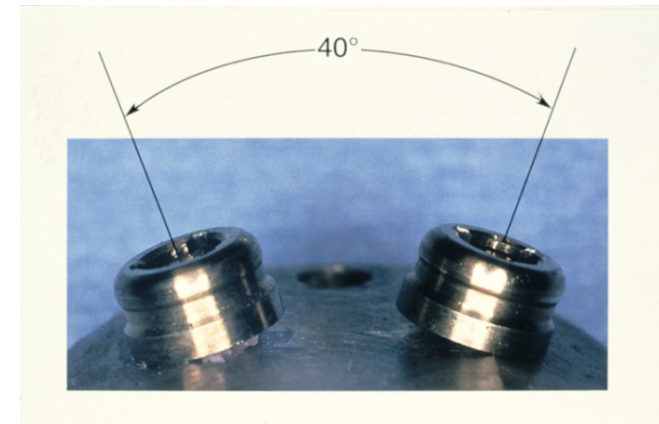
Flexibility in Angles and Retention

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 - 680g(red) and 1815g(green)
- Angulation correction up to 20 degrees on each abutment
- No need for angled abutment



Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

Locator Core Tool

Versatile Locator Tool serves three functions:

- Seat the abutment
- Remove the nylon male
- Seat the nylon male



Locator abutments should be placed with 20-30 Ncm of torque.

- Two options for torque wrench
- Use Locator Torque Wrench Driver direct to abutment
- Use a 1.25mmD torque wrench Hex Driver in conjunction with the abutment seating tool

Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System



Abutmentplatform



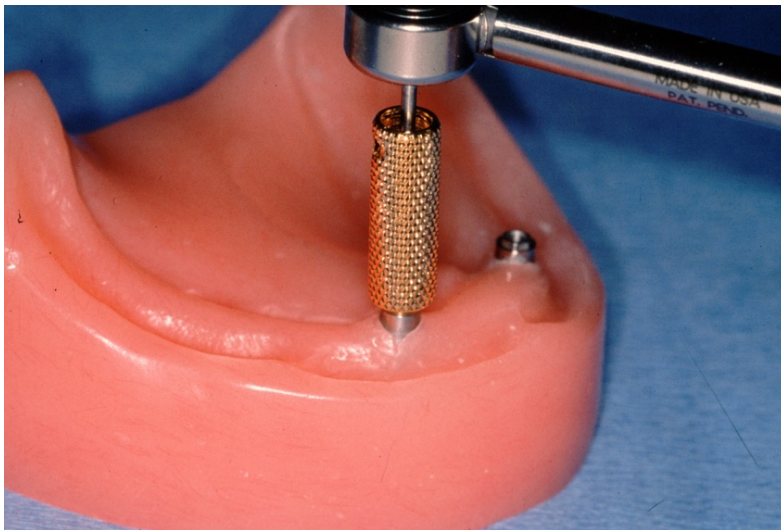
Insert tool

Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

- Locator Abutment Seating Tool has hex broach inside to allow connection to torque wrench driver

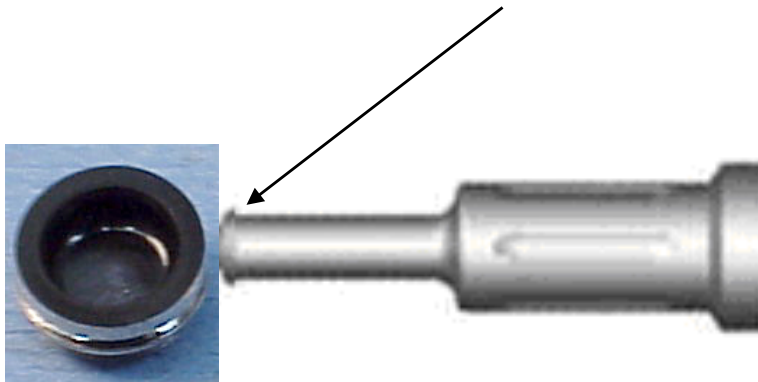


Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

Remove nylon males



Seat nylon males



Removable Prosthetics

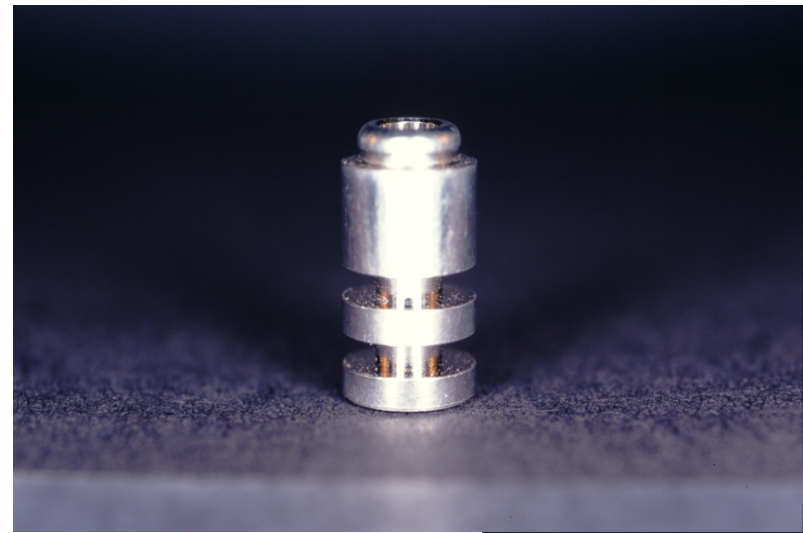
TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System

Impression Coping



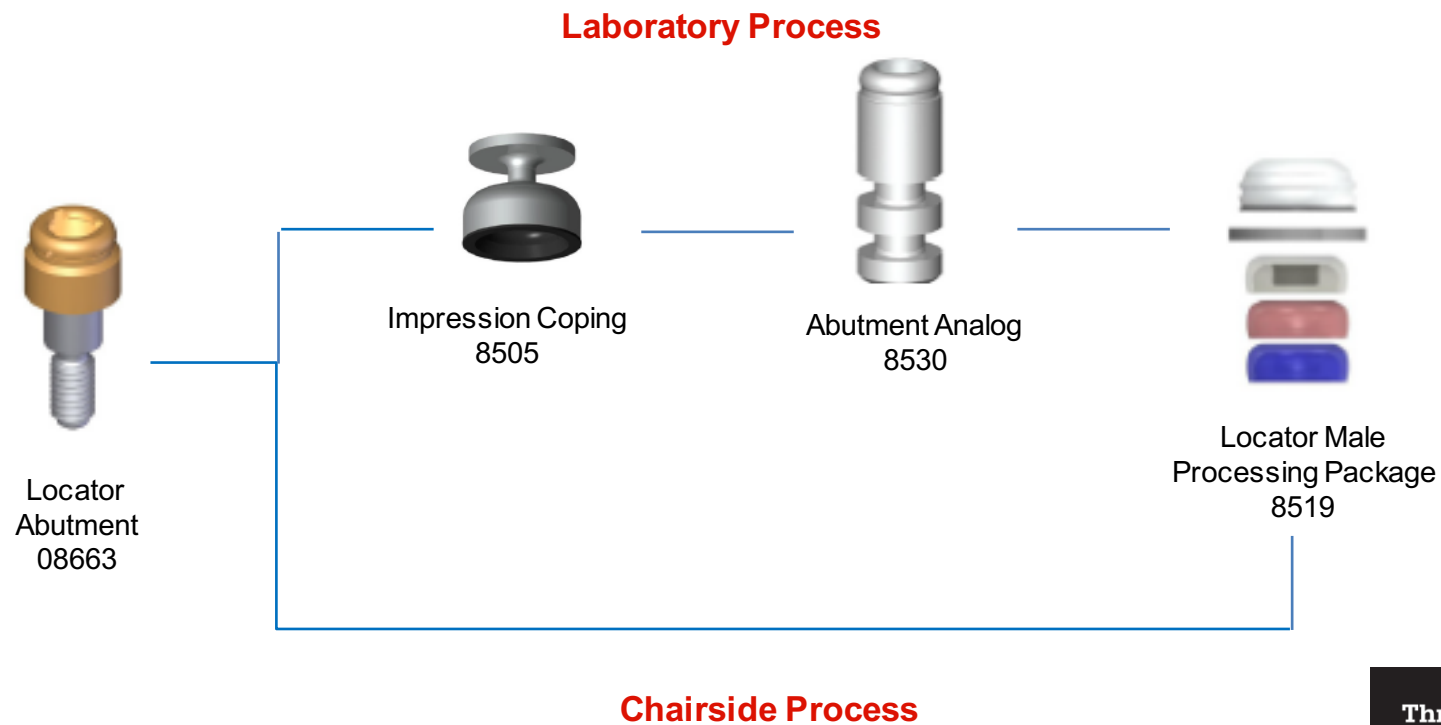
Analog



Removable Prosthetics

TRI[®]-Vent & TRI[®]-Octa

Locator[®] Overdenture Attachment System



Removable Prosthetics

TRI®-Vent & TRI®-Octa

Locator® Overdenture Attachment System, catalog page 7 & 13

LOCATOR® ABUTMENT

Catalog Number		∅	CH	Material	Qty
08661	Locator Abutment			TiN	1
08662	Locator Abutment		1.0 mm	TiN	1
08663	Locator Abutment		2.5 mm	TiN	1
08664	Locator Abutment		3.5 mm	TiN	1
08665	Locator Abutment		4.5 mm	TiN	1
08626	Locator Abutment		6.5 mm	TiN	1



08663

LOCATOR® ABUTMENTS

Catalog Number		∅	GH	Material	Qty	Sterile
08939	Locator-Abutment	4.5mm	1.3 mm	TiN	1	R
08941	Locator-Abutment	4.5mm	3.0mm	TiN	1	R



08939

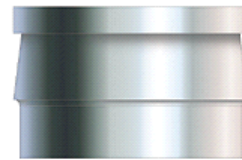
Removable Prosthetics

TRI[®] -Vent, TRI[®] -Narrow & TRI[®] -Octa

TRI[®] Ball Abutments

Inclusive in packaging:

- Cap attachment housing



- Nylon lyner white



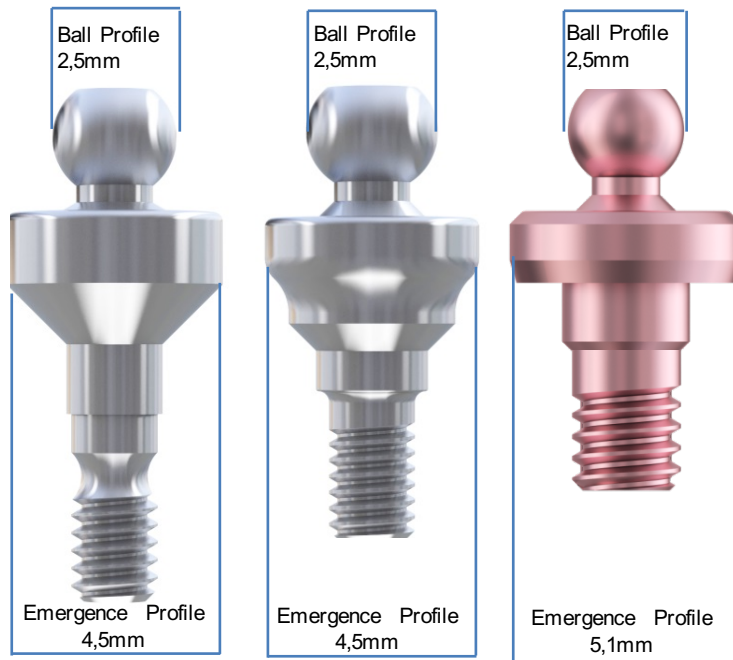
- Ball Abutment



Removable Prosthetics

TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa

TRI[®] Ball Abutments



Available
Cuff heights

TRI[®]-Vent &
TRI[®]-Narrow

2mm

4mm

TRI[®]-Octa

1,6mm

3mm

Removable Prosthetics

TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa

TRI[®] Ball Abutments

- The Ball Abutment collar is regularly placed 1mm supragingival and has a coronal diameter of 4.5mm, while the ball component itself is 2.5mmD.
- When assembled, the vertical height of the Cap Attachment [CA] above the coronal aspect of the Ball Abutment collar is 4.28mm and its diameter is 5.00mm.
- The rotational aspect of the Cap Attachment on the ball component allows for adjustment of up to 28 degrees of relative divergence between implants.

All dimensions and measurements are the same for TRI[®]-Vent as well as for TRI[®]-Narrow.

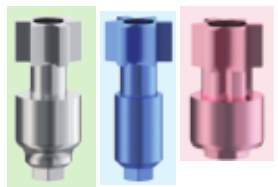


Removable Prosthetics

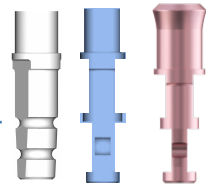
TRI[®]-Vent & TRI[®]-Octa

TRI[®] Ball Abutments

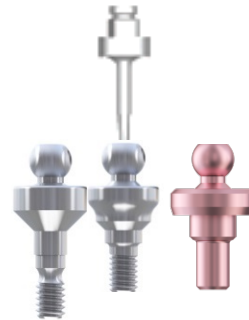
Laboratory Process



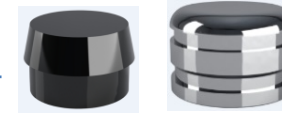
Impression taking



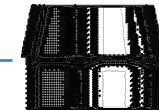
Model making



Placement ball abutment on model with THD



Polymerization the metal housing with laboratory cap (black)



Push in nylon liner (white) with tool



Insertion ball abutment (30N/cm) with THD & TW

Chairside Process



Polymerization the metal housing with nylon lyner (white)

Removable Prosthetics

TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa

TRI[®] Ball Abutments

Chairside technique



Place the selected ball components into the implants and tighten to 30 Ncm with a calibrated torque wrench.



Attachment housing placed chairsite. Rotate the housings up to 28° to create relative parallelism for a common path of insertion. Block out the undercuts beneath the housing with an appropriate silicone or wax material.

Removable Prosthetics

TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa

TRI[®] Ball Abutments



Place a small amount of autopolymerizing acrylic into the dry, relieved areas within the denture base. Also place a small amount of acrylic directly on the housings. Place the denture over the housings in the mouth and instruct the patient to bite lightly in centric occlusion. Remove the denture after the acrylic sets. Fill in any voids remaining around the processed housings with additional autopolymerizing acrylic and polish the areas surround the attachments.

Removable Prosthetics

TRI[®]-Vent, TRI[®]-Narrow & TRI[®]-Octa – catalog page 7, 10, 13

Overdenture Restorations

BALL ABUTMENT - INCLUDES CAHL

Catalog Number		Ø	CH	Material	Qty
TV60-02	Ball Abutment incl. CAHL	4.5 mm	2.0 mm	Ti-6Al-4V	1
TV60-04	Ball Abutment incl. CAHL	4.5 mm	4.0 mm	Ti-6Al-4V	1
				Stainless steel	
CAHL	Cap Attachment Housing and Liner - Transparent	4.0 mm			1
CAH	Cap Attachment Housing			Ti	1
CALT	Cap Attachment Liner- (Transparent - Standard retention)			Nylon	1
CALG	Cap Attachment Liner - (Gray - Rigid retention)			Nylon	1
CALB	Cap Attachment Liner - Lab Use - Black			Nylon	1



TV60-04



CAHL

Overdenture Restorations

BALL ABUTMENT - INCLUDES CAHL

Catalog Number		Ø	CH	Material	Qty
TN60-02	Ball Abutment incl. CAHL	4.5 mm	2.0 mm	Ti-6Al-4V	1
TN60-04	Ball Abutment incl. CAHL	4.5 mm	4.0 mm	Ti-6Al-4V	1
				Stainless steel	
CAHL	Cap Attachment Housing and Liner - Transparent				1
CAH	Cap Attachment Housing			Stainless	1



TV60-04

BALL ABUTMENT - INCLUDES CAHL

Catalog Number		Ø	GH	Material	Qty	Sterile
TO60-16	Ball Abutment incl. CAHL	4.5 mm	1.6 mm	Ti-6Al-4V	1	R
TO60-30	Ball Abutment incl. CAHL	4.5 mm	3.0 mm	Ti-6Al-4V	1	R



TO60-16



TO60-30