



Surgical and Restorative
Technique Guide



Revitalize®

Patient Solutions





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RevitaliZe Patient Solutions allow you to offer full-arch Immediate Load Provisional Screw-retained Restorations for the edentulous mandible or maxilla. This Surgical and Restorative Technique Guide provides guidelines for the surgical procedure for a tilted implant case utilizing four (4) Trabecular Metal™ or Tapered Screw-Vent® Implants along with step-by-step instructions for the Conversion of the Provisional Denture. RevitaliZe Patient Solutions encompass a simplified approach and the flexibility to choose the right surgical protocol and restorative option for each individual patient.

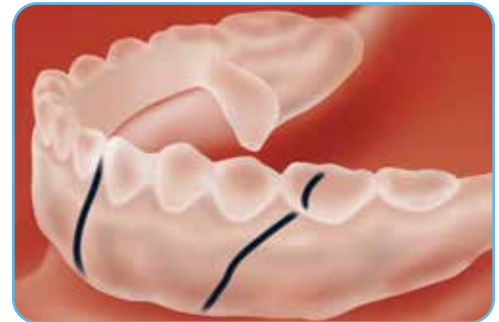
Surgical Procedure

Surgical Guide

Edentulous patient with surgical guide in place. A duplicate of the patient's ideal denture or trial setup can be used as a surgical guide to assist with placement of implants in proper position and angulation. The lingual aspect of the duplicate denture can be removed to allow surgical access, but still retain the patient's occlusal form.

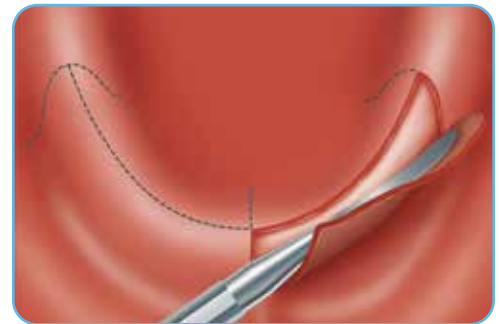


Lines for the implant positions may be drawn on the surgical guide to provide visual guidance for implant placement. Lines for distal implants can be drawn up to 45° to the plane of occlusion.



Make the Incision

Remove the surgical guide and make incision along the crest of the ridge. Make releasing incisions and reflect the flap utilizing a periosteal elevator.



Nerve Identification/Position

Identify the mental foramen. The anterior loop of the mental nerve can transverse anterior to the mental foramen by as much as five to seven millimeters. Ideally, the most distal implant should be parallel to the angle of the most mesial aspect of this loop.



Mark the Implant Site

Use a round bur to mark the initial position of the implant. A small indentation in the bone will allow subsequent drills to gain the proper point of entry.



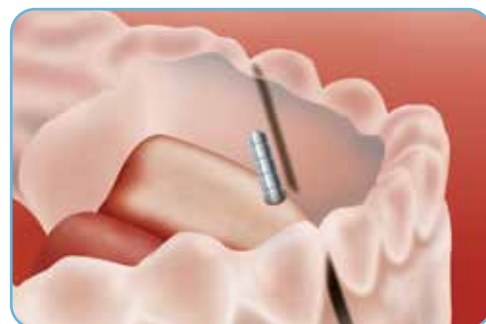
Initiate the Osteotomy

The 2.3 mmD Drill is used to create a pilot hole, following the angulation indicated on the surgical guide. Drill to the depth of the implant to be used and flush the hole to remove all debris.



Insert the Paralleling Pin

Place smooth side of the pin into the 2.3 mmD osteotomy and confirm placement and alignment relative to the surgical guide.



Remove the Surgical Guide

Remove the surgical guide for the remainder of the drilling sequence, correcting the osteotomy during the subsequent drilling steps as necessary.



Implant Placement

Expand the Osteotomy

Utilize the next drill in the drilling sequence for the implant diameter being placed to create an intermediate hole to the depth of the implant to be used. Continue widening the osteotomy by following the appropriate drilling sequence for the implant diameter being placed, considering bone quality prior to selection of the final drill. Please refer to the Trabecular Metal/TSV® Surgical Manual for more detailed information on hard- and soft-bone protocols.



Remove the Implant From the Vial

Remove the implant outer vial from the box and open the outer vial to break the seal. Drop the sterile inner vial contents onto a sterile field. Flip the white top of the inner vial open by pressing on the flat side with access hole. Press the top to the inner vial body to lock in the top.

The implant is supplied pre-attached to a multi-functional Fixture Mount/Transfer for easy delivery. Remove the implant from the inner vial by using one of the delivery instruments.

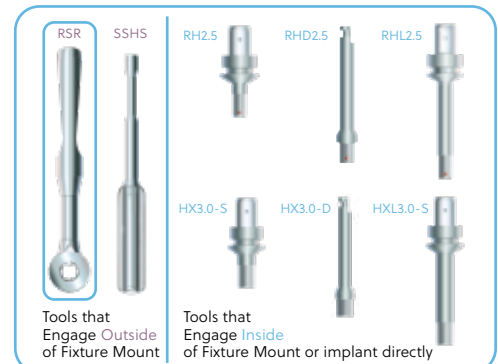
NOTE: The supplied Surgical Cover Screw is located in the lid of the inner vial with an access hole for the 1.25 mm Hex Driver.



Delivering the Implant to the Site

The implant may be driven manually or with the use of a surgical motor at speeds up to 30 rpm. The following instruments can be used for implant delivery to the site:

- The GemLock® Retaining Square Ratchet [RSR] or the Screwdriver Handle [SSHS] attached directly to the Fixture Mount/Transfer.
- The GemLock Retaining Square Ratchet [RSR] attached to the 2.5 mm GemLock Retaining Hex Drivers [RH2.5, RHL2.5] which engage the female hexagon of the Fixture Mount/Transfer.
- The GemLock Retaining Square Ratchet [RSR] attached to the 2.5 mm GemLock Retaining Hex Drivers [RH2.5, RHL2.5] or the 3.0 mm Hex Driver [HX3.0-S, HXL3.0-S] inserted directly into the implant when space is limited or to facilitate placement in dense bone.
- A motor handpiece attached to the 2.5 mm GemLock Retaining Hex Driver [RHD2.5] for placement with the Fixture Mount/Transfer or for placement of an implant with a 2.5 mmD internal hexagon without the Fixture Mount/Transfer, or the 3.0 mm Hex Driver [HX3.0D] for placement of an implant with a 3.0 mmD internal hexagon.



NOTE: The 2.5 mm GemLock Hex Tools and Hex Drill engage the female hexagon of the Fixture Mount/Transfer (Trabecular Metal and TSV Implants) or the 2.5 mm internal hexagon implants directly (3.7-4.7 mmD Trabecular Metal and TSV Implants). The 3.0 mm Hex Drivers and Drill directly engage the 3.0 mm internal hexagon implants (6.0 mmD Trabecular Metal and TSV Implants) only.

Implant Placement

Seat the implant into the osteotomy.

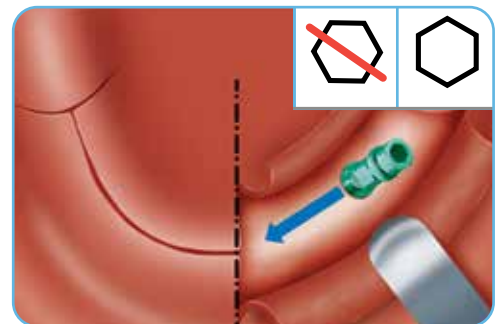


Thread the implant into the prepared site using the GemLock Retaining Square Ratchet [RSR] attached to the Fixture Mount/Transfer. Alternatively, one of the methods previously described in [Delivering The Implant To The Site](#) can also be utilized.



Orient the Implant

The Fixture Mount/Transfer is manufactured with two (2) flat sides that align with flats on the implant's internal hex. To ensure proper orientation of the ZimVie Dental Angled Tapered Abutment, care should be taken to align one of the flat sides of the Fixture Mount/Transfer either facing the angulation correction desired (to the mesial in this illustration) or opposite angulation correction (in the distal position in this case; flat not visible in illustration).



Prepare the Remaining Osteotomies

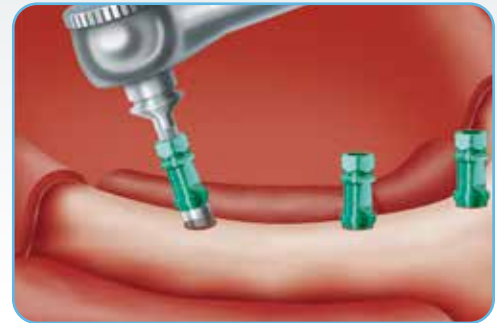
The same steps of the drilling sequence are repeated to place the anterior implants. Care should be taken to follow the planned location and angulation of the surgical guide. The anterior implants are inserted and ratcheted into place.



Abutment Placement

Implant Placement

The drilling sequence is repeated for the remaining angled implant site. Planned angulation should follow the surgical guide and once again be parallel to the mesial aspect of the anterior loop of the mental nerve. If the flat sides of the Fixture Mounts/Transfers are positioned in a mesial/distal direction, the flat side of the hex of the implant will be properly aligned to accept the angled tapered abutment.



Remove the Fixture Mount/Transfer

Once the implants are seated in the desired position, use the 1.25 mmD (0.50") Hex Driver [HXGR1.25, HXLGR1.25] to unthread the retaining screws and remove the Fixture Mount/Transfers. It may be necessary to contour the bone prior to seating the abutment subcrestally. Care should be taken not to damage the internal connection or coronal portion of the implant.



Place the Angled Tapered Abutment

The angled tapered abutment is packaged with an abutment delivery tool to assist in the placement and orientation of the abutment in the mouth. Hand tighten the abutment delivery tool to confirm attachment to the cone of the abutment. Thread dental floss through the floss hole in the delivery tool and tie. Utilizing the abutment delivery tool, deliver the angled tapered abutment into the mouth, aligning the angled abutment in the appropriate orientation to ensure that the abutment cone parallels the anterior implants as closely as possible.



Tighten Abutment Retaining Screw

Use a 1.25 mm Hex Driver to hand tighten the abutment retaining screw. A contra angle hand piece with a 1.25 mmD latch-lock driver may also be used for initial delivery.



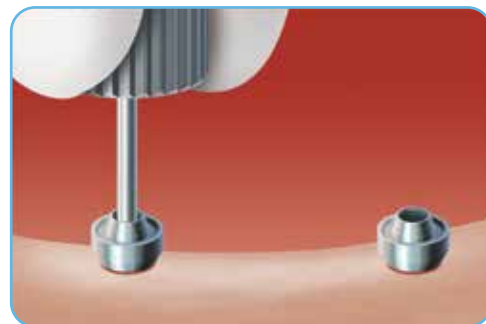
Remove Abutment Delivery Tool

Visually confirm that the angled tapered abutment is completely seated into the implant. Remove the abutment delivery tool by unscrewing counter clockwise. Care should be taken as the abutment delivery tool will disengage quickly from the abutment and it is recommended to utilize dental floss in the floss hole to prevent accidental swallowing or inhalation when removing the delivery tool.



Place Tapered Abutments

Deliver the straight tapered abutments to the anterior implants. Tighten with the 1.25 mm Hex Driver. The abutments should also be visually inspected to verify complete seating into the implant.



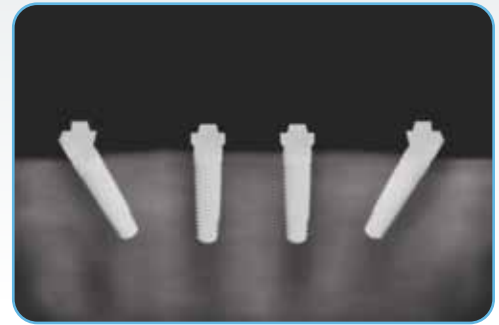
Place Angled Tapered Abutment

Place the final angled tapered abutment in the distal position, following the same placement sequence previously described.



Verify Abutment Seating

Once all of the abutments are placed, verify with a periapical radiograph that all of the abutments are seated completely into the implants.



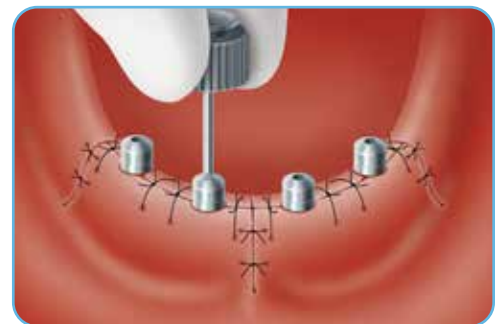
Torque the Abutments

Tighten the angled tapered abutment retaining screws and the straight tapered abutments to 30 Ncm with the Restorative Torque Wrench [TWR].



Place Tapered Abutment Healing Caps and Suture the Soft Tissue

If the abutments will not be immediately restored with a provisional or final restoration, place the Tapered Abutment Titanium Healing Cap [TATHC] to prevent irritation of the soft tissue and to prevent the ingress of material in the screw access of the abutment cone. Hand tighten using the 1.25 mm Hex Driver. Soft tissue can be sutured into position using suture material of choice.



If an immediate Provisional Restoration will be placed at time of surgery, please proceed to page 13 for the Fabrication of the Provisional Denture.

Abutment Level Transfer Procedures

Option 1: Indirect Transfer Using a Closed Tray Procedure

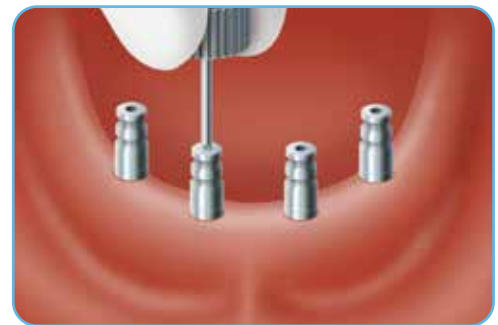
Remove Healing Caps

Remove the Tapered Abutment Titanium Healing Caps from each of the abutments using the 1.25 mm Hex Driver to prepare for a standard closed tray impression technique. Retighten the abutments to 30 Ncm using the Restorative Torque Wrench [TWR].



Attach the Indirect Transfers

Place Tapered Abutment Indirect Transfer Copings [ACTIT] onto each abutment and hand tighten using the 1.25 mm Hex Driver. To avoid ingress of impression material into the hex holes, block out the tops of the transfer copings with material of choice. Try in custom tray and assess for fit and clearance.

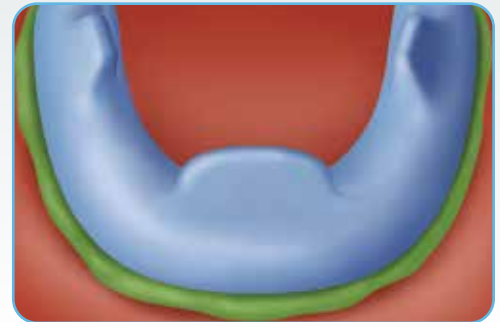


Make the Impression

Inject light- or medium-body impression material around the transfers and fill the tray with medium to heavy-body impression material. An elastomeric impression material is recommended, such as vinyl polysiloxane.



Seat the tray in the mouth and make a full-arch impression. Remove tray from the mouth after impression material has set according to the manufacturer's recommendations.



Complete the Transfer Procedure

Remove transfers from abutments using 1.25 mm Hex Driver. Replace healing caps back onto the abutments and complete transfer procedure. Attach Tapered Abutment Indirect Transfer Copings [ACTIT] to the Tapered Abutment Replica [ACTR]. Make sure the transfer coping is fully seated on the analog.



Seat Analogs in Impression

Insert Tapered Abutment Indirect Transfer Copings and attached Tapered Abutment Replica back into the impression.



All four Tapered Abutment Indirect Transfer Copings with attached analogs are seated into the final impression. Low expansion die stone is poured into the impression and allowed to set per manufacturer's directions.



Prepare the Stone Cast

Separate the impression from the stone cast to reveal the Tapered Abutment Indirect Transfer Copings positioned in the cast in the same manner that they were positioned in the mouth.



Remove Copings from Cast

Remove the Tapered Abutment Indirect Transfer Copings to reveal the Tapered Abutment Replicas positioned accurately in the stone cast. The stone cast is ready for the fabrication of a provisional or final restoration.



Option 2: Direct Transfer Using an Open Tray Procedure

Remove Healing Caps

Remove the Tapered Abutment Titanium Healing Caps from each of the abutments using the 1.25 mm Hex Driver to prepare for a standard open tray impression technique. Retighten the abutments to 30 Ncm using the Restorative Torque Wrench [TWR].



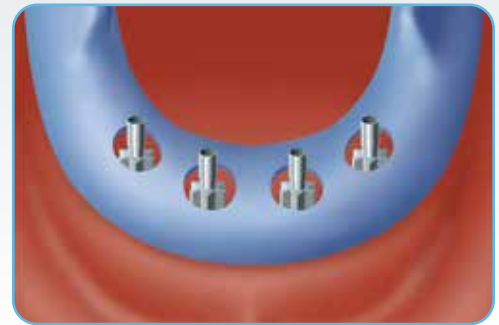
Attach the Direct Transfers

For an open tray impression, the Tapered Abutment Direct Transfer Copings [ACTDT] are attached to the cone of the angled tapered abutments and tapered abutments for an abutment level transfer procedure. The transfer coping is secured to the abutment using the center screw and hand tightened using the 1.25 mm Hex Driver.



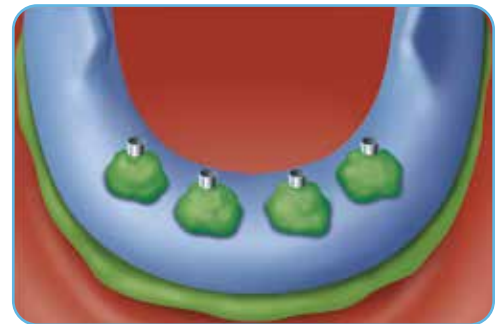
Verify the Fit of the Custom Tray

Ideally, a custom tray is fabricated with open access directly above each of the transfer copings. The fit of the open-access custom tray is verified in the patient's mouth. Block out the hex holes in the tops of the screws with the material of choice to prevent ingress of the impression material.



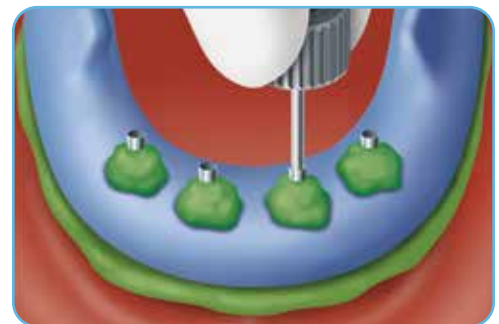
Make the Impression

Load the tray with medium-body impression material. Reseat gently in the patient's mouth. Gently wipe away excess material from the top of the Tapered Abutment Direct Transfer Copings to allow easier access to the screw for intraoral removal. Allow impression material to set according to the manufacturer's instructions.

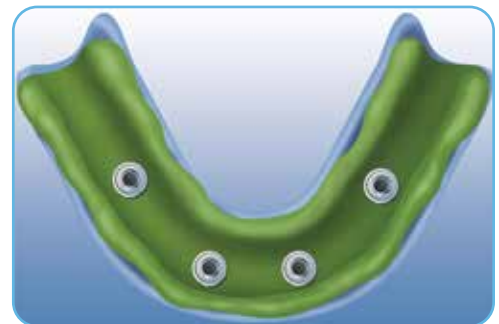


Complete the Transfer Procedure

Unthread and remove the screws from the transfer copings with the 1.25 mm Hex Driver. After removing all four screws, remove the impression from the patient's mouth. Replace healing caps back onto the abutments and complete transfer procedure.

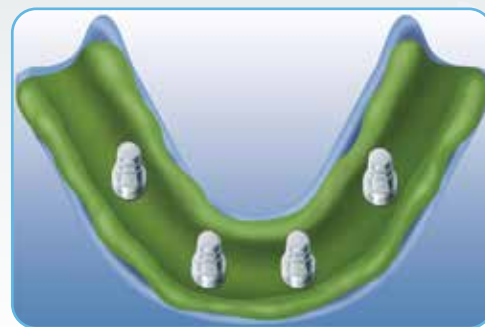


The Tapered Abutment Direct Transfer Copings will remain in the impression material. This is helpful to avoid distortion of the impression material when the impression transfer copings are very divergent from each other.

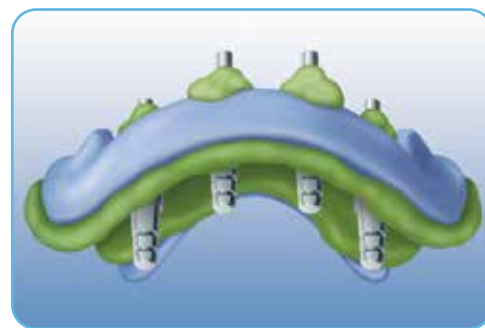


Attach Replicas

To complete the procedure, begin by placing the Tapered Abutment Replica into the base of the Direct Transfer Copings which has remained in the impression material.



Attach the transfer screw to the hex driver and insert the screw through the respective access hole in the top of the impression. Pass the screw through the embedded transfer body and thread it into the abutment replica to lock the components together. Make an opposing arch impression.



Prepare the Stone Cast

Separate the impression from the stone cast to reveal the Tapered Abutment Replicas positioned in the cast in the same manner that they were positioned in the mouth. The stone cast is ready for the fabrication of a provisional or final restoration.



Abutment Level Transfer Procedures

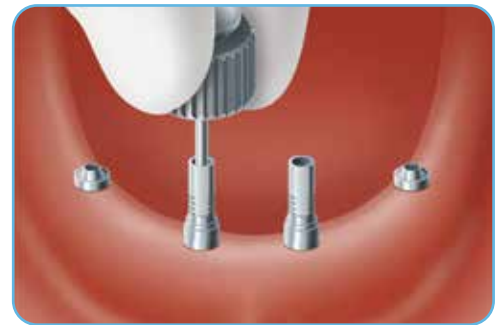
Option 1: Chairside Pick-Up and Denture Conversion

Materials Required

- Patient's existing denture or newly fabricated Provisional Denture
- Denture repair resin
- Small mixing cups
- Disposable brush
- White rope wax
- Cotton tip applicator
- Single injection syringe
- Indelible marking stick

Connect The Anterior Titanium Temporary Copings

Place Titanium Temporary Copings onto the two anterior tapered abutments. Secure the temporary copings with the coping screws and hand tighten with the 1.25 mm Hex Driver.



Mark Temporary Copings

Wet the end of an indelible marking stick and mark the top surface of the temporary copings.



Transfer Coping Position to Denture

Place patient's provisional denture in mouth and press denture onto the temporary copings to transfer the colored ink to the denture. The provisional denture may be the patient's existing denture or a newly made immediate denture ready for insertion into the mouth.



Drill Holes for Copings

Remove denture from the mouth and inspect the tissue side surface. Ink marks should be apparent indicating where holes should be drilled through the denture. Use an acrylic bur, laboratory bur or slow speed hand piece to relieve the denture base in the marked areas. Continue to remove acrylic until holes are made completely through the denture.



Reseat/Try in Denture

Try the denture back into the mouth to confirm that there is relief around the temporary copings and that the rest of the denture base is in contact with the soft tissue. Confirm that the patient can close lightly into the proper occlusion against the opposing denture or dentition. If temporary copings interfere with seating, reduce the height of the temporary copings extraorally just enough to ensure proper occlusion. Block out screw access holes with cotton pellet or material of choice to prevent acrylic from getting into holes.



Intraoral Pick-Up

Prepare the auto-cured denture resin material for use in a brush-bead technique. Place liquid powder mixture between the temporary copings and repeat this step until the union between the denture base and coping is achieved. Once the union is achieved, the patient should close lightly into occlusion so that this denture meets with the opposing teeth while the auto-cure resin is setting. Auto-cure resin should be allowed to set completely before removing the denture. Follow manufacturer's instructions for set times.



Detach Denture

Use the 1.25 mm Hex Driver to remove the coping screws and remove the denture from the mouth. Inspect the underside of the denture and remove any excess resin and/or fill in any voids with additional denture repair resin.



Connect the Posterior Titanium Temporary Copings

Place the Titanium Temporary Copings onto the posterior abutments. The posterior temporary copings are now ready to be connected to the prosthesis. Once again place indelible marker ink on the top surface of the copings.



Transfer Coping Position to Denture

Place the denture into mouth and transfer the colored ink onto the undersurface of the denture. Inspect the undersurface of the denture to assure that the ink has been transferred to the denture, marking the location of the copings in relation to the denture base. Use an acrylic bur, laboratory bur or slow speed hand piece to relieve the denture base in the marked areas.



Reseat/Try in Denture

Seat the denture back into the mouth to confirm that enough relief has been created around each cylinder and to allow complete seating of the denture onto the soft tissue. Confirm that the patient can close lightly into proper occlusion. If temporary copings interfere with seating, reduce the height of the temporary copings extraorally just enough to ensure proper occlusion.



Block out posterior screw access holes with cotton pellet or material of choice to prevent ingress of acrylic into holes.

Reconnect Anterior Copings

Begin by confirming that the Titanium Temporary Copings are completely seated on the abutments. Small anterior windows can be removed from the denture flange so that easy inspection of the junction between the coping and the abutment can be visualized. After confirming complete seating of the anterior Titanium Temporary Copings on the abutments, reattach the coping screws to reattach the denture to the anterior abutments.



Intraoral Pick-Up

Lute temporary copings to the denture base using the "brush-bead" technique previously described. As the auto-cure resin is setting, the patient should close lightly into occlusion for the duration of the set time.



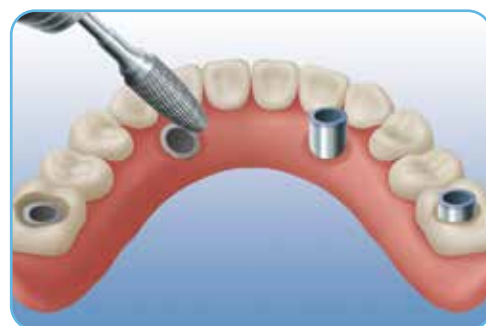
Detach Denture

Use the 1.25 mm Hex Driver to remove all four coping screws and remove the denture from the mouth. Inspect the undersurface to confirm that all four Titanium Temporary Copings are securely luted into place. Denture flange and all concavities must now be removed from the underside of the prosthesis. "Brush-bead" additional resin into any large concavities on the denture undersurface. Place prosthesis in pressure pot for the resin to cure. After additional resin has set, adjust prosthesis with large flame shaped acrylic bur to remove all concavities.



Shorten the Titanium Temporary Copings

Use a separating disk or bur to shorten temporary copings. Use water irrigation while grinding metal to assure that the acrylic around the temporary copings does not soften from the heat generated during this procedure. Shorten all four of the temporary copings to be flush with the denture base surface.



Finish/Polish the Denture

Polish the entire prosthesis using wet, fine pumice and a rag wheel on a lathe operating at low speed. Use traditional metal polishing techniques to finish and polish the coronal surfaces of the temporary copings. Place the prosthesis into the patient's mouth to confirm the fit.



Reseat Denture/Torque Coping Screws

Place the coping screws through the temporary copings and secure the prosthesis to the abutments using the 1.25 mm Hex Driver. Torque the coping screws to 20 Ncm using the Restorative Torque Wrench [TWR].



Hygiene Access

Adequate access for hygiene should be apparent around all of the abutments.



Distal Cantilevers

Distal cantilever should not extend more than half a molar behind the most distal screw access hole.



Final Occlusion Checks

Final occlusion should be checked and adjusted as necessary.



Block Out Coping Screw Holes

Screw access holes can be filled with composite resin after a cotton pellet is placed over the screw.



Option 2: Combination Chairside/Cast Technique

Make Impression

Follow procedure for closed tray impression (page 8) or open tray impression (page 11).



Pour Cast

Pour up cast with quick set stone and articulate.



Intraoral Pick-Up: Anterior Titanium Temporary Copings

Follow the procedure for the Chairside Pick-up of the Anterior Titanium Temporary Copings (page 14 of Chairside Pick-up and Denture Conversion)



Cast/Pick-Up of Posterior Copings

Utilize the cast for the pick-up of the posterior Titanium Temporary Copings following the same steps on the cast that are performed in the mouth (page 17 of Chairside Pick-up and Denture Conversion).

Complete Denture conversion and check occlusion on articulated casts.



Transfer/Attach Converted Denture to Mouth

Transfer the prosthesis to the patient's mouth and reattach the copings (in the denture) to the abutments using the Coping Screws. Have the patient bite down into occlusion and make adjustments to the occlusion as necessary.



Torque Coping Screws


Torque Coping Screws to 20 Ncm. Fill screw access holes with resin or material of choice.



Ordering Information

Tapered Abutments, One-Piece


Tapered abutments are for multiple-unit, screw-retained restorations. Abutments do not engage the internal hex connection. Not for use in single-unit. Includes a Healing Cap (TATHC).



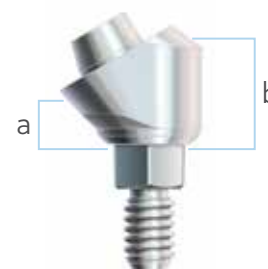
Implant Platform	Cuff Height				
	0.75 mm	2.0 mm	3.0 mm	4.0 mm	5.0 mm
3.5 mmD	TAC1	TAC2	TAC3	TAC4	TAC5
4.5 mmD	TACW1	TACW2	TACW3	TACW4	TACW5
5.7 mmD	TA5C1	TA5C2	TA5C3	TA5C4	—

Angled Tapered Abutments, 15°

Angled tapered abutments are for multiple-unit screw-retained restorations. Abutment retaining screw is preassembled in the abutment. Each abutment includes an abutment delivery tool.




Implant Platform	Cuff Height		
	1.0 mm/2.0 mm (a/b)	2.0 mm/3.0 mm (a/b)	3.0 mm/4.0 mm (a/b)
3.5 mmD	15AT312	15AT323	15AT334
4.5 mmD	15AT412	15AT423	15AT434



Cuff height measurements, angled tapered abutments.

Angled Tapered Abutments, 30°

Angled tapered abutments are for multiple-unit screw-retained restorations. Abutment retaining screw is preassembled in the abutment. Each abutment includes an abutment delivery tool.



Implant Platform	Cuff Height		
	2.0 mm/4.0 mm (a/b)	3.0 mm/5.0 mm (a/b)	4.0 mm/6.0 mm (a/b)
3.5 mmD	30AT324	30AT335	30AT346
4.5 mmD	30AT424	30AT435	30AT446

Tapered Abutment Healing Cap

Healing Cap threads onto the tapered abutment and angled tapered abutment.



Description	Catalog Number
Tapered Abutment Titanium Healing Cap	TATHC

Tapered Abutment Transfer Components

Transfers thread onto the tapered abutment and angled tapered abutment for impression-taking. This method transfers the tapered abutment and angled tapered abutment position.



Description	Catalog Number
Tapered Abutment Direct Transfer (Open-Tray) Includes Transfer Screw (SCDTS).	ACTDT
Tapered Abutment Indirect Transfer (Closed-Tray)	ACTIT
Tapered Abutment Replica	ACTR

Tapered Abutment Copings, Sheaths and Bar Systems

The copings listed below fit over the tapered abutment and angled tapered abutment and are secured with a coping screw.



Description	Height/Length	Catalog Number
Titanium Temporary Coping Includes screw (SCTS).	9.5 mm	ACTT
Tapered Abutment Gold Coping Includes screw (SCTS).	—	ACTGC
Plastic Castable Coping Includes screw (SCTS).	5 mm	ACTP
Bar Gold Coping Includes screw (SCTS).	3 mm	TGC3
Bar Gold Coping, Long Includes screw (SCTS).	5 mm	TGC5
Titanium Bar Coping Includes screw (SCTS).	5 mm	TTC5
Replacement Screw for Copings	—	SCTS
Tapered Abutment Waxing Screw	12 mm	SCWS

Implant Platform Color-Coding

The chart below indicates which color corresponds to each Trabecular Metal and Tapered Screw-Vent Implant's internal hex platform.

Implant Diameter	Implant Platform	Color-Coding
3.7 mmD	3.5 mmD	● Green
4.1 mmD	3.5 mmD	
4.7 mmD	4.5 mmD	● Purple
6.0 mmD	5.7 mmD	● Yellow

Trabecular Metal Dental Implant, MTX® Surface, Fully Textured with Microgrooves

Includes Fixture Mount/Transfer and Cover Screw



Implant Diameter	Implant Platform	Internal Hex Connection	Implant Length			
			10 mmL	11.5 mmL	13 mmL	16 mmL
3.7 mmD	● 3.5 mmD	2.5 mmD	TMTB10	TMTB11	TMTB13	TMTB16
4.1 mmD	● 3.5 mmD*	2.5 mmD	TMT4B10	TMT4B11	TMT4B13	—
4.7 mmD	● 4.5 mmD	2.5 mmD	TMTWB10	TMTWB11	TMTWB13	—
6.0 mmD	● 5.7 mmD	3.0 mmD	TMT6B10	TMT6B11	TMT6B13	—

Trabecular Metal Dental Implants with 0.5 mm Machined Collar, MTX Surface and Microgrooves

Includes Fixture Mount/Transfer and Cover Screw



Implant Diameter	Implant Platform	Internal Hex Connection	Implant Length			
			10 mmL	11.5 mmL	13 mmL	16 mmL
3.7 mmD	● 3.5 mmD	2.5 mmD	TMMB10	TMMB11	TMMB13	TMMB16
4.1 mmD	● 3.5 mmD*	2.5 mmD	TMM4B10	TMM4B11	TMM4B13	—
4.7 mmD	● 4.5 mmD	2.5 mmD	TMMWB10	TMMWB11	TMMWB13	—
6.0 mmD	● 5.7 mmD	3.0 mmD	TMM6B10	TMM6B11	TMM6B13	—

Tapered Screw-Vent Implants with Full MTX Surface Texturing and Microgrooves

Includes Fixture Mount/Transfer and Cover Screw



Implant Diameter	Implant Platform	Internal Hex Connection	Implant Length				
			8.0 mmL	10 mmL	11.5 mmL	13 mmL	16 mmL
3.7 mmD	● 3.5 mmD	2.5 mmD	TSVTB8	TSVTB10	TSVTB11	TSVTB13	TSVTB16
4.1 mmD	● 3.5 mmD*	2.5 mmD	TSVT4B8	TSVT4B10	TSVT4B11	TSVT4B13	TSVT4B16
4.7 mmD	● 4.5 mmD	2.5 mmD	TSVTWB8	TSVTWB10	TSVTWB11	TSVTWB13	TSVTWB16
6.0 mmD	● 5.7 mmD	3.0 mmD	TSVT6B8	TSVT6B10	TSVT6B11	TSVT6B13	TSVT6B16

Tapered Screw-Vent Implants with 0.5 mm Machined Collar, MTX Surface and Microgrooves

Includes Fixture Mount/Transfer and Cover Screw



Implant Diameter	Implant Platform	Internal Hex Connection	Implant Length				
			8.0 mmL	10 mmL	11.5 mmL	13 mmL	16 mmL
3.7 mmD	● 3.5 mmD	2.5 mmD	TSVMB8	TSVMB10	TSVMB11	TSVMB13	TSVMB16
4.1 mmD	● 3.5 mmD*	2.5 mmD	TSVM4B8	TSVM4B10	TSVM4B11	TSVM4B13	TSVM4B16
4.7 mmD	● 4.5 mmD	2.5 mmD	TSVMWB8	TSVMWB10	TSVMWB11	TSVMWB13	TSVMWB16
6.0 mmD	● 5.7 mmD	3.0 mmD	TSVM6B8	TSVM6B10	TSVM6B11	TSVM6B13	TSVM6B16

Tapered Screw-Vent Implants with MTX Surface

Includes Fixture Mount/Transfer and Cover Screw



Implant Diameter	Implant Platform	Internal Hex Connection	Implant Length				
			8.0 mmL	10 mmL	11.5 mmL	13 mmL	16 mmL
3.7 mmD	● 3.5 mmD	2.5 mmD	TSVB8	TSVB10	TSVB11	TSVB13	TSVB16
4.1 mmD	● 3.5 mmD*	2.5 mmD	TSV4B8	TSV4B10	TSV4B11	TSV4B13	TSV4B16
4.7 mmD	● 4.5 mmD	2.5 mmD	TSVWB8	TSVWB10	TSVWB11	TSVWB13	TSVWB16
6.0 mmD	● 5.7 mmD	3.0 mmD	TSV6B8	TSV6B10	TSV6B11	TSV6B13	TSV6B16

Tapered Screw-Vent Implants with MTX Textured Collar, Microgrooves and MP-1® HA Dual Transition Selective Surface

Includes Fixture Mount/Transfer and Cover Screw



Implant Diameter	Implant Platform	Internal Hex Connection	Implant Length				
			8.0 mmL	10 mmL	11.5 mmL	13 mmL	16 mmL
3.7 mmD	● 3.5 mmD	2.5 mmD	TSVTH8	TSVTH10	TSVTH11	TSVTH13	TSVTH16
4.1 mmD	● 3.5 mmD*	2.5 mmD	TSVT4H8	TSVT4H10	TSVT4H11	TSVT4H13	TSVT4H16
4.7 mmD	● 4.5 mmD	2.5 mmD	TSVTWH8	TSVTWH10	TSVTWH11	TSVTWH13	TSVTWH16
6.0 mmD	● 5.7 mmD	3.0 mmD	TSVT6H8	TSVT6H10	TSVT6H11	TSVT6H13	TSVT6H16

Tapered Screw-Vent Implants with 0.5 mm Machined Collar, Microgrooves and MP-1 HA Dual Transition Selective Surface

Includes Fixture Mount/Transfer and Cover Screw



Implant Diameter	Implant Platform	Internal Hex Connection	Implant Length				
			8.0 mmL	10 mmL	11.5 mmL	13 mmL	16 mmL
3.7 mmD	● 3.5 mmD	2.5 mmD	TSVMH8	TSVMH10	TSVMH11	TSVMH13	TSVMH16
4.1 mmD	● 3.5 mmD*	2.5 mmD	TSVM4H8	TSVM4H10	TSVM4H11	TSVM4H13	TSVM4H16
4.7 mmD	● 4.5 mmD	2.5 mmD	TSVMWH8	TSVMWH10	TSVMWH11	TSVMWH13	TSVMWH16
6.0 mmD	● 5.7 mmD	3.0 mmD	TSVM6H8	TSVM6H10	TSVM6H11	TSVM6H13	TSVM6H16

Tapered Screw-Vent Implants with MP-1 HA Dual Transition Selective Surface

Includes Fixture Mount/Transfer and Cover Screw






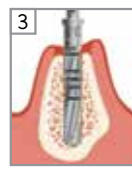
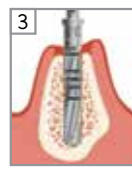
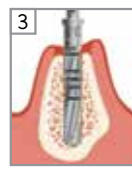
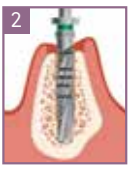

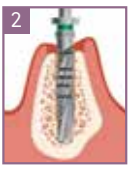

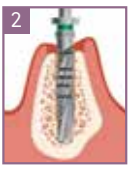




Implant Diameter	Implant Platform	Internal Hex Connection	Implant Length				
			8.0 mmL	10 mmL	11.5 mmL	13 mmL	16 mmL
3.7 mmD	● 3.5 mmD	2.5 mmD	TSVH8	TSVH10	TSVH11	TSVH13	TSVH16
4.1 mmD	● 3.5 mmD*	2.5 mmD	TSV4H8	TSV4H10	TSV4H11	TSV4H13	TSV4H16
4.7 mmD	● 4.5 mmD	2.5 mmD	TSVWH8	TSVWH10	TSVWH11	TSVWH13	TSVWH16
6.0 mmD	● 5.7 mmD	3.0 mmD	TSV6H8	TSV6H10	TSV6H11	TSV6H13	TSV6H16

* While the implant platform color code for the 4.1 mmD Tapered Screw-Vent Implant is green, the implant surgical sequence is color-coded white on the surgical kit surface.

Drilling Sequence Guidelines

Tapered Screw-Vent and Trabecular Metal Implants

Soft-bone protocol: follow solid color bars until the segmented color bar. The segmented color bar indicates the final drill for soft-bone protocol. Dense-bone protocol: follow solid color bars only. The last solid bar in the sequence represents the final drill for dense bone.

 <p>3.7 mmD</p>	<h3>3.7 mmD Tapered Screw-Vent Implant (3.5 mmD Platform)</h3> <table border="1"> <tr> <td data-bbox="308 567 438 735">  <p>1 SV2.3DN 2.3 mmD Drill</p> </td> <td data-bbox="470 567 600 735">  <p>2 FOR SOFT BONE SV2.8DN 2.8 mmD Drill</p> </td> <td data-bbox="617 567 747 735">  <p>2 FOR DENSE BONE TSV3DN 3.4/2.8 mmD Drill</p> </td> <td data-bbox="779 567 909 735">  <p>3 OPTIONAL FOR DENSE BONE TT3.7 3.7 mmD Cortical Bone Tap</p> </td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	 <p>1 SV2.3DN 2.3 mmD Drill</p>	 <p>2 FOR SOFT BONE SV2.8DN 2.8 mmD Drill</p>	 <p>2 FOR DENSE BONE TSV3DN 3.4/2.8 mmD Drill</p>	 <p>3 OPTIONAL FOR DENSE BONE TT3.7 3.7 mmD Cortical Bone Tap</p>					<p>ATTENTION: Follow the same protocol for Trabecular Metal Implants in corresponding diameters. When placing the Trabecular Metal Dental Implant in dense bone, do not under-prepare the osteotomy.</p>				
 <p>1 SV2.3DN 2.3 mmD Drill</p>	 <p>2 FOR SOFT BONE SV2.8DN 2.8 mmD Drill</p>	 <p>2 FOR DENSE BONE TSV3DN 3.4/2.8 mmD Drill</p>	 <p>3 OPTIONAL FOR DENSE BONE TT3.7 3.7 mmD Cortical Bone Tap</p>											
														
 <p>4.1 mmD</p>	<h3>4.1 mmD Tapered Screw-Vent Implant (3.5 mmD Platform)</h3> <table border="1"> <tr> <td data-bbox="308 945 438 1113">  <p>1 SV2.3DN 2.3 mmD Drill</p> </td> <td data-bbox="470 945 600 1113">  <p>2 SV2.8DN 2.8 mmD Drill</p> </td> <td data-bbox="617 945 747 1113">  <p>3 FOR SOFT BONE SV3.4DN 3.4 mmD Drill</p> </td> <td data-bbox="779 945 909 1113">  <p>3 FOR DENSE BONE* TSV3.8DN 3.8/3.4 mmD Drill</p> </td> <td data-bbox="941 945 1071 1113">  <p>4 OPTIONAL FOR DENSE BONE TT4.1 4.1 mmD Cortical Bone Tap</p> </td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	 <p>1 SV2.3DN 2.3 mmD Drill</p>	 <p>2 SV2.8DN 2.8 mmD Drill</p>	 <p>3 FOR SOFT BONE SV3.4DN 3.4 mmD Drill</p>	 <p>3 FOR DENSE BONE* TSV3.8DN 3.8/3.4 mmD Drill</p>	 <p>4 OPTIONAL FOR DENSE BONE TT4.1 4.1 mmD Cortical Bone Tap</p>						<h3>4.1 mmD Trabecular Metal Dental Implant</h3> <p>* When placing in mandibles with a dense (Type D1), thick, inferior border where apical implant engagement is expected, follow the dense-bone protocol for the 4.1 mmD Trabecular Metal Dental Implant with the following exception. After the drill sequence step using the TSV3.8DN or TSV3.8DSN, add an additional drill step utilizing the SV3.8DN or SV3.8DSN drill. If needed, also use the optional TT4.1 Cortical Bone Tap.</p> <table border="1"> <tr> <td data-bbox="1282 945 1412 1113">  <p>* SV3.8DN 3.8 mmD Drill</p> </td> </tr> </table>	 <p>* SV3.8DN 3.8 mmD Drill</p>	
 <p>1 SV2.3DN 2.3 mmD Drill</p>	 <p>2 SV2.8DN 2.8 mmD Drill</p>	 <p>3 FOR SOFT BONE SV3.4DN 3.4 mmD Drill</p>	 <p>3 FOR DENSE BONE* TSV3.8DN 3.8/3.4 mmD Drill</p>	 <p>4 OPTIONAL FOR DENSE BONE TT4.1 4.1 mmD Cortical Bone Tap</p>										
														
 <p>* SV3.8DN 3.8 mmD Drill</p>														
 <p>4.7 mmD</p>	<h3>4.7 mmD Tapered Screw-Vent Implant (4.5 mmD Platform)</h3> <table border="1"> <tr> <td data-bbox="308 1323 438 1491">  <p>1 SV2.3DN 2.3 mmD Drill</p> </td> <td data-bbox="470 1323 600 1491">  <p>2 TSV3DN 3.4/2.8 mmD Drill</p> </td> <td data-bbox="617 1323 747 1491">  <p>3 FOR SOFT BONE SV3.8DN 3.8 mmD Drill</p> </td> <td data-bbox="779 1323 909 1491">  <p>3 FOR DENSE BONE TSV4DN 4.4/3.8 mmD Drill</p> </td> <td data-bbox="941 1323 1071 1491">  <p>4 OPTIONAL FOR DENSE BONE TT4.7 4.7 mmD Cortical Bone Tap</p> </td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	 <p>1 SV2.3DN 2.3 mmD Drill</p>	 <p>2 TSV3DN 3.4/2.8 mmD Drill</p>	 <p>3 FOR SOFT BONE SV3.8DN 3.8 mmD Drill</p>	 <p>3 FOR DENSE BONE TSV4DN 4.4/3.8 mmD Drill</p>	 <p>4 OPTIONAL FOR DENSE BONE TT4.7 4.7 mmD Cortical Bone Tap</p>								
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