The *Trabecular Metal* Dental Implant features a mid-section designed for ingrowth as well as ongrowth in a process new to implant dentistry – osseoincorporation.¹⁻³ As these materials are stratified to interact with the natural layering of tissue, placement may have a slight tactile difference from other, more conventional implants. Observing a few key techniques during placement will help ensure confidence during surgery.

The *Trabecular Metal* Dental Implant utilizes the same surgical kit, instruments, and prosthetics as the *Tapered Screw-Vent*[®] Implant, and can be placed using a similar surgical sequence. Variations in crestal options do not influence the surgical technique used to place the selected *Trabecular Metal* Dental Implant.



IMPLANT COLOR REFERENCE CHART: TRABECULAR METAL IMPLANTS

IMPLANT DIAMETER	3.7mmD	4.1mmD	4.7mmD	6.0mmD
Surgical sequence color bar*				
Drill band color for dense bone protocol				
Implant cap color and			_	
restorative platform	3.5mmD	3.5mmD	4.5mmD	5.7mmD
Trabecular Metal Vial cap label Note: Yellow vial of <i>Trabecular Metal</i> Implant does not correspond to 5.7mmD Platform	3.5mmD Ø3.7 x 10mm	3.5mmD	4.5mmD Ø4.7 x 10mm	5.7mmD Ø6.0 x 10mm

Note: The surgical sequence for the 4.1mmD *Trabecular Metal* Dental Implant is color-coded white on the surgical kit surface. The implant vial cap color remains green as an indication of the 3.5mm prosthetic platform. Reference chart lists dense bone protocol only. Please see the *Tapered Screw-Vent* Implant surgical manual for all potential drilling sequences.

Note: This guide is for educational use only.

Your surgical technique may vary. See directions for use for additional information on this product.

REFERENCES:

1. Wigfield C, Robertson J, Gill S, Nelson R. Clinical experience with porous tantalum cervical interbody implants in a prospective randomized controlled trial. *Br J Neurosurg*. 2003;17(5):418-425.

2. Unger AS, Lewis RJ, Gruen T. Evaluation of a porous tantalum uncemented acetabular cup in revision total hip arthroplasty. Clinical and radiological results of 60 hips. *J Arthroplasty*. 2005;20(8):1002-1009.

 Bobyn JD, Stackpool GJ, Hacking SA, Tanzer M, Krygier JJ. Characteristics of bone ingrowth and interface mechanics of a new porous tantalum biomaterial. J Bone Joint Surg Br. 1999; 81:907-914.



THE FOLLOWING POINTS ARE SUGGESTED TO HELP ACHIEVE A SUCCESSFUL CLINICAL RESULT:

The following surgical protocol is an abbreviated version intended to highlight key surgical considerations for the *Trabecular Metal* Dental Implant. It should be used as a complement to the standard drilling sequence specified in the *Tapered Screw-Vent* Implant System Surgical Manual.



1 PREPARATION: Evaluate the implant site using the appropriate radiographic or clinical techniques. Ensure the appropriate surgical sequence is selected based on density variation across the full implant depth.

Prepare the surgical site by following the *Trabecular Metal* Implant surgical protocol corresponding to the implant length and diameter.

DENSE BONE

Do not underprepare the osteotomy in dense bone. If in doubt whether bone type is D2 or D3, dense bone protocol is recommended.

SOFT BONE

Only use the soft bone protocol in porous trabecular bone with a thin or undifferentiated cortical layer.



IMPLANT PLACEMENT: Place the *Trabecular Metal* Dental Implant into the surgical site using a handpiece or surgical driver.

Rotate to drive the implant into the osteotomy. Moderate downward pressure, particularly in soft bone, may be needed as the *Trabecular Metal* Material portion begins to engage the osteotomy. As the *Trabecular Metal* Material portion becomes submerged, the threaded sections will re-engage and drive the implant.

If the implant needs to be backed out following partial placement into the osteotomy, removal can be achieved by attaching the surgical ratchet (RSR) directly to the Fixture Mount/Transfer.



PREPARATION: When placing 4.1mmD implants in dense bone, add an additional drill step to the standard dense bone protocol. Follow the step drill TSV3.8DN or TSV3.8DSN with a straight drill SV3.8DN or SV3.8DSN drill, respectively.

If excess resistance in dense bone is encountered, utilize the appropriate bone tap.

Osteotomes or any other modifications in the surgical sequence are not recommended.





COMPLETING PLACEMENT: The *Trabecular Metal* Dental Implant is designed to be placed at bone level. Once the implant is fully seated, follow with the appropriate loading protocol.

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