Tapered Screw-Vent® Implant

A Legacy Of Performance
Approaching 20 years of clinical use and over 5-million implants sold, the Tapered Screw-Vent (TSV) Implant has gained the trust of thousands of surgeons worldwide to deliver successful patient outcomes. This success is well documented with 130 peer-reviewed papers and a 98.7% cumulative survival rate.1-14

**Tapered Implant Body**
Designed for primary stability, the tapered titanium alloy body provides strength for reliable function.1 (Model TSVT, shown)

**Screw-Vent Design**
Apical cutting threads designed for immediate cutting impact.

**MTX® Surface for Ongrowth**
The MTX Microtextured Surface has been documented to achieve high levels of bone-to-implant contact or ongrowth.15, 17

*Data based on cyclic fatigue testing conducted on TSV Implants to 5 million cycles. Results of preclinical testing are not necessarily indicative of clinical performance.*
The Virtual Cold Weld Implant

Abutment

Implant

Platform Plus™ Technology

The proprietary internal hex connection, utilized with Zimmer Biomet Dental’s friction-fit abutments, has been documented to shield crestal bone from concentrated occlusal forces.21, 22

Crestal Options for Bone-Level Maintenance

The coronal microgrooves are designed to preserve crestal bone.30

Three coronal surface configurations are available:

• 1.0 mm Machined Collar (Model TSV)
• 0.5 mm Machined with MTX Crestal Microgrooves (Model TSVM)
• Full MTX Microtexturing with MTX Crestal Microgrooves (Model TSVT)

The TSV Implant System is celebrated for its performance, having been designed to provide:

• Primary Stability7, 15, 18-20
• Secondary Stability2-14, 16, 17
• Crestal Bone Maintenance21-28
• Prosthetic Stability21, 22, 29
• Clinical Success2-14, 27, 28
Primary Stability

Primary stability achieved by using Tapered Screw-Vent Implants enables immediate placement and/or immediate loading in appropriately selected patients.\textsuperscript{2, 7, 15}

- The triple-lead threads are designed to achieve intimate bone contact at implant placement.\textsuperscript{15}
- The soft-bone surgical protocol enables bone compression and provides additional stability in poor quality sites.\textsuperscript{15}
- In dense bone, the stepped finishing drill enables apical bone engagement for initial stability.\textsuperscript{15}

![Bar graph showing average max insertion torque (Ncm) for Tapered Screw-Vent Implant (4.7 x 13 mm) and competitors (5.0 x 13 mm for Competitor 1 and Competitor 2, 4.8 x 12 mm for Competitor 3). Data on file with Zimmer Biomet Dental.](attachment:bar_graph.png)
Secondary Stability

Biocompatibility And Strength

• Tapered Screw-Vent Implants are made of grade 5 titanium alloy chosen for its biocompatibility and strength.31,32-34
• Minimum tensile and yield strength requirements for this material, set by the American Society for Testing and Materials (ASTM) and the International Organization for Standardization (ISO), are 32% and 59% higher respectively than those of the strongest CP titanium available.32-34
• Zimmer Biomet Dental specifications require that the grade 5 titanium alloy used in Tapered Screw-Vent Implants meet or exceed the combined standards of ASTM and ISO.1

Documented MTX Surface Advantages

• High degree of bone-to-implant contact (BIC) and osteoconductive capacity.16,17
• Successful clinical results under conditions of immediate loading.2,5,7,9-11
• Greater than 90% BIC as compared to 42-77% BIC achieved by TPS-coated, sandblasted and acid-etched, oxidized and HA-coated surfaces placed in grafted human sinuses.17
Coronal Options

Tapered Screw-Vent Implants are offered with and without crestal microgrooves and machined collar or texturing to the top to maximize flexibility, tissue management and crestal bone maintenance in a variety of clinical conditions. Configurations available on select implants are shown below.

The Platform Plus™ Technology Difference

The proprietary Platform Plus Technology creates favorable conditions for crestal bone-level maintenance.

- The internal hex creates a friction-fit connection that shields the crestal bone from occlusal force
- The lead-in bevel connection reduces horizontal stresses better than flat “butt-joint” connections
- The 1.5 mm deep internal hex distributes bite force deep into the implant

Fig A: Proprietary friction-fit connection with lead-in bevel and virtual cold weld.

Fig B: Higher magnification of unique beveled interface and full interface seal.

Fig C: Higher magnification of the virtual cold weld between the abutment and implant.
Documented Clinical Success

Celebrate the clinical outcomes of the original Tapered Screw-Vent Implant.

Documented Prospective Clinical Survival Rates
For 1,553 Tapered Screw-Vent MTX Implants:1-14

• Implant survival rate mean 98.7% (range from 95.1% to 100%)
• Follow-up times range from 3 to 120 months (mean = 36.4 months)

Numerous other short-term (<5 years) studies have further documented the quality and performance of Tapered Screw-Vent Implants under immediate and delayed placement, as well as immediate and delayed loading.1

Individual results may vary according to patient selection and clinical experience.

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### Ordering Information

<table>
<thead>
<tr>
<th>TSV MTX: Tapered Screw-Vent Implants With MTX Surface</th>
<th>TSVT MTX: Tapered Screw-Vent Implants With Full MTX Surface Texturing And Microgrooves</th>
<th>TSVM MTX: Tapered Screw-Vent Implants With 0.5 mm Machined Collar, MTX Surface And Microgrooves</th>
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<tr>
<td><strong>Implant Diameter</strong></td>
<td><strong>Implant Platform</strong></td>
<td><strong>Internal Hex Connection</strong></td>
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<tr>
<td>3.7 mmD</td>
<td>3.5 mmD</td>
<td>2.5 mmD</td>
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<td>4.1 mmD</td>
<td>3.5 mmD*</td>
<td>2.5 mmD</td>
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<tr>
<td>4.7 mmD</td>
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<td>6.0 mmD</td>
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<th>Surgical Cover Screws</th>
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<tr>
<td><strong>Implant Platform</strong></td>
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<td>3.5 mmD</td>
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<td>4.5 mmD</td>
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<tr>
<td>5.7 mmD</td>
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* 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.
Surgical Instrumentation

Instrument Kit System

From complete set-ups that include all instruments, to standalone instrument kits and a unique Staging Block, the Instrument Kit System is conveniently adaptable to your individual needs. Intuitive instrument organization and color-coding make the surgical sequence easy to learn and follow.

Drill Stop Kit

The Drill Stop Kit includes a set of titanium, reusable drill stops designed to limit drilling depth from bone level during osteotomy preparation. Featuring a convenient “pick and go” stop application mechanism, this cost-efficient kit is designed to save chair time and increase clinician convenience. Drill Stops are only intended for use with updated Driva™ Drills (marked with axial stripes).

Guided Surgery Drill Module

This kit insert includes sixteen Driva EG Drills and can be snapped into your Tapered Screw-Vent Surgical Kit to provide additional drills required for guided surgery.

Tube Adapter Kit

Designed to fit in the tubes located inside model- and software-based surgical guides, these surgical instruments orient drills and provide positional and angular control.

NP Surgical Module for Eztetic® Implants

This kit insert includes additional instrumentation required to place the 3.1 mmD Eztetic Implant which offers a narrow, powerful solution for demanding anterior spaces.
References

1. Data on file with Zimmer Biomet Dental.