



Designed for ZimVie's TSX®, TSV®,  
Trabecular Metal®, and Eztetic® Implants

# RealGUIDE® Z3D

## Guided Surgery Kit



FULLY  
GUIDED



## RealGUIDE Z3D Guided Surgery Kit

The RealGUIDE Z3D Guided Surgery Kit has been designed for use with the ZimVie Dental TSX, Tapered Screw-Vent, Trabecular Metal, and 3.1 mm Eztetic Implant lines. The kit consists of diamond-like carbon (DLC) coated calibrated surgical drills and mounting devices for guided surgery. It can be used to place implant diameters 3.1 mm, 3.7 mm, 4.1 mm, and 4.7 mm. The TSV Screwdriver and TSV Ratchet can be bundled to have a self-contained kit.



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# Surgery Kit Components

## Color Code

The color code of the drills shown on the tray corresponds to the recommended surgical sequence based on the diameter of the implant. The color code of the guided implant mounts corresponds to the diameters of the prosthetic platforms of ZimVie's dental implants.



## Drills – Technical Specifications

The drills in the RealGUIDE Z3D Guided Surgery Kit are made of hardened AISI 420B stainless steel and coated with DLC (Diamond-like Carbon) treatment which provides an increase in surface hardness and reduces the friction forces generated during use. The wear resistance aids cutting efficiency and minimizes bone overheating. Additionally this treatment also minimizes corrosion phenomenon during the cleaning and sterilization cycles. Drills should be used for no more than 15 patients. Thoroughly inspect the cutting portion of the drills before every use. The use of worn-out drills could compromise the osseointegration process of the implant. Use of copious irrigation during drilling is highly recommended.



## Drilling System

The drilling system of the surgical alveolus is sequential and each drill has laser markings indicating the diameter of the drill and the implant length. The cylindrical portion of the drill preceding the cutting edge engages in 5 mm diameter guide sleeves. A 9 mm guide path is provided, consisting of the sleeve of the surgical guide (4 mm) and the maximum thickness of the soft-tissues (5 mm). The smaller diameter of the stepped drills is consistent with the full diameter of the previous drill, providing further guidance in the sequence from one drill to the next.



## Anchor Pins

The Pin Drills, with a diameter of 1.5 mm, and vestibular anchor pins make up the stabilization system provided for the surgical guide in cases of total edentulism or significant partial edentulism.



## Extension and Connection

The extension tool for the ratchet and the handpiece implant driver have been designed to be connected to the guided implant mounts and used with original instruments of the TSV.



## Mouth Opening Gauge / Bite Gauge

The bite gauge simulates the maximum size of the drills of the RealGUIDE Z3D Guided Surgery Kit and must be used before the patient's CT/CBCT exam. The size of the hexagon at the base of the gauge is the same size as the hexagon of the guide sleeve incorporated in the resin of the surgical guide.



## Recommendations

Surgical instruments are supplied **NON-STERILE** and **MUST BE STERILIZED BEFORE USE**. Sterilize in a steam autoclave according to the autoclave manufacturer's specifications (*minimum 20 minutes at a temperature between 132°C and 135°C or 270°F and 275°F*). Repeated sterilization cycles<sup>1</sup> involve a progressive deterioration of the surgical instruments, therefore it is necessary to periodically review all the instruments to check their condition (*including unused instruments*).

<sup>1</sup> Nilay Er, DDS, PhD; Alper Alkan, DDS, PhD, Serim Ilday, PhD, Erman Bengu, PhD

"Improved dental implant drill durability and performance using heat and wear resistant protective coatings"  
*J Oral Implantol (2018) 44 (3): 168–175*

# Surgery Kit Components

## Drill for Fixation Pin

Used to create temporary osteotomies in edentulous patients and to allow stabilization of the surgical guide by buccal anchoring pins. Insert the tool into the fixation pin sleeve with the motor stopped and once it comes into contact with the soft-tissue, start the motor. A spare drill is provided.



## Fixation Pins

Used for anchoring surgical guides for total edentulism. Press-fit the pins through the fixation pin sleeves in the surgical guide and into the osteotomy created by the pin drill and ensure that the surgical guide is in the correct and stable position.



## Mucotome/Tissue Punch

Used in the flapless technique to remove soft-tissue. Insert the tool into the guide sleeve with the motor stopped and once it comes into contact with the soft-tissue, start the motor.



## Bone Crest Leveler

Used to smooth the irregular surfaces of the bone crest. Insert the tool into the guide sleeve with the motor stopped and once it comes into contact with the hard-tissue, start the motor.



## Start Drill

Used to create the opening on the bone crest prior to the first drill. Insert the tool into the guide sleeve with the motor stopped and once it comes into contact with the hard tissue, start the motor.



## 2.4 × 6.0 Drill

Used to allow the next drill to take advantage of a guided path, especially in cases of irregular bone crest. Insert the tool into the guide sleeve with the motor stopped and once it comes into contact with the hard tissue, start the motor.



## Implant Mounts

Place the ZimVie TSX, TSV, Trabecular Metal, or Eztetic implant vial on the dedicated implant staging pedestal corresponding to the implant length. After removing the Fixture Mount Transfer (FMT), connect the Z3D guided mount to the implant using the integrated passing screw and the TSV manual screwdriver diameter 1.25 mm (not included in the kit, but available for optional purchase). Connect the handpiece driver to the mount and remove the implant from the vial. Insert the tool into the guide sleeve with the motor stopped and once it comes into contact with the hard tissue, start the motor.



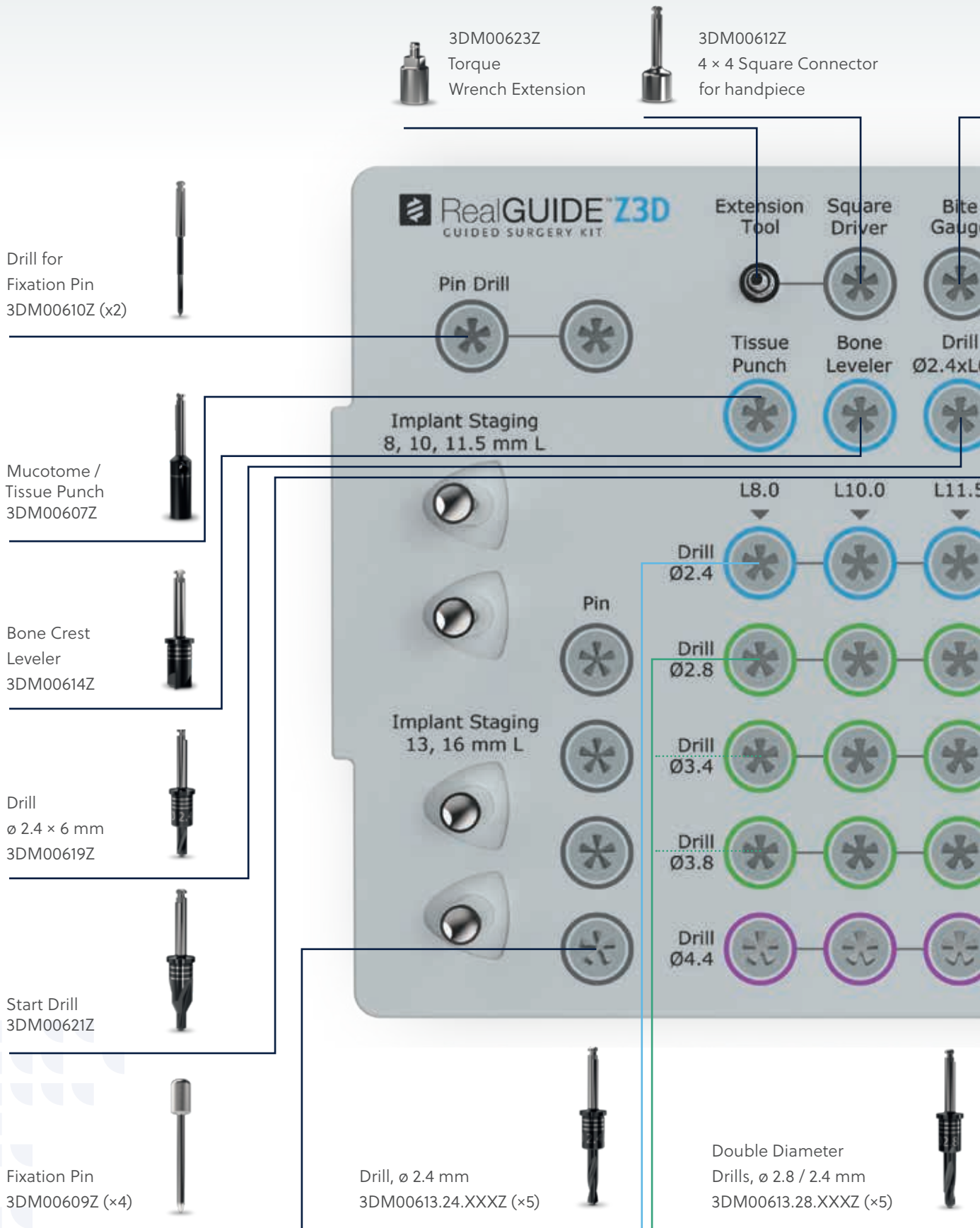
For TSX implants, insert both the short and long Z3D TSX Staging Tools (3DM00633ZIMS and 3DM00633ZIML), 3DM00633ZIMS (Z3D TSX Staging Tool, Short, 8/10 mmL) and 3DM00633ZIML (Z3D TSX Staging Tool, Long, 11.5/13/16 mmL), sold separately, into the two extra grommet spaces labeled 'additional mounts' in the Z3D kit, with the wide rounded end of Z3D TSX Staging Tool engaging the grommet. Position 8 and 10 mmL TSX Implants in their inner vial packaging over the 3DM00633ZIMS (laser marked with implant lengths on top and a "S" on the side) aligning the shaft of the Staging Tool with the hole at the bottom of the titanium sleeve that holds the implant. Using slight pressure, lower the implant inner vial onto the Staging Tool, allowing the tip of the tool to insert into the titanium sleeve and lift the implant. The implant platform will rise approximately 1.0 mm above the packaging, enabling access to attach the implant mount. Engage the implant mount and tighten screw. For the longer 11.5, 13, and 16 mmL TSX Implants, repeat the process above using the long Staging Tool (3DM00633ZIML).



**Z3D TSX Staging Tools\***  
3DM00633ZIMS/3DM00633ZIML

\*Material is titanium alloy

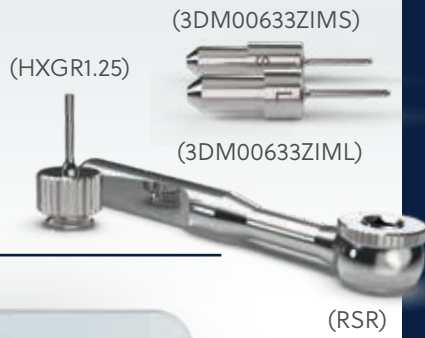
# Configuration







3DM00622Z  
Mouth Opening  
Gauge/Bite Gauge



(3DM00633ZIMS)

(HXGR1.25)

(3DM00633ZIML)

(RSR)

### 1.25 mm Hex Driver, Ratchet, and Z3D TSX Staging Tools ...

... do not come prepackaged in the RealGUIDE Z3D Surgical Kit. They can be bundled with the kit purchase, or use the instruments from your existing standard TSVKITG.

Four empty slots are also provided for additional instrumentation and implant mounts. Additional implant mounts are available for purchase. Z3D TSX Staging Tools may be placed in the 'Additional Mounts' empty slots.



Implant Mount  
(ZimVie TSX/Eztetic ø 3.1 mm)  
3DM00606ZIM31 (x4)



Implant Mount  
(ZimVie TSX ø 3.7/4.1/4.7 mm  
and TSV ø 3.7/4.1 mm)  
3DM00606ZIM35 (x4)



Implant Mount  
(ZimVie TSV ø 4.7 mm)  
3DM00606ZIM47 (x4)



TSX Z3D Staging Tools  
(Short for 8/10 mmL Implants)  
3DM00633ZIMS  
(Long for 11.5/13/16 mmL Implants)  
3DM00633ZIML

Double Diameter  
Drills, ø 3.4/2.8 mm  
3DM00613.34.XXXZ (x5)



Double Diameter  
Drills, ø 3.8/3.4 mm  
3DM00613.38.XXXZ (x5)



Double Diameter  
Drills, ø 4.4/3.8 mm  
3DM00613.44.XXXZ (x5)






# Ordering Information






## RealGUIDE Z3D Guided Surgery Kit

Product	Part No.
RealGUIDE Kit Z3D Surgical Kit (fully loaded)	3DM0070Z
Autoclavable Kit RealGUIDE Z3D Box	3DM00632ZUS

## Configuration

Product		Part No.
Drill for Fixation Pin max. 1,000 rpm, hardened stainless steel AISI 420B with DLC coating		3DM00610Z
Fixation Pin TiAl6V4 ASTM F136		3DM00609Z
Torque Wrench Extension max. 50 Ncm, hardened stainless steel AISI 420F MOD		3DM00623Z
4 × 4 Square Connector for handpiece max. 50 Ncm, hardened stainless steel AISI 420F MOD		3DM00612Z
Mouth Opening Gauge/Bite Gauge hardened stainless steel AISI 303		3DM00622Z
Mucotome /Tissue Punch Internal diameter: 4.2 mm, max. 100 rpm, hardened stainless steel AISI 420F MOD with DLC coating		3DM00607Z
Bone Crest Leveler max. 600 rpm, hardened stainless steel AISI 420B with DLC coating		3DM00614Z
Start Drill Implant site preparation drill, max. 600 rpm, hardened stainless steel AISI 420B with DLC coating		3DM00621Z
Drill $\varnothing$ 2.4 × 6 mm max. 800 rpm, hardened stainless steel AISI 420B with DLC coating		3DM00619Z

## Implant Mounts (hardened stainless steel AISI 420F MOD)

Product		Part No.
Implant Mount (ZimVie TSX $\varnothing$ 3.1 mm/Eztetic $\varnothing$ 3.1 mm) incl. screw, max. 20 rpm, 50 Ncm		3DM00606ZIM31
Implant Mount (ZimVie TSX $\varnothing$ 3.7/4.1/4.7* mmD and TSV $\varnothing$ 3.7/4.1 mm) incl. screw, max. 20 rpm, 50 Ncm		3DM00606ZIM35
Implant Mount (ZimVie TSV $\varnothing$ 4.7 mm) incl. screw, max. 20 rpm, 50 Ncm		3DM00606ZIM47

\*The  $\varnothing$ 4.7 mm TSX implant utilizes the  $\varnothing$ 3.7/4.1 (3.5 mm platform) Driver/Mount.

## Drills (hardened stainless steel AISI 420B with DLC coating)

Length	Drill $\varnothing$ 2.4 mm	Double Diameter Drill $\varnothing$ 2.8/2.4 mm	Double Diameter Drill $\varnothing$ 3.4/2.8 mm	Double Diameter Drill $\varnothing$ 3.8/3.4 mm	Double Diameter Drill $\varnothing$ 4.4/3.8 mm
	max. 800 rpm				
					
8 mm	3DM00613.24.080Z	3DM00613.28.080Z	3DM00613.34.080Z	3DM00613.38.080Z	3DM00613.44.080Z
10 mm	3DM00613.24.100Z	3DM00613.28.100Z	3DM00613.34.100Z	3DM00613.38.100Z	3DM00613.44.100Z
11.5 mm	3DM00613.24.115Z	3DM00613.28.115Z	3DM00613.34.115Z	3DM00613.38.115Z	3DM00613.44.115Z
13 mm	3DM00613.24.130Z	3DM00613.28.130Z	3DM00613.34.130Z	3DM00613.38.130Z	3DM00613.44.130Z
16 mm	3DM00613.24.160Z	3DM00613.28.160Z	3DM00613.34.160Z	3DM00613.38.160Z	3DM00613.44.160Z

## Surgical Guide Accessories

Product	Part No.
Surgical Guide Sleeve RG CAD Procedure 5.05 mm, compatible 3DM RG, ZimVie Z3D, Nobel RP Kit (10 pcs)	3DM00670
Surgical Guide Pin Fixation Sleeve RG CAD Procedure (10 pcs)	3DM00671

## Surgical Drill Sequence

The drill sequences suggested below refer to a uniform and qualitatively ideal bone. They do not replace the clinical experience of the surgeon and do not consider the need to obtain primary implant stability by under preparing the surgical alveolus.

Always refer to the specifications of the implant surgical manual and IFU for complete information.

### DENSE BONE: drills sequence in bold/italics only for dense bone (For soft bone, stop at the previous step)

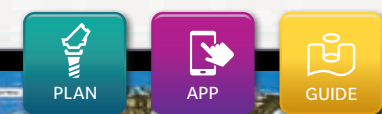
Implant Diameter (mm)	3.1				
Implant Length (mm)	8	10	11.5	13	16
Sleeve	Z3D				
Depth Control	Yes	Yes	Yes	Yes	Yes
SURGICAL SEQUENCE					
Tissue Punch	Yes	Yes	Yes	Yes	Yes
Bone Leveler	Yes	Yes	Yes	Yes	Yes
Drill 2.4×6	Yes	Yes	Yes	Yes	Yes
Start Drill	Yes	Yes	Yes	Yes	Yes
Drill	2.4×8	2.4×8	2.4×8	2.4×8	2.4×8
Drill	<b>2.8×8</b>	2.4×10	2.4×11.5	2.4×11.5	2.4×11.5
Drill	-	<b>2.8×8</b>	<b>2.8×8</b>	2.4×13	2.4×16
Drill	-	<b>2.8×10</b>	<b>2.8×11.5</b>	<b>2.8×8</b>	<b>2.8×8</b>
Drill	-	-	-	<b>2.8×11.5</b>	<b>2.8×11.5</b>
Drill	-	-	-	<b>2.8×13</b>	<b>2.8×16</b>
Driver /Mount (TSX/Eztetic)	ø3.1 (2.9 mm platform)				
Implant Diameter (mm)	3.7				
Implant Length (mm)	8	10	11.5	13	16
Sleeve	Z3D				
Depth Control	Yes	Yes	Yes	Yes	Yes
SURGICAL SEQUENCE					
Tissue Punch	Yes	Yes	Yes	Yes	Yes
Bone Leveler	Yes	Yes	Yes	Yes	Yes
Drill 2.4×6	Yes	Yes	Yes	Yes	Yes
Start Drill	Yes	Yes	Yes	Yes	Yes
Drill	2.4×8	2.4×8	2.4×8	2.4×8	2.4×8
Drill	2.8×8	2.4×10	2.4×11.5	2.4×11.5	2.4×11.5
Drill	<b>3.4×8</b>	2.8×8	2.8×8	2.4×13	2.4×16
Drill	-	2.8×10	2.8×11.5	2.8×8	2.8×8
Drill	-	<b>3.4×8</b>	<b>3.4×8</b>	2.8×11.5	2.8×11.5
Drill	-	<b>3.4×10</b>	<b>3.4×11.5</b>	2.8×13	2.8×16
Drill	-	-	-	<b>3.4×8</b>	<b>3.4×8</b>
Drill	-	-	-	<b>3.4×11.5</b>	<b>3.4×11.5</b>
Drill	-	-	-	<b>3.4×13</b>	<b>3.4×16</b>
Driver /Mount (TSX/TSV)	ø3.7/4.1 (3.5 mm platform)				

Implant Diameter (mm)	4.1				
Implant Length (mm)	8	10	11.5	13	16
Sleeve	Z3D				
Depth Control	Yes	Yes	Yes	Yes	Yes
<b>SURGICAL SEQUENCE</b>					
Tissue Punch	Yes	Yes	Yes	Yes	Yes
Bone Leveler	Yes	Yes	Yes	Yes	Yes
Drill 2.4×6	Yes	Yes	Yes	Yes	Yes
Start Drill	Yes	Yes	Yes	Yes	Yes
Drill	2.4×8	2.4×8	2.4×8	2.4×8	2.4×8
Drill	2.8×8	2.4×10	2.4×11.5	2.4×11.5	2.4×11.5
Drill	3.4×8	2.8×8	2.8×8	2.4×13	2.4×16
Drill	<b>3.8×8</b>	3.4×8	3.4×8	2.8×8	2.8×8
Drill	-	3.4×10	3.4×11.5	3.4×8	3.4×8
Drill	-	<b>3.8×8</b>	<b>3.8×8</b>	3.4×11.5	3.4×11.5
Drill	-	<b>3.8×10</b>	<b>3.8×11.5</b>	3.4×13	3.4×16
Drill	-	-	-	<b>3.8×8</b>	<b>3.8×8</b>
Drill	-	-	-	<b>3.8×11.5</b>	<b>3.8×11.5</b>
Drill	-	-	-	<b>3.8×13</b>	<b>3.8×16</b>
Driver/Mount (TSX/TSV)	ø3.7/4.1 (3.5 mm platform)				

Implant Diameter (mm)	4.7				
Implant Length (mm)	8	10	11.5	13	16
Sleeve	Z3D				
Depth Control	Yes	Yes	Yes	Yes	Yes
<b>SURGICAL SEQUENCE</b>					
Tissue Punch	Yes	Yes	Yes	Yes	Yes
Bone Leveler	Yes	Yes	Yes	Yes	Yes
Drill 2.4×6	Yes	Yes	Yes	Yes	Yes
Start Drill	Yes	Yes	Yes	Yes	Yes
Drill	2.4×8	2.4×8	2.4×8	2.4×8	2.4×8
Drill	2.8×8	2.4×10	2.4×11.5	2.4×11.5	2.4×11.5
Drill	3.4×8	2.8×8	2.8×8	2.4×13	2.4×16
Drill	3.8×8	3.4×8	3.4×8	2.8×8	2.8×8
Drill	<b>4.4×8</b>	3.8×8	3.8×8	3.4×8	3.4×8
Drill	-	3.8×10	3.8×11.5	3.8×8	3.8×8
Drill	-	<b>4.4×8</b>	<b>4.4×8</b>	3.8×11.5	3.8×11.5
Drill	-	<b>4.4×10</b>	<b>4.4×11.5</b>	3.8×13	3.8×16
Drill	-	-	-	<b>4.4×8</b>	<b>4.4×8</b>
Drill	-	-	-	<b>4.4×11.5</b>	<b>4.4×11.5</b>
Drill	-	-	-	<b>4.4×13</b>	<b>4.4×16</b>
Driver/Mount (TSX)	ø3.7/4.1 (3.5 mm platform)				
Driver/Mount (TSV)	ø4.7 (4.5 mm platform)				

# Customized Drill Report

The RealGUIDE Software Suite allows you to automatically generate a customized drill report from an implant project planned with the ZimVie Dental TSX, TSV, Trabecular Metal, and 3.1 mm Eztetic Implant lines and Z3D sleeve, as in the example shown below.



RealGUIDE Software Suite with PLAN, APP, GUIDE Modules



 **RealGUIDE<sup>®</sup> Z3D**  
GUIDED SURGERY KIT



MORE INFORMATION  
ABOUT THE RealGUIDE Z3D  
GUIDED SURGERY KIT AT  
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