J DENTAL CARE

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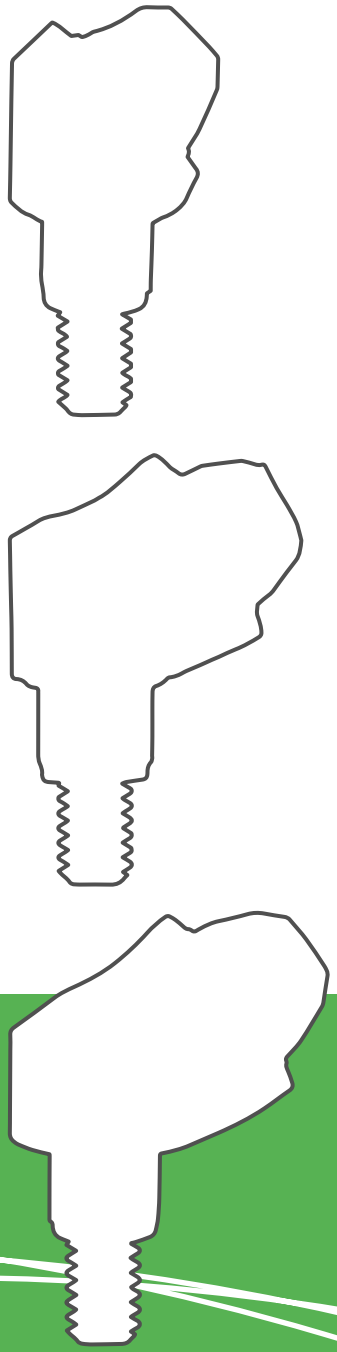


Dental Implant

JD ZYGOMA

JDZygoma Prosthetic Procedure

JD ZYGOMA

FINALIZATION OF THE IMPLANT SURGERY

After implantation, the implant is closed with the cover screw (provided together with each JDZygoma implant), or healing cap (in case of conical abutment) to protect the implant. Based on the case and his/her preferences, the clinician can choose between submerged or non-submerged healing and between immediate and delayed function. JDZygoma implants are suitable both for immediate, early and delayed loading.

Immediate loading

Immediate loading, involves the placement of a restoration within 48 hours of implant placement. Immediate loading is indicated when there are good primary stability and an appropriate occlusal load, and is made in case of non-submerged healing.
Immediate loading reduces treatment time, allows immediate restoration of function and esthetics with subsequent increasing of patient satisfaction.
It is possible to fix a provisional prosthesis using the JDentalCare provisional components or definitive abutments.

Early loading

Early loading protocol foresees that the implants are loaded between 1 week and 2 months after insertion. Early loading can be performed using both submerged or non-submerged healing.

Delayed loading

In the delayed loading protocol, after the placement of dental implants, is required a 3 – 6 months load-free healing period for healing and osseointegration. Delayed loading can be performed using both submerged or non-submerged healing.

Submerged healing by using Cover screw

Cover screws are used in case of submerged healing.
How to use:

Step 1: Remove the cover screw from the cap of the vial where it is provided with the implant.
Step 2: Use the prosthetic screwdriver to thread the screw into the implant ensuring the proper thread engagement between the two components.
Step 3: After placement of the Cover Screw, take a radiograph to check the position prior to close the soft tissue.
Step 4: Replace the soft tissue flaps carefully over the cover screw and suture together.

Non-Submerged healing by using Healing caps + Conical abutments

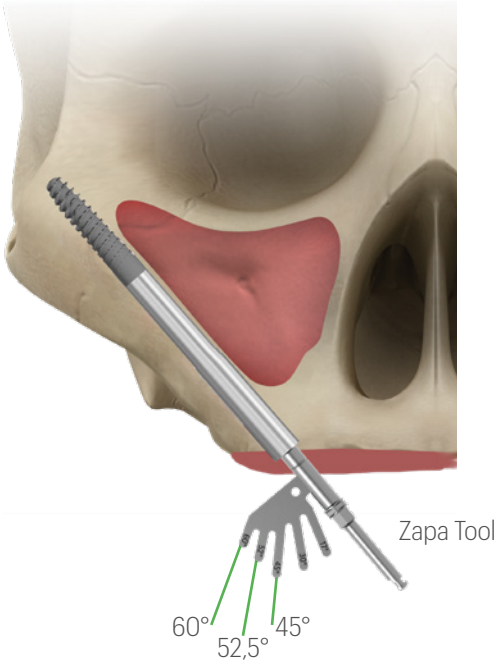
Healing caps in combination with Conical abutments are used in case of non-submerged healing.
They promote soft and hard tissue healing around an implant. The design of JDentalCare abutments with integrated Platform Switching favors the soft tissue shaping, promoting a greater long term stability of these tissues, and a limited crestal bone resorption.
How to use:

Step 1: Clean the internal connection of the implant with sterile water or saline solution.
Step 2: Select the Conical abutment of appropriate size and angulation. Place the Conical abutment into the implant and tighten the prosthetic screw using the prosthetic screwdriver.
Step 3: Use the JD Screwdriver to position the Healing cap on the Conical abutment screwed to the zygomatic implant. Suture tissue flap using desired technique.

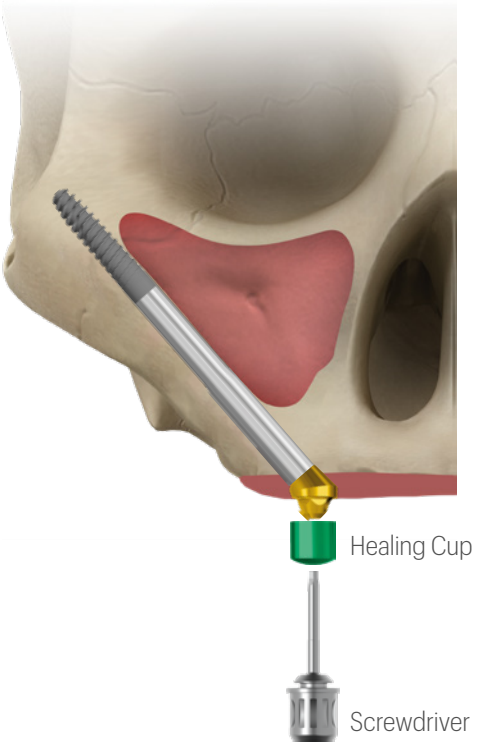
Step 4: It is advisable to take a radiograph after the insertion of the Healing cap.

How to choose the appropriate Conical abutment and Healing cap:

Step 1: Use one of the Conical abutments 45°, 52.5°, 60° compatible with JDEvolution Plus implant platform.
Step 2: Insert the ZAPA tool device in the implant platform and choose the correct abutment angulation and emergency profile based on the clinical case considered and the prostheses that will be manufactured.



Step 3: Choose the correct Healing cap height in order to have a slight protrusion of the device above the surrounding tissue.



INSERTION OF PROSTHETIC COMPONENTS

The prosthetic components can be picked, depending on the clinical situation, using one of the following tools:

Step 1: The JDTorque dynamometric key: connect the JDTorque dynamometric key to the prosthetic adapter and using the screw driver proceed to screw in the prosthetic components.

Step 2: The surgical handpiece

Step 3: The manual screw driver: manually screw in the prosthetic component.

JDTorque

JD Prosthetic Driver

Surgical Handpiece

JD Prosthetic Driver

Manual Screwdriver

FINAL ABUTMENT SELECTION

The selection of the final abutment is decisive for the result of the prosthesis to comply with the functional and esthetic requirements of the dentist and patient. The dentist can choose the abutment and subsequently send to the laboratory an impression taken at the abutment level, and later communicate to the dental technician which abutment to use. For a proper selection of the final abutment, it is necessary to consider some aspects, such as:

- The type of restoration to be used is screw-retained.
- The gingival height: to determine the correct height of the soft tissue, measure with a probe the depth of the latter around the implant. The selection of the abutment transgingival height will depend on the hygienic and the esthetic considerations of the dentist.
- The interdental space,
- The emergence profile,
- The inclination of the implant: depending on the inclination of the system, it is chosen the appropriate Conical abutment angulation.

Type of provisional and definitive restorations

JDZygoma implants are suitable for different treatment options:

• Implant supported crown in case of single missing tooth
• Implant supported fixed bridge in case of several missing teeth
• Implant supported denture in case of all missing teeth

Screw-retained prosthesis

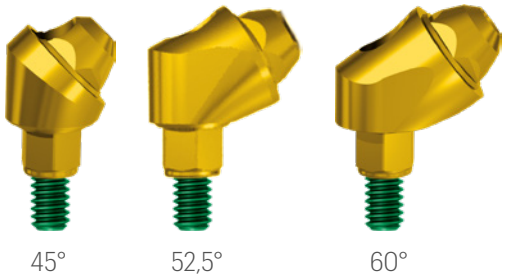
A screwed-in prosthesis is affixed with screws through the occlusal part of the prosthesis. The screw goes through a hole made into the crown and goes into the abutment or into the implant. The prosthesis may be unscrewed at any time by the dentist. This hole is then covered with composite, to avoid seeing the screw in particular in aesthetic areas. The screw-retained restorations have the following advantages:

- No need to use cement, with less risk of inflammation and infection,
- They simplify periodic cleaning of implants; simply remove the screw to remove the prosthesis and have access to the implant.

The main disadvantage is that the hole in the crown may affect the aesthetics.

PROSTHESIS TYPE

Screw- retained restorations



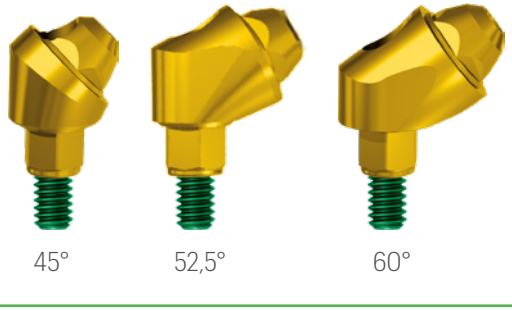
Angulated Conical Abutment

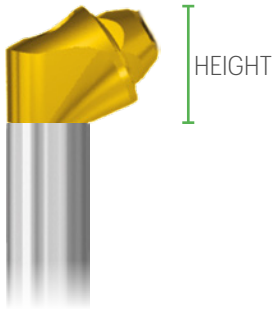
Warning: The 45°, 52.5° and 60° Conical abutments are only indicated to be used in combination with JDZygoma implants.

DEFINITIVE SOLUTIONS FOR SCREW-RETAINED RESTORATIONS

Conical Abutment

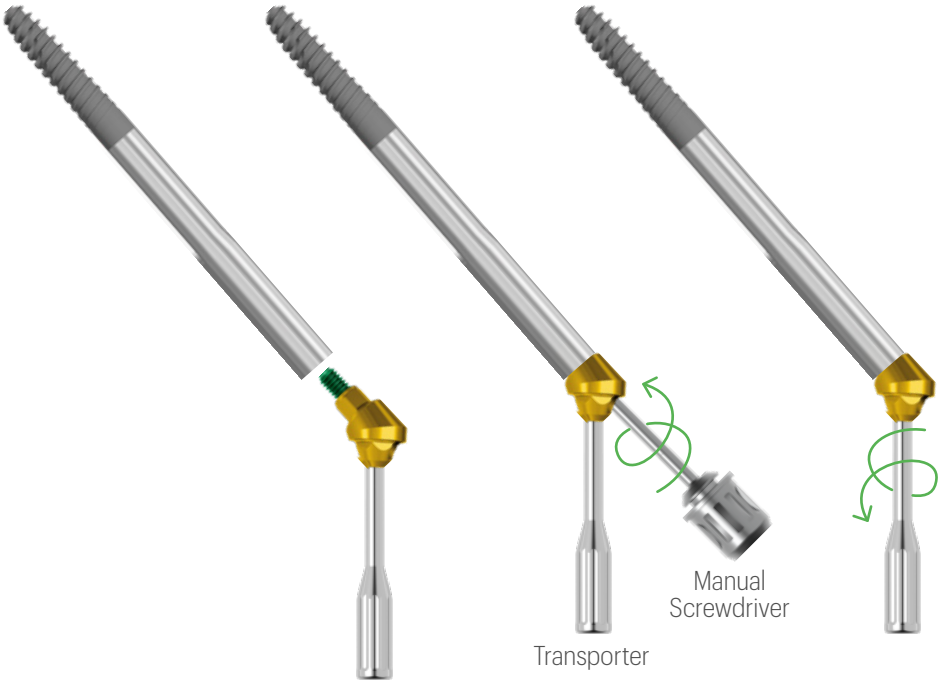
The Conical abutments are intended only for screw-retained definitive multi-units restorations, without the need to correct the inclination.

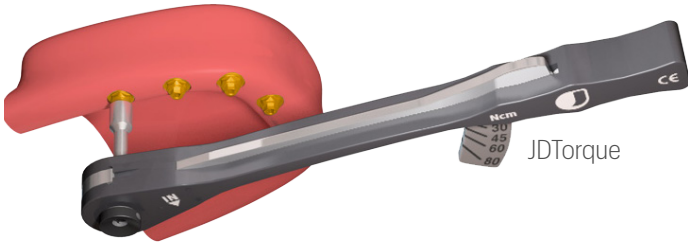




How to use the angled conical abutment

Step 1: Insert the conical abutment on the implant in the correct position using the pre-assembled transporter that is supplied together. Take into account that various configurations for abutment positioning are possible.
Step 2: Insert the screw supplied with the abutment and tighten by means of the prosthetic screwdriver, until an increase in resistance is noticed.
Step 3: Screw in the abutment with a torque of 30 Ncm using the JDTorque dynamometric key or the screw driver connected to the surgical handpiece.
Step 4: Remove the transporter from the conical abutment.
Step 4: Verify the correct seating of the abutment into the implant by using a radiographic imaging.





IMPRESSION TECHNIQUE

Following the recommended healing phase after implant placement, it is necessary to take the impression of the patient's mouth for final restoration. Taking impressions is necessary to ensure that the prosthesis fits into patient's mouth. Impressions are used when creating crowns, bridges and full arches.
The technique that will be selected depends on several factors, such as the position and the type of restoration that will be chosen and the experience of the practitioner. The bite registration and the tooth color assessment should also be taken at this point.
The impression can be complete, when it captures all teeth and surrounding tissues of the dental arch, or partial, when it captures only a part of the arch.
Impression techniques used in the implant treatment are:
- Abutment level impression with closed tray
- Abutment level impression with open tray
- Intraoral scanning for 3D dental impressions

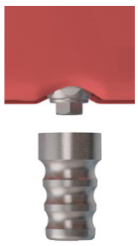
In general, for single unit restorations the closed tray and open tray techniques can be used interchangeably.

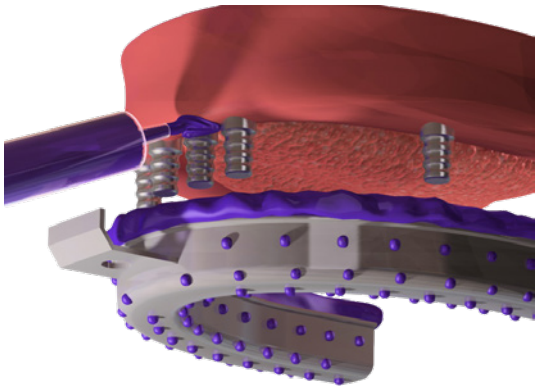
Closed Tray impression technique

The procedure to take a closed tray impression is the following:

Step 1: Place the impression coping closed tray on the conical abutment
Step 2: Apply impression material around the impression coping to surround it completely
Step 3: Fill the tray with impression material and take the impression directly in the mouth
Step 4: Once the material is cured, carefully remove the tray

Step 5: Take out the impression copings, mount the conical abutment replica into the impression previously taken.
Step 6: Use the impression to create a model.

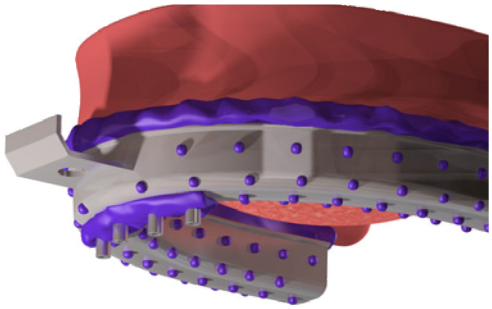




Open tray impression techniques

The procedure to take an open tray impression is the following:

Step 1: Place the impression copings on the conical abutments.
Step 2: Apply impression material around the impression coping to surround it completely.
Step 3: Position the tray in the mouth and ensure that you see all the guide screws of the impression copings emerge.
Step 4: Once the material is solid, unscrew the guide screws to withdraw the impression copings along with the impression.
Step 5: Use the impression to create a model.

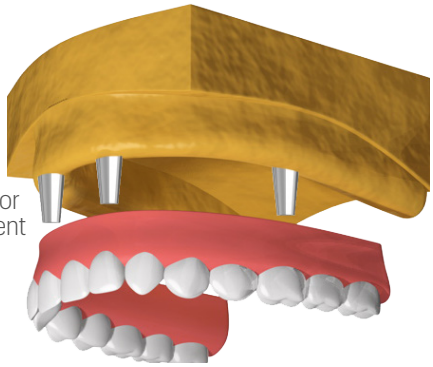


Laboratory procedure

Step 1: Place the Wax-up or Temporary or GP Abutment for conical abutment on its replica and tighten them in the model.

Note: do not reduce the abutment to less than 4 mm in height.

Step 2: Realize the bridge using conventional methods, making an access hole to allow the insertion of the prosthetic screwdriver.
Step 3: Fill the bridge with definitive cement, and place it on the Temporary abutment for Conical Abutment or GP Abutment for conical abutment.
Step 4: Remove any excess cement.



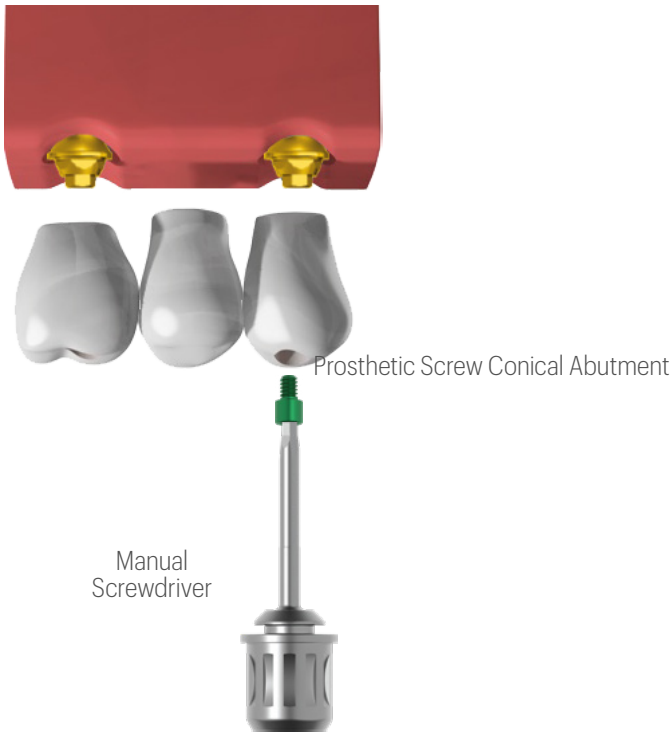
GP Abutment for Conical Abutment

Step 5: Remove the abutment + bridge system from the conical abutment replica, place it on the conical abutments and tighten the prosthetic screw inside the patient's mouth.
Step 6: Where necessary, cover the access hole in the crown/bridge, with cotton and sealing compound (i.e. gutta-percha, composite). This enables the dentist to remove later the abutment if a modification of the restoration is necessary.

Note: it is possible to make a provisional prosthesis on the conical abutments using the temporary abutment for conical abutment.

Connection of the final prosthesis

Connect the prosthesis to the conical abutments with the prosthetic screws using the manual screwdriver. Starting from the central zone, adjust the other screws, alternating the left with the right side. Tighten the prosthetic screws at 15 Ncm using the JDTorque dynamometric key or the surgical handpiece connected to the screw driver. Cover the access channels of the screws with cotton and seal them with a temporary filling material (composite for example).



INSTRUMENTS AND ACCESSORIES

Manual cleaning, disinfection and drying

The following instructions should be used for cleaning multiple-use medical devices supplied by JDentalCare including drills, surgical kits, temporary and final prosthetic components such as abutments and screws.

1. Remove debris in lukewarm water and soak devices in cleaning solution.

Remove residual tissue or bone debris by immersing the used instruments in lukewarm water (<40°C /104°F). Do not use fixation agents or hot water (>40°C/104°F) as this could influence subsequent cleaning results. Instruments should be kept in wet environment until next step is initiated. Soak the instruments in a cleaning solution prepared with lukewarm tap water. Soaking time not less than specified in the detergent manufacturer's instructions.

2. Scrub devices with soft bristled nylon brush.

Scrub the instruments with a soft bristled nylon brush until all visible soil and/or debris is removed. Pay particular attention to features that may be shielded from the brushing action.

3. Soak in ultrasonic bath.

Prepare an ultrasonic bath with cleaning solution at the concentration and temperature specified in the detergent manufacturer's instructions. Immerse the devise completely and activate the bath for at least the time specified in the detergent manufacturer's instructions.

4. Rinse with purified or sterile water.

Rinse for at least 1 minute with freshly prepared purified water or sterile water until traces of cleaning solution are removed.

5. Soak in disinfection solution.

Prepare a bath with a disinfection solution at the concentration and temperature specified in the detergent manufacturer's instruction. Immerse the devise completely for at least the time specified in the detergent manufacturer's instructions.

6. Rinse with purified or sterile water.

Rinse for at least 1 minute with freshly prepared purified water or sterile water until traces of cleaning solution are removed.

7. Dry with compressed air or wipes.

Dry the devices using medical compressed air and clean lint-free single-use wipes.

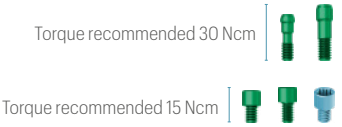
PROSTHETIC COMPONENTS

The list of prosthetic components compatible for use with JDZygoma implant system is provided in Table below:

Titanium Abutments – Implant level

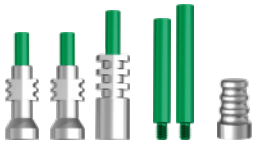
EVCA4545C:	Conical Abutment Angulated 45° H 4.5 JDEvolution Plus
EVCA5250C:	Conical Abutment Angulated 52.5° H 5.0 JDEvolution Plus
EVCA6050C:	Conical Abutment Angulated 60° H 5.0 JDEvolution Plus

EVCASA:	Screw for Angulated Conical Abutment JDEvolution Plus
EVCASA60:	Screw for 60° Angulated Conical Abutment JDEvolution Plus
EVCAPS:	Prosthetic Screw Conical Abutment JDEvolution Plus
EVCAPSL:	Prosthetic Screw Conical Abutment Long JDEvolution Plus
EVCAPSA	Prosthetic Screw Angulated for Conical Abutment JDEvolution



Open and Closed Transfers

EVCAICOTEC:	Conical Abutment Impression Coping Engaging Open Tray JDEvolution Plus
EVCAICOTC:	Conical Abutment Impression Coping Open Tray JDEvolution Plus
EVCAICOTLC:	Conical Abutment Impression Coping Open Tray Long JDEvolution Plus
EVCAICOT02:	Screw for Conical Abutment Impression Coping Open Tray JDEvolution Plus
EVCAICOT04:	Screw for Conical Abutment Impression Coping Open Tray Long JDEvolution Plus
EVCAICCTC	Conical Abutment Impression Coping Closed Tray

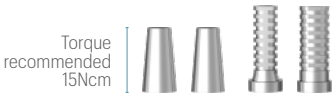


Healing Caps

EVCAHC:	Healing Cap for Conical Abutment JDEvolution Plus
EVCAHCL:	Conical Abutment Healing Cap H 6.0 JDEvolution Plus
EVCAHC9:	Conical Abutment Healing Cap H 9.0 JDEvolution Plus

Titanium Abutments – Abutment level

EVCAGPAEC:	GP Abutment Engaging for Conical Abutment JDEvolution Plus
EVCAGPANEC:	GP Abutment Non Engaging for Conical Abutment JDEvolution Plus
EVCATANEC:	Temporary Abutment Non Engaging Conical Abutment JDEvolution Plus
EVCATANEWC:	Temporary Abutment Non Engaging Conical Abutment for Welding JDEvolution Plus



Castable Abutment

EVCAWANEC:	Wax-Up Abutment Non Engaging for Conical Abutment JDEvolution Plus

Conical Abutment Analog

EVCAAR	Conical Abutment Replica

Drivers

EVID:	Implant Driver JDEvolution Plus
EVIDL:	Implant Driver Long JDEvolution Plus
EVSDPF15:	Prosthetic Driver for JDTorque L 15 JDEvolution Plus
EVSDPF20:	Prosthetic Driver for JDTorque L 20 JDEvolution Plus
EVSDPF25:	Prosthetic Driver for JDTorque L 25 JDEvolution Plus
EVSDPF35:	Prosthetic Driver for JDTorque L 35 JDEvolution Plus
EVSDPF60:	Prosthetic Driver for JDTorque L 60 JDEvolution Plus
EVSDCAF	Conical Abutment Driver for JDTorque
EVSDP20:	Prosthetic Driver L 20 JDEvolution Plus
EVSDP25:	Prosthetic Driver L 25 JDEvolution Plus
EVSDP30:	Prosthetic Driver L 30 JDEvolution Plus
JDPD105	Prosthetic Driver JDEvolution Plus for Surgical Driver
EVSDCA	Conical Abutment Drive
EVSDPF25A	Angulated Screw Driver for JDTorque L 25
EVSDPF30A	Angulated Screw Driver for JDTorque L 30

EVSUD	Surgical Driver JDEvolution

EVSUDMAX	Surgical Driver MAX

Conical Abutment Aligning Instrument

JDID102	ZAPA Tool

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