

Prosthesis Driver Kit

Surgical Manual



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This user manual includes instructions for use that are recommended for surgical applications of NucleOSS Dental Implant system. Treatment and surgical planning should be performed on the basis of clinical data and evaluations of physician in relation to the case.

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Dear Clinician

Şanlılar A.Ş. , the manufacturer of the NucleOSS brand, was established in Izmir in 2001 and produced Turkey's first dental implant. In the light of meticulous R&D studies and knowledge, we continue to produce more innovative and user-friendly products for you with the excitement of the first day, by adopting world-class sensitive production protocols. In order to increase the quality of the operation and to enable more comfortable treatment processes, we design and develop quality and innovative products, and offer them to you.

We established the TFI (Together for Implantology) academy in order to create a platform where dentists can share their ideas, studies and information about implants within an ethical framework and thus contribute to the development of the field of implantology. As NucleOSS, we adopt reliable, quality and customer-oriented production with transparent, ethical and principled management.

We work more and more every day within the framework of our open to change and innovative approach, which is the first condition of progress and growth. We design new products, constantly change and develop with our understanding of management and production that values people.

We are growing thanks to your support... We are enchanting...



Salih ŞANLI

PRESIDENT



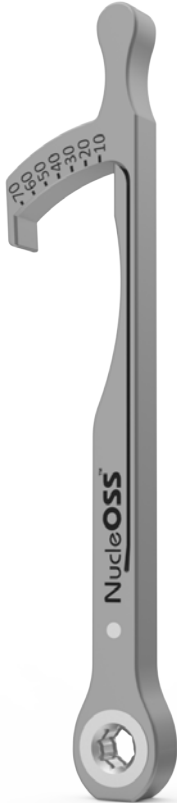
Nucleoss Prosthetic Driver Kit,

Brings together all the parts you need for implant-prosthetic surgery in one place.

With its ergonomic design and high-strength structure conforming to surgical standards, we offer maximum efficiency in your operations and flawless results for your patients.



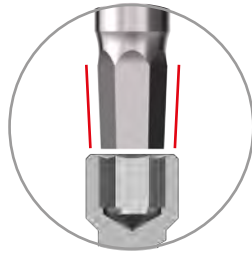
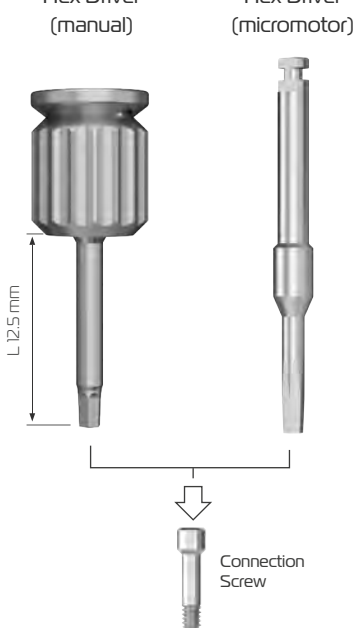
The parts included in the kit,

				
TO 2024 Hex Driver (ratchet-short)	TO 2025 Hex Driver (ratchet-long)	TO 2009 Hex Driver (micromotor)	TO 25251 Hex Driver (manual)	
				TO 25900 NucleOSS Torque Ratchet
TO 25206 Multi Unit Abutment Tightening Part	TO 25205 Ball Abutment Tightening Part	TO 25218 Ratchet Manual Adaptor	TO 2027 Angled Hex Driver	

Hex Drivers - Transfer

TO 25251
Hex Driver
(manual)

TO 2009
Hex Driver
(micromotor)



Hex driver is used for fixing healing components, prosthetic and impression parts.

It is made of stainless-steel material.

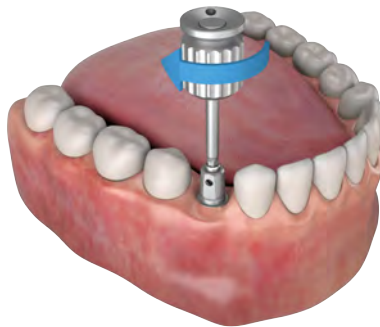
It can be procured in a surgical set and in one piece.

The tip of the hex driver used manually and with micromotor is in hex structure and conical shape.

It can be used for carrying connectionscrews and healing caps and for light tightening.

Torque up to a maximum of 10 Ncm can be made with these hex driver.

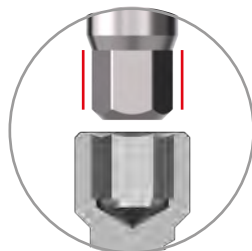
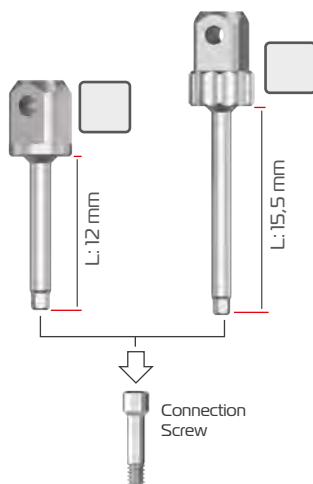
Note: Final torque must never be done. Because the hex slot of the screw or the tip of the hex driver may be damaged.



Hex Drivers - Torque

TO 2024
Hex Driver
(ratchet-short)

TO 2025
Hex Driver
(ratchet-long)



The screw is held with a hex driver and placed on the part it will be fixed to. The hex driver is gently turn clockwise to tighten the screw.

Tightening drivers are used for fixing healing components, prosthesis and impression parts.

It is used with a ratchet

It is made of stainless-steel material.

It can be procured in a surgical set and in one piece

The tip of the hex driver used for final torque is straight. It is only used for torque with NucleOSS ratchet.

It has no retention, it is not used for carrying.



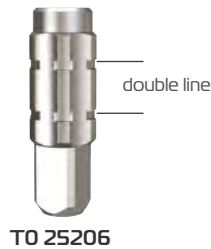
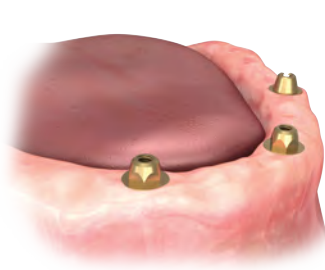
The ratchet is carefully seated on the hex driver.



The screw is tightened by turning the ratchet clockwise. By following the torque values specified at the end point, the desired torque value is set and the tightening process is completed.

Multi Unit and Ball Abutment Tightening Parts

Multi Unit Abutment Tightening Part



Threaded abutment tightening part is used to place multi unit straight abutments on T6 implants.

It is made of stainless steel.

It can be used with a ratchet or screwdriver.

Multi-unit straight abutment has a threaded connection structure. When placing the abutment on the implant, attention should be paid to the tightening and torque values.

⚠ Attention : Multi unit straight abutment should be torqued to a maximum of 30 Ncm when being placed on the abutment!

If the torque value is less or more than the specified value, loosening or breakage of the abutment may occur.

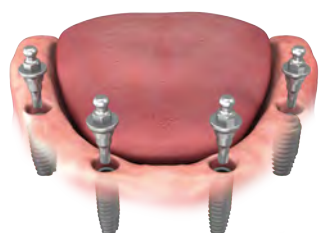


Multi unit angled abutment is carefully placed on the implant by holding the carrying part and fixed to the implant with the Connection screw included in the package.

The connection screw should be torqued to a **maximum of 30 Ncm** with the help of a NucleOSS torque ratchet.



Ball Abutment Tightening Part

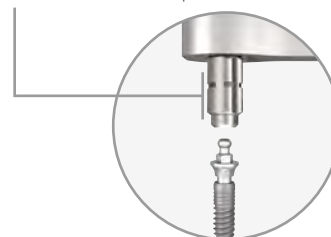


Ball abutment tightening part is used to place ball abutments on a T6 implant.

They are made of stainless steel.

It can be used with a ratchet or screwdriver.

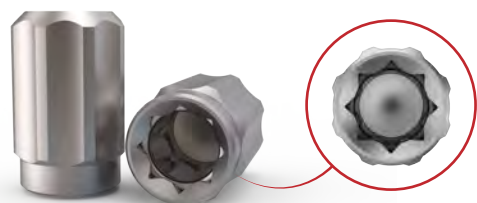
The ball abutment is carefully inserted into the implant. The ball abutment tightening part (TO 25205) is used to fix the abutment to the implant.



Ball abutment should be torqued to a **maximum of 30 Ncm** using the NucleOSS ratchet.



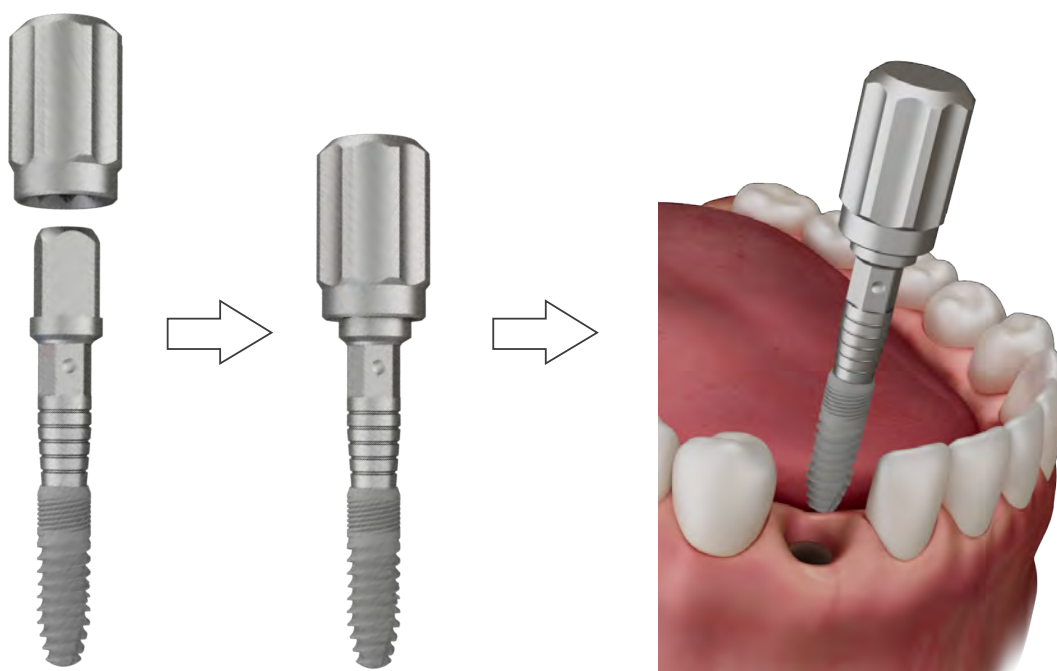
Ratchet Manual Adaptor - T0 25218

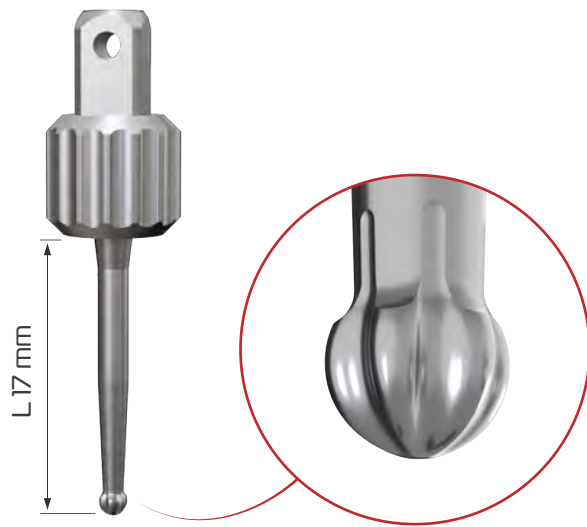


This is an auxiliary device that allows for the manual operation of surgical and prosthetic set components with ratchet attachments when needed.

Thanks to this adaptor, the same components can be controlled both with a ratchet and by hand.

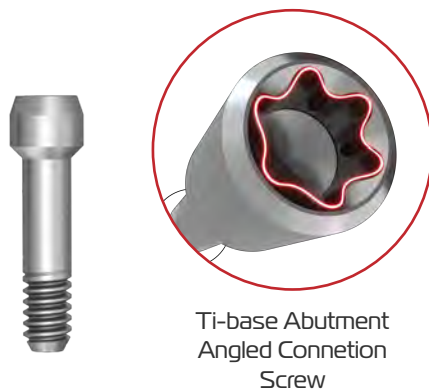
It has been developed to offer the physician more controlled and ergonomic use, especially in clinical stages requiring low torque, precise positioning, or where ratchet use is impractical.



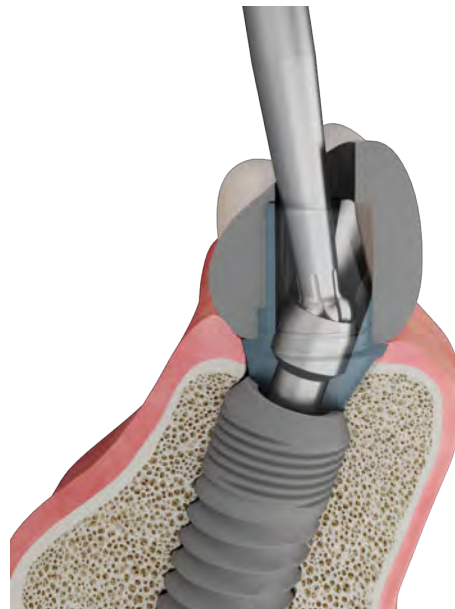


Used for tightening (torque-ing) or loosening screws on angled Ti-base abutments.

Can be used with a ratchet, ratchet hand adapter, or screwdriver.
Can also be used manually.



Ti-base Abutment
Angled Connection
Screw



NucleOSS Torque Ratchet - TO 25900



The torque value of the NucleOSS ratchet is from 0 Ncm to 70 Ncm.

When the needle is at the top, it shows about 80 Ncm.

The ratchet is used by NucleOSS to tighten all the abutments and screws at the torque values specified in the product catalogs.

It is made of stainless-steel material.

It can be procured in a surgical set and in one piece.



Using as Torqueless Ratchet:

Hold the torque arm and torque needle together. Press down on the wheel with your finger to hold the ratchet in place.

Caution! Direction arrow should point to the top during tightening and to the bottom during untightening.



Using as Torque Ratchet:

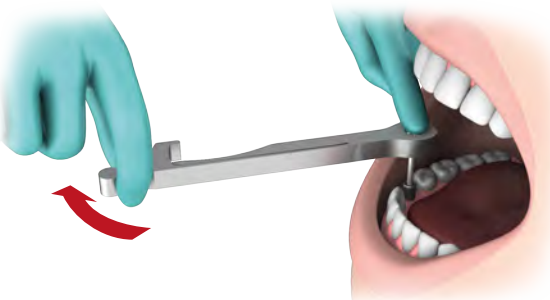
Press down on the wheel with your finger to hold the ratchet in place. Then pull the torque arm lightly in the direction of the arrow until you reach the desired torque value.

Caution! The torque arm should not be turned more than the torque values specified on the ratchet. Otherwise, the torque will be incorrect. Direction arrow should point to the top during tightening and to the bottom during untightening.



Using Ratchet for Removal:

Use the ratchet with the direction arrow facing down.



Tightening - Torque Values

 TO 25900		
Products	Tightening Parts	Torque Value
Implant Cover Screw And Sinus Caps 	 TO 2024 Short (ratchet) TO 2025 Long (ratchet)	MANUAL/ Ratchet (If a ratchet is used, 10 Ncm)
Gingiva Former 	 TO 2525I Manual Hex Driver	
Connection Screws of Peek Parts 		
All Cemented Abutment Screws 	 TO 2024 Short (ratchet) TO 2025 Long (ratchet)	Max. 30 Ncm
Cast Abutment Screws 	 TO 2525I Manual Hex Driver	
Cad/Cam Ti-Base Abutment Screws 		

Tightening - Torque Values

 TO 25900		
Product	Tightening Parts	Torque Value
Ball Abutment 	 TO 25205 Ball Abutment Tightening Part	Max. 30 Ncm
Equator Abutment 	 774CHE Equator Abutment Tightening Part	Max. 30 Ncm
Multi Unit Straight Abutments 	 TO 25206 Multi Unit Abutment Tightening Part	Max. 30 Ncm
Multi Unit Angled (17° / 30°) Abutment Screws 	 TO 2024 Short (ratchet) TO 2025 Long (ratchet)	Max. 30 Ncm
Parts Installed on the Multi Unit 		Max. 10 Ncm
Occlusal Screws Attached to Prosthesis 		Max. 20 Ncm
Occlusal Screws Attached to Prosthesis 	 TO 25251 Manual Hex Driver	Max. 20 Ncm

Maintenance and Cleaning of Surgical Hand Tools

- Careful use of all tools is extremely important.
- Even the slightest damage to the ends of the drill adversely affects cutting performance and therefore the clinical outcome.
- Even if it is used correctly and clean, it should be taken into account that the cutting performance of the drill is reduced after a certain number of uses. (Maximum milling for NucleOSS drills is 15 times)
- Avoid contact with the ends of the drills on a hard surface other than the bone.
- Each surgical set piece should be used according to its purpose and method of use. Other uses may damage the part.
- Never allow surgical residues (blood, bone, etc.tissue residues) to dry on an tool, clean immediately after surgery.
- Clean thoroughly with only soft brushes so as not to cause wear and scratches on the tools. If necessary, remove the removable parts of the tools and clean the gaps.
- Never disinfect, clean (also ultrasound) or sterilize instruments made of different materials together.
- Use only cleaning agents and disinfectants for the material and follow the manufacturer's instructions for use.
- Rinse disinfectants and cleaning agents thoroughly with water.
- Never leave or store tools moist or wet.
- For more detailed information, please refer to the D006 NucleOSS Surgical Instruments User Manual for Cleaning and Disinfection of Surgical Instruments.

Sterilization

Şanlılar Medical Devices Med. Kim. San Tic. A. Ş. accepts no responsibility for devices initially delivered non-sterile, regardless of who performs the sterilization or by what method. Due to variations in conditions and environments, the ultimate responsibility for implementing and verifying procedures to achieve sterility rests with the user. Non-sterile surgical instruments should not be used under any circumstances.

Place properly cleaned and dried instruments into the designated slots inside the surgical set box. The surgical set is made of highly impact-resistant plastic materials suitable for autoclave sterilization. In clinical autoclaves, parts can be sterilized as a single piece without having to be removed from the box. Place the surgical set container in the autoclave bag.

Note: Do not stack boxes while performing the sterilization process, as this may affect sterilization effectiveness.

Sterilisation cycle recommended by Şanlılar Medical Devices :

Method	Moist heat sterilization according to ISO 17665:2024.
Cycle	Prevacuum
Temperature	134°C / 273.2°F
Exposure Time	3 Minutes
Basınç	2.2 bar
Pre-Vacum	3 times < 60 mbar
Minimum Drying Time	60 minutes in the enclosed chamber.

- Remove the surgical sets from the sterilizer after the cycle is complete, and place the tray on a padded surface to prevent condensation during cooling.

Note: Sterilization processes are validated in accordance with the current international standard, ISO 17665:2024.

Note: Manufacturer instructions for use for all detergents/cleaning solutions and/or equipment and accessories used in the cleaning and disinfection of the devices must be strictly followed.

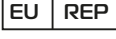
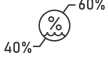
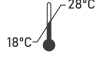
Storage Conditions and Symbol Explanations

Storage Instructions

After sterilization, store the devices in a dry, dark place, such as a closed cupboard or drawer.

Symbol Explanations

The symbols found on all Nucleoss products are as follows:

 Product catalog number	 Authorized representative	 Product lot number	 Unique device identifier
 Medical device	 Manufacturer country	 Manufacturer	 Read the user manual.
 Gamma sterilization	 Do not re-sterilize	 Don't reuse	 Not sterile
 Double sterile barrier system	 Humidity range	 Temperature range	 MR Conditional
 Distributor	 Dispersive	 Do not use if the packaging is damaged.	 Warnings
 Conformity European	 Model number	 For prescription use only.	 Contains hazardous materials 7440-02-0 Ni
- The CE mark is the manufacturer's declaration that the product meets the requirements of the applicable Medical Device Regulation (MDR) (EU) 2017/745. - Where applicable: The identification number of the Notified Body shall follow this symbol.			

NucleOSS™



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