



# NobelActive® TiUltra™

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ONE.

The scope of this surgical procedures manual is to provide a comprehensive overview of the surgical steps and options during the placement of NobelActive® TiUltra™ implants. This surgical procedures manual does not replace the Instructions For Use (IFU). Please review the Instructions For Use, including Indications For Use, Contraindications, Warnings and Cautions before using the products. Instructions for Use are available at:

[ifu.nobelbiocare.com](http://ifu.nobelbiocare.com)

For a full list of article numbers and for ordering information, refer to the Product overview - Conical connection implants and prosthetics available at [nobelbiocare.com](http://nobelbiocare.com) or contact a Nobel Biocare representative.

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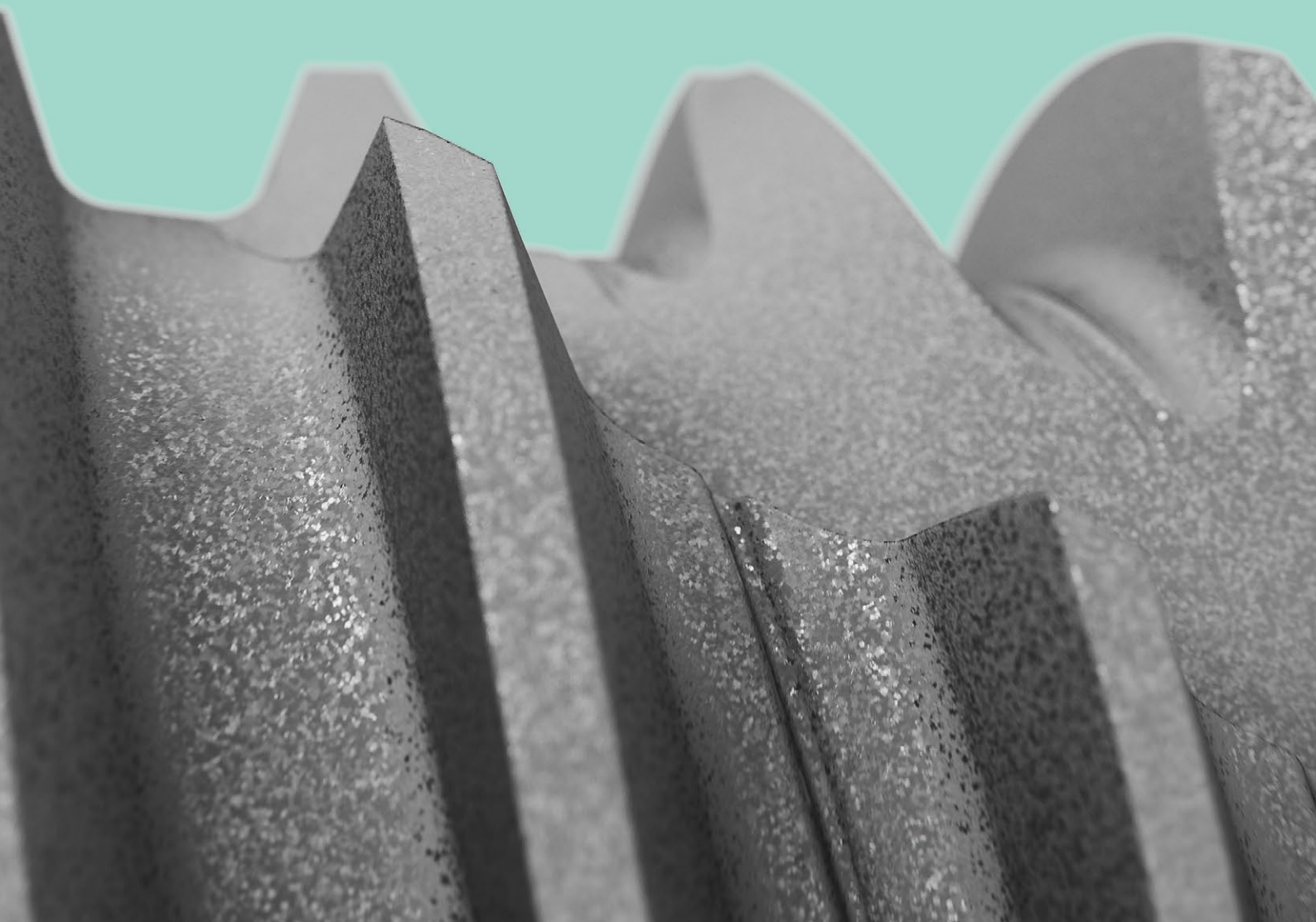
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# Introduction

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# Quick guide

Twist Drill with  
Tip Ø 2 mm



Flap  
technique

Twist Step Drill  
Ø 2.4/2.8 mm



Twist Step Drill  
Ø 3.2/3.6 mm



Twist Drill with  
Tip Ø 2 mm

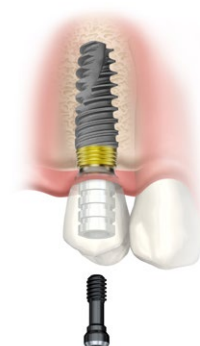


Flapless  
technique

**Note** The illustrations show the drill sequence for NobelActive TiUltra RP 4.3 in medium bone. For other implant diameters and bone densities, see drill protocols on [page 14](#). For specific information regarding NobelActive TiUltra 3.0, see [page 28](#).

# Implant level

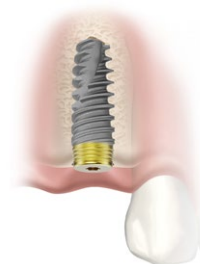
One-stage Immediate Function



One-stage early/delayed function



Two-stage early/delayed function



Implant placement



On1 concept/  
Multi-unit Abutment



One-stage Immediate Function



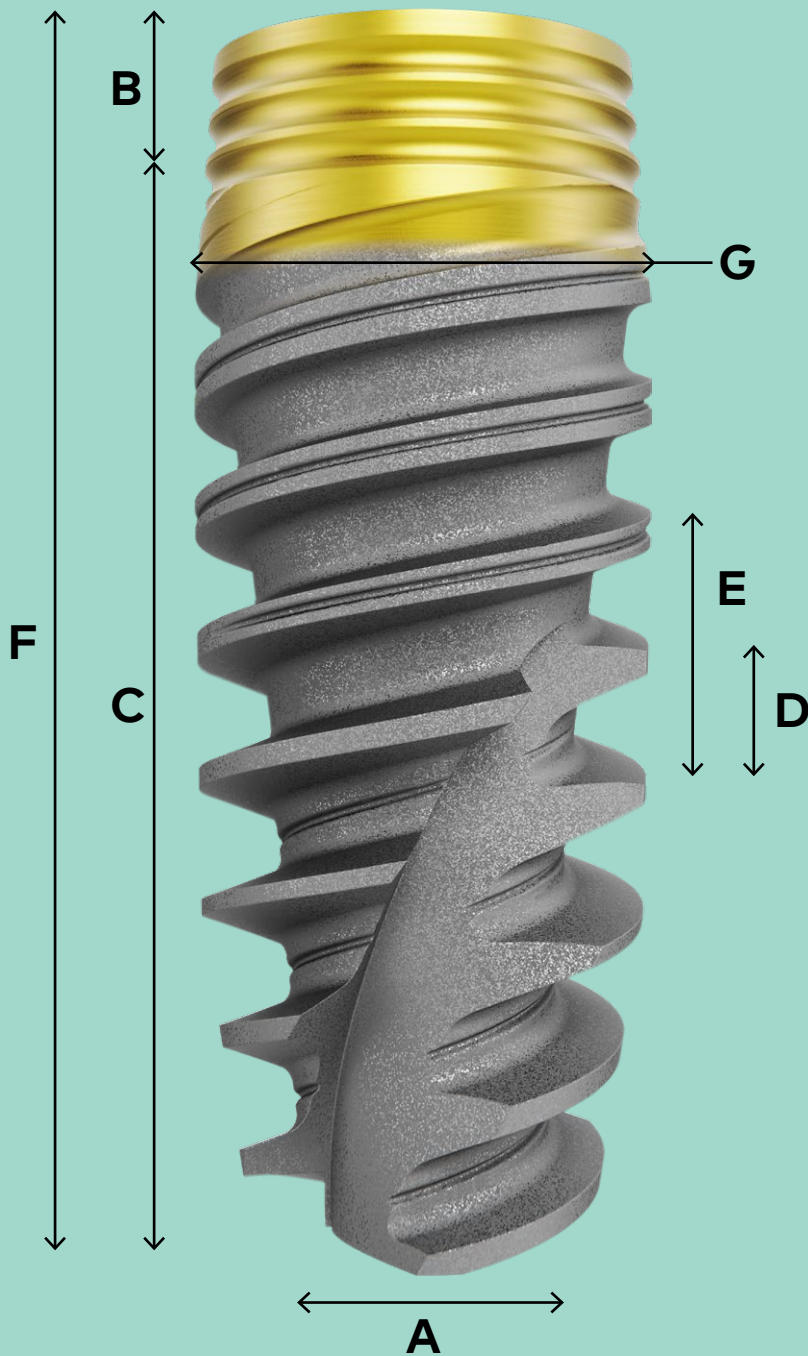
# Abutment level

One-stage early/delayed function



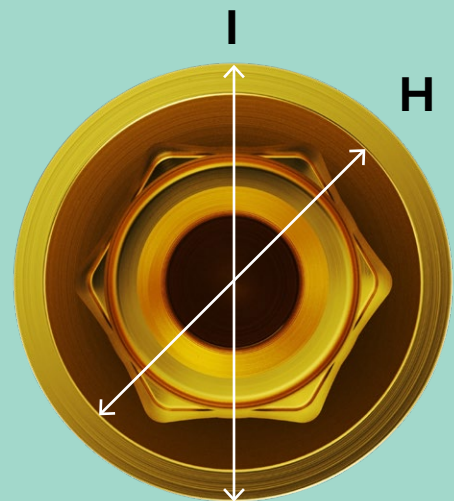
# Implant

specifications

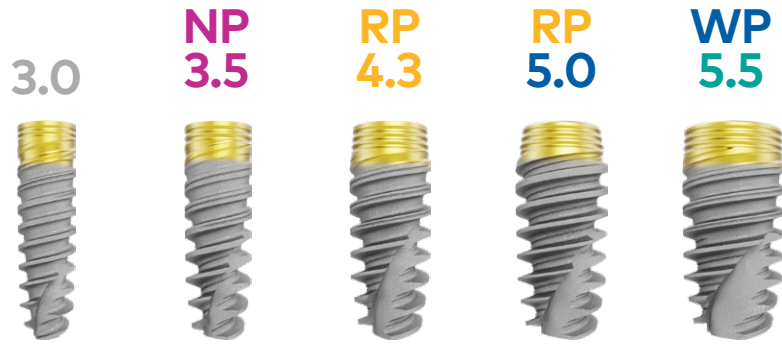


### Key features

- Expanding tapered body
- Expanding double thread
- Drilling blades at apex
- Internal conical connection (CC)
- TiUltra anodized surface



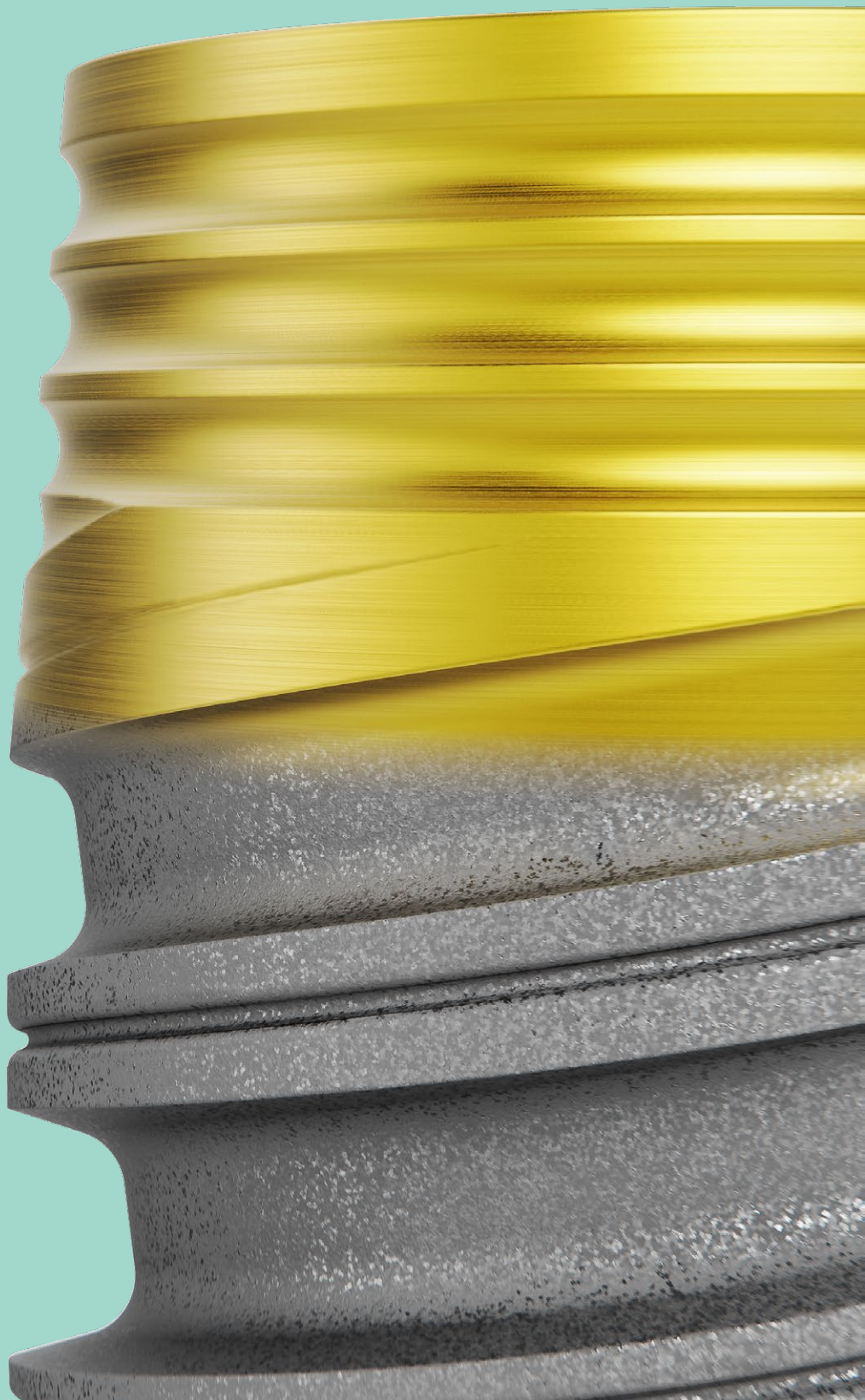




Platform		A	B	C	D	E	F*	G	H	I
		Tip diameter	Collar height	Thread height	Thread spacing	Thread pitch	Total length	Major diameter	Abutment interface	Bridge interface
<b>3.0</b>	3.0×10 mm	1.95	0.8	8.7	1.0	2.0	9.5	3.0	2.5	–
	3.0×11.5 mm	1.95	0.8	10.2	1.0	2.0	11.0	3.0	2.5	–
	3.0×13 mm	1.95	0.8	11.7	1.0	2.0	12.5	3.0	2.5	–
	3.0×15 mm	1.95	0.8	13.7	1.0	2.0	14.5	3.0	2.5	–
<b>NP 3.5</b>	3.5×8.5 mm	2.6	1.0	7.0	1.2	2.4	8.0	3.5	3.0	3.5
	3.5×10 mm	2.6	1.0	8.5	1.2	2.4	9.5	3.5	3.0	3.5
	3.5×11.5 mm	2.6	1.0	10.0	1.2	2.4	11.0	3.5	3.0	3.5
	3.5×13 mm	2.6	1.0	11.5	1.2	2.4	12.5	3.5	3.0	3.5
	3.5×15 mm	2.6	1.0	13.5	1.2	2.4	14.5	3.5	3.0	3.5
	3.5×18 mm	2.6	1.0	16.5	1.2	2.4	17.5	3.5	3.0	3.5
<b>RP 4.3</b>	4.3×8.5 mm	3.2	1.0	7.0	1.2	2.4	8.0	4.3	3.4	3.9
	4.3×10 mm	3.2	1.0	8.5	1.2	2.4	9.5	4.3	3.4	3.9
	4.3×11.5 mm	3.2	1.0	10.0	1.2	2.4	11.0	4.3	3.4	3.9
	4.3×13 mm	3.2	1.0	11.5	1.2	2.4	12.5	4.3	3.4	3.9
	4.3×15 mm	3.2	1.0	13.5	1.2	2.4	14.5	4.3	3.4	3.9
	4.3×18 mm	3.2	1.0	16.5	1.2	2.4	17.5	4.3	3.4	3.9
<b>RP 5.0</b>	5.0×8.5 mm	3.6	1.0	7.0	1.2	2.4	8.0	4.9	3.4	3.9
	5.0×10 mm	3.6	1.0	8.5	1.2	2.4	9.5	4.9	3.4	3.9
	5.0×11.5 mm	3.6	1.0	10.0	1.2	2.4	11.0	4.9	3.4	3.9
	5.0×13 mm	3.6	1.0	11.5	1.2	2.4	12.5	4.9	3.4	3.9
	5.0×15 mm	3.6	1.0	13.5	1.2	2.4	14.5	4.9	3.4	3.9
	5.0×18 mm	3.6	1.0	16.5	1.2	2.4	17.5	4.9	3.4	3.9
<b>WP 5.5</b>	5.5×7 mm	4.0	1.0	5.5	1.2	2.4	6.5	5.5	4.4	5.1
	5.5×8.5 mm	4.0	1.0	7.0	1.2	2.4	8.0	5.5	4.4	5.1
	5.5×10 mm	4.0	1.0	8.5	1.2	2.4	9.5	5.5	4.4	5.1
	5.5×11.5 mm	4.0	1.0	10.0	1.2	2.4	11.0	5.5	4.4	5.1
	5.5×13 mm	4.0	1.0	11.5	1.2	2.4	12.5	5.5	4.4	5.1
	5.5×15 mm	4.0	1.0	13.5	1.2	2.4	14.5	5.5	4.4	5.1

All measurements in millimeters.

\*Please note that actual implant length is 0.5 mm shorter than indicated in name.



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# Surgical procedure

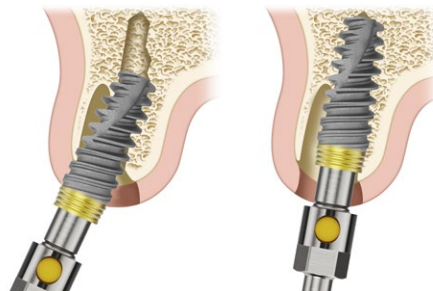
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# Important considerations and cautions

## Implant placement

The unique thread design of NobelActive TiUltra implants allows to redirect the implant during insertion. This feature requires special attention to execute during placement, as the implant will not necessarily stop at the bottom of the prepared site, but may go deeper into the bone.

Available abutment margin height needs to be considered during the planning of implant placement to ensure appropriate seating depth of the implant relative to the available soft tissue thickness and the planned emergence of the restoration.



## Implant insertion with Surgical Driver

If the Surgical Driver (manual hand device) is used to insert the implant, special attention is required to avoid overtightening.



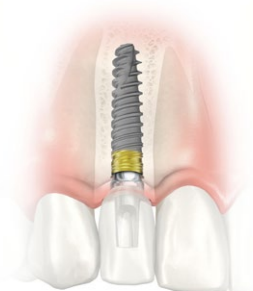
## Indications and requirements for NobelActive TiUltra 3.0

NobelActive TiUltra 3.0 implants are intended to replace a lateral incisor in the maxilla and/or a central or lateral incisor in the mandible. NobelActive TiUltra 3.0 implants are indicated for single-unit restorations only.

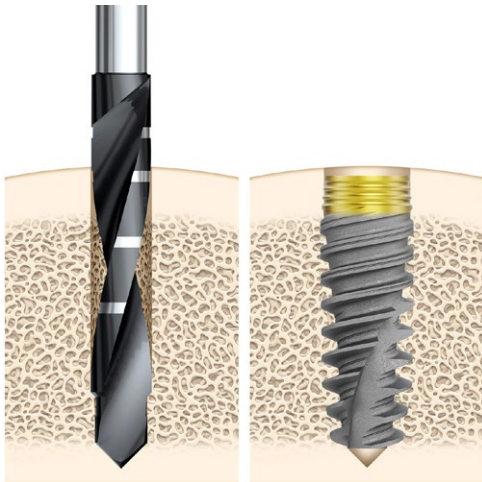
### Insertion torque for NobelActive TiUltra 3.0

Due to the narrow implant diameter and narrow implant abutment connection the maximum insertion torque for NobelActive TiUltra 3.0 differs from the entire NobelActive TiUltra assortment. The maximum insertion tightening torque for the 3.0 implant is **45 Ncm** and the maximum prosthetic abutment tightening torque is **15 Ncm**.

**Caution** Never exceed insertion tightening torque of **45 Ncm** for the implant and **15 Ncm** prosthetic tightening torque for the abutment screw. Overtightening of the implant may lead to damage of the implant, fracture or necrosis of the bone site. Overtightening of the abutment screw may lead to screw fracture.



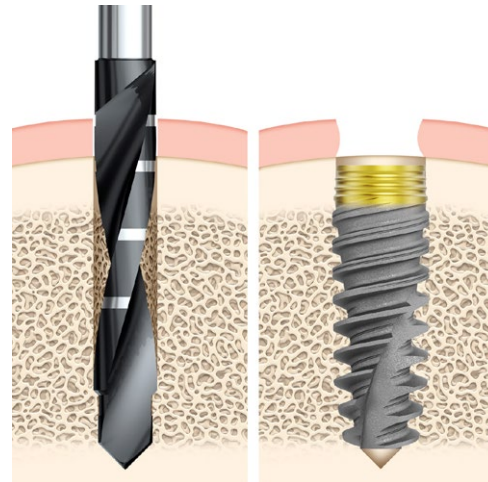
# Surgical access



## Standard flap procedure

Used when it is necessary:

- to observe the underlying alveolar bone and adjacent anatomical structures.
- to place bone and/or connective tissue grafts.



## Flapless procedure

May be used when:

- there is sufficient quantity and quality of alveolar bone and soft tissue.
- it is not necessary to raise a flap to safely direct drilling procedure in relation to the anatomy.

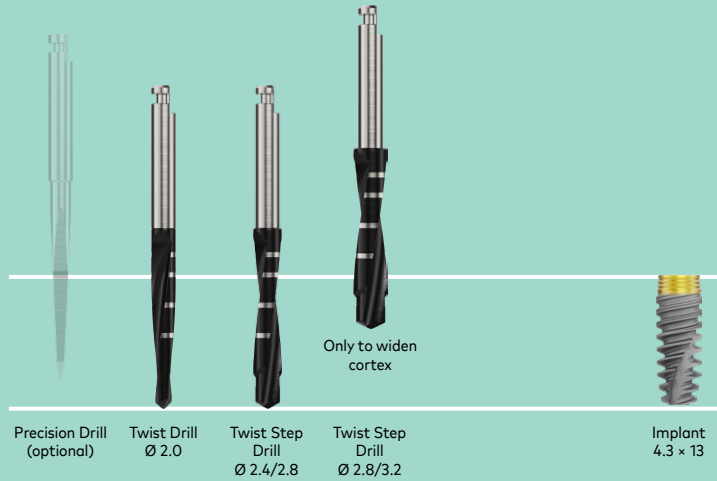
**Tip** When using a flapless approach, add soft tissue height to drill depth.

**Warning** Besides the mandatory precautions for any surgery such as asepsis, during drilling in the jaw bone, one must avoid damage to nerves and vessels by referring to anatomical knowledge and preoperative radiographs.

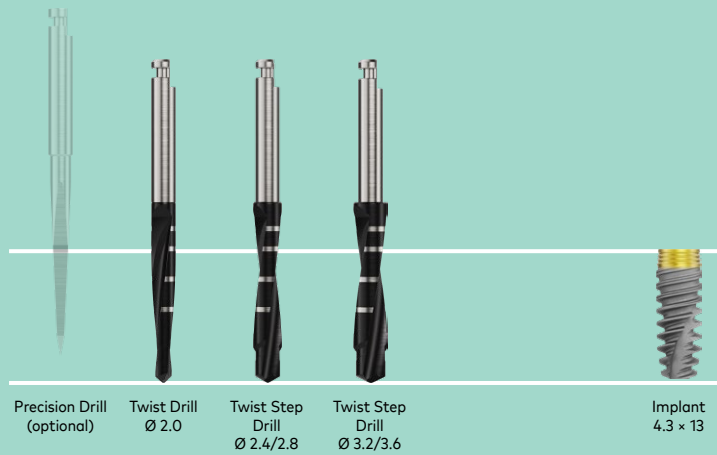
# DRILL sequence

Demonstration of the drill protocol for a  $\varnothing 4.3 \times 13$  mm implant in soft, medium and dense bone.

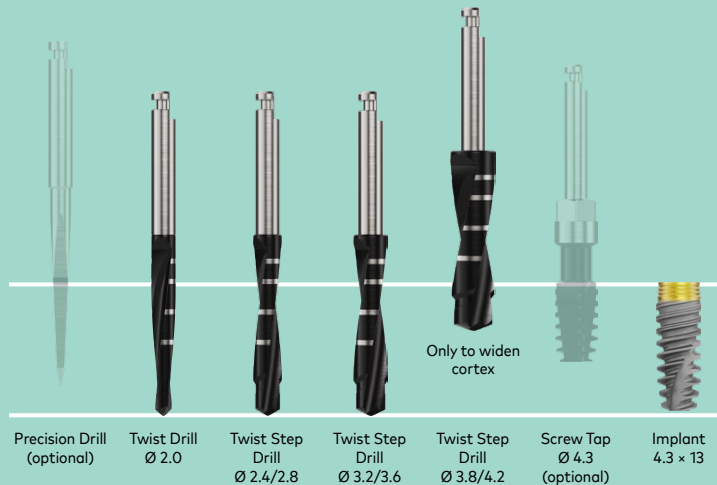
## Soft bone



## Medium bone



## Dense bone



**Recommended drill sequence based on bone quality\***

During drilling procedures, bone quality should be considered. Recommended drill sequences are based on bone quality to ensure optimal primary stability when applying One-stage Immediate Function procedures. Drills are used to the full drilling depth.

Drilling must proceed at high speed (max. 2000 rpm for Twist Drills and Twist Step Drills) under constant and profuse irrigation by sterile saline at room temperature.

Platform	Soft Bone Type IV	Medium Bone Type II-III	Dense Bone Type I
<b>3.0</b>	1.5	2.0	2.0 2.4/2.8
<b>NP 3.5</b>	2.0 (2.4/2.8)	2.0 2.4/2.8 (2.8/3.2)	2.0 2.4/2.8 2.8/3.2
<b>RP 4.3</b>	2.0 2.4/2.8 (2.8/3.2)	2.0 2.4/2.8 3.2/3.6	2.0 2.4/2.8 3.2/3.6 (3.8/4.2)
<b>RP 5.0</b>	2.0 2.4/2.8 3.2/3.6	2.0 2.4/2.8 3.2/3.6 3.8/4.2	2.0 2.4/2.8 3.2/3.6 3.8/4.2 (4.2/4.6)
<b>WP 5.5</b>	2.0 2.4/2.8 3.2/3.6 (3.8/4.2)	2.0 2.4/2.8 3.2/3.6 3.8/4.2 4.2/4.6 (4.2/5.0)	2.0 2.4/2.8 3.2/3.6 3.8/4.2 4.2/5.0 Screw Tap

**Note** All data are stated in millimeters.

Drills within brackets (-) denote widening of the cortex only, not drilling to the full drilling depth.

**Preparation of osteotomy**

- In dense bone situations, drill with continuous back and forth motion.
- Move the drill up without stopping the handpiece motor. This allows the irrigation to flush away debris.
- Proceed until the desired depth reference line is reached.
- Drills within brackets (-) denote widening of the cortex only, not drilling to full depth.

**Procedure for implant placement in dense bone**

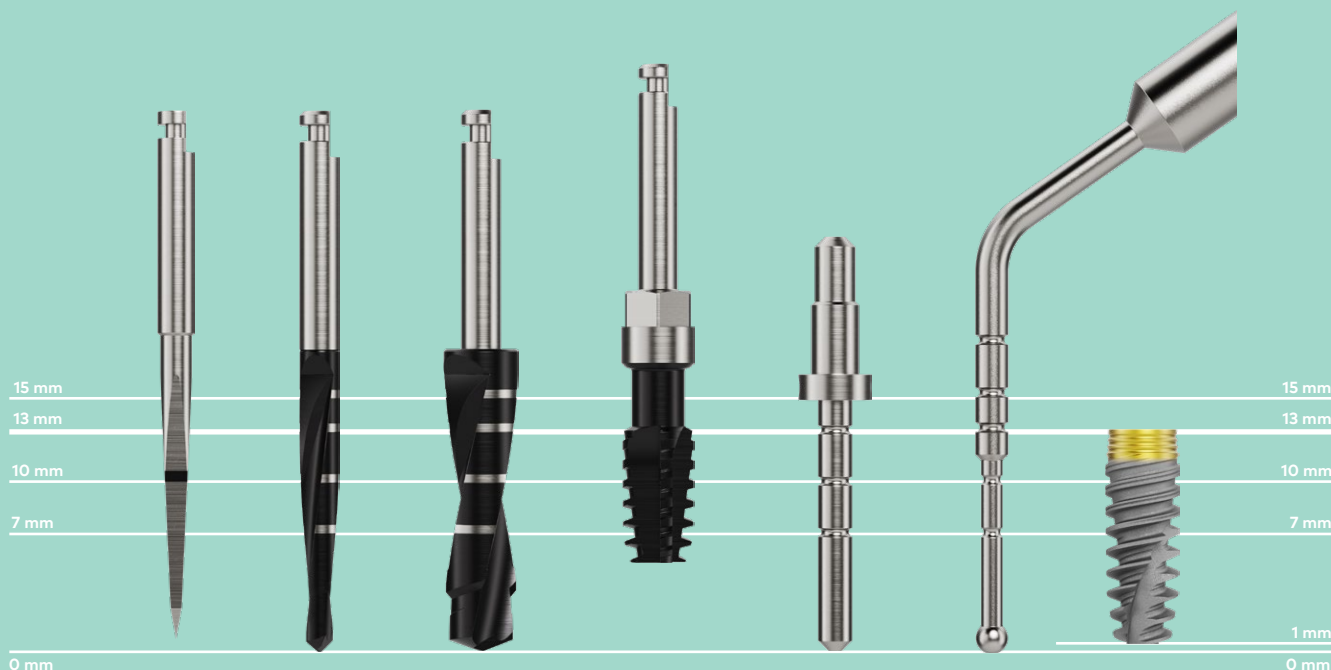
For more detailed information regarding implant placement in dense bone and NobelActive TiUltra screw taps, refer to [page 17](#).

**Tips**

- Stop drilling if there is no irrigation.
- In situations where adjacent natural teeth interfere with the contra-angle head and prevent the drill from reaching the desired depth, a drill extension shaft may be used.
- When using a drill extension shaft, it is important to supplement cooling at the tip of the drill with manual irrigation.
- Drills are delivered sterile and are for single use only. Do not resterilize. Screw taps are delivered sterile and reusable.

\* According to classification by Lekholm U, Zarb GA. Patient selection and preparation. In: Brånemark PI, Zarb GA, Albrektsson T, editors: Tissue-integrated prostheses: Osseointegration in clinical dentistry. Quintessence, Chicago, 1985, pp 199-209.

# Depth measurement system



The parallel drills have a true depth measurement system. All drills and components are marked to prepare the site to the correct depth and obtain a secure and predictable position. Drills are available for implant lengths (laser marks) of 7–10, 7–15 and 10–18 mm. The correct diameter and length of the drills are indicated on the label.

There are no laser marks for 8.5 mm and 11.5 mm implant lengths. The 8.5 mm is between the 7 mm and 10 mm laser mark. The 11.5 mm is between the 10 mm and 13 mm laser mark.

**Caution** Twist Drills and Twist Step Drills extend up to **1 mm** longer than the implant when seated. Allow for this additional length when drilling near vital anatomical structures.

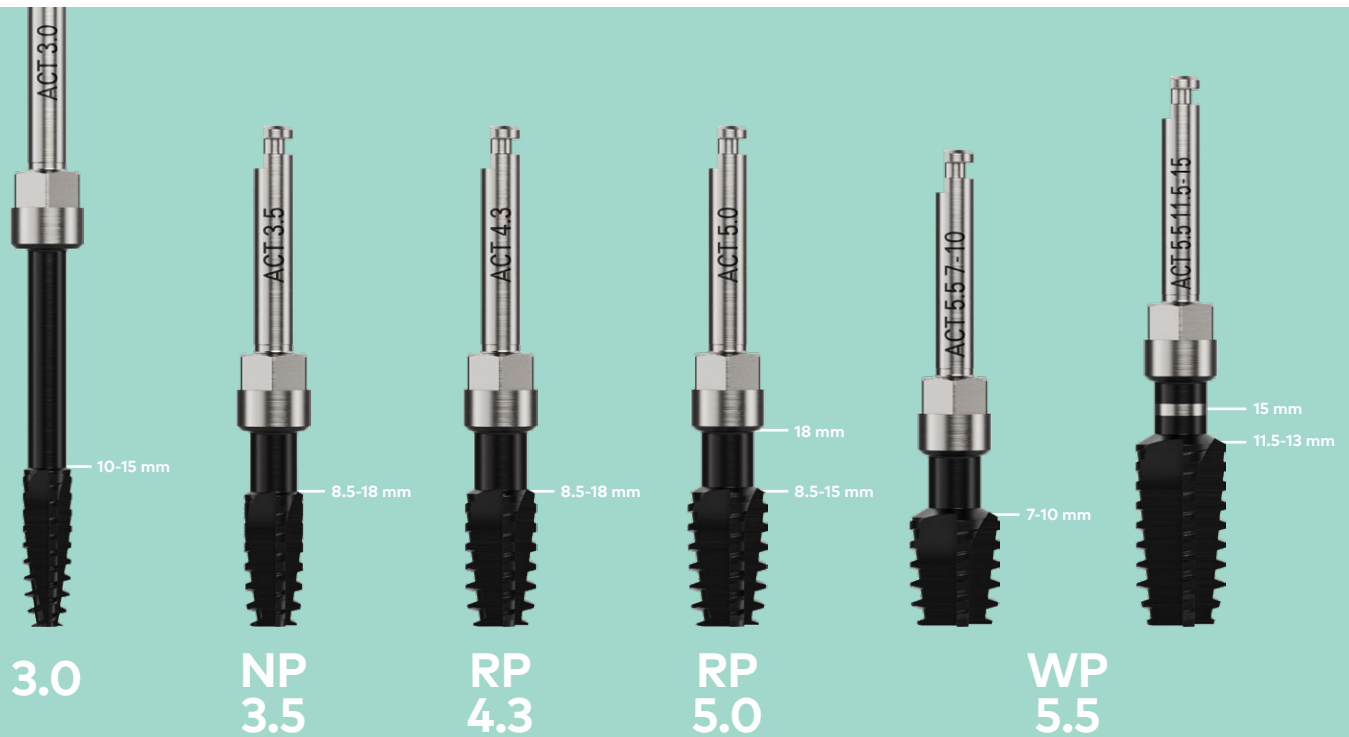
**Note** The marks on Twist Drills and Twist Step Drills indicate actual millimeter length and correspond to the implant collar. Final vertical positioning depends on several parameters, including esthetics, tissue thickness and available vertical space.

## Drills

Drills are made of stainless steel with a diamond-like carbon (DLC) coating, which gives them their black color. They are used with external irrigation and are available in three lengths: 7–10, 7–15 and 10–18 mm.



# Screw taps for implant placement in dense bone



## Procedure for implant placement in dense bone

If the implant gets stuck during implant installation, or the maximum torque is achieved before fully seated, one of the following procedures should be followed:

- Rotate the implant counterclockwise for a few turns enabling the use of the self-tapping capacity of the implant; or
- back out the implant and widen the site with a wider drill according to drill protocol; or
- select a NobelActive TiUltra screw tap which matches the diameter of the implant and desired drilling depth:
  - Place the screw tap into prepared implant site using low speed (25 rpm).
  - Apply firm pressure and begin rotating the screw tap slowly. When the threads engage, continue to thread the screw tap to the defined depth without applying additional pressure.
  - Switch the drill unit with handpiece to reverse mode and back the screw tap out.
- Continue with implant installation until desired position is achieved using max 45 Ncm installation torque for NobelActive TiUltra 3.0 implant or max 70 Ncm for NobelActive TiUltra 3.5, 4.3, 5.0, and 5.5 implants.

# Flapless procedure

Choose between the following two options and continue with the drill sequence on [page 19](#), starting with step 3.

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## Option A

- Drill to the appropriate depth using the Twist Drill with Tip  $\varnothing$  2 mm. A drill stop can be used.

Maximum speed 2000 rpm

**Tip** Measure the soft tissue thickness with a probe.

**Caution** Twist Drills and Twist Step Drills extend up to 1 mm longer than the implant when seated. Allow for this additional length when drilling near vital anatomical structures.

**Note** The marks on Twist Drills and Twist Step Drills indicate actual millimeter length and correspond to the implant collar. Final vertical positioning depends on several parameters, including esthetics, tissue thickness and available vertical space.

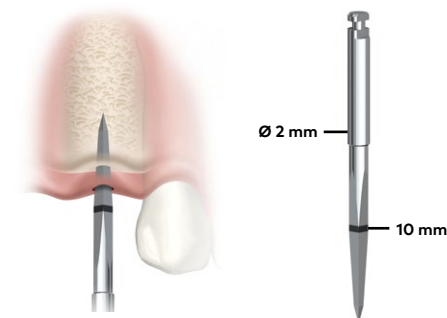



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## Option B

- To facilitate initial soft tissue penetration and creation of a crestal starting point (also after flap preparation), the Precision Drill can be used before Twist Drill with Tip  $\varnothing$  2 mm.
- Drill with the Precision Drill through soft tissue and into the alveolar crest.

Maximum speed 2000 rpm



# Flap procedure

The following illustrations show the drill sequence for NobelActive TiUltra RP 4.3 in medium and dense bone. For other implant diameters and bone densities, see [page 15](#). For specific information regarding NobelActive TiUltra 3.0, see [page 28](#).

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## 1 Raise a flap

When using a flap procedure, make an incision and raise a flap.

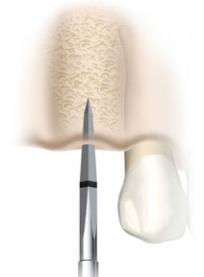



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## 2 Drill with Precision Drill

To facilitate creation of a crestal starting point, the Precision Drill can be used before Twist Drill with Tip Ø 2.0mm.

Maximum speed 2000 rpm




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## 3 Drill with Twist Drill with Tip Ø 2 mm

Drill to the appropriate depth using the Twist Drill with Tip Ø 2 mm. A drill stop can be used.

Maximum speed 2000 rpm



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#### 4 Check osteotomy direction (optional)

Check correct direction using Direction Indicator Ø 2.0/2.4–2.8 mm.

#### Tips

- If applicable, take a radiograph to verify correct direction.
- When placing multiple implants, proceed to the next implant site before continuing to the next drill sequence.



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#### 5 Drill with Twist Step Drills

- Continue site preparation using Twist Step Drill Ø 2.4/2.8 mm.
- Check orientation using Direction Indicator Ø 2.0/2.4–2.8 mm (optional).
- Finalize site preparation using Twist Step Drill Ø 3.2/3.6 mm.

Maximum speed 2000 rpm



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#### 6 Determine implant length

Use Depth Probe to verify the desired depth has been achieved (including soft tissue thickness, if applicable).

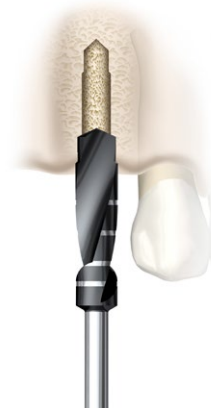


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### 7 For dense bone only: widen cortex

Widen cortex to full cortex depth using Twist Step Drill  
 Ø 3.8/4.2 mm. Do not drill to full drilling depth.

Maximum speed 2000 rpm




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### 8 Use of Screw Tap in dense bone

- Place the Screw Tap RP 4.3 into prepared implant site using low speed (25 rpm).
- Apply firm pressure and begin rotating the screw tap slowly. When the threads engage, continue to thread the screw tap to the defined depth without applying additional pressure.
- Switch the drill unit with handpiece to reverse mode and back the screw tap out.

Low speed 25 rpm



Special depth marking  
 for the Screw Tap WP 5.5  
 11.5–15 mm

**Note** See [page 17](#) for more information regarding defined depth for NobelActive TiUltra screw taps 3.0, NP 3.5, RP 4.3, RP 5.0 and WP 5.5.

# Implant insertion

## 1 Unpack implant

Each implant comes in a double sterile solution: the implant held in an inner titanium vial (a) that is packed in plastic vial with screw lid, which acts as first sterile barrier (b). The plastic vial with screw top lid is packed in a blister sealed with a lid, which is the second sterile barrier (c). The blister is packed together with an implant card (d) and patient record labels (e) in a cardboard box (f).

The cardboard box and the blister have a printed label with product data including diameter and length.

The vial is laser marked with implant data including name, diameter and length (a). The inner titanium vial cap is color coded to identify the implant diameter.

- Open the box and ensure the implant card and patient record labels are removed.
- Peel off the sealed blister lid in order to open it and allow the plastic vial on the sterile field.
- Unscrew the lid and take out the sterile titanium vial, then lift off the color-coded cap to gain access to the implant.
- Record the implant size and LOT number on the patient's profile records with the provided peel-off labels available in the box. After surgery, provide the implant card, completed with the implant information, to the patient to keep for future reference.

All NobelActive TiUltra implants are delivered without a cover screw.



a) Inner vial

b) Plastic vial

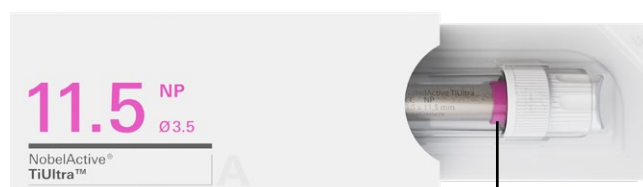
c) Blister



d) Implant card



e) Patient record labels



f) Cardboard box

The color of the implant vial cap refers to the diameter of the implant.

## 2 Choose insertion instrument

Depending on the clinical situation and accessibility, there are three different options for implant placement:

Manual placement:

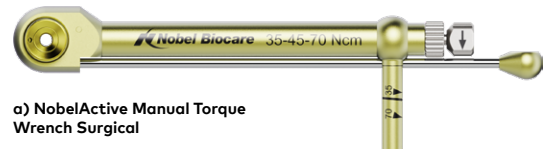
- a) with a NobelActive Manual Torque Wrench Surgical
- b) with a Surgical Driver

Machined placement:

- c) with a drilling unit with contra-angle

### Tips

- In the anterior region it is recommended to use the Surgical Driver to facilitate good control during insertion and angulation changes.
- The Surgical Driver is intended to be used while grasped with fingertips only to avoid excessive insertion torque.
- For NobelActive TiUltra 3.0, the NobelReplace Manual Torque Wrench Surgical or the Manual Torque Wrench Prosthetic with Surgical Wrench Adapter can also be used, as they both have a 45 Ncm marking.



a) NobelActive Manual Torque Wrench Surgical



b) Surgical Driver



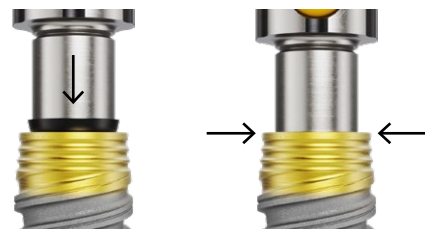
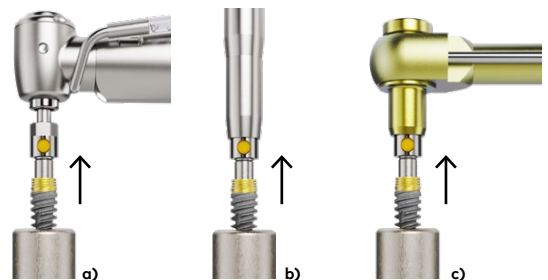
c) Drilling unit with contra-angle

## 3 Pick up implant

- Connect the appropriate Implant Driver to the insertion instrument.
- Pick up the implant from the inner casing by applying light pressure on the implant driver and carefully turning the casing counterclockwise until the Implant Driver is fully seated.

**Tip** The Implant Drivers have markings to facilitate the insertion of the driver into the implant.

**Tip** Make sure that the Implant Driver is fully seated.



**4 Machined implant placement**

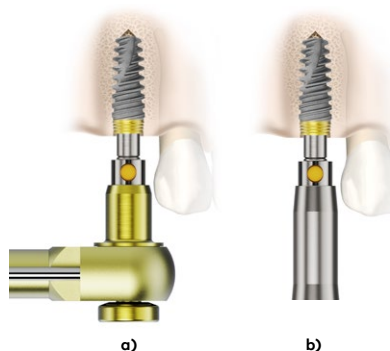
- When using a drilling unit, insert the implant using low speed: max 25 rpm.
- Remove Implant Driver with a gentle upward motion.

Low speed 25 rpm / Max. torque 70 Ncm



**5 Manual implant placement**

- a) Connect the Manual Torque Wrench Adapter together with the Implant Driver to the NobelActive Manual Torque Wrench Surgical and place the implant to final depth.
  - b) Connect the appropriate Implant Driver to the Surgical Driver NobelActive and place the implant to final depth.
- Remove Implant Driver with an upward motion.

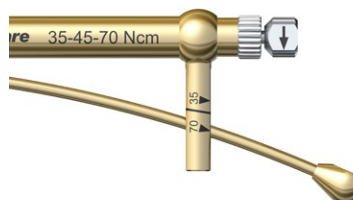


**Caution** Never exceed insertion torque of **45 Ncm** for a NobelActive TiUltra 3.0 implant and **70 Ncm** for NobelActive TiUltra 3.5, 4.3, 5.0 and 5.5 implants. Overtightening an implant may lead to damage of the implant, fracture or necrosis of the bone site. If a Surgical Driver is used to insert the implant, special care needs to be taken to avoid overtightening.

For One-stage Immediate Function procedures, the implant should withstand a final insertion torque of at least **35 Ncm**.

**Procedure for implant placement in dense bone**

For more detailed information regarding implant placement in dense bone and NobelActive TiUltra screw taps, refer to [page 17](#).

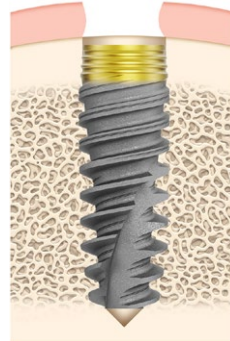


Markings for 35 Ncm, 45 Ncm and 70 Ncm.

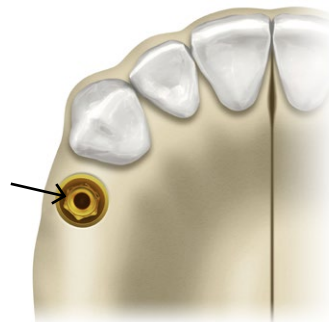
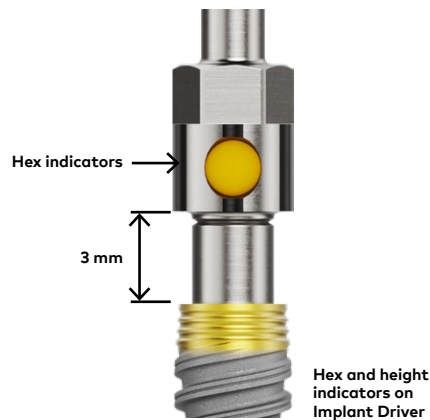


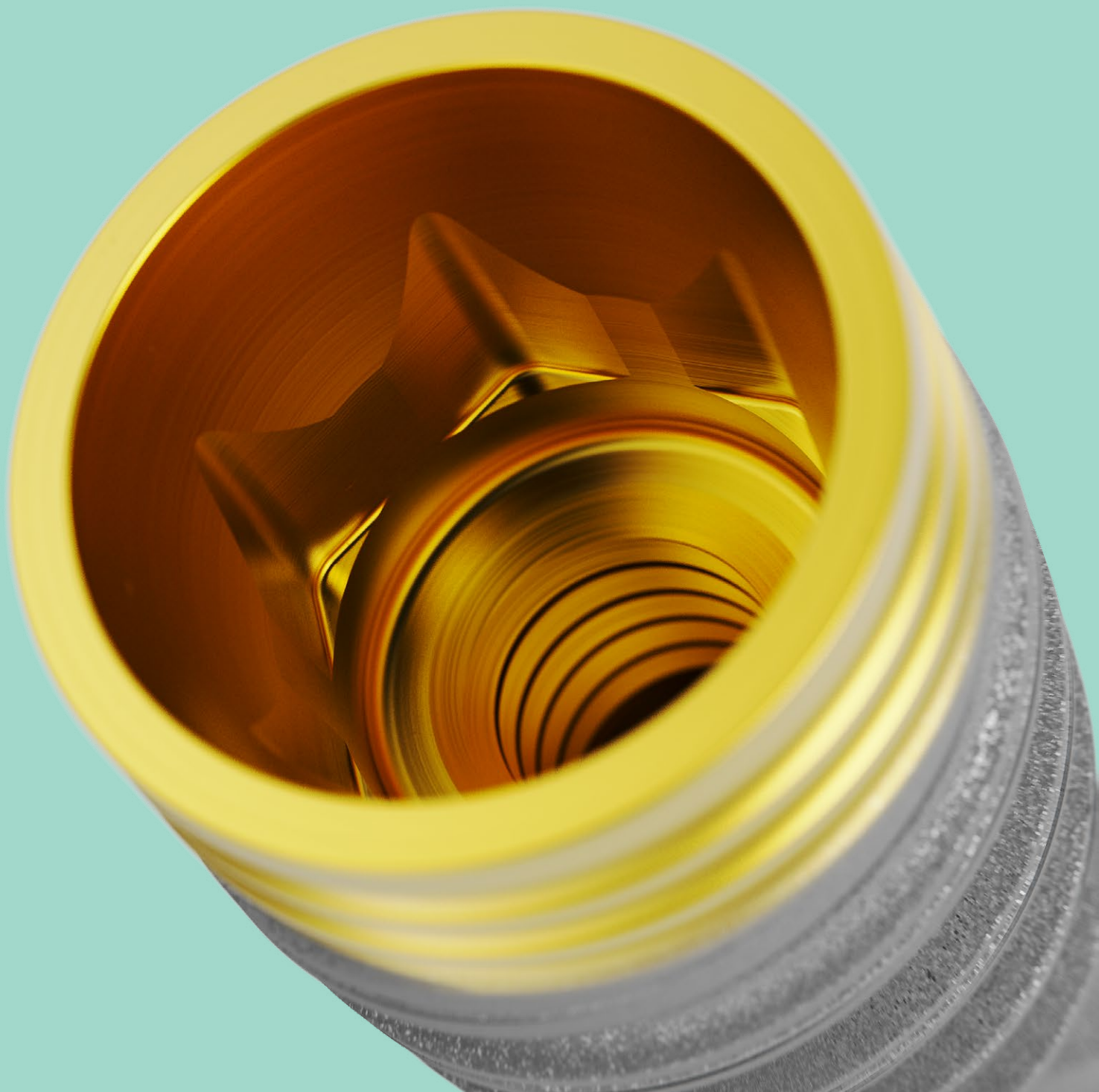
## 6 Final implant placement

- Available abutment margin height needs to be considered during the planning of implant placement to ensure appropriate seating depth of the implant relative to the available soft tissue thickness and the planned emergence of the restoration.
- When placing the implant, align one of the black hex indicators on the implant driver parallel to the buccal wall. This ensures that one of the flat sides of the hexagon is parallel to the buccal side, ensuring preferred prosthetic abutment orientation.



The Implant Driver has a 3 mm height indicator to facilitate vertical implant positioning.





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# Advanced surgical procedures

NobelActive TiUltra 3.0	28
Active placement in extraction sockets	30
Stabilization in wide extraction sockets	33

# NobelActive TiUltra 3.0

## Indications (specific to NobelActive TiUltra 3.0)

- NobelActive TiUltra 3.0 implants are intended to replace a lateral incisor in the maxilla and/or a central or lateral incisor in the mandible.
- NobelActive TiUltra 3.0 implants are indicated for single-unit restorations only.

## Contraindications (specific to NobelActive TiUltra 3.0)

- NobelActive TiUltra 3.0 implants are not indicated to be used to replace a central incisor, a canine, a premolar or a molar in the maxilla nor to replace a canine, a premolar or a molar in the mandible.
- NobelActive TiUltra 3.0 implants are not indicated to be used for multiple tooth replacements.

---

## 1 Prepare implant site

Prepare the implant site according to drill protocol (see [page 14](#)).

---

## 2 Pick up implant

Open the implant package and pick up the implant from the inner casing with the Implant Driver for NobelActive TiUltra 3.0.

---

### 3 Final implant placement

- Insert the implant with low speed, maximum 15 rpm, using drilling machine or by hand using Manual Torque Wrench Surgical.
- Due to the narrow implant diameter and narrow implant abutment connection, the maximum insertion torque for NobelActive TiUltra 3.0 differs from the entire NobelActive TiUltra assortment
- Place the implant with an insertion torque of maximum **45 Ncm** (see marking on torque wrench). For One-stage Immediate Function procedures, a minimum installation torque of **35 Ncm** is required.

**Tip** For NobelActive TiUltra 3.0, the NobelReplace Manual Torque Wrench Surgical or the Manual Torque Wrench Prosthetic with Surgical Wrench Adapter can also be used, as they both have a 45 Ncm marking.



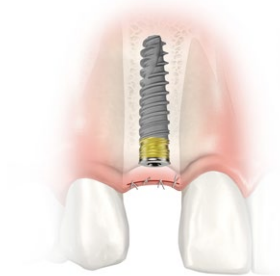

---

### 4 Temporary restoration

Depending on the surgical protocol of choice, place a cover screw or abutment and suture.

**Caution** Never exceed insertion tightening torque of **15 Ncm** for the abutment screw. Overtightening of the abutment screw may lead to screw fracture.

**Tip** Use the Screwdriver Machine UniGrip and Manual Torque Wrench.

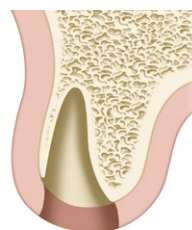


# Active placement in extraction sockets

Achieving esthetic results in the anterior can be challenging. The buccal bone plate is usually very thin and often missing entirely, and maintaining bone height and soft tissue architecture requires at least 1.5 mm of bone thickness buccal to the implant.

In order to achieve the desired results, bone augmentation must often be performed prior to implant placement. In many cases, NobelActive TiUltra simplifies this procedure.

**Caution** The unique thread design of NobelActive TiUltra implants allows to redirect the implant during insertion. This feature requires special attention to execute during placement, as the implant will not necessarily stop at the bottom of the prepared site but may go deeper into the bone.

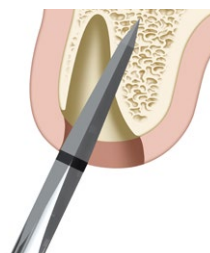


The tooth is extracted and the socket is prepared in the regular manner.

## 1 Create starting point

For creation of a starting point in the palatal wall of the extraction socket, use the Precision Drill.

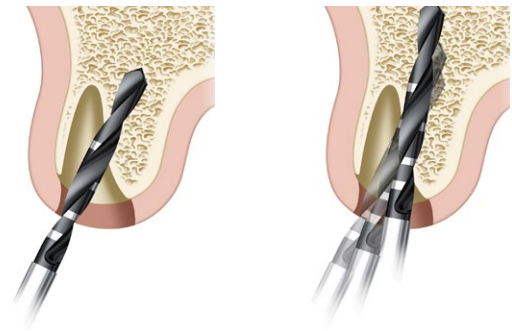
Maximum speed 2000 rpm



---

## 2 Prepare implant site

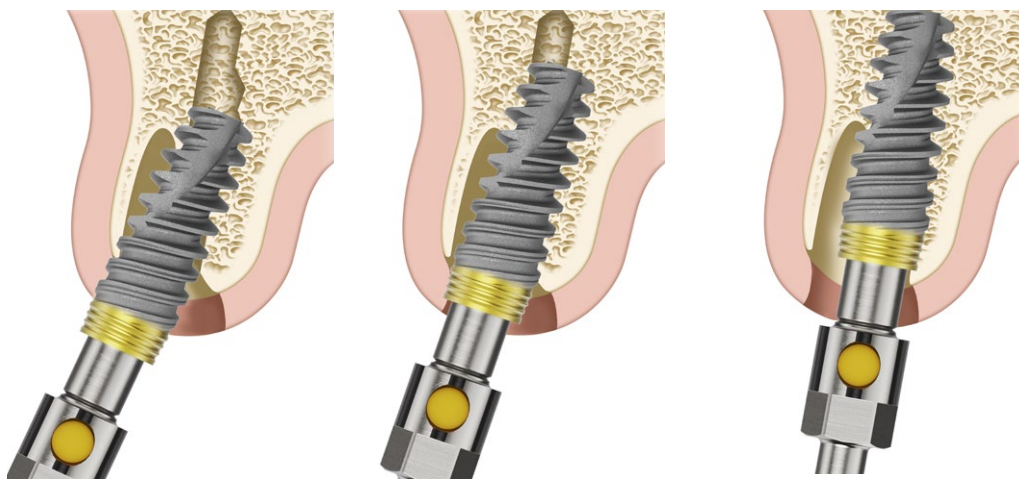
- For maxillary anterior teeth, the objective is to utilize bone palatal to the remaining socket in the apical 1/3 to 1/2 for stabilization of the implant. The palatal wall is first penetrated from a more perpendicular approach to gain a starting point with either the Precision Drill or the Twist Drill with Tip Ø 2 mm.
- Continue to drill with the Twist Drill with Tip Ø 2 mm while gradually changing the direction to a more vertical direction.
- Depending on implant diameter and bone density, continue to drill as described above, following the drill protocol.



**Tip** When using a flapless procedure, measure the soft tissue thickness with a probe. Add this tissue thickness to the drilling depth for correct site preparation. Be aware of anatomical landmarks.

### 3 Implant placement

- Begin inserting the implant at the same angle as for the initial drilling. Do not exceed **70 Ncm** for NobelActive TiUltra NP, RP and WP and **45 Ncm** for NobelActive TiUltra 3.0 implants.
- Continue implant insertion to final position, while gradually changing the angulation.



#### Procedure for implant placement in dense bone

If the implant gets stuck during implant installation, or the maximum torque is achieved before fully seated one of the following procedures should be followed:

- a) Rotate the implant counterclockwise for a few turns enabling the use of the self-tapping capacity of the implant; or
- b) Back out implant and widen the site with a wider drill according to drill protocol; or
- c) Select a NobelActive TiUltra screw tap which matches the diameter of the implant and desired drilling depth:
  - Place the screw tap into prepared implant site using low speed (25 rpm).
  - Apply firm pressure and begin rotating the screw tap slowly. When the threads engage, continue to thread the screw tap to the defined depth without applying additional pressure.
  - Switch the drill unit with handpiece to reverse mode and back the screw tap out.



# Stabilization in wide extraction sockets

The new Wide Platform (WP) implant is specifically designed for posterior cases that require a wider base. It helps create a natural-looking emergence profile for the molar crown, and its shorter implant body (7 mm) helps to avoid critical anatomical structures.

**Caution** Particular caution should be used when placing narrow platform implants in the posterior region due to risk of prosthetic overload.

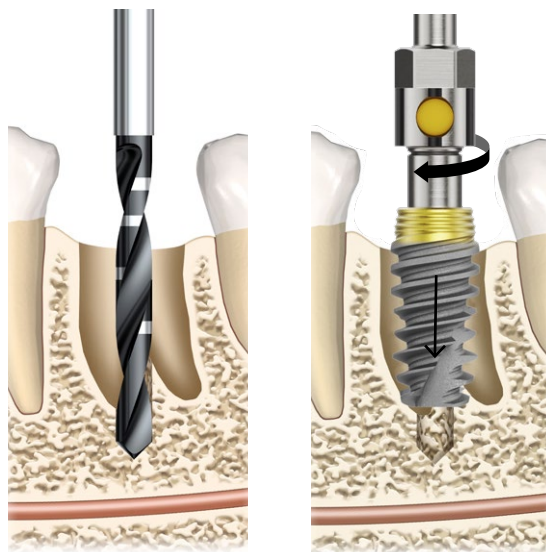
## Contraindications (specific to NobelActive TiUltra 3.0)

- NobelActive TiUltra 3.0 implants are not indicated to be used to replace a central incisor, a canine, a premolar or a molar in the maxilla nor to replace a canine, a premolar or a molar in the mandible.
- NobelActive TiUltra 3.0 implants are not indicated to be used for multiple tooth replacements

## Procedure for implant placement in extraction sockets

- Drill apically in the extraction socket, using Twist Drill with Tip Ø 2 mm or Precision Drill.
- Depending on the diameter of the implant and the bone density, continue site preparation following the drill protocol.
- Start inserting the implant into the under-prepared site as described previously.
- Bone augmentation may immediately follow implant placement if indicated.
- Place a cover screw and suture.
- In the described situation, the One-stage Immediate Function procedure approach is not recommended.

**Caution** Never exceed insertion torque of **45 Ncm** for a NobelActive TiUltra 3.0 implant and **70 Ncm** for NobelActive TiUltra 3.5, 4.3, 5.0 and 5.5 implants. Overtightening an implant may lead to damage of the implant, fracture or necrosis of the bone site. If a Surgical Driver is used to insert the implant, special care needs to be taken to avoid over tightening.





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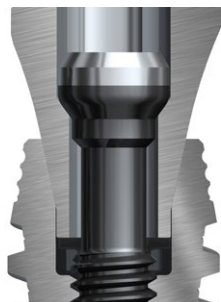
# Restorative procedure

Important considerations	36
Finalization of implant surgery and temporary restorations	40
Two-stage early/delayed function	41
One-stage Immediate Function procedures	42

# Important considerations

## Prosthetic interface

Dual-function prosthetic connection: internal conical connection for abutments and external platform for implant-level bridge restorations (NobelProcera Implant Bridge and GoldAdapt).



Conical seal for abutments



Shoulder seating for NobelProcera Implant Bridge

## Multiple-unit restorations

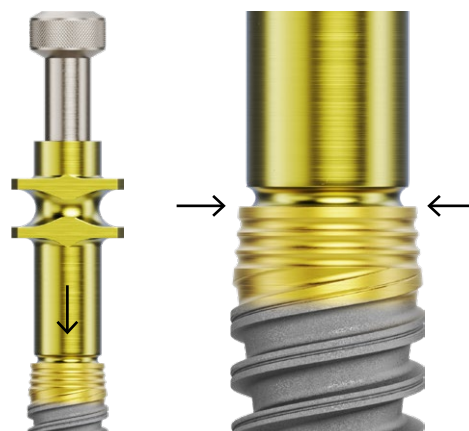
When restoring with a NobelProcera Implant Bridge, or any other full-arch solution, Healing Abutments Bridge and Impression Copings Bridge must be used for placement, uncovering and impression taking. The bridge components ensure soft tissue management around the prosthetic platform for optimal prosthetic seating.



## Impression coping seating

Proper seating of the impression coping is essential for a correct impression.

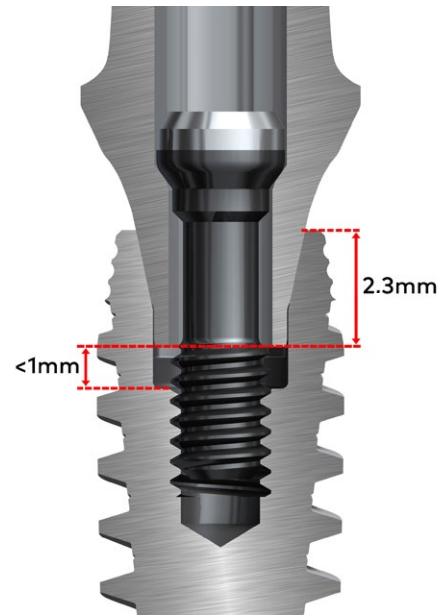
To verify that the impression copings are properly seated, check that the groove on the impression coping sits correctly at the level of the implant shoulder. Use a perpendicular radiograph if necessary.



### Abutment seating

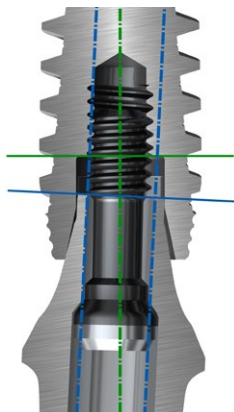
Correct positioning of the abutment is essential for the prosthetic outcome and long-lasting function. Verify correct vertical abutment seating by using radiographic imaging.

- Position the abutment into the implant head and make sure the hexagonal extension engages properly by gently turning and pushing.
- Make sure the abutment feels securely placed, both horizontally and vertically.
- Tighten the screw, but not to full torque.
- Take a radiograph to verify proper and full abutment seating:
  - No apparent bone interference
  - Alignment of long axes of implant and abutment
  - No gap in conical interface
- Space at the bottom of the connection should appear parallel and measure less than 1 mm.
- Tighten the abutment screw to final torque. Tightening torque for NP, RP and WP abutments is 35 Ncm, and tightening torque for 3.0 abutments is 15 Ncm.

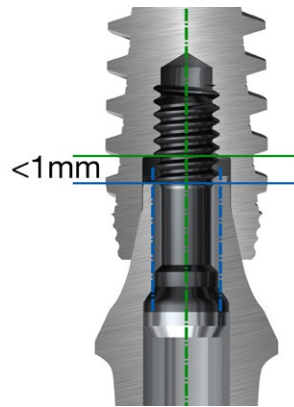


Final abutment position with space less than 1 mm

### Example 1

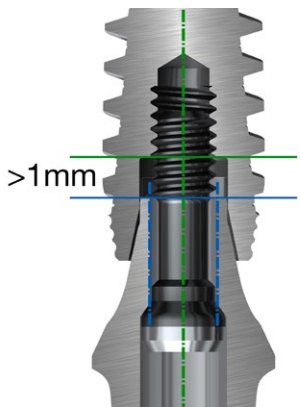


Abutment not fully seated due to interfering bone. Long axes are not aligned. Gap in conical interface. Bottom space is not parallel and is larger than 1 mm.

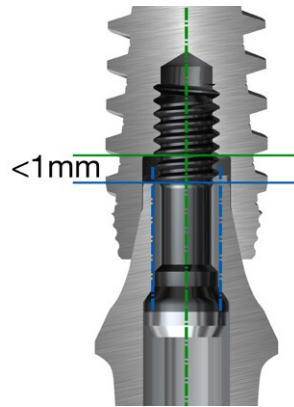


Abutment fully seated. All above parameters are verified.

### Example 2



Abutment seems to be aligned with implant but space is larger than 1 mm.

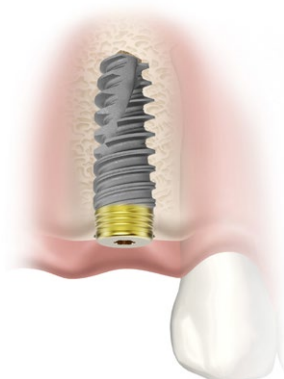


Abutment is fully seated.



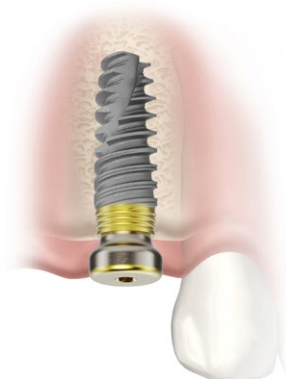
# Finalization of implant surgery and temporary restorations

There are three options for finalizing the implant surgery.



## Two-stage early/delayed function

Use Screwdriver UniGrip to connect a cover screw to the implant. Suture the tissue flap using the desired technique.



## One-stage early/delayed function

Place the On1 Base Xeal and connect the On1 Healing Cap to it, or connect a healing abutment directly to the implant. If applicable, suture back the soft tissue.

For further information on this option, please check [On1 concept Quick guide](#)



## One-stage Immediate Function

Provisionalize the implant for immediate esthetics and function, using Nobel Biocare On1 Temporary Abutments or implant-level temporary abutments.

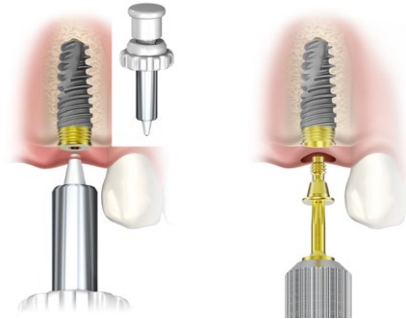
**Tip** If the final restoration is an implant-level NobelProcera Implant Bridge, non-engaging Universal Abutment or non-engaging GoldAdapt Abutment, use a Healing Abutment Bridge to prevent tissue overgrowth on the horizontal implant platform.



# Two-stage early/delayed function

## 1 Uncover the implant

- Make an incision to expose the cover screw or use the Soft Tissue Punch if there is sufficient amount of attached mucosa.
- Remove the cover screw using the Screwdriver Manual UniGrip.



## 2 Remove bone overgrowth

Should bone grow over the cover screw, remove the bone with a rotating instrument and/or a curette. Be careful not to damage the seating for the Screwdriver Manual UniGrip.

## 3 Remove bone around the implant platform with a Bone Mill

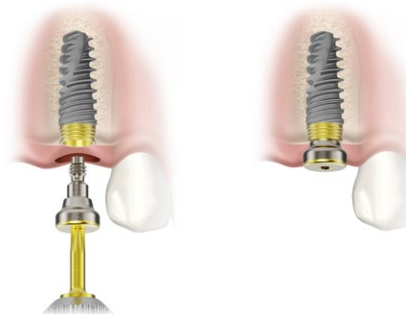
- After removing the cover screw, remove any bone around the implant platform that will hinder an abutment being fully seated on the implant platform. This is often the case when the implant has been placed below the bone crest. For bone removal, use the Bone Mill Guide and Bone Mill for the corresponding platform.
- The Bone Mill can be handled either manually (with the handle for machine instruments) or with the drilling unit.



## 4 Connect healing abutment

- Connect a suitable healing abutment to the implant using the Screwdriver Manual UniGrip.
- If a flap is prepared, suture back the soft tissue.

**Alternative** If possible, connect the final abutment using the corresponding screwdriver.



# One-stage Immediate Function procedures

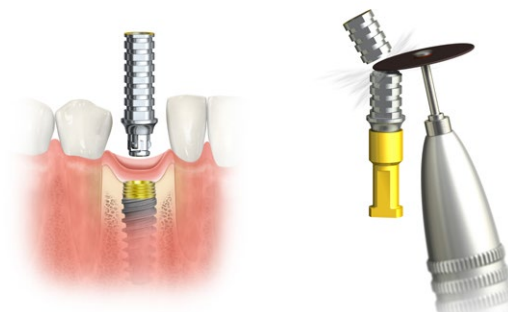
## Implant level, temporary single-unit restoration

The following illustrations show the use of the Temporary Snap Abutment Engaging (for single-unit restorations).

In cases where the implant has reached an insertion torque of a minimum 35 Ncm it allows the use of the One-stage Immediate Function procedures to temporarily restore a single-unit restoration with a temporary abutment.

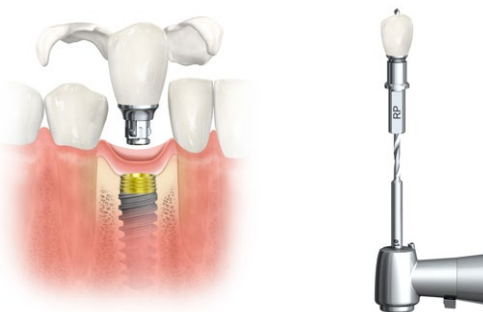
### 1 Connect abutment to implant

- Attach the abutment to the implant, check inter-occlusal space and adjust for height and clearance if necessary.
- Modifications of the abutment can be performed with a carborundum disk or carbide bur. Extraoral modification of abutment is recommended.
- Place the abutment onto the implant and block the screw channel. Do not insert the screw: as the abutment is retained by the retention elements.



### 2 Fabricate the temporary crown with a TempShell (Option A)

- Use a TempShell to convert it into an individualized provisional restoration designed prior to surgery.
- Try-in the fit of the temporary crown seating the wings on the neighboring teeth.
- Apply a small amount of acrylic or composite into the crown and reposition it in the patient's mouth.
- Let the acrylic or composite cure and pick up the restoration.
- Finalize the crown – fill the shell with the acrylic/composite, remove the wings and polish the restoration. It is important to have a smooth surface adjacent to the surrounding soft tissue.
- Create the screw access hole using the Apical Drill and Protection Analog/Drill Guide.

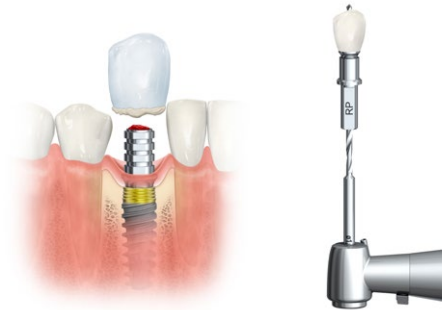


OR

---

## 2 Fabricate the temporary crown conventionally (Option B)

- Using the acrylic mold, create the temporary crown, filling it with dental acrylic or composite material, and seat it over the temporary abutment.
- Follow the material manufacturer's instructions regarding curing.
- Finalize the restoration following the conventional procedure. It is important to have a smooth surface adjacent to the surrounding soft tissue.
- Create the screw access hole using the Apical Drill and Protection Analog/Drill Guide.




---

## 3 Connect temporary restoration

- Connect the restoration and tighten it to 35 Ncm using the clinical screw and Screwdriver UniGrip.
- Block the screw access hole using Teflon tape and close it with composite.
- Fill the screw access hole with suitable material.

**Caution** Never exceed tightening torque for the abutment screw. **15 Ncm** for NobelActive TiUltra 3.0, all other CC connections: **35 Ncm**. Overtightening of the abutment screw may lead to a screw fracture.



## Implant level, temporary multiple-unit restoration

The following illustrations show the use of the Temporary Abutment Non-Engaging (for multiple splinted restorations). For individual implants, use engaging abutments.

In cases where the implants have reached an insertion torque of minimum **35 Ncm** it allows the use of the One-stage Immediate Function procedures to temporarily restore a multiple-unit restoration with temporary abutments.

### 1 Connect abutments to implants

- Attach the abutments onto the implants and adjust for height and clearance if necessary.
- Fasten the abutments with guide pins that extend beyond the occlusal plane with the Screwdriver Manual UniGrip.

Abutment screw is included with the abutment. The guide pin (available in two lengths: 20 mm [standard length] and 30 mm) has to be ordered separately.



### 2 Fabricate the temporary bridge using a TempShell (Option A)

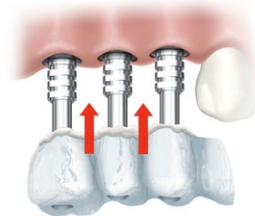
- Use a TempShell to convert it into an individualized provisional restoration designed prior to surgery.
- Try-in the fit of the temporary bridge seating the wings on the neighboring teeth.
- Apply a small amount of acrylic or composite into the bridge and reposition it in the patient's mouth.
- Let the acrylic or composite cure and pick up the restoration.
- Finalize the bridge – fill the shell with the acrylic/composite, remove the wings and polish the restoration. It is important to have a smooth surface adjacent to the surrounding soft tissue.
- Create the screw access hole using the Apical Drill and Protection Analog/Drill Guide.

OR

---

## 2 Fabricate the temporary bridge using the conventional procedure (Option B)

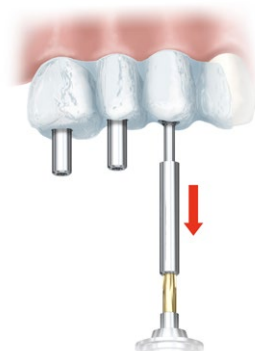
- Fabricate the template from acrylic or composite for chairside temporization.
- Make access holes to allow guide pins to protrude.
- If the laboratory has made a prefabricated provisional bridge, make access holes to allow the guide pins to protrude (if not already done) and adjust it to the abutments.
- Fill template with acrylic or composite and seat it over the temporary abutments.




---

## 3 Adjust temporary restoration

- After seating, loosen the guide pins to remove the restoration.
- Trim and polish the restoration. It is important to have a smooth surface adjacent to the surrounding soft tissue.

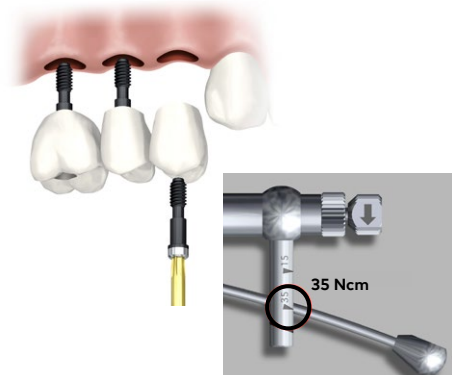


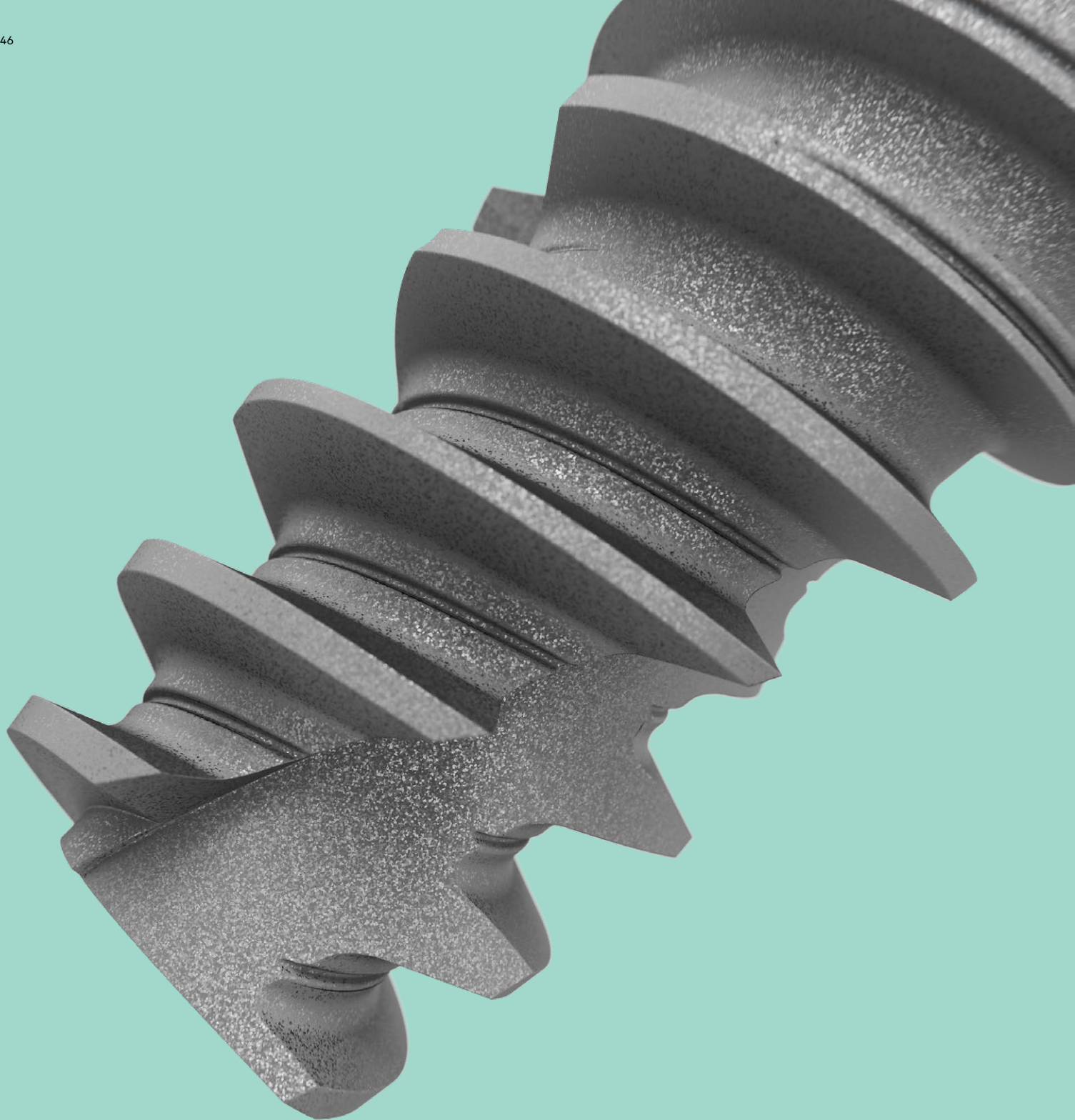

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## 4 Connect temporary restoration

- Connect the provisional restoration with the supplied abutment screws.
- Tighten to 35 Ncm using Manual Torque Wrench Prosthetic and Screwdriver Machine UniGrip.
- Fill the screw access holes with suitable material.

**Caution** Never exceed tightening torque for the abutment screw. **15 Ncm** for NobelActive TiUltra 3.0, all other CC connections: **35 Ncm**. Overtightening may lead to a screw fracture.





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# PureSet™

Wallchart 48



Depth Probe 7-18 mm  
37791



Precision Drill  
36118



**Bone Mill (with Guide) CC**  
3.0 Ø4.0 37861  
NP Ø4.4 37863  
NP Ø5.2 37864  
RP Ø5.2 37866  
RP Ø6.2 37867  
WP Ø6.7 37869



**Bone Mill Guide CC**  
3.0 37862  
NP 37865  
RP 37868  
WP 37870

NobelActive®/  
NobelParallel™ CC  
PureSet™ Tray  
PUR0200



Direction Indicator  
32112



Screwdriver  
manual UniGrip 28 mm  
29149\*

**SINGLE USE ONLY**

**N™**

**Precision**  
#1 Ø1.5 #2 Ø2.0

**Ø4.0** **Guide** #3 Ø2.4/2.8

**Ø4.4** **Guide** #4 Ø2.8/3.2

**Ø5.2** **Bone Mill** #5 Ø3.2/3.6

**Ø5.2** **Guide** #6 Ø3.8/4.2

**Ø6.2** #7 Ø4.2/4.6

**Ø6.7** **Guide** #8 Ø4.2/5.0

**Direction Indicator**

**Screw Tap**  
Ø3.0 Ø3.5

**Cortical Drill** SINGLE USE ONLY  
Ø3.75

**Screw Tap** SINGLE USE ONLY

**Implant Driver**  
3.0 NP

# Wallchart



- Twist Drills**  
Ø 1.5 (7-15) 31278  
Ø 2.0 (7-10) 32296  
Ø 2.0 (7-15) 32297  
Ø 2.0 (10-18) 32299
- Twist Step Drills**  
**7-10 mm**  
Ø 2.4/2.8 (#3) 32260  
Ø 2.8/3.2 (#4) 37873  
Ø 4.2/4.6 (#7) 37874  
Ø 4.2/5.0 (#8) 37875
- 7-15 mm**  
Ø 2.4/2.8 (#3) 32261  
Ø 2.8/3.2 (#4) 34638  
Ø 3.2/3.6 (#5) 32264  
Ø 3.8/4.2 (#6) 32276  
Ø 4.2/4.6 (#7) 34582  
Ø 4.2/5.0 (#8) 37876
- 10-18 mm**  
Ø 2.4/2.8 (#3) 32262  
Ø 2.8/3.2 (#4) 34639  
Ø 3.2/3.6 (#5) 32265  
Ø 3.8/4.2 (#6) 32277  
Ø 4.2/4.6 (#7) 34583





Drill Extension Shaft  
29164



Surgical Driver  
32180



NobelActive Manual Torque  
Wrench Surgical  
34584

PureSet™ A/P

Unigrip Screwdriver Drill Ext.

**NobelActive®**

	Soft	Medium	Dense
Ø3.0	1	2	23
Ø3.5	2 (3)	23 (4)	234
Ø4.3	23 (4)	235	235 (6)
Ø5.0	235	2356	2356 (7)
Ø5.5	235 (6)	23567 (8)	23568 S

(-) = Only widen cortex

**NobelParallel™ CC**

	Soft	Medium	Dense
Ø3.75	2 (3)	23 C (S)	234 C S
Ø4.3	23 (5)	235 C (S)	235 C S
Ø5.0	235 (6)	2356 C (S)	2356 C S
Ø5.5	2357 (8)	2358 C (S)	2358 C S

(-) = Optional  
C = Cortical Drill S = Screw Tap

RP WP

7 10 13 15 18



**Screw Tap**  
3.0 36816  
NP 3.5 36236  
RP 4.3 36237  
RP 5.0 36238  
WP 5.5 (7-10) 37871  
WP 5.5 (11.5-15) 37872

\* Available in other lengths



Implant Driver 3.0  
28 mm 36773  
37 mm 36774



Implant Driver NP  
28 mm 36718  
37 mm 36719



Implant Driver RP  
28 mm 36720  
37 mm 36721



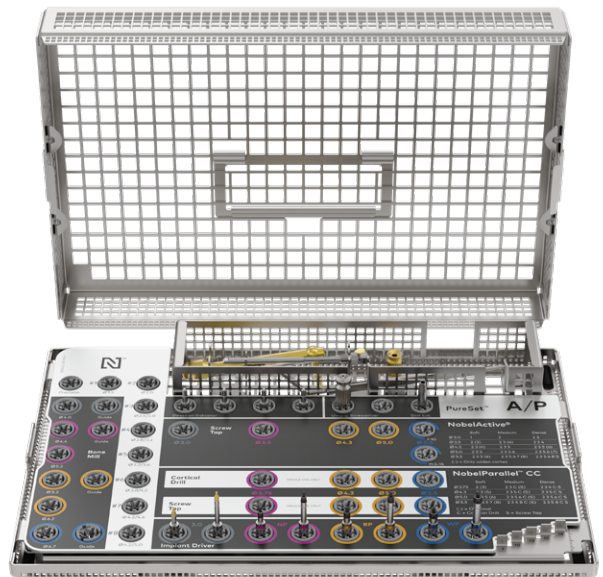
Implant Driver WP  
28 mm 37859  
37 mm 37860

**NobelActive® PureSet™****87294**

(The articles below can also be purchased individually)

NobelActive /NobelParallel CC PureSet Tray	PUR0200
Surgical Driver	32180
Implant Driver CC 3.0 28 mm	36773
Implant Driver CC 3.0 37 mm	36774
Implant Driver CC NP 28 mm	36718
Implant Driver CC NP 37 mm	36719
Implant Driver CC RP 28 mm	36720
Implant Driver CC RP 37 mm	36720
Implant Driver CC WP 28 mm	37859
Implant Driver CC WP 37 mm	37860
Screwdriver Manual UniGrip 28 mm	29149
Drill Extension Shaft	29164
Direction Indicator Ø2 / Ø2.4-2.8 mm (4x)	32112
Implant/Prosthetic Organizer	29532
NobelActive® Manual Torque Wrench Surgical	34584
Depth Probe 7-18 mm Z-shaped	37791
Implant Sleeve Holder	29543
NobelActive Radiographic Template	37887
NobelActive / NobelParallel CC PureSet Wall Chart	300565

**Note** Drills and Screw Taps are available for separate purchase and are not included in the kit.

**Bone Mill with Guide Conical Connection**

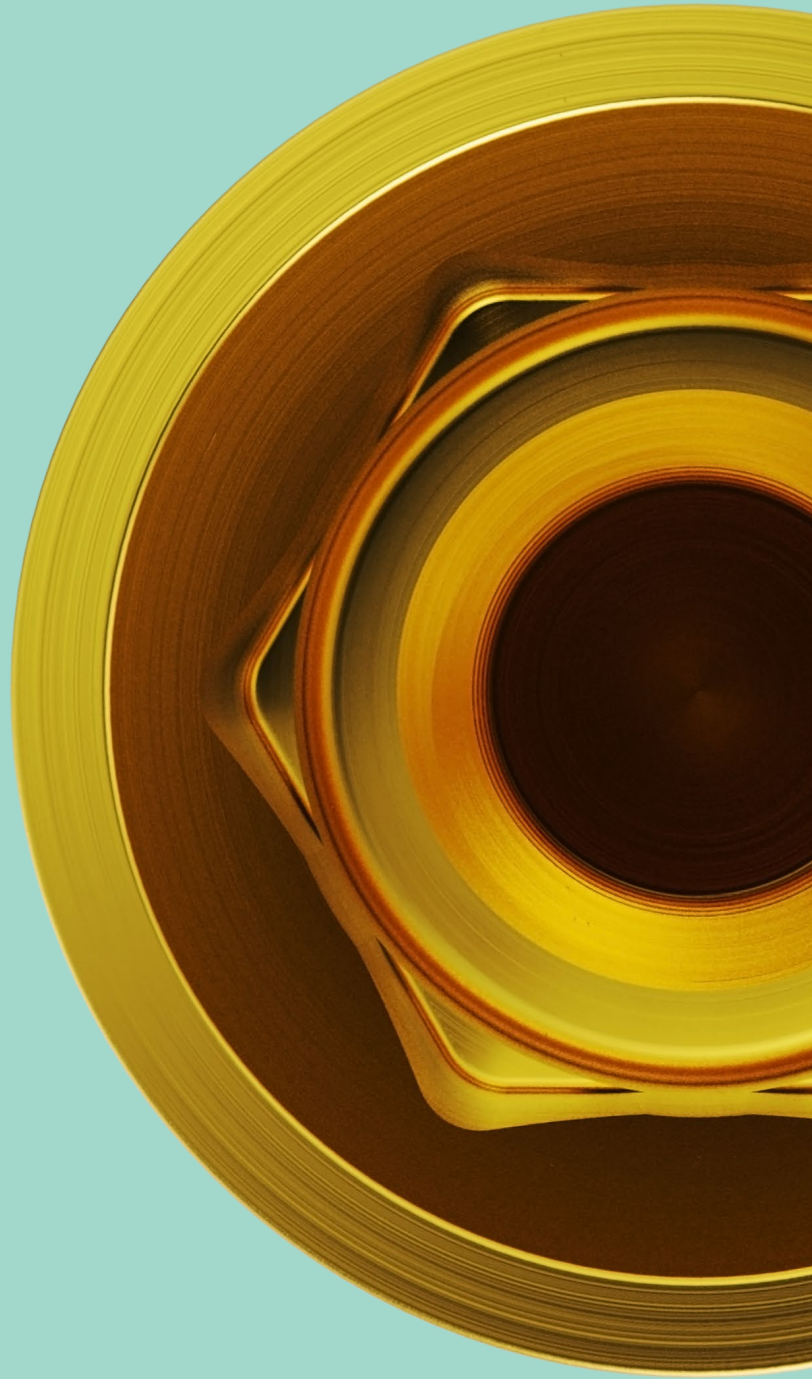
(To be accommodated in the PureSet™)

Bone Mill with Guide Conical Connection 3.0 Ø4.0	37861
Bone Mill with Guide Conical Connection NP Ø4.4	37863
Bone Mill with Guide Conical Connection NP Ø5.2	37864
Bone Mill with Guide Conical Connection RP Ø5.2	37866
Bone Mill with Guide Conical Connection RP Ø6.2	37867
Bone Mill with Guide Conical Connection WP Ø6.7	37869



For more information regarding the product portfolio see the 'Product Overview - Conical Connection Implants & Prosthetics'.





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# Appendices

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# Manual Torque Wrench

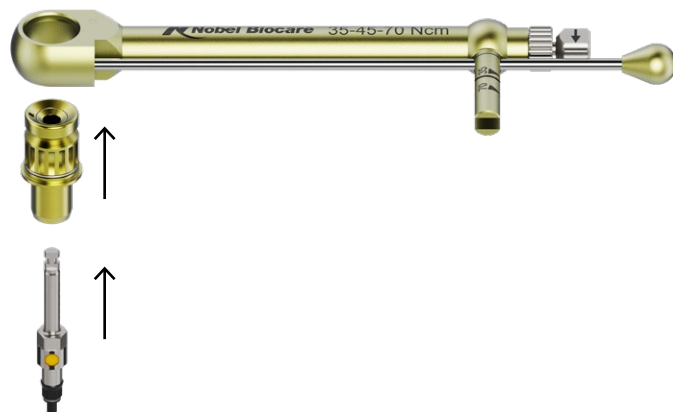
For the surgeon, the torque required to place implants provides insight into the primary stability of the implant. For restorative procedures, tightening the abutment and prosthetic screws to the recommended torque specifications will more effectively control screw-joint integrity during patient function.

The Manual Torque Wrench is a convenient tool for achieving the desired torque.

## Manual Torque Wrench – Surgical

Intended for tightening or adjusting implant position.

- Indicating torque values 45 Ncm and 70 Ncm
- Insert Implant Driver Conical Connection



## Manual Torque Wrench – Prosthetic

Intended for tightening or adjusting abutment or screw position.

- Indicating torque values 15 Ncm and 35 Ncm
- Compatible with all machine screwdrivers
- Insert the applicable driver

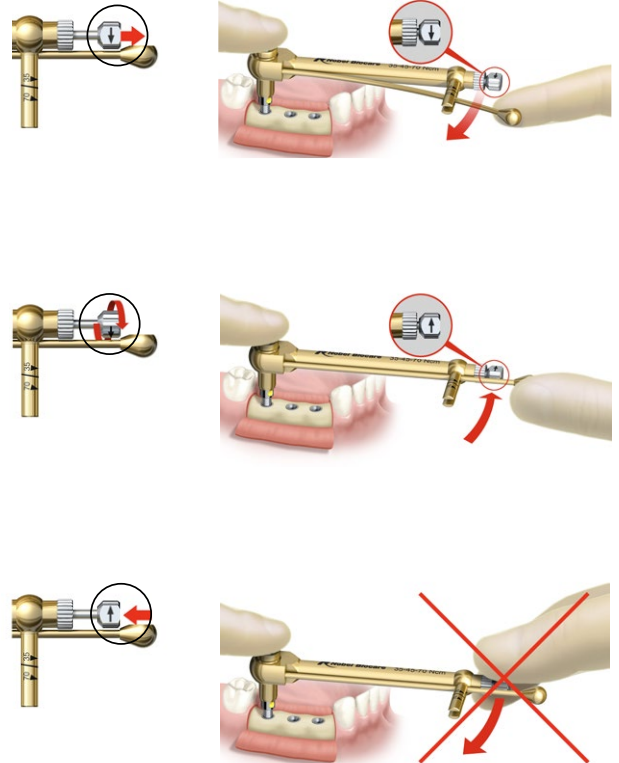


### Use of the Manual Torque Wrench Surgical

- Select the corresponding Manual Torque Wrench Adapter Surgical and insert the corresponding Implant Driver into the adapter.
- To tighten an implant, adjust the direction indicator so that the arrow is pointing toward the level arm and rotate clockwise.
- To loosen an implant, adjust the direction indicator so that the arrow is pointing away from the level arm, and rotate counterclockwise.

**Warning** If force is applied to the main body of the Manual Torque Wrench Surgical and not to the lever arm, the applied torque cannot be measured. High forces may cause over compression of the bone leading to bone resorption, especially in case of a thin buccal/lingual marginal bone crest.

After use, disassemble the Manual Torque Wrench by removing the adapter and the rod from the wrench body. Please follow the steps described in the IFU for Manual Torque Wrenches Surgical and Prosthetic.



# Cleaning and sterilization

## Sterile components

Refer to the Instructions For Use (IFU1076) for NobelActive TiUltra for detailed cleaning and sterilization instructions.

[ifu.nobelbiocare.com](http://ifu.nobelbiocare.com)

**Note** Implants must never be resterilized or reused.

### Implants

Implants are delivered sterile, are for single use only, and must be used prior to the labeled expiration date.

**Warning** Do not use device if the packaging has been damaged or previously opened.

**Caution** NobelActive TiUltra implants are single use product and must not be reprocessed. Reprocessing could cause loss of mechanical, chemical and / or biological characteristics. Re-use could cause cross contamination



### Twist and Twist Step Drills, Precision Drill and Screw Taps

Twist Drills and Twist Step Drills are delivered sterile and for single use only. Screw Taps are delivered sterile and reusable.



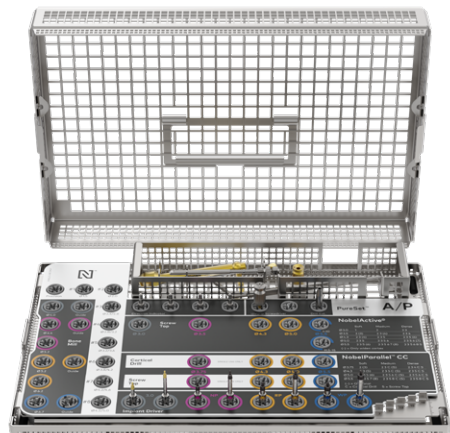


## Non-sterile components

**Caution** Care and maintenance of instruments are crucial for a successful treatment. Sterilized instruments not only safeguard your patients and staff against infection but are also essential for the outcome of the total treatment.

Refer to the Instructions For Use (IFU1067) for PureSet for detailed cleaning and sterilization instructions.

[ifu.nobelbiocare.com](http://ifu.nobelbiocare.com)



### Abutments and plastic copings

Refer to the Instructions For Use (IFU1093) for the abutment or coping for detailed cleaning and sterilization instructions.

[ifu.nobelbiocare.com](http://ifu.nobelbiocare.com)

### Notes

- If modifications have been made to the abutment, clean the abutment prior to sterilization.
- Non-sterile plastic copings should not be re-sterilized, as they are for single use only.







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### Order online

Order our complete range of implants and prefabricated prosthetics 24 hours a day through the Nobel Biocare online store.

[nobelbiocare.com/store](https://nobelbiocare.com/store)

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### Order by phone

Call our customer service team or contact your sales representative.

[nobelbiocare.com/contact](https://nobelbiocare.com/contact)

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### Lifetime warranty

The warranty covers all Nobel Biocare implants including prefabricated prosthetic components.

[nobelbiocare.com/warranty](https://nobelbiocare.com/warranty)



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