

Drilling protocol

PREOPERATIVE PRECAUTIONS

- The user must ensure that the material is in good condition and working correctly before use.
- Under no circumstances must the material be used if the packaging is damaged or if surface damage or deformations can be seen.
- Evaluation of the patient is necessary for the purposes of determining any factor which is likely to expose the patient to a risk resulting from placement of the implant or which might have an influence on healing of the bone/soft tissue. Certain criteria must be taken into consideration with regard to the indication for surgery and the choice of implant:
 - the occlusal surface of the implant must ideally be smaller than the prosthetics tooth to ensure the flaring of the soft tissue and the emergence profile of the prostheses,
 - a minimum space of 1.5mm between the implant and the adjacent root, 3 between 2 implants, and a minimum bone thickness of 1mm around the vestibular and lingual surfaces of the implant,
 - in the event of suspected hypersensitivity or proven hypersensitivity to foreign bodies, it is recommended that TA6V ELI titanium tolerance has been checked prior to implantation of the material.
- Radiographic and/or CT scan evaluation and a clinical treatment plan are essential for the purposes of ensuring complete safety.

Cutting tools (drills, reamer drills, countersink) must not be used more than 20 times in order to prevent problems and to prevent heating of the bone.

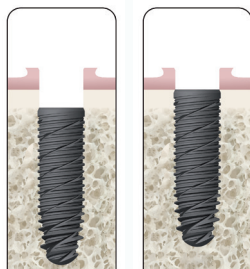
A specific tracking sheet for the drills is available upon request.

The drills are very sharp; it is recommended that caution be exercised when handling the drills in order to avoid being cut.

Also, because the drills are designed with helicoidal flutes, their use can result in a drag phenomenon which is detrimental to drilling precision. In order to prevent this possibility, it is recommended to use drilling stops provided for this purpose.

Each terminal instrument specific to a KONTACT™ implant diameter can be identified by the identification color code. The instruments must be used in the chronological order shown below.

KONTACT™



1 Implant can be buried by 2mm

Recommended

2 Crestal implant position.



Drilling for Ø 3mm implant. 2mm subcrestal placement.

- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Axial gauge for Ø 3.0mm (KJA30)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L or KFE2016)
- 4 Axial gauge for Ø 3.0mm (KJA30)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L or KFE3016)
- 6 Drilling depth gauge terminal Ø 3.0mm (Ref. KJP30)
- 7 Reamer drill Ø 3.0mm (Ref. KF30 or KF30L)*

*reamer drill optional. Only for dense bone



*reamer drill optional. Only for dense bone

Drilling for Ø 3.6mm implant. 2mm subcrestal placement.

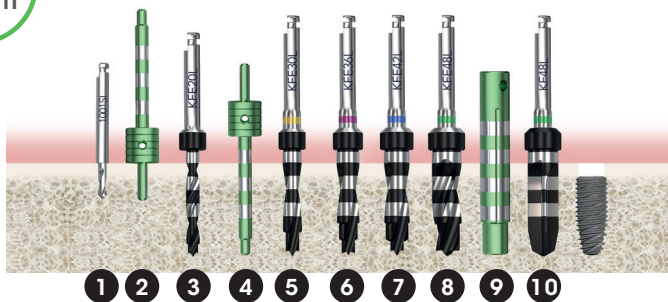
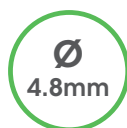
- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Axial gauge for Ø 3.6mm (KJA36)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L or KFE2016)
- 4 Axial gauge for Ø 3.6mm (KJA36)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L or KFE3016)
- 6 Step drill Ø 3.6mm (Ref. KFE36 or KFE36L or KFE3616)
- 7 Drilling depth gauge terminal Ø 3.6mm (Ref. KJP36)
- 8 Reamer drill Ø 3.0mm (Ref. KF36 or KF36L or KF3616)*



*reamer drill optional. Only for dense bone

Drilling for Ø 4.2mm implant. 2mm subcrestal placement.

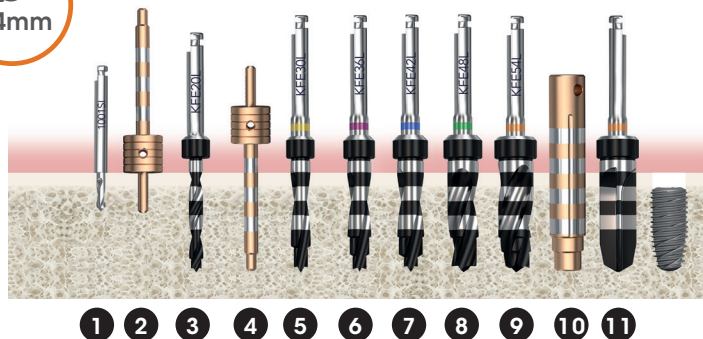
- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Axial gauge for Ø 4.2mm (KJA42)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L or KFE2016)
- 4 Axial gauge for Ø 4.2mm (KJA42)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L or KFE3016)
- 6 Step drill Ø 3.6mm (Ref. KFE36 or KFE36L or KFE3616)
- 7 Step drill Ø 4.2mm (Ref. KFE42 or KFE42L or KFE4216)
- 8 Drilling depth gauge terminal Ø 4.2mm (Ref. KJP42)
- 9 Reamer drill Ø 4.2mm (Ref. KF42 or KF42L or KF4216)*



*reamer drill optional. Only for dense bone

Drilling for Ø 4.8mm implant. 2mm subcrestal placement.

- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Axial gauge for Ø 4.8mm (KJA48)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L)
- 4 Axial gauge for Ø 4.8mm (KJA48)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L)
- 6 Step drill Ø 3.6mm (Ref. KFE36 or KFE36L)
- 7 Step drill Ø 4.2mm (Ref. KFE42 or KFE42L)
- 8 Step drill Ø 4.8mm (Ref. KFE48 or KFE48L)
- 9 Drilling depth gauge terminal Ø 4.8mm (Ref. KJP48)
- 10 Reamer drill Ø 4.8mm (Ref. KF48 or KF48L)*



*reamer drill optional. Only for dense bone

Drilling for Ø 5.4mm implant. 2mm subcrestal placement.

- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Axial gauge for Ø 5.4mm (KJA54)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L)
- 4 Axial gauge for Ø 5.4mm (KJA54)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L)
- 6 Step drill Ø 3.6mm (Ref. KFE36 or KFE36L)
- 7 Step drill Ø 4.2mm (Ref. KFE42 or KFE42L)
- 8 Step drill Ø 4.8mm (Ref. KFE48 or KFE48L)
- 9 Step drill Ø 5.4mm (Ref. KFE54 or KFE54L)
- 10 Drilling depth gauge terminal Ø 5.4mm (Ref. KJP54)
- 11 11- Reamer drill Ø 5.4mm (Ref. KF54 or KF54L)*



RECOMMENDED

Implant placed at the **subcrestal level 2mm** in order to promote bone growth over the implant.

- In case of a type D4 bone, use the widest possible external diameter implant, or an undersized drill. Drill to full depth.
- Cortical drills are to be used at the end of the protocol if the cortical bone is dense. They can also be used after the pilot drill, in order to visualise the external diameter of the implant.



Diameter 3.6mm - external 4.0mm.

- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Crestal bone profiler for implant Ø 4.0mm (KFCS-40)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L or KFE2016)
- 4 Axial gauge for Ø 3.6mm (KJA36)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L or KFE3016)
- 6 Step drill Ø 3.6mm (Ref. KFE36 or KFE36L or KFE3616)*
- 7 Drilling depth gauge terminal Ø 3.6mm (Ref. KJP36)
- 8 Crestal bone profiler for implant Ø 4.0mm (KFCS-40)**

* Not in the case of D4 bone

** In the case of dense cortical bone



Diameter 3.6mm - external 4.5mm

- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Crestal bone profiler for implant Ø 4.5mm (KFCS-45)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L or KFE2016)
- 4 Axial gauge for Ø 3.6mm (KJA36)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L or KFE3016)
- 6 Step drill Ø 3.6mm (Ref. KFE36 or KFE36L or KFE3616)*
- 7 Drilling depth gauge terminal Ø 3.6mm (Ref. KJP36)
- 8 Crestal bone profiler for implant Ø 4.5mm (KFCS-45)**

* Not in the case of D4 bone

** In the case of dense cortical bone



Diameter 4.2mm - external 4.5mm

- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Crestal bone profiler for implant Ø 4.5mm (KFCS-45)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L or KFE2016)
- 4 Axial gauge for Ø 4.2mm (KJA42)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L or KFE3016)
- 6 Step drill Ø 3.6mm (Ref. KFE36 or KFE36L or KFE3616)
- 7 Step drill Ø 4.2mm (Ref. KFE42 or KFE42L or KFE4216)*
- 8 Drilling depth gauge terminal Ø 4.2mm (Ref. KJP42)
- 9 Crestal bone profiler for implant Ø 4.5mm (KFCS-45)**

* Not in the case of D4 bone
** In the case of dense cortical bone



RECOMMENDED

- External diameters 5.0 and 5.5mm recommended in D4 bone indications.



Diameter 4.2mm - external 5.0mm

- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Crestal bone profiler for implant Ø 5.0mm (KFCS-50)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L or KFE2016)
- 4 Axial gauge for Ø 4.2mm (KJA42)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L or KFE3016)
- 6 Step drill Ø 3.6mm (Ref. KFE36 or KFE36L or KFE3616)
- 7 Step drill Ø 4.2mm (Ref. KFE42 or KFE42L or KFE4216)*
- 8 Drilling depth gauge terminal Ø 4.2mm (Ref. KJP42)
- 9 Crestal bone profiler for implant Ø 4.5mm (KFCS-45)**

* Not in the case of D4 bone
** In the case of dense cortical bone



Diameter 4.2mm - external 5.5mm

- 1 Marking Drill Ø 1.5mm (Ref. 1001SI)
- 2 Crestal bone profiler for implant Ø 5.5mm (KFCS-55)
- 3 Pilot drill Ø 2.0mm (Ref. KFE20 or KFE20L or KFE2016)
- 4 Axial gauge for Ø 4.2mm (KJA42)
- 5 Step drill Ø 3.0mm (Ref. KFE30 or KFE30L or KFE3016)
- 6 Step drill Ø 3.6mm (Ref. KFE36 or KFE36L or KFE3616)
- 7 Step drill Ø 4.2mm (Ref. KFE42 or KFE42L or KFE4216)*
- 8 Drilling depth gauge terminal Ø 4.2mm (Ref. KJP42)
- 9 Crestal bone profiler for implant Ø 5.5mm (KFCS-55)**

* Not in the case of D4 bone
** In the case of dense cortical bone

➤ **Recommended drilling protocol based on bone density (For KONTACT™ S+)**

Types of bones	KONTACT™ S+ protocols
D3	Standard protocol. If the cortical bone is hard, use cortical drills.
D4	External Ø 5.0 and 5.5mm recommended OR undersized drilling approach with a drill whose diameter is for implants with an external Ø 4.0 and 4.5mm. If the cortical bone is hard, use cortical drills.

➤ **Recommended drilling speeds**

Instruments	Rotation speeds
Drills Ø 1.5 / Ø 2.0mm	1500 rpm
Yellow, magenta and blue drills	1000 - 1200 rpm
Green and orange drills	700 - 900 rpm
Reamer	200 rpm
Drill / bur	200 rpm
Implant	15 rpm

➤ **Insertion of the implant**

Implant insertion drivers are available in a manual version and version for contra-angle.

There are three lengths for the standard diameter insertion drivers (**ref. KMPI, KMPIL, KMPIXL or KMPICA, KMPICAL, KMPICAXL** respectively) plus a driver specific to implant with a diameter of 3mm (**ref. K30MPI and K30MPICA**). There is a tracking of the implant connector for proper orientation of the implant as well as a line of laser tape to assess the placement depth of the implant.

With the manual implant driver:
Manually pre-tighten the implant into the osteotomy using a manual driver.

Assemble the implant driver with the torque wrench (**ref. KCCD**) and tighten it clockwise until the desired depth is reached.
Regularly check the tightening torque in order not to exceed **80 Ncm**. Do not hesitate to unscrew and re-screw during implant's insertion to reduce screwing forces.

Maximum recommended tightening torque: 80 Ncm.

Same for KONTACT™ & KONTACT™ S+

6 angular references represent the connection tops.
It is recommended to place on the marker in vestibular direction.

