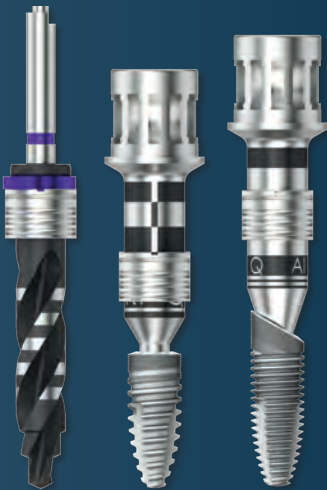




IPS

IMPLANT SYSTEMS

Guided Surgery MedentiGuide Quattrocone



MedentiGuide

MedentiGuide drill sleeves support the surgeon in preparing the implant bed for Medentika® implants.

Their use must be planned with a specially designed 3D planning system and surgical drilling template. You can plan the surgery with standard planning programs.

Treatment planning based on three dimensional imaging procedures (CT, DVT) enables high precision treatment planning and means that the treatment outcome can be accurately predicted.

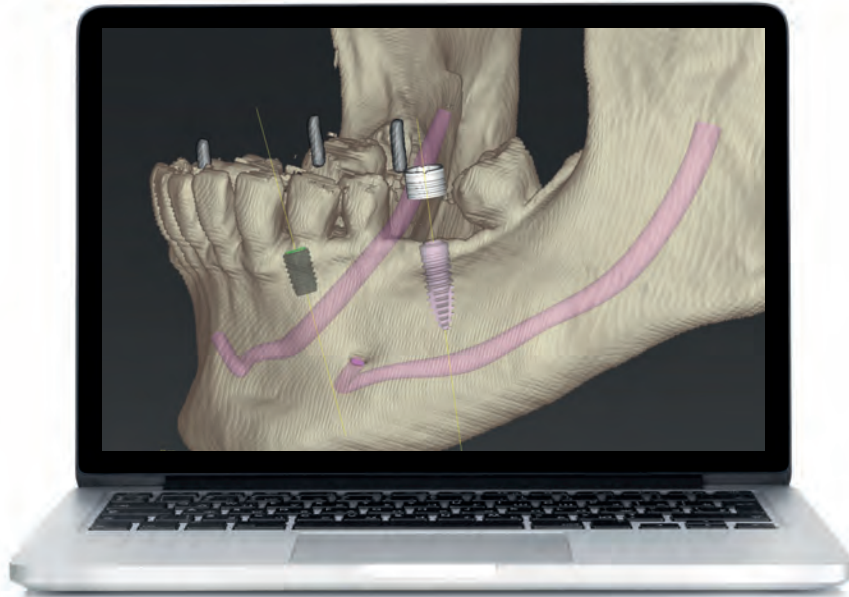
An individual drilling template can be produced on the basis of the digital planning data. This ensures the exact and precise transfer of the planning outcome to the patient's mouth.

The advantages over conventional planning include:

- Precision three-dimensional planning and implantation, taking into account the desired restoration
- Automatic collision control that displays if the distances to the implants or nerves are too short
- Information on peri-implant bone quality so that conclusions can be drawn on the expected primary stability

Note:

Medentika® GmbH accepts no liability for the correct planning, implementation and production of the drilling template. Sufficient knowledge of the 3D planning system being used and the Medentika® implant system is essential. It is imperative that the user is very confident in the use of 3D planning systems before using the MedentiGuide drill sleeves. Furthermore, sufficient expertise in preoperative implant planning and dental implantology is required.



These software manufacturers* currently support the MedentiGuide System



* to some extent this depends on the availability of the updates of the specific manufacturer.

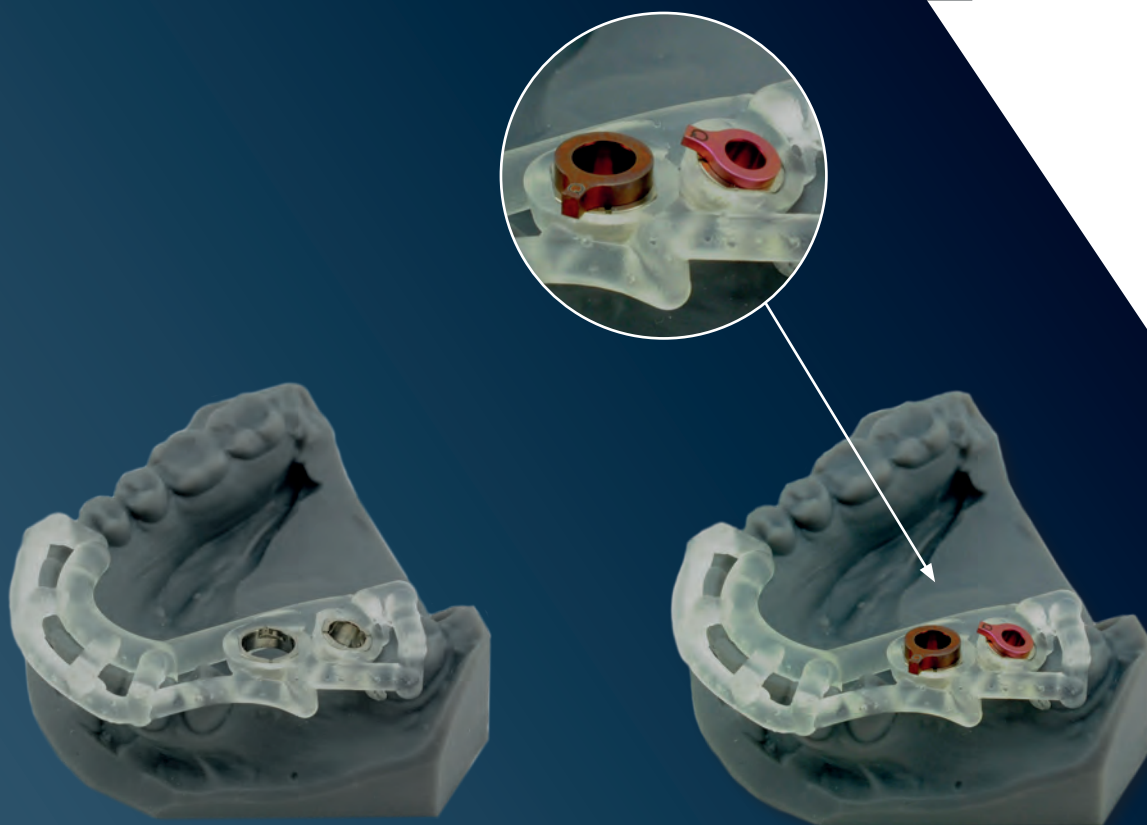
Drilling template

An individual drilling template can be produced on the basis of the digital planning data. This ensures the exact and precise application of the planning outcome to the patient's mouth.

MedentiGuide drill sleeves can be used in drill sleeves of various designs. The templates may be produced using suitable milling or printing systems with CAD/CAM technology or using alternative procedures.

NB:

The drilling template must be firmly and securely seated on the jaw with no gaps.



Drilling template with inserted outer sleeves

Drilling template with inserted outer and inner sleeves

MedentiGuide Insertion tool

The appropriate insertion tool is used to ensure that the outer sleeve is inserted securely into the template.



Surgical Tray

Easy to use: No additional surgical tray is required with the MedentiGuide drill sleeve system. The drill sleeves are adapted to the Quattrocone standard drill. This significantly simplifies the preparation of the implantation and considerably reduces the material and storage costs.

The MedentiGuide insertion tools are optionally available to guide the implants through the drill sleeves.



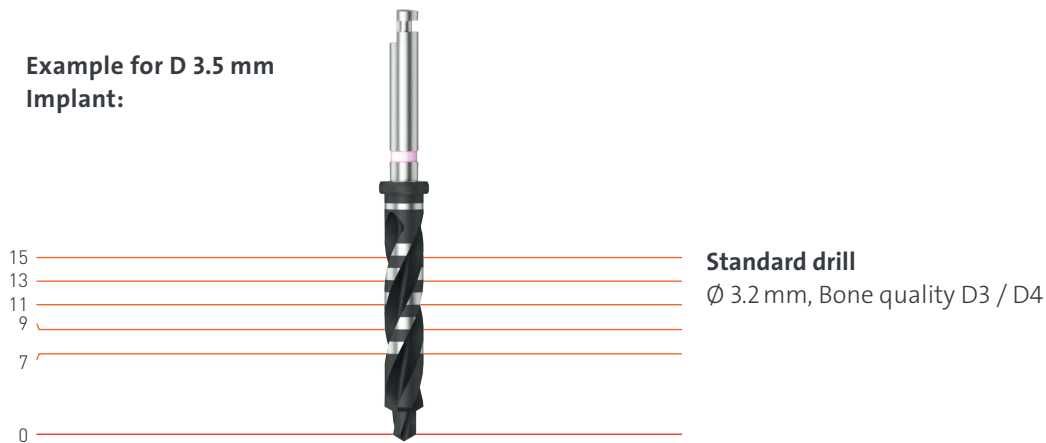
Drill lengths

The MedentiGuide System supports two drill lengths: 20 mm and 25 mm. In the planning phase it is important to ensure that the correct drill length is selected.

PLEASE NOTE:

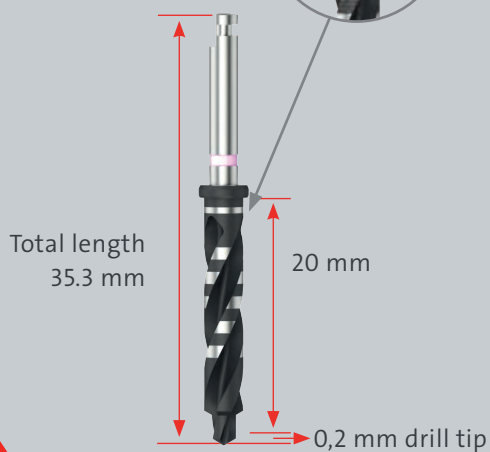
The MedentiGuide drill sleeves are only designed for standard drills. The defined drilling depths do not include the drill tip of 0.2 mm. Please note their lengths if only minimum space is available to anatomical structures.

Example for D 3.5 mm
Implant:

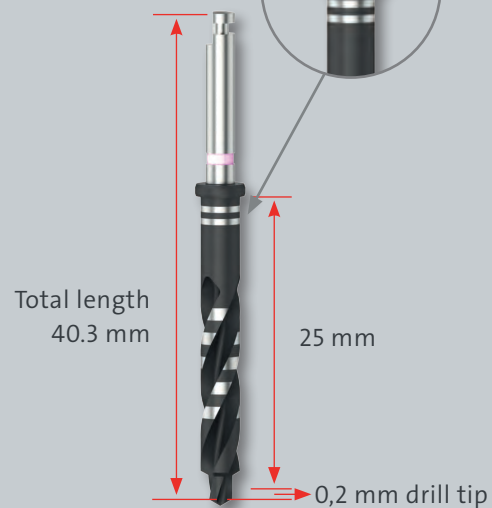


TWO DRILL LENGTHS:

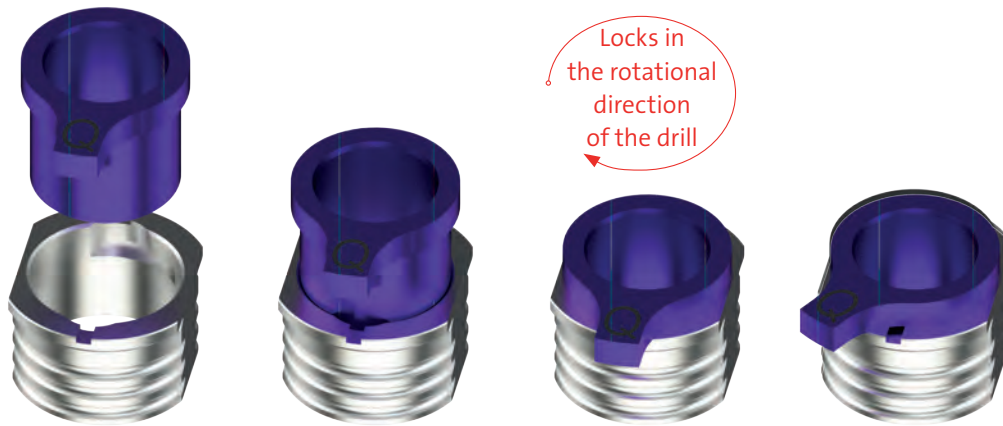
Short drill
1 slim silver ring



Long drill
2 slim silver rings

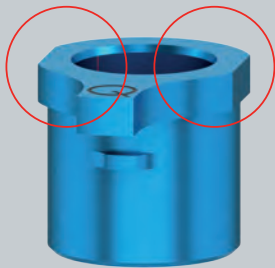


Sleeve in sleeve



MedentiGuide Drill Sleeves are a “sleeve in sleeve” system made up of various outer sleeves and matching inner sleeves. MedentiGuide drill sleeves can be used in drill sleeves of various designs.

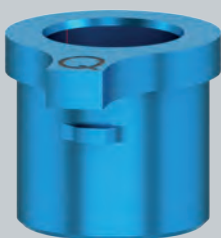
The templates may be produced using suitable milling or printing systems with CAD/CAM technology or using alternative procedures. The MedentiGuide Sleeve System works with bayonet lock. The lock engages clockwise and thus in the rotational direction of the drill.



Inner sleeve
Cortical drill

Please note:

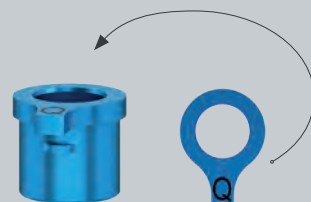
The inner sleeve cortical drill has **two flat sides**.



Inner sleeve
Standard drill













Please note:

The inner sleeve standard drill has **no flat side**.



MedentiGuide Drill Sleeves

The inner sleeves are colour-matched to the corresponding colour-coded implants for easy recognition.

Sleeve	Art. No.	Description	Outer diameter	Inner diameter	Implant diameter	Drill
	0-32-06	Standard outer sleeve	D 6.3	d 5.03	D 3.5 - 4.3 mm	
	0-32-07	Large outer sleeve	D 8.3	d 7.03	D 5.0 mm	
	0-32-08	Adapter sleeve	D 7.0	d 5.03	D 5.0 mm	
	0-32-15	Pilot drill	D 5.0	d 2.03	Pilot	4-14-01 4-14-06
	0-32-16	Standard drill	D 5.0	d 3.23	D 3.5 mm	4-14-02
	0-32-27	Cortical drill	D 5.0	d 3.33	D 3.5 mm	4-14-07
	0-32-21	Standard drill	D 5.0	d 3.53	D 3.8 mm	4-14-53
	0-32-28	Cortical drill	D 5.0	d 3.63	D 3.8 mm	4-14-55
	0-32-17	Standard drill	D 5.0	d 3.53	D 4.3 mm	4-14-04
	0-32-29	Cortical drill	D 5.0	d 3.83	D 4.3 mm	4-14-09
	0-32-18	Standard drill	D 5.0	d 4.03	D 5.0 mm	4-14-53
	0-32-30	Cortical drill	D 5.0	d 4.33	D 5.0 mm	4-14-55

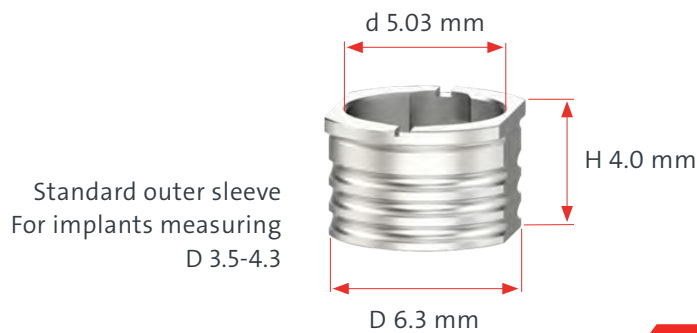
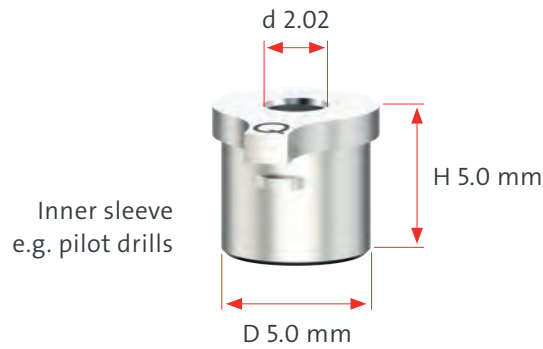


Implants D 3.5 – 4.3 mm

Implants D 4.3 mm

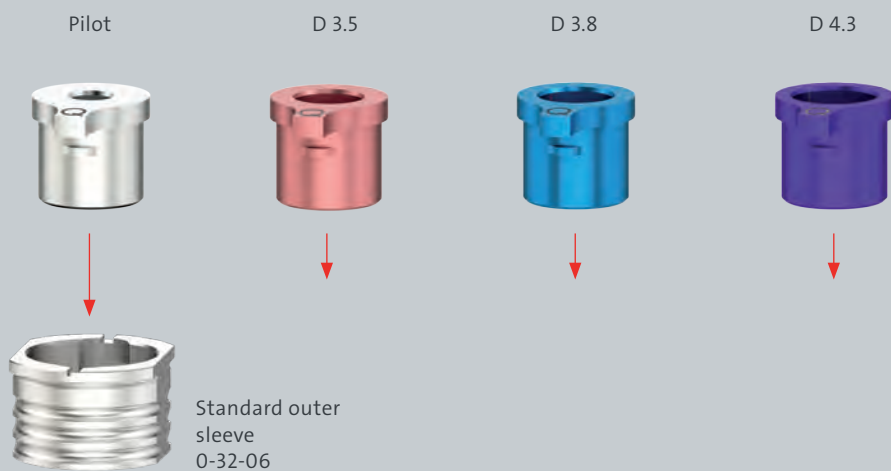
Quattrocone

Quattrocone30



The standard outer sleeve is used in conjunction with the Quattrocone implants D 3.5 - D 4.3.

QUATTROCONE IMPLANTS D 3.5 - D 4.3 MM



Implants D 5.0 mm

Quattrocone
Quattrocone 30



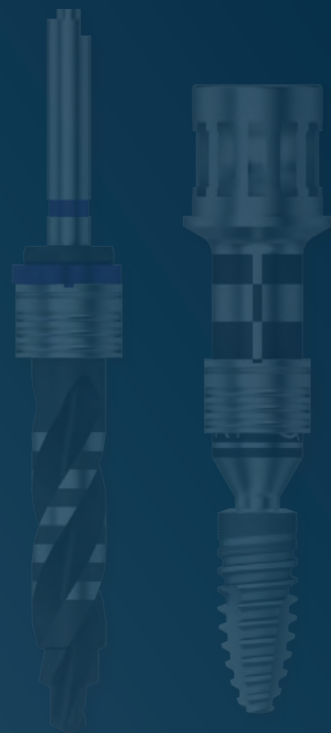
The **large outer sleeve** must be used for the Quattrocone implants D 5.0.

QUATTROCONE IMPLANTS D 5.0 MM





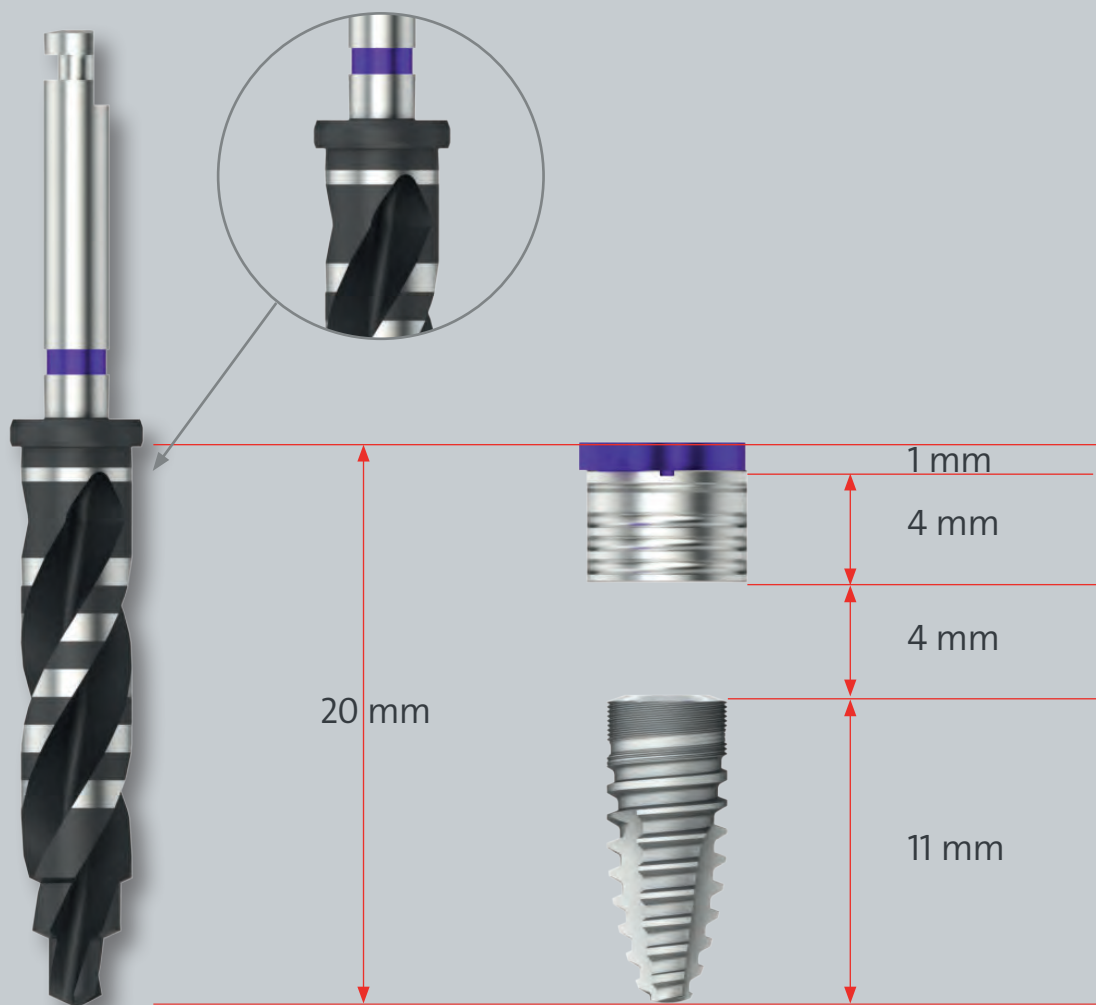
QUATTROCONE



Selection of drill length

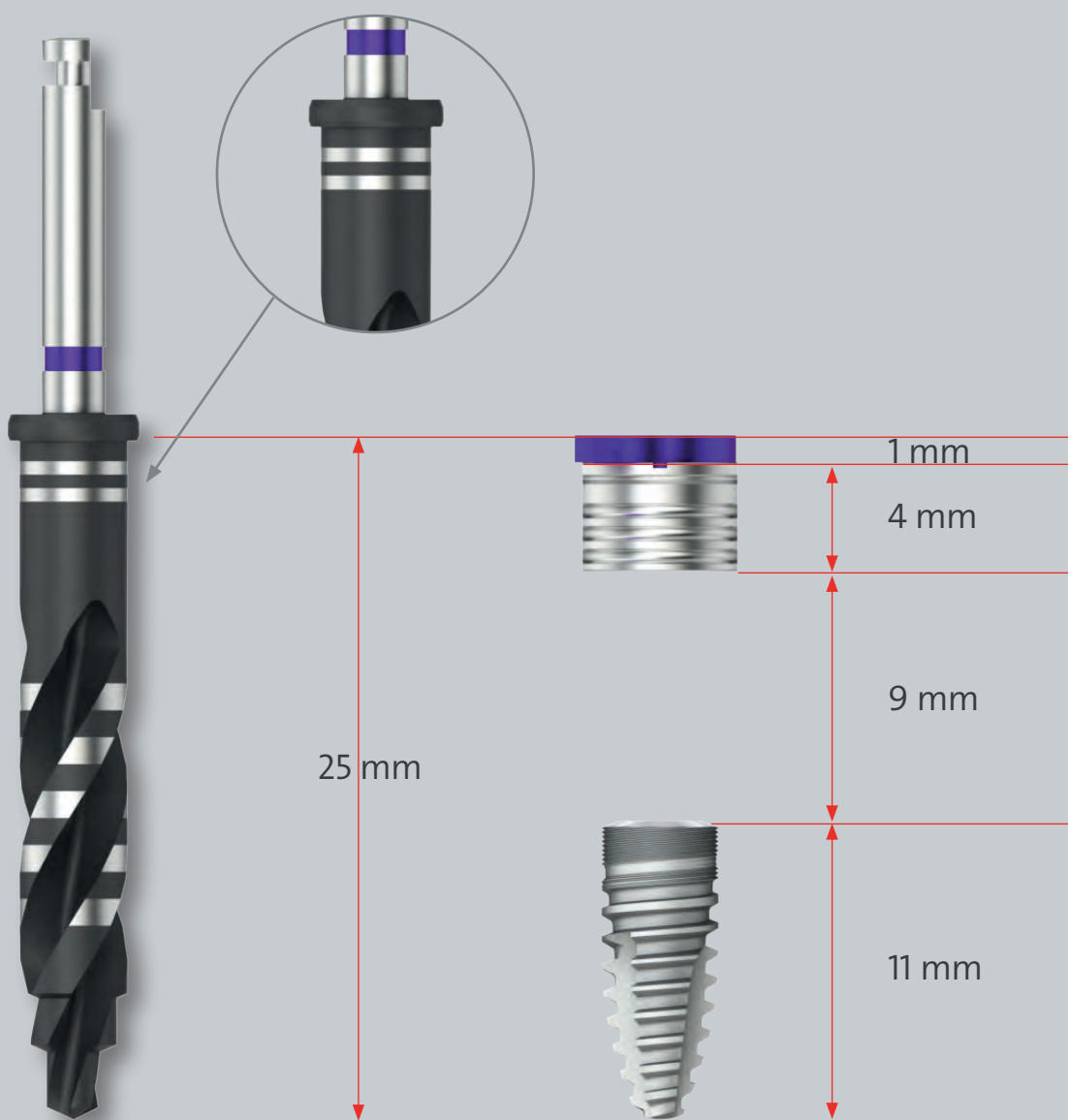
The MedentiGuide System software supports the standard drill with two drill lengths: 20 mm and 25 mm. The distance from the top edge of the inner sleeve to the bottom edge of the implant is thus defined by the selected drill length.

Short drill



The distance between the lower edge of the outer sleeve and the top edge of the implant is always defined by the selected implant and drill lengths. The distance between the lower edge of the sleeve and the upper edge of the implant can be defined, depending on the desired implant length, by the choice of the drill length. NB: The desired drill length must therefore be taken into account during planning.

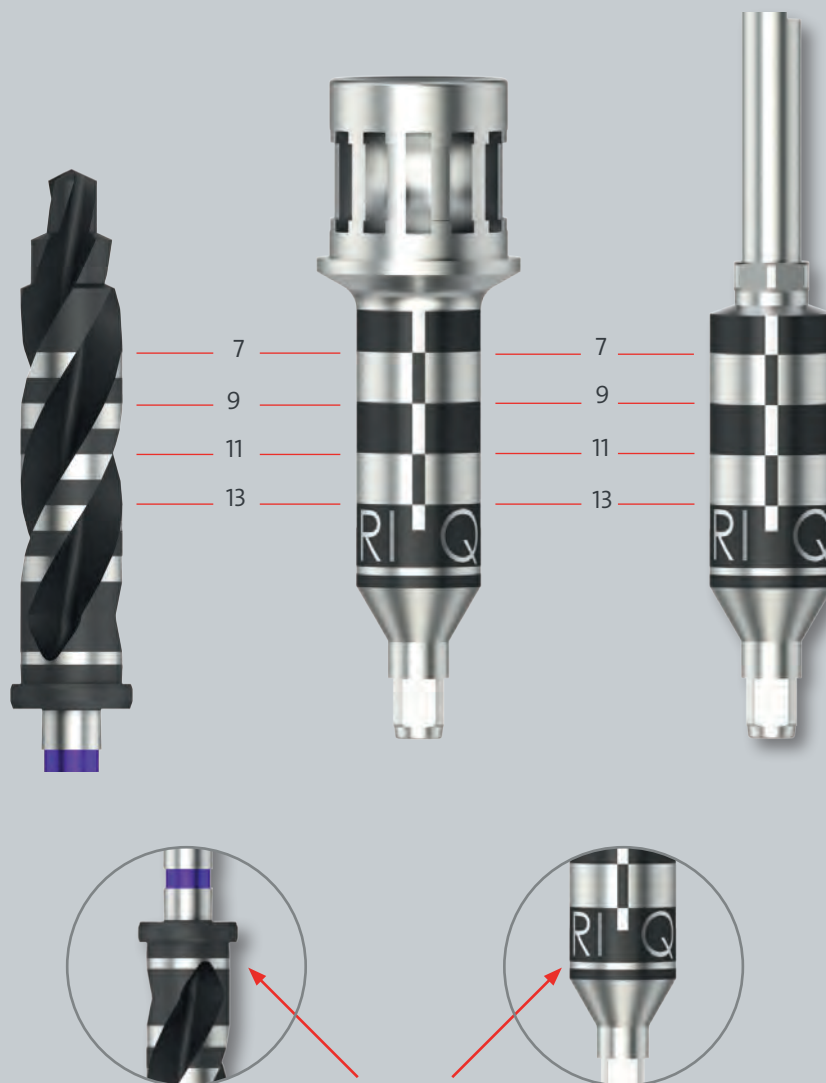
Long drill



MedentiGuide Placement instrument

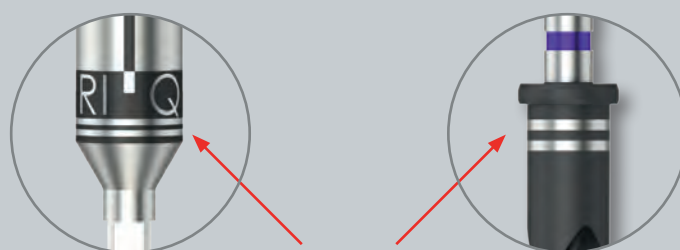
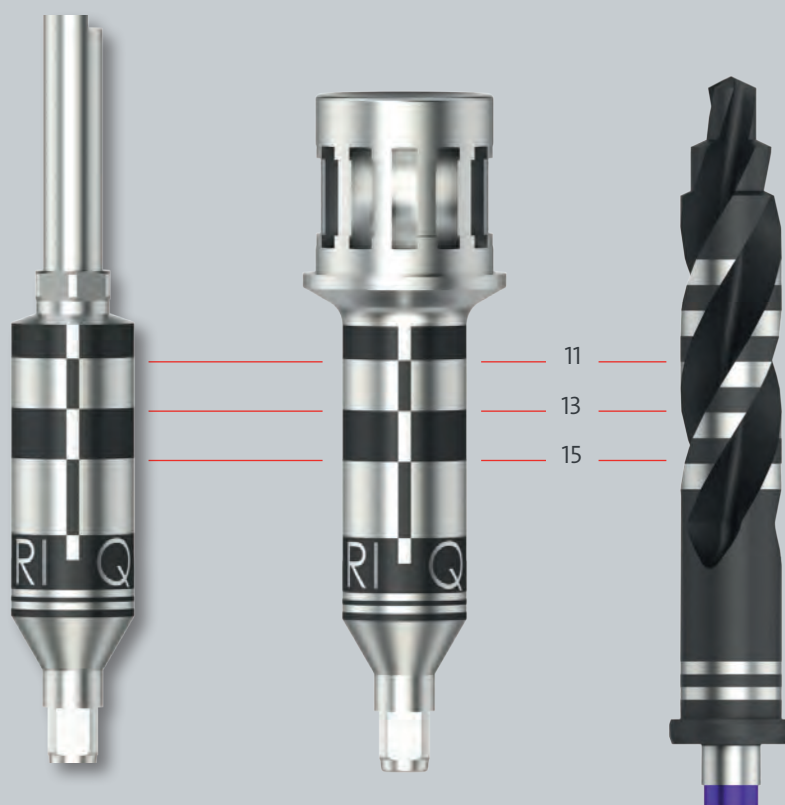
The implants can optionally be guided through the template for positioning. This involves the use of the corresponding MedentiGuide placement instruments, either for manual and ratchet or the contra-angled handpiece. The drill length determines whether the short or long MedentiGuide placement instrument is used.

Short drill



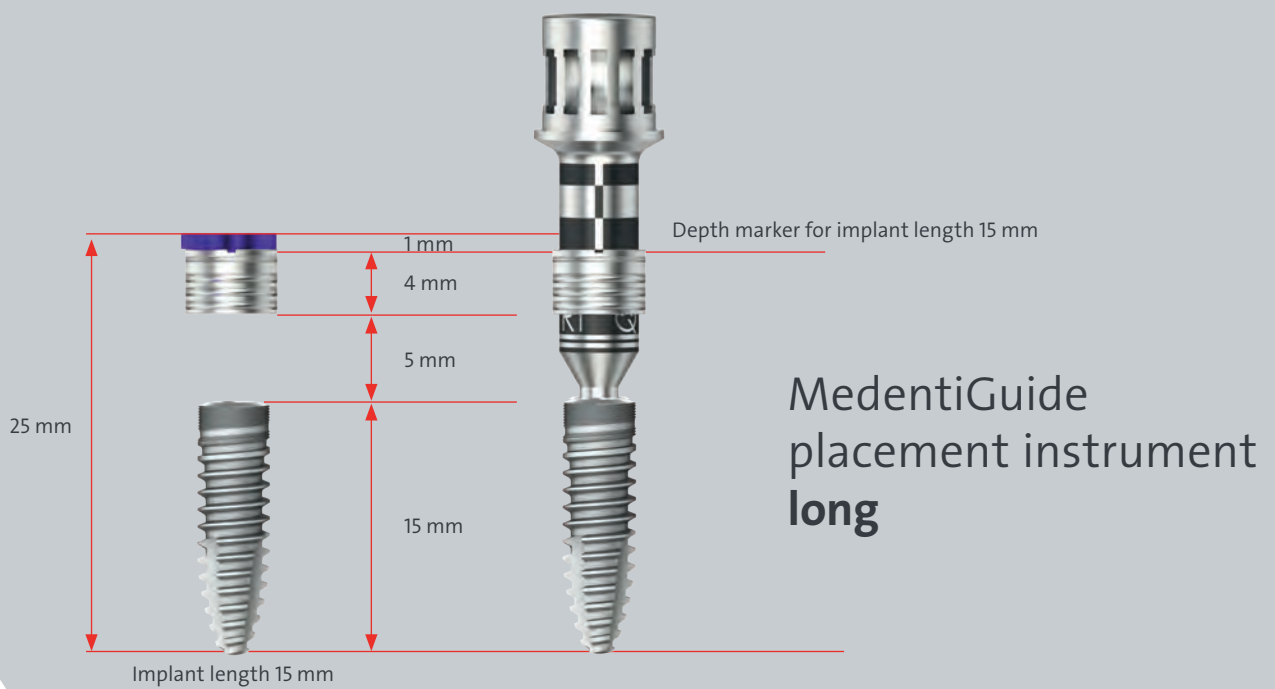
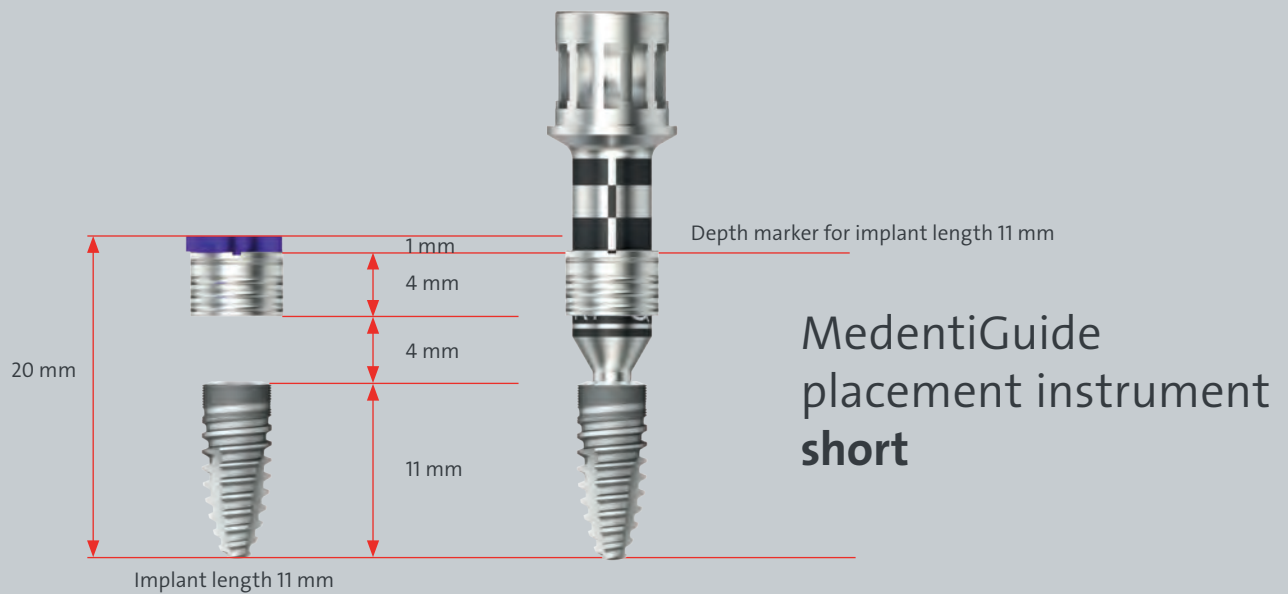
Short drill & MedentiGuide placement instrument, short
>> 1 marking ring

Long drill



Long drill & MedentiGuide placement instrument, long
>> 2 markings rings

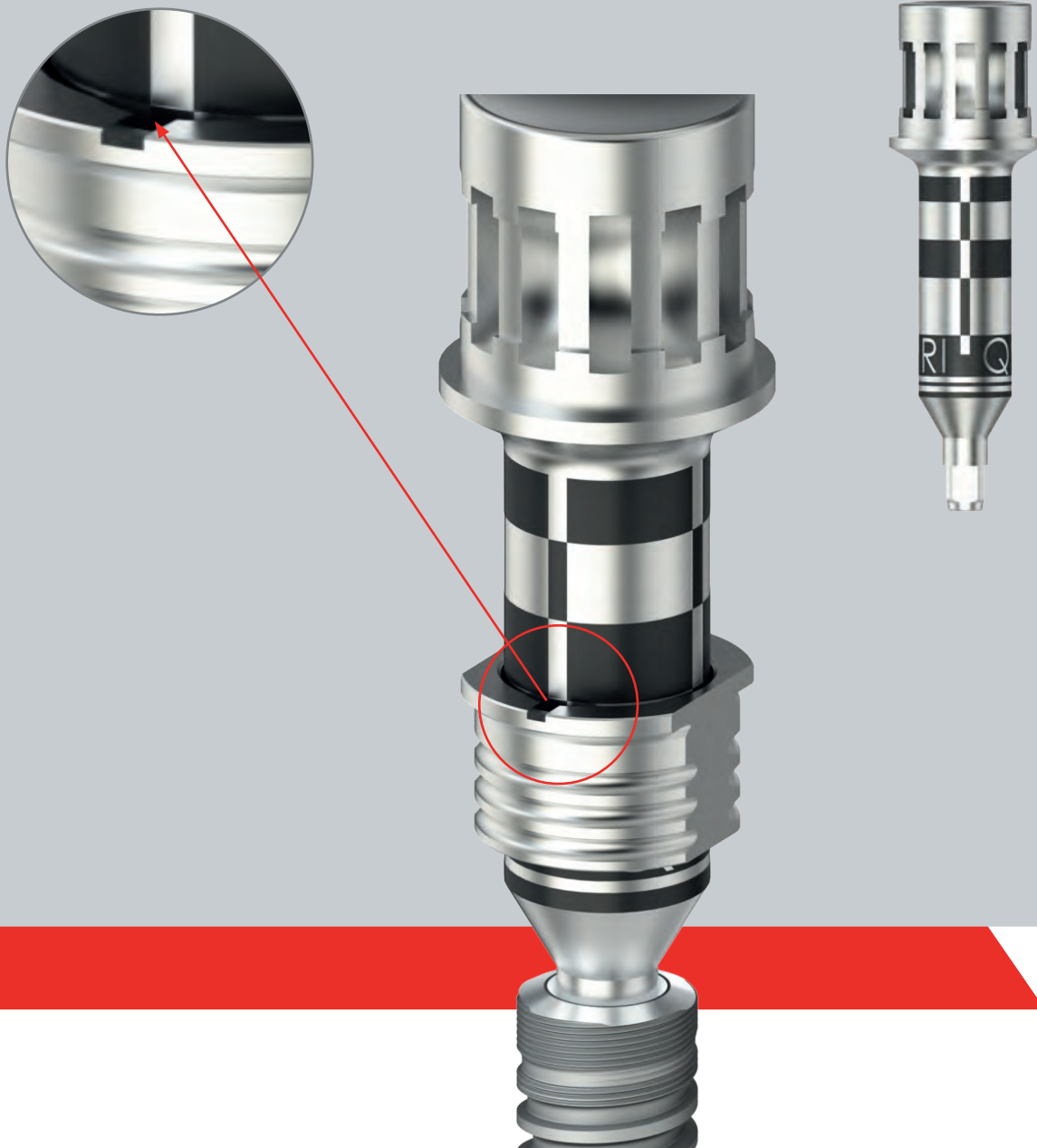
MedentiGuide Placement instrument



Implant alignment

To ensure that the implant is inserted at the correct height, it is rotated through the outer sleeve until the corresponding depth marker is flush with the top edge of the outer sleeve.

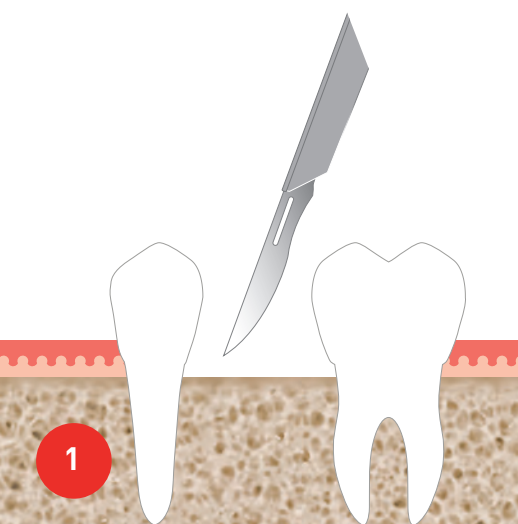
If required, the implants can be aligned to the indexing of the implant connection. The MedentiGuide placement instrument is used in this case. The vertical marking on the placement instrument is aligned in the direction of the area of the square in the implant. The marking/notch on the outer sleeve is used as a guide to correctly position the implant.



Drilling protocol

(For example, for D 4.3 x 15 mm implant with the standard outer sleeve)

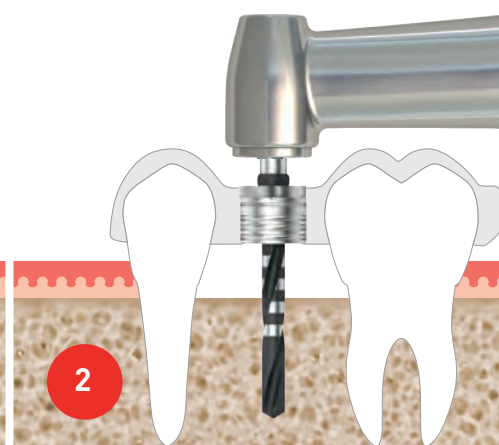
Initial situation



Cut a flap in the soft tissue to expose the bone around the implantation point or optionally expose the implantation point with the mucosal punch.

NB: Check the drilling template at every step to ensure that it is correctly seated. It is important to observe the surgical manual for each implant system.

Pilot hole with the Ø 2.0 mm pilot drill

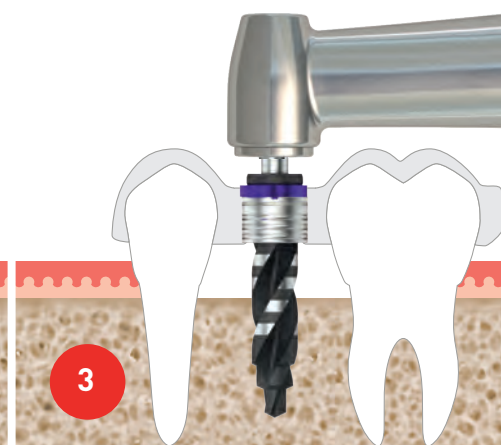


The pilot hole is made with the Ø 2.0 mm pilot drill.

Guided by the drill sleeve (inner sleeve), this defines the sagittal direction of the implant axis and the drilling depth.

The recommended speed is 300-600 rpm and the maximum speed is 800 rpm.

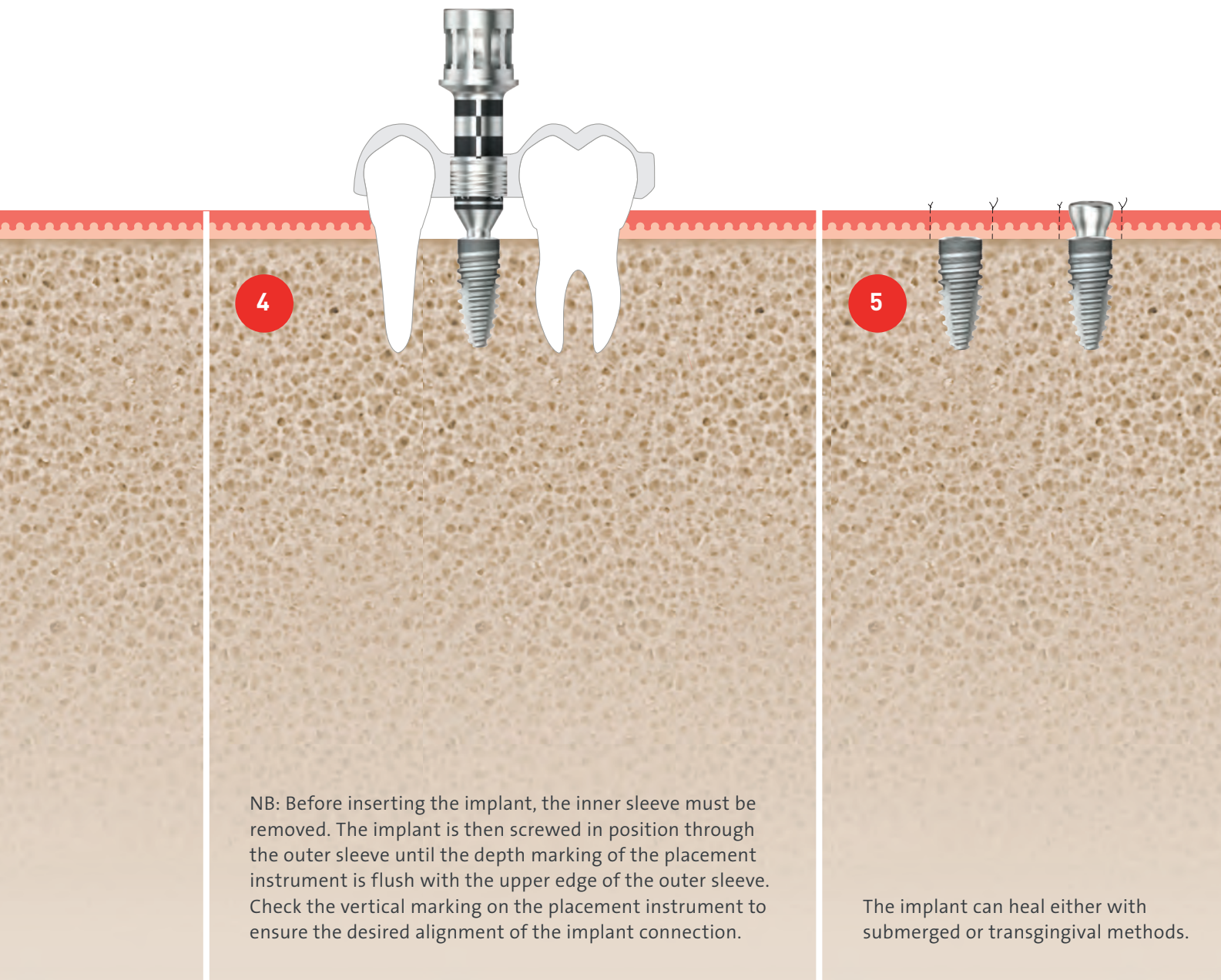
Deep drilling with the final standard drill Ø 2.0 / 3.2 / 4.0 mm



Incremental drilling is performed with the corresponding drill sleeve (inner sleeve), in this case with the D 2.0/3.2/4.0 mm standard drill. The recommended speed is 300-600 rpm and the maximum speed is 800 rpm.

Insert the implant either by hand/
ratchet or with the contra-angled
handpiece.

Submerged or
transgingival healing
can be achieved



4

5

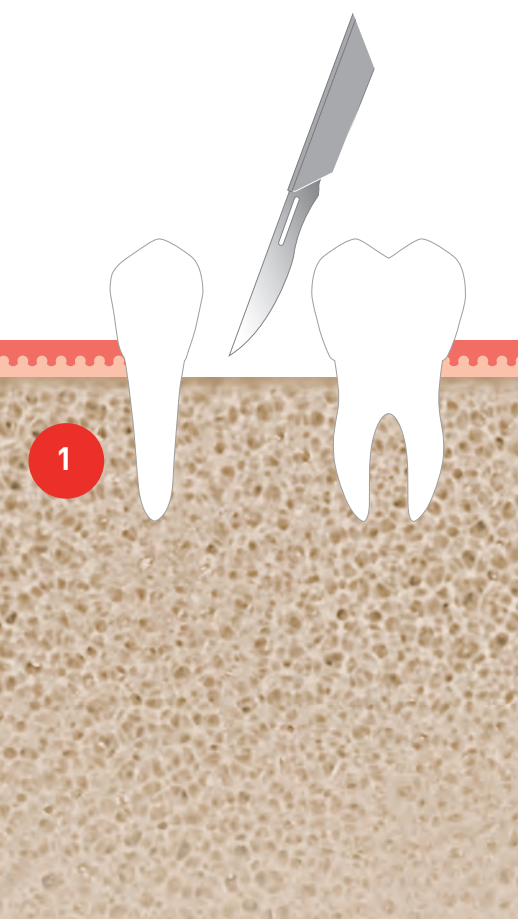
NB: Before inserting the implant, the inner sleeve must be removed. The implant is then screwed in position through the outer sleeve until the depth marking of the placement instrument is flush with the upper edge of the outer sleeve. Check the vertical marking on the placement instrument to ensure the desired alignment of the implant connection.

The implant can heal either with submerged or transgingival methods.

Drilling protocol

(For example, for D 5.0 x 15 mm implant with the large outer sleeve)

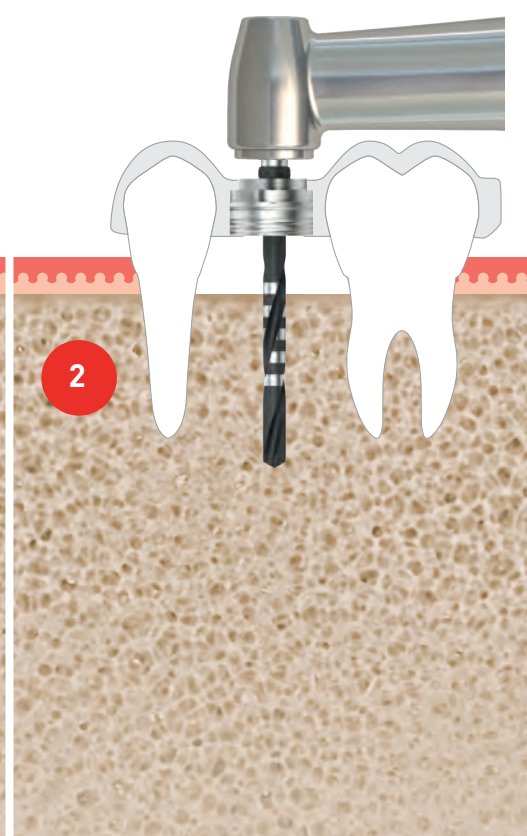
Initial situation



Cut a flap in the soft tissue to expose the bone around the implantation point or optionally expose the implantation point with the mucosal punch.

NB: Check the drilling template at every step to ensure that it is correctly seated. It is important to observe the surgical manual for each implant system.

Pilot hole with the Ø 2.0 mm pilot drill

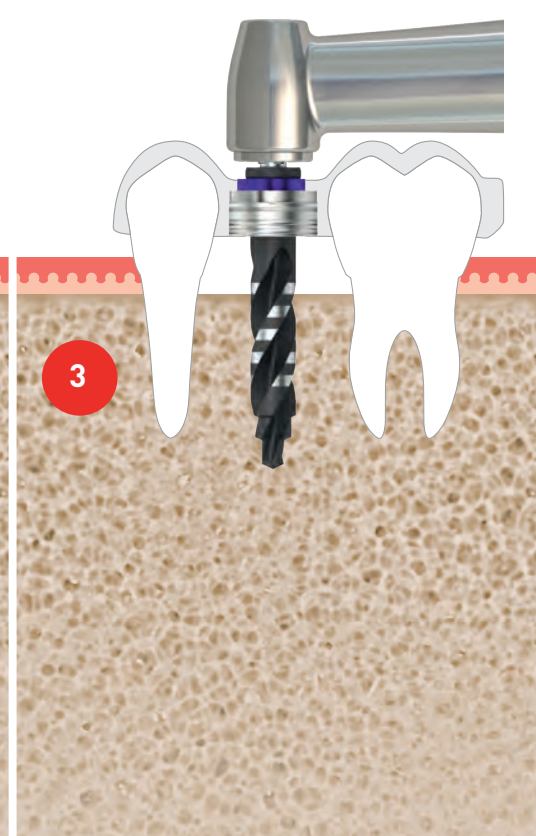


The pilot hole is made with the Ø 2.0 mm pilot drill.

Guided by the drill sleeve (adapter sleeve and the corresponding internal sleeve), this defines the sagittal direction of the implant axis and the drilling depth.

The recommended speed is 300-600 rpm and the maximum speed is 800 rpm.

Optional interval drilling with the standard drill Ø 2.0 / 3.2 / 4.0 mm

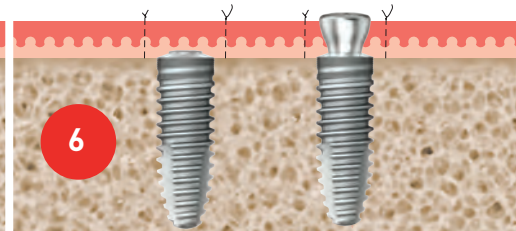
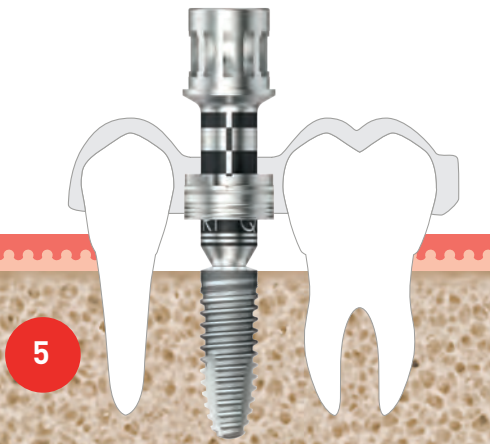


Incremental drilling is performed with the appropriate drill sleeve (adapter sleeve and internal sleeve), in this case with the D 2.0/3.2/4.0 mm standard drill. The recommended speed is 300-600 rpm and the maximum speed is 800 rpm.

Deep drilling with the final \varnothing 3.2 / 4.0 / 4.7 mm standard drill

Insert the implant either by hand/ratchet or with the contra-angled hand-piece

Submerged or transgingival healing can be achieved



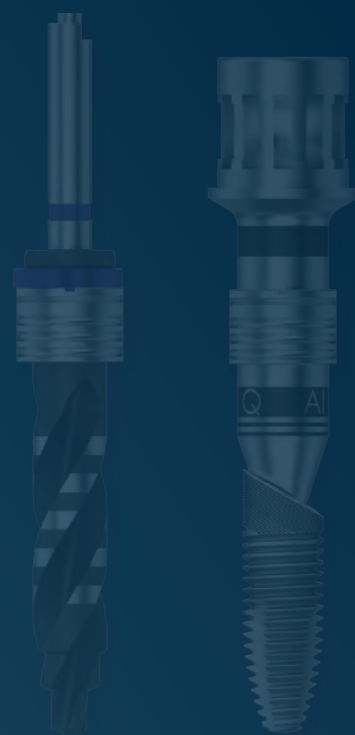
The adapter sleeve is now removed with the inner sleeve from the previous drilling. The inner sleeve (0-32-18) for the final drilling is then inserted into the external sleeve. To achieve the final depth, drilling is performed with the final drill, which in this case is the standard drill D 3.2/4.0/4.7 mm. The recommended speed is 300- 600 rpm and the maximum speed is 800 rpm.

NB: Before screwing the D 5.0 implant into position, the inner sleeve has to be replaced with the adapter sleeve. Now the implant is screwed through the outer sleeve until the depth marking of the placement instrument is flush with the upper edge of the adapter sleeve. Check the vertical marking on the placement instrument to ensure the desired alignment of the implant connection.

The implant can heal either with submerged or transgingival methods.



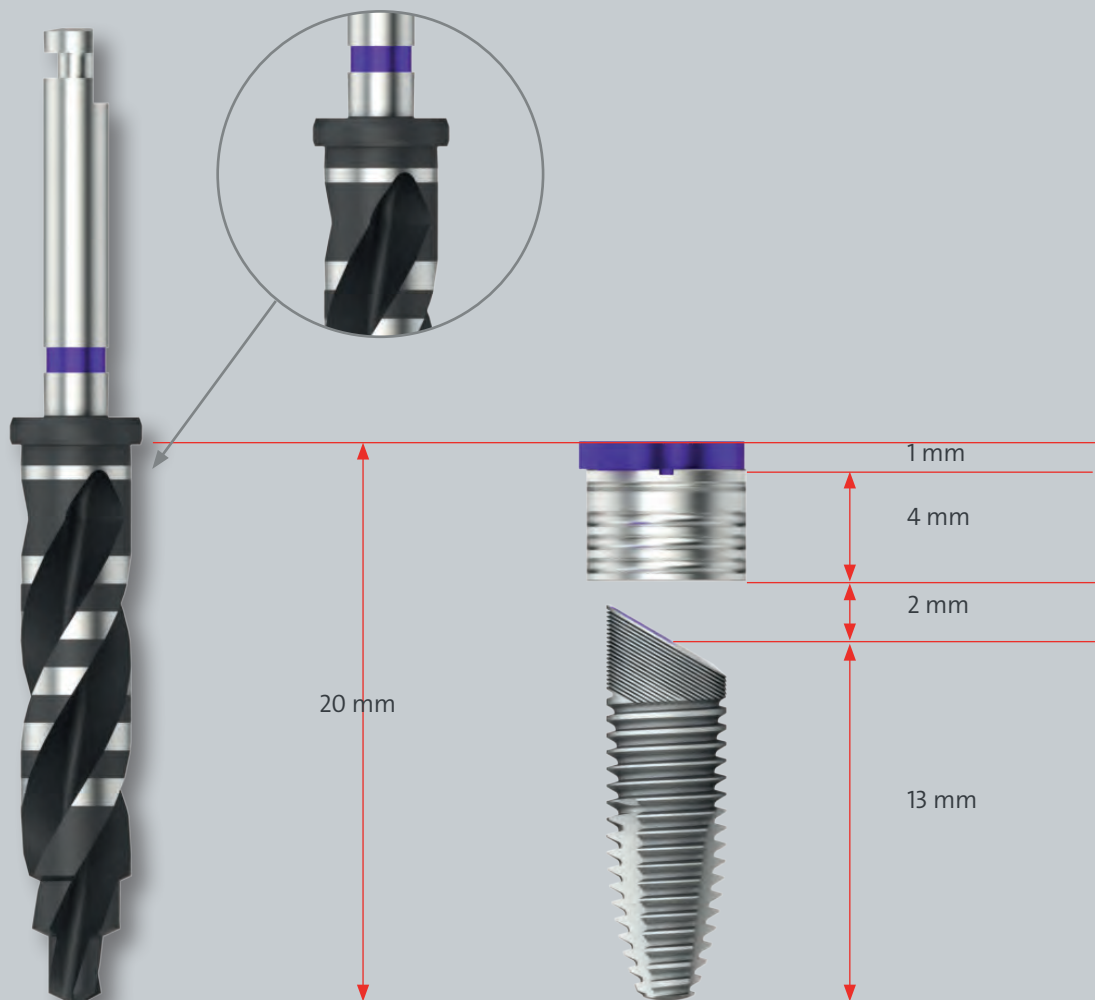
QUATTROCONE 30



Selection of drill length

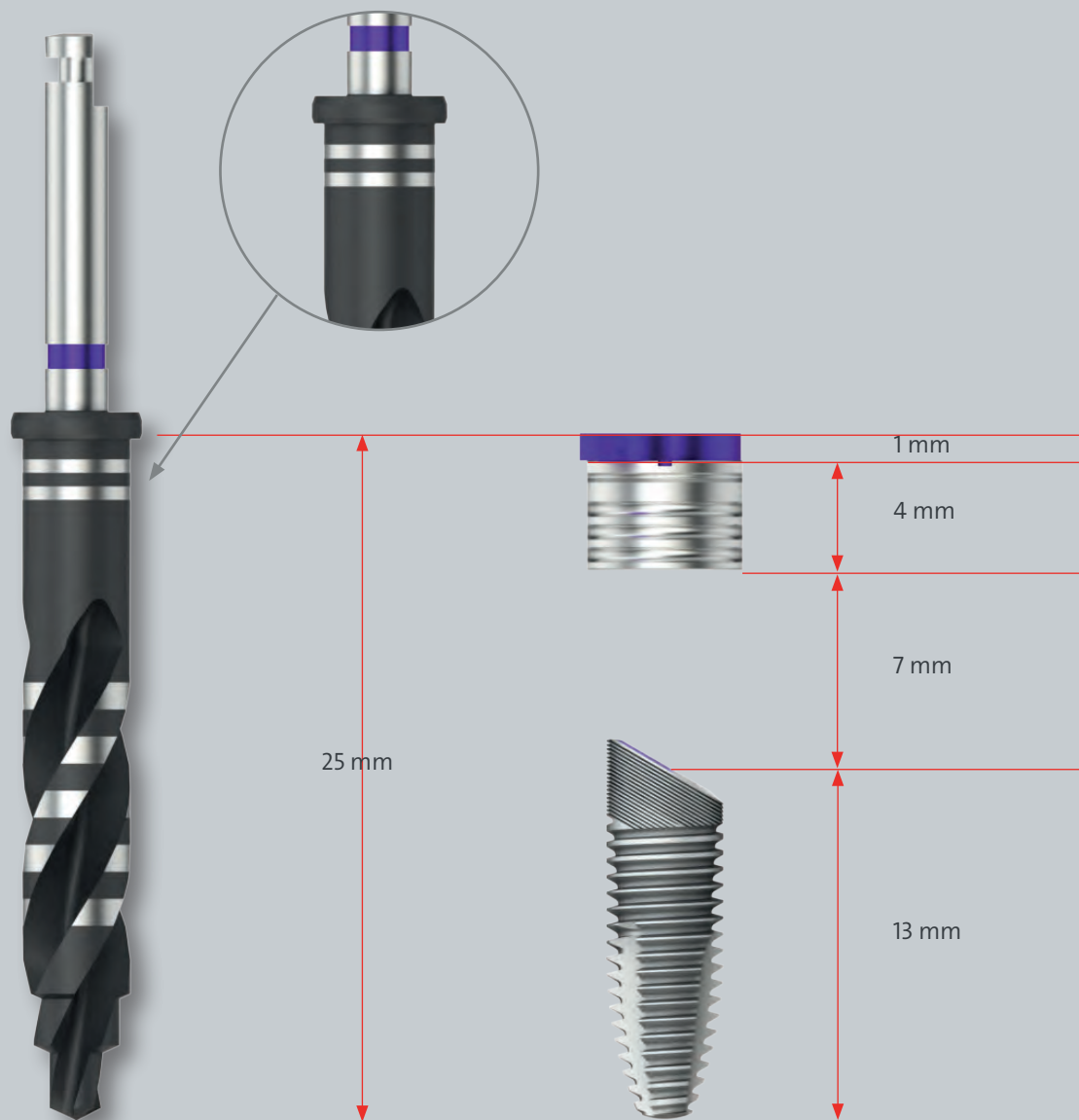
The MedentiGuide System software supports the standard drill with two drill lengths: 20 mm and 25 mm. The distance from the top edge of the inner sleeve to the bottom edge of the implant is thus defined by the selected drill length.

Short drill



The distance between the lower edge of the outer sleeve and the top edge of the implant is always defined by the selected implant and drill lengths. The distance between the lower edge of the sleeve and the upper edge of the implant can be defined, depending on the desired implant length, by the choice of the drill length. NB: The desired drill length must therefore be taken into account during planning.

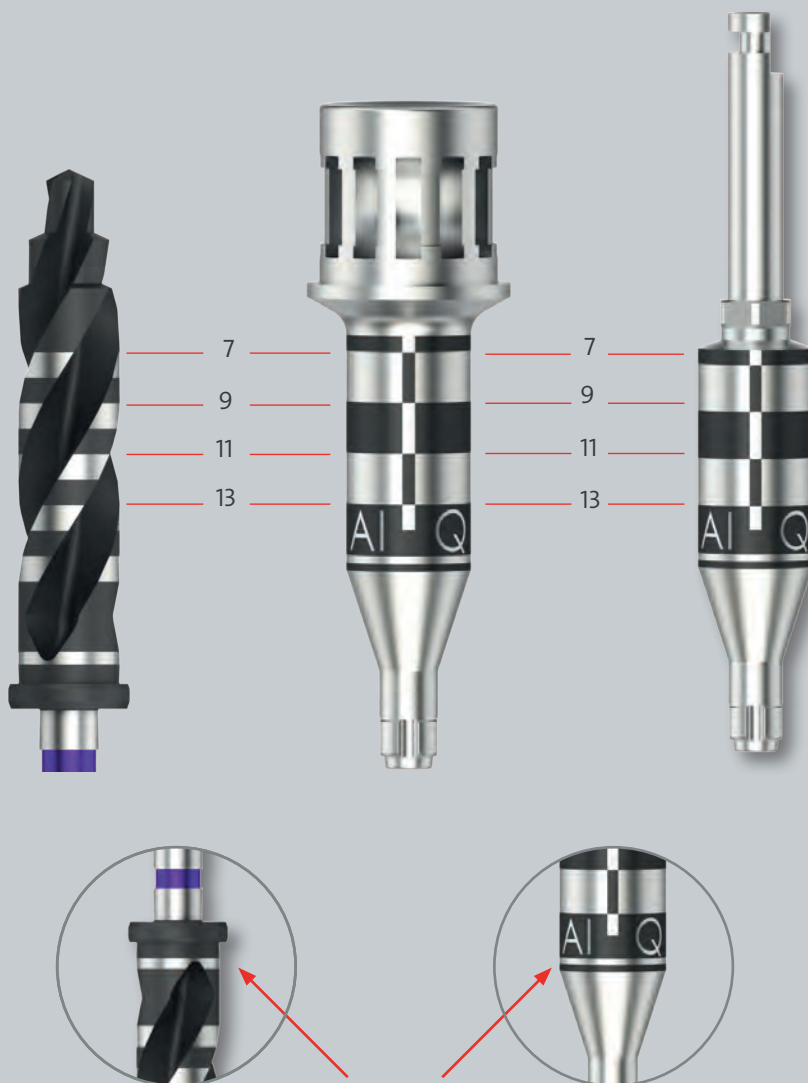
Long drill



MedentiGuide Placement instrument

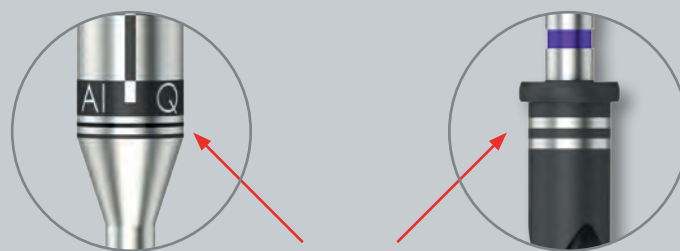
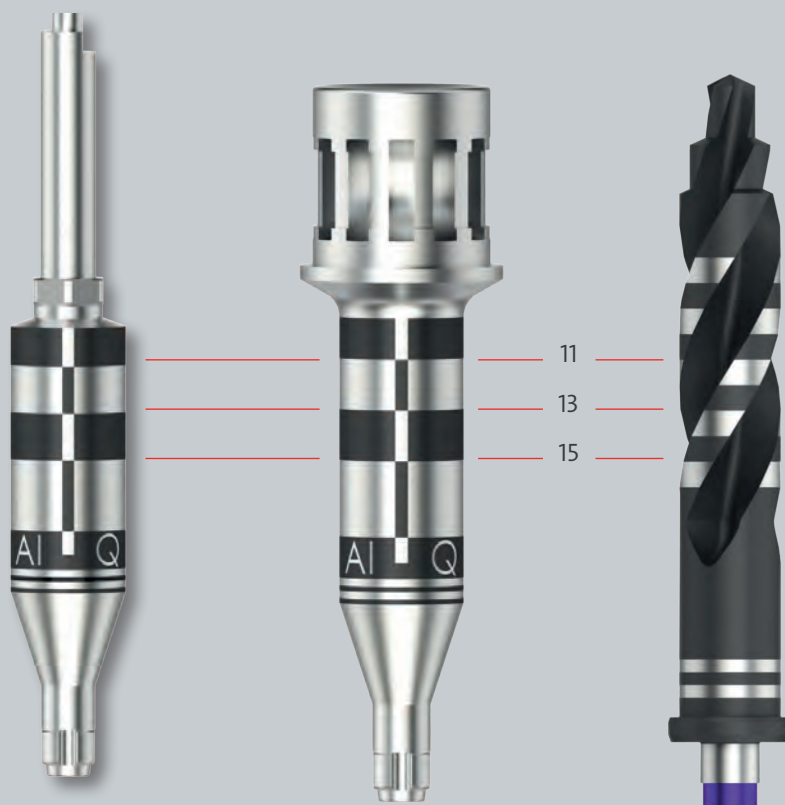
The implants can optionally be guided through the template for positioning. This involves the use of the corresponding MedentiGuide placement instruments, either for manual and ratchet or the contra-angled handpiece. The drill length determines whether the short or long MedentiGuide placement instrument is used.

Short drill



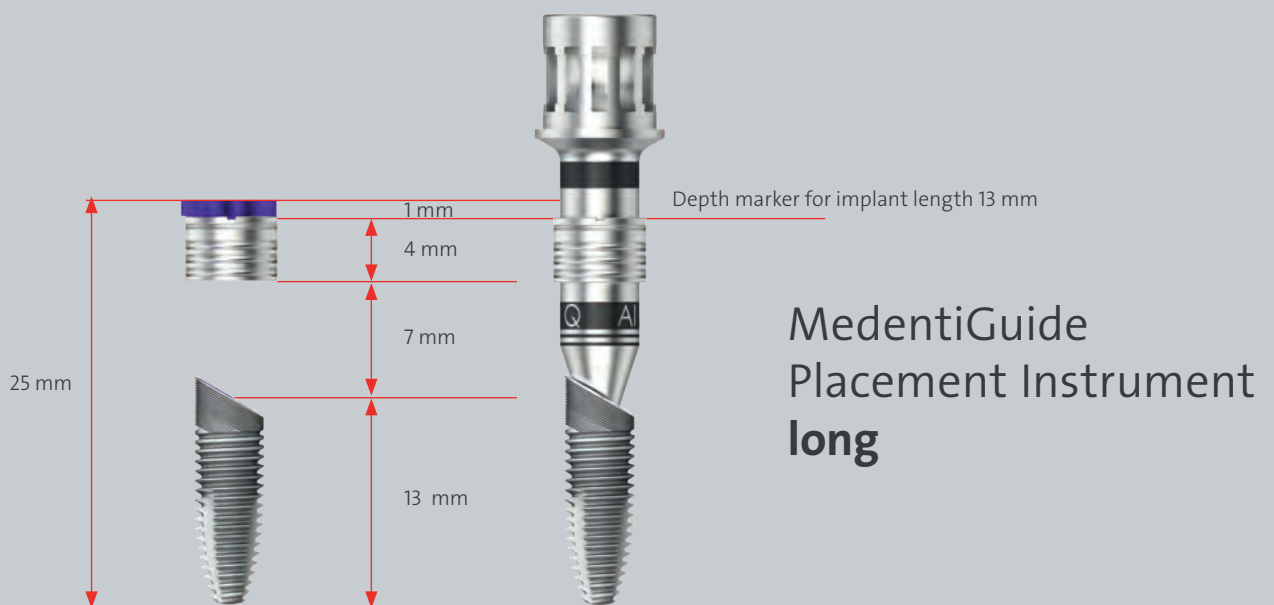
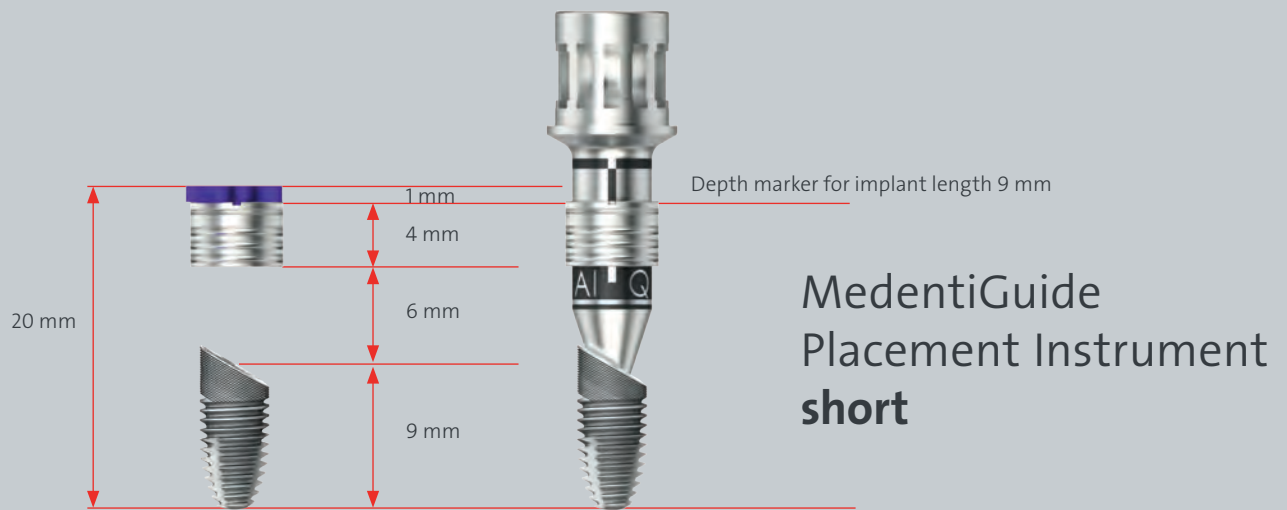
Short drill & MedentiGuide placement instrument, short
>> 1 marking ring

Long drill



Long drill & MedentiGuide placement instrument, long
>> 2 marking rings

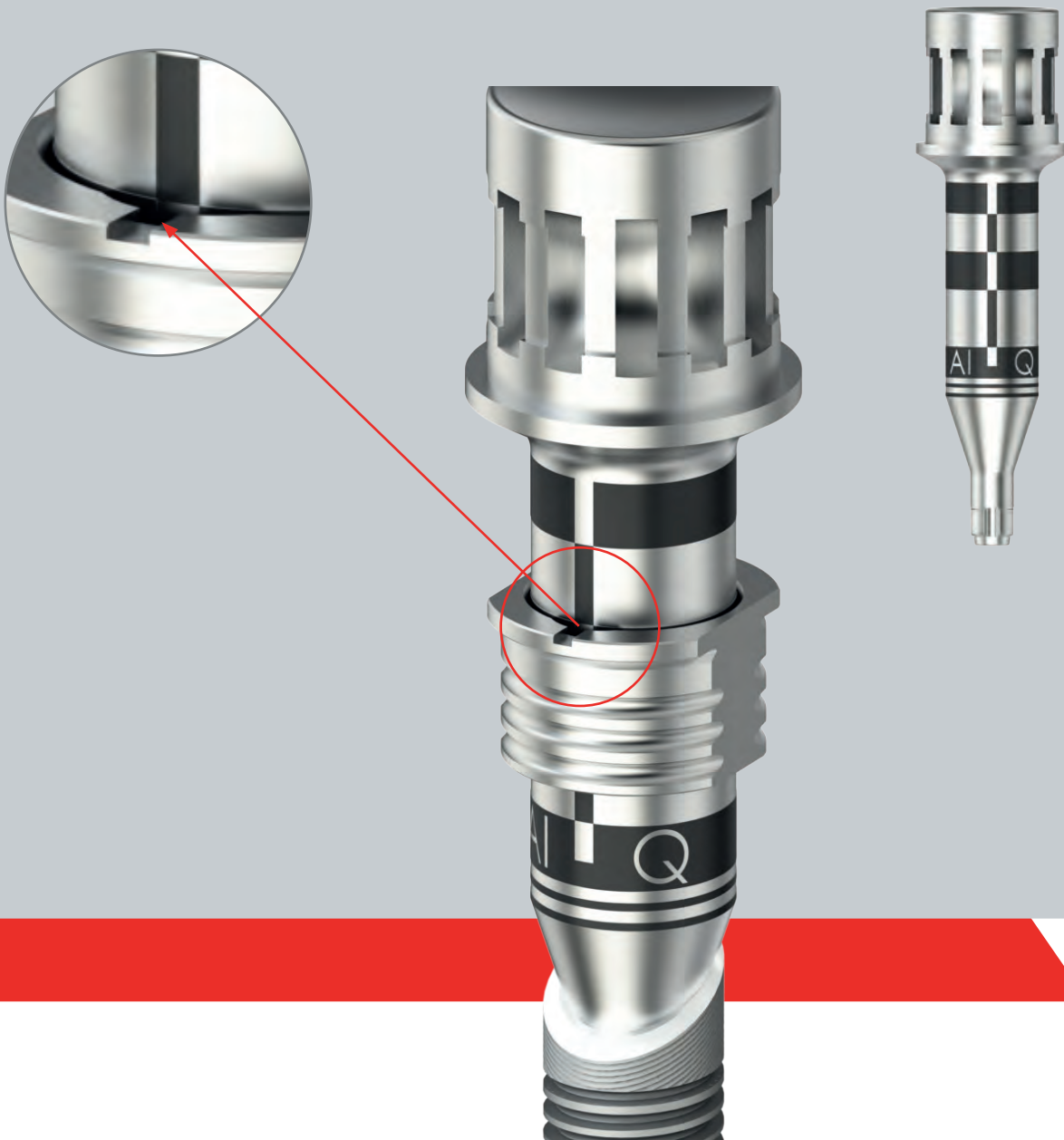
MedentiGuide Placement instrument



Implant alignment

To ensure that the implant is inserted at the correct height, it is rotated through the outer sleeve until the corresponding depth marker is flush with the top edge of the outer sleeve.

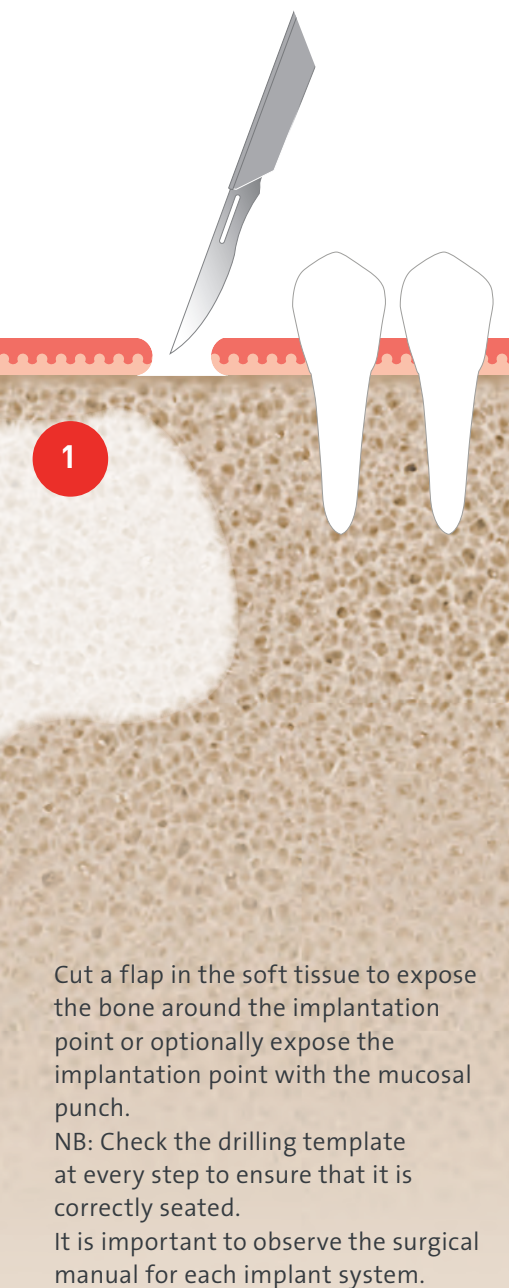
The Quattrocone30 implants must be aligned to match the indexing of the implant connection (label AI). This is because there is only one possible position for the Quattrocone30 implants, due to their 30° angled implant shoulder. This is achieved with the corresponding MedentiGuide Placement Instrument labeled "AI Q". The vertical marking on the placement instrument is aligned in the direction of the short side of the implant. The marking/notch on the outer sleeve is used as a guide to correctly position the implant.



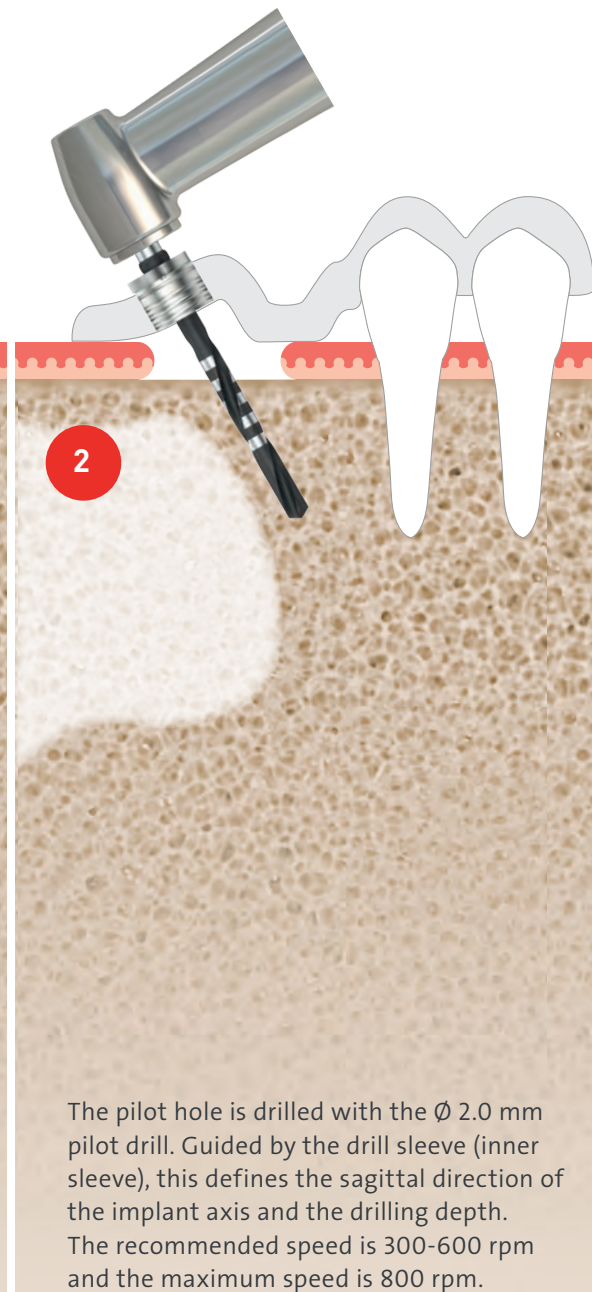
Drilling protocol

(For example for D 4.3 x 13 mm implant with the standard outer sleeve)

Initial situation



Pilot hole with the Ø 2.0 mm pilot drill

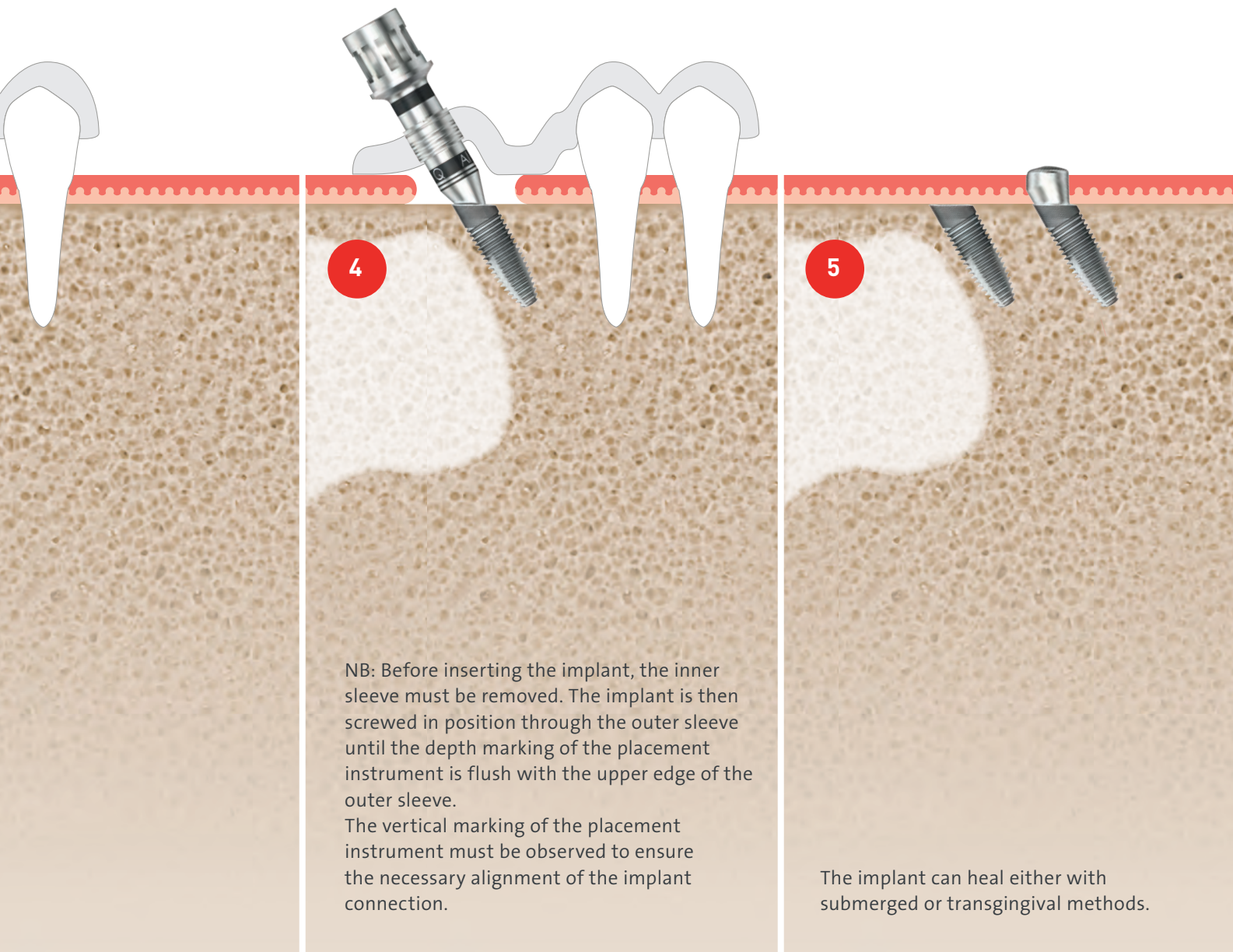


Deep drilling with the final standard drill Ø 2.0 / 3.2 / 4.0 mm



Insert the implant either by hand/ratchet or with the contra-angled handpiece.

Submerged or transgingival healing can be achieved



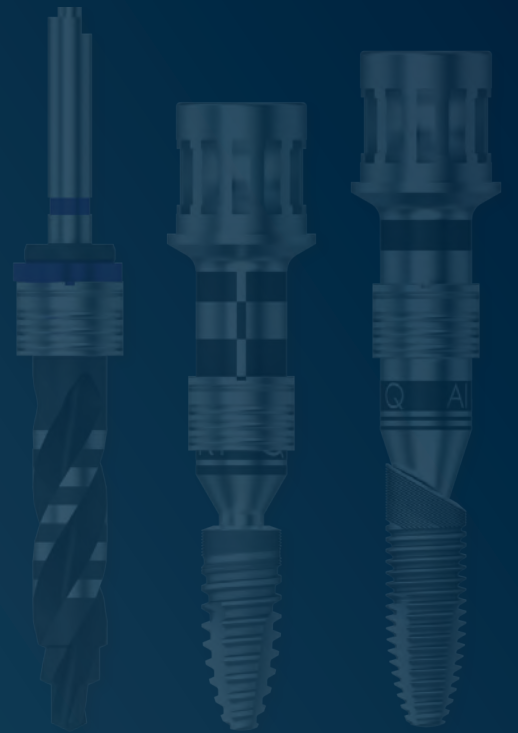
NB: Before inserting the implant, the inner sleeve must be removed. The implant is then screwed in position through the outer sleeve until the depth marking of the placement instrument is flush with the upper edge of the outer sleeve. The vertical marking of the placement instrument must be observed to ensure the necessary alignment of the implant connection.

The implant can heal either with submerged or transgingival methods.



Medentika® MedentiGuide

Products



Needle drill

- Stainless steel



Type	Needle drill
Article No.	0-14-77

MedentiGuide Outer sleeve standard

- Titanium Grade 5 CF



Diameter (mm)	D 6.3 / d 5.01
Article No.	0-32-06

Please note: This sleeve is used for implants D 3.0 - D 4.5.

MedentiGuide Outer sleeve large

- Titanium Grade 5 CF



Diameter (mm)	D 8.3 / d 7.01
Article No.	0-32-07

Please note: This sleeve is used for implants D 5.0.

MedentiGuide Adapter sleeve

- Titanium Grade 5 CF



Diameter (mm)	D 7.0 / d 5.01
Article No.	0-32-08

Please note: This sleeve is used as a connecting piece between the Outer sleeve large and the Inner sleeves for the drill diameter D 2,0 - D 4,0.

MedentiGuide Inner sleeve Quattrocone implant

- Titanium Grade 5 CF
- Pilot drill



Diameter (mm)	D 5.0 / d 2.03
Colour code	grau
Drill diameter	D 2.0 mm
Article No.	0-32-15

MedentiGuide Inner sleeve Quattrocone implant

- Titanium Grade 5 CF
- Standard drill



Diameter (mm)	D 5.0 / d 3.23	D 5.0 / d 3.53	D 5.0 / d 4.03	D 7.0 / d 4.73
Colour code	pink	light blue	purple	brown
Drill diameter	D 3.2 mm	D 3.5 mm	D 4.0 mm	D 4.7 mm
Article No.	0-32-16	0-32-21	0-32-17	0-32-18

MedentiGuide Inner sleeve Quattrocone implant

- Titanium Grade 5 CF
- Cortical drill



Diameter (mm)	D 5.0 / d 3.33	D 5.0 / d 3.63	D 5.0 / d 4.13	D 7.0 / d 4.83
Colour code	pink	light blue	purple	brown
Drill diameter	D 3.3 mm	D 3.6 mm	D 4.1 mm	D 4.8 mm
Article No.	0-32-27	0-32-28	0-32-29	0-32-30

Placement instrument MedentiGuide

- Stainless steel



Type	Outer sleeve standard	Outer sleeve large
Article No.	0-32-19	0-32-20

MedentiGuide Placement instrument Implant

- Manual and ratchet
- Stainless steel



Implant connection	AI	AI
Type	Quattrocone30	Quattrocone30
Version	short	long
Article No.	4-32-03	4-32-04

Please note: These insertion tools are used to insert implants when using MedentiGuide sleeves.

MedentiGuide Placement instrument Implant

- Manual and ratchet
- Stainless steel



Implant connection	RI	RI
Type	Quattrocone	Quattrocone
Version	short	long
Article No.	3-32-03	3-32-04

Please note: These insertion tools are used to insert implants when using MedentiGuide sleeves.

MedentiGuide Placement instrument Implant

- Contra-angle
- Stainless steel



Implant connection	AI	AI
Type	Quattrocone30	Quattrocone30
Version	short	long
Article No.	4-32-01	4-32-02

Please note: These insertion tools are used to insert implants when using MedentiGuide sleeves.

MedentiGuide Placement instrument Implant

- Contra-angle
- Stainless steel



Implant connection	RI	RI
Type	Quattrocone	Quattrocone
Version	short	long
Article No.	3-32-01	3-32-02

Please note: These insertion tools are used to insert implants when using MedentiGuide sleeves.

Tweezers

- Diamond coated
- Stainless steel



Article No.	22.014.03
-------------	-----------



Editor

Medentika® GmbH

As at: August 2020

We are certified:

DIN EN ISO 13485

**Medical Device Directive 93/42/EWG,
Annex II**

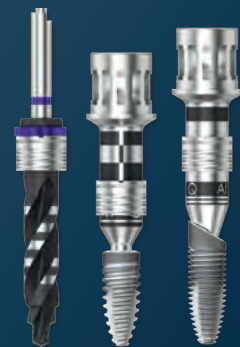
CE0483

The electronic Instructions for Use for our products are available on the website www.medentika.com.

Made in Germany with a long tradition of precision craftsmanship

- High-precision implant systems
- Innovation for immediacy
- High pure S-L-A surface
- High primary stability
- Guaranteed up to lifetime

»» Passion for
Precision ««



Medentika® GmbH
Hammweg 8–10
76549 Hügelsheim
info@medentika.de
www.medentika.com

© Medentika® GmbH, 2020. All rights reserved.
Medentika® and/or other trademarks and logos from Medentika® mentioned herein are the trademarks or registered trademarks of Medentika® and/or its affiliates.

 **MEDENTIKA®**
A Straumann Group Brand