ROOTT

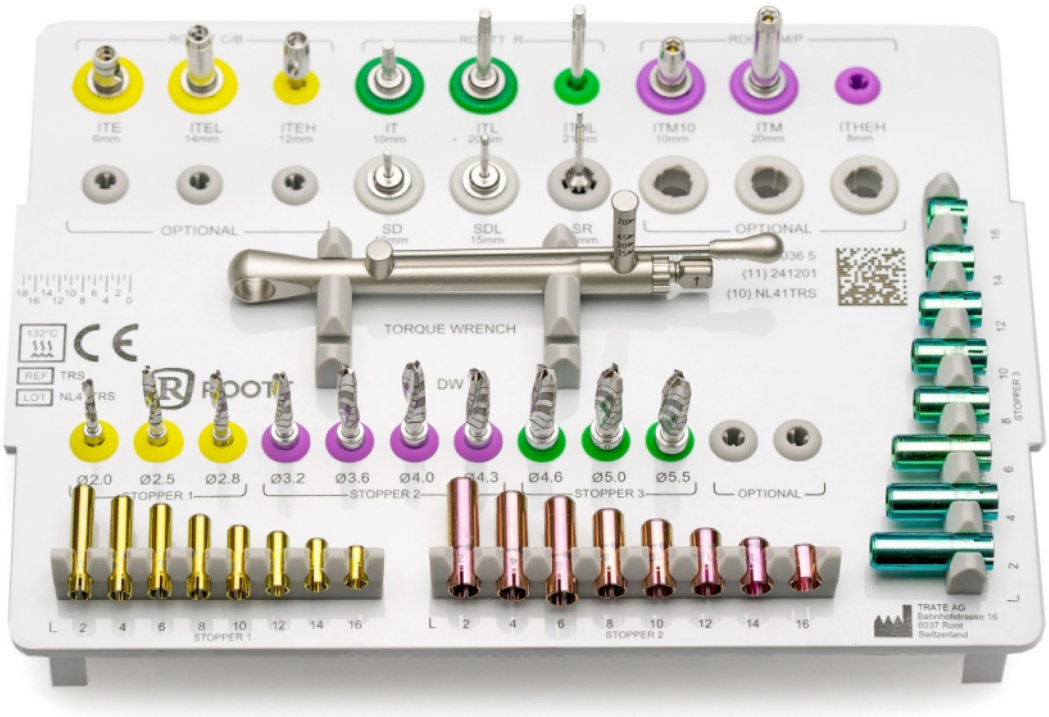
Cassetes U

SURGICAL CASSETTE TRS

instructions for use

- Easy opening cover
- Laser markings on the tray
- Stable-fitted tools for safe transportation
- Convenient bundle of tools
- Color-coded for better recognition
- Drills arranged from left to right in order of increasing diameter
- Drill length check
- The insert is easily removable

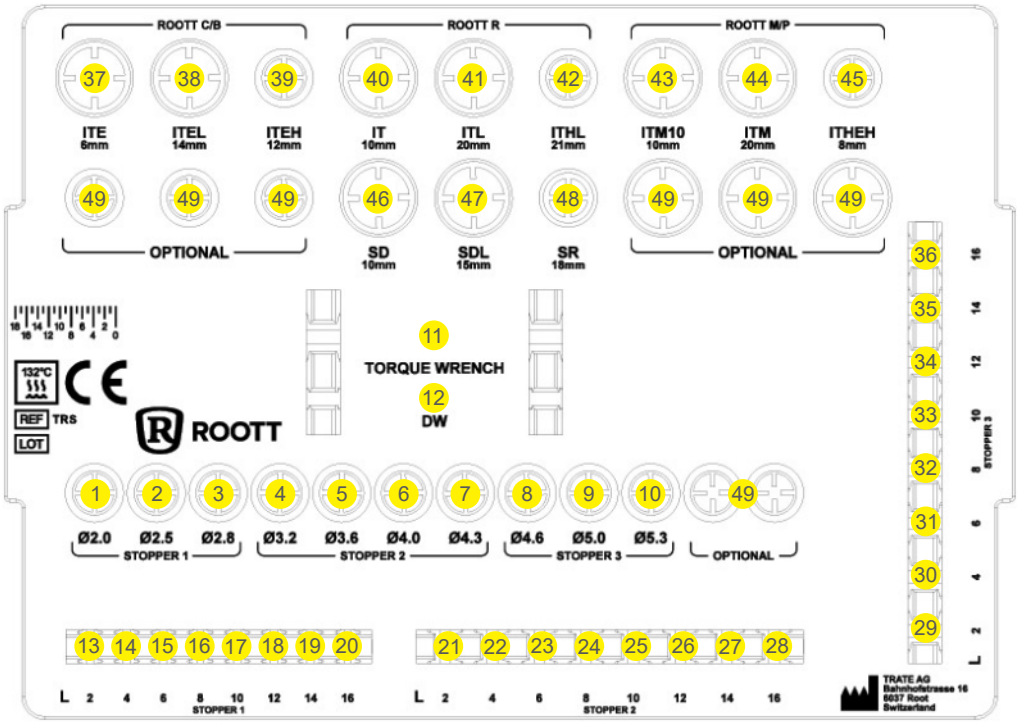
For implant systems: ROOTT R C CS M



TRS cassette's insert is designed to hold drills, implant drivers, screwdrivers and some other instruments. Can be easy removed.

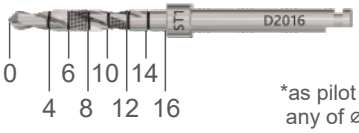
Cassette does not include instruments, these are sold separately.

CONTENT



Drills

Twist drill D2016 can be used as pilot drills. These drills have a stopper, which stops the drill from making deeper hole than needed. Depth marks for easy visual reference while drilling or x-ray control. Have laser markings from 4 mm each 2 mm.



1 D2016*

*as pilot drill can be used any of ø2.0 drills

Tapered drills are used for cavity preparation. Use a drill with a diameter lower than the diameter of the implant to be placed. Drill to the appropriate depth, required for a specific case. Laser markings every 2 mm from 4 to 16 mm.

2 D2516
3 D2816
4 D3216
5 D3616
6 D4016
7 D4316
8 D4616
9 D5016
10 D5316

Handle

For supporting implant drivers, that are used with a wrench

11 DW

Torque wrench

Torque wrench is suitable for all instruments with head for ratchet. Maximal torque is 70 Ncm.

12 TW70

Drill stops

The drill stop restricts drilling deeper than the predefined depth, to be used in sensitive indications to avoid the mandibular nerve or sinus floor. All drill stops can be mounted and dismounted manually. Color-coding allows easy identification of diameter size.

13 S1L02
14 S1L04
15 S1L06
16 S1L08
17 S1L10
18 S1L12
19 S1L14
20 S1L16

21 S2L02
22 S2L04
23 S2L06
24 S2L08
25 S2L10
26 S2L12
27 S2L14
28 S2L16

29 S3L02
30 S3L04
31 S3L06
32 S3L08
33 S3L10
34 S3L12
35 S3L14
36 S3L16

Implant drivers

For external platform. To control the implant insertion depth, have two lasered round lines at 2 and 4 mm. For ratchet and handpiece.

37 ITE

Hole for lifting in case if tool is stacked

38 ITEL

39 ITEH

For internal platform. Have length indicators.

40 IT

Length indicators 1 mm between each line

41 ITL

42 ITHL

For M platform (Viper). Consists of two parts: implant driver and screwdriver.

43 ITM10

44 ITM

For handpiece, coming soon

45 ITHEH

Screwdrivers

For all ROOTT dental implant system screws. Long screwdriver is suitable for all superstructures. Conical tip of the hex helps to grab screw.

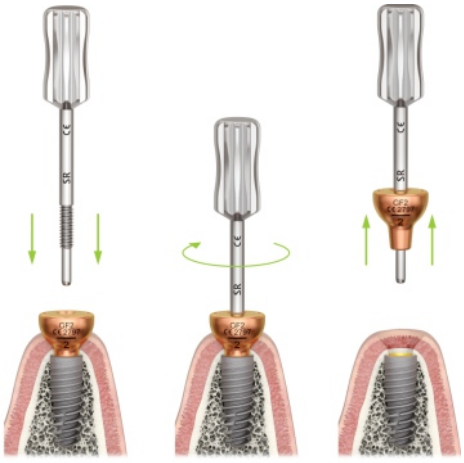
46 SD

47 SDL

Abutment extractor

For easy superstructure removal in case if conical connection hold tight a part inside of ROOTT R implant.

48



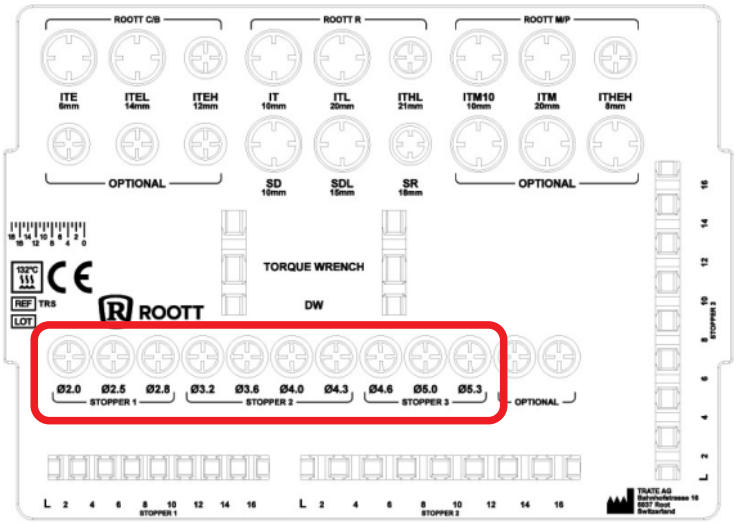
Optional places

49

For additional drills, handpiece instruments, ratchet instruments.

Example:
ROOTT R implant
Ø 3.8 mm
Length – 10 mm

R3810 D2016 D2516 D2816 D3216 D3616 Example with stopper



Step 1 Take a twist pilot drill D2016 to define the direction of the implant and to enlarge the diameter of the hole.
*For long implants Rxx18 and Rxx20 should be used longer twist drills D2018 or .

Step 2 Use drill length check to check drill length. Use laser marking to identify position with regards to intraosseous length of implant. Drill deeper 0.5 mm then the implant length for subcrestal position.

Step 3 Take a tapered drill D2516 to enlarge the diameter of the hole. Use wider tapered drills to prepare hole for wider diameter implants.

Optional step** Use drill stops to control drilling depth.

Drilling protocol for ROOTT R implants or see Table 1

ROOTT R

Table 1

Implant	D4 BONE	D2-D3 BONE	D1 BONE
Ø 3.0 mm	D2016	D2016 D2516	D2016 D2516 D2816
Ø 3.5 mm	D2016 D2516	D2016 D2516 D2816	D2016 D2516 D2816 D3216
Ø 3.8 mm	D2016 D2516 D2816	D2016 D2516 D2816 D3216	D2016 D2516 D2816 D3216 D3616
Ø 4.2 mm	D2016 D2516 D2816 D3216	D2016 D2516 D2816 D3216 D3616	D2016 D2516 D2816 D3216 D3616 D4016
Ø 4.8 mm	D2016 D2516 D2816 D3216 D3616 D4016	D2016 D2516 D2816 D3216 D3616 D4016 D4316	D2016 D2516 D2816 D3216 D3616 D4016 D4316 D4616
Ø 5.5 mm	D2016 D2516 D2816 D3216 D3616 D4016 D4316 D4616	D2016 D2516 D2816 D3216 D3616 D4016 D4316 D4616 D5016	D2016 D2516 D2816 D3216 D3616 D4016 D4316 D4616 D5016 D5316

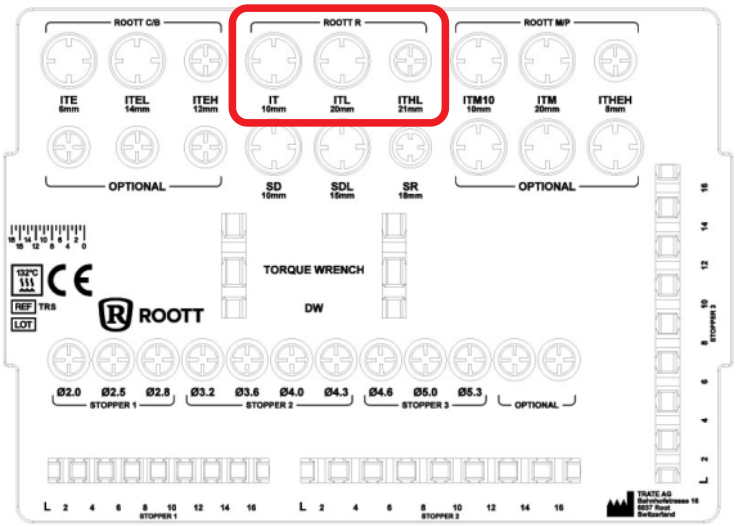
Example:
ROOTT R implant
Ø 3.8 mm
Length – 10 mm

R3810

IT

ITL

ITHL



Step 1 Take an implant driver for internal platform IT/ITL/ITHL and insert to ROOTT R implant.

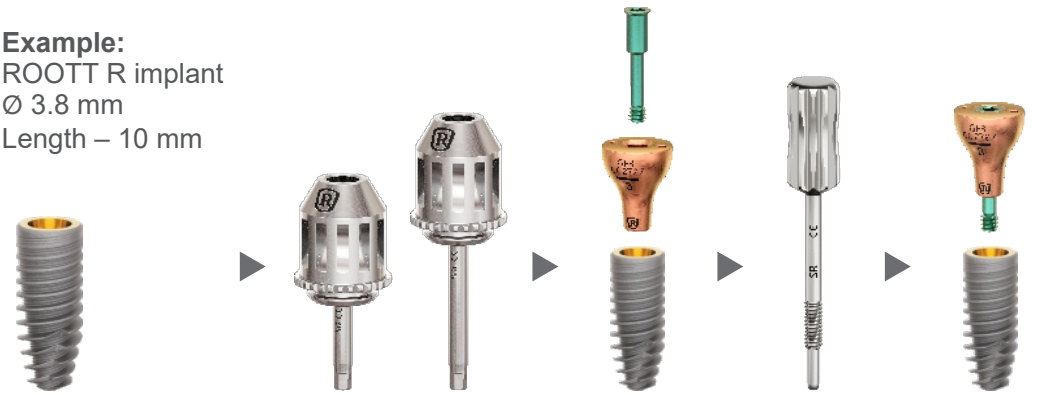
Step 2 Twist off breaking point – hold the instrument tight with one hand and with the other hold the holder, twisting until the implant separates from the holder.

Step 3 Use implant driver IT/ITL with torque wrench TW70 to insert implant to prepared hole.
Use implant driver ITHL with contra–angle handpiece to insert implant to prepared hole.

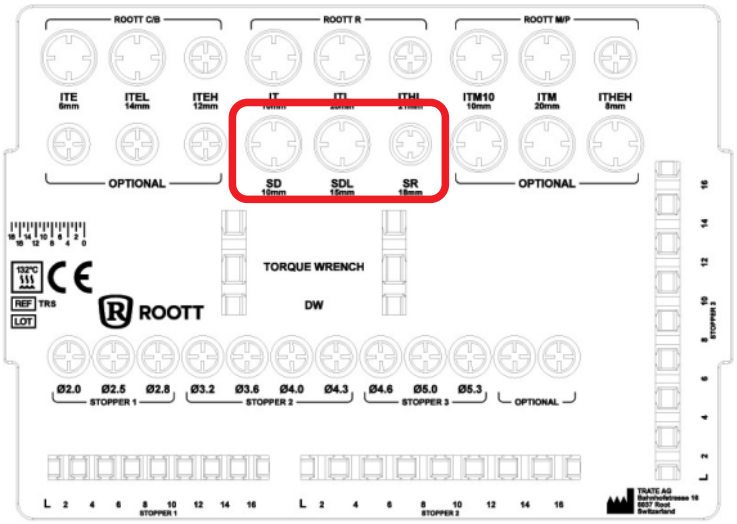
Step 4 Use handle for implant driver DW for more precise implant insertion and to avoid glove grab.

Implant insertion via direct insertion – never exceed 100 Ncm.

Example:
ROOTT R implant
Ø 3.8 mm
Length – 10 mm



R3810 | SD | SDL | R3810 GF3 | SR | R3810

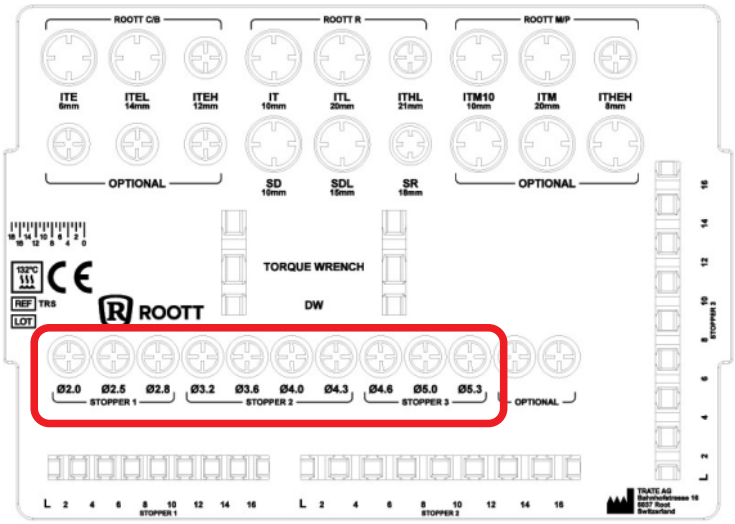


Step 1 Use a multipurpose screwdriver SD or SDL for screwing & unscrewing any screw of ROOTT dental implant system.
Due to the conical tip of the hex, it is more manageable to take out the screw from the superstructure. Therefore if struggling to remove the screw from the abutment, movement side to side before pulling out is allowed.
Never exceed the recommended tightening torque – 15 Ncm for the screw. Overtightening of abutment may lead to a screw fracture.

Step 2 Use an abutment extractor SR for easier removing ROOTT R healing abutment or D2020 abutment. Screw SR instead of your screw until part will not be released and remove CRE.
Abutment extractor SR – for easy superstructure removal in case if your conical connection holds tight a part inside of ROOTT R implant.

Example:
ROOTT C implant
Ø 4.0 mm
Length – 10 mm

R3810 D2016 D2516 D2816 D3216 Example with stopper



Step 1 Take a twist pilot drill D2016 to define the direction of the implant and to enlarge the diameter of the hole.
*For long implants Cxx18 and Cxx20 should be used longer twist drills D2018 or D2020.

Step 2 Use drill length check to check drill length. Use laser marking to identify position with regards to intraosseous length of implant. Drill to the required length (see Table 2 or drilling protocol for ROOTT C/CS).

Step 3 Take a tapered drill D2516 to enlarge the diameter of the hole. Use wider tapered drills to prepare hole for wider diameter implants.

Optional step** Use drill stops to control drilling depth.

Drilling protocol for ROOTT C/CS implants see Table 2

ROOTT C CS

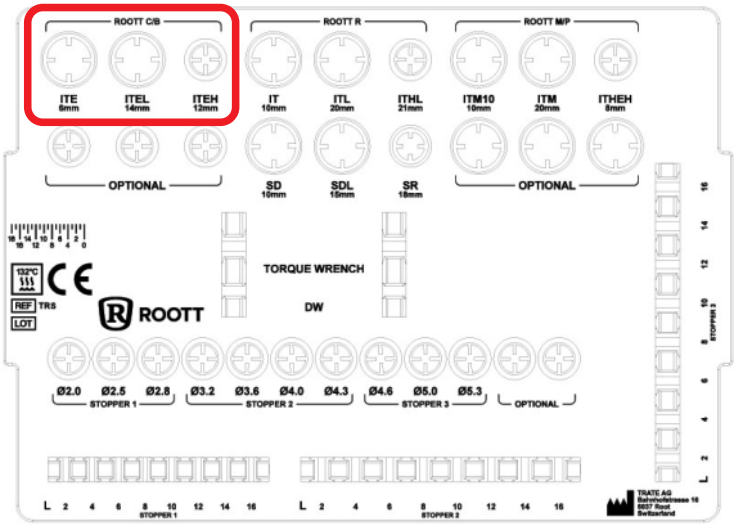
Table 2

Implant	D4 bone	D2-D3 bone	D1 bone	*drill to depth as specified
Ø 3.0 mm	D2016 ↻	D2016*	D2016 D2516*	* C3006, C3008 – 4 mm C3010, C3012 – 6 mm C3014, C3016 – 8 mm C3018, C3020 – 10 mm
Ø 3.5 mm	D2016	D2016 D2516*	D2016 D2516* D2816*	* C3506, C3508 – 4 mm C3510, C3512 – 6 mm C3514, C3516 – 8 mm C3518, C3520 – 10 mm
Ø 4.0 mm	6-20 mm D2016* D2516*	6-20 mm D2016 D2516* D2816*	6-8 mm / 10-20 mm D2016 / D2016 D2516 / D2516* D2816* / D2816* D3216* / D3216*	* C4006, C4008 – 4 mm C4010, C4012 – 6 mm C4014, C4016 – 8mm C4018, C4020 – 10 mm
Ø 4.5 mm	6-20 mm D2016 D2516* D2816*	6-20 mm D2016 D2516 D2816* D3216*	6-8 mm / 10-20 mm D2016 / D2016 D2516 / D2516 D2816 / D2816* D3216* / D3216* D3616* / D3616*	* C4506, C4508 – 4 mm C4510, C4512 – 6 mm C4514, C4516 – 8 mm C4518, C4520 – 10 mm
Ø 5.0 mm	6-8 mm / 10-14 mm D2016 / D2016 D2516 / D2516* D2816 / D2816* D3216 / D3216*	6-8 mm / 10-14 mm D2016 / D2016 D2516 / D2516 D2816 / D2816* D3216 / D3216* D3616 / D3616*	6-8 mm / 10-14 mm D2016 / D2016 D2516 / D2516 D2816 / D2816 D3216 / D3216* D3616 / D3616* D4016 / D4016*	* C5006, C5008 – 4 mm C5010, C5012 – 6 mm C5014 – 8 mm
Ø 5.5 mm	6-8 mm / 10-14 mm D2016 / D2016 D2516 / D2516* D2816 / D2816* D3216 / D3216* D3616 / D3616* D4016* / D4016*	6-8 mm / 10-14 mm D2016 / D2016 D2516 / D2516 D2816 / D2816* D3216 / D3216* D3616 / D3616* D4016 / D4016* D4316* / D4316*	6-8 mm / 10-14 mm D2016 / D2016 D2516 / D2516 D2816 / D2816 D3216 / D3216* D3616 / D3616* D4016 / D4016* D4316 / D4316* D4616* / D4616*	* C5506, C5508 – 4 mm C5510, C5512 – 6 mm C5514 – 8 mm
Ø 6.5 mm	6-8 mm / 10-14 mm D2016 / D2016 D2516 / D2516 D2816 / D2816 D3216 / D3216 D3616 / D3616 D4016 / D4016 D4316 / D4316* D4616* / D4616*	6-8 mm / 10-14 mm D2016 / D2016 D2516 / D2516 D2816 / D2816 D3216 / D3216 D3616 / D3616 D4016 / D4016 D4316 / D4316 D4616 / D4616* D5016 / D5016*	6-8 mm / 10-14 mm D2016 / D2016 D2516 / D2516 D2816 / D2816 D3216 / D3216 D3616 / D3616 D4016 / D4016 D4316 / D4316 D4616 / D4616 D5016 / D5016* D5316 / D5316*	* C6506, C6508 – 4 mm C6510, C6512 – 6 mm

Example:
ROOTT C implant
Ø 4.0 mm
Length – 10 mm

R3810

ITE ITEL ITEH



Step 1 Take an implant driver for external platform ITE/ITEL/ITEH and put on ROOTT C/CS implant.

Step 2 Twist off breaking point – hold the instrument tight with one hand and with the other hold the holder, twisting until the implant separates from the holder.

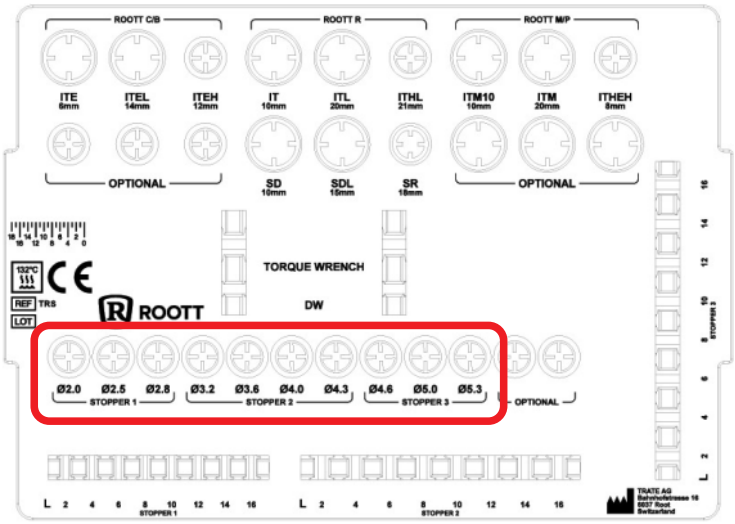
Step 3 Use implant driver ITE/ITEL with torque wrench TW70 to insert implant to prepared hole.
Use implant driver ITEH with a contra-angle handpiece to insert the implant to the prepared hole.

Step 4 Use handle for implant driver DW for more precise implant insertion and to avoid glove grab.

Implant insertion via direct insertion:
– from diameter 3.0 mm never exceed 117 Ncm
– from diameter 3.5 mm never exceed 133 Ncm
– from diameter 4.5-5.0 mm never exceed 238 Ncm
– from diameter 5.5 mm never exceed 298 Ncm

Example:
ROOTT M implant
Ø 4.0 mm
Length – 10 mm

C4010m | D2016 | D2516 | D2816 | D3216 | D3616 | Example with stopper



Step 1 Take a twist pilot drill D2016 to define the direction of the implant and to enlarge the diameter of the hole.
*For long implants Cxx18m and Cxx20m should be used longer twist drills D2018 or D2020.

Step 2 Use drill length check to check drill length. Use laser marking to identify position with regards to intraosseous length of implant. Drill to the required length (see table 3 or Drilling protocol for ROOTT M).

Step 3 Take a tapered drill D2516 to enlarge the diameter of the hole. Use wider tapered drills to prepare hole for wider diameter implants.

Optional step** Use drill stops to control drilling depth.

Drilling protocol for ROOTT M implants see Table 3

ROOTT M

Table 3

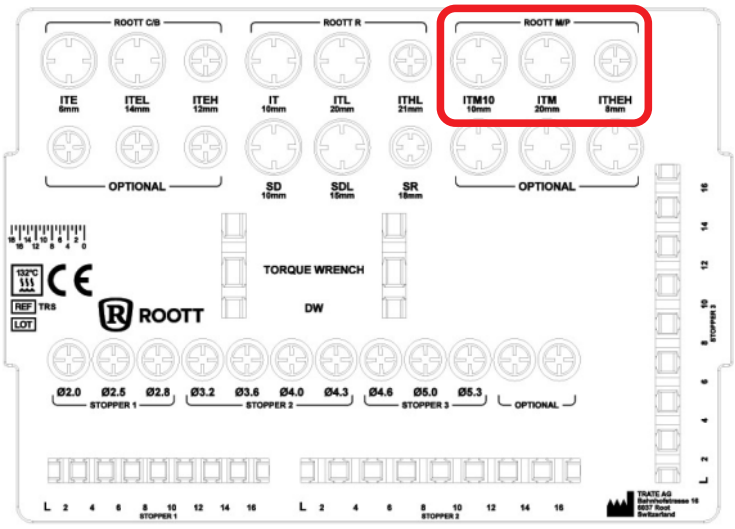
Implant	D4 BONE	D2-D3 BONE	D1 BONE
Ø 2.5 mm	D2016 ↻	D2016	D2016
Ø 3.0 mm	D2016	D2016 D2516	D2016 D2516 D2816
Ø 3.5 mm	6-8 mm: D2016, D2516 10-14 mm: D2016, D2516, D2816	6-8 mm: D2016, D2516, D2816 10-14 mm: D2016, D2516, D2816, D3216	D2016 D2516 D2816 D3216
Ø 4.0 mm	6-8 mm: D2016, D2516, D2816 10-14 mm: D2016, D2516, D2816, D3216	6-8 mm: D2016, D2516, D2816, D3216 10-14 mm: D2016, D2516, D2816, D3216, D3616	D2016 D2516 D2816 D3216 D3616
Ø 5.0 mm	6-8 mm: D2016, D2516, D2816, D3216, D3616, D4016 10-14 mm: D2016, D2516, D2816, D3216, D3616, D4016, D4316	6-8 mm: D2016, D2516, D2816, D3216, D3616, D4016, D4316 10-14 mm: D2016, D2516, D2816, D3216, D3616, D4016, D4316, D4616	D2016 D2516 D2816 D3216 D3616 D4016 D4316 D4616

Example:
ROOTT M implant
Ø 4.0 mm
Length – 10 mm

C4010m

ITM10

ITM



Step 1 Take an implant driver for multi unit platform ITM10/ITM and put on ROOTT M implant. Carefully screw to the implant.

Step 2 Twist off breaking point – hold the instrument tight with one hand and with the other hold the holder, twisting until the implant separates from the holder.

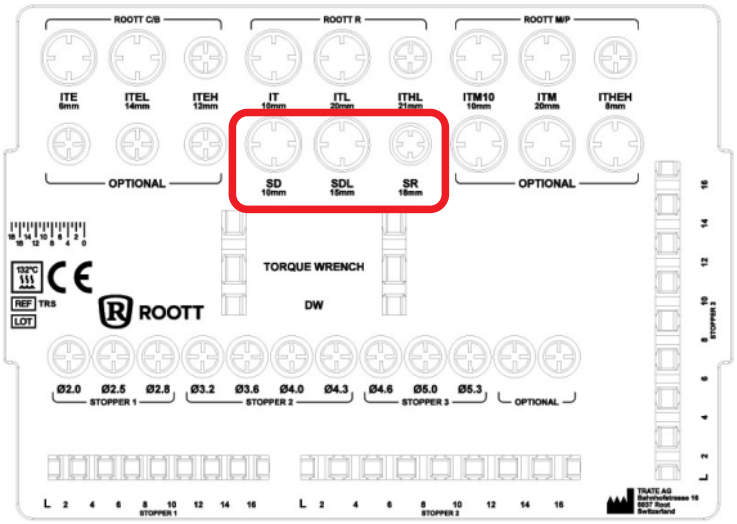
Step 3 Use implant driver ITM10/ITM with torque wrench TW70 to insert implant to prepared hole.

Step 4 Use handle for implant driver DW for more precise implant insertion and to avoid glove grab.

Implant insertion via direct insertion with insertion tools never exceed 133 Ncm.

Example:
ROOTT M implant
Ø 4.0 mm
Length – 10 mm

C4010m | SD | SDL | C4010m GFM2



Step 1 Use a multipurpose screwdriver SD or SDL for screwing & unscrewing any screw of ROOTT dental implant system.
Due to the conical tip of the hex, it is more manageable to take out the screw from the superstructure. Therefore if struggling to remove the screw from the abutment, movement side to side before pulling out is allowed.

Never exceed the recommended tightening torque – 15 Ncm for the screw. Overtightening of abutment may lead to a screw fracture.

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Medical devices under these instructions are in compliance with established in EU regulatory requirements.

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