

# DRILLING PROTOCOL FOR ROOTT IMPLANTS USING FORM DRILLS R

## CAVITY PREPARATION

Every person has a unique bone structure and the clinician has to adapt the drilling protocol to the individual bone quality and anatomical situation. Our drilling protocol is an optimal scheme for different types of bones - D1, D2-D3, D4.

**IMPORTANT!  
WHEN PREPARING THE CAVITY FOR  
THE IMPLANT, ALWAYS ENSURE COOLING.  
USE ONLY SHARP INSTRUMENTS.**

## DRILLING SPEED

Recommended drilling speed:

- initial drilling – 1200–1500 Rpm;
- pilot drilling – 900–1200 Rpm;
- form drilling – 200–800 Rpm.

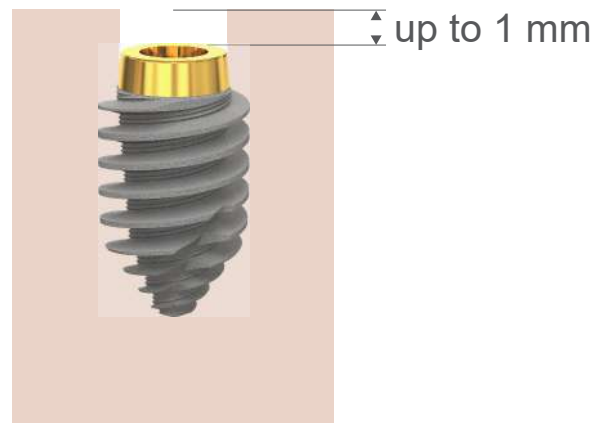
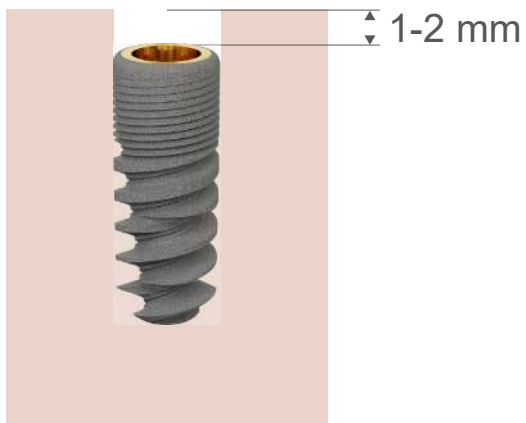
Implantologist is responsible of drilling speed choice, taking into consideration his experience, preferences and special necessities of the patient.

Important notice: this protocol was performed with ROOTT R form drills with a max speed of 700 rpm, with insertion torque for implants from 35 to 50 Ncm.

## IMPLANT POSITION

We recommend to place the regular ROOTT R implant ( $\varnothing$  3.0,  $\varnothing$  3.5,  $\varnothing$  3.8) 1-2 mm deeper to help the bone grow over the implant - subcrestal implant position. Drilling should go 1-2 mm deeper than the implant length.

We recommend to place the new design ROOTT R implants ( $\varnothing$  4.2,  $\varnothing$  4.8,  $\varnothing$  5.5) up to 1 mm deeper than the implant length.



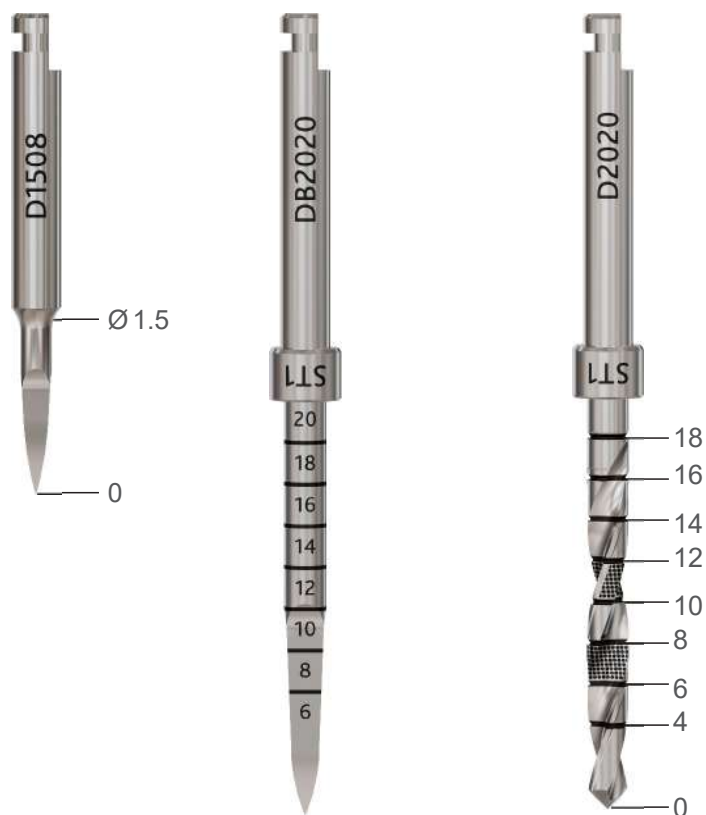
# ROOTT **R** implants installation using form drills

## DRILLS

The triangular lance drill D1508 can be used for initial drilling for setting the drilling axis before using pilot drill D20xx.

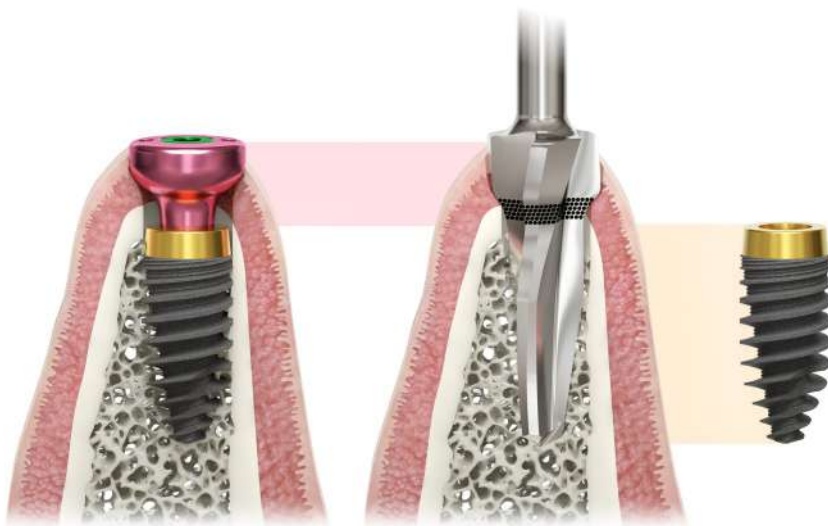
Lance drill DB2020 can be used for initial drilling as well. This drill has laser marking from 6 mm, every 2 mm.

The twist drill D20xx determines the depth and axis of the implant site. Use twist drills as pilot drills. They have laser markings from 4 mm, every 2 mm and depth marks for easy visual reference while drilling.



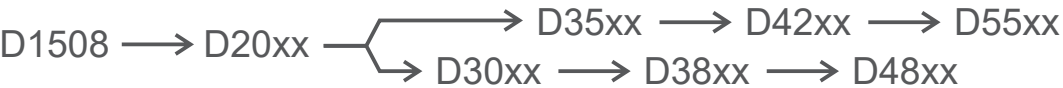


Form drills are available for each ROOTT R implant size. They have the same contour as the corresponding implant, which helps to prepare the correct hole on uneven bone surfaces and does not require additional corrections for placing ROOTT R implant and healing abutment.



During initial drilling define bone quality type and follow these recommendations:

- for spongy bone D4 use counter clockwise rotation and use a smaller diameter drill than the implant. Drill till the lasering mark at  $xx\text{ mm}+0.5$
- for solid & moderate bones D2-D3 follow scheme below and drill till the lasering mark at  $xx\text{ mm}+0.5$
- for very thick bone D1 follow scheme and drill deeper, till the lasering mark at  $xx\text{ mm}+1.5$ .



If you feel a strong resistance at any point during implant insertion, you may rotate the implant counterclockwise by 2 to 3 rounds and continue inserting the implant.

Form drills have laser markings at the length of  $xx+0.5\text{ mm}$  and  $xx+1.5\text{ mm}$ , where  $xx$  is implant length.

D3010 D3012 D3014 D3016



← xx mm + 0.5  
← xx mm + 1.5

D3506 D3508 D3510 D3512 D3514 D3516



← xx mm + 0.5  
← xx mm + 1.5

D3806 D3808 D3810 D3812 D3814 D3816



← xx mm + 0.5  
← xx mm + 1.5

D4206 D4208 D4210 D4212 D4214 D4216



← xx mm + 0.5  
← xx mm + 1.5

D4806 D4808 D4810 D4812 D4814 D4816



← xx mm + 0.5  
← xx mm + 1.5

D5506 D5508 D5510 D5512 D5514 D5516



← xx mm + 0.5  
← xx mm + 1.5

# IMPLANTS

ROOTT R implant line is a single platform, with an active thread for better osseointegration, ensuring perfect stability in the jaw.

ROOTT R implants are available in two different shapes. From R3010 to R3816 implants have U-shape and a self tapping thread.

From R4206 implants have a different shape. Short implants (6 mm and 8 mm) have U-shape and a single pitch thread, longer implants (10 mm, 12 mm, 14 mm, 16 mm) have V-shape and a different pitch thread. Implants from R4206 to R5516 have the same core diameter.



# IMPLANTS R30XX

## D4 BONE



## D2-D3 BONE



## D1 BONE

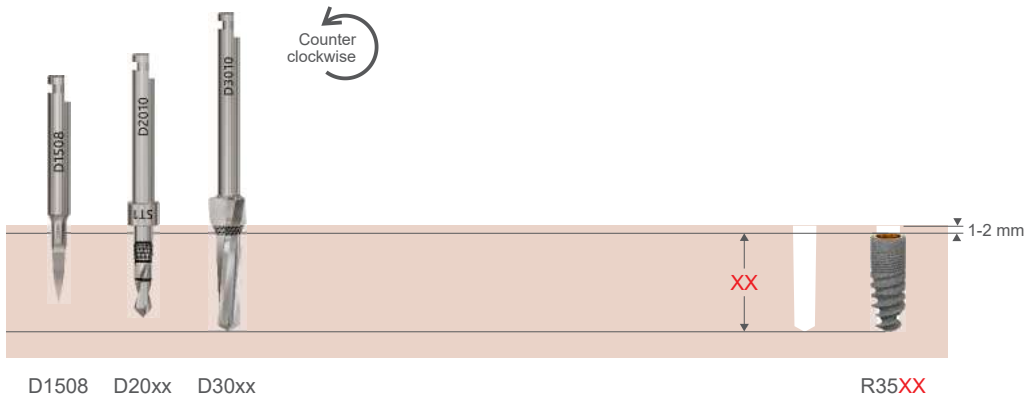


Here xx is the length of the implant, mm



# IMPLANTS R35XX

## D4 BONE



## D2-D3 BONE



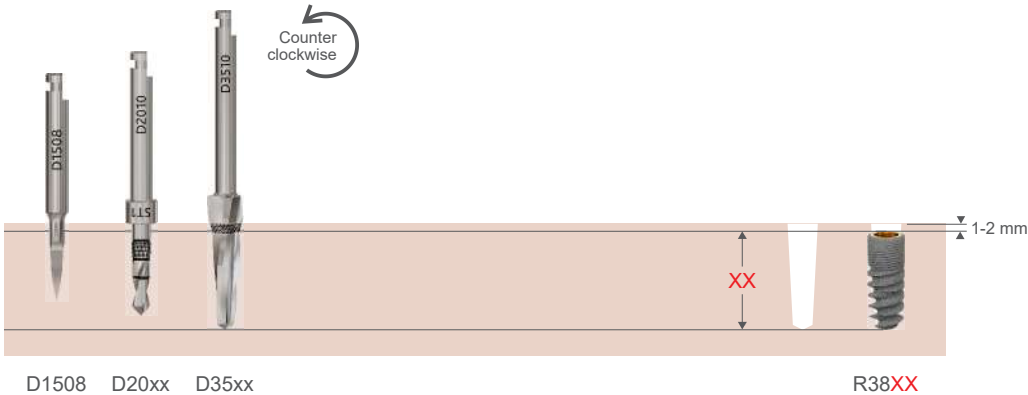
## D1 BONE



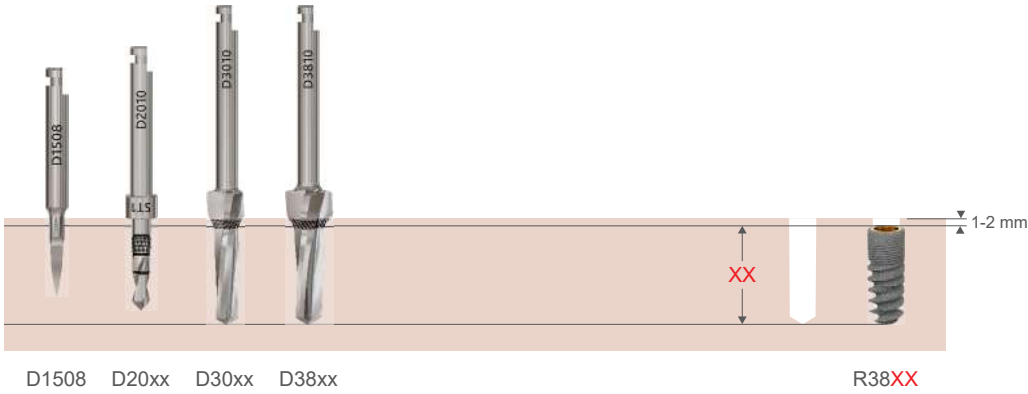
Here xx is the length of the implant, mm

# IMPLANTS R38XX

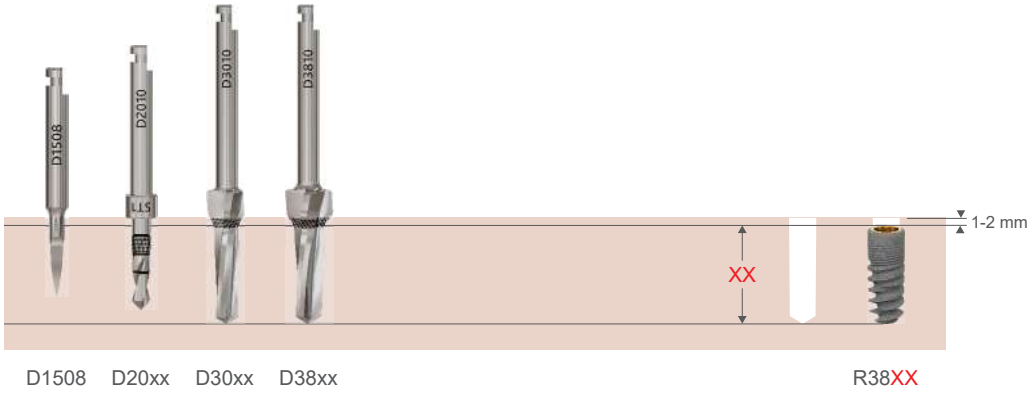
## D4 BONE



## D2-D3 BONE



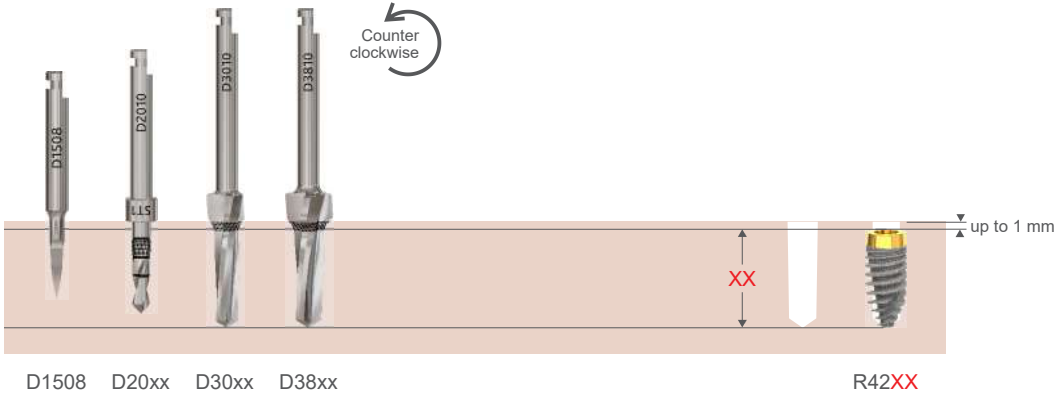
## D1 BONE



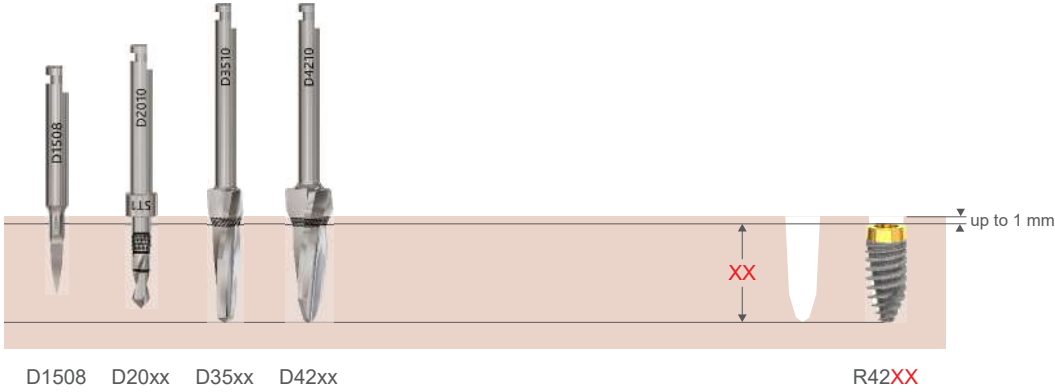
Here xx is the length of the implant, mm

# IMPLANTS R42XX

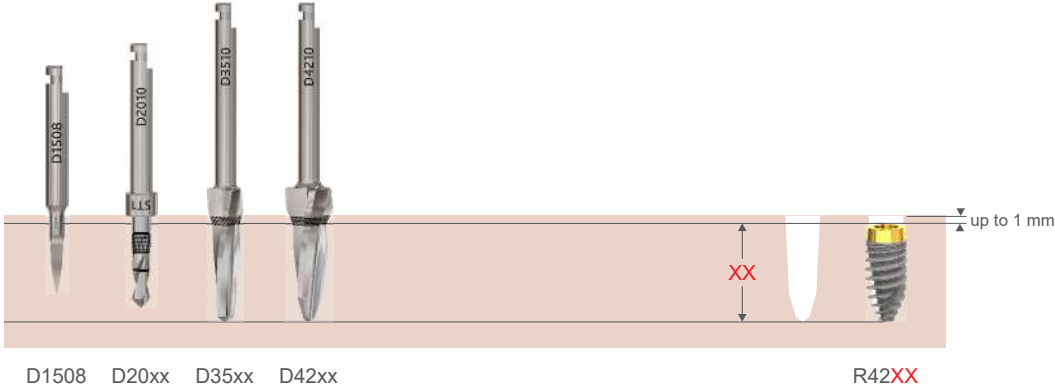
## D4 BONE



## D2-D3 BONE



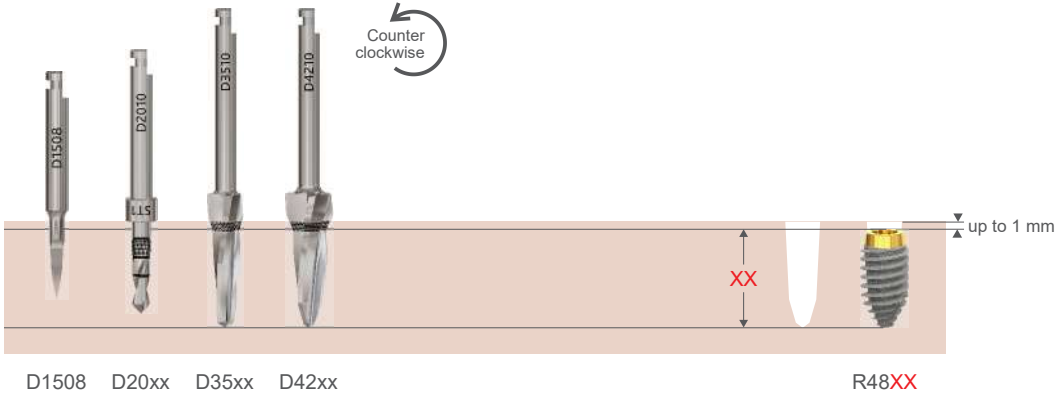
## D1 BONE



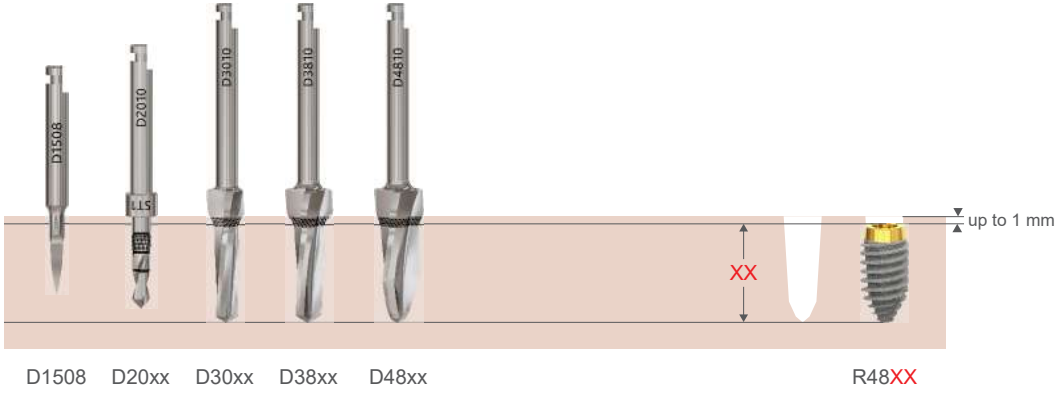
Here xx is the length of the implant, mm

# IMPLANTS R48XX

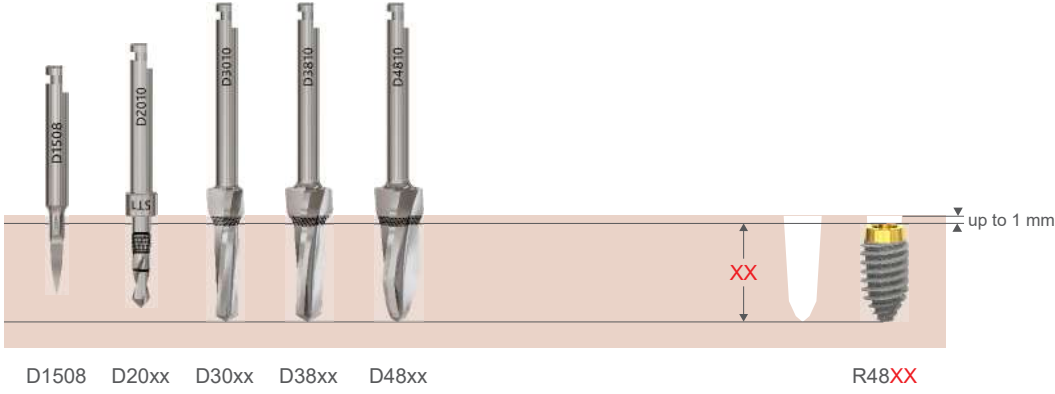
## D4 BONE



## D2-D3 BONE



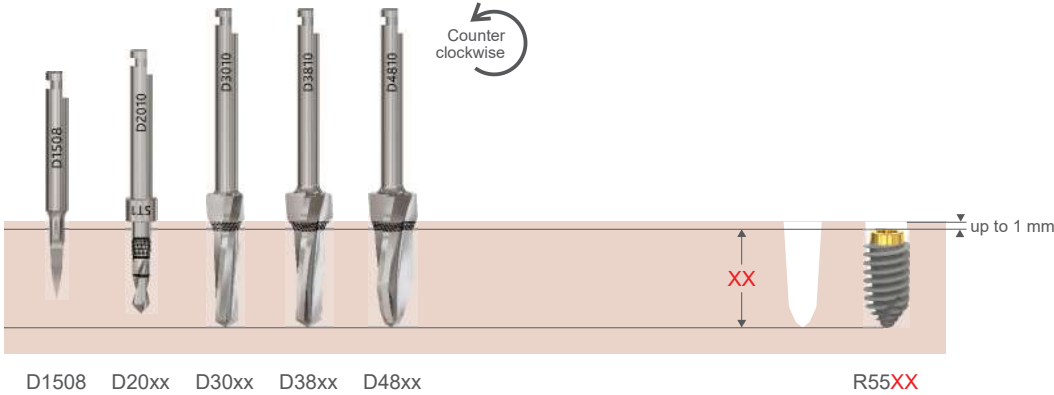
## D1 BONE



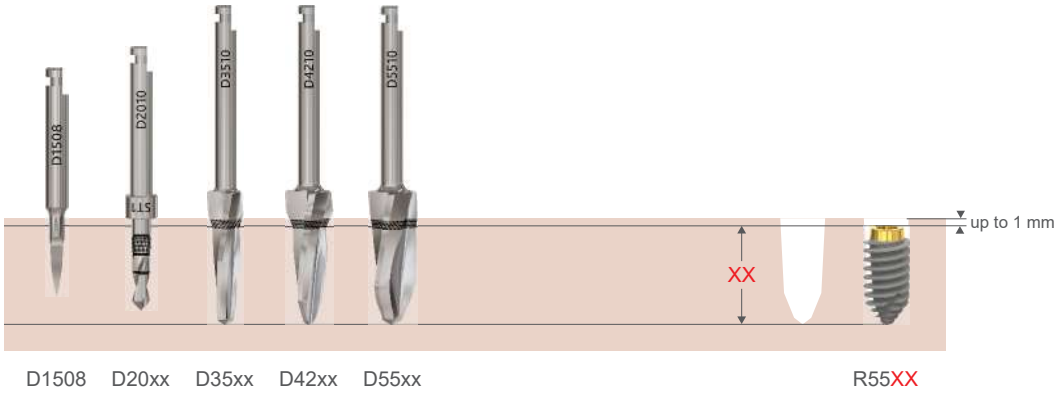
Here xx is the length of the implant, mm

# IMPLANTS R55XX

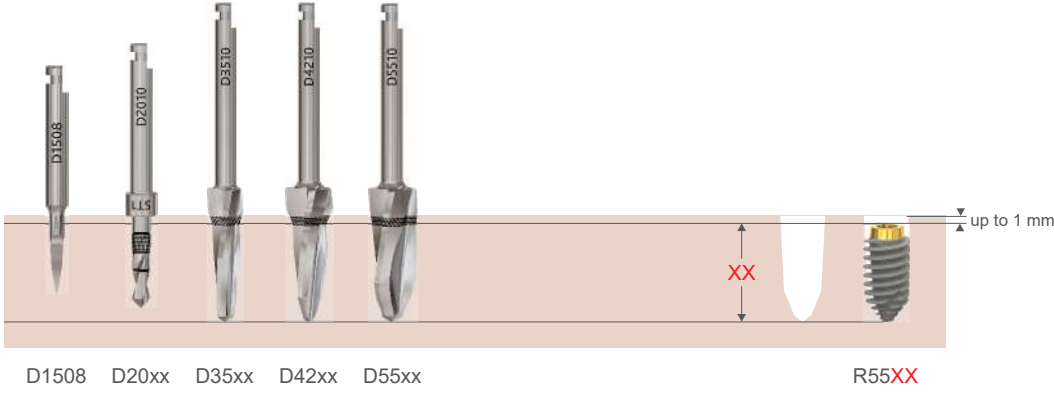
## D4 BONE



## D2-D3 BONE



## D1 BONE



Here xx is the length of the implant, mm

# ROOTT<sup>R</sup> implants installation using form drills

Implant	D4 BONE	D2-D3 BONE	D1 BONE
Ø 3.0 mm	D1508 D20xx	D1508 D20xx D30xx	D1508 D20xx D30xx
Ø 3.5 mm	D1508 D20xx D30xx 	D1508 D20xx D35xx	D1508 D20xx D35xx
Ø 3.8 mm	D1508 D20xx D35xx 	D1508 D20xx D30xx D38xx	D1508 D20xx D30xx D38xx
Ø 4.2 mm	D1508 D20xx D30xx D38xx 	D1508 D20xx D35xx D42xx	D1508 D20xx D35xx D42xx
Ø 4.8 mm	D1508 D20xx D35xx D42xx 	D1508 D20xx D30xx D38xx D48xx	D1508 D20xx D30xx D38xx D48xx
Ø 5.5 mm	D1508 D20xx D30xx D38xx D48xx 	D1508 D20xx D35xx D42xx D55xx	D1508 D20xx D35xx D42xx D55xx



**ROOTT**

TRATE AG  
Bahnhofstrasse 16  
6037 Root  
Switzerland

+41 41 450 01 01  
info@trate.com  
trate.com

**TRATE**

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

