











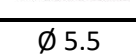


Drill Protocol* for 'Refirm' Dental Implants

Bone Type	D1 BONE							
	Cylindrical		Taper form					Cortical countersink/CSK/crestal) drill #
Drill Types								
Drill Ø Speed (RPM)	Lance / Ø 2 1200 - 1500	Ø 2.5 1200 - 1500	Ø 2.9 800 - 1000	Ø 3.4 800 - 1000	Ø 3.9 800 - 1000	Ø 4.4 800 - 1000	Ø 4.9 800 - 1000	Ø 5.3/4.9 600 - 800
Implant Ø								
	✓	✓	✓	✓				
	✓	✓	✓	✓	✓			
	✓	✓	✓	✓	✓	✓		
	✓	✓	✓	✓	✓	✓	✓	
	✓	✓	✓	✓	✓	✓	✓	✓

Implantation torque not to exceed 45 Ncm.


















Very important note : Please refer page 4 for note on Osteotomy depth illustration

*The protocol is only a recommendation. Clinician may make modifications to this protocol as necessary based on the clinical assessment at the site.

for a depth of 4 to 5mm from the crest.

Illustration of crestal drill depth as in page 4 – fig. 4

Drill Protocol for 'Refirm' Dental Implants












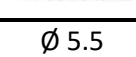
Bone Type	D2 BONE											
Drill Types	Cylindrical		Taper form					Cortical countersink/crestal drills (for a depth of 4 to 5mm from the crest, after using the indicated final form drill) Illustration in page 4 – fig. 4				
Drill Ø Speed (RPM)	Lance/Ø 2 1200 - 1500	Ø 2.5 1200 - 1500	Ø 2.9 800-1000	Ø 3.4 800-1000	Ø 3.9 800-1000	Ø 4.4 800-1000	Ø 4.9 800-1000	Ø 3.2/2.9 600-800	Ø 3.7/3.4 600-800	Ø 4.2/3.9 600-800	Ø 4.7/4.4 600-800	Ø 5.3/4.9 600-800
Implant Ø												
	✓	✓	✓					✓				
	✓	✓	✓	✓					✓			
	✓	✓	✓	✓	✓					✓		
	✓	✓	✓	✓	✓	✓					✓	
	✓	✓	✓	✓	✓	✓	✓					✓

Implantation torque not to exceed 45 Ncm.

Very important note : Please refer page 4 for note on Osteotomy depth illustrations

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Drill Protocol* for 'Refirm' Dental Implants

Bone Type	D3-D4 BONE						
Drill Types	Cylindrical		Taper form				
Drill Ø Speed (RPM)	Lance / Ø 2 1200-1500	Ø 2.5 1200-1500	Ø 2.9 800-1000	Ø 3.4 800-1000	Ø 3.9 800-1000	Ø 4.4 800-1000	Ø 4.9 800-1000
Implant Ø							
Ø 3.5 	✓	✓	✓				
Ø 4.0 	✓	✓	✓	✓			
Ø 4.5 	✓	✓	✓	✓	✓		
Ø 5.0 	✓	✓	✓	✓	✓	✓	
Ø 5.5 	✓	✓	✓	✓	✓	✓	✓

Implantation torque not to exceed 45 Ncm. For D3, if the torque exceeds 45 Ncm, use countersink drill as in protocol of D2 in page 2

Very important note : Please refer page 4 for note on Osteotomy depth illustrations

***The protocol is only a recommendation. Clinician may make modifications to this protocol as necessary based on the clinical assessment at the site.**

Very Important Note :

Osteotomy depth illustrations

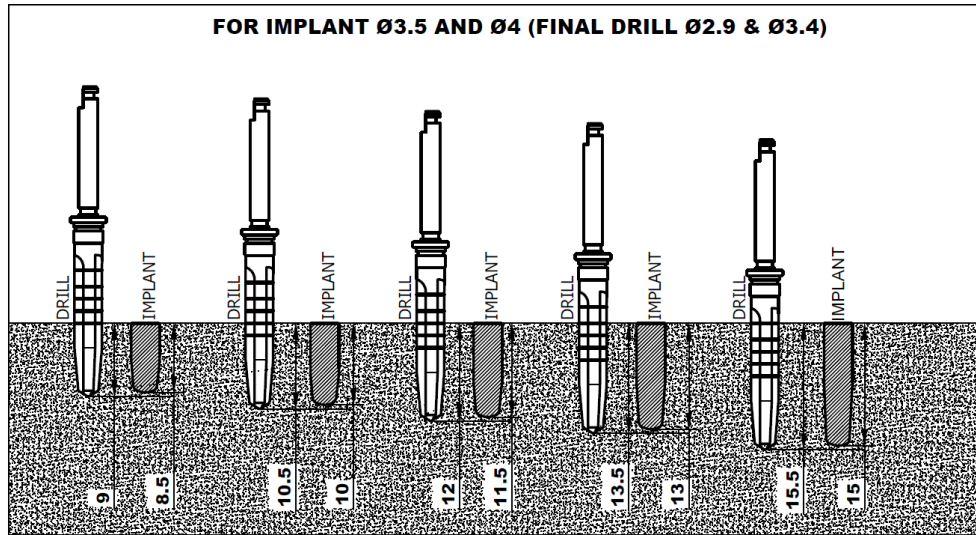


Fig 1

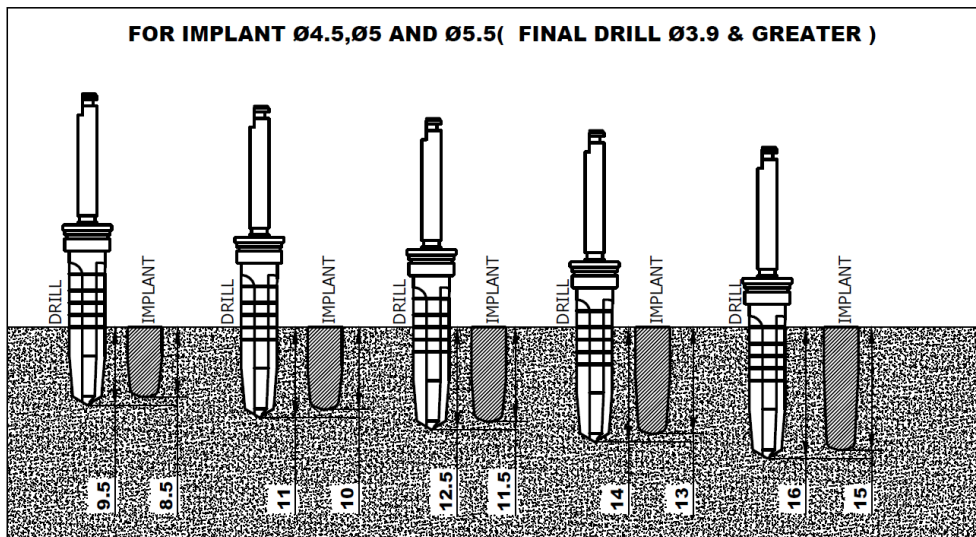


Fig 3

For crestal level implant placements, to compensate for drill tip geometry, a tip compensation length is added to the implant length marking on cylindrical and taper form drills. The additional compensation length is 0.5 mm for drills upto 3.5mm diameter (fig 1) and it is 1mm for drills beyond that diameter (fig 3). The tip compensation is incorporated in the stoppers, depth markers and drill markings.

Illustrations are for crestal level placements.

In case of sub-crestal placement or uneven ridges, plan additional depth of 1mm to 2mm more than the implant length. Use the depth markers on the drills or the depth gauge to measure the depth. On uneven ridges, use bone flattener before using stoppers.

Drills are expected to lose cutting efficiency over use. They may maintain their efficiency upto 10 to 30 uses depending on the clinical conditions of use.

Fig 2

Example: Dia 3.9 final form drill for dia 4.5 implant

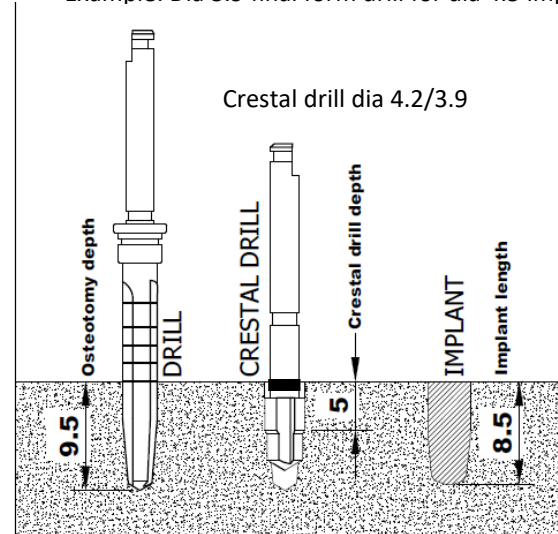


Illustration For D2 bone:
Osteotomy depth and dia for implant length 8.5 mm dia 4.5 mm and above

Fig 4