中科安齿
CASANGELS

ANGELS
IMPLANT SYSTEM

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Foshan Angels Biotechnology Co., Ltd.
Address: Unit 602, Buliding A, No. 1 North Yongan Rd.,
Guicheng, Nanhai, Foshan, Guangdong, 528251, China
Tel: +86 0757-81275356
website: www.fsangels.com

Company introduction

Foshan Angels Biotechnology Co., Ltd. is a national high-tech enterprise with R&D, production and sales. It embraces products including ANGELS dental implant system, implant surgical tools and digital implant repair products that are certified by CE and ISO 13485 system. The products with the technologies of precision manufacturing and surface treatment, are based on mature and advanced design concepts in the industry. They not only meet increasingly stringent surgical requirements, but also provide a more stable communication channels that make the service more humanized.

High standard of international quality

Foshan Angels implements the most stringent quality-management system and ISO 13485 standards for the production of medical devices and materials.

Training support

The authoritative team on oral implantology in Foshan Angels has rich clinical experiences and will provide professional training support to clinicians.

Company vision

The goal of Foshan Angels is to create a digital medical era, to meet the major challenges of the industry, to help medical professionals, and to provide patients with high-quality medical repair programs.

Company mission

Foshan Angels will strive for excellence in the road to ensure all mankind can enjoy the high-quality medical services.

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Features of Angels Implant

- **Implant aesthetic design**

Coronal thread design for neck

- Specifically designed for improving soft and hard tissue interface;
- Better prevents marginal bone resorption;
- Enhances the effect of soft tissue integration;
- Stabilizes alveolar bone.

Anti-tapered coronal design

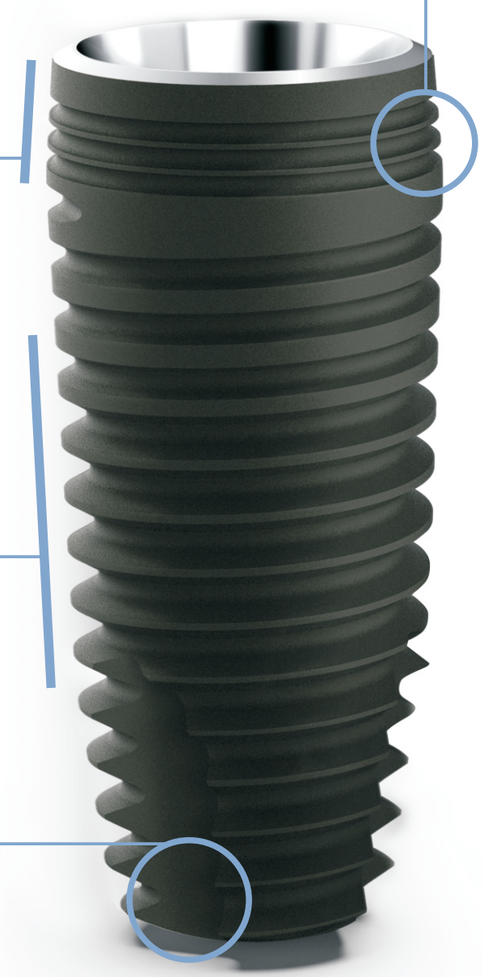
- Maximizes alveolar bone mass and provides better soft tissue support;
- Reduces compression of cortical bone.

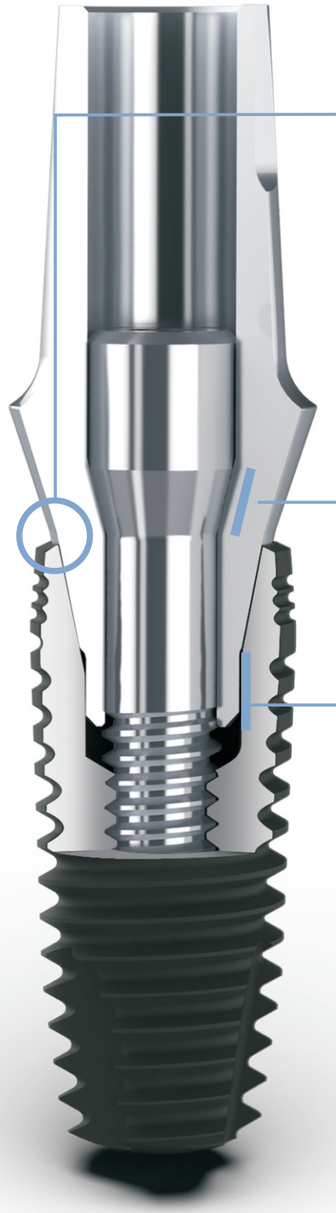
Bottom self-tapping

- Three-edge cutting groove design provides greater self-tapping;
- Effective provision of bone collection space;
- Shortens the operation time to reduce the probability of bone necrosis due to overheating.

Tapered design

- Better initial stability;
- Can be implanted in extraction socket and healing position;
- Similar to the real root and less shear stress;
- Reduces apical width and prevents adjacent teeth injury.





Platform switching

- Increases the biological width and prosthesis interface, and prevents soft tissue atrophy;
- Increases soft tissues to improve the angiogenesis of inferior cortical bone and the preservation of hard tissues;
- Reduces bacterial transmission.

12 ° conical connection

- Precision lift to provide cold welding effect and avoid micro-motion;
- Tightly sealed to prevent bacterial intrusion that may cause inflammation.

Hexagon socket

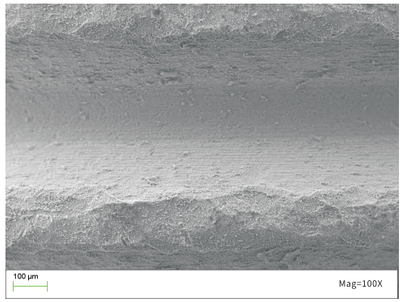
- Globally recognized internal hexagonal connection effectively prevents the abutment rotation.

Features of Angels Implant

- **Surface treatment process**

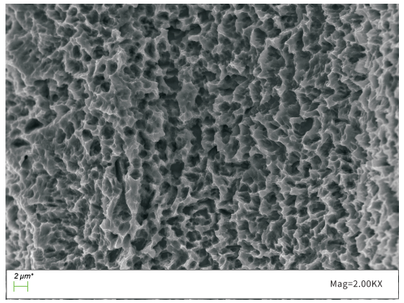
Independent intellectual hydrophilic Surface

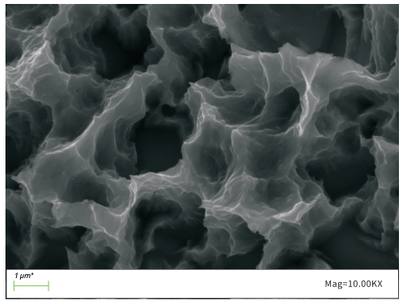
The surface treatment process of ANGELS dental implants adopts the independent intellectual surface treatment process and automatic production line. Based on the SLA surface treatment technology and further nano-treatment, a micro-nano composite structure is constructed on dental implant surface with hydrophilicity. The procedure of repeated cleaning, packaging and sterilization ensures the surface purity; the production process and quality control are strictly implemented in accordance with ISO 13485 specifications to ensure product biosafety.



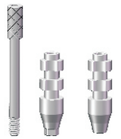
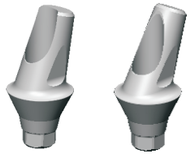
Stable bone level after repair to avoid resorption

After surface treatment of dental implants, a dual three-dimensional honeycomb-like structure with large pores of 20-60μm and small pores of 2-4μm is formed. The surface has a significant osteo-inductive effect, which is conducive to the adhesion and growth of osteocytes. It also maximizes the ability of bone binding, and effectively improves the initial stability in the early stage of healing.



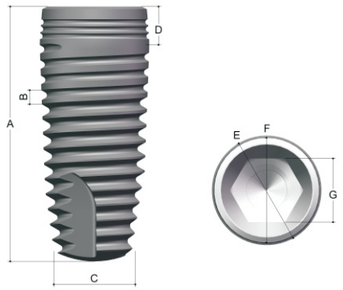


List of Angels Implant System

Dental implant	Healing Abutment / Cover screw	Abutment		Impression post			Analogue
	Healing abutment	Straight abutment		Cement Retained	Open tray impression post	 Hexagon Non-hexagon	Analogue
		Angled abutment	 15° 25°		Closed tray impression post	Hexagon Non-hexagon	
	Cover screw	Screw-retained abutment	0° 17° 30°	Screw Retained	Open tray impression post	Multi-unit analogue	
		Ti-temporary cylinder			Screw retaining tool		
					Protective cap		

Dental Implant

Material：Ti Gr4



Ø3.5 Dental implant

A	B	C	D	E	F	G
8	0.6	2.6	1.5	3.5	3.5	NP
10	0.6	2.6	1.5	3.5	3.5	NP
11.5	0.6	2.6	1.5	3.5	3.5	NP
13	0.6	2.6	1.5	3.5	3.5	NP
15	0.6	2.6	1.5	3.5	3.5	NP

Ø4.3 Dental implant

A	B	C	D	E	F	G
8	0.6	3.2	1.5	4.3	4.1	RP
10	0.6	3.2	1.5	4.3	4.1	RP
11.5	0.6	3.2	1.5	4.3	4.1	RP
13	0.6	3.2	1.5	4.3	4.1	RP
15	0.6	3.2	1.5	4.3	4.1	RP

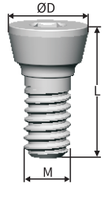
Ø5.0 Dental implant

A	B	C	D	E	F	G
8	0.6	3.8	1.5	5.0	4.8	RP
10	0.6	3.8	1.5	5.0	4.8	RP
11.5	0.6	3.8	1.5	5.0	4.8	RP
13	0.6	3.8	1.5	5.0	4.8	RP
15	0.6	3.8	1.5	5.0	4.8	RP

Cover screw

Material：Ti Gr4

D	L	M
3.0	5	1.8
3.6	6	2

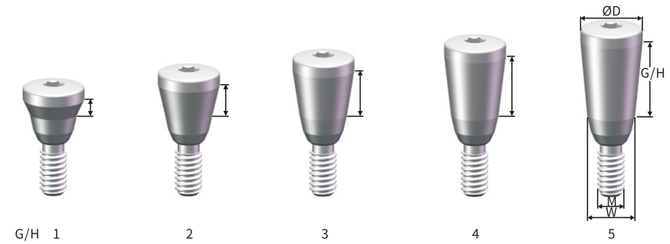


Healing Abutment

Material：Ti6Al4V ELI

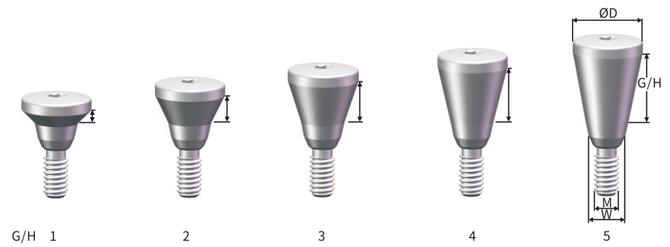
Ø 4.0NP Healing abutment

D	GH	W	M
4.0	1	NP	1.8
4.0	2	NP	1.8
4.0	3	NP	1.8
4.0	4	NP	1.8
4.0	5	NP	1.8



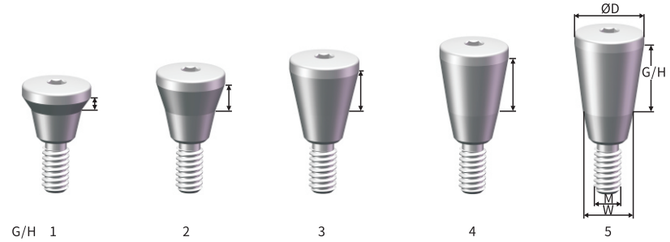
Ø 5.0NP Healing abutment

D	GH	W	M
5.0	1	NP	1.8
5.0	2	NP	1.8
5.0	3	NP	1.8
5.0	4	NP	1.8
5.0	5	NP	1.8



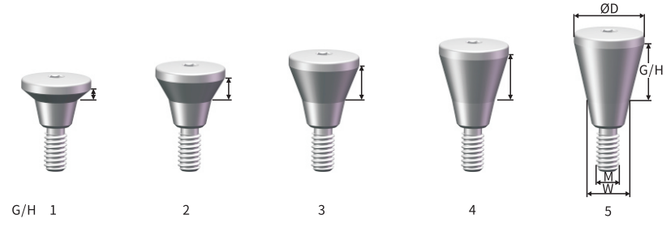
Ø 5.0RP Healing abutment

D	GH	W	M
5.0	1	RP	2
5.0	2	RP	2
5.0	3	RP	2
5.0	4	RP	2
5.0	5	RP	2



Ø 6.0RP Healing abutment

D	GH	W	M
6.0	1	RP	2
6.0	2	RP	2
6.0	3	RP	2
6.0	4	RP	2
6.0	5	RP	2



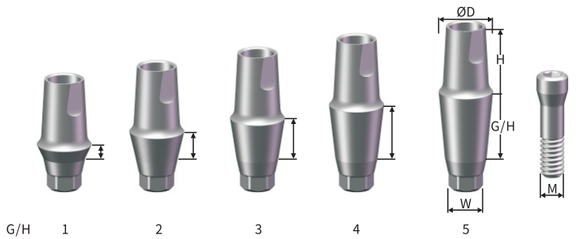
Cement Retained Abutment

Material：Ti6Al4V ELI

• Straight abutment

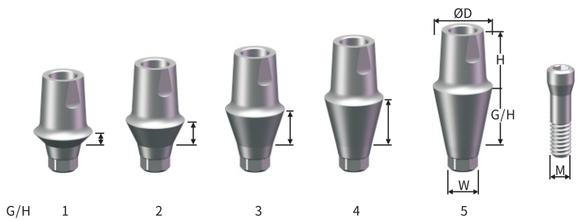
Ø 4.0NP Straight abutment

D	H	GH	W	M
4.0	5	1	NP	1.8
4.0	5	2	NP	1.8
4.0	5	3	NP	1.8
4.0	5	4	NP	1.8
4.0	5	5	NP	1.8



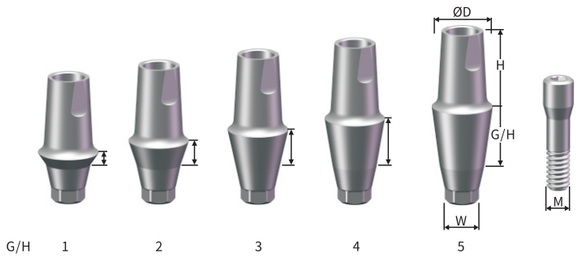
Ø 5.0NP Straight abutment

D	H	GH	W	M
5.0	5	1	NP	1.8
5.0	5	2	NP	1.8
5.0	5	3	NP	1.8
5.0	5	4	NP	1.8
5.0	5	5	NP	1.8



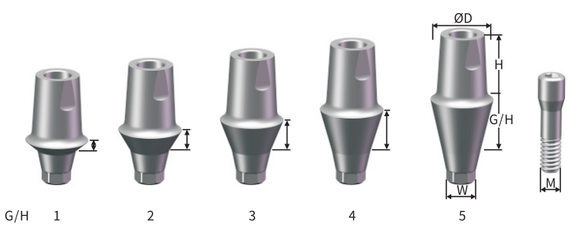
Ø 5.0RP Straight abutment

D	H	GH	W	M
5.0	6.5	1	RP	2
5.0	6.5	2	RP	2
5.0	6.5	3	RP	2
5.0	6.5	4	RP	2
5.0	6.5	5	RP	2



Ø 6.0RP Straight abutment

D	H	GH	W	M
6.0	6.5	1	RP	2
6.0	6.5	2	RP	2
6.0	6.5	3	RP	2
6.0	6.5	4	RP	2
6.0	6.5	5	RP	2



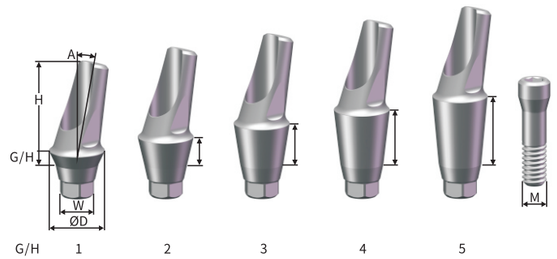
Cement Retained Abutment

Material：Ti6Al4V ELI

• 15° Angled Abutment

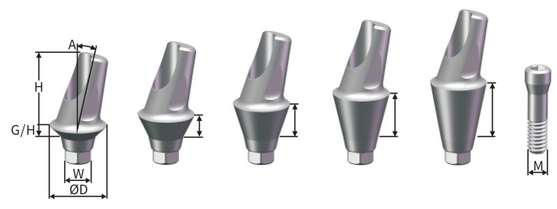
Ø 4.0NP-15° Angled Abutment

D	H	GH	W	A	M
4.0	6.5	1	NP	15°	1.8
4.0	6.5	2	NP	15°	1.8
4.0	6.5	3	NP	15°	1.8
4.0	6.5	4	NP	15°	1.8
4.0	6.5	5	NP	15°	1.8



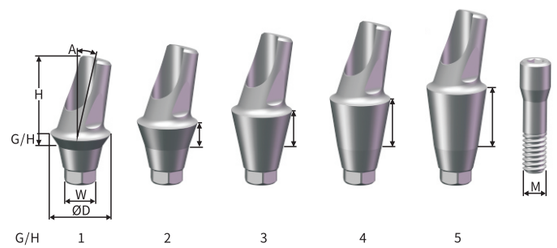
Ø 5.0NP-15° Angled Abutment

D	H	GH	W	A	M
5.0	6.5	1	NP	15°	1.8
5.0	6.5	2	NP	15°	1.8
5.0	6.5	3	NP	15°	1.8
5.0	6.5	4	NP	15°	1.8
5.0	6.5	5	NP	15°	1.8



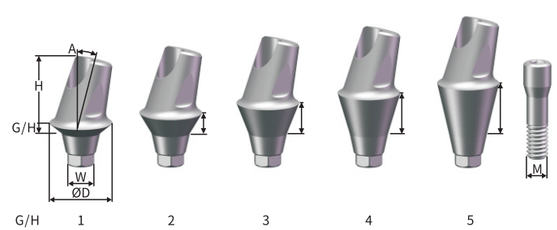
Ø 5.0RP -15° Angled Abutment

D	H	GH	W	A	M
5.0	6.5	1	RP	15°	2
5.0	6.5	2	RP	15°	2
5.0	6.5	3	RP	15°	2
5.0	6.5	4	RP	15°	2
5.0	6.5	5	RP	15°	2



Ø 6.0RP -15° Angled Abutment

D	H	GH	W	A	M
6.0	6.5	1	RP	15°	2
6.0	6.5	2	RP	15°	2
6.0	6.5	3	RP	15°	2
6.0	6.5	4	RP	15°	2
6.0	6.5	5	RP	15°	2



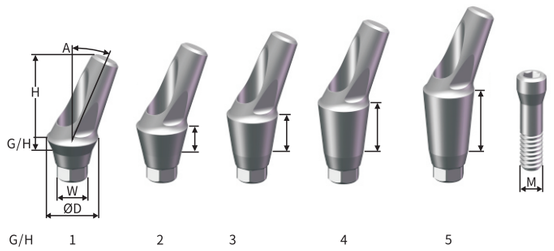
Cement Retained Abutment

Material：Ti6Al4V ELI

• 25° Angled Abutment

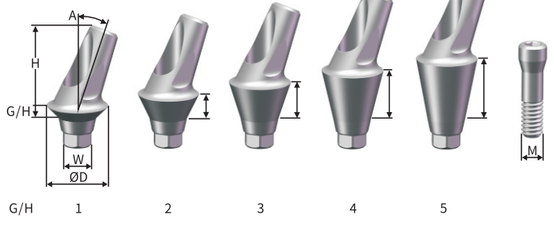
Ø 4.0NP -25° Angled Abutment

D	H	GH	W	A	M
4.0	6.5	1	NP	25°	1.8
4.0	6.5	2	NP	25°	1.8
4.0	6.5	3	NP	25°	1.8
4.0	6.5	4	NP	25°	1.8
4.0	6.5	5	NP	25°	1.8



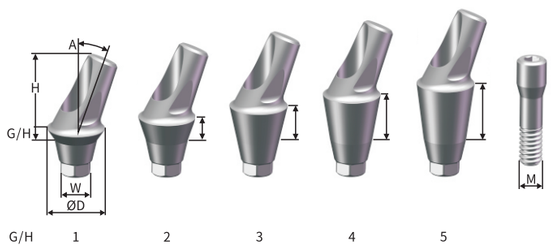
Ø 5.0NP -25° Angled Abutment

D	H	GH	W	A	M
5.0	6.5	1	NP	25°	1.8
5.0	6.5	2	NP	25°	1.8
5.0	6.5	3	NP	25°	1.8
5.0	6.5	4	NP	25°	1.8
5.0	6.5	5	NP	25°	1.8



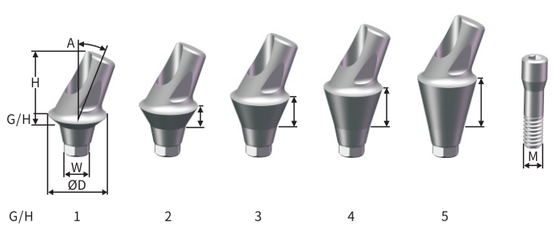
Ø 5.0RP -25° Angled Abutment

D	H	GH	W	A	M
5.0	6.5	1	RP	25°	2
5.0	6.5	2	RP	25°	2
5.0	6.5	3	RP	25°	2
5.0	6.5	4	RP	25°	2
5.0	6.5	5	RP	25°	2



Ø 6.0RP -25° Angled Abutment

D	H	GH	W	A	M
6.0	6.5	1	RP	25°	2
6.0	6.5	2	RP	25°	2
6.0	6.5	3	RP	25°	2
6.0	6.5	4	RP	25°	2
6.0	6.5	5	RP	25°	2



Screw-retained Abutment

Material：Ti6Al4V ELI

• Straight abutment

Ø 4.0NP Straight abutment

D	GH	W	M
4.0	1	NP	1.8
4.0	2	NP	1.8
4.0	3	NP	1.8
4.0	4	NP	1.8
4.0	5	NP	1.8

Ø 5.0NP Straight abutment

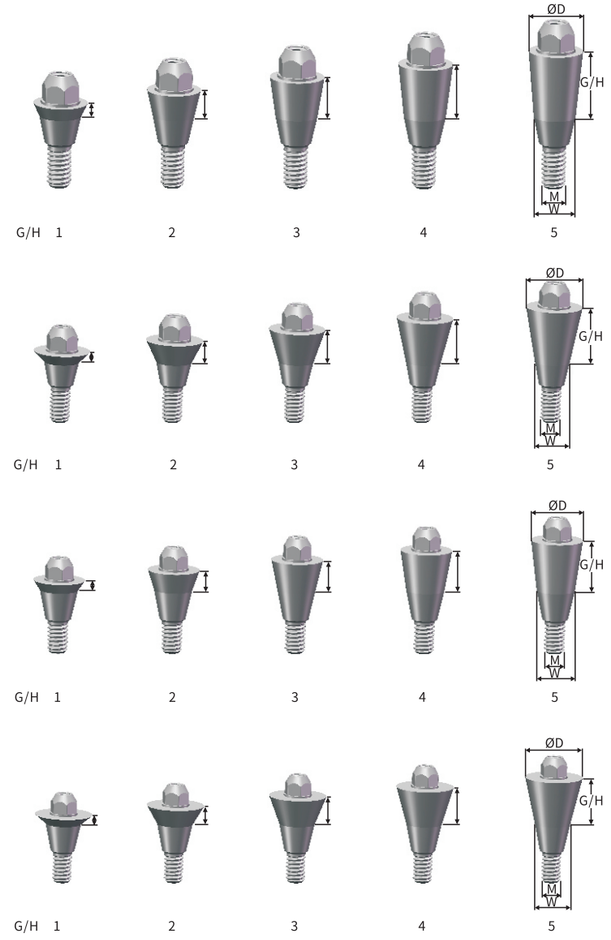
D	GH	W	M
5.0	1	NP	1.8
5.0	2	NP	1.8
5.0	3	NP	1.8
5.0	4	NP	1.8
5.0	5	NP	1.8

Ø 5.0RP Straight abutment

D	GH	W	M
5.0	1	RP	2
5.0	2	RP	2
5.0	3	RP	2
5.0	4	RP	2
5.0	5	RP	2

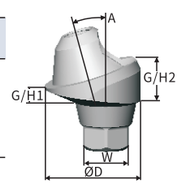
Ø 6.0RP Straight abutment

D	GH	W	M
6.0	1	RP	2
6.0	2	RP	2
6.0	3	RP	2
6.0	4	RP	2
6.0	5	RP	2



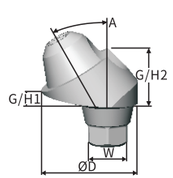
• 17° Angled abutment

D	GH1	GH2	W	A
4.8	0.8	2.2	NP	17°
5.8	1.5	2.9	NP	17°
5.8	0.8	2.2	RP	17°
6.8	1.5	2.9	RP	17°

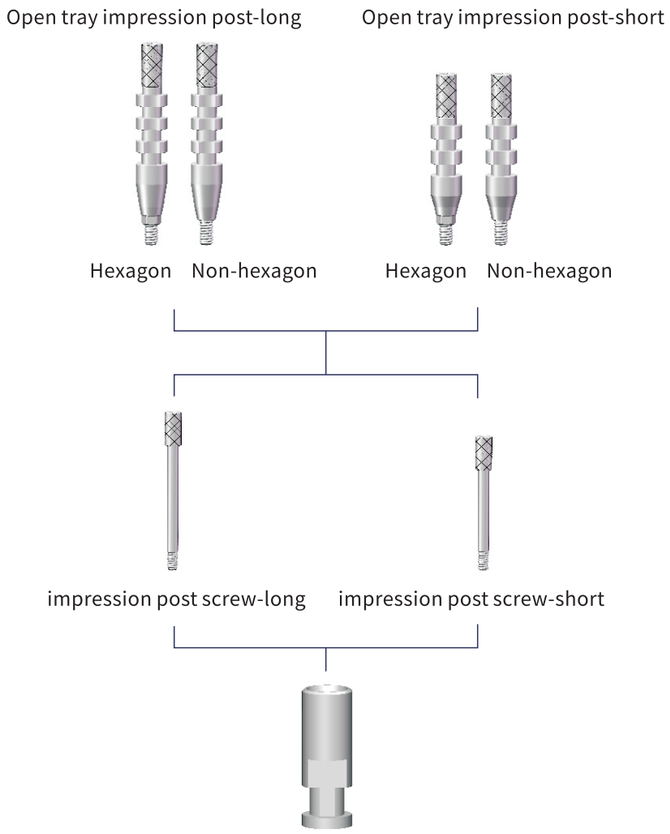


• 30° Angled abutment

D	GH1	GH2	W	A
5.6	0.8	3.2	NP	30°
6.6	1.5	3.9	NP	30°
6.6	0.8	3.2	RP	30°
7.6	1.5	3.9	RP	30°

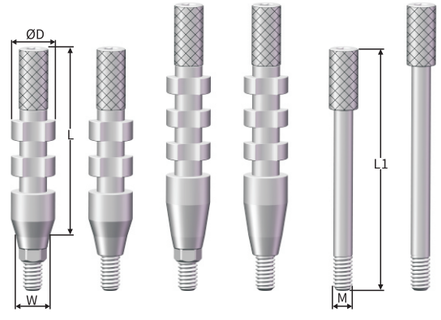


Open tray

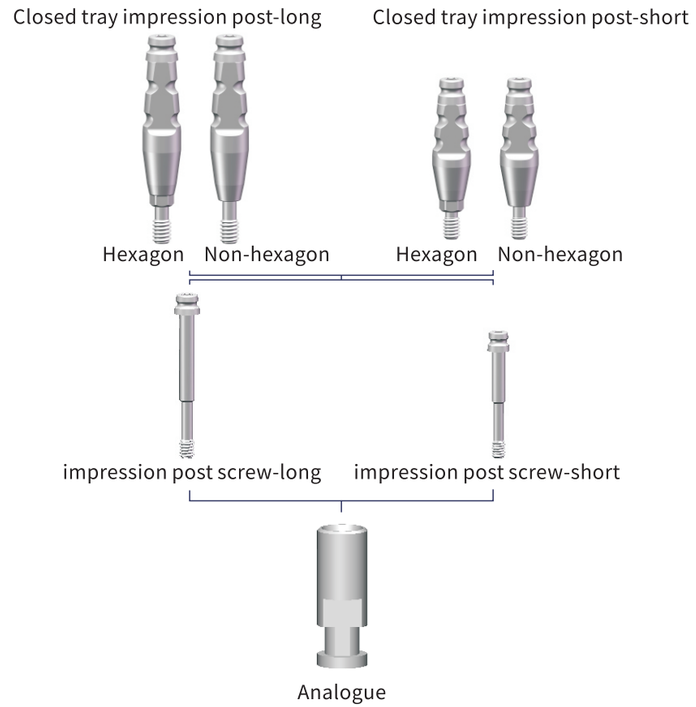


• Open tray impression post

D	L	W	L1	M
4.0	17	NP	-	-
5.0	21	NP	-	-
5.0	17	RP	-	-
6.0	21	RP	-	-
-	-	-	22	1.8
-	-	-	26	1.8
-	-	-	23	2
-	-	-	27	2

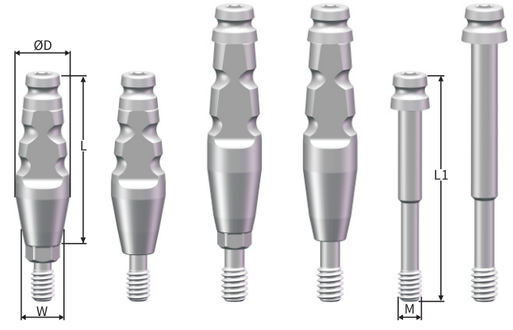


Closed tray



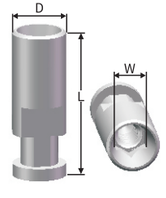
• Closed tray impression post

D	L	W	L1	M
4.0	11.5	NP	-	-
5.0	15.5	NP	-	-
5.0	11.5	RP	-	-
6.0	15.5	RP	-	-
-	-	-	16.8	1.8
-	-	-	20.8	1.8
-	-	-	17.8	2
-	-	-	21.8	2

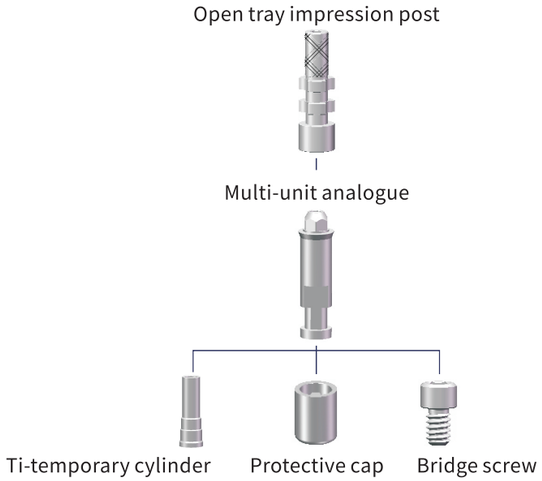


• Analogue

D	L	W
3.5	12	NP
4.3	12	RP
5.0	12	RP

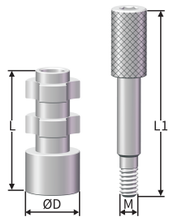


Open tray for screw retained



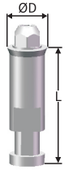
- **Open tray impression post for screw retained**

D	L	L1	M
4.0	9	-	-
5.0	9	-	-
6.0	9	-	-
-	-	14	1.4



- **Multi-unit analogue**

D	L
4.0	12
5.0	12
6.0	12

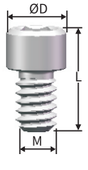


- **Ti-temporary cylinder**

D	L
4.0	12
5.0	12
6.0	12

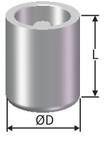
- **Bridge screw**

D	L	M
2.0	3.5	1.4



- **Protective cap**

D	L
4.0	5
5.0	5
6.0	5

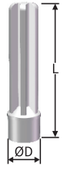


- **Screw-retained abutment driver**

D	L
7	21

- **Screw-retained abutment tool**

D	L
5.0	21



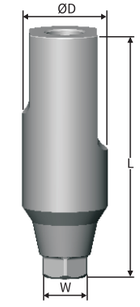
CAD/CAM products

- **Titanium block**

D	L	W
9.95	28.4	NP
9.95	29.2	RP

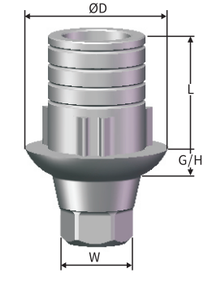
- **Scan body**

D	L	W
4.8	13.2	NP
4.8	14	RP

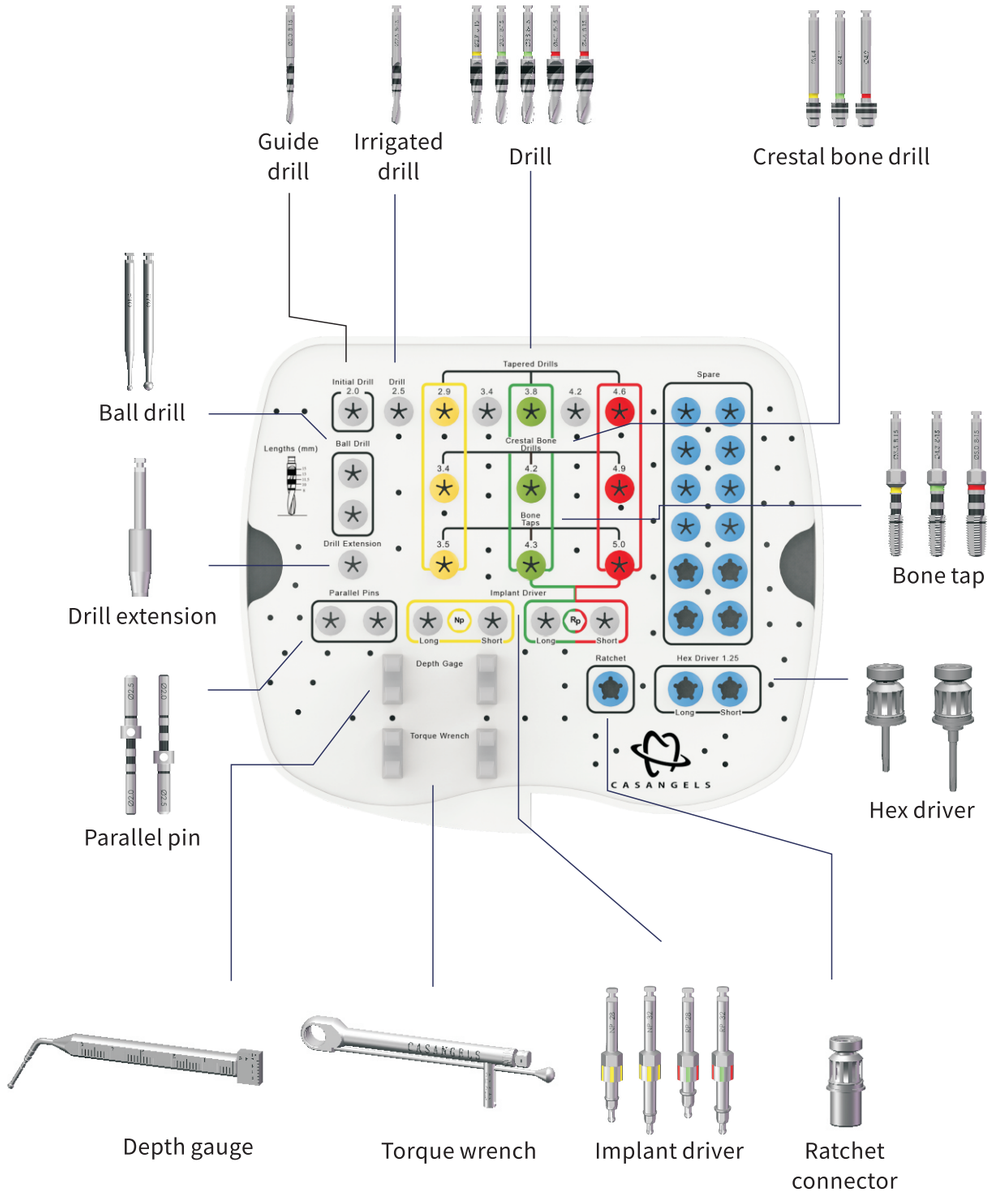


- **Ti-base**

D	L	GH	W
5	4	1	NP
5	4	1	RP

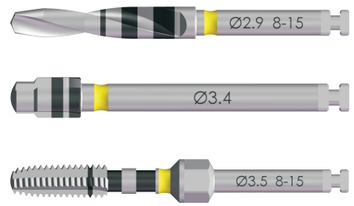
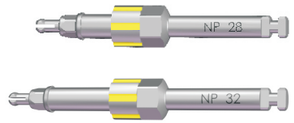
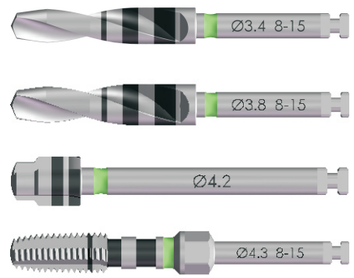
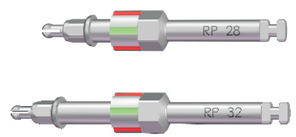
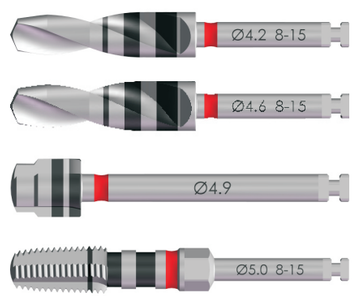


Surgical Tools



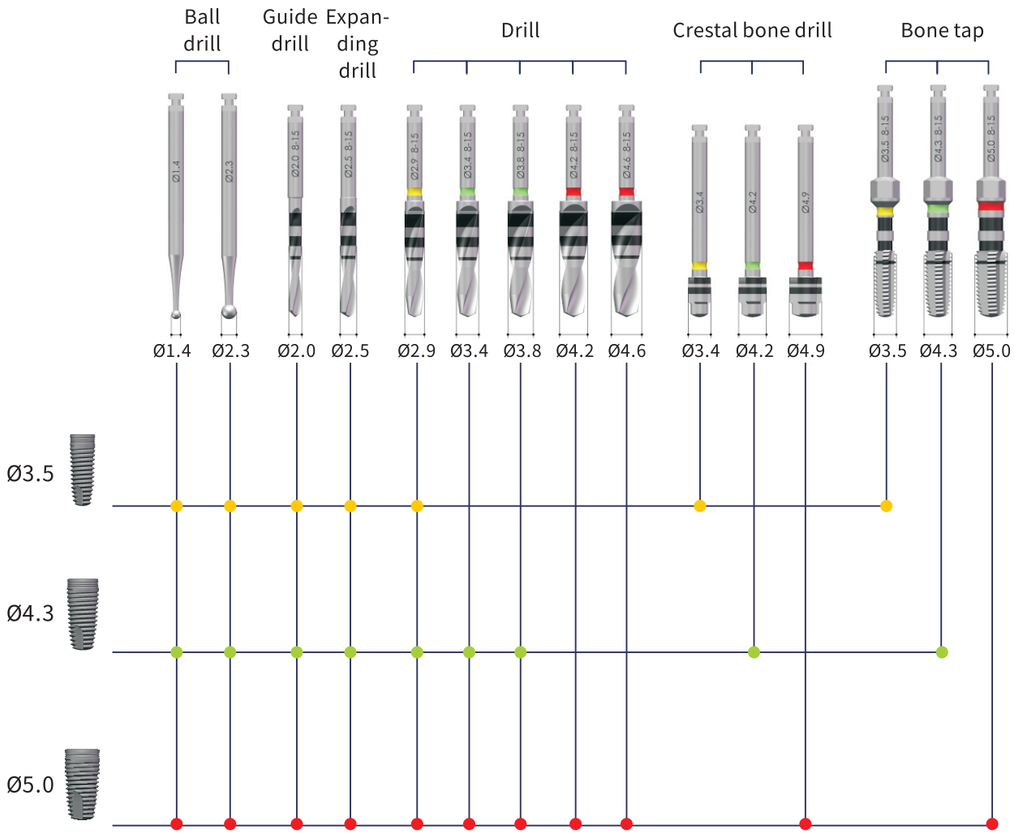
Surgical Tools

Angels dental implant products differentiate series of components by colors: yellow means the products of Ø3.5NP series; green means the products of Ø4.3RP series; red means the products of 5.0RP series. For details, please refer to the following table:

Dental implant	Package	Component	Implant driver
Ø3.5mm NP	Yellow (Label/Cap)		
Ø4.3mm RP	Green (Label/Cap)		
Ø5.0mm RP	Red (Label/Cap)		

Drilling process

- **1. Steps**

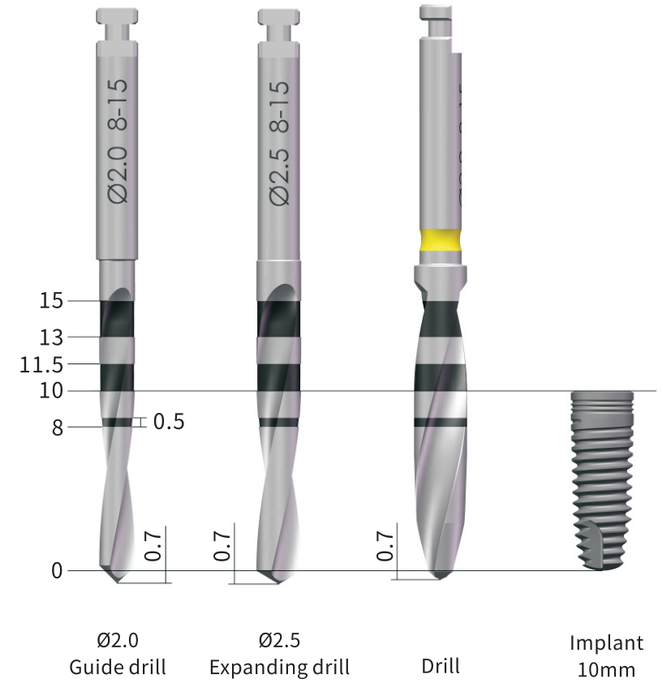


Notes:
1) When implanting, a torque of 30-45N.cm and a speed of no more than 25rpm are recommended.
2) Crestal bone drill is used when bone is hard.
3) When the BMD is D1-D2, it is suggested that the drill be used after the crestal bone drill.
4) When the BMD is D3-D4, it is suggested that crestal bone drill and bone tap should be omitted.

CASANGELS

Drilling process

- **2. Drilling depth reference**

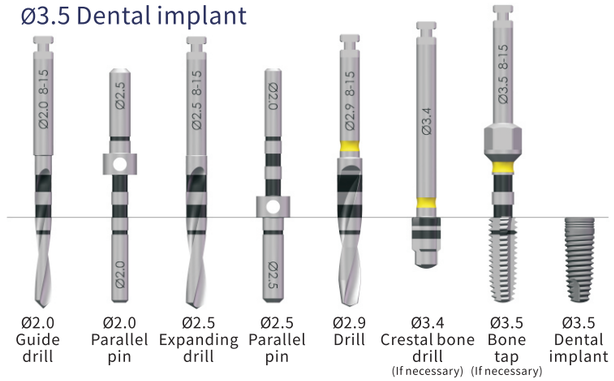


Note:
Compared with the length indicated by the dental drill, the guide drill, expanding drill and drill are all 0.7mm longer. This means that the tooth preparation depth should be 0.7 mm longer than that of the implant. Please reserve this extra length when drilling near the major anatomical structure.

Drilling process

- **3. Drilling schemes for dental implants of various diameters**

Ø3.5 Dental implant

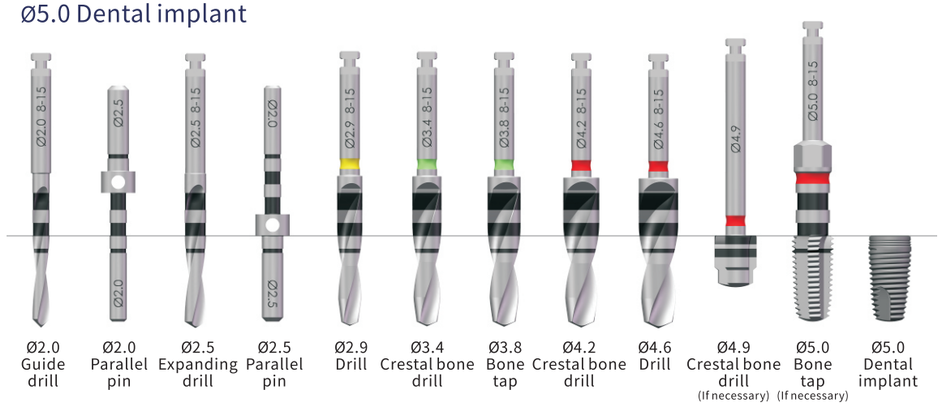


Ø2.0 Guide drill | Ø2.0 Parallel pin | Ø2.5 Expanding drill | Ø2.5 Parallel pin | Ø2.9 Drill | Ø3.4 Crestal bone drill (If necessary) | Ø3.5 Bone tap (If necessary) | Ø3.5 Dental implant

Ø4.3 Dental implant

Ø2.0 Guide drill | Ø2.0 Parallel pin | Ø2.5 Expanding drill | Ø2.5 Parallel pin | Ø2.9 Drill | Ø3.4 Crestal bone drill | Ø3.8 Bone tap | Ø4.2 Crestal bone drill (If necessary) | Ø4.3 Bone tap (If necessary) | Ø4.3 Dental implant

Ø5.0 Dental implant



Ø2.0 Guide drill | Ø2.0 Parallel pin | Ø2.5 Expanding drill | Ø2.5 Parallel pin | Ø2.9 Drill | Ø3.4 Crestal bone drill | Ø3.8 Bone tap | Ø4.2 Crestal bone drill | Ø4.6 Drill | Ø4.9 Crestal bone drill (If necessary) | Ø5.0 Bone tap (If necessary) | Ø5.0 Dental implant