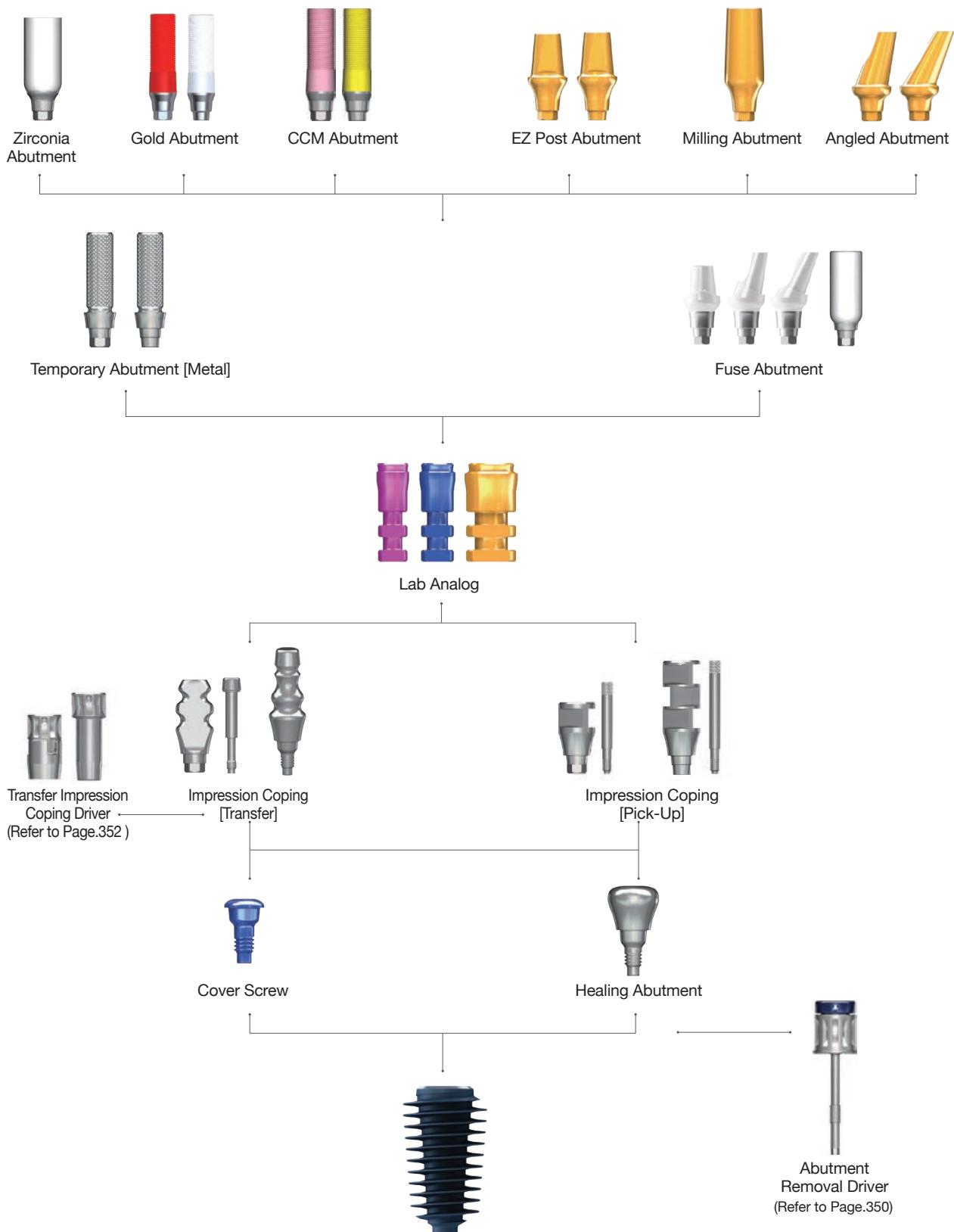


# Abutment & Prosthetic Options

## I. Fixture Level Prosthesis



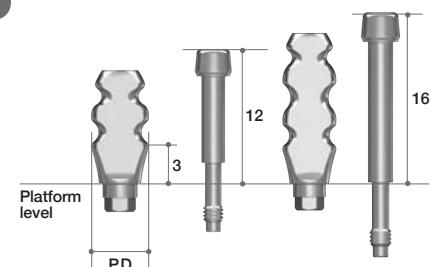
## ⌚ Impression Copings

### Impression Coping

#### (2-piece, Transfer Type) (For Closed-tray Technique)

- Streamlined shape ; easy to transfer.
- Anti-rotation grooves match with hex structure of fixtures.
- Should be tightened with Impression Driver (Page.352)
- Special impression coping screw which can be used with a 1.2mm hex driver is available on request.

Profile Diameter	Height (mm)	Type	Ref.C
$\varnothing 4.0$	12	2-Piece	AANITH4012T
	16		AANITH4016T
$\varnothing 5.0$	12		AANITH5012T
	16		AANITH5016T
$\varnothing 4.0$	12	2-Piece Hand driver (1.2 Hex)	AANITH4012HT
	16		AANITH4016HT
$\varnothing 5.0$	12		AANITH5012HT
	16		AANITH5016HT

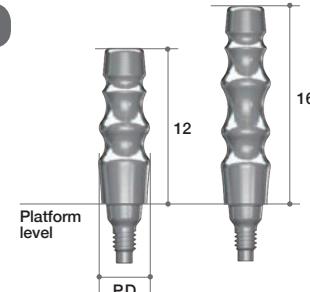


### Impression Coping

#### (1-piece, Transfer Type) (For Closed-tray Technique)

- Should be tightened with Impression Driver (Page.352)
- Special impression coping screw which can be used with a 1.2mm hex driver is available on request.

Profile Diameter	Height (mm)	Type	Ref.C
$\varnothing 4.0$	12	1-Piece	AANITN4012
	16		AANITN4016
$\varnothing 5.0$	12		AANITN5012
	16		AANITN5016
$\varnothing 4.0$	12	1-Piece Hand driver (1.2 Hex)	AANITN4012H
	16		AANITN4016H
$\varnothing 5.0$	12		AANITN5012H
	16		AANITN5016H



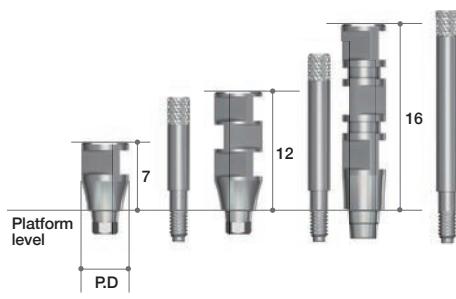
### Impression Coping

#### (2-piece, Pick-up Type) (For Open-tray Technique)

- Guide Pins : AANGPP0010 (7mm : Short) / AANGPP0015 (12mm : Long) / AANGPP0020 (20mm : Extra-long)

- Square structure ; strong anti - rotation function.
- Designed for easy and accurate pick-up impression.
- Extra-long guide pin can be purchased separately.

Profile Diameter	Height (mm)	Type	Ref.C
$\varnothing 4.0$	12	2-Piece	AANIPH4012T
	16		AANIPH4016T
	12		AANIPN4012T
	16		AANIPN4016T
$\varnothing 5.0$	7	2-Piece Hand driver (1.2 Hex)	AANIPH5007T
	12		AANIPH5012T
	7		AANIPN5007T
	12		AANIPN5012T



## ④ Lab Analog & Temporary Abutments

### Lab Analog

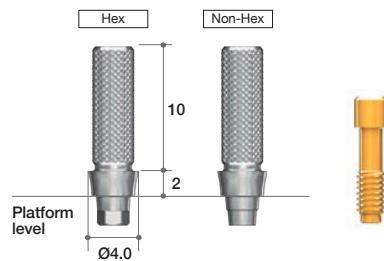
Profile Diameter	Color	Ref.C
Ø3.5	Magenta	AANLAF35
Ø4.0 ~ Ø5.5	Blue	AANLAF4055
Ø6.0 ~ Ø8.0	Yellow	AALLAF6080



### Temporary Abutment (Titanium)

- Multi Post Screw(AANMSF) included.
- For making provisional restoration.
- Grooved on the post allows strong resin adherence.
- Recommend torque : 25Ncm

Profile Diameter	Cuff Height (mm)	Type	Ref.C
Ø4.0	2	Hex	AANTMH4012T
		Non-Hex	AANTMN4012T

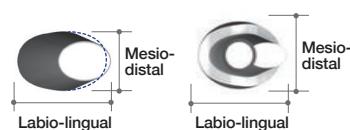
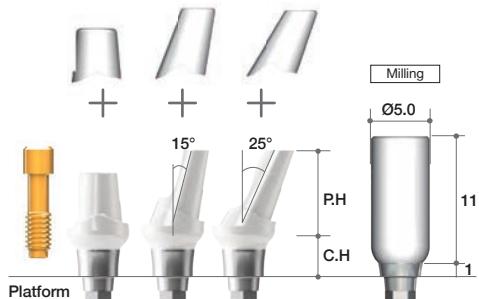


### Fuse Abutment

- Straight, 15°, 25° ; Multi Post Screw(AANMSF) included + Fuse Cap included.
- Milling ; Multi Post Screw(AANMSF) included.
- Recommend torque : 25Ncm

Diameter Labio-lingual	Mesio-distal	C.H (mm)	P.H (mm)	Type	Ref.C
Ø5.5	4	7	5.5	Straight	AFAP5545P
			15°	AFAA5415P	
			25°	AFAA5425P	
Ø5.0	1	11	Milling	AANTAH5012T	

NEW : 4mm cuff height available  
→ Adequate for deeply placed implants  
or thick gingival cases



## Fuse Abutment™



Why is the 'Fuse Abutment' essential partner for a temporary crown?

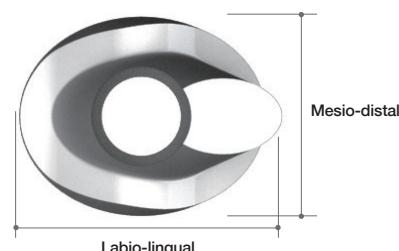
### Design concept of Fuse Abutment™



Similar to a customized abutment for excellent esthetics!

Perfect margin fit with a prosthetic cap

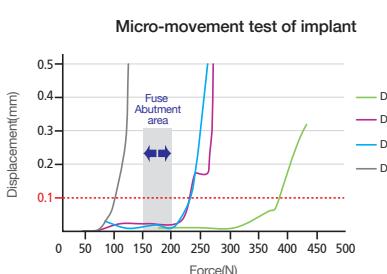
Scalloped outline



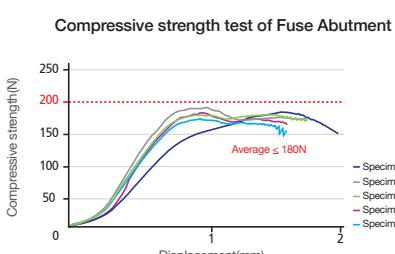
Elliptical Occlusal view like a natural tooth



### Rationale of Fuse Abutment™



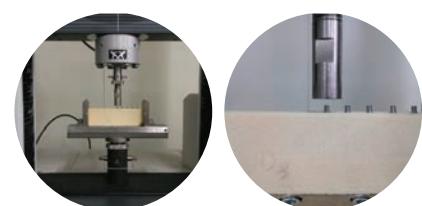
Performed compressive strength test to evaluate the micro movement for bone density using universal testing machine.  
-R&D center in Megagen Implant Co.,Ltd.(2012)-



Performed compressive strength test to evaluate the yield strength for Fuse Abutment using universal testing machine.  
-R&D center in Megagen Implant Co.,Ltd.(2012)-

In 1992, Brunski JB. reported that the implant may have a higher possibility of fibrointergration than osseointegration between bone and implant surface when movements of more than 100um occur on the fixture during osseointegration period. (John B. Brunski, Biomechanical factors affecting the bone-dental implant interface. Clinical Materials, Vol. 10, 153-201) Therefore, the implant was needed to be protected not to move when immediate loading is carried out. However, it is not easy to manage loading on the fixture, even when we used a resin temporarily with a titanium cylinder. It was thought that it was partly because of the metal component of temporary cylinder, which can deliver excessive forces to the fixture. This was one of the reasons which made clinicians hesitate the immediate loading procedure. So it was necessary to develop a special temporary cylinder. It should have been broken under the force which could lead fibrointergration or failure of osseointegration to protect the fixture, and it would be preferred if it was easy to make a temporary crown on this particular temporary cylinder. We tried to measure the force causing movement

of 100μm on a fixture which was placed securely into adequate density of bone without defect. First, AnyRidge implants were placed into the internationally recognized standard bone block with more 40Ncm torque force and an abutment was connected on each implant. Instron equipment was used to measure the force to move a fixture 100μm. The average force was 220N (22.4 kgf). Therefore, if the new temporary abutment can be fractured under this force, it might protect the fixture from movement or failure.



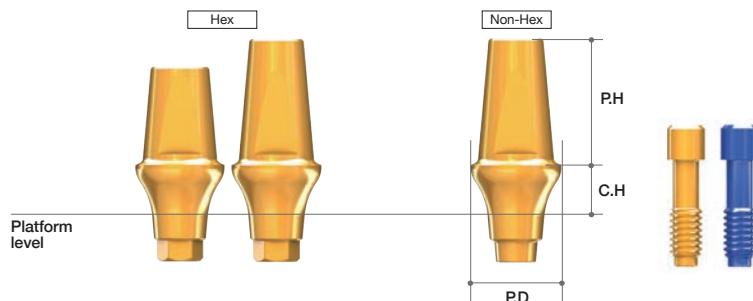
From this experiment, we could develop a special temporary abutment which has lower fracture threshold of less than 200 N (20.4 kgf). It was named as Fuse Abutment. Also it has an anatomic profile to make temporary prosthetics more esthetic.

## ⇒ Abutment Options (Continued)

### EZ Post Abutment

- Multi Post Screw(AANMSF/AANMST) included.

- Use with a Hand Driver (1.2 Hex).
- Esthetic gold coloring.
- Two different post heights. (5.5, 7.0mm)
- Four different profile diameters. ( $\varnothing$ 4.0, 5.0, 6.0, 7.0)
- Four different cuff heights. (2.0, 3.0, 4.0, 5.0mm)
- Recommend torque : 35Ncm



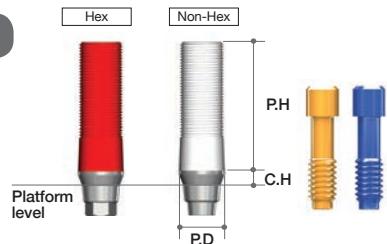
Profile Diameter	Cuff Height(mm)	Post Height(mm)	Type	Ref.C	Profile Diameter	Cuff Height(mm)	Post Height(mm)	Type	Ref.C		
Ø4.0	2	5.5	Hex	AANEPAH4025L	Ø6.0	2	5.5	Hex	AANEPAH6025L		
	3			AANEPAH4035L		3			AANEPAH6035L		
	4			AANEPAH4045L		4			AANEPAH6045L		
	5			AANEPAH4055L		5			AANEPAH6055L		
	2	7		AANEPAH4027L		2	7		AANEPAH6027L		
	3			AANEPAH4037L		3			AANEPAH6037L		
	4			AANEPAH4047L		4			AANEPAH6047L		
	5			AANEPAH4057L		5			AANEPAH6057L		
	2	5.5	Non-Hex	AANEPN4025L	Ø6.0	2	5.5	Non-Hex	AANEPN6025L		
	3			AANEPN4035L		3			AANEPN6035L		
	4			AANEPN4045L		4			AANEPN6045L		
	5			AANEPN4055L		5			AANEPN6055L		
	2			AANEPN4027L		2	7		AANEPN6027L		
	3			AANEPN4037L		3			AANEPN6037L		
	4			AANEPN4047L		4			AANEPN6047L		
	5			AANEPN4057L		5			AANEPN6057L		
	2	5.5	Hex	AANEPH5025L	Ø7.0	2	5.5	Hex	AANEPH7025L		
	3			AANEPH5035L		3			AANEPH7035L		
	4			AANEPH5045L		4			AANEPH7045L		
	5			AANEPH5055L		5			AANEPH7055L		
	2			AANEPH5027L		2	7		AANEPH7027L		
	3			AANEPH5037L		3			AANEPH7037L		
	4			AANEPH5047L		4			AANEPH7047L		
	5			AANEPH5057L		5			AANEPH7057L		
	2	5.5	Non-Hex	AANEPN5025L	Ø7.0	2	5.5	Non-Hex	AANEPN7025L		
	3			AANEPN5035L		3			AANEPN7035L		
	4			AANEPN5045L		4			AANEPN7045L		
	5			AANEPN5055L		5			AANEPN7055L		
	2			AANEPN5027L		2	7		AANEPN7027L		
	3			AANEPN5037L		3			AANEPN7037L		
	4			AANEPN5047L		4			AANEPN7047L		
	5			AANEPN5057L		5			AANEPN7057L		

## ⇒ Abutment Options (Continued)

### Gold Abutment

- Multi Post Screw(AANMSF/AANMST) included.
- Useful to make a customized abutment in difficult situations.
- Precious and non-precious alloys.
- Melting point of gold alloy : 1400 - 1450°C
- Threaded sleeves for convenient Resin / Wax-up.
- Recommend torque : 30Ncm

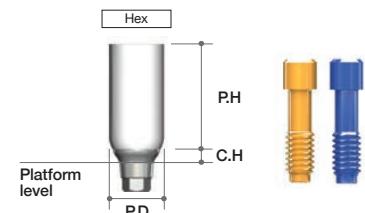
Profile Diameter	Cuff Height(mm)	Post Height(mm)	Type	Ref.C
Ø4.0	1	11	Hex	AANGAH4012L
			Non-Hex	AANGAN4012L



### Zirconia Abutment

- Multi Post Screw(AANMSF/AANMST) included.
- For esthetic use.
- Natural white color with pre-sintered zirconia sleeve.
- Presinpered Zirconia Abutment.
- Preparable at the chair side with a diamond bur.
- Recommend torque : 35Ncm

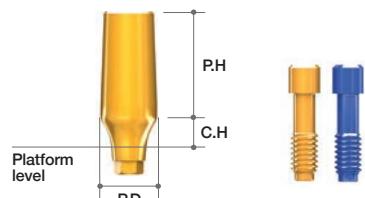
Profile Diameter	Cuff Height(mm)	Post Height(mm)	Type	Ref.C
Ø4.0	1	11	Hex	AANZAH4012L
Ø5.0				AANZAH5012L



### Milling Abutment

- Multi Post Screw(AANMSF/AANMST) included.
- Long post enables easier customization from milling.
- Recommend torque : 35Ncm

Profile Diameter	Cuff Height(mm)	Post Height(mm)	Ref.C
Ø4.0	2	9	AANMAH4029L
	3		AANMAH4039L
	4		AANMAH4049L
	5		AANMAH4059L
Ø5.0	2	9	AANMAH5029L
	3		AANMAH5039L
	4		AANMAH5049L
	5		AANMAH5059L
Ø6.0	2	9	AANMAH6029L
	3		AANMAH6039L
	4		AANMAH6049L
	5		AANMAH6059L
Ø7.0	2	9	AANMAH7029L
	3		AANMAH7039L
	4		AANMAH7049L
	5		AANMAH7059L



## Milling Abutment Type II (BOPT Abutment)

- AnyRidge Internal : Multi Post Screw (AANMSF/AANMST) included.

- Long post enables easier customization from milling.
- Recommend torque : 35Ncm

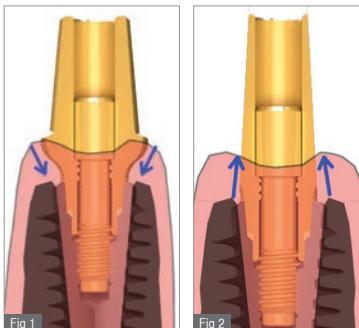
Profile Diameter	Cuff Height(mm)	Post Height(mm)	Type	Ref.C
Ø4.0	1	19	Hex	ARBOT4019HL
			Non-Hex	ARBOT4019NL



## B.O.P.T (Biologically Oriented Preparation Technique)

MegaGen family thanks to MD. Oscar Alonso Gonzalez & Dr. Fabio Galli for the suggestion of B.O.P.T abutment

- To obtain thick, healthy and stable soft tissue around tooth



### Characteristics of B.O.P.T

1. Morphology without a finish line.
2. Conical Shape.
3. Prosthetic Platform Switching

**Fig 1.** With its divergent profile, it tends to stabilize the circular fibers of the connective tissue towards apical.

**Fig 2.** In the same way as with the teeth, this abutment facilitates the stabilization of the circular fibers of the connective tissue at a more coronal level compared to a standard rehabilitation.

### B.O.P.T Clinical Case

- Courtesy of Dr. Fabio Galli

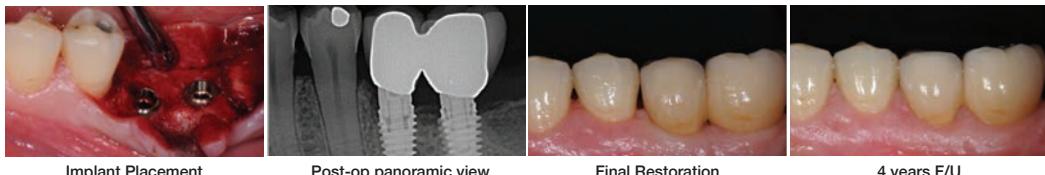
Case 1.



Case 2.



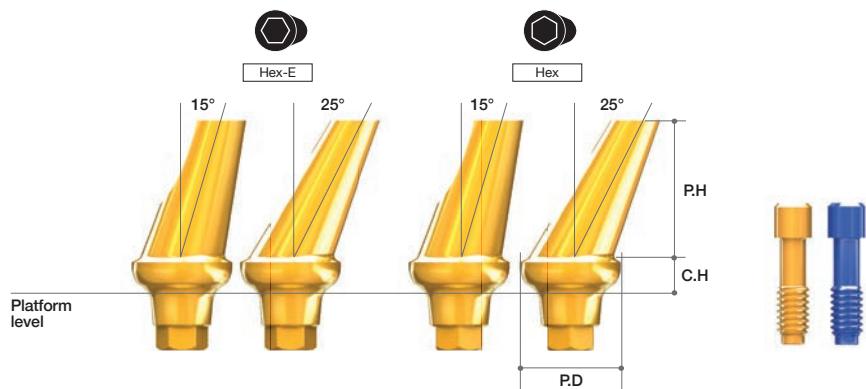
Case 3.



## ⇒ Abutment Options (Continued)

### Angled Abutment

- Multi Post Screw(AANMSF/AANMST) included.
- Two different angulations. (15°, 25°)
- Four different profile diameters. (Ø4.0, 5.0, 6.0, 7.0)
- Four different cuff heights. (2, 3, 4, 5mm)
- Can cover 12 different directions. [six to the surface(Hex), six to the edge of hex(Hex-E)]
- Esthetic gold coloring.
- Minimized screw head length needs minimum height to prevent milling problems.
- Recommend torque : 35Ncm



	Profile Diameter	Cuff Height(mm)	Post Height(mm)	Type	Angle	Ref.C		Profile Diameter	Cuff Height(mm)	Post Height(mm)	Type	Angle	Ref.C
Ø4.0	2	7	15°	Hex	AANAAH4215L		Ø6.0	2	7	15°	Hex	AANAAH6215L	
	3				AANAAH4315L			3				AANAAH6315L	
	4				AANAAH4415L			4				AANAAH6415L	
	5				AANAAH4515L			5				AANAAH6515L	
	2		25°	Hex-E	AANAAE4215L			2		25°	Hex-E	AANAAE6225L	
	3				AANAAE4315L			3				AANAAE6325L	
	4				AANAAE4415L			4				AANAAE6425L	
	5				AANAAE4515L			5				AANAAE6525L	
	2	7	15°	Hex	AANAAH4225L			2	7	15°	Hex	AANAAH7215L	
	3				AANAAH4325L			3				AANAAH7315L	
	4				AANAAH4425L			4				AANAAH7415L	
	5				AANAAH4525L			5				AANAAH7515L	
	2		25°	Hex-E	AANAAE4225L			2		25°	Hex-E	AANAAE7225L	
	3				AANAAE4325L			3				AANAAE7325L	
	4				AANAAE4425L			4				AANAAE7425L	
	5				AANAAE4525L			5				AANAAE7525L	
	2	7	15°	Hex	AANAAH5215L			2	7	15°	Hex	AANAAH7235L	
	3				AANAAH5315L			3				AANAAH7335L	
	4				AANAAH5415L			4				AANAAH7435L	
	5				AANAAH5515L			5				AANAAH7535L	
	2		25°	Hex-E	AANAAE5215L			2		25°	Hex-E	AANAAE7235L	
	3				AANAAE5315L			3				AANAAE7335L	
	4				AANAAE5415L			4				AANAAE7435L	
	5				AANAAE5515L			5				AANAAE7535L	
	2	7	15°	Hex	AANAAH5225L			2	7	15°	Hex	AANAAH7245L	
	3				AANAAH5325L			3				AANAAH7345L	
	4				AANAAH5425L			4				AANAAH7445L	
	5				AANAAH5525L			5				AANAAH7545L	
	2		25°	Hex-E	AANAAE5225L			2		25°	Hex-E	AANAAE7245L	
	3				AANAAE5325L			3				AANAAE7345L	
	4				AANAAE5425L			4				AANAAE7445L	
	5				AANAAE5525L			5				AANAAE7545L	

### CCM Abutment

- Multi Post Screw(AANMSF/AANMST) included.
- Useful to make a customized abutment in difficult situations.
- Can be casted with non-precious alloys (Ni-Cr, Cr-Co alloys).
- Non-precious melting temperature : Depend on Manufacturer
- Threaded sleeves for convenient Resin / Wax-up.
- Melting temperature of CCM : 1380 - 1420°C
- Recommend torque : 35Ncm

