

SuperLine II & Implantium II

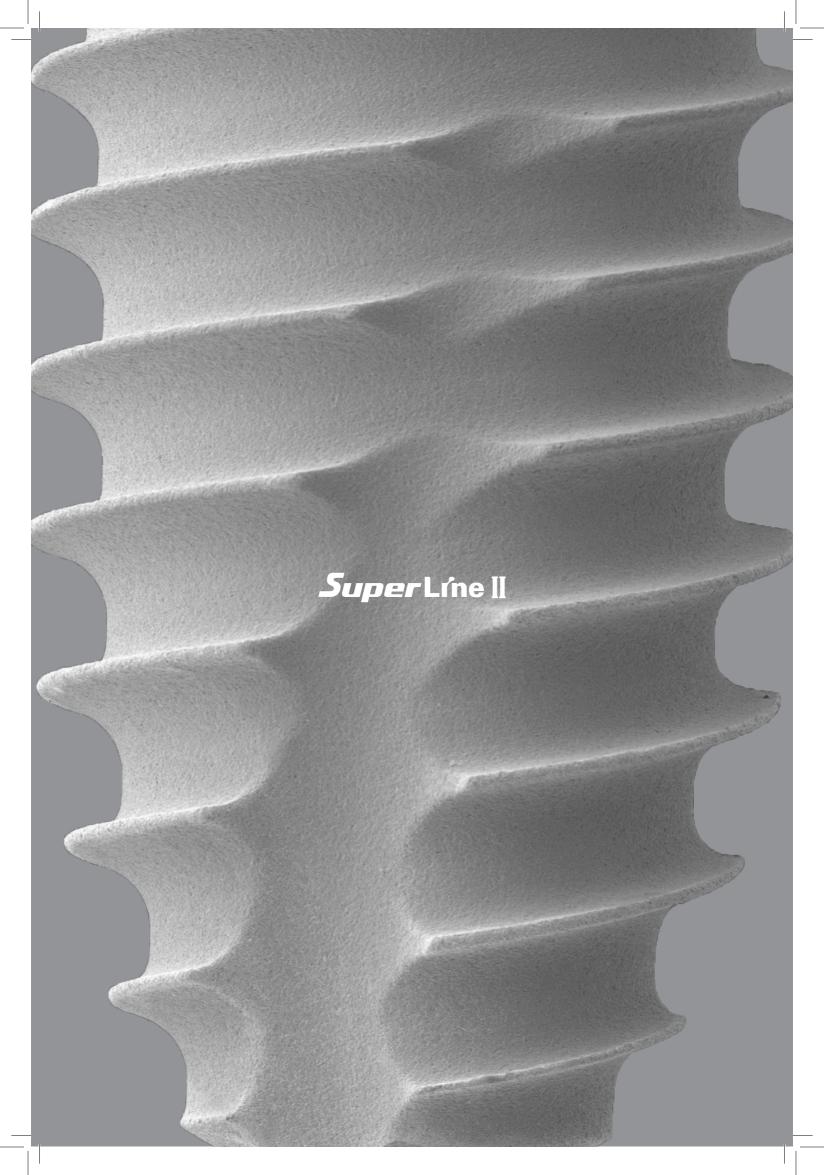
A New Choice
For the Customer

Dentium

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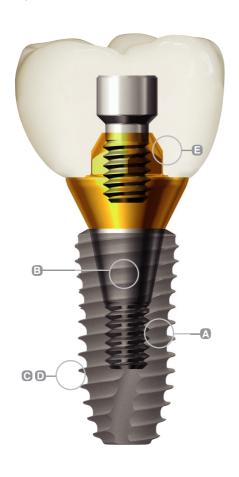


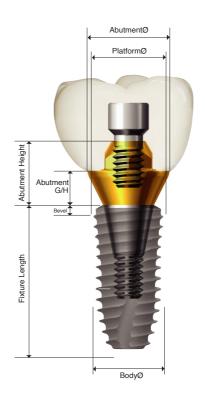


## **SuperLine II Characteristics**

#### "Immediate Implantation with Excellent Bone Response"

- · Higher stabilization in extraction socket
- · Early loading in upper posterior
- · Harmony with anatomy
- · Sharp & fast insertion





#### **Selection Guideline**

Ideal emergence profile for each tooth



### **SuperLine II Characteristics**

#### Material

· Unalloyed Titanium ASTMF67 (Commercially pure titanium grade 4)

#### **Platform-Switched Design** with Connical Connection

- · Helps to preserve marginal bone 2
- · Milled beveled collar

#### **One Restorative Connection -**Single Simple Solution

· All SuperLine II implants share One prosthetic platform One size abutment screw\* One size hex driver



#### S.L.A. Surface Treatment

(Sandblasted with Large grits and Acid etched)

· Well-documented and clinically proven surface technology 1





#### Double-Threaded. Tapered Body Design<sup>3</sup>



- · Easy and smooth insertion
- · Sharp threads to help minimize stress on the bone
- · Deep threads to help increase primary stability

#### 3 Full Length Cutting Flutes

- · 3 self-tapping blades
- · Efficient in all bone types



\*Angled Screw Abutment is restored with a shorter length screw. Refer to page 49 & 50.

- 1. Nevins, Myron, et al. "Clinical and Histologic Evaluations of SLA Dental Implants" The International Journal of Periodontics & Restorative Dentistry. 2017 37:175-181. doi: 10.11607/prd.3131
- 2. Hsu, Yung-Ting, et al. "Comparison of Clinical and Radiographic Outcomes of Platform-Switched Implants with a Rough Collar and Platform-Matched Implants with a Smooth Collar: A 1-Year Randomized Clinical Trial." The International Journal of Oral & Maxillofacial Implants, 2016, pp. 382-390, https://doi.org/10.11607/jomi.4189.
- 3. Kim, Tae Hyung, et al. "Prospective, 1-Year Observational Study of Double-Threaded Tapered Body Dental Implants with Immediate Loading." The Journal of Prosthetic Dentistry, vol. 114, no. 1, 2015, pp. 46-51, https://doi.org/10.1016/j.prosdent.2014.12.016.

# SuperLine II Color Coding by Diameter

#### **Color Coding by Diameter**

• Cover scre	w is not includ	ded.					(Unit: mm)
Сар	Color	Yellow	Green	Blue	Red	Orange	Violet
Supe	ture erLine nt Free)						
PlatformØ	Fixture Platform Diameter	3.7	4.0	4.5	5.0	6.0	7.0
BodyØ	Fixture Body Diameter	3.6	4.0	4.5	5.0	5.0	5.8
Bevel	L:7 Fixture Bevel Height	1.5	1.5	1.5	1.5	1.5	1.5
Bevel	L:7B,8,10, 12,14,16 Fixture Bevel Height	0	0.1	0.3	0.4	0.7	1.0

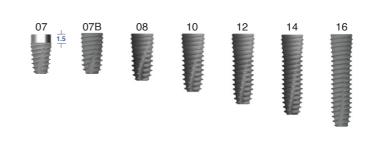
## SuperLine II Fixture

Unit: mm, Scale 1:1.5/mm

Platform Ø3.7 | Body Ø3.6

L	Art. No.
7	FXS 36 <b>07</b>
7B	FXS 36 <b>07 B</b>
8	FXS 36 <b>08</b>
10	FXS 3610
12	FXS 3612
14	FXS 36 <b>14</b>
16	FXS 36 <b>16</b>

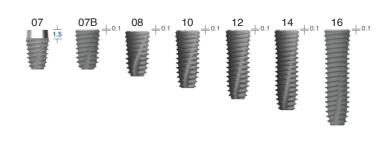




Platform Ø4.0 | Body Ø4.0

L	Art. No.
7	FXS 40 <b>07</b>
7B	FXS 40 <b>07 B</b>
8	FXS 40 <b>08</b>
10	FXS 40 <b>10</b>
12	FXS 40 <b>12</b>
14	FXS 40 <b>14</b>
16	FXS 40 <b>16</b>

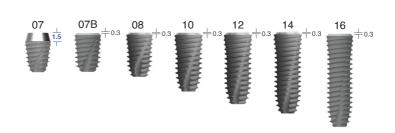




Platform Ø4.5 | Body Ø4.5

L	Art. No.
7	FXS 45 <b>07</b>
7B	FXS 45 <b>07 B</b>
8	FXS 45 <b>08</b>
10	FXS 45 <b>10</b>
12	FXS 45 <b>12</b>
14	FXS 45 <b>14</b>
16	FXS 45 <b>16</b>





\*Note: 1) Cover screw is not included

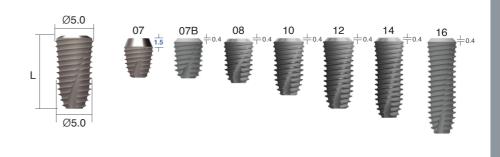
<sup>2)</sup> Recommended insertion torque is 30~45 N·cm at 20rpm. Countersink drill can be used on dense cortical bone. Do not over-torque during the implant insertion.

## SuperLine II Fixture

Unit: mm, Scale 1:1.5/mm

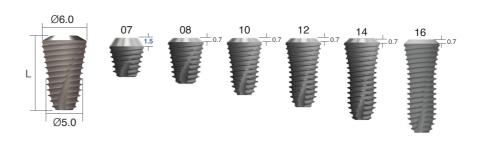
#### Platform Ø5.0 | Body Ø5.0

L	Art. No.
7	FXS 50 <b>07</b>
7B	FXS 50 <b>07 B</b>
8	FXS 50 <b>08</b>
10	FXS 50 <b>10</b>
12	FXS 50 <b>12</b>
14	FXS 50 <b>14</b>
16	FXS 50 <b>16</b>



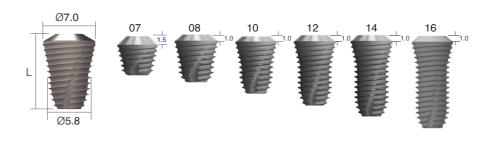
#### Platform Ø6.0 | Body Ø5.0

L	Art. No.
7	FXS 60 <b>07</b>
8	FXS 60 <b>08</b>
10	FXS 6010
12	FXS 6012
14	FXS 6014
16	FXS 6016



#### Platform Ø7.0 | Body Ø5.8

L	Art. No.
7	FXS 70 <b>07</b>
8	FXS 70 <b>08</b>
10	FXS 7010
12	FXS 7012
14	FXS 70 <b>14</b>
16	FXS 70 <b>16</b>

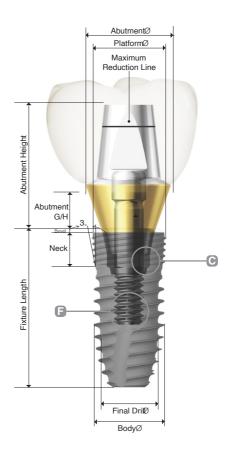


<sup>2)</sup> Recommended insertion torque is 30~45 N·cm at 20rpm. Countersink drill can be used on dense cortical bone. Do not over-torque during the implant insertion.



# **Implantium II Characteristics**





#### **Selection Guideline**

Ideal emergence profile for each tooth



## Implantium II Characteristics

#### Material

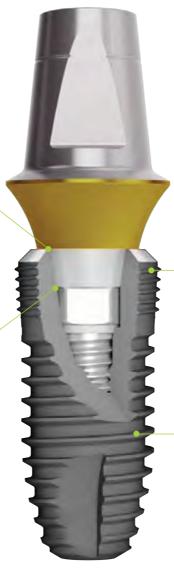
 Unalloyed Titanium ASTMF67 (Commercially pure titanium grade 4)

#### **Platform-Switched Design** with Connical Connection

- · Helps to preserve marginal bone 3
- · Milled beveled collar

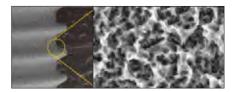
#### **Fully Compatible Prosthetic Platform**

- · One abutment fits all Implantium fixtures
- · One size abutment screw\*
- · One size hex driver (1.28mm hex)



#### S.L.A. Surface Treatment (Sandblasted with Large grits and Acid etched)

· Well-documented and clinically proven surface technology 1,2



#### **Optimal Fixation Threads**

· Helps to enhance initial stability between the cortical bone and fixture

#### **Biological Thread**

· Thread platform design enhances bone to implant contact.



· Threads engage and penetrate bone with ease.

- 1. Nevins, Myron, et al. "Clinical and Histologic Evaluations of SLA Dental Implants" The International Journal of Periodontics & Restorative Dentistry. 2017 37:175-181. doi: 10.11607/prd.3131
- $2. \ Kim, Hyeongil, et al. "The biocompatibility of SLA-treated titanium implants." \textit{Biomedical Materials}, vol. 3, no. 2, 2008, p. 025011, https://doi.$
- 3. Hsu, Yung-Ting, et al. "Comparison of Clinical and Radiographic Outcomes of Platform-Switched Implants with a Rough Collar and Platform-Matched Implants with a Smooth Collar: A 1-Year Randomized Clinical Trial." The International Journal of Oral & Maxillofacial Implants, 2016, pp. 382-390, https://doi.org/10.11607/jomi.4189.

## Implantium II Color Coding by Diameter

#### **Color Coding by Diameter**

• Cover screw is not included. (Unit: mm)

Сар	Color	Yellow	Green	Blue	Red
Impla	ture ntium II nt Free)				
PlatformØ	Fixture Platform Diameter	3.7	4.0	4.5	5.0
Body∅	Fixture Body Diameter	3.6	4.0	4.5	5.0
Bevel	Fixture Bevel Height	0.2	0.1	0.3	0.4

<sup>\*</sup>Note: 1) Cover screw is not included

<sup>2)</sup> Recommended insertion torque is 30~45 N·cm at 20rpm. Countersink drill can be used on dense cortical bone. Do not over-torque during the implant insertion.

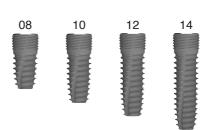
## Implantium II Fixture

Unit: mm, Scale 1:1.5 / mm

Platform Ø3.7 | Body Ø3.6

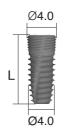
L	Art. No.
8	FXI 36 <b>08</b>
10	FXI 36 <b>10</b>
12	FXI 36 <b>12</b>
14	FXI 36 <b>14</b>





Platform Ø4.0 | Body Ø4.0

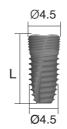
	Art. No.
8	FXI 40 <b>08</b>
•	
10	FXI 40 <b>10</b>
12	FXI 40 <b>12</b>
14	FXI 40 <b>14</b>

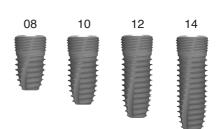




Platform Ø4.5 | Body Ø4.5

L	Art. No.
8	FXI 45 <b>08</b>
10	FXI 45 <b>10</b>
12	FXI 45 <b>12</b>
14	FXI 45 <b>14</b>

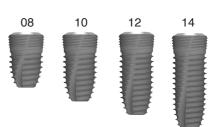




Platform Ø5.0 | Body Ø5.0

L	Art. No.
8	FXI 50 <b>08</b>
10	FXI 50 <b>10</b>
12	FXI 50 <b>12</b>
14	FXI 50 <b>14</b>





### **Cover Screw**

Unit: mm, Scale 1:1.5/mm

- · Single use only
- · Compatible throughout all Dentium SuperLine II, SuperLine, and Implantium dental implant systems across all diameters.
- **NOTE**: Use no more than 10 N·cm of torque when tightening the Cover Screw. If the hex is worn, the slot on the head of the Cover Screw can be used to rotate it.



CS36 and FXS4510

Color: Green

Art. No.	CS36







### **GBR Healing Abutment**



Diameter	G/H	Art. No.	
Ø 3.3	3.5	GBHAB 33 35	
Ø 3.8	0.5	GBHAB 38 05	
Ø 3.8 2.0		GBHAB 38 20	







- · Single use only
- · Compatible throughout all Dentium SuperLine II, SuperLine, and Implantium dental implant systems across all diameters.
- **NOTE**: Use no more than 10 N·cm of torque when tightening the Cover Screw. If the hex is worn, the slot on the head of the Cover Screw can be used to rotate it.

### **Healing Abutment**

H 5.0 G/H 3.0

HAB453050L and FXS4510

Unit: mm, Scale 1:1.5/mm

- · Single use only, provided sterile
- · Compatible throughout all Dentium SuperLine II, SuperLine, and Implantium dental implant systems across all diameters.
- · NOTE: Use no more than 10 N cm of torque when tightening the Healing Abutment. If the hex is worn, the slot on the head of the Healing Abutment can be used to rotate it.

#### Diameter Ø4.0

G/H	Н	Art. No.
2.0	2.0	HAB 40 <b>20</b> 20 L
2.0	3.5	HAB 40 <b>20</b> 35 L
3.0	5.0	HAB 40 <b>30</b> 50 L
4.0	7.0	HAB 40 <b>40</b> 70 L



#### Diameter Ø4.5

G/H	Н	Art. No.
2.0	2.0	HAB 45 <b>20</b> 20 L
2.0	3.5	HAB 45 <b>20</b> 35 L
3.0	5.0	HAB 45 <b>30</b> 50 L
4.0	7.0	HAB 45 <b>40</b> 70 L



#### Diameter Ø5.5

G/H	Н	Art. No.
2.0	2.0	HAB 55 <b>20</b> 20 L
2.0	3.5	HAB 55 <b>20</b> 35 L
3.0	5.0	HAB 55 <b>30</b> 50 L
4.0	7.0	HAB 55 <b>40</b> 70 L



#### Diameter Ø6.5

G/H	Н	Art. No.
2.0	2.0	HAB 65 <b>20</b> 20 L
2.0	3.5	HAB 65 <b>20</b> 35 L
3.0	5.0	HAB 65 <b>30</b> 50 L
4.0	7.0	HAB 65 <b>40</b> 70 L



#### Diameter Ø7.5 / 8.5 / 9.5

G/H	Н	Art. No.
3.0	5.0	HAB 75 <b>30</b> 50 E
3.0	5.0	HAB 85 <b>30</b> 50 E
3.0	5.0	HAB 95 <b>30</b> 50 E



### **Scan Abutment**

- · Single use only, provided sterile
- · Abutment screw included
- · Compatible throughout all Dentium SuperLine II, SuperLine, and Implantium dental implant systems across all diameters.
- **NOTE**: Use no more than 10 N cm of torque when tightening the Scannable Healing Abutment.

Unit: mm, Scale 1.5:1

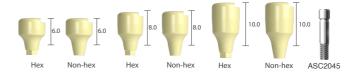
Diameter	Height	G/H	Type	Art. No.
	6.0	2.5	Hex	IHAB 40 06 H
	6.0	2.5	Non-hex	IHAB 40 06 N
Ø 4.0	8.0	3.0	Hex	IHAB 40 08 H
Ø 4.0	8.0	3.0	Non-hex	IHAB 40 08 N
	10.0	3.5	Hex	IHAB 40 10 H
	10.0	3.5	Non-hex	IHAB 40 10 N



Diameter	Height	G/H	Туре	Art. No.
	6.0	2.5	Hex	IHAB 50 06 H
	6.0	2.5	Non-hex	IHAB 50 06 N
Ø F 0	8.0	3.0	Hex	IHAB 50 08 H
Ø 5.0	8.0	3.0	Non-hex	IHAB 50 08 N
	10.0	3.5	Hex	IHAB 50 10 H
	10.0	3.5	Non-hex	IHAB 50 10 N



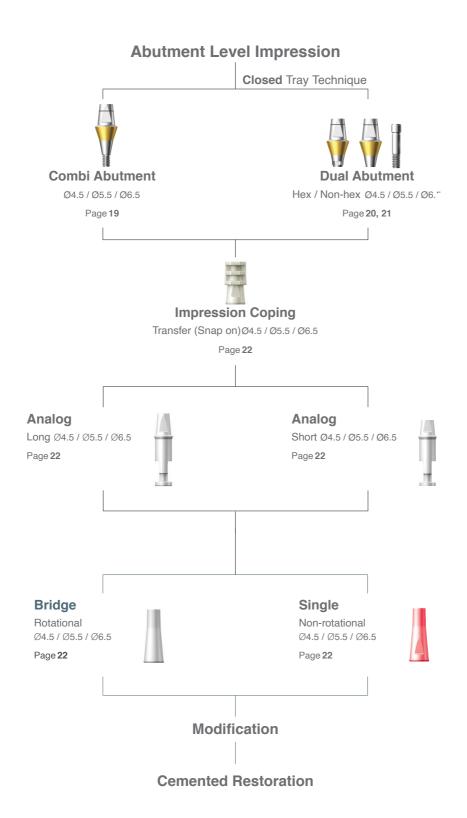
Diameter	Height	G/H	Type	Art. No.
	6.0	2.5	Hex	IHAB 60 06 H
	6.0	2.5	Non-hex	IHAB 60 06 N
060	8.0	3.0	Hex	IHAB 60 08 H
Ø 6.0	8.0	3.0	Non-hex	IHAB 60 08 N
	10.0	3.5	Hex	IHAB 60 10 H
	10.0	3.5	Non-hex	IHAB 60 10 N



### **Prosthetic Procedure 1**

Impression Technique and Restoration Selection

#### **Dual / Combi Abutment**



### **Combi Abutment**

Unit: mm, Scale 1:1/mm



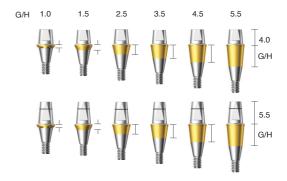
CAB5535SL and FXS4510



CAB5535L and FXS4510

#### Diameter Ø4.5

G/H	Type	Art. No.	Type	Art. No
1.0	Short	CAB 45 <b>10</b> SL		CAB 45 <b>10</b> L
1.5		CAB 45 <b>15</b> SL	Long	CAB 45 <b>15</b> L
2.5		CAB 45 <b>25</b> SL		CAB 45 <b>25</b> L
3.5		CAB 45 <b>35</b> SL	20119	CAB 45 <b>35</b> L
4.5		CAB 45 <b>45</b> SL		CAB 45 <b>45</b> L
5.5		CAB 45 <b>55</b> SL	CAB 45 <b>55</b> L	



#### Diameter Ø5.5

G/H	Туре	Art. No.	Туре	Art. No
1.5		CAB 55 <b>15</b> SL		CAB 55 <b>15</b> L
2.5		CAB 55 <b>25</b> SL		CAB 55 <b>25</b> L
3.5	Short	CAB 55 <b>35</b> SL	Long	CAB 55 <b>35</b> L
4.5		CAB 55 <b>45</b> SL		CAB 55 <b>45</b> L
5.5		CAB 55 <b>55</b> SL		CAB 55 <b>55</b> L



#### Diameter Ø6.5

_					
	G/H	Type	Art. No.	Type	Art. No
	1.5		CAB 65 <b>15</b> SL		CAB 65 <b>15</b> L
	2.5		CAB 65 <b>25</b> SL		CAB 65 <b>25</b> L
	3.5	Short	CAB 65 <b>35</b> SL	Long	CAB 65 <b>35</b> L
	4.5		CAB 65 <b>45</b> SL		CAB 65 <b>45</b> L
	5.5		CAB 65 <b>55</b> SL		CAB 65 <b>55</b> L
	5.5		CAB 65 <b>55</b> SL		CAB 65 <b>55</b> L

G/H 1.5 2.5 3.5 4.5 5.5

4.0 G/H

5.5 G/H

<sup>※</sup> Note: 1) One-piece abutment

<sup>2)</sup> Compatible throughout all Dentium SuperLine II, SuperLine, and Implantium dental implant systems across all diameters

<sup>3)</sup> Recommended tightening torque for the Combi Abutment is 30–35 N cm. Retighten with the same torque after 15 minutes to verify the maximum screw tension.

## **Dual Abutment** [Hex]

Abutment screw is included.

Unit: mm, Scale 1:1.5/mm



Diameter Ø4.5 | Hex

G/H	Art. No.
1.0	DAB 45 <b>10 H</b> L
1.5	DAB 45 <b>15 H</b> L
2.5	DAB 45 <b>25 H</b> L
3.5	DAB 45 <b>35 H</b> L
4.5	DAB 45 <b>45 H</b> L
5.5	DAB 45 <b>55 H</b> L



Diameter Ø5.5 | Hex

G/H	Art. No.
1.5	DAB 55 <b>15 H</b> L
2.5	DAB 55 <b>25 H</b> L
3.5	DAB 55 <b>35 H</b> L
4.5	DAB 55 <b>45 H</b> L
5.5	DAB 55 <b>55 H</b> L



#### Diameter Ø6.5 | Hex

G/H	Art. No.
1.5	DAB 65 <b>15 H</b> L
2.5	DAB 65 <b>25 H</b> L
3.5	DAB 65 <b>35 H</b> L
4.5	DAB 65 <b>45 H</b> L
5.5	DAB 65 <b>55 H</b> L



※ Note: 1) If the Implantium II fixture with size of Ø3.4 body is used, abutment height after assembly will become 0.5mm longer than other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the dual abutment with fixture.

### **Dual Abutment** [Non-hex]

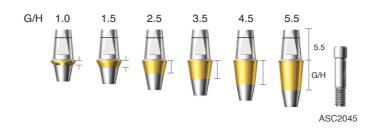
• Abutment screw is included.

Unit: mm, Scale 1:1.5/mm



Diameter Ø4.5 | Non-hex

G/H	Art. No.
1.0	DAB 45 <b>10 N</b> L
1.5	DAB 45 <b>15 N</b> L
2.5	DAB 45 <b>25 N</b> L
3.5	DAB 45 <b>35 N</b> L
4.5	DAB 45 <b>45 N</b> L
5.5	DAB 45 <b>55 N</b> L



Diameter Ø5.5 | Non-hex

G/H	Art. No.
1.5	DAB 55 <b>15 N</b> L
2.5	DAB 55 <b>25 N</b> L
3.5	DAB 55 <b>35 N</b> L
4.5	DAB 55 <b>45 N</b> L
5.5	DAB 55 <b>55 N</b> L



#### Diameter Ø6.5 | Non-hex

G/H	Art. No.
1.5	DAB 65 <b>15 N</b> L
2.5	DAB 65 <b>25 N</b> L
3.5	DAB 65 <b>35 N</b> L
4.5	DAB 65 <b>45 N</b> L
5.5	DAB 65 <b>55 N</b> L



※Note: 1) If the Implantium II fixture with size of Ø3.4 body is used, abutment height after assembly will become 0.5mm longer than other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the dual abutment with fixture.

## **Abutment Level Impression Components**

Unit: mm, Scale 1:1/mm

#### Comfort Cap | Snap on

Type	Diameter	Art. No.
	Ø <b>4.5</b>	CCC <b>45</b> CS
Short	Ø <b>5.5</b>	CCC <b>55</b> CS
	Ø <b>6.5</b>	CCC <b>65</b> CS
	Ø <b>4.5</b>	CCC <b>45</b> C
Long	Ø <b>5.5</b>	CCC <b>55</b> C
	Ø <b>6.5</b>	CCC <b>65</b> C



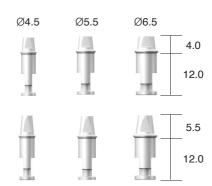
#### **Impression Coping**

Diameter	Art. No.
Ø4.5	CIC <b>45</b> L
Ø5.5	CIC <b>55</b> L
Ø6.5	CIC <b>65</b> L



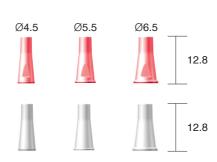
#### **Lab Analog**

Type	Diameter	Art. No.
	Ø4.5	CAN <b>45 S</b> L
Short	Ø <b>5.5</b>	CAN <b>55 S</b> L
	Ø6.5	CAN <b>65 S</b> L
	Ø4.5	CAN <b>45 L</b> L
Long	Ø5.5	CAN <b>55 L</b> L
	Ø6.5	CAN <b>65 L</b> L



#### **Burn-out Cylinder**

Type	Diameter	Art. No.
	Ø <b>4.5</b>	CBC <b>45 S</b> L
Single	Ø <b>5.5</b>	CBC <b>55 S</b> L
	Ø <b>6.5</b>	CBC <b>65 S</b> L
	Ø4.5	CBC <b>45 B</b> L
Bridge	Ø <b>5.5</b>	CBC <b>55 B</b> L
	Ø <b>6.5</b>	CBC <b>65 B</b> L



## **Restorative Kit**



#### **Combi & Dual Abutment**

Art. No	Lab. Components				
	Comfort Cap	Impression Coping	Analog	Burn-ou	t Cylinder
XSDAB <b>45 S</b>	CCC 45 CS	CIC 45 L	CAN 45 SL	CBC 45 SL	CBC 45 BL
XSDAB <b>45</b>	CCC 45 C	010 43 L	CAN 45 LL	ODO 45 SE	000 40 BE
XSDAB <b>55 S</b>	CCC 55 CS	CIC 55 L	CAN 55 SL	CBC 55 SL	CBC 55 BL
XSDAB <b>55</b>	<b>CCC</b> 55 C	OIO 33 E	CAN 55 LL	000 00 02	<b>000</b> 00 <b>DE</b>
XSDAB <b>65 S</b>	CCC 65 CS	CIC 65 L	CAN 65 SL	CBC 65 SL	CBC 65 BL
XSDAB <b>65</b>	CCC 65 C	0.00 E	CAN 65 LL	020 00 0E	000 BE

### **Prosthetic Procedure 2**

Impression Technique and Restoration Selection

#### Dual / Custom / Dual Milling / Angled / Direct-Casting / Metal-Casting / Temporary (Plastic & Ti) Abutment

#### **Fixture Level Impression**

#### **Impression Coping Pick-up** Open

tray technique (Complicated case) Ø4.0 / Ø4.5 / Ø5.5 / Ø6.5



### **Impression Coping Transfer**

tray technique (Simple case) Ø4.0 / Ø4.5 / Ø5.5 / Ø6.5



#### **Analog**

DAN 34 / DANSE

Page 25, 26







Dual **Abutment** Hex / Non-hex

Ø4.5 / Ø5.5 / Ø6.5 Page **20, 21** 



Custom **Abutment** 

Hex / Non-hex Ø4.5 / Ø5.5

Page **27** 



**Dual Milling** Abutment

Hex / Non-hex Ø4.0 / Ø4.5 Ø5.5 / Ø6.5 / Ø7.5

Page 28, 30



#### **Angled**

**Abutment** Hex / Non-hex 15° / 25° Ø4.5 / Ø5.5

Page 32, 33, 34, 35

Modification

Cemented Restoration



**Direct-Casting Abutment** 

Hex / Non-hex Ø4.5

Page 36



**Metal-Casting Abutment** 

Hex / Non-hex Ø4.5

Page 36



**Temporary Abutment** 

Hex / Non-hex Ø4.5 / Ø5.5 / Ø6.5

Page 37

Modification

**Screw-Retained** Restoration

### **Fixture Level Impression Components**

- Impression coping screw is included with Impression coping.
- Compatible throughout SuperLine II, SuperLine, and Implantium dental implant systems across all diameters
- Hand tighten only

#### Impression Coping Pick-up Ø4.0

Size	Type	Ar	t. No.
Short	Hex	DPU4	<b>10</b> 11 <b>H</b> L
Short	Non-hex	DPU4	<b>10</b> 11 <b>N</b> L
Long	Hex	DPU4	<b>10</b> 15 <b>H</b> L
Long	Non-hex	DPU4	<b>40</b> 15 <b>N</b> L
Ø 4.0	Ø 4.0	Ø 4.0	Ø 4.0
Hex	Non-hex	Hex	Non-hex

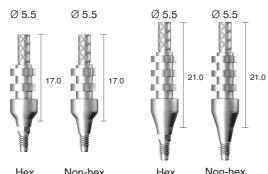
#### Impression Coping Pick-up Ø4.5

Unit: mm, Scale 1:1.5/mm

-		-	
Size	Туре	Art.	No.
Short	Hex	DPU <b>45</b>	11 <b>H</b> L
Short	Non-hex	DPU <b>45</b>	11 <b>N</b> L
Long	Hex	DPU <b>45</b>	15 <b>H</b> L
Long	Non-hex	DPU <b>45</b>	15 <b>N</b> L
Ø 4.5	Ø 4.5	Ø 4.5	21.0
Hex	Non-hex	Hex	Non-hex

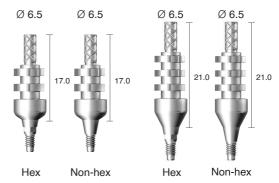
#### Impression Coping Pick-up Ø5.5

Size	Туре	Art. No.
Short	Hex	DPU <b>55</b> 11 <b>H</b> L
Short	Non-hex	DPU <b>55</b> 11 <b>N</b> L
Long	Hex	DPU <b>55</b> 15 <b>H</b> L
Long	Non-hex	DPU <b>55</b> 15 <b>N</b> L



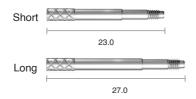
#### Impression Coping Pick-up Ø6.5

Size	Type	Art. No.
Short	Hex	DPU <b>65</b> 11 <b>H</b> L
Short	Non-hex	DPU <b>65</b> 11 <b>N</b> L
Long	Hex	DPU <b>65</b> 15 <b>H</b> L
Long	Non-hex	DPU <b>65</b> 15 <b>N</b> L



#### **Impression Coping Pick-up Screw**

Size	Art. No.
Short	DPS 11
Long	DPS 15



#### **Analog**

Application (BodyØ)	Art. No.
Ø <b>3.6</b>	DAN 34
Ø4.0 / Ø4.5 / Ø5.0 / Ø6.0 / Ø7.0	DANSE



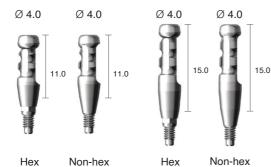
Unit: mm, Scale 1:1.5/mm

### **Fixture Level Impression Components**

- Impression coping screw is included with Impression coping.
- Compatible throughout SuperLine II, SuperLine, and Implantium dental implant systems across all diameters
- Hand tighten only

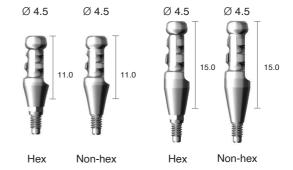
#### Impression Coping Transfer Ø4.0

Short	Hex	DTF <b>40</b> 11 <b>H</b> L
Short	Non-hex	DTF <b>40</b> 11 <b>N</b> L
Long	Hex	DTF <b>40</b> 15 <b>H</b> L
Long	Non-hex	DTF <b>40</b> 15 <b>N</b> L



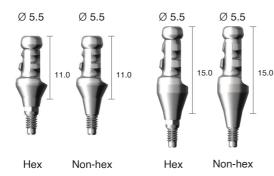
#### Impression Coping Transfer Ø4.5

Size	Туре	Art. No.
Short	Hex	DTF <b>45</b> 11 <b>H</b> L
Short	Non-hex	DTF <b>45</b> 11 <b>N</b> L
Long	Hex	DTF <b>45</b> 15 <b>H</b> L
Long	Non-hex	DTF <b>45</b> 15 <b>N</b> L



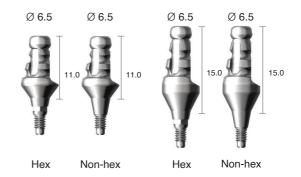
#### Impression Coping Transfer Ø5.5

Size	Туре	Art. No.
Short	Hex	DTF <b>55</b> 11 <b>H</b> L
Short	Non-hex	DTF <b>55</b> 11 <b>N</b> L
Long	Hex	DTF <b>55</b> 15 <b>H</b> L
Long	Non-hex	DTF <b>55</b> 15 <b>N</b> L



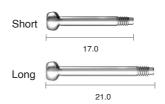
#### Impression Coping Transfer Ø6.5

Size	Type	Art. No.
Short	Hex	DTF <b>65</b> 11 <b>H</b> L
Short	Non-hex	DTF <b>65</b> 11 <b>N</b> L
Long	Hex	DTF <b>65</b> 15 <b>H</b> L
Long	Non-hex	DTF <b>65</b> 15 <b>N</b> L



#### **Impression Coping Transfer Screw**

Size	Art. No.
Short	DTS 11
Long	DTS 15



#### **Analog**

Application (BodyØ)	Art. No.
Ø <b>3.6</b>	DAN 34
Ø4.0 / Ø4.5 / Ø5.0 / Ø6.0 / Ø7.0	DANSE



### **Custom Abutment**

• Abutment screw is included.

Unit: mm, Scale 1:1.5/mm



#### Diameter Ø4.5

G/H	Туре	Art. No.
0.5	Hex	CDAB 45 05 <b>H</b>
0.5	Non-hex	CDAB 45 05 <b>N</b>
1.5	Hex	CDAB 45 15 <b>H</b>
1.5	Non-hex	CDAB 45 15 <b>N</b>



#### Diameter Ø5.5

G/H	Туре	Art. No.
1.0	Hex	CDAB 55 10 <b>H</b>
1.0	Non-hex	CDAB 55 10 <b>N</b>
2.0	Hex	CDAB 55 20 <b>H</b>
2.0	Non-hex	CDAB 55 20 <b>N</b>



- · Abutment screw included
- · Compatible throughout all Dentium SuperLine II, SuperLine, and Implantium dental implant systems across all diameters
- **NOTE**: Recommended tightening torque for the Custom Abutment is 30–35 N·cm. Retighten with the same torque after 15 minutes to verify the maximum screw tension.

# **Dual Milling Abutment** [Ti-G4]

Abutment screw is included.

Unit:mm, Scale 1: 1.5 / mm



#### Diameter Ø4.0

G/H	Type	Art. No.
1.0	Hex	DAB 40 105 <b>H</b> L
1.0	Non-hex	DAB 40 105 <b>N</b> L



#### Diameter Ø4.5

G/H	Type	Art. No.
1.5	Hex	DAB 45 156 <b>H</b> L
1.5	Non-hex	DAB 45 156 <b>N</b> L



#### Diameter Ø5.5

G/H	Туре	Art. No.
1.5	Hex	DAB 55 157 <b>H</b> L
1.5	Non-hex	DAB 55 157 <b>N</b> L
2.5	Hex	DAB 55 257 <b>H</b> L
2.5	Non-hex	DAB 55 257 <b>N</b> L



<sup>\*\*</sup>Note: 1) If the Implantium II fixture with size of Ø3.4 body is used, abutment height after assembly will become 0.5mm longer than other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the dual milling abutment with fixture.

# **Dual Milling Abutment** [Ti-G4]

• Abutment screw is included.

Unit:mm, Scale 1: 1.5 / mm

#### Diameter Ø6.5

G/H	Type	Art. No.
1.5	Hex	DAB 65 158 <b>H</b> L
1.5	1.5 Non-hex DAB 65 158 Non-hex DAB 65 258 Non-hex D	
2.5		
2.5	Non-hex	DAB 65 258 <b>N</b> L
3.5	Hex	DAB 65 358 <b>H</b> L
3.5	Non-hex	DAB 65 358 <b>N</b> L





#### Diameter Ø7.5

G/H	Type	Art. No.
2.5	Hex	DAB 75 259 <b>H</b> L
2.5	Non-hex	DAB 75 259 <b>N</b> L
3.5	Hex	DAB 75 359 <b>H</b> L
3.5	Non-hex	DAB 75 359 <b>N</b> L



<sup>\*\*</sup>Note: 1) If the Implantium II fixture with size of Ø3.4 body is used, abutment height after assembly will become 0.5mm longer than other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the dual milling abutment with fixture.

# **Milling Abutment**

Unit: mm, Scale 1.5:1

<sup>~</sup> Abutment screw is included.



Diameter	G/H	Type	Art. No.
Ø 4.0	1.0	Hex	MAB 40 105 HE
Ø 4.0	1.0	Non-hex	MAB 40 105 NE

Diameter	G/H	Туре	Art. No.
Ø 4.5	1.5	Hex	MAB 45 156 HE
w 4.5	15	Non-hex	MAR 45 156 NF

Diameter	G/H	Type	Art. No.
	1.5	Hex	MAB 55 157 HE
Ø F F	1.5	Non-hex	MAB 55 157 NE
Ø 5.5	2.5	Hex	MAB 55 257 HE
	2.5	Non-hex	MAB 55 257 NE







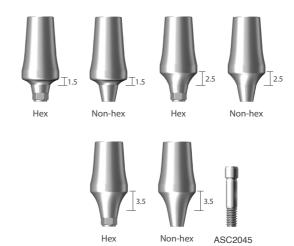
<sup>Note: 1) If the Implantium II fixture with size of Ø3.4 body is used, abutment height after assembly will become 0.5mm longer than other sized fixtures.</sup> 

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the dual milling abutment with fixture.

# **Milling Abutment**

~ Abutment screw is included. Unit: mm, Scale 1.5:1

Diameter	G/H	Type	Art. No.
	1.5	Hex	MAB 65 158 HE
	1.5	Non-hex	MAB 65 158 NE
Ø 6.5	2.5	Hex	MAB 65 258 HE
Ø 0.5	2.5	Non-hex	MAB 65 258 NE
	3.5	Hex	MAB 65 358 HE
	3.5	Non-hex	MAB 65 358 NE



Diameter	G/H	Type	Art. No.
Ø 7.5	2.5	Hex	MAB 75 259 HE
	2.5	Non-hex	MAB 75 259 NE
	3.5	Hex	MAB 75 359 HE
	3.5	Non-hex	MAB 75 359 NE



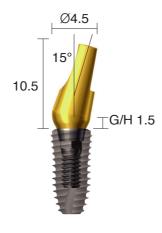
<sup>\*\*</sup>Note: 1) If the Implantium II fixture with size of Ø3.4 body is used, abutment height after assembly will become 0.5mm longer than other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the dual milling abutment with fixture.

## **Angled Abutment** [Ti-G4 / 15°]

Abutment screw is included.

Unit: mm, Scale 1:1.5/mm



**AAB154515HL and FXS4510** 

Diameter Ø4.5 | Angled 15°

G/H	Type	Art. No.	
1.5	Hex	AAB 15 45 15 <b>H</b> L	
1.5	Non-hex	AAB 15 45 15 <b>N</b> L	
2.5	Hex	AAB 15 45 25 <b>H</b> L	
2.5	Non-hex	AAB 15 45 25 <b>N</b> L	
3.5	Hex	AAB 15 45 35 <b>H</b> L	
3.5	Non-hex	AAB 15 45 35 <b>N</b> L	



Diameter Ø5.5 | Angled 15°

G/H	Туре	Art. No.
1.5	Hex	AAB 15 55 15 <b>H</b> L
1.5	Non-hex	AAB 15 55 15 <b>N</b> L
2.5	Hex	AAB 15 55 25 <b>H</b> L
2.5	Non-hex	AAB 15 55 25 <b>N</b> L
3.5	Hex	AAB 15 55 35 <b>H</b> L
3.5	Non-hex	AAB 15 55 35 <b>N</b> L



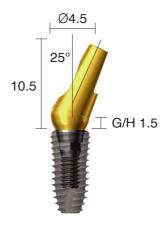
than other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the angled abutment with fixture.

## **Angled Abutment** [Ti-G4 / 25°]

• Abutment screw is included.

Unit: mm, Scale 1:1.5/mm



**AAB254515HL and FXS4510** 

Diameter Ø4.5 | Angled 25°

G/H	Type	Art. No.
1.5	Hex	AAB 25 45 15 <b>H</b> L
1.5	Non-hex	AAB 25 45 15 <b>N</b> L
2.5	Hex	AAB 25 45 25 <b>H</b> L
2.5	Non-hex	AAB 25 45 25 <b>N</b> L
3.5	Hex	AAB 25 45 35 <b>H</b> L
3.5	Non-hex	AAB 25 45 35 <b>N</b> L



Diameter Ø5.5 | Angled 25°

G/H	Туре	Art. No.
1.5	Hex	AAB 25 55 15 <b>H</b> L
1.5	Non-hex	AAB 25 55 15 <b>N</b> L
2.5	Hex	AAB 25 55 25 <b>H</b> L
2.5	Non-hex	AAB 25 55 25 <b>N</b> L
3.5	Hex	AAB 25 55 35 <b>H</b> L
3.5	Non-hex	AAB 25 55 35 <b>N</b> L

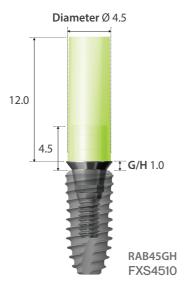


<sup>\*\*</sup>Note: 1) If the Implantium II fixture with size of Ø3.4 body is used, abutment height after assembly will become 0.5mm longer than other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the angled abutment with fixture.

### **Direct-Casting Abutment**

Unit: mm, Scale 1.5:1 • Abutment screw is included.





## **Metal-Casting Abutment**

Unit: mm, Scale 1.5:1

· Abutment screw is included.





\*\* Note: 1) If the Implantium II fixture with size of Ø3.4 body is used, abutment height after assembly will become 0.5mm longer than

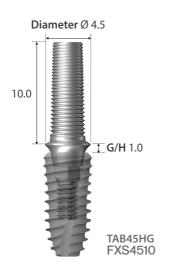
<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the direct-casting / metal-casing abutment with fixture.

# **Ti-Temporary Abutment**

• Abutment screw is included.

Unit: mm, Scale 1.5:1

Unit: mm, Scale 1.5:1

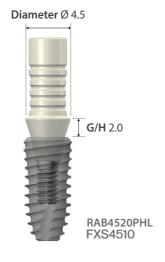


Diameter	G/H	Type	Art. No.
Ø 4.5	1.0	Hex Non-hex	TAB 45 HG TAB 45 NG
	2.0	Hex Non-hex	TAB 4520 HG TAB 4520 NG
	3.0	Hex Non-hex	TAB 4530 HG TAB 4530 NG

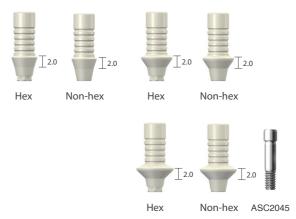


## **Plastic Temporary Abutment**

• Abutment screw is included.



Diameter	G/H	Type	Art. No.
Ø 4.5	2.0	Hex Non-hex	RAB 45 20 PHL RAB 45 20 PNL
Ø 5.5	2.0	Hex Non-hex	RAB 55 20 PHL RAB 55 20 PNL
Ø 6.5	2.0	Hex Non-hex	RAB 65 20 PHL RAB 65 20 PNL



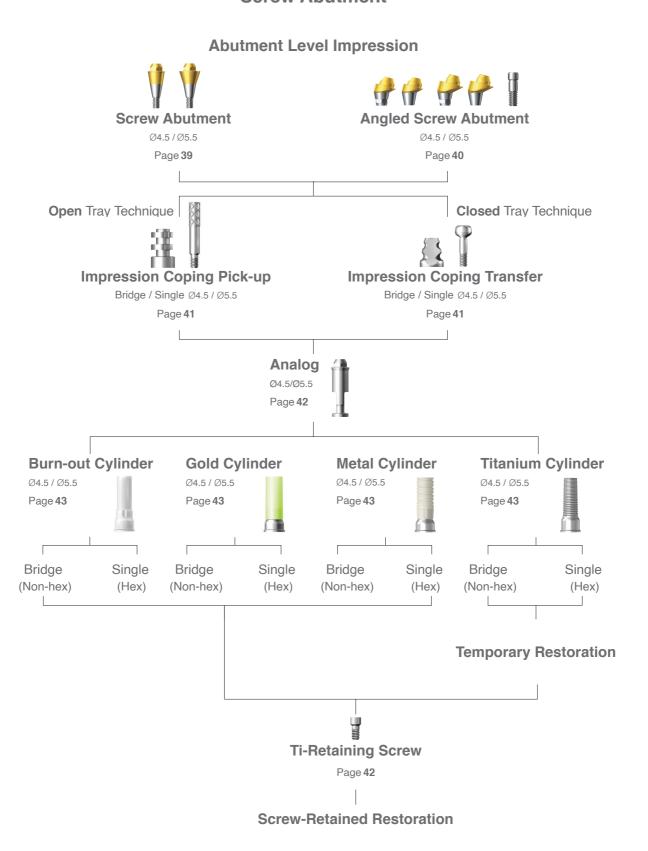
※ Note: 1) If the Implantium II fixture with size of Ø3.4 body is used, abutment height after assembly will become 0.5mm longer than other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the temporary abutment with fixture.

### **Prosthetic Procedure 3**

Impression Technique and Restoration Selection

#### **Screw Abutment**



### **Screw Abutment**

Unit: mm, Scale 1:1.5/mm





SAB5535L and FXS4510

#### Diameter Ø4.5

G/H	Art. No.
1.0	SAB45 <b>10</b> L
1.5	SAB45 <b>15</b> L
2.5	SAB45 <b>25</b> L
3.5	SAB45 <b>35</b> L
4.5	SAB45 <b>45</b> L
5.5	SAB45 <b>55</b> L



#### Diameter Ø5.5

G/H	Art. No.
1.5	SAB55 <b>15</b> L
2.5	SAB55 <b>25</b> L
3.5	SAB55 <b>35</b> L
4.5	SAB55 <b>45</b> L
5.5	SAB55 <b>55</b> L

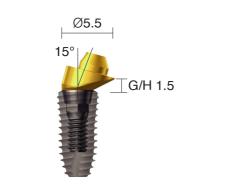


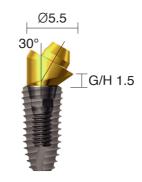
\*Note: 1) The Implantium II fixture with size of Ø3.4 body is not recommended to use with the screw abutment. Should they be used together, abutment height after assembly will become 0.5mm longer than the other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the screw abutment with fixture.

# **Angled Screw Abutment**

Unit: mm, Scale 1:1.5/mm







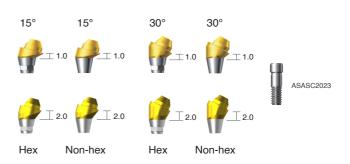
ASA55151518N and FXS4510

ASA55301518N and FXS4510

**Delivery Holder** 

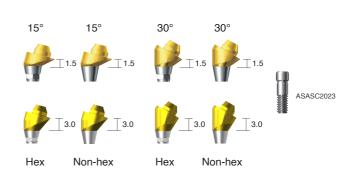
#### Angled Screw Abutment Ø4.5

G/H	Туре	Art. No.
1.0	Hex	ASA 45 <b>15</b> 10 18 H
1.0	Non-hex	ASA 45 <b>15</b> 10 18 N
1.0	Hex	ASA 45 30 10 18 H
1.0	Non-hex	ASA 45 30 10 18 N
2.0	Hex	ASA 45 <b>15</b> 20 18 H
2.0	Non-hex	ASA 45 <b>15</b> 20 18 N
2.0	Hex	ASA 45 <b>30</b> 20 18 H
2.0	Non-hex	ASA 45 <b>30</b> 20 18 N



#### Angled Screw Abutment Ø5.5

G/H	Type	Art. No.
1.5	Hex	ASA 55 <b>15</b> 15 18 H
1.5	Non-hex	ASA 55 <b>15</b> 15 18 N
1.5	Hex	ASA 55 <b>30</b> 15 18 H
1.5	Non-hex	ASA 55 <b>30</b> 15 18 N
3.0	Hex	ASA 55 <b>15</b> 30 18 H
3.0	Non-hex	ASA 55 <b>15</b> 30 18 N
3.0	Hex	ASA 55 <b>30</b> 30 18 H
3.0	Non-hex	ASA 55 <b>30</b> 30 18 N



#### **Angled Screw Abutment Screw**

ASASC 20 23



<sup>\*\*</sup>Note: 1) The Implantium II fixture with size of Ø3.4 body is not recommended to use with the screw abutment. Should they be used together, abutment height after assembly will become 0.5mm longer than the other sized fixtures.

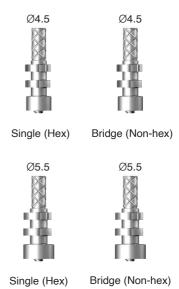
<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the screw abutment with fixture.

### **Screw Abutment Impression Components**

Unit: mm, Scale 1:1.5/mm

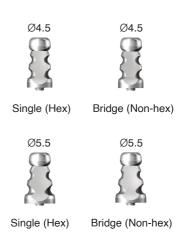
#### **Impression Coping Pick-up**

Diameter	T	уре	Art. No.
Ø <b>4.5</b>	Single	Hex	SPU <b>45 S</b> L
Ø <b>4.5</b>	Bridge	Non-hex	SPU <b>45 B</b> L
Ø <b>5.5</b>	Single	Hex	SPU <b>55 S</b> L
Ø <b>5.5</b>	Bridge	Non-hex	SPU <b>55 B</b> L



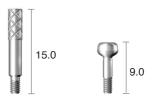
#### **Impression Coping Transfer**

Diameter	Type		Art. No.
Ø <b>4.5</b>	Single	Hex	STF <b>45 S</b> L
Ø <b>4.5</b>	Bridge	Non-hex	STF45 BL
Ø <b>5.5</b>	Single	Hex	STF <b>55 S</b> L
Ø <b>5.5</b>	Bridge	Non-hex	STF <b>55 B</b> L



#### **Impression Coping Screw**

Туре	Art. No.
Pick-up	SPS 09
Transfer	STS <b>09</b>



# **Screw Abutment Impression Components**

#### **Comfort Cap - Single**

Diameter	Art. No.
Ø <b>4.5</b>	SCC <b>45</b> L (1)
Ø <b>5.5</b>	SCC <b>55</b> L (1)

#### **Comfort Cap - Pack**

Diameter	Art. No.
Ø4.5	SCC <b>45</b> L (5)
Ø <b>5.5</b>	SCC <b>55</b> L (5)

#### **Analog**

Diameter	Art. No.
Ø <b>4.5</b>	SAN <b>45</b> L
Ø <b>5.5</b>	SAN <b>55</b> L

#### **Ti-Retaining Screw**

SRS 18 T	

#### **Ti-Cylinder**

Diameter	Туре	Art. No.
Ø 4.5	Hex	STA 45 S
Ø 4.5	Non-hex	STA 45 B
Ø F F	Hex	STA 55 S
Ø 5.5	Non-hex	STA 55 B





Unit: mm, Scale 1:1.5/mm













#### **Ti-Cylinder**

Diameter	Туре		Art. No.
Ø <b>4.5</b>	Single	Hex	STC <b>45 S</b> G
Ø <b>4.5</b>	Bridge	Non-hex	STC 45 BG
Ø <b>5.5</b>	Single	Hex	STC <b>55 S</b> G
Ø <b>5.5</b>	Bridge	Non-hex	STC 55 BG





Ø4.5







# **Screw Abutment Impression Components**

Unit: mm, Scale 1:1.5/mm

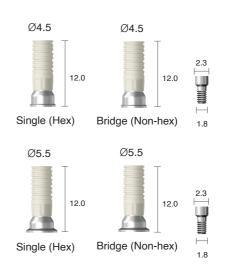
#### **Gold Cylinder**

Diameter	Туре		Art. No.
Ø <b>4.5</b>	Single	Hex	SGC <b>45 S</b> L
Ø <b>4.5</b>	Bridge	Non-hex	SGC <b>45 B</b> L
Ø <b>5.5</b>	Single	Hex	SGC <b>55 S</b> L
Ø <b>5.5</b>	Bridge	Non-hex	SGC <b>55 B</b> L



#### Metal Cylinder | Co-Cr

Diameter	Туре		Art. No.
Ø <b>4.5</b>	Single	Hex	SGC <b>45</b> C <b>S</b> L
Ø <b>4.5</b>	Bridge	Non-hex	SGC 45 CBL
Ø <b>5.5</b>	Single	Hex	SGC <b>55</b> C <b>S</b> L
Ø <b>5.5</b>	Bridge	Non-hex	SGC 55 CBL

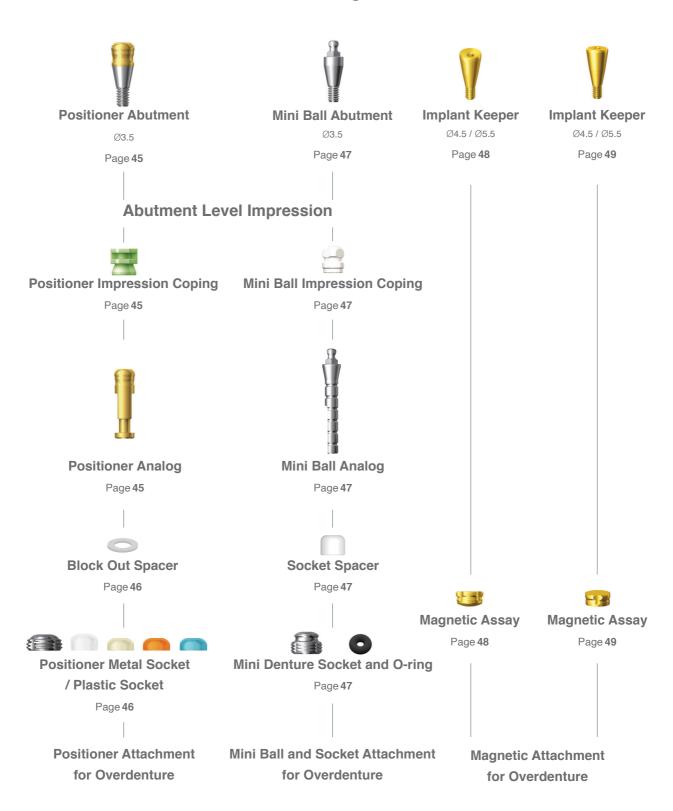


### **Prosthetic Procedure 4**

Impression Technique and Restoration Type

#### **Overdenture Procedure**

#### Positioner / Mini Ball / Magnetic Attachment



### **Positioner**

Unit: mm, Scale 1:1.5/mm



FSMH and PAB3520 and FXS4510

#### **Positioner Abutment**

G/H	Art. No.
1.0	PAB 35 <b>10</b>
2.0	PAB 35 <b>20</b>
3.0	PAB 35 <b>30</b>
4.0	PAB 35 <b>40</b>
5.0	PAB 35 <b>50</b>
6.0	PAB 35 <b>60</b>
7.0	PAB 35 <b>70</b>



#### **Positioner Impression Coping**

|--|



#### **Positioner Analog**

PAN
-----



% Note: 1) The Implantium II fixture with size of Ø3.4 body is not recommended to use with the positioner abutment. Should they be used together, abutment height after assembly will become 0.5mm longer than the other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the ball abutment with fixture.

### **Positioner**

Unit: mm, Scale 1:1.5/mm

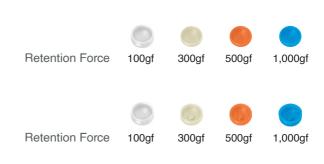
#### **Positioner Metal Socket**

Art. No.	FSMH
7 (1 ), 1 10.	1 011111

### 2.3

#### **Positioner Plastic Socket**

Application	Art. No.
Tilting Type ±10°	MSHP (Blue) MSMP (Orange) MSLP (Ivory) MSOP (White)
Non Tilting Type ±5°	MSHPN (Blue) MSMPN (Orange) MSLPN (Ivory) MSOP (White)



#### **Positioner Block Out Spacer**

oner bio	ock Out Spacer
Art. No.	PBOS

### **Mini Ball Attachment**

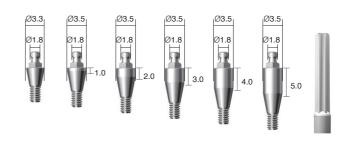
Ø4.05 2.9 G/H 2.0

Unit: mm, Scale 1:1.5/mm

**BPF3** and **BAB352018** and **FXS4510** 

#### Mini Ball Abutment

G/H	Art. No.
0	BAB 35 <b>00</b> 18
1.0	BAB 35 <b>10</b> 18
2.0	BAB 35 <b>20</b> 18
3.0	BAB 35 <b>30</b> 18
4.0	BAB 35 <b>40</b> 18
5.0	BAB 35 <b>50</b> 18



#### Mini Ball Impression Coping

GICA

#### Mini Ball Analog

BANL

#### **Socket Spacer**

Art. No.	GBIC3L
	GBIC2L

#### **Female Socket**

BPF3(300~500gf)		
Art. No. BPF2 (500~700gf)	Art. No.	· •

# Ø4.05 2.9 (BNO1) (300~500gf)



#### **Ball Socket O-ring**

Art. No.	BNO1
	BNO2





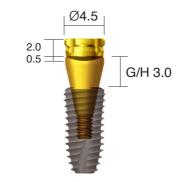
be

% Note: 1) The Implantium II fixture with size of Ø3.4 body is not recommended to use with the ball abutment. Should they used together, abutment height after assembly will become 0.5mm longer than the other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the ball abutment with fixture.

# Magnetic Attachment [Dome Type]

Unit: mm, Scale 1:1.5/mm



MGT4520D and MKP4530D and FXS4510

#### **Magnetic Assay**

Application	Diameter	Н	Art. No.
MKP45D	Ø <b>4.5</b>	2.0	MGT 45 <b>20 D</b>
MKP55D	Ø <b>5.5</b>	2.0	MGT 55 <b>20 D</b>





#### Implant Keeper Diameter Ø4.5

G/H	Art. No.							
1.0	MKP 45 <b>10 D</b>	G/H	1.0	2.0	3.0	4.0	5.0	6.0
2.0	MKP 45 <b>20 D</b>		• I		G T	Co T	(c)	(b)
3.0	MKP 45 <b>30 D</b>				_	1		G/H
4.0	MKP 45 <b>40 D</b>							
5.0	MKP 45 <b>50 D</b>							
6.0	MKP 45 <b>60 D</b>							

#### Implant Keeper Diameter Ø5.5

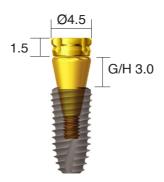
G/H	Art. No.							
1.0	MKP 55 <b>10 D</b>	G/H	1.0	2.0	3.0	4.0	5.0	6.0
2.0	MKP 55 <b>20 D</b>			(6) I	(b)	6	6 T	6
3.0	MKP 55 <b>30 D</b>				_	$\perp$		G/H
4.0	MKP 55 <b>40 D</b>					and the second		
5.0	MKP 55 <b>50 D</b>							
6.0	MKP 55 <b>60 D</b>							

<sup>※</sup> Note: 1) The Implantium II fixture with size of Ø3.4 body is not recommended to use with the magnetic abutment. Should they be used together, abutment height after assembly will become 0.5mm longer than the other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25~30 N·cm to tighten the magnetic abutment with fixture.

# Magnetic Attachment [Flat Type]

Unit: mm, Scale 1:1.5/mm



MGT4515 and MKP4530 and FXS4510

#### **Magnetic Assay**

Application	Diameter	Н	Art. No.
MKP45	Ø <b>4.5</b>	1.5	MGT 45 <b>15</b>
MKP45	Ø <b>4.5</b>	2.0	MGT 45 <b>20</b>
MKP55	Ø <b>5.5</b>	1.5	MGT 55 <b>15</b>
MKP55	Ø <b>5.5</b>	2.0	MGT 55 <b>20</b>

Ø4.5

1.5 ☐ Retention Force 400gf

Ø4.5

2.0 ☐ Retention Force 450gf

Ø5.5

1.5 ☐ Retention Force 700gf

Ø5.5

Retention Force 750gf

#### Implant Keeper Diameter Ø4.5

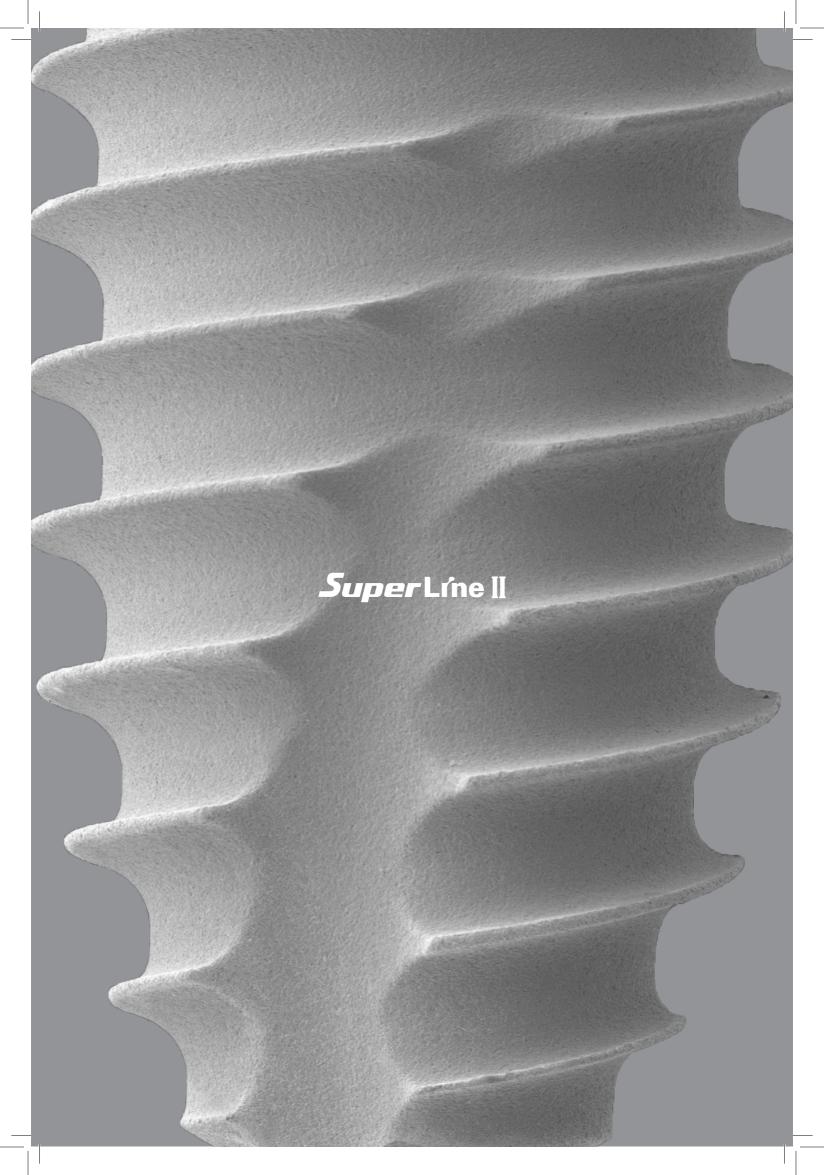
G/H	Art. No.							
1.0	MKP 45 <b>10</b>	G/H	1.0	2.0	3.0	4.0	5.0	6.0
2.0	MKP 45 <b>20</b>		<b>⊝</b> I		T	T	T	T
3.0	MKP 45 <b>30</b>				1			G/H
4.0	MKP 45 <b>40</b>							
5.0	MKP 45 <b>50</b>						•	
6.0	MKP 45 <b>60</b>							

#### Implant Keeper Diameter Ø5.5

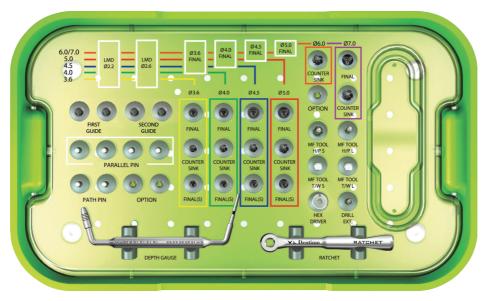
G/H	Art. No.							
1.0	MKP 55 <b>10</b>	G/H	1.0	2.0	3.0	4.0	5.0	6.0
2.0	MKP 55 <b>20</b>		I		T	T	T	T
3.0	MKP 55 <b>30</b>				T	Τ		G/H
4.0	MKP 55 <b>40</b>							
5.0	MKP 55 <b>50</b>					-	₩	•
6.0	MKP 55 <b>60</b>							

<sup>\*</sup>Note: 1) The Implantium II fixture with size of Ø3.4 body is not recommended to use with the magnetic abutment. Should they be used together, abutment height after assembly will become 0.5mm longer than the other sized fixtures.

<sup>2)</sup> It is recommended to keep the torque level at 25 $\sim$ 30 N·cm to tighten the magnetic abutment with fixture.

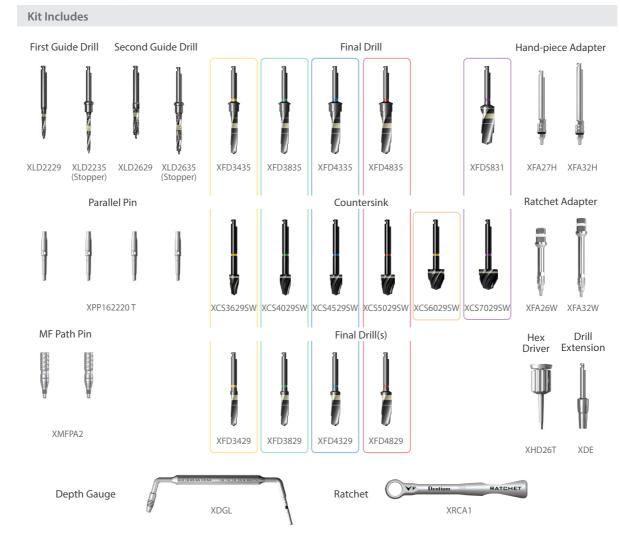


# Surgical Kit [Full]



#### SuperLine Surgical Full Kit

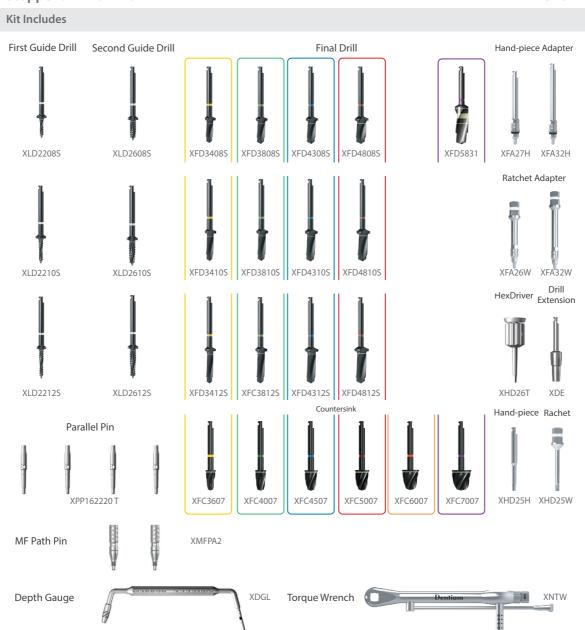
**UXNF** 



# Surgical Kit [Stopper Drill Full]



**Stopper Drill Full Kit UXSF** 



# Surgical Kit [Standard]

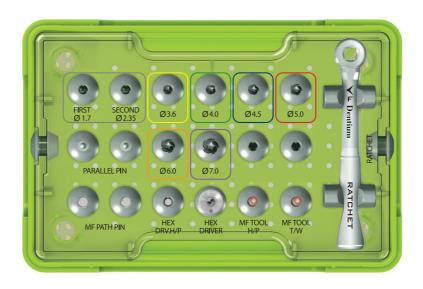


#### **UXIFN**

#### **Kit Contents**



# Surgical Kit [Short Implant]

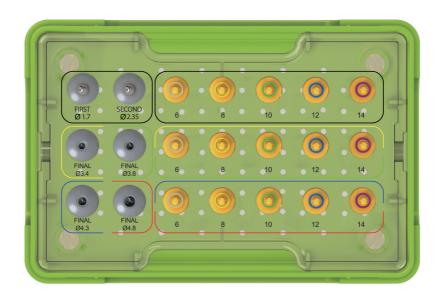


**XSIK** 

#### **Kit Contents**



# **Drill Stopper Kit**



XDS

#### **Kit Contents**

• Guide drill stopper / First, Second



• Stopper-first guide drill, second guide drill



• Final drill stopper / 34, 38



• Stopper-final drill / 34, 38



• Final drill stopper / 43, 48



• Stopper-final drill / 43, 48

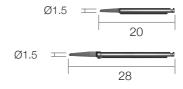




Unit: mm, Scale 1:1/mm

#### **Guide Drill**

Diameter	L	Art. No.
Ø1.5	20	XGD 15 <b>20</b>
Ø <b>1.5</b>	28	XGD 15 <b>28</b>



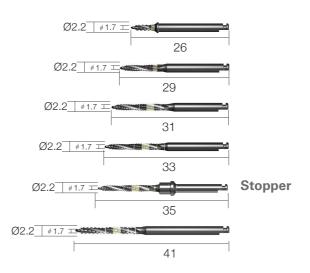
#### **First Drill**

Diameter	L	Art. No.
Ø <b>2.0</b>	29	XFD 20 <b>29</b>
Ø <b>2.0</b>	33	XFD 20 <b>33</b>



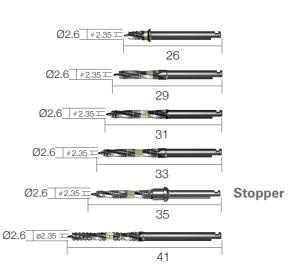
#### First Guide Drill

Diameter	L	Art. No.
Ø <b>2.2</b>	26	XLD 22 <b>07</b>
Ø <b>2.2</b>	29	XLD 22 <b>29</b>
Ø <b>2.2</b>	31	XLD 22 <b>31</b>
Ø <b>2.2</b>	33	XLD 22 <b>33</b>
Ø <b>2.2</b>	35	XLD 22 <b>35</b>
Ø <b>2.2</b>	41	XLD 22 <b>41</b>



#### **Second Guide Drill**

Diameter	L	Art. No.
Ø <b>2.6</b>	26	XLD 26 <b>07</b>
Ø <b>2.6</b>	29	XLD 26 <b>29</b>
Ø <b>2.6</b>	31	XLD 26 <b>31</b>
Ø <b>2.6</b>	33	XLD 26 <b>33</b>
Ø <b>2.6</b>	35	XLD 26 <b>35</b>
Ø <b>2.6</b>	41	XLD 26 <b>41</b>



### Drill

Unit: mm, Scale 1:1/mm

#### **Pilot Drill**

Diameter	L	Art. No.
Ø <b>3.0</b>	30	XPD 20 <b>30</b>



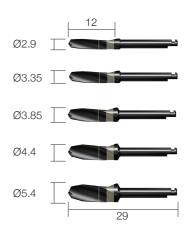
#### Final Drill | For Short Implant

Diameter	L	Art. No.
Ø <b>3.6</b>	27	XFC <b>36</b> 07
Ø <b>4.0</b>	27	XFC <b>40</b> 07
Ø <b>4.5</b>	27	XFC <b>45</b> 07
Ø <b>5.0</b>	27	XFC <b>50</b> 07
Ø <b>6.0</b>	27	XFC <b>60</b> 07
Ø <b>7.0</b>	27	XFC <b>70</b> 07



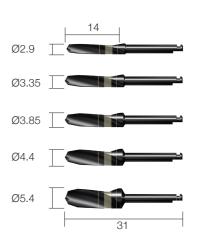
#### Final Drill | Length-29mm

Diameter	L	Art. No.
Ø <b>2.9</b>	29	XFD <b>34</b> 29
Ø <b>3.35</b>	29	XFD <b>38</b> 29
Ø <b>3.85</b>	29	XFD <b>43</b> 29
Ø <b>4.4</b>	29	XFD <b>48</b> 29
Ø <b>5.4</b>	29	XFD <b>58</b> 29SW



#### Final Drill | Length-31mm

Diameter	L	Art. No.
Ø <b>2.9</b>	31	XFD <b>34</b> 31
Ø <b>3.35</b>	31	XFD <b>38</b> 31
Ø <b>3.85</b>	31	XFD <b>43</b> 31
Ø <b>4.4</b>	31	XFD <b>48</b> 31
Ø <b>5.4</b>	31	XFD <b>58</b> 31



<sup>\*</sup>Note: Drill speed 1,000rpm, 30~45N·cm with irrigation.

### Drill

Unit: mm, Scale 1:1/mm

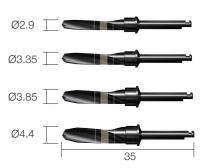
Final Drill | Length-33mm

Diameter	L	Art. No.
Ø <b>2.9</b>	33	XFD <b>34</b> 33
Ø <b>3.35</b>	33	XFD <b>38</b> 33
Ø <b>3.85</b>	33	XFD <b>43</b> 33
Ø <b>4.4</b>	33	XFD <b>48</b> 33



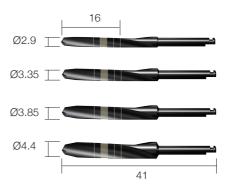
Final Drill | Length-35mm | Stopper

Diameter	L	Art. No.
Ø <b>2.9</b>	35	XFD <b>34</b> 35
Ø <b>3.35</b>	35	XFD <b>38</b> 35
Ø <b>3.85</b>	35	XFD <b>43</b> 35
Ø <b>4.4</b>	35	XFD <b>48</b> 35



Final Drill | Length-41mm

Diameter	L	Art. No.
Ø <b>2.9</b>	41	XFD <b>34</b> 41
Ø <b>3.35</b>	41	XFD <b>38</b> 41
Ø <b>3.85</b>	41	XFD <b>43</b> 41
Ø <b>4.4</b>	41	XFD <b>48</b> 41



### Drill

Unit: mm, Scale 1:1/mm

Harvest Drill | Length-35mm | Stopper

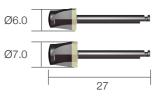
Diameter	L	Art. No.
Ø <b>2.85</b>	35	XFH <b>34</b> 35
Ø <b>3.3</b>	35	XFH <b>38</b> 35
Ø <b>3.85</b>	35	XFH <b>43</b> 35
Ø <b>4.4</b>	35	XFH <b>48</b> 35



#### Countersink

Diameter	L	Art. No.
Ø <b>3.6</b>	29	XCS <b>36</b> 29 SW
Ø <b>4.0</b>	29	XCS <b>40</b> 29 SW
Ø <b>4.5</b>	29	XCS <b>45</b> 29 SW
Ø <b>5.0</b>	29	XCS <b>50</b> 29 SW
Ø <b>6.0</b>	27	XCS <b>60</b> 29 SW
Ø <b>7.0</b>	27	XCS <b>70</b> 29 SW





#### **Round Bur**

Diameter	L	Art. No.
Ø <b>2.0</b>	33	XRB <b>20</b> 33
Ø <b>3.0</b>	33	XRB <b>30</b> 33



<sup>Note: Drill speed 1,000rpm, 30~45N⋅cm with irrigation.</sup> 

# Stopper

Unit: mm, Scale 1:1/mm

#### **Stopper** | For first guide drill, second guide drill

Drilling Depth	L	Art. No.
14	4.6	XLDST 14
12	6.6	XLDST 12
10	8.6	XLDST 10
80	10.6	XLDST 08
06	12.6	XLDST 06
04	14.6	XLDST 04
02	16.6	XLDST 02



#### Stopper | For final drill 3435, 3835

Drilling Depth	L	Art. No.
14	4.6	XFDST 14
12	6.6	XFDST 12
10	8.6	XFDST 10
08	10.6	XFDST 08
06	12.6	XFDST 06
04	14.6	XFDST 04
02	16.6	XFDST 02



#### Stopper | For final drill 4335, 4835

Drilling Depth	L	Art. No.
14	4.6	XFDST 14L
12	6.6	XFDST 12L
10	8.6	XFDST 10L
08	10.6	XFDST 08L
06	12.6	XFDST 06L
04	14.6	XFDST 04L
02	16.6	XFDST 02L

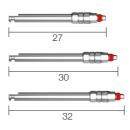


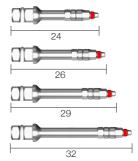
# Instrument

Unit: mm, Scale 1:1/mm

#### Adapter | Hex 1.28mm

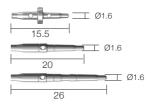
Туре	L	Art. No.
	27	XID <b>27</b> H
Hand-piece	30	XID <b>30</b> H
	32	XID <b>32</b> H
	24	XID <b>24</b> W
Ratchet	26	XID <b>26</b> W
	29	XID <b>29</b> W
	29	XID <b>32</b> W





Parallel Pin | For first guide drill, second guide drill

Diameter	Art. No.
Ø1.6	XPP 162212
Ø1.6	XPP 162220T
Ø1.6	XPP 162226T



#### **Path Pin**

L	Art. No.
18.6	XMFPA2

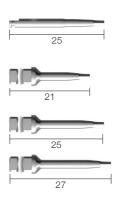


# Instrument

Unit: mm, Scale 1:1/mm

#### Hex Driver | Hex 1.28mm

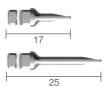
Type	L	Art. No.
Hand-piece	25	XHD <b>25</b> H
	21	XHD <b>21</b> W
Ratchet	25	XHD <b>25</b> W
	27	XHD <b>27</b> W
Manual	26	XHD <b>26</b> T
Manual	30	XHD <b>30</b> T





#### **Slot Driver**

Туре	Art. No.	
Ratchet	SDA <b>17</b> R	
1 10101 101	SDA <b>25</b> R	



#### **Drill Extension**

XDE
-----



#### Driver | Manual

Туре	Art. No.
Manual	XHDHT



### Instrument

Unit: mm

#### Adapter | For screw & ball abutment | Scale 1:1/mm

Туре	Art. No.
Hand-piece	XMAA1
Ratchet	XMA 21W



#### Adapter | For mini ball abutment | Scale 1:1/mm

IPST21W
---------



#### **Ratchet**



#### Torque Wrench | Scale 1:0.7/mm

XNTW



#### **Depth Gauge**

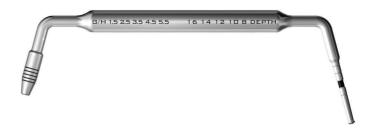
#### **XDGL**

Note: One side of Depth Gauge measures the

■ March 1995

■ March 2005

■ March osteotomy depth and the other side measures the gingival height from the top of the implant.



#### Tissue Punch | Scale 1:1/mm

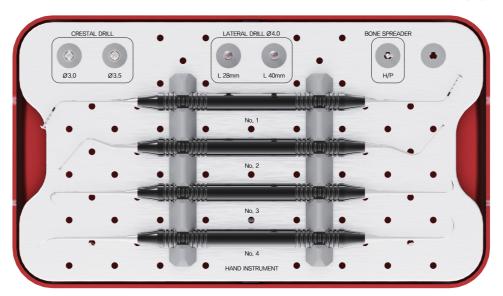
XTS40



※ Punching size : Ø4.0

# DASK [Dentium Advanced Sinus Kit] Simple

Unit: mm, Scale 1:1



#### DASK-S

#### Compaction Drill





### \* Drills to be replaced after 50 uses

\* Drills to be replaced after 50 uses

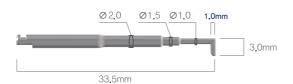
Diameter	L	Art. No
Ø 3.0	35 <b>.</b> 0mm	SRT3035AS
Ø 3.5	35 <b>.</b> 0mm	SRT3535AS

#### Lateral Drill



	A Dimo to bo replaced arter of acce		
Diameter	L	Art. No	
Ø 4.0	28 <b>.</b> 0mm	SLD0428	
Ø 4 <u>.</u> 0	40 <b>.</b> 0mm	SLD0440	

#### Bone Spreader



Diameter	L	Art. No
Ø 5 <b>.</b> 0	33.5mm	SSP33

# **DASK** [Dentium Advanced Sinus Kit]



#### **Kit Contents**



### Sinus Bur Kit / Sinus Kit

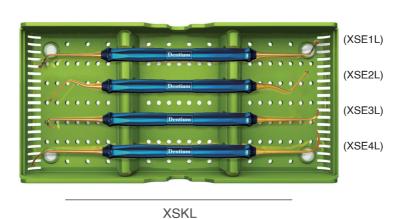


SDK

#### **Kit Contents**



### Sinus Kit



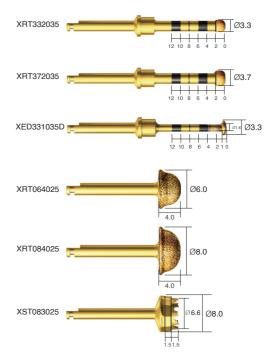
### DASK / Sinus Bur Kit / Sinus Kit

Unit: mm

DASK Drill | Scale 1: 1.2 / mm

Туре	DASK Drill #	Art.No.
0	DASK Drill #1	XRT <b>33</b> 2035
Crestal Approach	DASK Drill #2	XRT <b>37</b> 2035
7.66	DASK Drill #3	XED <b>33</b> 1035D
	DASK Drill #4	XRT <b>06</b> 4025
Lateral	DASK Drill #5	XRT <b>08</b> 4025
Approach	DASK Drill #6	XST <b>08</b> 3025

Note: Drill speed 800 to 1,200rpm, 30~45N⋅cm with irrigation.

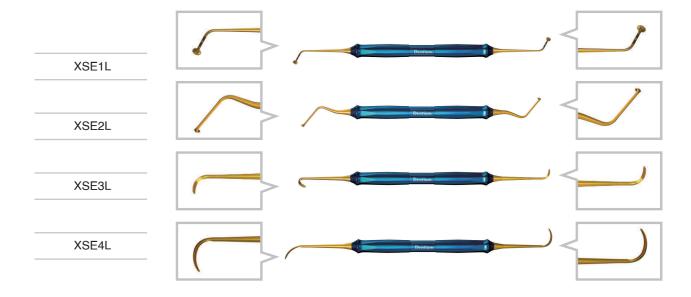


**Stopper** | For XRT332035, XRT372035, XED331035D | Scale 1 : 1 / mm

<b>Drilling Depth</b>	L	Art.No.
08	10.6	XFDST08
06	12.6	XFDST06
04	14.6	XFDST <b>04</b>
02	16.6	XFDST02



#### Sinus Elevation Instrument | Scale 1: 0.45 / mm



### **Osteotome Kit**

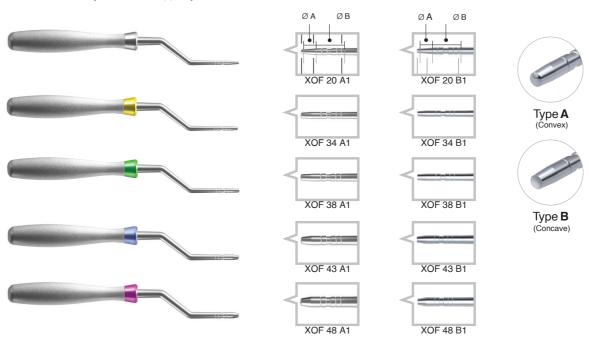
Unit: mm

#### **Osteotome Kit**

Osteotome compresses the bone laterally, providing denser bony interface rather than removing valuable bone from the surgical site.

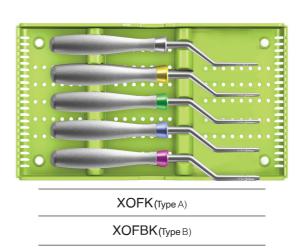


#### Osteotome | Final drill type | Scale 1: 0.4 / mm



#### **Osteotome Kit**

Туре	Art.No.	ØA	ØB
	XOF 20 <b>A</b> 1	Ø 1.7	Ø 2.8
	XOF 34 <b>A</b> 1	Ø 2.3	Ø 2.8
XOFK Type A	XOF 38 <b>A</b> 1	Ø 2.7	Ø3.2
(Convex)	XOF 43 <b>A</b> 1	Ø 2.8	Ø3.8
	XOF 48 <b>A</b> 1	Ø3.0	Ø 4.3
	XOF 20 <b>B</b> 1	Ø 1.7	Ø 2.8
VOEDK	XOF 34 <b>B</b> 1	Ø 2.3	Ø 2.8
XOFBK Type B	XOF 38 <b>B</b> 1	Ø 2.7	Ø3.2
(Concave)	XOF 43 <b>B</b> 1	Ø 2.8	Ø3.8
	XOF 48 <b>B</b> 1	Ø3.0	Ø 4.3



# **Trephine Kit**

Unit: mm

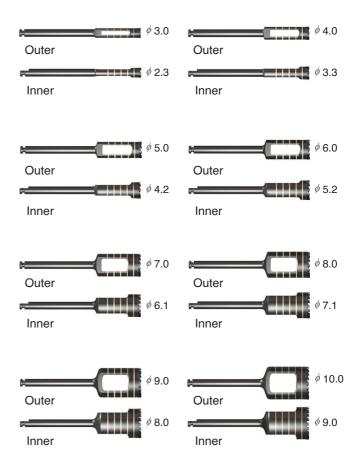
#### **Trephine Bur**

- Excellent fine cutting
- Strong engagement when attaching the trephine to cortical bone
- Cut-outs facilitates ease of harvest retrieval
- 5 scale marks on the Trephine drill from 2mm to 10mm
- Easy harvesting



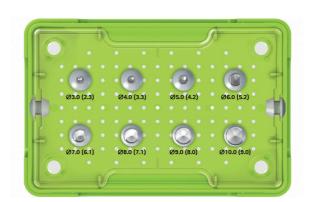
#### Trephine Bur | Scale 1: 0.5 / mm

Outer Diameter	Inner Diameter	Art. No.
Ø <b>3.0</b>	Ø <b>2.3</b>	XTP 24 03
Ø <b>4.0</b>	Ø <b>3.3</b>	XTP 34 04
Ø <b>5.0</b>	Ø <b>4.2</b>	XTP 44 05
Ø <b>6.0</b>	Ø <b>5.2</b>	XTP 54 06
Ø <b>7.0</b>	Ø <b>6.1</b>	XTP 64 07
Ø <b>8.0</b>	Ø <b>7.1</b>	XTP 74 08
Ø <b>9.0</b>	Ø8.0	XTP 84 09
Ø10.0	Ø <b>9.0</b>	XTP 94 10



#### **Trephine Kit**

XIT



# **Prosthetic Kit**



XIP

Hex Driver L/T | Scale 1:1/mm

XHD **30** T



Mount Adapter | Scale 1:1/mm

XMAA1



T/W Adapter | Scale 1:1/mm

XMA 21 W



Torque Wrench | Scale 1: 0.5 / mm

XNTW

Hex Driver S/T | Scale 1:1/mm

XHD **15** 



Slot Driver | Scale 1:1/mm

SDA **25** R



**Hex Driver T/W** | Scale 1 : 1 / mm

XHD **25** W



Mini Ball Adapter | Scale 1:1/mm

IPST21 W





# **Planning Kit**

Unit: mm, Scale 1:1/mm



#### **Kit Contents**

Diameter Ø4.5 | Combi & Dual abutment

G/H	Art.No.
1.5	PDAB 45 <b>15</b>
2.5	PDAB 45 <b>25</b>
3.5	PDAB 45 <b>35</b>
4.5	PDAB 45 <b>45</b>
5.5	PDAB 45 <b>55</b>



Diameter Ø5.5 | Combi & Dual abutment

G/H	Art.No.
1.5	PDAB 55 <b>15</b>
2.5	PDAB 55 <b>25</b>
3.5	PDAB 55 <b>35</b>
4.5	PDAB 55 <b>45</b>
5.5	PDAB 55 <b>55</b>



Diameter Ø6.5 | Combi & Dual abutment

G/H	Art.No.
1.5	PDAB 65 <b>15</b>
2.5	PDAB 65 <b>25</b>
3.5	PDAB 65 <b>35</b>
4.5	PDAB 65 <b>45</b>
5.5	PDAB 65 <b>55</b>



Angled 15° | Angled abutment

Diameter	G/H	Art.No.
Ø <b>4.5</b>	2.0	PAAB 15 45 <b>20</b>
Ø <b>4.5</b>	4.0	PAAB 15 45 <b>40</b>
Ø <b>5.5</b>	2.0	PAAB 15 55 <b>20</b>
Ø <b>5.5</b>	4.0	PAAB 15 55 <b>40</b>



Angled 25° | Angled abutment

Diameter	G/H	Art.No.
Ø <b>4.5</b>	2.0	PAAB 25 45 <b>20</b>
Ø <b>4.5</b>	4.0	PAAB 25 45 <b>40</b>
Ø <b>5.5</b>	2.0	PAAB 25 55 <b>20</b>
Ø <b>5.5</b>	4.0	PAAB 25 55 <b>40</b>



### **Prosthetic and Laboratory Instrument**

Unit: mm

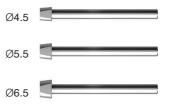
Hex Driver | Hex 1.28 mm | Scale 1:1/mm

L	Art. No.
13	XHD 13
15	XHD <b>15</b>
21	XHD <b>21</b>
28	XHD 28



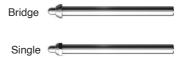
#### Reamer Guide for Combi/Dual Abutment | Scale 1:1/mm

Diameter	Art. No.
Ø <b>4.5</b>	CRG <b>45</b> L
Ø <b>5.5</b>	CRG <b>55</b> L
Ø <b>6.5</b>	CRG <b>65</b> L



#### Reamer Guide for Screw Abutment | Scale 1:1/mm

Туре	Art. No.
Bridge	SRG <b>B</b> L
Single	SRG <b>S</b> L

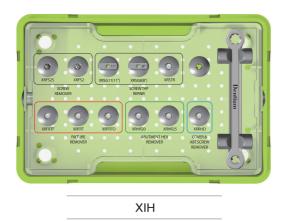


# **Prosthetic and Laboratory Instrument**

Reamer Handle   Scale 1: 0.5 / mm  CRH	
Hand Wrench   Scale 1 : 1 / mm  XHW	
Reamer (Combi/Dual Abutment)   Scale 1 : 1 / mm  CRM	
Reamer (Screw Abutment)   Scale 1 : 1 / mm	(TON)

# **Help Kit**

Unit: mm



### Abutment Hex Remover | Scale 1:1/mm

L	Art. No
20	XRHP20
25	XRHR <b>25</b>



Fixture Remover | Scale 1:1/mm

Туре	Art. No
Remover	XRFRT
	XRFRTF
	XRFRTO
Wrench	XRFRW





### **Cover & Abutment Screw Remover**

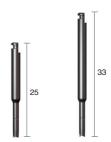
| Scale 1:1/mm

L	Art. No
25	XRRHD



Screw Remover | Scale 1:1/mm

L	Art. No
25	XRFS2S
33	XRFS2



Screw Tap Repair | Scale 1:1/mm

Type	Art. No
Тар	XRSTR
11° Guide	XRSG11
8° Guide	XRSG8



# Ridge Spreader Kit



### **XRSK**

### **Bone Chisel**

XBC305013

### Ratchet

### **Ridge Spreader Drills**

Diameter	L	Art No.
Ø1.4 / Ø2.4	35	RS142435
Ø2.0 / Ø3.2	35	RS203235
Ø2.6 / Ø3.6	35	RS263635

### **Round Bur**

Diameter	L	Art No.
Ø4.0	35	XRB4035

### **Ratchet Adapter**

### Mini Saw

Diameter	L	Art No.
Ø8.0	25	XDS8025





[ Unit: mm, Scale 0.6 : 1 ]





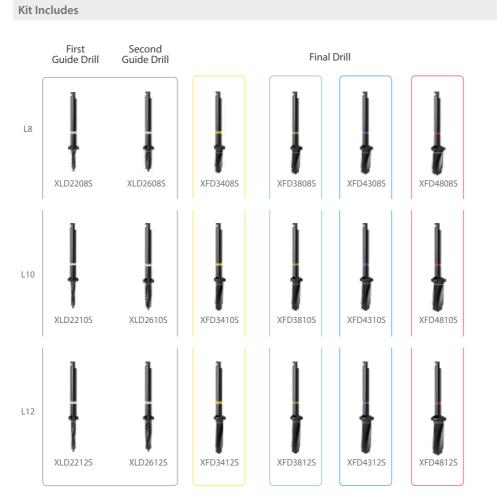




# Surgical Kit [Stopper Drill Kit]

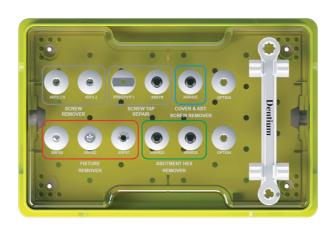


**Stopper Drill Kit XSDK** 



# Help Kit

Unit: mm, Scale 1:1



### **XSHK**

### **Screw Remover**

L	Art. No.
25	XRFS 2 S
33	XRFS 2

### **Screw Tap Repair**

Туре	Art. No.	
Тар	XRSTR	
11° Guide	XRSG 11	

### **Fixture Remover**

Туре	Art. No.	
Remover Screw	XRFSS	
Screw Driver	XRFSD	
Remover	XRFST	

### **Abutment Hex Remover**

L	Art. No.
20	XRHR 20
25	XRHR 25

### **Cover & Abutment Screw Remover**

L	Art. No.	
25	XRRHDE	
Wrench	Scale 1: 0.7	

**XRFRW** 







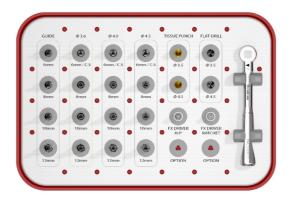




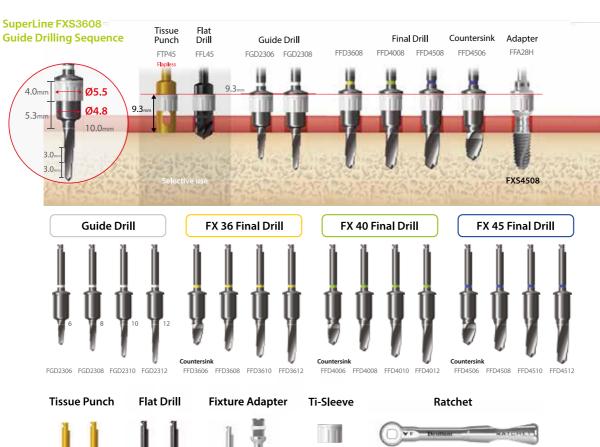


# **Digital Full Kit**

Unit: mm, Scale 1:1



#### **XGSFK**



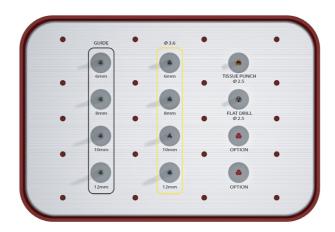


Single	Art. No.	
Ti-Sleeve	FMS 49 (1)	
Ti-Open Sleeve	FOS 49 (1)	

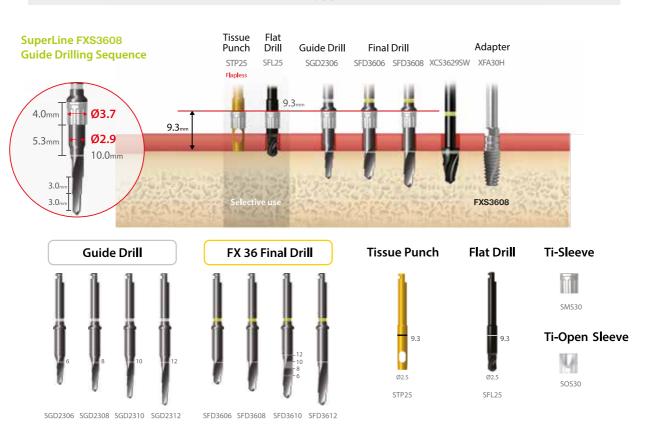
Pack	Art. No.
Ti-Sleeve	FMS 49 (5)
Ti-Open Sleeve	FOS 49 (5)

# Digital Guide | Simple Kit for Positioning, Anchor

Unit: mm, Scale 1:1



### **XGSSK**



Single	Art. No.
Ti-Sleeve	SMS 30 (1)
Ti-Open Sleeve	SOS 30 (1)

Pack	Art. No.
Ti-Sleeve	SMS 49 (5)
Ti-Open Sleeve	SOS 49 (5)

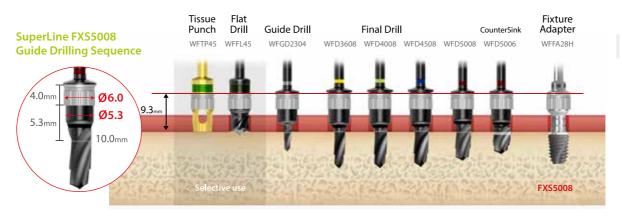
\*Note: Ti-Sleeve, and Ti-Open Sleeve are not part of the kit. They need to be ordered separately

# **Digital Guide** | 5.0 Kit for FX 36/40/45/50

Unit: mm, Scale 1:1



#### **XGSFKW**

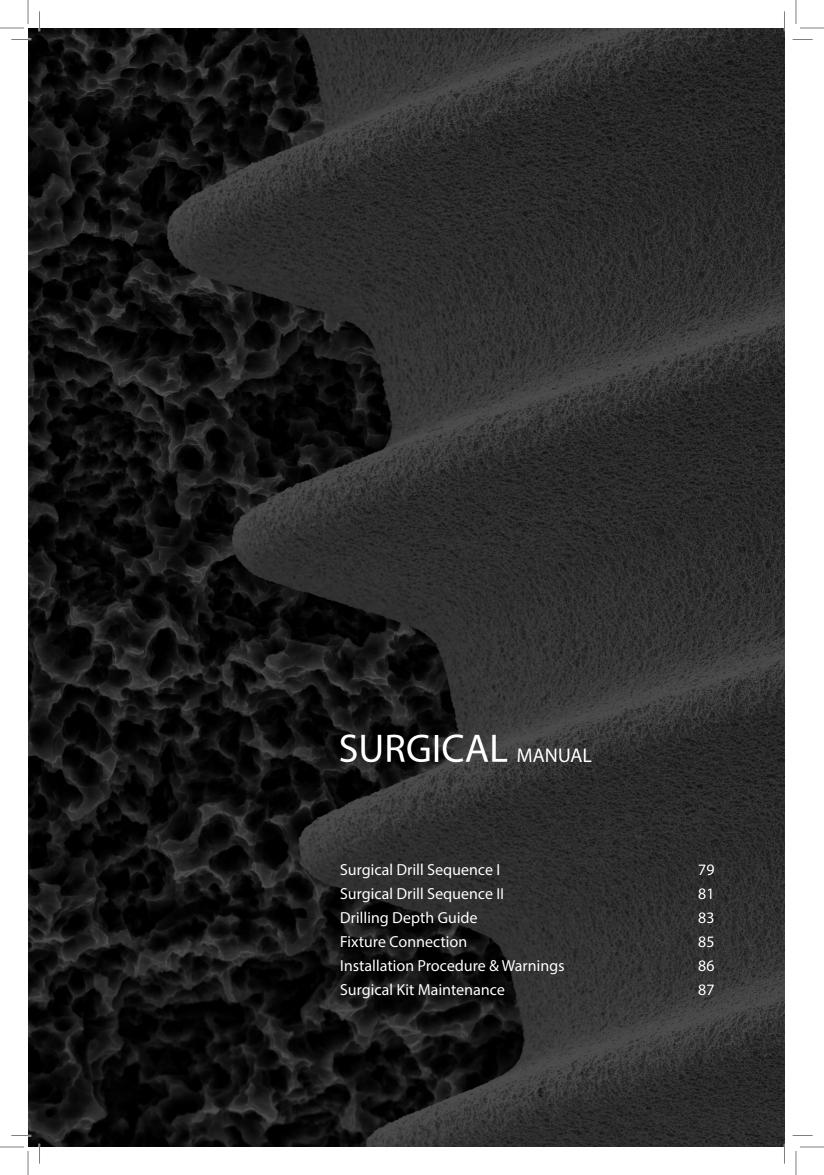






Single	Art. No.
Ti-Sleeve	FMS 54 (1)
Ti-Open Sleeve	FOS 54 (1)

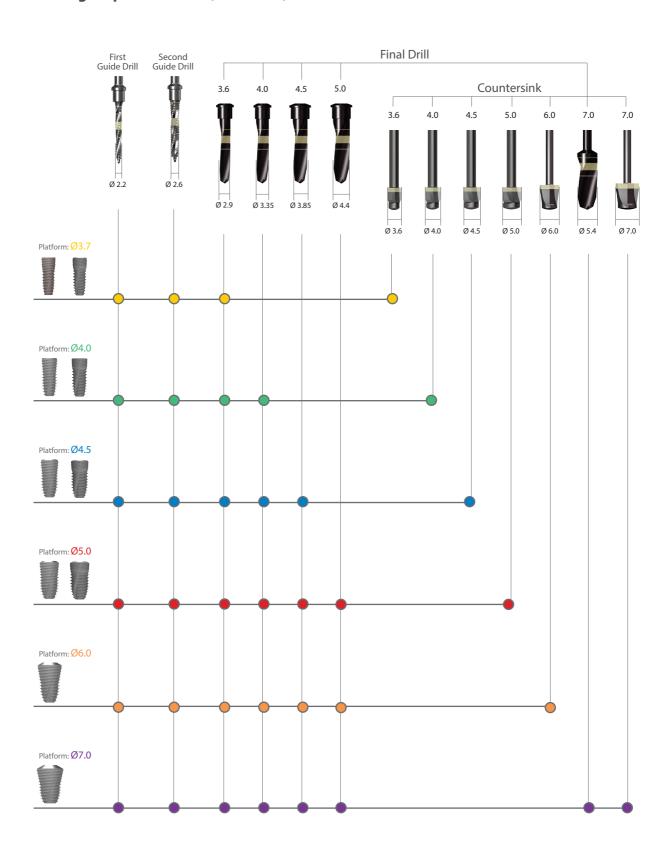
Pack	Art. No.
Ti-Sleeve	FMS 54 (5)
Ti-Open Sleeve	FOS 54 (5)



# **Surgical Drill Sequence I**



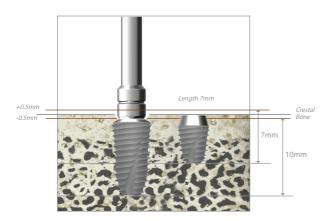
### **Drilling Sequence Guide (Final Drill)**



### During Fixture Insertion, 30 ~ 45N⋅cm Torque at 20rpm is Recommended

- Countersink drill is used in cases with dense cortical bone.
- $\bullet$  If the bone density is D1~D3, it is recommended to countersink after final drill.
- The actual diameter of the Countersink drill is 0.1mm larger than the fixture platform.

### **Determination of Fixture Top Level**



Top level of ÿxture needs to be located 0.5mm below the marginal crestal bone level to minimize bone loss after implantation. However, only for the ÿxture of 7mm length, top level of ÿxture should be located 0.5mm above the marginal crestal bone level.

### **Depth Indication**

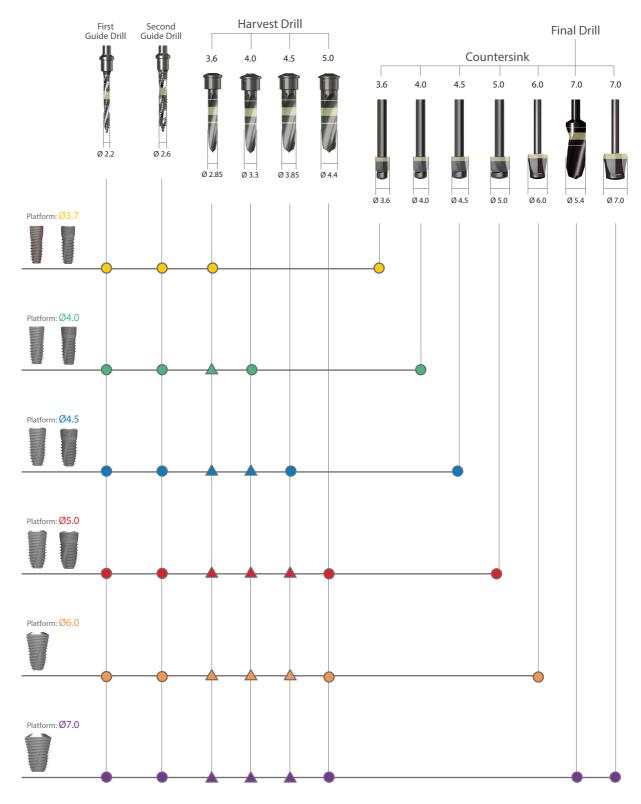




- Use the depth gauge after ÿrst drill / First guide drill to check depth of drilling.
- Place the depth gauge against the wall of the osteotomy.

# **Surgical Drill Sequence II**

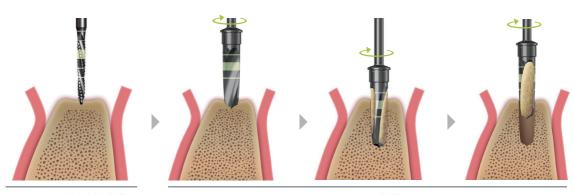
### **Drilling Sequence Guide (Havrest Drill)**



### **Harvest Drill**

Simultaneous and e° ective autogenous bone collection during the ÿnal drilling procedure using a specially designed drill

- Sharp pointed tip design of the drill prevents drill chatter and helps guide drill path.
- Available drill stopper helps control drill depth for safe and efficient bone collection, especially in the buccal side of ridge.
- Recommended drill speed of less than 100rpm/50N·cm helps preserve the vital autogenous bone.
- Excellent clinical results may be achieved when harvested autogenous bone is combined with OSTEON™ II.



First / Second guide drill 1000rpm / 30~45N·m with irrigation

**Harvest drill** 30~100rpm / 30~50N·m without irrigation

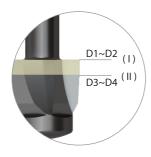
### Bone Collection in the Buccal Side of Ridge: 50~200rpm / 30~50N·cm





**Stopper**Locking with drill stopper for bone collection

# **Drilling Depth Guide**



### **Countersink Depth Guide**

- Drilling depth of the countersink depends on the patient's bone quality.
- If the bone density is D1~D2, it is recommended to drill up to the top line (I) of laser mark on the countersink.
- $\bullet$  If the bone density is D3~D4, it is recommended to drill up to the bottom line ( II ) of laser mark on the countersink.

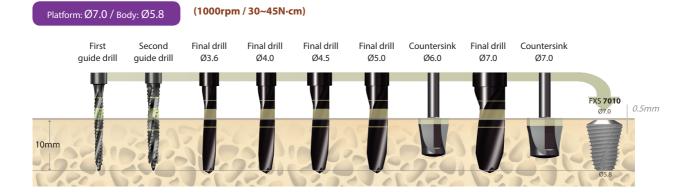
#### (1000rpm / 30~45N·cm) Platform: Ø3.6 / Body: Ø3.4 First Final drill Countersink Second guide drill guide drill Ø3.6 Ø3.7 FXS **3610** FXI 3610 0.5mm 10mm







#### (1000rpm / 30~45N·cm) First Second Final drill Final drill Final drill Final drill Countersink guide drill guide drill Ø3.6 Ø4.0 Ø4.5 Ø5.0 Ø6.0 0.5mm 10mm



### **Fixture Connection**











Caution\_ When opening the ÿxture pack, hold the ÿxture container upward and engage the adapter into the ÿxture.



By hand-piece 20rpm / 35N·cm



By ratchet



### **Directions Using the Hand-piece / Ratchet Adapter**



Hand-piece Adapter

Ratchet Adapter

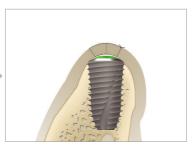
The Hand-piece Adapter/Ratchet Adapter must be connected ÿrmly together with the internal hex inside the ÿxture

# **Installation Procedure & Warnings**

#### Cover Screw



By Hex Driver Healing Abutment



Cover Screw (CS36) connection



By Hex Driver



**Healing Abutment connection** 



Healing Abutment (HAB402020L) connection in thin gingiva

### Warnings .

Dental Implant surgery and restoration involve complex dental procedures. Appropriate and adequate training in proper technique is strongly recommended prior to use.

- Improper medical examination and/or treatment plan can result in implant failure and/or loss of supportive bone.
- Improper initial stability and/or excessive occlusal forces during healing period may lead to osseointergration failure.
- Excessive insertion torque may lead to mechanical failure or implant biologic failure due to bone compression and necrosis.
- When forces or loads are greater than its design, implant or abutment fracture could happen. Therefore clinicians should make careful decisions with regards to clinical treatment planning to minimize the risk of fracture. Appropriate implant quantity, occlusal interface and a nightguard are essential. Potential excessive loading conditions may include the following:
- 01 Inadequate number of implants are placed.
- 02 Implant width and/or length are inappropriate for a treatment site.
- ${\tt 03\ Prosthesis}\ which\ has\ excessive\ cantilever\ length\ due\ to\ inadequate\ biomechanical\ design$
- 04 Continuous occlusal force are generated by incomplete connection between implant and abutment and/or abutment screw loosening.
- 05 Direct Casting Abutment angles are greater than 30° from the vertical axis of the implant. Direct Abutments are not for angulation.
- 06 Occlusal interferences causing excessive lateral forces
- 07 Patient parafunctions such as bruxism
- 08 Inadequate dental laboratory casting procedures
- 09 Improper prosthesis ÿt
- 10 Trauma from patient habits or accidents
- 11 Excessive marginal bone loss caused by inadequate bone width and/or advanced periimplantitis

### **Surgical Kit Maintenance**

### **Manual Cleaning and Sterilization Procedure**

It is important to use protective clothing and face shield while cleaning contaminated instruments. Always wear protective glasses, mask, gloves, etc. for your safety.

### Cleaning

- 1 Rinse instruments immediately after use under running tap water (<40°C) for a minimum of one (1) minute to remove all debris including extraneous body , uid s, bone debris and tissue.
- 2 Soak all instruments immediately after rinsing in an enzymatic cleaning solution\* for 10 to 20 minutes (Do not soak overnight).
  - \* Follow manufacturer's instructions and observe recommended cleaning solution concentrations (enzymatic detergent with a pH level between 7-10 and temperature not to exceed 40°C). Do not use incompatible cleaning solutions to clean instruments.
- 3 For internal irrigation drills, use a 1mL syringe and a 25 gauge needle to clean the drill irrigation hole with a minimum of 0.2 mL of the prepared cleaning solution. Repeat this step two (2) more times for a total of three (3) rinses.
- 4 Scrub with a soft brush for a minimum of 1 (one) minute to remove any debris inside the drill irrigation hole.
- 5 Rinse the instruments under running tap water (<40°C) for a minimum of 1 minute. Use a 1mL syringe and a 25 gauge needle with a minimum of 0.2 mL of tap water to forcefully us h inside the drill irrigation hole. Repeat flushing of drill irrigation hole two (2) more times for a total of three (3) flushings.
- 6 Place instruments into an ultrasonic cleaner with neutral detergent\*\*. Keep instruments inside the ultrasonic bath for 15 minutes using a frequency of 25-50 kHz. Ensure multiple instruments placed within the bath remain separated.
  - \*\* Follow manufacturer's instructions and observe recommended neutral detergent solution concentrations (neutral detergent with a pH level between 7-10 and temperature not to exceed 40°C). Do not use incompatible neutral detergent solutions to clean instruments.
- 7 Rinse instruments thoroughly with running tap water (<40°C) for a minimum of 1 (one) minute until all traces of neutral detergent solution are removed. Rinse inside drill irrigation hole using a 1mL syringe and a 25 gauge needle with a minimum of 0.2 mL of tap water. Repeat rinsing drill irrigation hole two (2) more times for a total of three (3)
- 8 Gently wipe instruments with a soft lint-free cloth or place the instruments in a drying cabinet (60°C for less than 10 hours) until fully dry. Blow residual water from drill irrigation hole using a 1mL syringe and a 25 gauge needle. Visually inspect instruments in a well-lit area to ensure they are clean, dry and free of residue.
- 9 Clean instrument trays with a germicidal cleaner prior to returning instruments into Kit.
- 10 Always check for damage or corrosion after rinsing and drying.

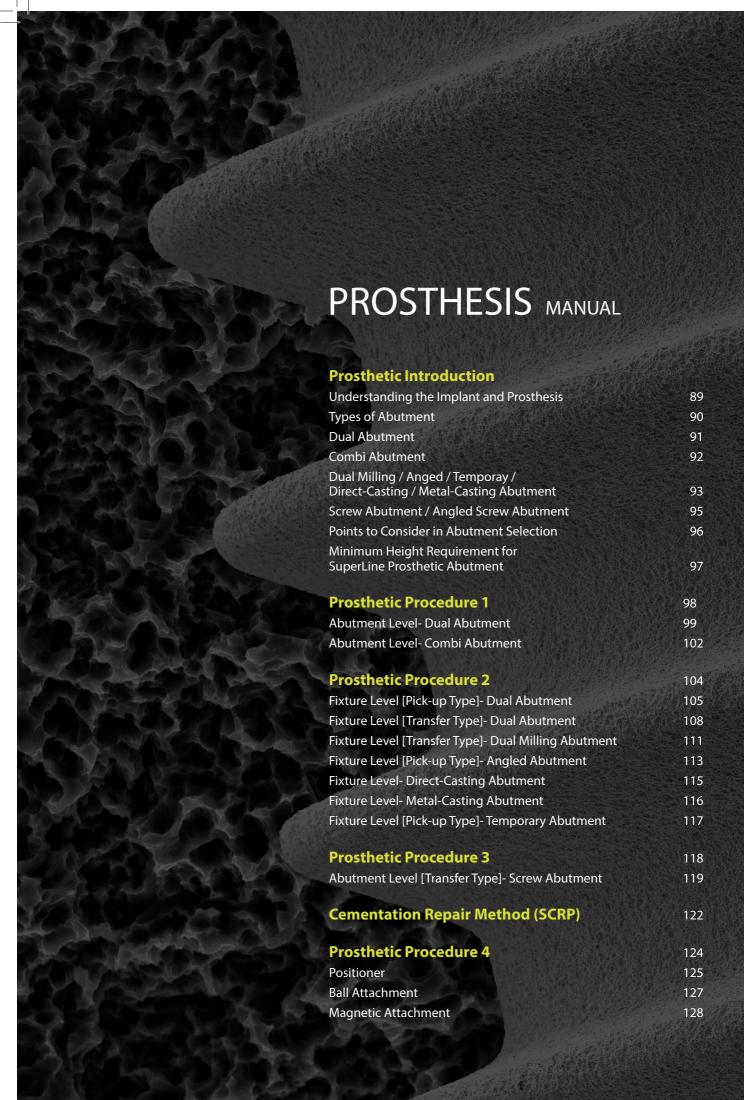
### **Sterilization**

Dentium recommends either the Pre-vacuum or Gravity autoclave methods for sterilization under the conditions described below. However, autoclave performance can a° ect the e ca cy of this process. Healthcare facilities should validate their sterilization processes employing the actual equipment and operators that routinely sterilize instruments.

All autoclaves/sterilizers should be regularly validated, maintained and checked in accordance with EN 285/EN 13060, EN ISO 17665, ANSI AAMI ST79 to ensure compliance with these and related standards. Make sure packaging is suitable for steam sterilization.

#### **Recommended Sterilization Parameters**

Method-Moist Heat Sterilization	Pre-vacuum	Gravity
Set Point Temperature	132 ℃	132 ℃
Exposure time	4 minutes	30 minutes
Drying time	20 minutes	40 minutes



### **Understanding the Implant and Prosthesis**



### **Biological Connection**

- $\bullet \mbox{ The tapered conical hex connection between implant }$ and abutment interface provides hermetic sealing.
- The biological connection distributes the load to the ÿxture evenly. Therefore it may minimize bone loss.
- All implant diameters share the same internal connection. One abutment screw fits all abutments and fixtures.

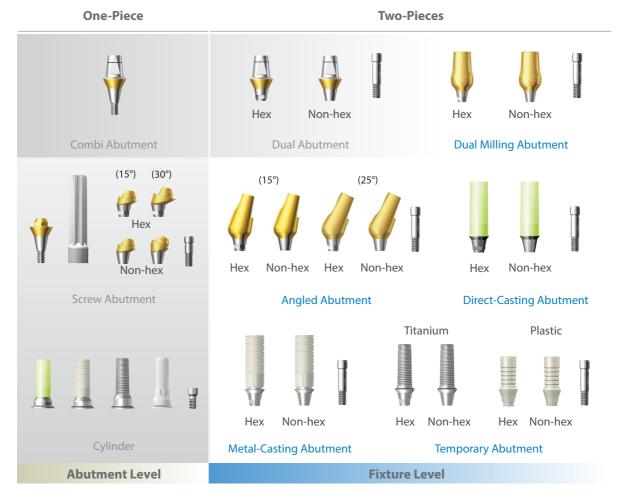




### **Types of Abutment** (Abutments are available in various diameters & gingival heights)

• Dual Abutment	
Combi Abutment	Abutment level
Dual Abutment	
Dual Milling Abutment	
• Angled Abutment (15°/25°)	
Direct-Casting Abutment	Fixture level
Metal-Casting Abutment	
• Temporary Abutment (Plastic & Titanium)	
• Screw Abutment	
• Angled Screw Abutment (15°/ 30°)	Screw retained (Abutment level)
Positioner Attachment	
Ball Attachment	For denture use
Magnetic Attachment	Tor defitate use

# **Types of Abutment**



- Straight abutments are Dual and Combi Abutment.
- Depending on the insertion angle and position of the ÿxture, the Angled or Direct / Metal Casting Abutment may be used.
- The Screw Abutment can be used when prosthesis retrieval is anticipated.

### **Selection Guideline**

Ideal emergence proÿle for each tooth



### **Dual Abutment**



- It is possible to take an impression at both ÿxture level and abutment level. (A Dual Abutment may be interchanged with a Combi Abutment)
- For abutment level impressions, the same prosthetic procedures apply to both Dual and Combi Abutments.
- For ÿxture level impressions, the abutment selection takes place on the master model.
- For ÿxture level impressions, a precise positioning jig for abutment may be required.
- Either hex or non-hex abutments may be used, according to operator's preference.
- \* If a cement retained restoration requires retrieval, cutting a hole in the occlusal surface would allow access to the screw to permit removal.

### Hex / Non-hex

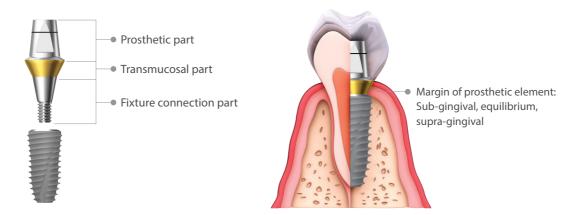
	Hex	Non-hex
Positioning Jig	Unnecessary	Required
Radiograph	Required	Unnecessary

### **Dual Abutment (Hex / Non-hex)**

Diameter	G/H	Vertical Angle
Ø4.5	1.0mm, 1.5mm, 2.5mm, 3.5mm, 4.5mm, 5.5mm	5°
Ø5.5	1.5mm, 2.5mm, 3.5mm, 4.5mm, 5.5mm	6°
Ø6.5	1.5mm, 2.5mm, 3.5mm, 4.5mm, 5.5mm	7°



### **Combi Abutment**



- The Combi Abutment is used when the implant position is optimal.
- If the abutment selection is made in the mouth, gauge the thickness of mucosa with the depth gauge to measure the gingival height thus allowing the appropriate abutment height.
- The Impression is taken with the snap cap.
- When using the Combi Abutment, it remains in the mouth after the impression is taken. (Do not remove or change its position)
- Tighten abutment screw to 25 35 N·cm. (retighten again before seating final prosthesis)
- \* If the Combi Abutment is too long it can be adjusted 1.5mm to the bottom of the laser mark on the vertical stack of the abutment. The Combi Abutment has a short analog for the 1.5mm adjustment.
- \* A resin jig can be made to record the reduction if reduced more the 1.5mm.

### **Combi Abutment Line Up**

Diameter	G/H	Vertical Angle
Ø4.5	1.0mm, 1.5mm, 2.5mm, 3.5mm, 4.5mm, 5.5mm	5°
Ø5.5	1.5mm, 2.5mm, 3.5mm, 4.5mm, 5.5mm	6°
Ø6.5	1.5mm, 2.5mm, 3.5mm, 4.5mm, 5.5mm	7°



### **Dual Milling / Angled / Temporary / Direct-Casting Abutment / Metal-Casting Abutment**



### **Dual Milling Abutment**

- Impression is taken at fixture level.
- When using a non-hex abutment a precise seating jig should be used.
- Either hex or non-hex abutments may be used, according to operators preference.
- \* If a cement retained restoration requires retrieval, cutting a hole in the occlusal surface would allow access to the screw for removal.

### **Angled Abutment**

- The Angled Abutment is recommended when the restoration path of

# insertion is unfavorable in either anterior or posterior sites. • Retention force can be increased through milling process.

### **Direct-Casting Abutment**

- Excellent for either single or bridgework
- Used as an esthetic custom made abutment.
- Used when angulation is not ideal and a standard abutment cannot be used.
- Used when there is inadequate inter-arch distance and a standard abutment cannot be used.
- A fixture level impression is taken, and the soft tissue contours can be supported.

# Dual Milling / Angled / Temporary / Direct-Casting Abutment / Metal-Casting Abutment

### **Metal-Casting Abutment**

- Equivalent results for a fraction of the price
- Our highly affordable metal alloy replaces expensive gold to alleviate financial burden to all.

### **Temporary Abutment**

- Temporary Abutments are available with titanium or plastic.
- The titanium abutment comes in both hex and non-hex with a gingival height of 1.0mm.
- $\bullet$  The plastic abutment comes in diameters (Ø4.5, 5.5, 6.5) with a gingival height of 2.0mm.

### **Fixture Level Abutment (Hex / Non-hex)**

	Abutment	Diameter	G/H	Angle
		Ø4.0	1.0mm	
		Ø4.5	1.5mm	
<b>Dual Milling</b>		Ø5.5	1.5 / 2.5mm	X
	Hex Non-hex	Ø6.5	1.5 / 2.5 / 3.5mm	
	TICK NOT TICK	Ø7.5	2.5 / 3.5mm	
Angled	11 11 11 11	Ø4.5	1.5mm 2.5mm 3.5mm	15° / 25°
	Hex Non-nex Hex Non-hex	Ø5.5	1.5mm 2.5mm 3.5mm	15° / 25°
Direct-Casting Abutment	Hex Non-hex	Ø4.5	1.0mm	Х
Metal-Casting Abutment	Hex Non-hex	Ø4.5	1.0mm	Х
Ti-Temporary	Hex Non-hex	Ø4.5	1.0mm	Х
Plastic Temporary	Hex Non-hex	Ø4.5 Ø5.5 Ø6.5	2.0mm	Х

### **Screw Abutment**







Angled Screw Abutment

### If prosthesis repair is anticipated, use of a Screw Abutment retained prosthesis enables easy retrieval.

- Useful for connecting multiple units or when there is a preference for a screw retained prosthesis.
- Useful when respective long axes of implants differ. Each side tapers by 30° and this permits up to 60° divergence between two abutments.
- Useful when the prognosis of an adjacent restoration is not ideal thus permitting easy retrieval and modification of the restoration.

### **Ti-Retaining Screw (1.8mm - body diameter)**

- Can minimize screw loosening due to increased approximal space.
- Can endure various kinds of masticatory force.







### **Screw Abutment**

Diameter	G/H
Ø4.5	1.0mm, 1.5mm, 2.5mm, 3.5mm, 4.5mm, 5.5mm
Ø5.5	1.5mm, 2.5mm, 3.5mm, 4.5mm, 5.5mm

### **Angled Screw Abutment**

Diameter	G/H	Angled
Ø4.5	1.0mm	15°
Ø5.5	1.5mm	30°





### **Points to Consider in Abutment Selection**

### **Considerations in Selecting an Abutment**

- Esthetic requirement
- Implant angulation
- Implant location
- Fixture installation depth (Gingival height)
- Interarch distance
- Prosthesis type
- Dentist & dental technician's preference

### **Impression of Implant**

According to the case the impression can be taken at abutment or ÿxture level.

### **Fixture Level**

- 1. Dual Abutment
- 2. Dual Milling Abutment
- 3. Angled Abutment (15 $^{\circ}$  / 25 $^{\circ}$ )
- 4. Direct-Casting Abutment
- 5. Metal-Casting Abutment
- 6. Temporary Abutment (Plastic & Titanium)

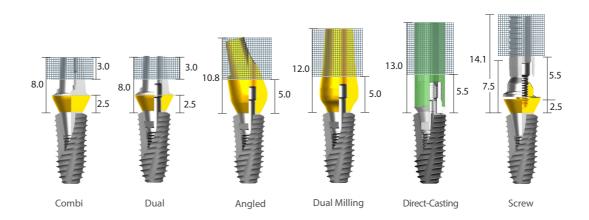
### **Abutment Level**

- 1. Dual Abutment
- 2. Combi Abutment
- 3. Screw Abutment
- 4. Angled Screw Abutment (15° / 30°)

### **Abutment Impression Recommendation**

Dual Abutment	Cementation type, screw-cementation type	Fixture level impression or abutment level impression
Combi Abutment	Cementation type	Abutment level impression
Angled Abutment	Cementation type, screw-cementation type	Fixture level impression
Screw Abutment	Screw retained type	Abutment level impression
Direct-Casting Abutment	Cementation type, screw-cementation type	Fixture level impression
Metal-Casting Abutment	Cementation type, screw-cementation type	Fixture level impression
Dual Milling Abutment	Cementation type, screw-cementation type	Fixture level impression

### **Minimum Height Requirement** for SuperLine Prosthetic Abutment



\* Diagram above indicates the minimum height required for SuperLine /Implantium II prosthetic abutment.

### **Maximum Amount of Reduction Allotted for SuperLine**

#### Combi Abutment

• Eliminate 3.0mm from the top level Combi Abutment (laser marking:1.5mm) Caution \_ Damage may be caused to the screw if the abutment is reduced to less than 2.5mm above the gingival height.

#### **Dual Abutment**

• Preparation of the abutment top is possible as follows.

Gingival Height	Preparable Amount
1.5mm	2.0
2.5mm	3.0
3.5mm	4.0
4.5mm	5.0
5.5mm	6.0

#### Angled Abutment & Dual Milling Abutment

• Required minimum abutment height: at least 5.0mm above the Fixture top

#### Direct-Casting Abutment & Metal-Casting Abutment

• Required minimum abutment height: at least 5.5mm above the Fixture top.

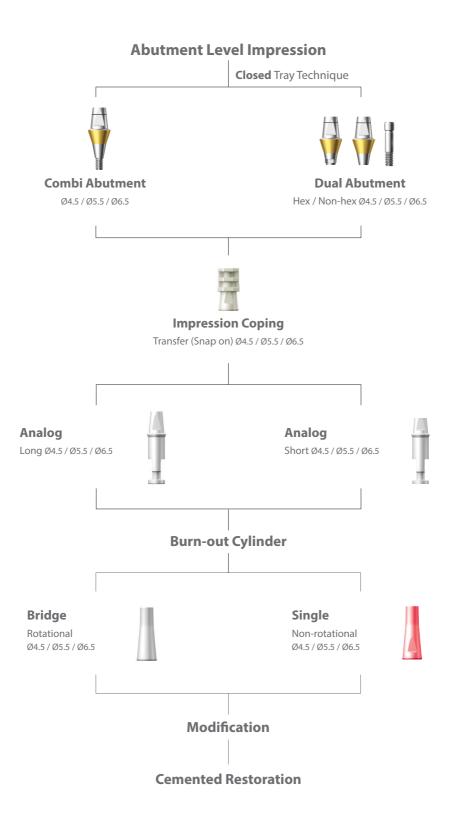
#### Screw Abutment

• The Screw Abutment cannot be modified, however the Casting Abutment can be modified for interarch distance, taking reduction into consideration of the height of the retaining screw.

### **Prosthetic Procedure 1**

Impression Technique and Restoration Selection

### **Dual / Combi Abutment**



### **Abutment Level- Dual Abutment**

[Multiple Units]

### **Clinical Procedure**



### Chairside



Remove the Healing Abutment after formation of soft tissue.



Dual Abutment (Hex / Non-hex)



Select the Dual Abutment by diameter and gingival height.



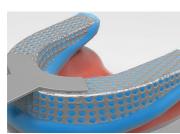
Retighten after 15 minutes Tighten it to 25~30N⋅cm.



Seat the plastic cap over the abutment.



Injection of impression material



Impression taking



Cap comes off into the impression



Fabrication of provisional restoration or insertion of comfort cap

### **Abutment Level- Dual Abutment**

[Multiple Units]

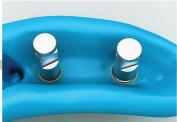
### **Laboratory Procedure**



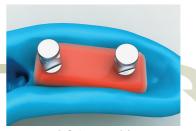
### LabSide



Insertion of Combi Abutment analog into impression



Make sure analog seats securely into the impression cap. (line up the flat side of analog to the flat side of the cap)



Soft tissue model



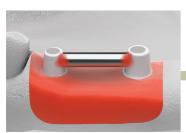
Fabrication of master cast



Seat burn-out cylinder securely into analog.



Consider distance of opposing teeth, Modify burn-out cylinder to its proper heigh if needed.



Fabrication of burn-out cylinder and plastic bar in preparation for wax-up



Completion of wax-up



Fabrication of metal framework

### **Abutment Level- Dual Abutment**

### [Multiple Units]



Trimming of the extended margin by using the rubber wheel



Metal framework and reamer



Reamer is used to eliminate "Lip" caused by 'snap-on' mechanism.



Metal framework after removal of "Lip"



Metal framework



Porcelain build-up

**SCRP:** Once an access hole has been created, it can be converted to a SCRP (Screw & Cemented Retained Prosthesis).



Final prosthesis



Access hole is made when burn-out cylinder is used to do the wax-up.



Extended margin around the metal framework due to 'snap-on' mechanism



Trim extended margin by rubber wheel



Metal framework and reamer



Eliminate the lip remnant caused by 'snap-on' mechanism by reamer.



Metal framework after removal of "Lip"



Metal framework



Final prosthesis

### **Abutment Level- Combi Abutment**

### [Multiple Units]

#### Chairside



Second stage surgery (uncovering)



Following the 2nd stage surgery, soft tissue is healed around the Healing Abutment. Healing Abutment should be selected according to the size of abutment.



Choose abutment with gingival height then tighten it to 25~30N·cm. Re tighten after 15 minutes.



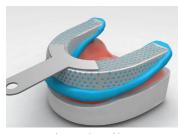
Image of combi Impression coping and abutment assembly



Snap-on the plastic impression coping with the same sized diameter abutment



Impression taking Injection of impression material



Impression taking



Inner-surface of impression



Fabrication of provisional restoration or insertion of comfort cap

### LabSide



Seating of Lab analog



Confirm analog is secured in snap cap



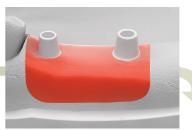
Soft tissue model



Fabrication of master cast



Placement of burn-out cylinder



Consider the distance of opposing teeth, modify burn-out cylinders to its proper height.

### **Abutment Level- Combi Abutment**

### [Multiple Units]



Connect the plastic bar in the middle of the trimmed burn-out cylinders to help support the resin pattern. Wax pattern may have shrinkage.



Wax-up



Completed framework



Trimming the extended margin with a rubber wheel



Metal framework and reamer



Removal of lip remnant with reamer caused by 'snap-on' mechanism



Metal Framework after removal of "Lip"



Metal coping adaptation (Completed framework)



Porcelain build-up final prosthesis

### Chairside



\* If the combi analog is trimmed due to limited inter-occlusal space in the lab, make a reduction jig. Then a slight modify of the abutment in the oral cavity may be necessary to the height of the jig.



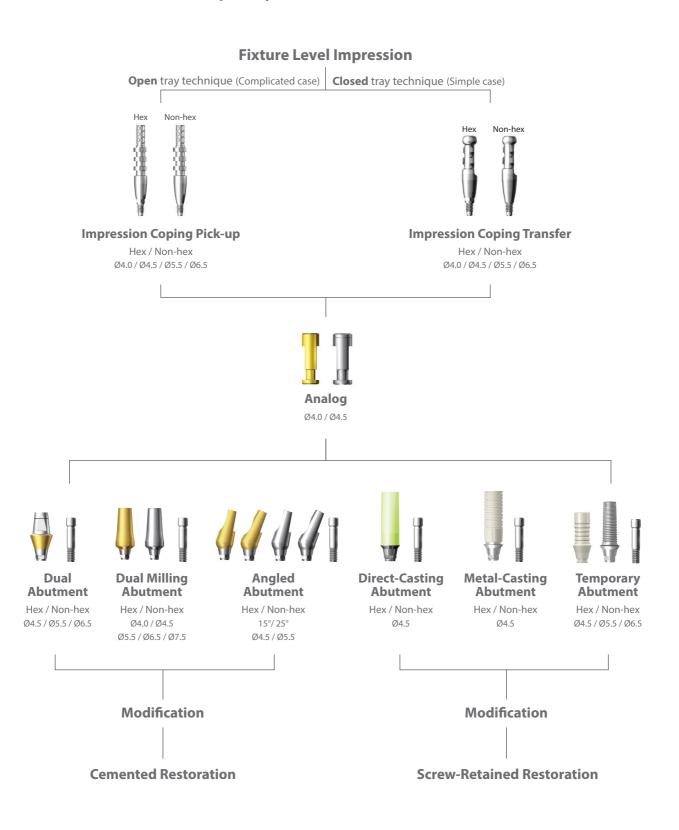


Insertion of final prosthesis and occlusal adjustment

### **Prosthetic Procedure 2**

Impression Technique and Restoration Selection

### **Dual / Milling / Angled / Direct-Casting / Metal-Casting / Temporary (Plastic & Ti) Abutment**



# Fixture Level [Pick-up Type]- Dual Abutment

[Multiple Units]





**Healing Abutment** 



Impression Coping Pick-up Type



Fixture Level Impression Open Tray

### Chairside





Open tray impression (pick-up)





Apply adhesive on open tray. (Individual tray)



Injecting the impression material





Impression taking



Remove the screw before removing the impression tray.



Inner surface of impression

# Fixture Level [Pick-up Type]- Dual Abutment

[Multiple Units]

### **Laboratory Procedure**



### Labside



Connect lab analog with impression coping.



Soft tissue model



Fabrication of master cast



Connect a proper abutment



After surveying abutment milling is possible if necessary.



Fabrication of positioning jig



Fabrication of the cap with pattern resin



Wax-up



Metal framework

## Fixture Level [Pick-up Type]- Dual Abutment

[Multiple Units]

Final prosthesis

#### Chairside



Use positioning jig to transfer the abutment in model to oral cavity then tighten it to 25~30N·cm.
Retighten after 15 minutes.



Insertion of the final prosthesis and occlusal adjustment

\* In the process of seating the prosthesis, the prosthesis can be rebounded by gingival tissue. In this case it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

### SCRP-Labside



Formation of access hole with long transfer coping screw



Wax-up



Metal framework

### SCRP- Chairside



Final prosthesis



Use positioning jig to transfer the abutment in model to oral cavity then tighten it to 25~30N·cm.

Retighten after 15 minutes.



Insertion of final prosthesis and adjustment of occlusion

<sup>\*</sup> In the process of seating the prosthesis, the prosthesis can be rebounded by gingival tissue. In this case it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

## Fixture Level [Transfer Type]- Dual Abutment

[Multiple Units]

### **Clinical Procedure**





Second stage surgery (Uncovering)



Soft tissue formed around Healing Abutment



Transfer type impression coping



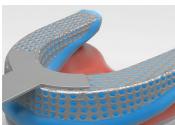
Seating the impression coping which has the same diameter as Healing Abutment



Impression of fixture level (No x-ray necessary for confirmation)



Injection of impression material



Impression taking



Inner surface of the impression

## Fixture Level [Transfer Type]- Dual Abutment

[Multiple Units]

### **Laboratory Procedure**

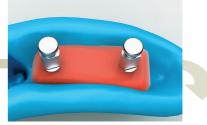




Impression coping and analog connection. And insert impression coping into the impression.



Make sure the impression coping is fully seated into the impression



Soft tissue model



Fabrication of master cast



Soft tissue condition after the of impression coping



Measuring gingival height with depth gauge



Selection of Dual Abutment of proper diameter and gingival height



Verify by surveying the selected abutment. (Milling of the abutment is possible if necessary)



Fabrication of positioning jig

### Fixture Level [Transfer Type]- Dual Abutment

[Multiple Units]



Seat the cap with pattern resin



Completion of wax-up



Completion of metal framework



Final prosthesis built up on the framework with porcelain

#### Chairside



Use positioning jig to transfer the abutment in model to oral cavity then tighten it to 25~30N·cm. Retighten after 15 minutes.



Insertion of final prosthesis, adjust occlusion place lab wax into opening of abutment to protect screw head then cement.

#### SCRP-Labside



Make an access hole in the resin cap by using the long open tray transfer screw.



Completed wax-up



Metal framework

#### SCRP- Chairside



Final prosthesis



Use positioning jig to transfer the abutment in model to oral cavity then tighten it to 25~30N·cm. Retighten after 15 minutes.



Insertion of final prosthesis and occlusal adjustment. Place wax into opening of the abutment prior to sealing with composite.

<sup>\*</sup> In the process of seating the prosthesis, the prosthesis can be rebounded by gingival tissue. In this case it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

## Fixture Level [Transfer Type] - Dual Milling Abutment

[Single Unit]











**Healing Abutment** 

Impression Coping Transfer Type

Fixture Level Impression

#### Chairside









Placement of Healing Abutment

Placement of impression coping with the same diameter as Healing Abutment







Impression taking



Impression coping formation on the inside of impression is observable. (Traces of impression coping on the inner surface of impression)

### **Laboratory Procedure**







**Dual Milling Abutment** Connection



Modiÿcation



Crown Wax-up



Final Restoration Cementation

## Fixture Level [Transfer Type]- Dual Milling Abutment

[Single Unit]

#### Labside



Impression coping and analog connection. And insert impression coping into the impression.



Soft tissue model



Master cast



Selection of appropriate Dual Milling Abutment



Abutment after milling process



Fabrication of positioning jig



Fabrication of pattern resin cap



Completion of wax-up



Metal framework



Final prosthesis



Use positioning jig to transfer the abutment in model to oral cavity then tighten it to 25~30N·cm. Retighten after 15 minutes.

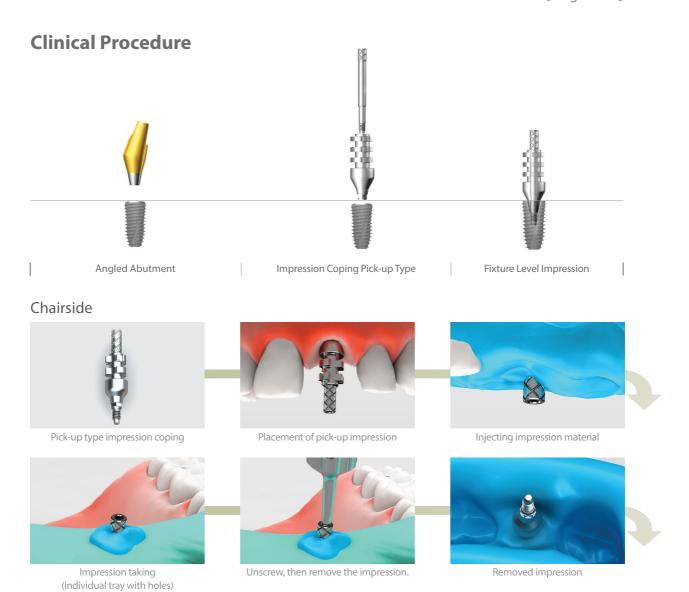


Insertion of final prosthesis and occlusal adjustment

 $<sup>\ ^{*}</sup>$  In the process of seating the prosthesis, the prosthesis can be rebounded by gingival tissue. In this case it is advised to apply acclusal load on the prosthesis for 10~15 minutes.

## Fixture Level [Pick-up Type]- Angled Abutment

[Single Unit]



### **Laboratory Procedure**



## Fixture Level [Pick-up Type]- Angled Abutment

[Single Unit]

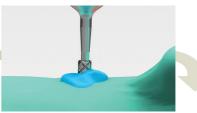
#### Labside



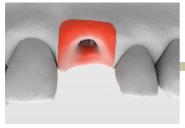
Impression coping with analog connections



Soft tissue formation and fabrication of master model



Unscrew then separate impression from the model.



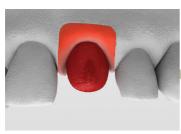
Master cast



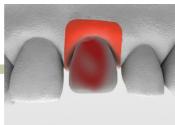
Select an Angled Abutment.



Modification of Angled Abutment & fabrication of positioning jig



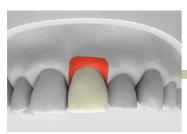
Fabrication of pattern resin cap



Wax-up



Metal or zirconia framework



Final prosthesis



Insertion of the Angled Abutment using positioning jig



Insertion of final prosthesis and occlusal adjustment

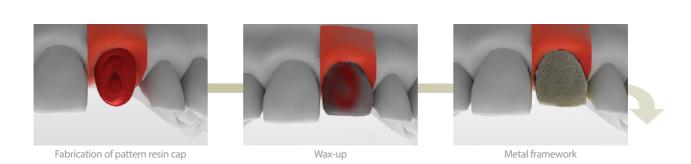
### Fixture Level- Direct-Casting Abutment

[Single Unit]

### **Laboratory Procedure**









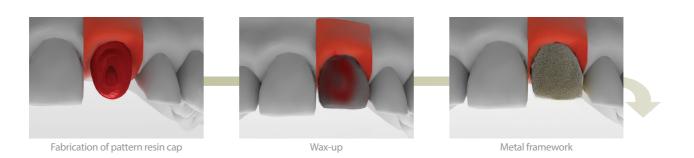
### Fixture Level- Metal-Casting Abutment

[Single Unit]

### **Laboratory Procedure**









## Fixture Level [Pick-up Type]- Temporary Abutment

[Single Unit]



Ti-Temporary Abutment



Plastic Temporary Abutment

### <Using Ti Abutment>



Considering the opposing teeth before seating the Temporary Abutment, trim off the abutment as needed and complete the Temporary Abutment prosthesis with direct resin.

### <Using Plastic Abutment>

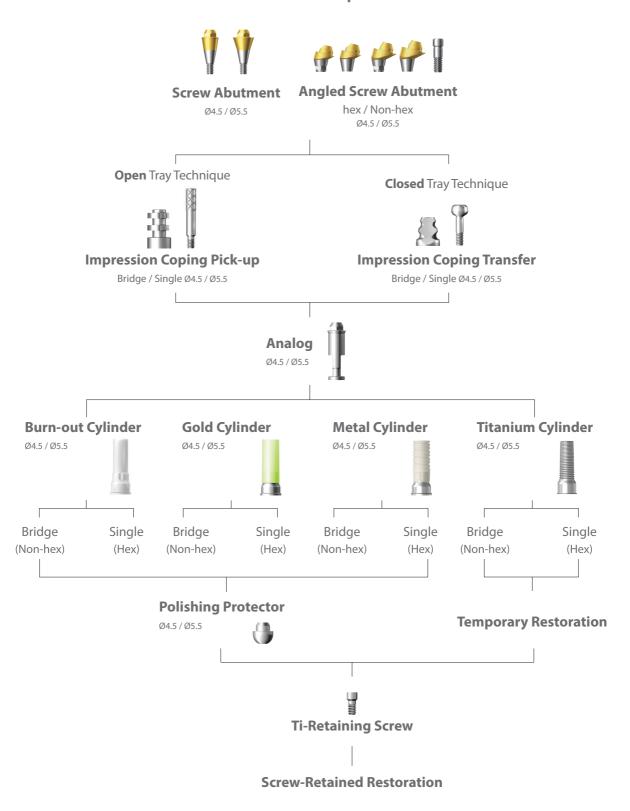


### **Prosthetic Procedure 3**

Impression Technique and Restoration Selection

#### **Screw Abutment**

#### **Abutment Level Impression**

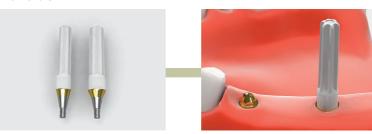


## Abutment Level [Transfer Type]- Screw Abutment

[Multiple Units]

### **Clinical Procedure**

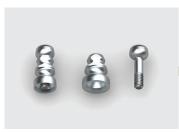




Select and seat an appropriate Screw Abutment with delivery holder.



Tighten it to 25~30N·cm. Retighten after 15 minutes with Screw Abutment adaptor.



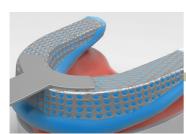
Screw Abutment transfer copings (abutment level)



Placement of impression copings



Injecting impression material



Impression taking



Inner-surface of impression



Placement of comfort cap on Screw Abutment

### Abutment Level [Transfer Type]- Screw Abutment

[Multiple Units]

### **Laboratory Procedure**





Connecting impression coping with Screw Abutment analog



Position impression coping and analog assembly in the exact location of the impression



Soft tissue model



Fabrication of master cast



Removal of impression coping



Connect the Screw Abutment cylinder then tighten it with ti-retaining screw.



Consider the distance with opposing teeth, then trim cylinder to its appropriate height.



Connect the plastic bar in the middle of trimmed burn-out cylinders to help support the wax pattern. Wax pattern may have shrinkage.



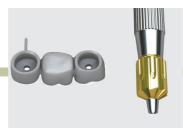
Wax-up

## Abutment Level [Transfer Type]- Screw Abutment

[Multiple Units]



Metal framework



Removal of lip remnant in the interior of metal framework by using reamer



Completion of metal framework



Completion of porcelain



Insertion of final prosthesis and occlusal adjustment. Tighten with ti-retaining screw (10N·cm).

### **Cementation Repair Method (SCRP)**

[Screw & Cement Retained Prosthesis]

### **In Light of Implant Prosthesis:**

- · A screw type restoration helps to simplify prosthesis repair, including insertion and removal of the prosthesis if necessary.
- Cement type restoration tend to have a stable occlusion and may enhance the adaptability. However the weak point is that it cannot be removed after permanent cementation.
- A Dual Abutment can be cemented or screw retained.
- Combi Abutments are cement retained and no occlusal hole is necessary.

### In Case of Screw Loosening or when Prosthesis Repair is Needed



In case of the following: screw loosing Prosthesis repair



In order to unscrew, form access hole on the occlusal surface using bur.



Unscrew, then remove the prosthesis from the oral cavity.



Both cemented prosthesis and abutment are removed.



Finish the repair then seat it inside the oral cavity.



Tighten the prosthesis with 25~30N⋅cm by a screw driver. \* It is recommended that the abutment screw is retightened after 15 minutes.



Fill the access hole with cotton.



Fill the access hole with resin.



Final prosthesis

### **Cementation Repair Method (SCRP)**

[Screw & Cement Retained Prosthesis]

### **Prosthesis Separation from Abutment due to Cement Loss**



Remove the screw completely with screw driver and remove prosthesis from the patient's mouth.



Apply cement to the prosthesis.



Place it back into the patient's mouth.



After the cement setting, unscrew and remove the excessive cement.



Finish the repair and seat it inside the patient's mouth.



Tighten the prosthesis with 25~30N·cm with a screw driver.

### Adding to the Interproximal Contact Surface due to Prosthesis Loosening



Prosthesis loosening due to contact loosening



Form access hole using bur



Unscrew, then remove the cemented prosthesis with abutment in the oral cavity.



Contact adding with resin on the prepared under space.



Insert the prosthesis in the oral cavity and screw it in. Afterwards, perform light curing, then polish the contact area.



Position the prosthesis in the mouth and tighten the screw with 25~30N·cm, then fill up the access hole.



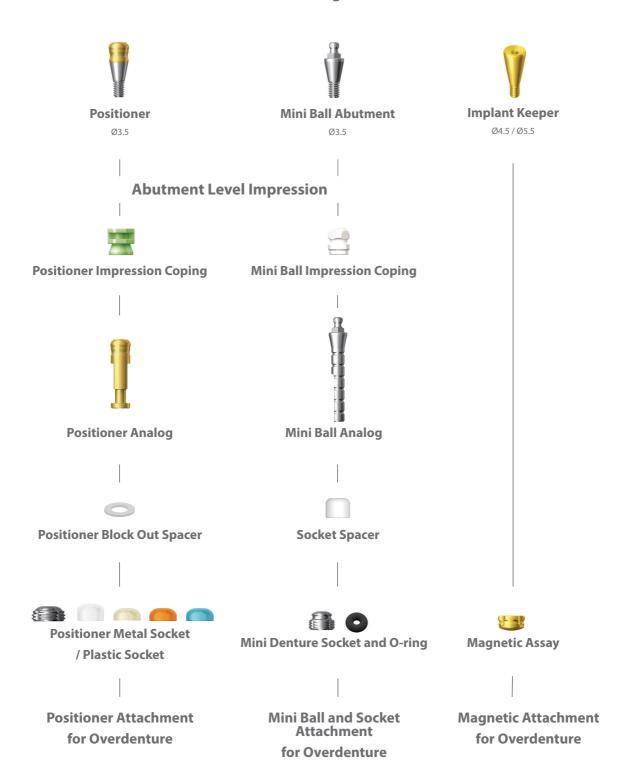
\* It is recommended that the abutment screw is retightened after 15 minutes.

### **Prosthetic Procedure 4**

Impression Technique and Restoration Type

### **Overdenture Procedure**

### Positioner / Mini Ball / Magnetic Attachment



### **Positioner**

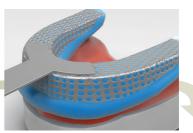
### Chairside



Connect the Positioner Abutment onto the fixture.



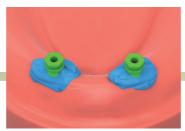
Affix the impression coping on the Positioner Abutment.



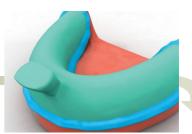
Take Impression for the production of individual tray.



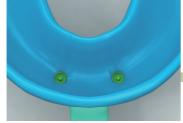
Produce the individual tray for denture impression.



After connecting the Positioner Abutment and the impression coping together, apply the impression material.



Take the final impression with the prepared individual tray.



After the impression material is set, discard the individual tray.

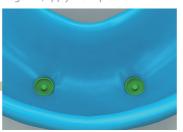
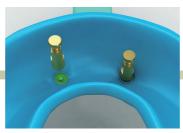


Image of the set final impression (with impression coping)



Positioner Analog



Insert the Positioner Analog into the embedded impression coping.



Create the master model.



"Block out" procedure to achieve the space required for the metal socket.



Fabrication of denture with conventional method

### **Positioner**

#### Case 1



Secure spaces for the female sockets.

#### Chairside



Place the "block out spacer" on the Positioner Abutment in the patient's mouth.



Connect the metal socket onto the Positioner Abutment.



Apply a small amount of resin into the space created for the metal socket.



Position the denture in the mouth and wait until the resin is completely set.



Remove the white plastic socket (100gf) using the positioner tool and assemble with the regular plastic socket giving the desired retention force (300, 500 or 1000gf).



Remove the denture after the resin is fully set. Image of the denture with the metal socket.



Remove the block out spacer from the patient's mouth.



After polishing, the overdenture is completed.

#### Case 2



Create holes for the placement of the metal sockets.



Place the "block out spacer" on the Positioner Abutment in the intraoral.



Connect the metal socket onto the Positioner Abutment.



Examine the interference between inner surface of the holes and the female sockets.



Apply the resin into the holes and wait until it is completely set.



Remove the white plastic socket (100gf) using the Positioner tool and assemble with the regular plastic socket giving the desired retention force (300, 500 or 1000gf).



Apply additional resin around the metal socket where there is a shortage of resin.



Apply resin around the metal socket.



After polishing, the overdenture is completed.

### **Ball Attachment**

### Case 1



Secure spaces for the female sockets.

### Chairside



Connect the female sockets to the Mini Ball Abutments in the intraoral.



Apply small amount of the resin into the secured area.



Position the denture in the mouth and wait until the resin is completely set.



Female sockets are placed in the denture.



After polishing, the overdenture is

#### Case 2



Create holes for the placement of the female sockets.



Connect the female sockets to the Mini Ball Abutments in the intraoral.



Examine the interference between inner surface of the holes and the female sockets.



Apply the resin into the holes and wait until it is completely set.



Place the female sockets.



 $\label{eq:Apply resin} \mbox{Apply resin around the female sockets.}$ 



After polishing, the overdenture is completed.

## **Magnetic Attachment**

### Chairside



After Healing Abutment removal



Connect implant keeper with fixture and tighten it with 25~30N·cm.



Implant keepers connected with the fixtures



Position the magnetic assay on the implant keeper.



Secure spaces for the magnetic assays.



Examine the interference between inner divot of the denture and the magnets.

### Case 1



Apply resin on the divot of the denture's inner surface.



Position the denture into the mouth and wait until the resin is completely set.



Magnetic assays are placed in the



Apply some of resin around the magnetic assays.



After the resin is completely set, remove excess. After polishing, the overdenture is completed.

## **Magnetic Attachment**

### Case 2



Create holes for the placement of the magnets.



Examine the interference between inner surface of the holes and the magnets.



Position the denture in the mouth and apply small amount of resin into the hole.



Wait until the resin is completely set.



After setting, remove denture from the mouth.



Add the resin around the magnets.



After polishing, the overdenture is completed.

Over

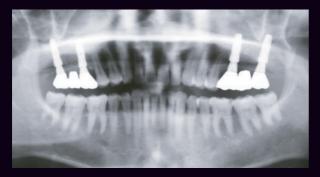
Years
of Long
Term Data



**Pre-op** 2001.11.10



**Implantation** 2001.11.28



Final prosthesis 2002.05.19

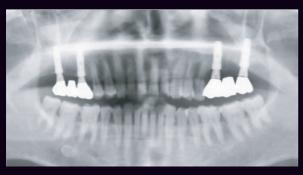
### Simple yet Predictable

22 years of Consistent Implant Design with S.L.A. (Sandblasting with Large Grid & Acid Etching) Proven Study of Excellent Bone-to-Implant Contact (BIC)

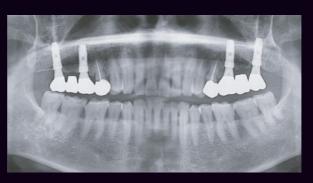
Reference: Myron Nevins, DDS,et.al., Clinical & Histological Evaluations of SLA Dental Implants int J Periodontics Restorative Dent 2017;37:175-181. dio:10.11607/prd.3131

# Dentium

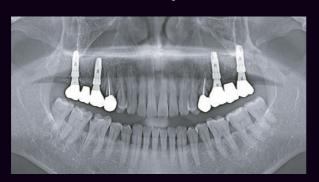
### **Long Term Clinical Data**



**4 Year Follow-up** 2005.05.23



**11 Year Follow-up** 2013.01.17



**20 Year Follow-up** 2021.04.14

### **Efficiency through Simplicity**

One Prosthetic Connection for all Dentium (Implantium & SuperLine) Implant System One Abutment Screw Fits All Dentium (Implantium & SuperLine) Abutments & Fixture Platform

