# KIT PRODUCT CATALOG

OO3 INTRODUCTION

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020 OSSTEM KIT

170 User Manual



We are forever grateful to all the dentists who have given unwavering support to OSSTEM IMPLANT Thank you for using Osstem Implant. Osstem, Korea's first implant manufacturer, has secured world-class implant competitiveness through continuous R&D investment and quality innovation. It has grown to become Asia-Pacific No.1 and World No.5 Implant Company. In addition to dental implants and treatment tools, we are leading the development of products that are essential for dentists, including dental equipment, dental materials, and dental IT, and contribute to the development of the dental industry. The comprehensive catalog of the 2018-19 product series published here shows Osstem's technology-rich products. We have focused on catalog structure so that it is convenient to browse and order products. In particular, in the case of fixtures, abutments, and surgical tools, we introduced the diameter, length, and functions in detail.

GBR products are also easy to order by type, size and capacity. In addition, the product release date and time are displayed so that customers can understand when the existing product is released and what the newly released product is. We also introduced the CAD/CAM product in terms of preparing the digital dentistry, a major trend in the dentistry. In terms of design, we also implemented high-quality images of representative products by specification. By applying representative colors for each product system, it is easy to sort by category. We hope this will help you effectively find and purchase the products you need from the dental clinic of 2018-19. Osstem Implant will continue to develop products that the dentist can trust. We will work to create greater customer value. Thank you.

CEO of OSSTEM IMPLANT Choi Kyu-ok (DDS.Ph.D)





### 1997

- **01** Established 'Osstem Co., Ltd.'
- 12 Released 'Doobunae' (health insurance claim application software program)

#### 2000

- 06 Released 'Hanaro' (dentistry management software)
- 10 Acquired sumin comprehensive dental materials

#### 2001

- **01** Obtained CE-0434 certification
- 03 Established AIC training center
- **12** Established 12 overseas branches (first round)

#### 2002

- **01** Established Osstem Implant R&D center
- 08 Obtained FDA certification. launched USII line
- 10 Launched SSII line

#### 2006

- **03** Changed the company name to Osstem Implant Co., Ltd
- **04** Obtained GOST-R certification (russia)

#### 2007

- 02 Listed on KOSDAQ and began trading publicly
- **06** Selected as No.1 products for the next generation and obtained TGA certification (australia)

#### 2008

- **01** Established osstem bone science research center
- **12** Selected as a managing organization for the national strategic technology development project

#### 2009

10 Obtained approval for medical device manufacturing and sale from the ministry of health, labor and welfare, japan

### 2010

- 03 Launched TSIII SA line
- 06 Launched TSIII HA line

### 2011

- 06 Osstem Implant R&D center was selected as ATC (advanced technology center)
- 07 Selected as 'World Champ' business
- 12 Launched 'K2 unit chair', which was selected as a 'World Class Product'

#### 2012

- **06** Launched TSIII CA line
- **07** Established osstem dental equipment research institute

### 2013

- 01 Launched osstem xenograft material 'A-Oss'
- 09 Launched 'K3 unit chair' 10 Selected as a 'Hidden
- Champion' company

#### 2014

- **05** Selected as 'World Class 300'
- **05** Released 'HyFlex', an impression material
- 08 Released 'BeauTis' whitening material

03 Established Osstem

Export Tower'

BioPharma Co., Ltd.

12 Awarded 'USD 50 Million

2015

#### 2016

- 01 Established Vussen Co., Ltd.
- 03 Acquired Cardiotec Co., Ltd.
- 08 Acquired Hubit Co., Ltd.
- 11 Launched OneGuide system

#### 2017

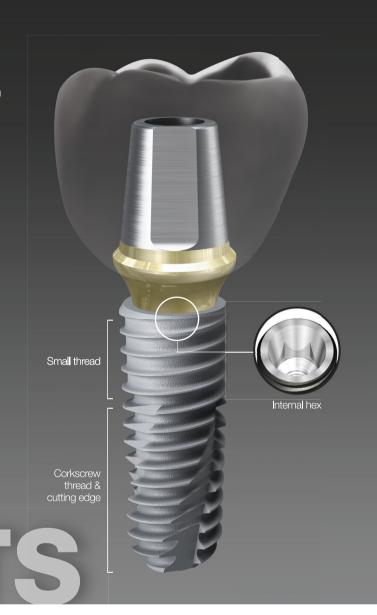
**12** 2017 presidential commendation for job creation

#### 2018

01 TS exceeded 10 million production

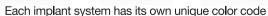
## **OSSTEM<sup>6</sup> Implant** Design feature

**OSSTEM IMPLANT** has revolutionized implant dentistry in South Korea. With a focus on aggressive R&D, a commitment to education and a dedication to manufacturing the best products, Osstem Implant's ultimate goal is to become the global leader in implant dentistry.









#### Submerged type implant with an internal hex and 11tapered connection

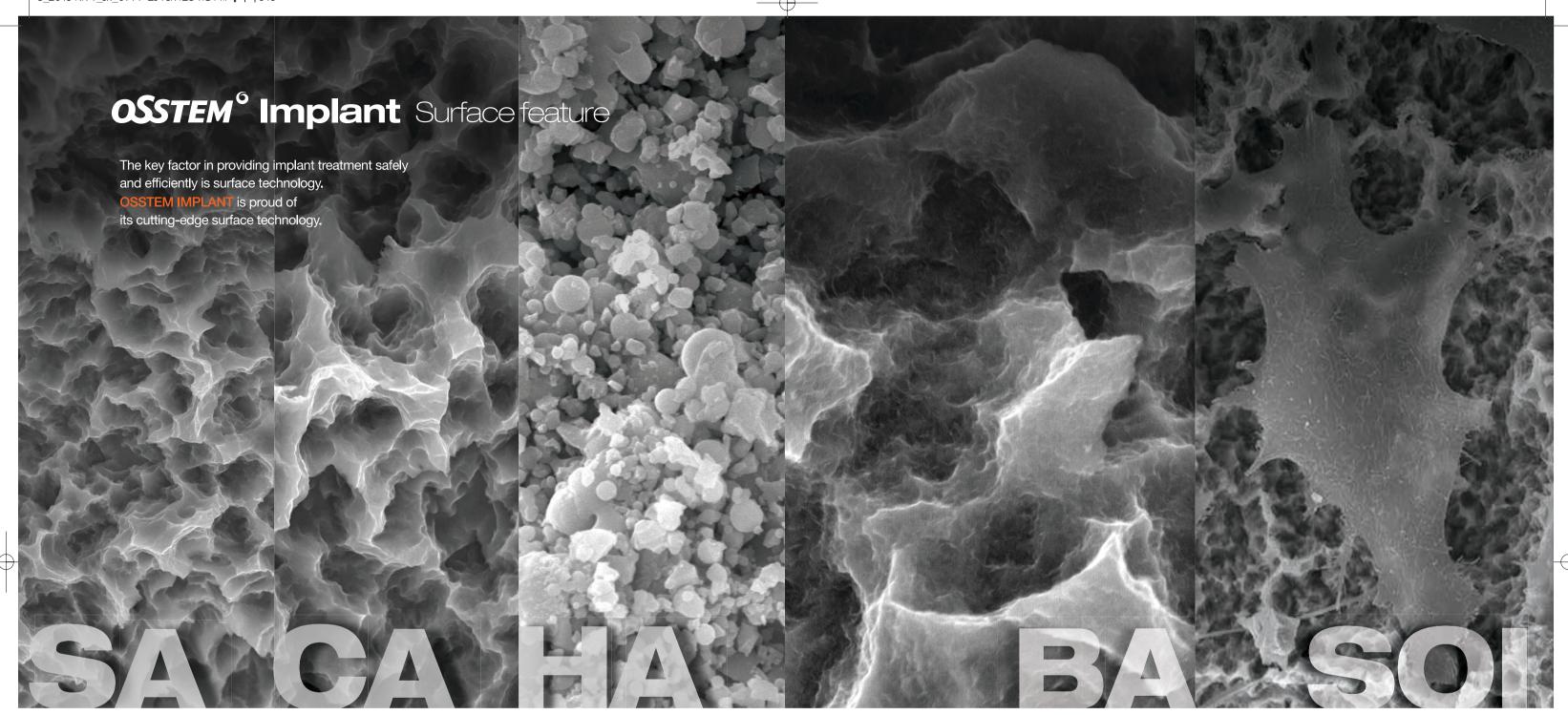
- Internal connection type Mini / Regular
- Excellent initial stability in soft bone due to smaller threads in the upper section
- · Corkscrew thread with cutting edges
- Strong self-threading effect for easy fixture path
- Higher initial stability and consistent insertion torque
- Different body types to properly match the patient's bone quality and clinical condition
- TSII (straight body) : easy to adjust depth
- TSIII (1.5° tapered body): excellent initial stability necessary for immediate loading, even in soft bone
- TSIV (6° tapered body) : specifically designed for the maxillary sinus and soft bone, excellent initial stability
- · Available surface types SA / CA / HA / BA / SOI

#### Non-submerged type implant with an internal octa and 8tapered connection

- Internal connection type Regular / Wide
- · Corkscrew thread with cutting edges
- Strong self-threading effect for easy fixture path
- Higher initial stability and consistent insertion torque
- Different body types to properly match the patient's bone quality and clinical condition
- SSII (straight body): easy to adjust the insertion depth
- SSIII (1.5° tapered body): excellent initial stability necessary for immediate loading, even in soft bone
- Available surface types SA / CA / HA / BA

#### Submerged type implant with an external hex connection structure

- Internal connection type Mini / Regular / Wide / Wide PS
- · Corkscrew thread with cutting edges
- Strong self-threading effect for easy fixture path
   Higher initial stability and consistent insertion torque
- Different body types to properly match the patient's bone quality and clinical condition
- USII (straight body): easy to adjust the insertion depth
- USIII (1.5° tapered body): excellent initial stability necessary for immediate loading, even in soft bone
- USIV (6° tapered body) : specifically designed for the maxillary sinus and soft bone, excellent initial stability
- Available surface types SA / CA



#### **Acid Treated Optimized Surface**

- Ra 2.5~3.0µm surface roughness (note: the upper 0.5mm part of the implant has Ra 0.5~0.6um)
- · Consistent surface micro pits between 1 to 3 

  · Surface area is increased by 46 percent compared to RBM treated implants

#### In-vitro & In-vivo Bone Response

- 20% improvement in osteoblast separation and ossification compared to RBM
   Initial bone reaction performance in animal model (mini-pig)
- 48% improvement in initial stability (RT, 4 weeks) compared to RBM
- 20% improvement in ossification (BIC, 4 weeks) compared to RBM

### Super-hydrophilic SA surface suspended in a calcium solution

- Same SA surface morphology
  Optimizing surface reaction by suspension in a calcium (CaCl2) solution
  Increased new bone formation area due to
- Bone response improved in early osseointegration stage compared to standard SA surface

the excellent blood wettability

#### In-vitro & In-vivo Bone Response

Protein and cellular adhesion tripled compared to SA surfaces
 Initial cellular differentiation by 19 percent compared to SA surfaces (7 days)
 Initial stability increased by 34 percent compared to SA surfaces (RT at 4 weeks)
 Ossification rate Increased by 26 percent compared to SA surfaces (BIC at 4 weeks)

### Premium high-crystalline HA-coated surface

- · 30 to 60 µm thick high-crystalline HA coating
- · HA coated onto a RBM surface (Ra 3.0 to 3.5 µm)
- High HA crystalline over 98 percent
- · Solved the problem with low-crystalline HA resorption

#### In-vitro & In-vivo Bone Response

- · Excellent biocompatibility in HA that is similar to bone
- · Initial ossification by osteoblasts doubled compared to SA surfaces (5 days)
- · 40% improvement in initial stability (RT, 4 weeks) in animal models compared to SA
- · Suitable for poor bone quality, tooth extraction sites or immediate implant insertion

### Premium low crystalline nano-HA coated SA surface

- SA surface (Ra 2.5 to 3.0 µm) coated with HA
- 10nm ultra-thin HA coating
- · Dual function between titanium and HA
- HA is naturally resorbed during ossification

#### In-vitro & In-vivo Bone Response

- Advantages of both SA and HA surfaces
- SA's ability to maintain an optimal surface
- HA's ability to form high quality initial bone, even in a poor bone quality
- · 40% improvement in ossification (BIC) compared to SA
- · It is applicable to all types of bone quality

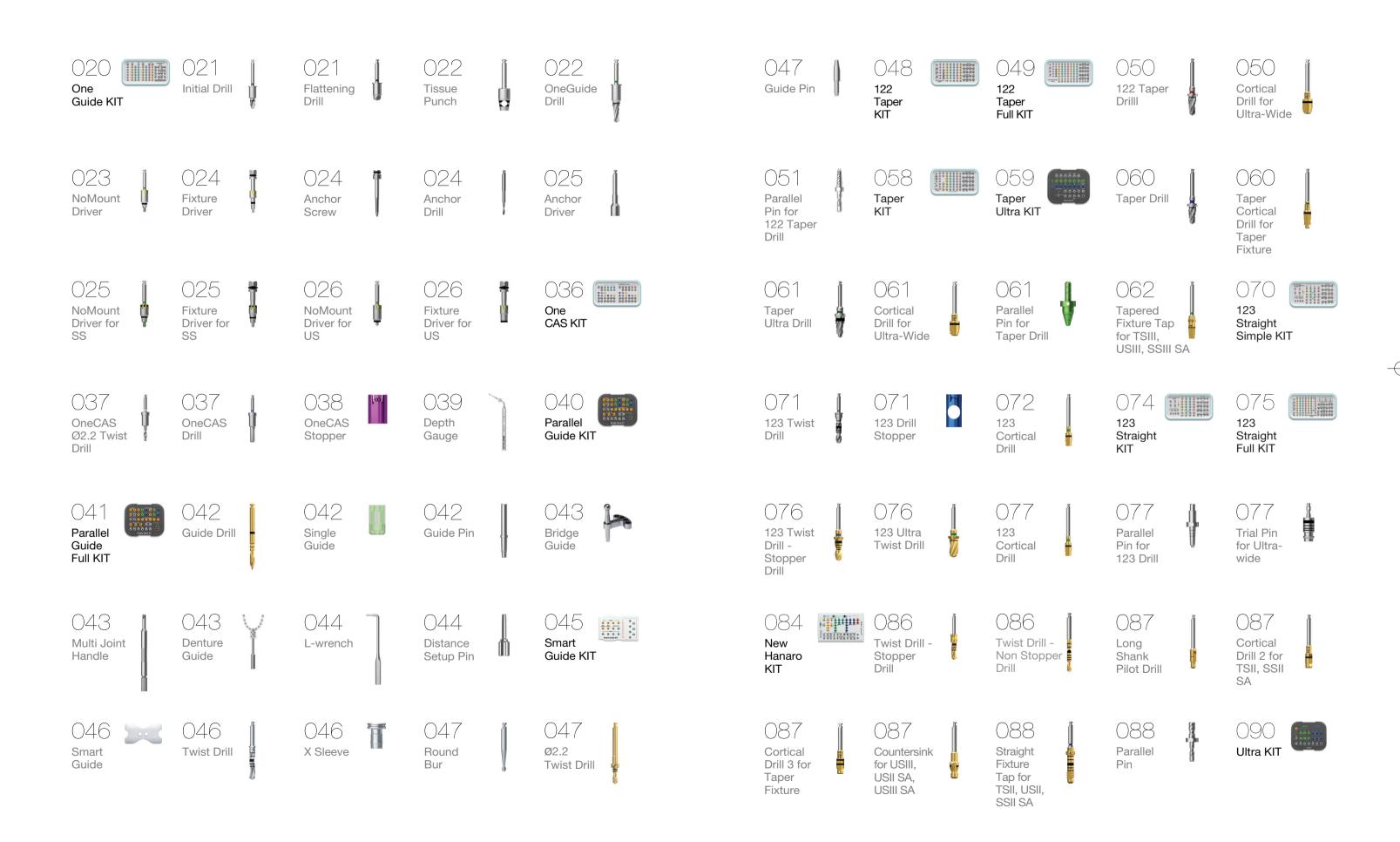
### Next-generation surface coated with special material (K material)

- · Activation of blood clot formation
- Avoid carbon adsorption in air
- Coating of K material on SA surface (Ra 2,0~3.0µm)
- Superior blood wettability with super hydrophilic surface.

#### In-vitro & In-vivo Bone Response

- Protain and cellular adhesion 130 times increase compared to SA surface
   Initial stability increased by 57 percent compared to SA surfaces (RT at 4 weeks)
- · Surface with the shortest duration of surgery

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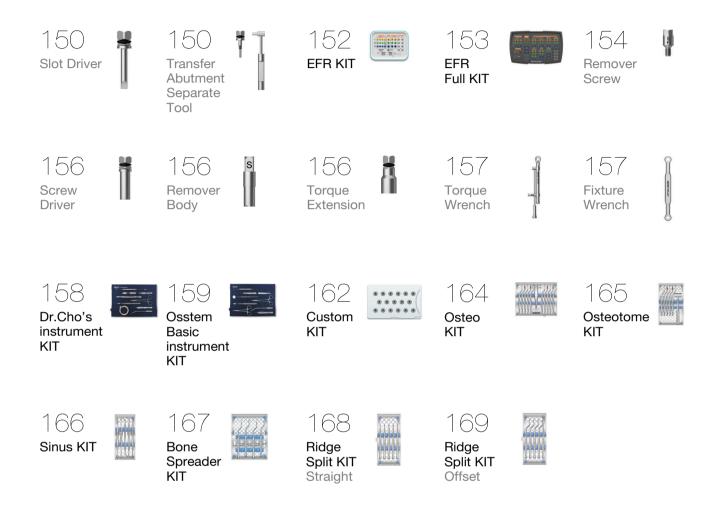


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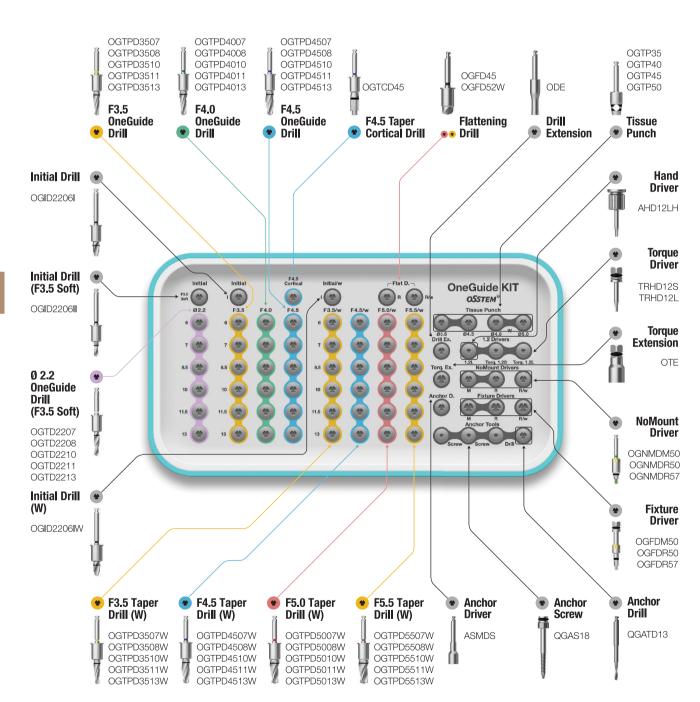
128 CAS KIT

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### OneGuide KIT (OOGK)







### OneGuide KIT Surgical Instruments

#### OneGuide

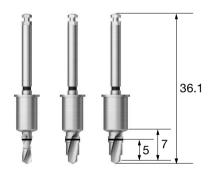
- There are open type and close type
- The open type can be used in the molar with restricted opening
- It consists of 2 guide holes according to the diameter of the fixture
- D5.1 : F3.5/4.0/4.5
- D5.8 : F5.0
- Dual contact function ensures excellent positioning accuracy
- Simple drilling sequence by using 122 taper KIT drill
- Packing unit : surgical guide (option : OneFit abutment, temporary crown)



#### **Initial Drill**

- · Selection of location after using tissue punch
- Securing the guide depth of the following drill
- 3 types (F3.5 soft / below F4.5 / for F5.0)

For F3.5 Soft
OGID2206I
For below F4.5
OGID2206I
OGID2206I
OGID2206IW





#### Flattening Drill

- Used for narrow or uneven ridges
- There are a lot of cutting edges, so it is stably removed without bouncing
- 2 types (below F4.5 / for F5.0)

<u>D</u>	Ø4.5	Ø5.2
For Below F4.5	OGFD45	-
For F5.0	-	OGFD52W

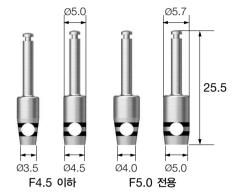


### OneGuide KIT Surgical Instruments

#### **Tissue Punch**

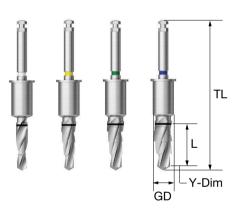
- It is used to remove gingiva
- Marking line at 1mm intervals according to gingival height
- 2 types of each (for below F4.5 / for F5.0)

For below 4.5	OGTP35	OGTP45
For F5.0	OGTP40	OGTP50



#### **OneGuide Drill**

- Optimized taper drill for III/IV type fixture (F3.5~5.0, 6~13mm fixture can be placed)
- Stable drilling with multistage structure
- 3 types (for F3.5 soft / below F4.5 / F5.0)
- Use of F4.5 cortical drill for F4.5 fixture hard bone surgery



#### F3.5 Soft Bone

L \	TL	Ø2.2	
	Y-Dim	0.7	
	GD	5.0	
7	36.1	OGTD2207	
8.5	36.1	OGTD2208	
10	36.1	OGTD2210	
11.5	37.6	OGTD2211	
13	39.1	OGTD2213	

#### For below F4.5

L \	TL	F3.5	F4.0	F4.5	F4.5 Cortical
	Y-Dim	0.7	0.9	1.0	-
	GD	5.0	5.0	5.0	5.0
6	36.1	OGTPD3506	OGTPD4006	OGTPD4506	-
7	36.1	OGTPD3507	OGTPD4007	OGTPD4507	-
8.5	36.1	OGTPD3508	OGTPD4008	OGTPD4508	-
10	36.1	OGTPD3510	OGTPD4010	OGTPD4510	OGTCD45
11.5	37.6	OGTPD3511	OGTPD4011	OGTPD4511	-
13	39.1	OGTPD3513	OGTPD4013	OGTPD4513	-

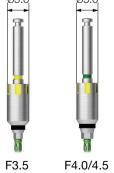
#### For F5.0

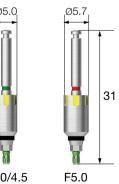
L \	TL	F3.5(W)	F4.5(W)	F5.0(w)	F5.5(W)
	Y-Dim	0.7	0.9	1.0	1.0
_	GD	5.7	5.7	5.7	5.7
6	36.1	OGTPD3506W	OGTPD4506W	OGTPD5006W	OGTPD5506W
7	36.1	OGTPD3507W	OGTPD4507W	OGTPD5007W	OGTPD5507W
8.5	36.1	OGTPD3508W	OGTPD4508W	OGTPD5008W	OGTPD5508W
10	36.1	OGTPD3510W	OGTPD4510W	OGTPD5010W	OGTPD5510W
11.5	37.6	OGTPD3511W	OGTPD4511W	OGTPD5011W	OGTPD5511W
13	39.1	OGTPD3513W	OGTPD4513W	OGTPD5013W	OGTPD5513W

#### **NoMount Driver**

- · Used when placing a nomount fixture
- \* It is recommended that 80% of the planned fixture depth be placed
- C = Connection

C	Mini(ø5.0)	Regular(ø5.0)	Regular(ø5.7)
F3.5	OGNMDM50	-	-
F4.0/4.5	-	OGNMDR50	-
F5.0	-	-	OGNMDR57



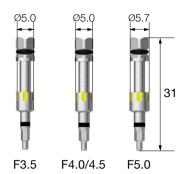


### OneGuide KIT Surgical Instruments

#### **Fixture Driver**

- It is used by tightening to the wrench for the adjustment of the final placement
- Form a yellow groove to align the abutment hex direction
- Match the groove of OneGuide with the groove of driver
- C = Connection

<u>C</u>	Mini(ø5.0)	Regular(ø5.0)	Regular(ø5.7)
F3.5	OGFDM50	-	-
F4.0/4.5	-	OGFDR50	-
F5.0	-	-	OGFDR57



#### **Anchor Screw**

- It is used to fix OneGuide firmly
- Selectable at the planning stage

QGAS18



#### **Anchor Drill**

• Used for drilling before using anchor screw

QGATD13



#### **Anchor Driver**

• Used by tightening to anchor screw

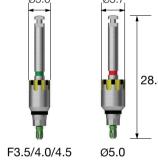
ASMDS

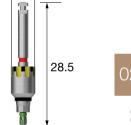


#### **NoMount Driver for SS**

- Used for SSIII NoMount fixture placement
- It is recommended that 80% of the planned fixture depth be placed
- P = Platform

<b>P</b>	Regular(ø5.0)	Regular(ø5.7)
F3.5/4.0/4.5	OGNMDR50S	-
F5.0	-	OGNMDR57S

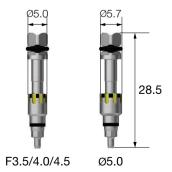




#### Fixture Driver for SS

- It is used by tightening to the wrench for the adjustment of the final placement
- SSIII G/H 2.8 fixture is implanted to the bottom of the driver's marking line
- Form a yellow groove to align the abutment hex direction
- Match the groove of OneGuide with the groove of driver
- P = Platform

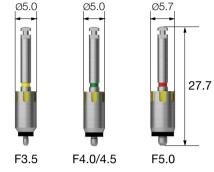
<u>P</u>	Regular(ø5.0)	Regular(ø5.7)
F3.5/4.0/4.5	OGFDR50S	-
F5.0	-	OGFDR57S



#### **NoMount Driver for US**

- Used for USIII NoMount fixture placement
- It is recommended that 80% of the planned fixture depth be placed

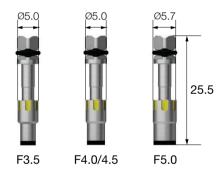




#### Fixture Driver for US

- It is used by tightening to the wrench for the adjustment of the final placement
- Form a yellow groove to align the abutment hex direction
- Match the groove of OneGuide with the groove of driver
- P = Platform

P	Mini(ø5.0)	Regular(ø5.0)	Wide(Ø5.7)
F3.5	OGFDM50U	-	-
F4.0/4.5	-	OGFDR50U	-
F5.0	-	-	OGFDW57U

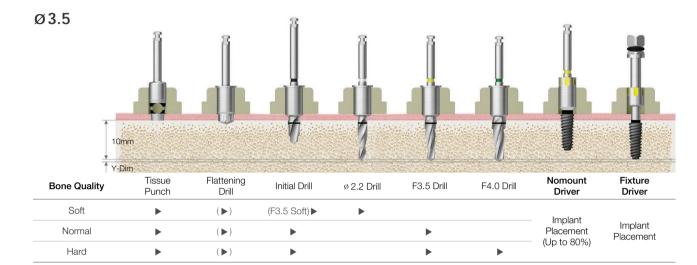


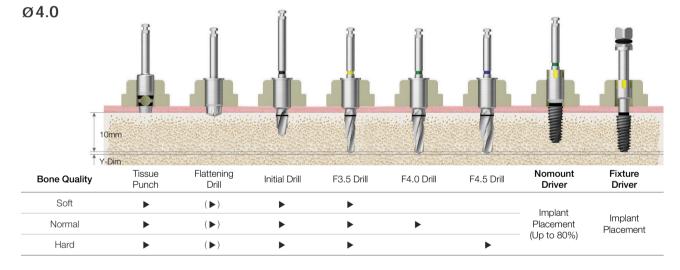
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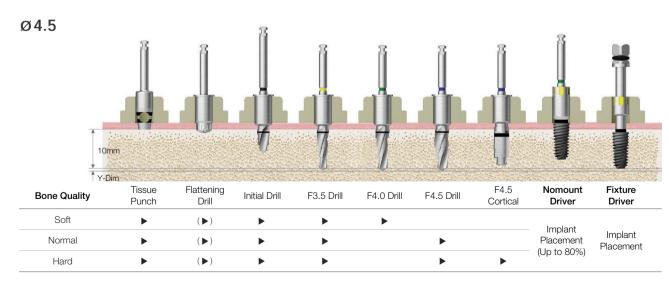
### Drilling Sequence OneGuide Drill

### TSIII | SSIII | USIII

(Length: 10mm)



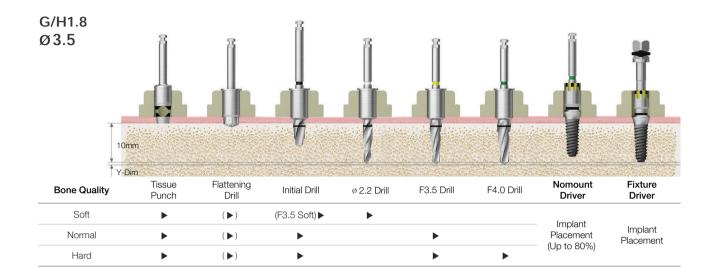


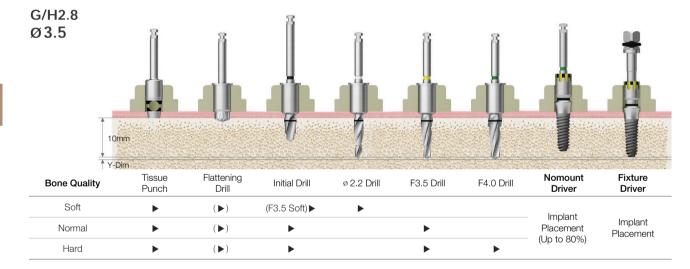


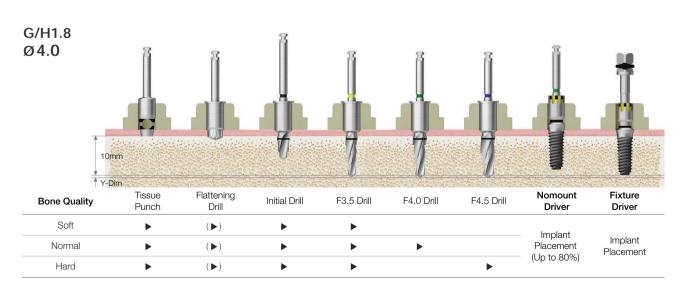
Ø5.0

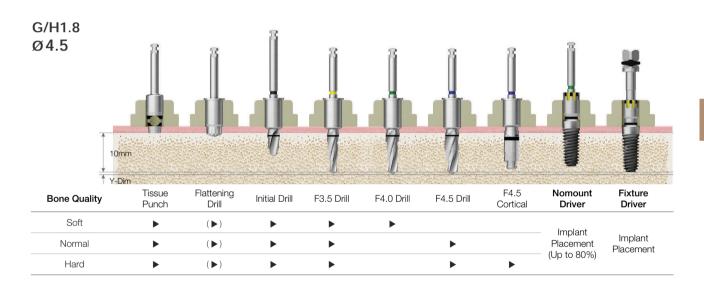
### TSIII | SSIII | USIII

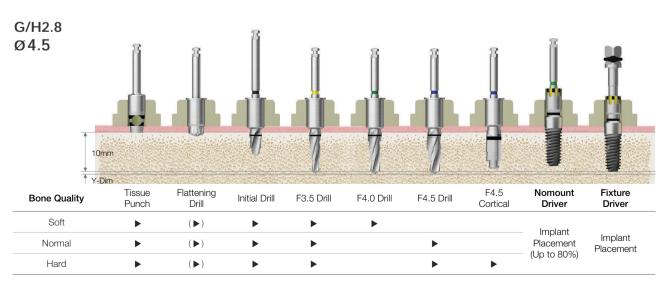
(Length: 10mm)









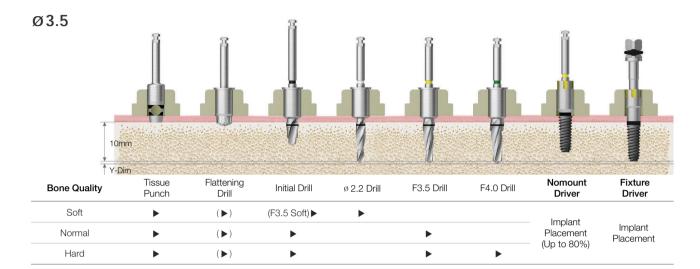


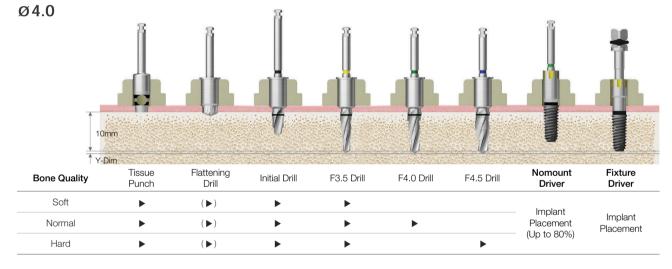
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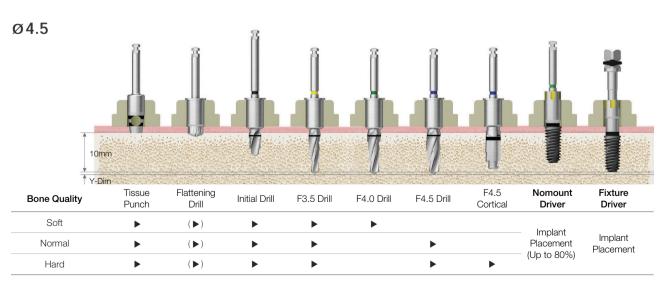
### Drilling Sequence **OneGuide Drill**

### TSIII | SSIII | USIII

(Length: 10mm)



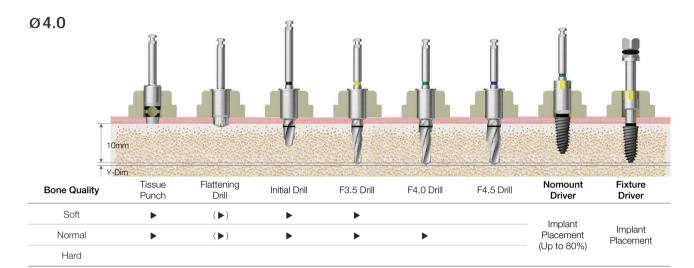


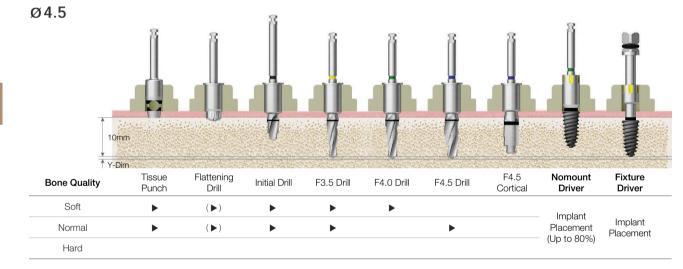


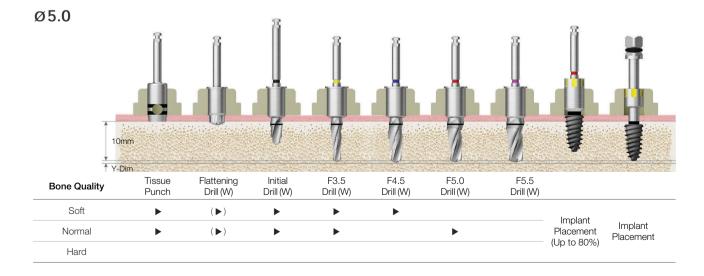
Ø5.0

### **TSIV**

(Length : 10mm)







### OneCAS KIT Surgical Instruments

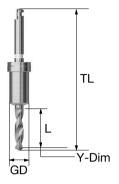
#### OneCAS Ø 2.2 Twist Drill

- 1mm under drilling is recommended to the lower margin of maxillary sinus
- Use a stopper for safety lift
- 1mm shorter than normal twist drill

#### For F4.0/4.5

For F5.0 (W)





#### **OneCAS Drill**

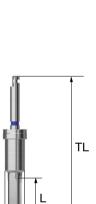
- Use with guide of OneGuide system
- The membrane is safely raised during maxillary sinus surgery
- Possible to collect autogenous bone at low rpm speed
- Use a stopper for safety lift
- · Final drill diameter selection based on bone quality
- Recommended rpm speed : 400~800rpm

#### For F4.0/4.5

L	TL	Ø2.8	ø3.1	Ø3.3	Ø3.6	
	GD		5.0			
7	33.6	OCD2807	OCD3107	OCD3307	OCD3607	
10	36.6	OCD2810	OCD3110	OCD3310	OCD3610	

#### For F5.0 (W)

L	TL	ø2.8	Ø3.1	Ø3.8	Ø4.1
	GD		5	.7	
7	33.6	OCD2807W	OCD3107W	OCD3807W	OCD4107W
10	36.6	OCD2810W	OCD3110W	OCD3810W	OCD4110W





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### OneCAS KIT Surgical Instruments

#### **OneCAS Stopper**

- Stopper number is the length to stop when drill or instrument is tightened
- When the 7mm drill is tightened on the KIT middle plate, the protruding length is indicated in blue and when 10mm drill is tightened, the protruding length is indicated in red
- Color coding by length
- Recommended number of use : 50times

#### For F4.0/4.5



U38

#### For F5.0 (W)



#### Depth Gauge

- Check if maxillary sinus is lifted
- Measure residual bone depth
- Use a stopper for safety lift
- Same depth marking line with 10mm drill



For F4.0/4.5

L \ GD	5.0	
10.6	OCDG	



For F5.0 (W)

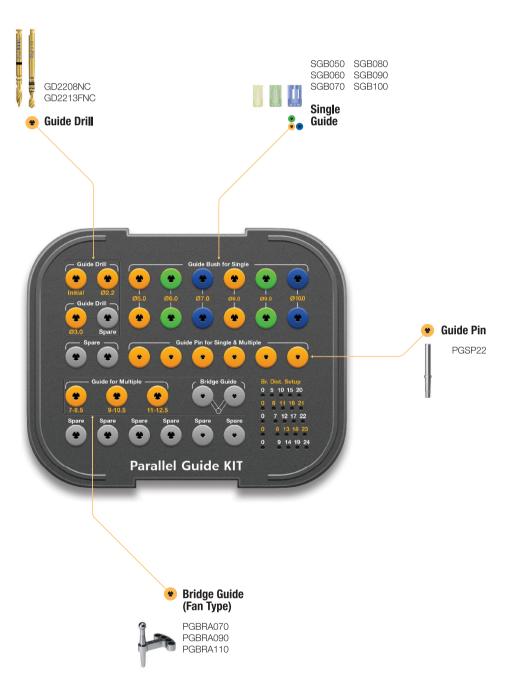
038

OSSTEM K

039

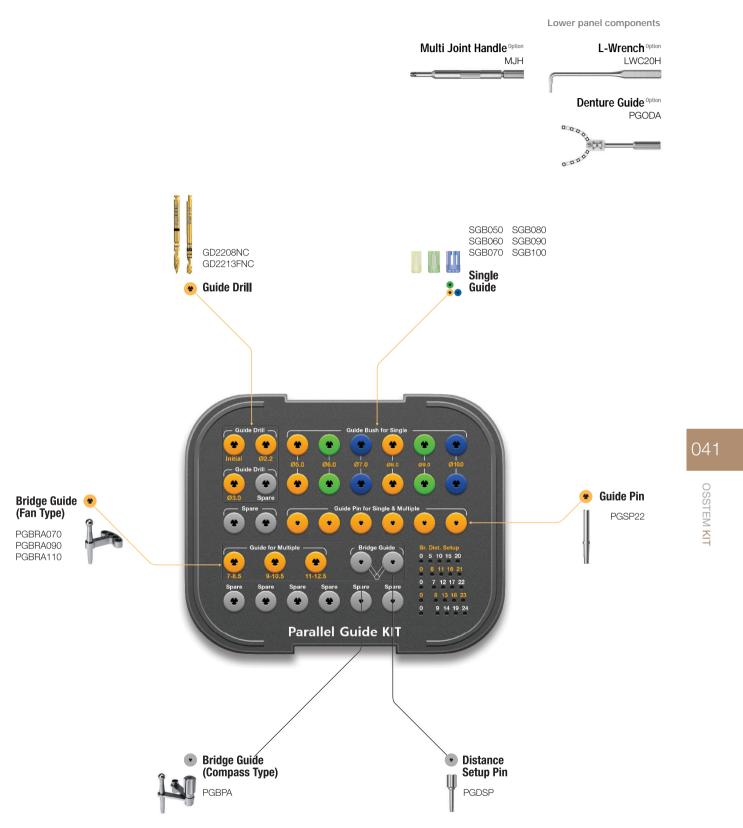
### Parallel Guide KIT (OPGPK)





### Parallel Guide Full KIT (OPGAK)





040

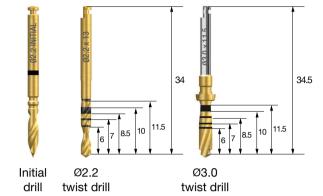
OSSTEM KI

### Parallel Guide KIT Surgical Instruments

#### **Guide Drill**

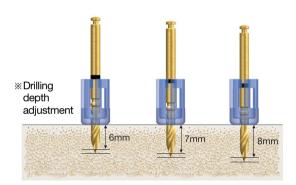
- Initial drill: drilling depth can be adjusted by fastening it to the single guide
- Ø 2.2 twist drill : used with the bridge guide
- Ø 3.0 twist drill : final drill

\ <b>D</b>	Ø2.2	ø3.0
Initial drill	GD2208NC	-
Twist drill	GD2213FNC	2D3011LC01



#### Single Guide

- Transparent material indicates the location and direction of drilling
- Available in six sizes from Ø 5.0~10.0, must take into account the mesiodistal crown diameters
- Packing unit : 2ea
- \* Disposable; do not re-use
- Drilling depth can be adjusted from 6~8mm, refer to the initial drill marker and top of the single guide marker



F5.0	F6.0	F7.0	F8.0	F9.0	F10.0
SGB050	SGB060	SGB070	SGB080	SGB090	SGB100

#### Guide Pin

• Checks drilling path and secures the single guide





Bridge Guide

- Adjustable drill guide for setting up the optimal implant placement and initial drilling sites
- Fan type: range between 7~12.5mm, 0.5mm increments
- Compass type: range between 5~24mm, 1mm increments
- Set distance using the kit's middle plate









Compass type Option

Type Distance	7~8.5	9~10.5	11~12.5	5~24
Fan	PGBRA070	PGBRA090	PGBRA110	-
Compass	-	-	-	PGBPA

#### Multi Joint Handle Option

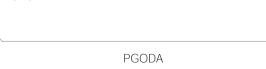
• Handle connects to the ball head of the bridge guide, provides information about the guide from outside the mouth





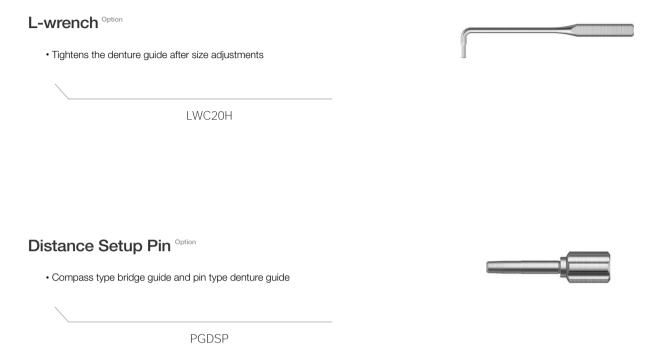


- Angle adjustable denture guide for fully edentulous cases
- Using a stone model, arrange the guide to the ideal confirguration. Tighten and set the guide using the L-wrench. Transfer to the patient to start surgery.
- Markers represent tooth positions, 2, 3, 4, 5, etc... starting from the midline





### Parallel Guide KIT Surgical Instruments



SmartGuide KIT (OSGK)

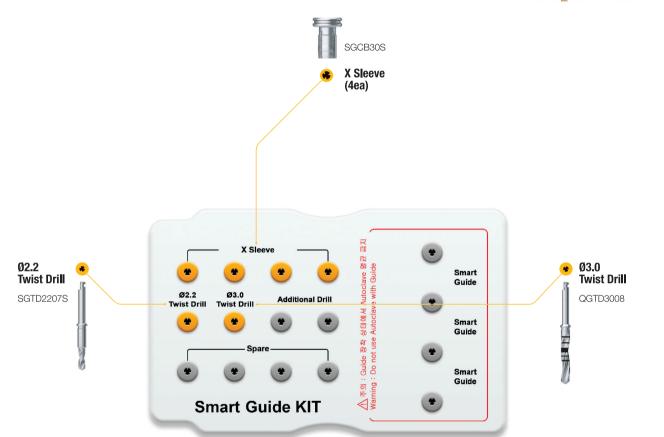


Lower panel components

#### Guide Pin (4ea) SGP 22

#### Round bur (2ea) RAHM1018

### **Ø2.2 Cast Drill (2ea)** For stone models 2D2208LC01



045

045

OSCIENT

### SmartGuide KIT Surgical Instruments

#### SmartGuide

- Medical grade thermoplastic material
- Becomes flexible when immersed in 70°C water for approx. 1min
- Template hardens in 1 min at room temperature
- \* Disposable; do not re-use; sterilizable under low temperature (Do not autoclave, do not use hydrogen peroxide)

Туре	Single	Free-end Bridge	2-Unit Br.: small	2-Unit Br.: large
		00	00	00
	SGTSS	SGTFB90LS	SGTB63SS	SGTB85LS

#### **Twist Drill**

- Drills specifically for SmartGuide
- Stable drilling through the SmartGuide sleeve
- Initial drilling using the  $\,^{\varnothing}$  2.2, followed by  $\,^{\varnothing}$  3.0 drill
- Recommended speed : 1,200~1,500rpm





#### X Sleeve

- Connect to the SmartGuide sleeve and insert into the surgical site
- After tightening to a SmartGuide outside the mouth, tighten it in the mouth





#### **Round Bur**

- Marks site of the guide pin on a stone model
- Number of usages : 10 times
- Recommended speed: 1,200~1,500rpm

D Ø1.8

RAHM1018

#### Ø2.2 Twist Drill For stone models

- Drills the hole in the stone model for the guide pin
- Number of usages : 10 times
- Drill after marketing the site with the round bur
- Recommended speed : 1,200~1,500rpm

D Ø2.2

2D2208LC01





OSST

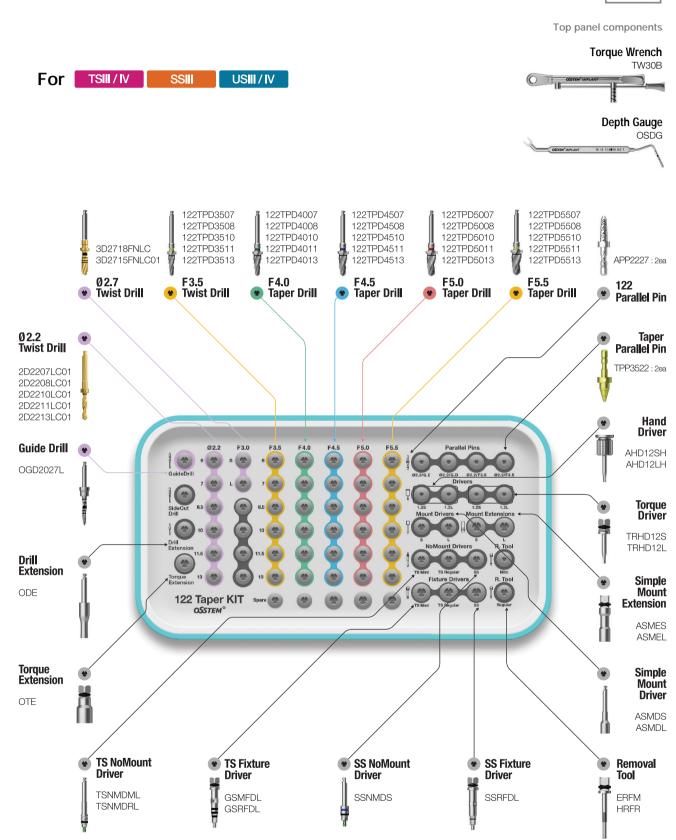
#### Guide Pin

- Pin that secures the SmartGuide to the stone model
- Connected to the SmartGuide sleeve

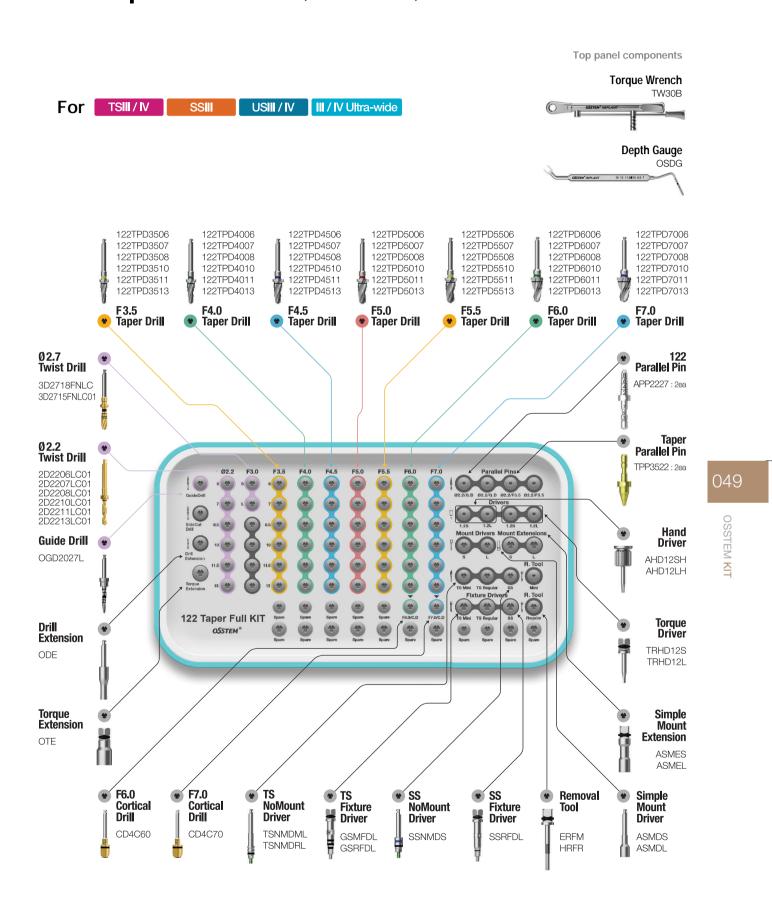
SGP22

### **122 Taper KIT** (O122TPK)





### 122 Taper Full KIT (O122TPFK)



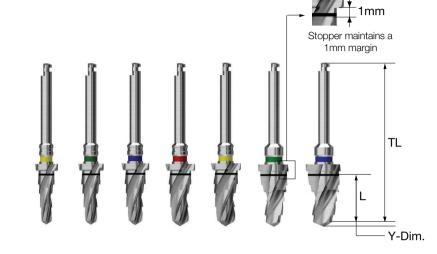
048

OSSIEM KI

### **122 Taper KIT** Surgical Instruments

#### 122 Taper Drill

- Taper drill for taper (III type) fixture
- Specification by diameter and length
- Color coding displays fixture diameter
- One step large-diameter drill is used to remove cortical bone from the hard bone
- 122 taper KIT single item (excluded from taper KIT)
- F = Fixture



L \	TL	F3.5	F4.0	F4.5	F5.0	F5.5	F6.0	F7.0
	Y-Dim.	0.7	0.9	1.0	1.0	1.0	1.0	1.0
4.0	29.5	122TPD <b>3504</b>	122TPD <b>4004</b>	122TPD <b>4504</b>	122TPD <b>5004</b>	122TPD <b>5504</b>	-	-
5.0	29.5	122TPD <b>3505</b>	122TPD <b>4005</b>	122TPD <b>4505</b>	122TPD <b>5005</b>	122TPD <b>5505</b>	-	-
6.0	30.5	122TPD <b>3506</b>	122TPD <b>4006</b>	122TPD <b>4506</b>	122TPD <b>5006</b>	122TPD <b>5506</b>	122TPD <b>6006</b>	122TPD <b>7006</b>
7.0	31.5	122TPD <b>3507</b>	122TPD <b>4007</b>	122TPD <b>4507</b>	122TPD <b>5007</b>	122TPD <b>5507</b>	122TPD <b>6007</b>	122TPD <b>7007</b>
8.5	33	122TPD <b>3508</b>	122TPD <b>4008</b>	122TPD <b>4508</b>	122TPD <b>5008</b>	122TPD <b>5508</b>	122TPD <b>6008</b>	122TPD <b>7008</b>
10	34.5	122TPD <b>3510</b>	122TPD <b>4010</b>	122TPD <b>4510</b>	122TPD <b>5010</b>	122TPD <b>5510</b>	122TPD <b>6010</b>	122TPD <b>7010</b>
11.5	34.5	122TPD <b>3511</b>	122TPD <b>4011</b>	122TPD <b>4511</b>	122TPD <b>5011</b>	122TPD <b>5511</b>	122TPD <b>6011</b>	122TPD <b>7011</b>
13	36	122TPD <b>3513</b>	122TPD <b>4013</b>	122TPD <b>4513</b>	122TPD <b>5013</b>	122TPD <b>5513</b>	122TPD <b>6013</b>	122TPD <b>7013</b>
15	38	122TPD <b>3515</b>	122TPD <b>4015</b>	122TPD <b>4515</b>	122TPD <b>5015</b>	122TPD <b>5515</b>	-	-
Color		Yellow	Green	Blue	Red	Yellow	Green	Blue

#### Cortical Drill for Ultra-Wide

- Drill used to remove cortical bone from hard bone (for ultra-wide)
- Dedicated drill by fixture diameter
- It is recommended to drill to the bottom line of the marking line
- F = Fixture

F6.0	F7.0	
CD4C60	CD4C70	



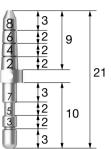


#### Parallel Pin for 122 Taper Drill

- Parallel pin for 122 taper drill
- Used for checking position and direction of bone preparation
- Lower part for 2.2 drill, upper part for guide drill
- 122 taper KIT single item (excluded from taper KIT)
- Other components same as taper KIT

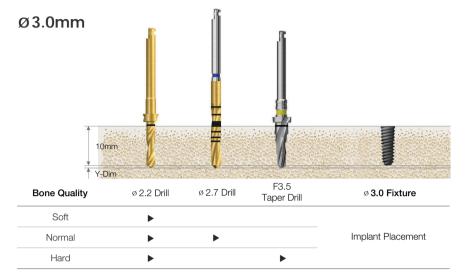


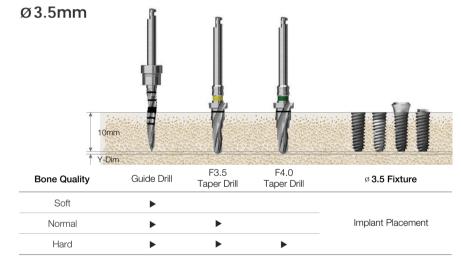
\* Refer to surgical instruments for other components (106p~)

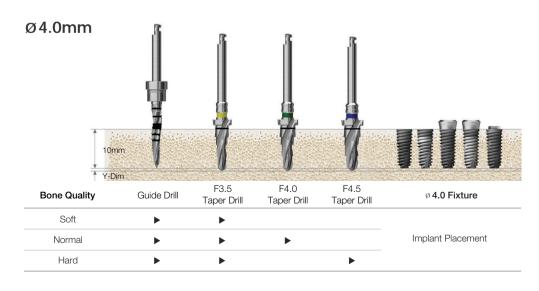


### TSIII | SSIII | USIII

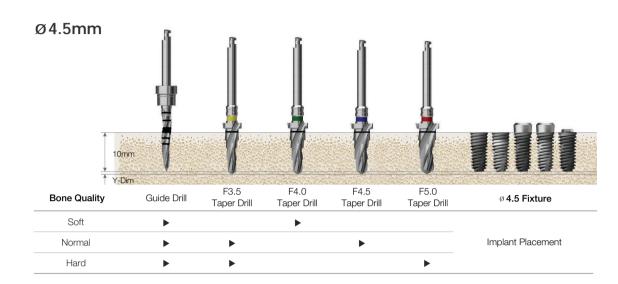
(Length: 10mm)

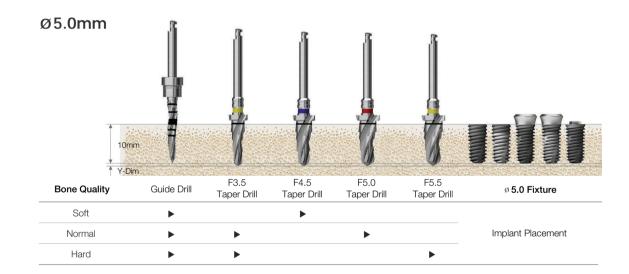


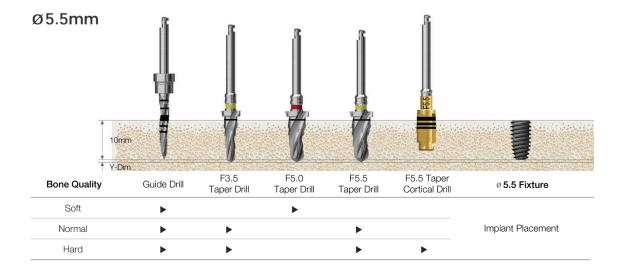




F5.5 taper cortical drill marking line Bottom line 6mm or less, middle line 7mm, top line 8,5mm or more fixture placement standard Recommended placement torque Below than 40Ncm, TSIII/SSIII HA: below than 35Ncm (In hard bone, HA coating layer cracking and peeling can occur) TS fixture placement depth. The normal bone is placed 1mm deeper than the bone level, and the soft bone is placed at the bone level to maintain the fixed strength



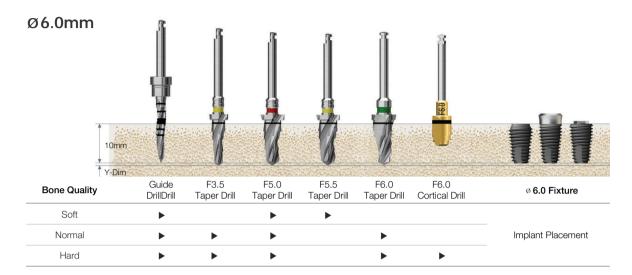


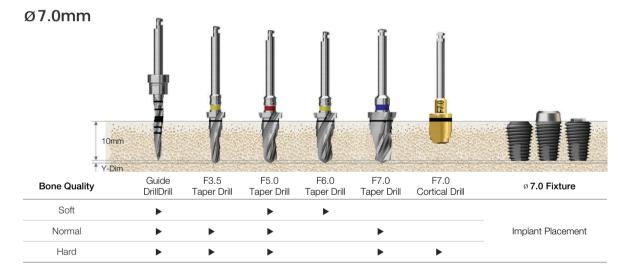


### Drilling Sequence 122 Taper Drill

### TSIII Ultra-wide | SSIII Ultra-wide | USIII Ultra-wide

(Length: 10mm)





F5\_5 taper cortical drill marking line Bottom line 6mm or less, middle line 7mm, top line 8,5mm or more fixture placement standard

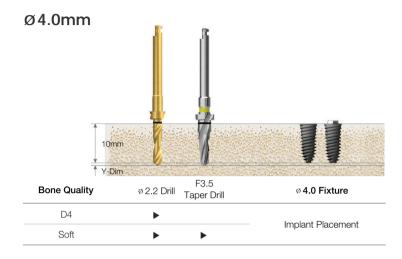
Recommended placement torque Below than 40Ncm, TSIII/SSIII HA: below than 35Ncm (In hard bone, HA coating layer cracking and peeling can occur)

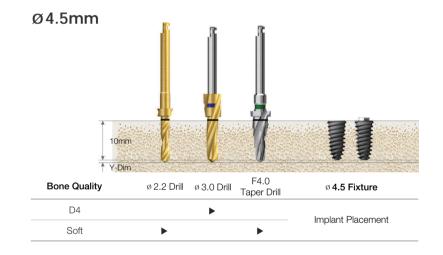
TS fixture placement depth The normal bone is placed 1mm deeper than the bone level, and the soft bone is placed at the bone level to maintain the fixed strength

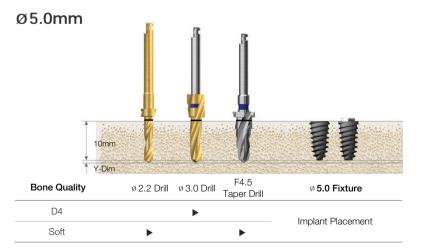
### Drilling Sequence 122 Taper Drill

### **TSIV** | USIV

(Length: 10mm)

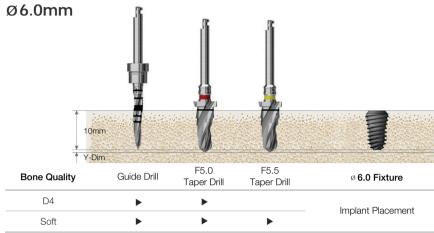


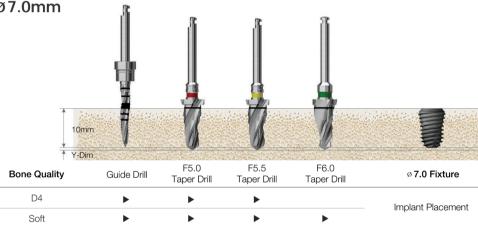




### **TSIV Ultra-wide**

(Length: 10mm)



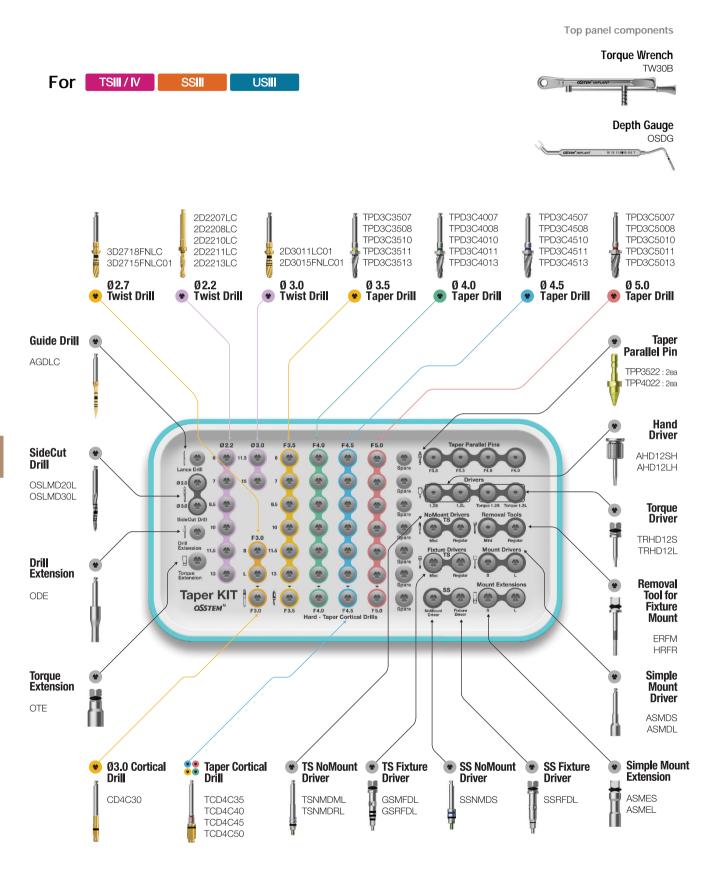


F5.5 taper cortical drill marking line Bottom line 6mm or less, middle line 7mm, top line 8,5mm or more fixture placement standard

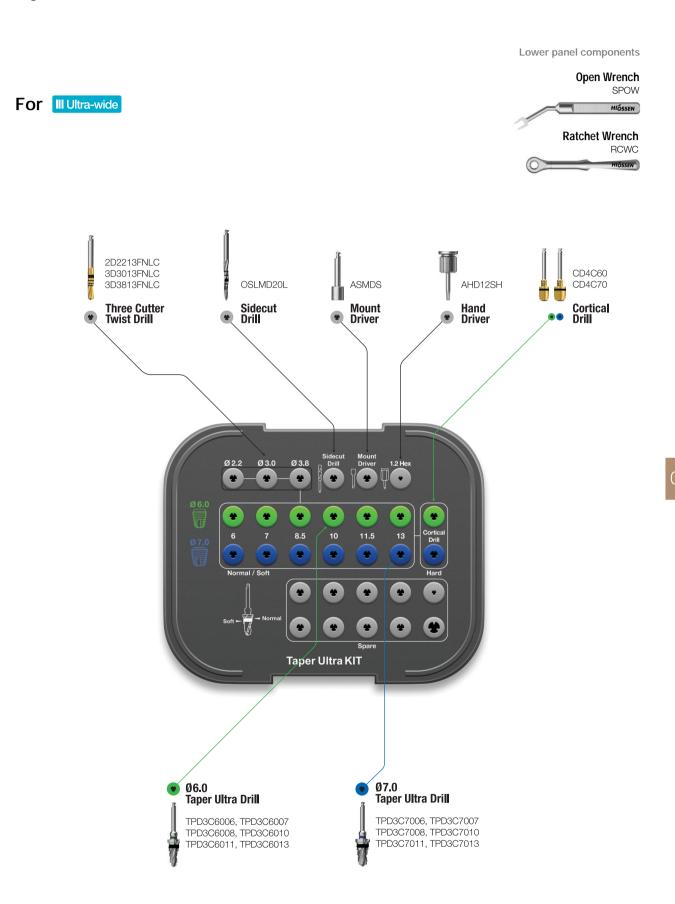
Recommended placement torque Below than 40Ncm, TSIII/SSIII HA: below than 35Ncm (In hard bone, HA coating layer cracking and peeling can occur) TS fixture placement depth. The normal bone is placed 1mm deeper than the bone level, and the soft bone is placed at the bone level to maintain the fixed strength



### Taper KIT (OTSK)



### Taper Ultra KIT (HULTPK)



058

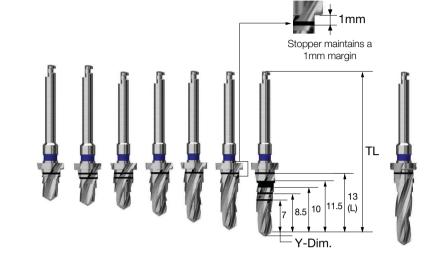
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### **Taper KIT** Surgical Instruments

#### **Taper Drill**

- Taper drill for taper(III type) fixture by diameter and length
- Stopper drill with 1mm space
- Color coding displays fixture diameter
- F3.5 : yellow, F4.0 : green, F4.5 : blue, F5.0 : red, F5.5 : yellow
- Taper KIT single item (excluded from 122 taper KIT)



L	TL	F3.5	F4.0	F4.5	F5.0	F5.5
	Y-Dim.	0.8	0.9	1.0	1.0	1.0
5.0	29.5	TPD3C <b>3505</b>	TPD3C <b>4005</b>	TPD3C <b>4505</b>	TPD3C <b>5005</b>	-
6.0	30.5	TPD3C <b>3506</b>	TPD3C <b>4006</b>	TPD3C <b>4506</b>	TPD3C <b>5006</b>	TPD3C <b>5506</b>
7.0	31.5	TPD3C <b>3507</b>	TPD3C <b>4007</b>	TPD3C <b>4507</b>	TPD3C <b>5007</b>	TPD3C <b>5507</b>
8.5	33	TPD3C <b>3508</b>	TPD3C <b>4008</b>	TPD3C <b>4508</b>	TPD3C <b>5008</b>	TPD3C <b>5508</b>
10	34.5	TPD3C <b>3510</b>	TPD3C <b>4010</b>	TPD3C <b>4510</b>	TPD3C <b>5010</b>	TPD3C <b>5510</b>
11.5	34.5	TPD3C <b>3511</b>	TPD3C <b>4011</b>	TPD3C <b>4511</b>	TPD3C <b>5011</b>	TPD3C <b>5511</b>
13	36	TPD3C <b>3513</b>	TPD3C <b>4013</b>	TPD3C <b>4513</b>	TPD3C <b>5013</b>	TPD3C <b>5513</b>
15	38	TPD3C <b>3515</b>	TPD3C <b>4015</b>	TPD3C <b>4515</b>	TPD3C <b>5015</b>	TPD3C <b>5515</b>
Color		Yellow	Green	Blue	Red	Yellow

#### **Taper Cortical Drill** for Taper Fixture (TSIII, SSIII, USIII)

- Drill used to remove cortical bone at hard bone (Use immediately after taper drill)
- · Dedicated drill for each fixture diameter
- F3.5~5.0 drill marking line: bottom line 8.5mm or less, top line 10mm or more fixture placement standard
- F5.5 drill marking line: bottom line 6mm or less, middle line 7mm, top line 8.5mm or more fixture placement standard
- It is recommended to drill to the bottom of the marking line
- Taper KIT single item (excluded from 122 taper KIT)
- F = Fixture

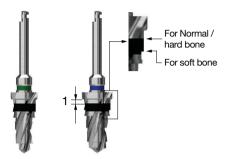
F3.5	F4.0	F4.5	F5.0	F5.5

TCD4C35 TCD4C40 TCD4C45 TCD4C50 TCD4C55

### **Taper Ultra Drill**

- Taper drill for taper ultra-wide fixture by diameter and length
- Stopper drill with 1mm space
- Color coding displays fixture diameter
- F = Fixture

L	F6.0	F7.0
6	TPD3C <b>6006</b>	TPD3C <b>7006</b>
7	TPD3C <b>6007</b>	TPD3C <b>7007</b>
8.5	TPD3C <b>6008</b>	TPD3C <b>7008</b>
10	TPD3C <b>6010</b>	TPD3C <b>7010</b>
11.5	TPD3C <b>6011</b>	TPD3C <b>7011</b>
13	TPD3C <b>6013</b>	TPD3C <b>7013</b>
Color	Green	Blue



#### Cortical Drill for Ultra-Wide

- Drill used to remove cortical bone at hard bone (for ultra-wide)
- · Dedicated drill for each fixture diameter
- It is recommended to drill to the bottom of the marking line
- F = Fixture

F6.0	F7.0	
CD4C60	CD4C70	



#### Parallel Pin for Taper Drill

- Parallel pin for taper drill
- Used for checking position and direction of bone preparation
- The lower part is for fixture diameter drill and the upper part is for initial drill
- Color coding by fixture diameter (F3.5 : yellow, F4.0 : green, F4.5 : blue, F5.0 : silver)
- 122 taper & taper KIT common components

F3.5	F4.0	F4.5	F5.0	
TPP3522	TPP4022	TPP4522	TPP5022	

## **Taper KIT** Surgical Instruments

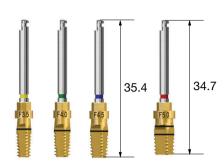
#### Tapered Fixture Tap for TSIII, USIII, SSIII SA

- Tap for tapered fixture (III type)
- Used in hard bone and forming fixture screw thread
- Engine (25rpm recommended) or torque wrench after mount extension fastening
- Taping to the bottom of the marking line is recommended.

  (for F5.0, the bottom line below 7.0mm fixture and the upper line over 8.5mm fixture placement standard)
- F = Fixture

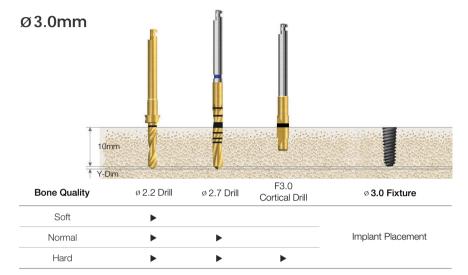
F3.5	F4.0	F4.5	F5.0
OFTS35	OFTS40	OFTS45	OFTS50

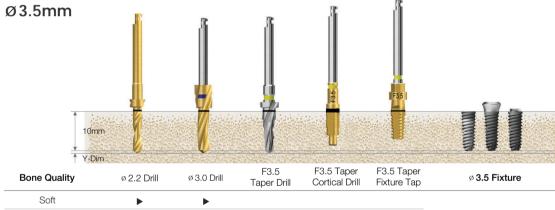
\* Refer to surgical instruments for other components (106p~)



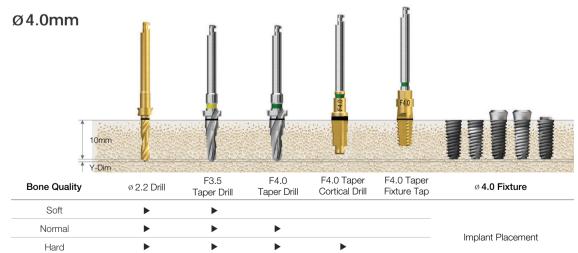
### TSIII | SSIII | USIII

(Length: 10mm)





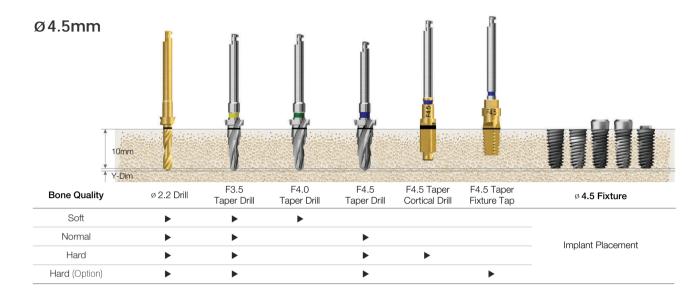
Bone Quality	ø 2.2 Drill	ø 3.0 Drill	F3.5 Taper Drill	F3.5 Taper Cortical Drill	F3.5 Taper Fixture Tap	Ø 3.5 Fixture
Soft	<b>&gt;</b>	•				Implant Placement
Normal	<b>&gt;</b>		•			
Hard	<b>&gt;</b>		<b>&gt;</b>	<b>&gt;</b>		
Hard (Option)	<b>&gt;</b>		<b>&gt;</b>		<b>&gt;</b>	

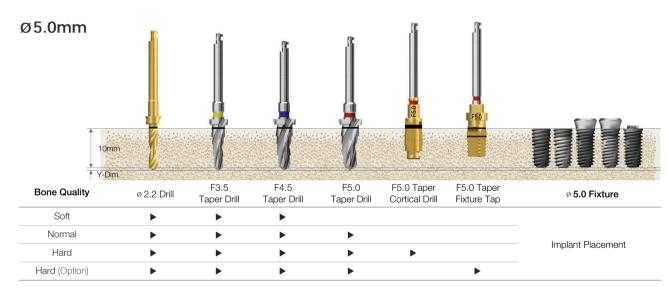


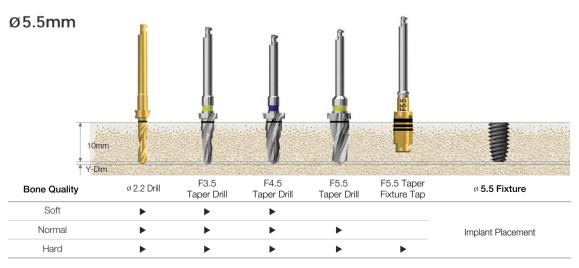
Taper cortical drill marking line Bottom line 8.5mm or more, top line 10mm or more fixture placement standard

Recommended placement torque Below than 40Ncm, TSIII/SSIII HA: below than 35Ncm (In hard bone, HA coating layer cracking and peeling can occur)
TS fixture placement depth The normal bone is placed 1mm deeper than bone level, and the soft bone is placed at the bone level to maintain the fixed strength
Fixture tap used in hard bone: engine (25rpm recommended) or torque wrench after mount extension fastening

(F5.0 fixture tap: bottom line 7mm or less, top line 8.5mm or more fixture placement standard)



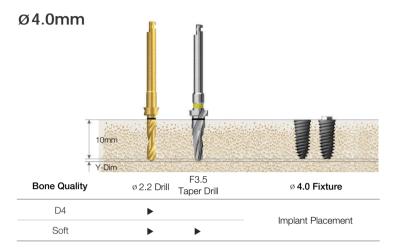


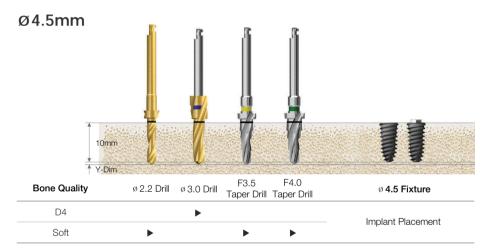


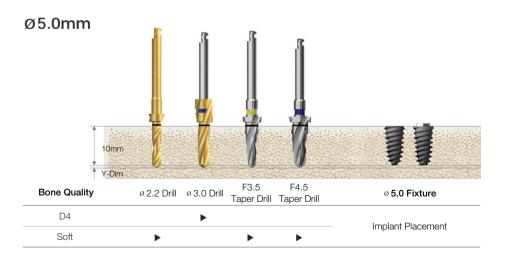
Hard (Option)

### **TSIV** | USIV

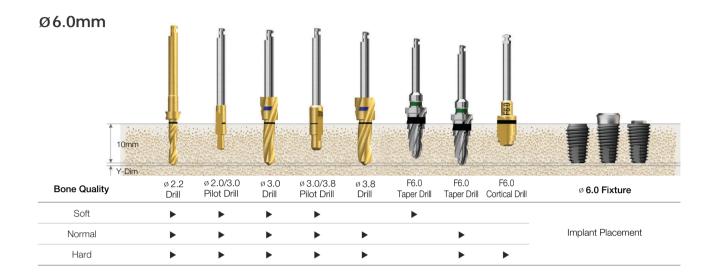
(Length: 10mm)

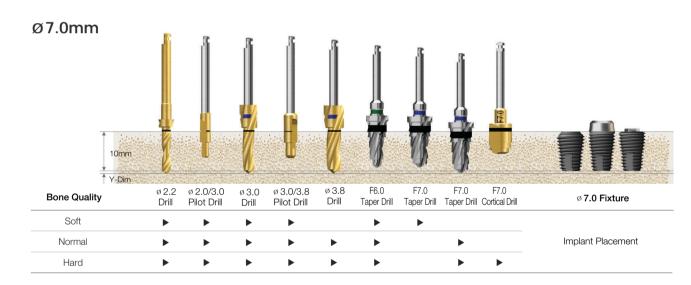






### TSIII Ultra-wide | SSIII Ultra-wide | USIII Ultra-wide

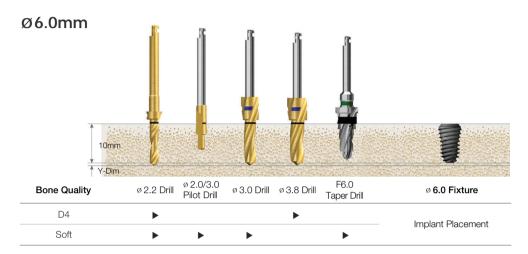


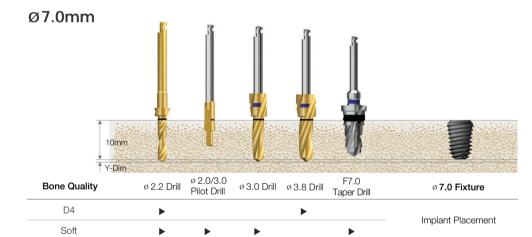


Recommended placement torque Below than 40Ncm

TS fixture placement depth The normal/hard bone is placed 1mm deeper than bone level, and the soft bone is placed at the bone level to maintain the fixed strength

# TSIV Ultra-wide (Length: 10mm)



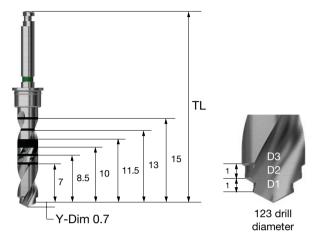


TS fixture placement depth The normal/hard bone is placed 1mm deeper than bone level, and the soft bone is placed at the bone level to maintain the fixed strength

### 123 Straight Simple KIT Surgical Instruments

#### 123 Twist Drill

- A straight drill(marking drill) that reduces sequences
- 123 drill color coding shows diameter and main fixture used
- Easy to adjust drilling depth as desired by fastening stopper
- Be sure to use stopper as it can be difficult to control the depth due to excellent cutting force
- F = Fixture



D1/D2/D3 F3.5(Ø2.2/3.0) F4.0(Ø3.0/3.6) F4.5(Ø3.0/3.6/4.1) F5.0(Ø3.0/4.1/4.6) TL

34 2D2230S 2D3036S 2D3041S 2D3046S 2D3046L 40.4 2D2230L 2D3036L 2D3041L Color Yellow Green Blue Red

#### 123 Drill Stopper

- The stopper number is the length of the tip protruding when drill or instrument is tightened
- · Length-based color coding makes it easy to grasp the length



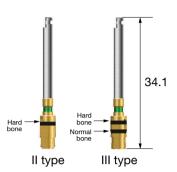
### 123 Straight Simple KIT Surgical Instruments

#### 123 Cortical Drill

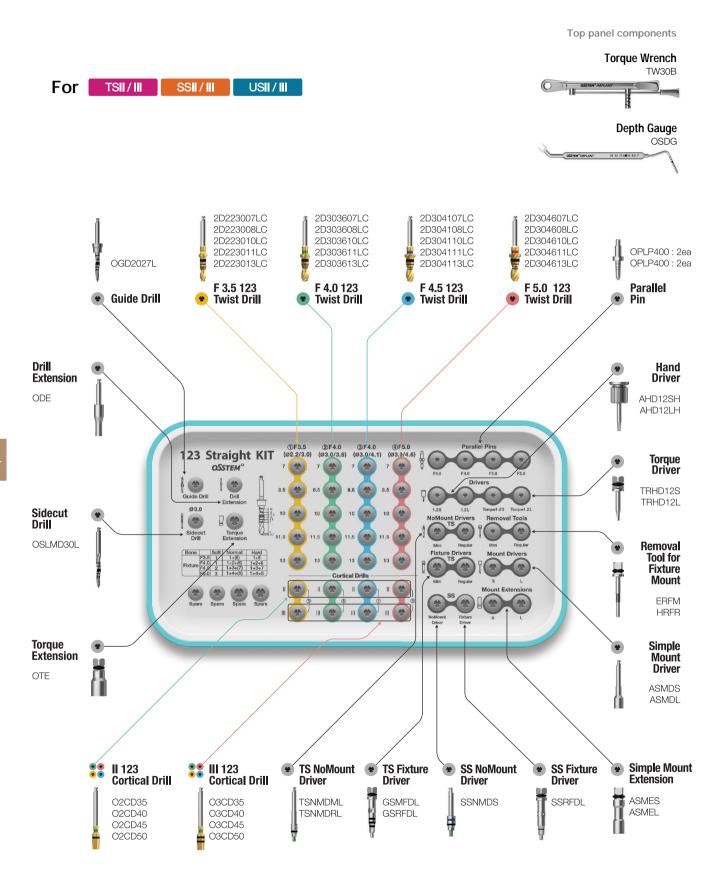
- Drill used to remove cortical bone from hard bone
- Recommend drilling to bottom line of marking line
- Il type marking line : hard bone standard
- III type marking line: lower line normal bone, upper line hard bone standard
- IV type marking line : normal bone standard
- Color coding displays diameter and main fixture used
- F = Fixture

Туре	F3.5	F4.0	F4.5	F5.0
II	O2CD <b>35</b>	O2CD <b>40</b>	O2CD <b>45</b>	O2CD <b>50</b>
Ш	O3CD <b>35</b>	O3CD <b>40</b>	O3CD <b>45</b>	O3CD <b>50</b>
Color	Yellow	Green	Blue	Red



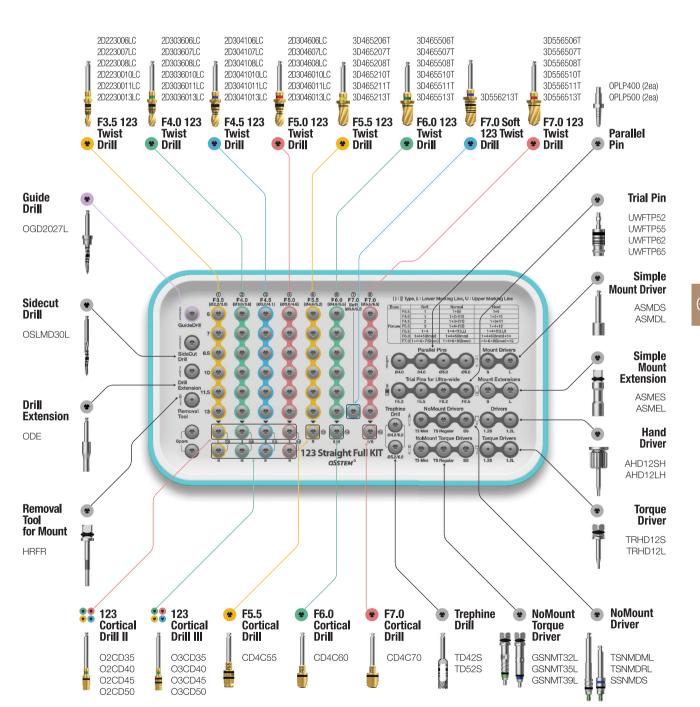


# 123 Straight KIT (O123FK)



# 123 Straight Full KIT (O123STFK)



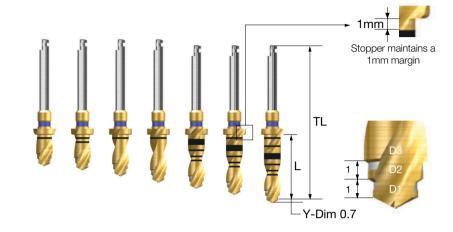


074

# 123 Straight KIT Surgical Instruments

#### 123 Twist Drill - Stopper Drill

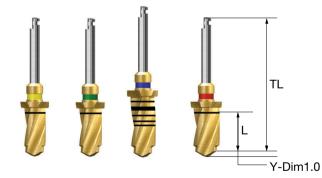
- A straight drill (it has stopper) to shorten the number of drilling
- 123 drill color coding shows diameter and main fixture used
- F = Fixture



			D.	1/D2/D3	
L \	TL	F3.5 (Ø2.2/3.0)	F4.0 (Ø3.0/3.6)	F4.5 (Ø3.0/3.6/4.1)	F5.0 (Ø3.0 / 4.1 / 4.6)
6	30.5	2D2230 <b>06LC</b>	2D3036 <b>06LC</b>	2D3041 <b>06LC</b>	2D3046 <b>06LC</b>
7	31.5	2D2230 <b>07LC</b>	2D3036 <b>07LC</b>	2D3041 <b>07LC</b>	2D3046 <b>07LC</b>
8.5	33	2D2230 <b>08LC</b>	2D3036 <b>08LC</b>	2D3041 <b>08LC</b>	2D3046 <b>08LC</b>
10	34.5	2D2230 <b>10LC</b>	2D3036 <b>10LC</b>	2D3041 <b>10LC</b>	2D3046 <b>10LC</b>
11.5	34.5	2D2230 <b>11LC</b>	2D3036 <b>11LC</b>	2D3041 <b>11LC</b>	2D3046 <b>11LC</b>
13	36	2D2230 <b>13LC</b>	2D3036 <b>13LC</b>	2D3041 <b>13LC</b>	2D3046 <b>13LC</b>
15	38	2D2230 <b>15LC</b>	2D3036 <b>15LC</b>	2D3041 <b>15LC</b>	2D3046 <b>15LC</b>
Color	-	Yellow	Green	Blue	Red

#### 123 Ultra Twist Drill

- Two-stage drill with both pilot drill and twist drill
- A straight drill (It has stopper) to shorten the number of drilling
- F7.0 fixture on soft bone uses dedicated drill
- F = Fixture

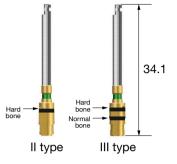


L \_	TL	F3.5 (Ø4.6/5.2)	F6.0 (Ø4.6/5.5)	F7.0 Soft (Ø5.5/6.2)	F7.0 (Ø5.5/6.5)
6	30.5	3D4652 <b>06T</b>	3D4655 <b>06T</b>	-	3D5565 <b>06T</b>
7	31.5	3D4652 <b>07T</b>	3D4655 <b>07T</b>	-	3D5565 <b>07T</b>
8.5	33.5	3D4652 <b>08T</b>	3D4655 <b>08T</b>	-	3D5565 <b>08T</b>
10	34.5	3D4652 <b>10T</b>	3D4655 <b>10T</b>	-	3D5565 <b>10T</b>
11.5	34.5	3D4652 <b>11T</b>	3D4655 <b>11T</b>	-	3D5565 <b>11T</b>
13	36.0	3D4652 <b>13T</b>	3D4655 <b>13T</b>	3D5562 <b>13T</b>	3D5565 <b>13T</b>
Colo	r	Yellow	Green	Blue	Red

#### 123 Cortical Drill

- Drill used to remove cortical bone from hard bone
- · Recommend drilling to bottom line of marking line
- Il type marking line : hard bone standard
- III type marking line : lower line normal bone, upper line hard bone standard
- IV type marking line : normal bone standard
- Color coding displays diameter and main fixture used
- F = Fixture

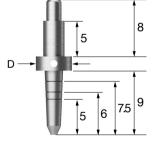
Туре	F3.5	F4.0	F4.5	F5.0
II	O2CD <b>35</b>	O2CD <b>40</b>	O2CD <b>45</b>	O2CD <b>50</b>
III	O3CD <b>35</b>	O3CD <b>40</b>	O3CD <b>45</b>	O3CD <b>50</b>
Color	Yellow	Green	Blue	Red



#### Parallel Pin for 123 Drill

- Parallel pin for 123 twist drill
- Used to check position and orientation of bone preparation
- Lower end for initial drill, upper end for F3.5 (Ø 2.2/3.0) drill

D	Ø4.0	Ø5.0	
	OPLP400	OPLP500	



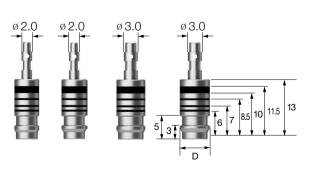
#### Trial Pin for Ultra-wide

- Checking the width and depth inside and outside the failed implant socket
- Use direct drill as final drill and check drilling depth
- Parallel pin purpose



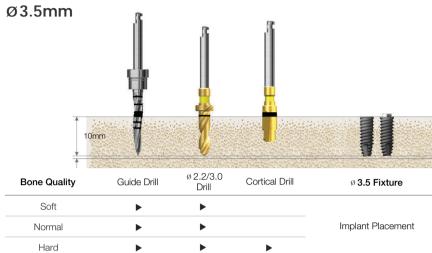
UWFTP52 UWFTP55 UWFTP62 UWFTP65

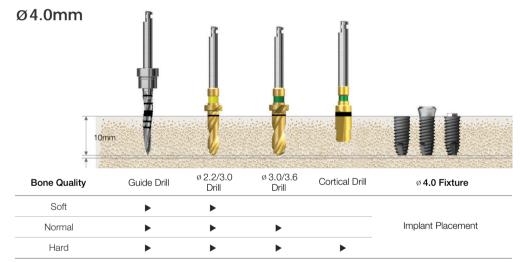
\* Refer to surgical instruments for other components (106p~)

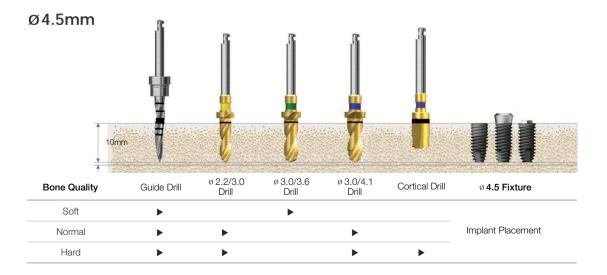


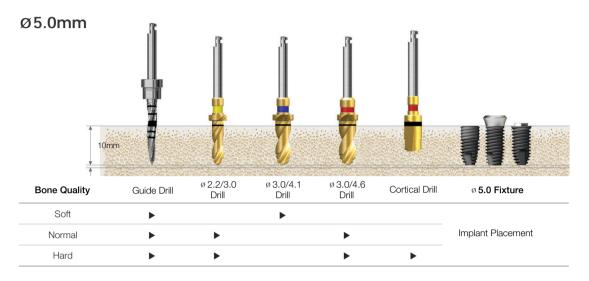
# TSII | SSII | USII

(Length: 10mm)



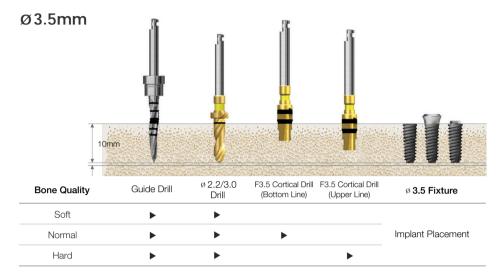


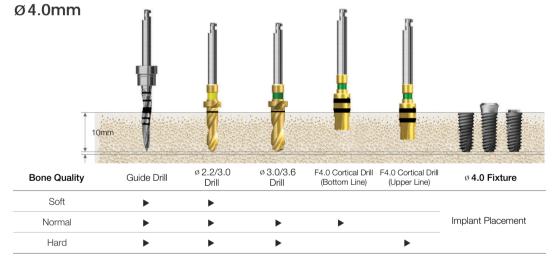


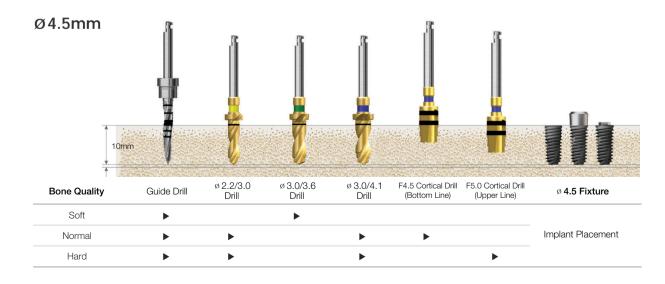


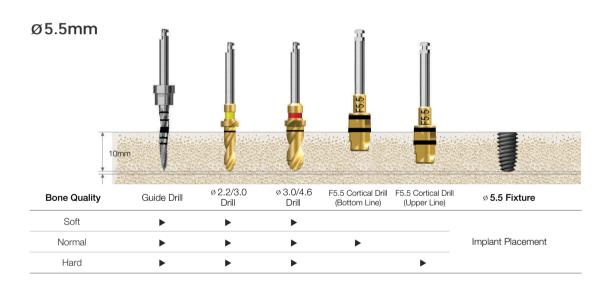
# TSIII | SSIII | USIII

(Length: 10mm)



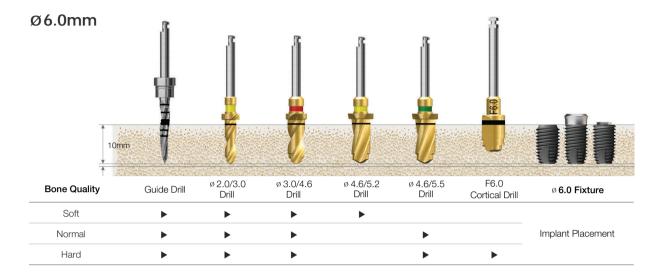


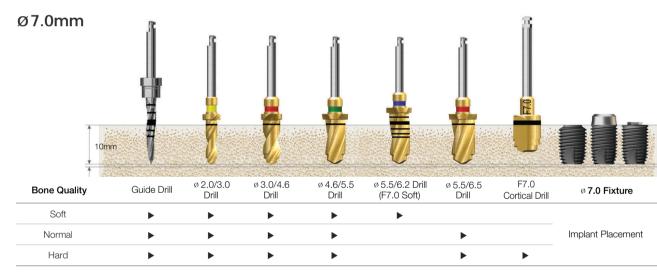




### Drilling Sequence Ultra-wide 123 Twist Drill

## TSII Ultra-wide | SSII Ultra-wide | USII Ultra-wide

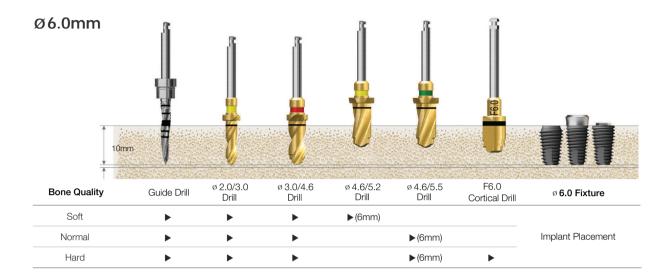


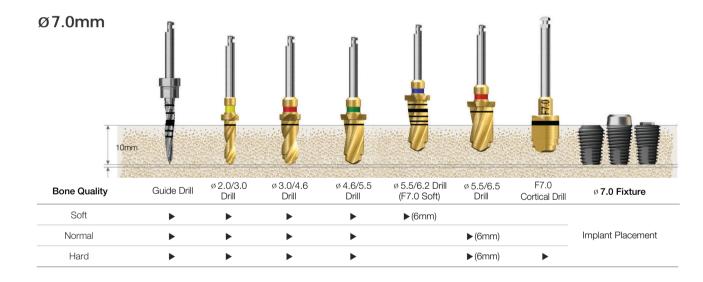


### Drilling Sequence Ultra-wide 123 Twist Drill

## TSIII Ultra-wide | SSIII Ultra-wide | USIII Ultra-wide

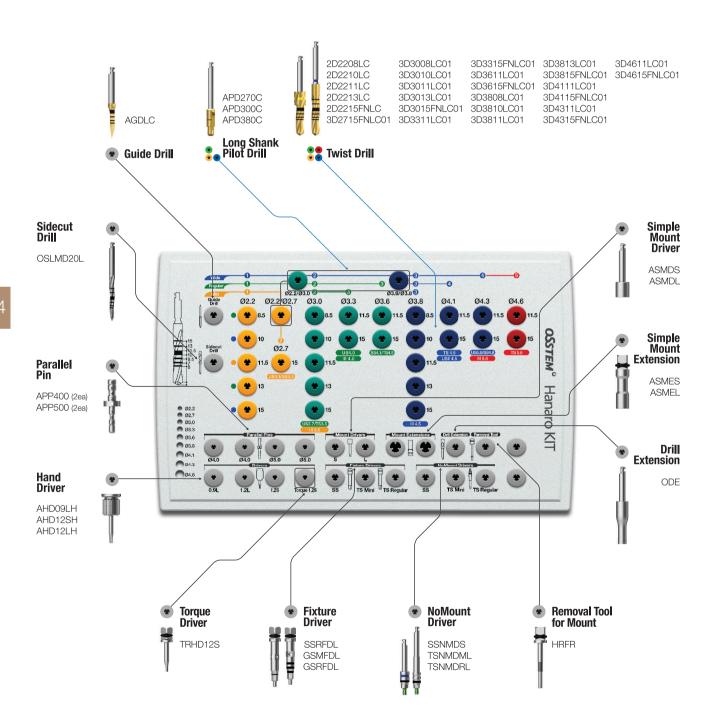
(Length: 10mm)

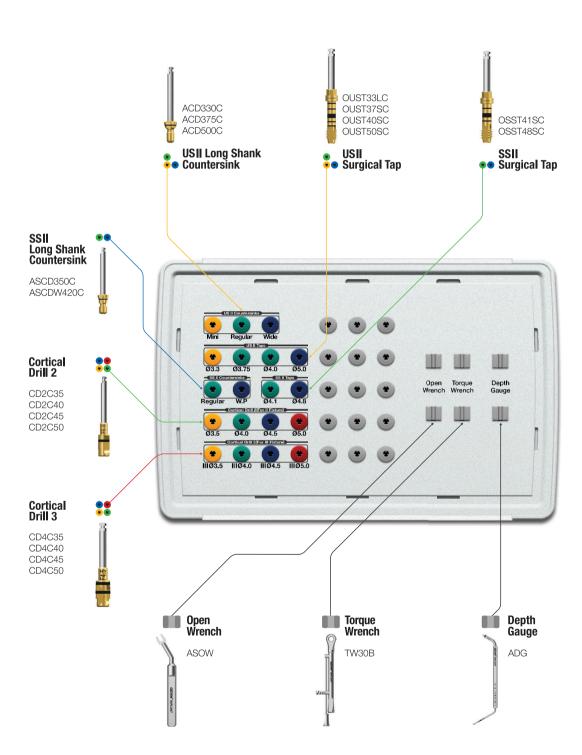




# **New Hanaro KIT** (HKA2)

For TSII/III SSII/III USII/III





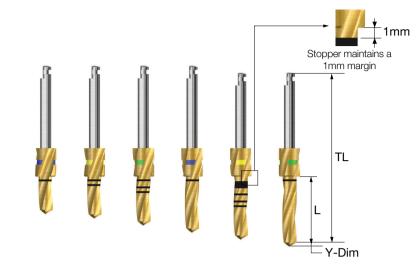
085

OSSTI

# **New Hanaro KIT** Surgical Instruments

#### Twist Drill - Stopper Drill

- Long stopper (6mm)
  : can be performed without drill extension in posterior surgery
- Color coding of stopper part shows drill length

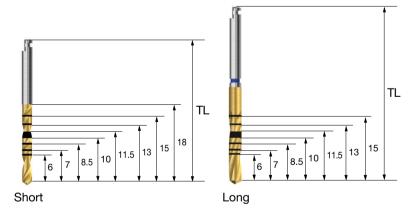


L \	TL [	) Ø2.2	Ø3.0	Ø3.3	Ø3.6	Ø3.8	Ø4.1	Ø4.3	Ø4.6
	Y-Dim	0.6	0.9	1.0	1.0	1.0	1.0	1.0	1.0
6	30.5	2D22 <b>06LC</b>	3D30 <b>06LC</b>	-	-	3D38 <b>06LC</b>	-	-	-
7	31.5	2D22 <b>07LC01</b>	3D30 <b>07LC01</b>	-	-	3D38 <b>07LC01</b>	-	-	-
8.5	33	2D22 <b>08LC01</b>	3D30 <b>08LC01</b>	-	-	3D38 <b>08LC01</b>	-	-	-
10	34.5	2D22 <b>10LC01</b>	3D30 <b>10LC01</b>	-	-	3D38 <b>10LC01</b>	-	-	-
11.5	34.5	2D22 <b>11LC01</b>	3D30 <b>11LC01</b>	3D33 <b>11LC01</b>	3D36 <b>11LC01</b>	3D38 <b>11LC01</b>	3D41 <b>11LC01</b>	3D43 <b>11LC01</b>	3D46 <b>11LC01</b>
13	36	2D22 <b>13LC01</b>	3D30 <b>13LC01</b>	-	-	3D38 <b>13LC01</b>	-	-	-

### Twist Drill - Non Stopper Drill

- Used when the accessibility of the stopper drill is low
- Short and long laser marked drills are available

086



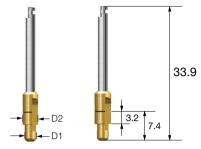
TL\D	Ø1.5	Ø2.0	Ø2.2	Ø2.7	Ø3.0	Ø3.3
33	2D15 <b>18FNLC</b>	2D20 <b>18FNLC</b>	2D22 <b>18FNLC</b>	3D27 <b>18FNLC</b>	3D30 <b>18FNLC</b>	3D33 <b>18FNLC</b>
41	-	-	2D22 <b>15FNLC01</b>	3D27 <b>15FNLC01</b>	3D30 <b>15FNLC01</b>	3D33 <b>15FNLC01</b>
\	~0.C	~0.0	~4.4	~4.0	~4.C	
TL\D	Ø3.6	Ø3.8	Ø4.1	Ø4.3	Ø4.6	
TL <u>D</u>	<b>Ø3.6</b> 3D36 <b>18FNLC</b>	<b>Ø3.8</b> 3D38 <b>18FNLC</b>	<b>Ø4.1</b> 3D41 <b>18FNLC</b>	<b>Ø4.3</b> 3D43 <b>18FNLC</b>	<b>Ø4.6</b> 3D46 <b>18FNLC</b>	

#### Long Shank Pilot Drill

- Corrects the drilling path
- Maintains the path of the previous drilling sequence

D1/D2 Ø2.0/2.7 Ø2.0/3.0 Ø3.0/3.8 Ø3.0/4.1

APD270C APD300C APD380C APD410C



#### Cortical Drill 2 for TSII, SSII SA

- Trims cortical bone in hard bone cases (for type II)
- Drill specifically for type II fixture's unique diameter
- Recommend drilling until reaching the bottom of the marker
- F = Fixture

F3.5	F4.0	F4.5	F5.0	
CD2C35	CD2C40	CD2C45	CD2C50	



# Cortical Drill 3 for Taper Fixture (TSIII, SSIII, USIII)

- Use after straight drill to expand cortical bone
- In normal to hard bone, used as the final drill
- Drill specifically for type III fixture's unique diameter
- The lower marker is for normal bone, the upper is for hard bone
- Recommend drilling until reaching the bottom of the marker



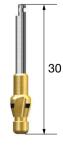


CD4C30 CD4C35 CD4C40 CD4C45 CD4C50 CD4C55

# Countersink for USIII, USII SA, USIII SA (Wide PS, Wide)

- Drill specifically for USIII, USII SA, and USIII SA Wide PS and wide type fixtures
- Recommended drilling speed : 300rpm

USSCS45W



# New Hanaro KIT Surgical Instruments

### Straight Fixture Tap for TSII, USII, SSII SA

- Tap for straight body fixtures (type II)
- For hard bone, taps osteotomy creating fixture thread shape
- Recommended speed : 25rpm or hand torque
- Recommended tapping until reaching the bottom of the marker
- F = Fixture

F3.5	F4.0	F4.5	F5.0
O2FTS35	O2FTS40	O2FTS45	O2FTS50



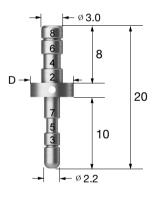
### 088

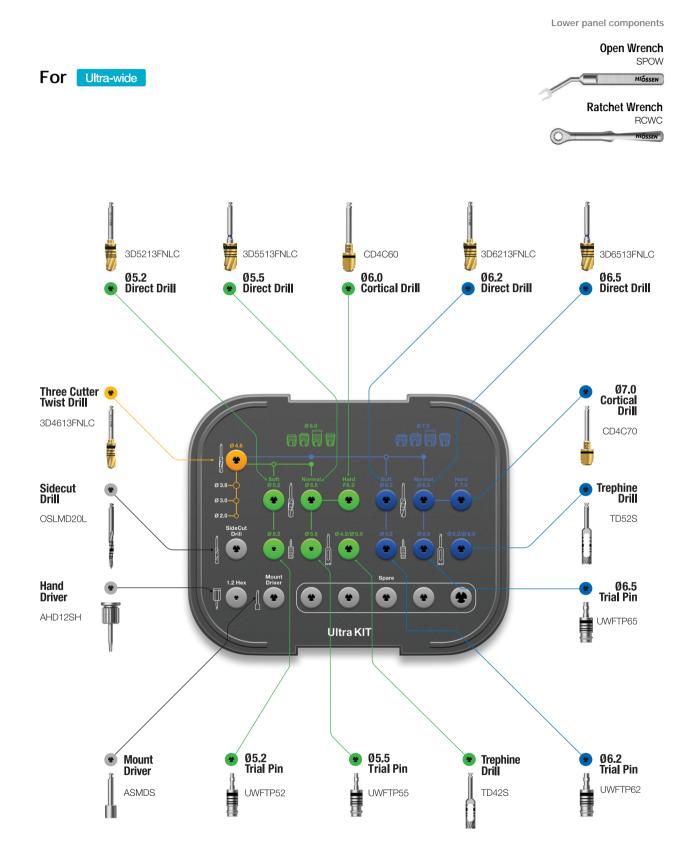
### Parallel Pin

• Identifies the direction and location of the osteotomy

\ <b>D</b>	Ø4.0	Ø5.0	Ø6.0	Full Set
	APP400	APP500	APP600	APPS

\* Refer to surgical instruments for other components (106p~)

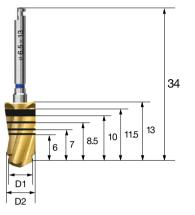




# **Ultra KIT** Surgical Instruments

#### **Direct Drill**

- Direct drill: two-step drill that functions like a pilot and twist drill
- Final drilling is possible without using pilot drilling
- Increases initial stability in an extraction socket due to the reduced dead space at the apex

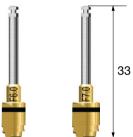


<b>D1/D2</b>	Ø4.6/5.2	Ø4.6/5.5	Ø5.5/6.2	Ø5.5/6.5
	3D5213FNLC	3D5513FNLC	3D6213FNLC	3D6513FNLC

#### Cortical Drill for Ultra-wide

- Trims cortical bone in hard bone cases (for ultra-wide type fixtures)
- Drill specifically for ultra-wide type fixture's unique diameter
- Recommend drilling until reaching the bottom of the marker
- F = Fixture

F6.0	F7.0	
CD4C60	CD4C70	





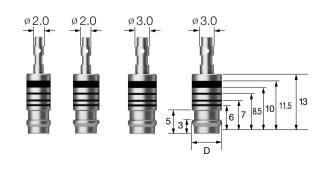
### Trial Pin for Ultra-wide

- Measures the width and depth of a failed implant site
- Measure the drilling depth after using the direct drill as the final drill
- Also serves as a parallel pin



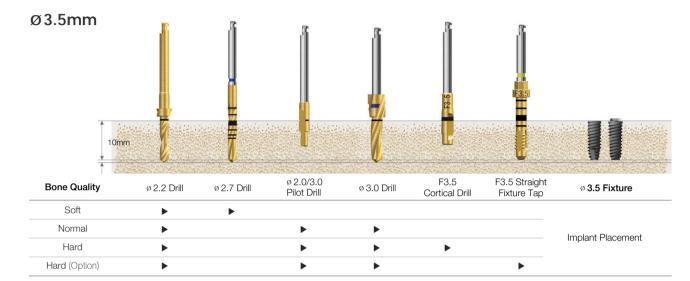
UWFTP52 UWFTP55 UWFTP62 UWFTP65

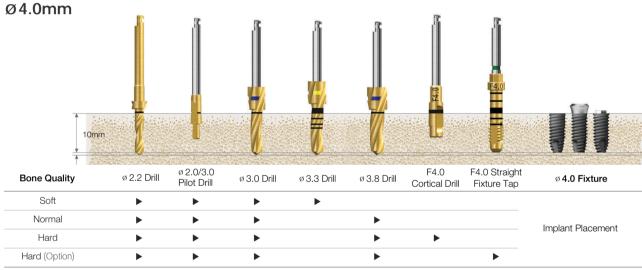
\* Refer to surgical instruments for other components (106p~)



# TSII | SSII | USII

(Length: 10mm)





Ø4.5mm							F - S - F - S - F - S - F - S - F - S - F - S - S	45	
Bone Quality	ø 2.2 Drill	ø 2.0/3.0 Pilot Drill	ø 3.0 Drill	ø 3.0/3.8 Pilot Drill	ø 3.8 Drill	ø 4.1 Drill	F4.5 Cortical Drill	F4.5 Straight Fixture Tap	ø 4.5 Fixture
Soft	<b>•</b>	<b>•</b>	<b>•</b>	<b>•</b>	<b>•</b>				
Normal	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>			Implant Placement
Hard	<b>&gt;</b>	<b>&gt;</b>	•	<b>•</b>	<b>•</b>	•	<b>&gt;</b>		·
Hard (Option)	<b>&gt;</b>	•	•	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>		<b>•</b>	

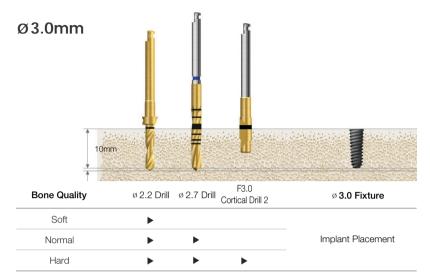
Recommended insertion torque ≤40Ncm

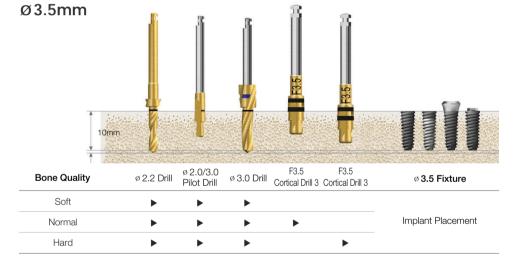
TS fixture insertion depth The normal/hard bone is placed 1mm deeper than the bone level, and the soft bone is placed at the bone level to maintain the fixed strength

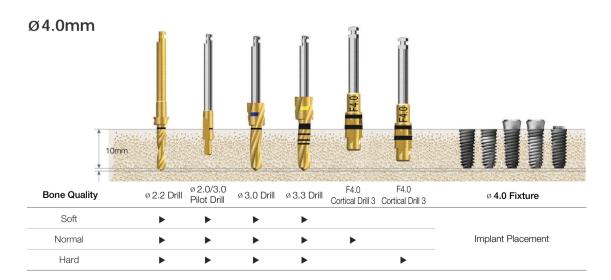
In hard bone, recommended speed is 25rpm or use of torque wrench with mount extension

## TSIII | SSIII | USIII

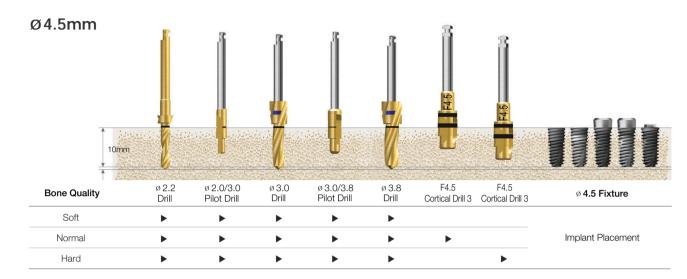
(Length: 10mm)

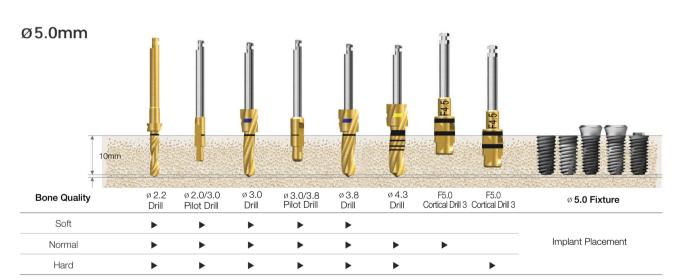






 $\textbf{Recommended insertion torque } \leq \textbf{40Ncm, for the TSIII/SSIII HA}: \leq \textbf{35Ncm (the HA coating can fracture and flake off when placed in hard bone)}$ TS fixture insertion depth The normal/hard bone is placed 1mm deeper than the bone level, and the soft bone is placed at the bone level to maintain the fixed strength

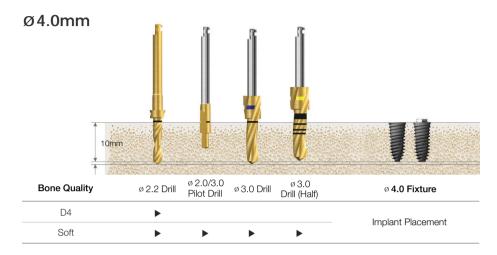


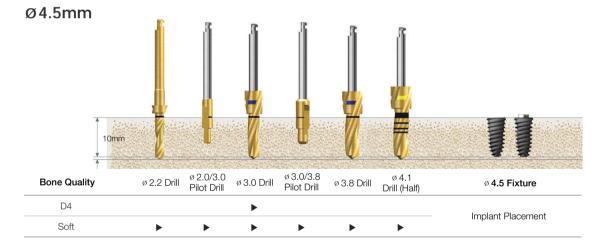


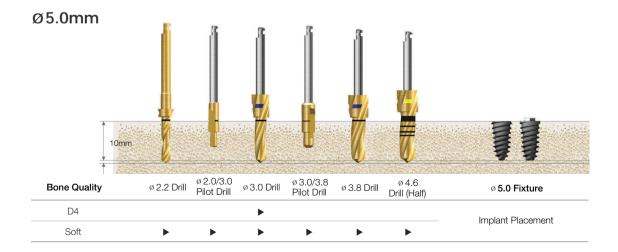


## **TSIV** | USIV

(Length: 10mm)

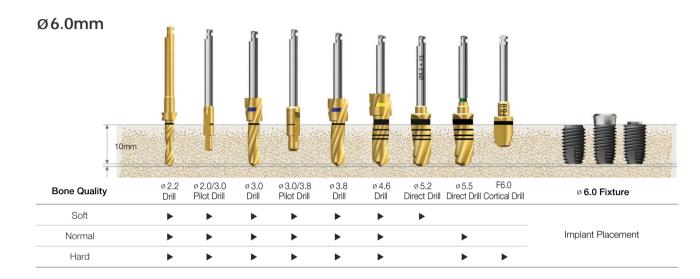


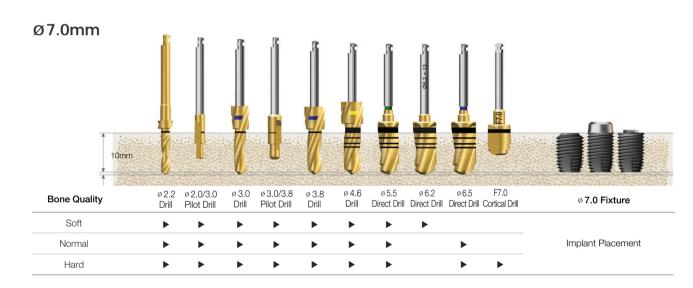




## TSII Ultra-wide | SSII Ultra-wide | USII Ultra-wide

(Length: 10mm





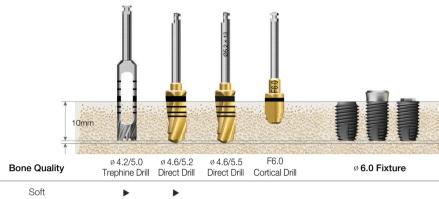
Recommended insertion torque ≤40Ncm

TSIV/USIV system is designed specifically for the maxillary sinus and soft bone. It is not recommended in the normal bone or more recommend reducing the insertion speed to 15rpm or lower, due to the TSIV/USIV aggresive threads

## TSII Ultra-wide | SSII Ultra-wide | USII Ultra-wide

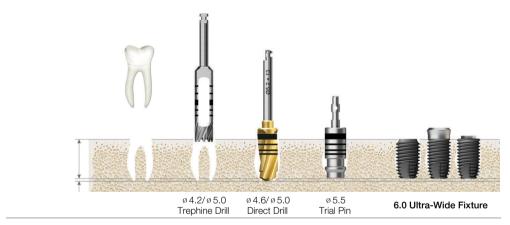
#### Ø6.0mm

Drilling sequence with trephine in the healed mature bone

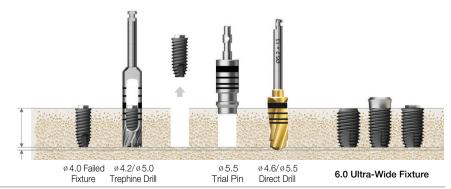


Bone Quality	ø 4.2/5.0 Trephine Drill	ø 4.6/5.2 Direct Drill	ø 4.6/5.5 Direct Drill	F6.0 Cortical Drill	Ø 6.0 Fixture
Soft	<b>&gt;</b>	<b>•</b>			
Normal	<b>•</b>		<b>&gt;</b>		Implant Placemer
Hard				•	

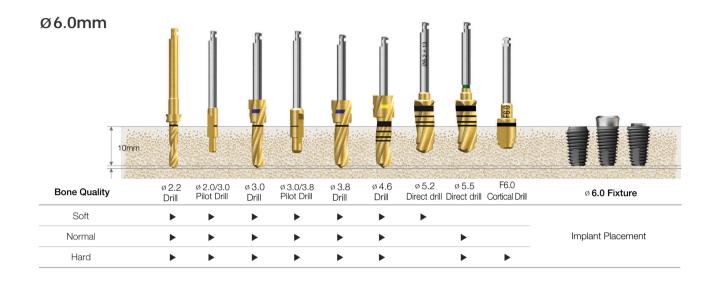
#### Immediate placement at the extraction socket



#### Immediate replacement of the failed implant



## TSIII Ultra-wide | SSIII Ultra-wide | USIII Ultra-wide



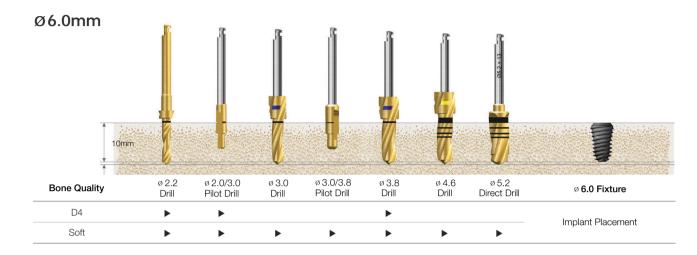


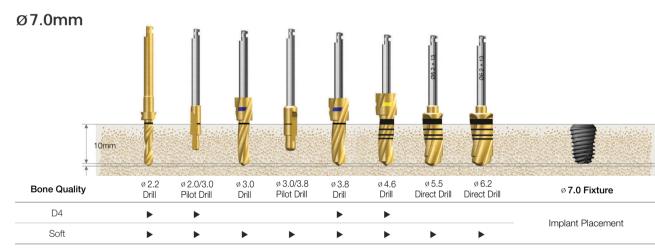
Recommended insertion torque ≤40Ncm

TS fixture insertion depth The normal/hard bone is placed 1mm deeper than the bone level, and the soft bone is placed at the bone level to maintain the fixed strength

# TSIV Ultra-wide | USIV Ultra-wide

(Length: 10mm)





100

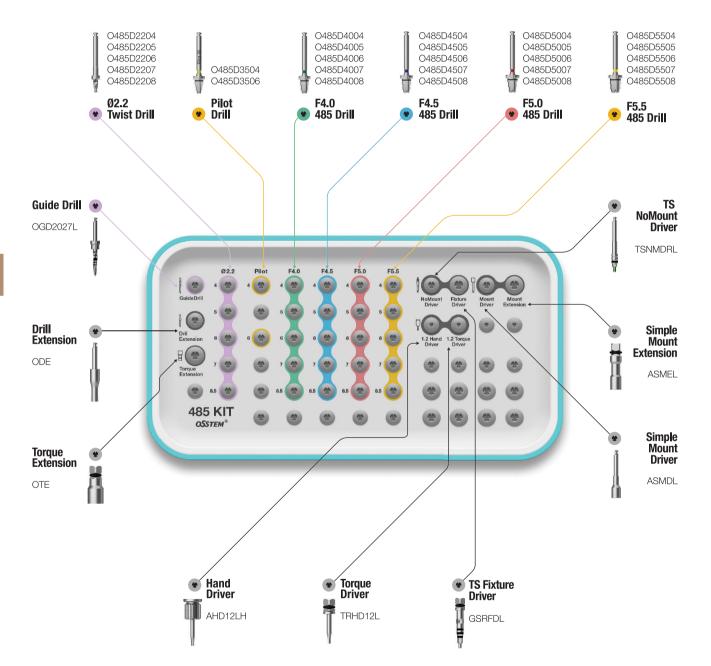
IMPLANT

Recommended insertion torque ≤40Ncm

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# **485 KIT** (O485K)

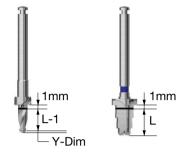




# **485 KIT** Surgical Instruments

#### 485 Drill

- Drill for short implant placement in alveolar bone lacking vertical height
- 2.2 drill : straight drill
- In addition, the drill tip blade is a CAS drill shape, the side blade is a taper drill shape
- Stopper drill with 1mm extra
- Recommended speed: 800~1,200rpm



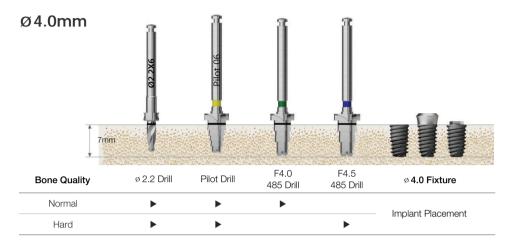
Twist drill 485 drill

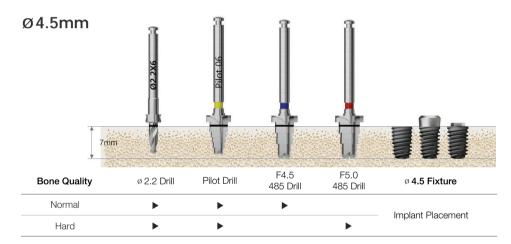
L Type	Ø2.2	Pilot	F4.0	F4.5	F5.0	F5.5
4.0	O485D <b>2204</b>	O485D <b>3504</b>	O485D <b>4004</b>	O485D <b>4504</b>	O485D <b>5004</b>	O485D <b>5504</b>
5.0	O485D <b>2205</b>	-	O485D <b>4005</b>	O485D <b>4505</b>	O485D <b>5005</b>	O485D <b>5505</b>
6.0	O485D <b>2206</b>	O485D <b>3506</b>	O485D <b>4006</b>	O485D <b>4506</b>	O485D <b>5006</b>	O485D <b>5506</b>
7.0	O485D <b>2207</b>	-	O485D <b>4007</b>	O485D <b>4507</b>	O485D <b>5007</b>	O485D <b>5507</b>
8.5	O485D <b>2208</b>	-	O485D <b>4008</b>	O485D <b>4508</b>	O485D <b>5008</b>	O485D <b>5508</b>

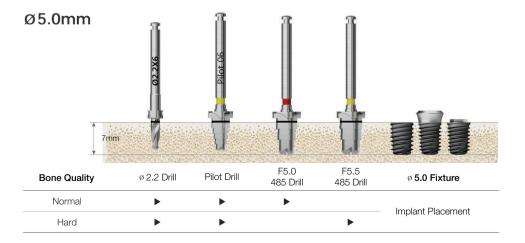
\* Refer to surgical instruments for other components (106p~)

# TSIII | SSIII | USIII

(Length : 7mm)







# **Surgical Instruments**

#### 123 Guide Drill

- Used to create an hole in the bone to facilitate initial drilling
- Easy drill depth control by selecting the appropriate drill stopper
- 122 taper KIT single Item (excluded from taper KIT)

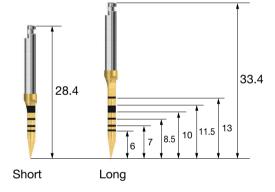
D Ø2.0 OGD2027L



#### Lance Drill - Guide Drill

- Used to create an hole in the bone to facilitate initial drilling
- Bone density can be determined by drilling
- Taper KIT single Item (excluded from 122 taper KIT)

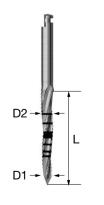
\ L	Short	Long	
,	AGDSC	AGDLC	



#### Sidecut Drill

- Capable of side cutting using the drill body's cutter blades
- For trimming the ridge of an extraction socket
- Facilitating site preparation of an extraction socket
- Taper KIT single Item (excluded from 122 taper KIT)

L <u>D1/D2</u>	Ø1.5/2.0	Ø2.0/2.5	Ø3.0/3.5
13	OSLM <b>DS</b>	OSLMD <b>20S</b>	-
16.5	-	-	OSLMD <b>30L</b>
20	OSLM <b>DL</b>	OSLMD <b>20L</b>	-



#### **Drill Extension**

- Drill and other handpiece tool' extension (drill 14.9/16.9mm extension)
- In case of improper fastening, excessive force may cause bending or breakage
- Taper KIT, straight KIT common components (ODE)

L (연장)	14.9	16.9
	HDF	ODF

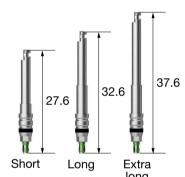


#### **NoMount Driver for TS**

- Engine driver which is connected directly with the fixture for placement
- C = Connection

L\C	Mini	Regular
Short	TSNMDMS	TSNMDRS
Long	TSNMDML	TSNMDRL
Ex.Long	TSNMDME	TSNMDRE



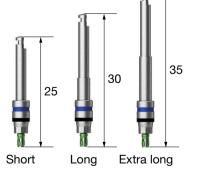




#### **NoMount Driver for SS**

- Engine driver which is connected directly with the fixture for placement
- C = Connection

L\C	Regular/Wide	
Short	SSNMDS	
Long	SSNMDL	
Ex.Long	SSNMDE	

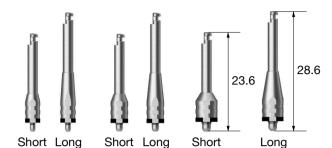


# **Surgical Instruments**

#### **NoMount Driver for US**

- Engine driver which is connected directly with the fixture for placement
- C = Connection

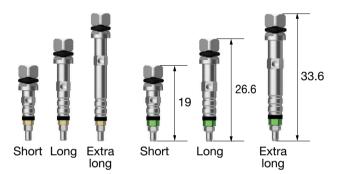
L\C	Mini	Regular	Wide
Short	USNMD35MS	USNMD41RS	USNMD51WS
Long	USNMD35ML	USNMD41RL	USNMD51WL



#### **NoMount Torque Driver for TS**

- Torque wrench driver connects directly with the fixture (without a mount) for placement
- Make sure fixture and driver is securly connected; loose connection may cause fixture fracture
- It can not be removed when a fracture occurs
- $\cdot$  C = Connection

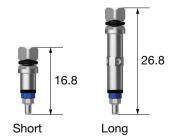
L C	Mini	Regular	
Short	GSNMT32S	GSNMT35S	
Long	GSNMT32L	GSNMT35L	
Ex.Long	GSNMT32E	GSNMT35E	



#### **NoMount Torque Driver for SS**

- Torque wrench driver connects directly with the fixture (without a mount) for placement
- Make sure fixture and driver is securly connected; loose connection may cause fixture fracture
- It can not be removed when a fracture occurs
- C = Connection

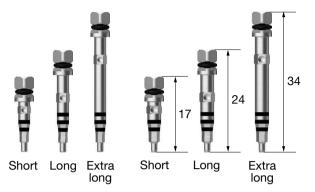
L C	Regular/Wide	
Short	SSNMT39S	
Long	SSNMT39L	



#### Fixture Driver for TS

- Connects directly to the fixture for final adjustments to the implant's depth. Also removes the implant.
- C = Connection

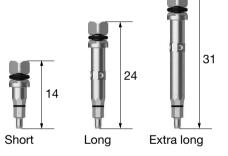
L \ C	Mini	Regular
Short	GSMFDS	GSRFDS
Long	GSMFDL	GSRFDL
Ex.Long	GSMFDE	GSRFDE



#### Fixture Driver for SS

- Connects directly to the fixture for final adjustments to the implant's depth. Also removes the implant.
- C = Connection

L C	Regular/Wide
Short	SSRFDS
Long	SSRFDL
Ex.Long	SSRFDE







#### Fixture Driver for US

- Connects directly to the fixture for final adjustments to the implant's depth. Also removes the implant.
- C = Connection

\ c	Mini	Regular	Wide
	LISMEDI	USREDI	LISWEDI





#### **Torque Extension**

• Extends the length of an instrument by 10mm

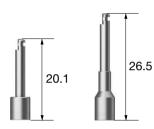
OTE



#### Simple Mount Driver

• Connects to mounted fixtures for placement

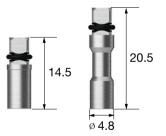
Short ASMDS Long ASMDL



#### Simple Mount Extension

• Extends the length of the simple mount driver and it is used with wrench

Short ASMES ASMEL Long



#### Simple Open Wrench

- Disengages the simple mount when bone quality is poor
- Easy insertion into the mouth with a neck angle of 30°

ASOW



#### **Removal Tool for Fixture Mount**

- Removes the mount screw when a fixture and mount become wedged
- Connects to a driver handle and a torque wrench
- Insert vertically, and rotate it clock-wise to remove the mount
- App = Application



App	Mini (TS,US)	Regular (Ts,ss,us) / Wide (ss)	Wide (US)
	ERFM	HRFR	ERFW

### Depth Gauge

- Measures drilling depth (7~15mm)
- Common components of 122 taper & taper KIT

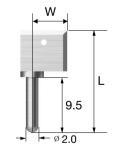
OSDG



## **Positioning Guide**

- Sets the drilling interval for fixture insertion
- Keep inserting after initial drilling
- Packing unit : the components and packages

W/L	2.5/21.5	6.0/17.5	11/17.5
	APG201	APG202	APG203



#### Tissue Height Gauge for TS

• Connects to the TS fixture to measure the height of the gingiva in





#### **Ratchet Wrench**

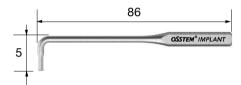
- It prevents wrench from backdriving
- Excessive torquing may cause damage to the bone or the inside of a fixture



CITQW-1185A

#### L-Wrench

- 1.2 hex driver for hard to reach areas like narrow intermaxillary areas
- Torque indication : when the wrench starts to bend (around 10°), it is possible to apply 5~8Ncm of torque



LWC

#### Torque Wrench - Spring Type

- Applies a precise amount of torque (10/20/30Ncm) to the screw and abutment
- The neck of the torque wrench will bend when the exact amount of torque has been delivered
- Do not continue to torque after the neck has bent. Excessive force may cause screw fracture etc.



TW30

#### Torque Wrench - Bar Type

- Adjusts the implant depth, and tightens abutments, screws, etc.
- Pull the bar back until reaching the desired torque value



TW30B

#### **Torque Wrench Set**

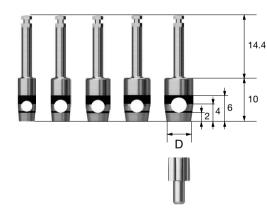
- Bi-directional torque wrench (a torque connector is included)
- Without separating the connector, rotate the handle to apply torque, either in a forward or a backward direction
- Compatible with osstem's machine driver connector
- Pull the bar back until reaching the desired torque value
- Packing unit : changeable torque wrench + torque connector





#### **Tissue Punch**

- For flapless surgery
- Measures the height of gingiva, marked at 2mm increments
- Packing unit : tissue punch + guide pin
- \*\* Recommend using a tissue punch smaller than the healing abutment by 0.7 to 1.5mm



<u>D</u>	Ø3.3	Ø3.8	Ø4.3	Ø4.8	Ø5.3
	OSTP33	OSTP38	OSTP43	OSTP48	OSTP53
TS	Ø 4.0/4.5	Ø 4.5/5.0	Ø 5.0	Ø 6.0	Ø 6.0
SS	-	Ø 4.8	-	Ø 6.0	Ø 6.0
US	Ø 4.0	Ø 5.0	Ø 5.0	Ø 6.0	Ø 6.0

Application healing abutment standard

**Surgical Instruments** 

- Connect the guide screw to the fixture in order to center the profiler. Make sure to compensate for the healing abutment.
- Guide screw protects the fixture's platform from damage
- Packing unit : bone profiler + guide screw
- C = Connection









C D (Healing Abutment)
Mini/Regular

Ø4.5 GSBP45

Ø5.5 GSBP55 Ø6.5/7.5 GSBP75

Mini	Mini
+	+
Regular guide screw	Regular guide screw

Regular guide screw

#### **US Bone Profiler**

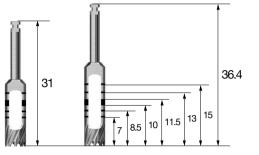
- Trims the bone surrounding a fixture and cover screw after a two stage procedure
- Remove cover screw, connect the guide screw to the fixture in order to center the profiler. Make sure to compensate for the healing abutment.
- Guide screw protects the fixture's hex from damage
- Packing unit : bone profiler + guide screw
- P = Platform



D\P	Mini	Regular	Wide	T-type
Ø4.0	ABPM <b>400C</b>	-	-	-
Ø5.0	ABPM <b>500C</b>	ABPR <b>500C</b>	-	-
Ø6.0	-	ABPR <b>600C</b>	ABPW <b>600C</b>	TBPW <b>600C</b>
Ø7.0	-	-	ABPW <b>700C</b>	-

### **Trephine Drill**

- Harvests bone or removes a failed fixture
- Removes septal bone
- Also serves as the initial drill for ultra-wide fixture



L D (Inner/Outer)	3.7/4.5	4.2/5.0	4.7/5.5	5.2/6.0	5.7/6.5	6.2/7.0	
Short	TD37S	TD42S	TD47S	TD52S	TD57S	TD62S	
Long	TD37	TD42	TD47	TD52	TD57	TD62	

#### **Machine Driver Handle**

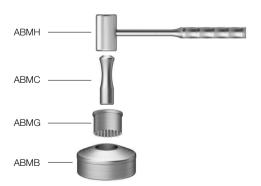
• Manual handle for engine type surgical tools

OMDH



• Generates particulate bone with harvested autogenous bone

ABM



# **Surgical Instruments**

#### **Anterior Hand Driver for Implant**

- Manually torque implants in the anterior area
- Connect to a NoMount torque driver or a fixture driver
- Excessive torquing may cause damage to the fixture or driver

AHDI

### Torque Handle

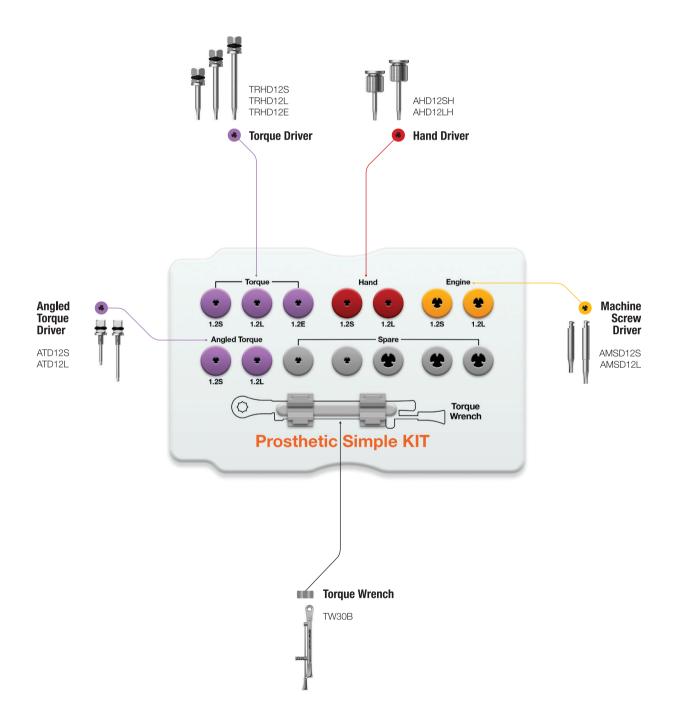
- Connect with a contra-angle hand piece (handpiece gear ratio to 1:1)
- Connects healing abutments, cover screws, abutment screws, orthodontic screws, etc. (note: after connecting the part, make sure that it is tightened with a torque wrench)
- Excessive torquing may cause damage to the screw fracture or hand piece

TQHD





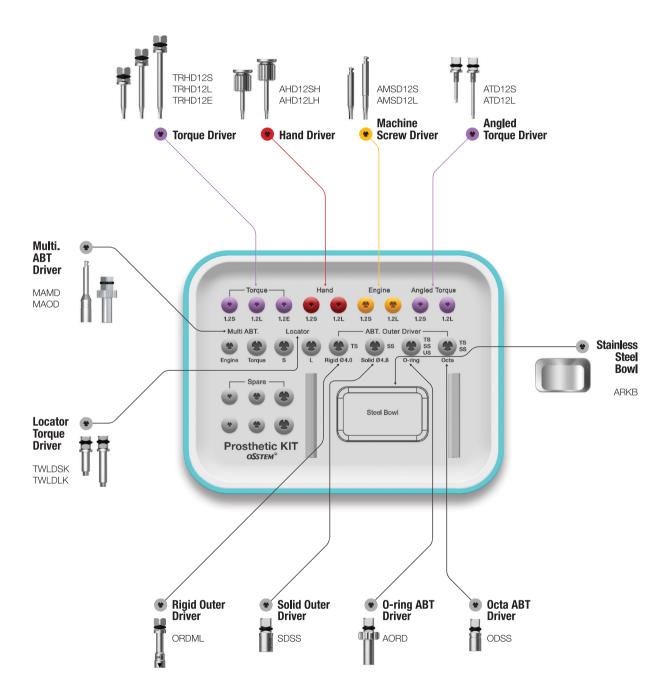
# Prosthetic Simple KIT (OPSK)



# Prosthetic KIT (OPK)

Top panel components





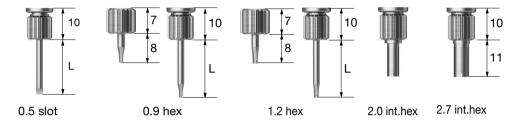
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OSSTEM K

# Prosthetic KIT Surgical Instruments

#### **Hand Driver**

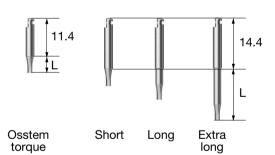
- Manual driver
- Tip holding function (except internal hex type)
- Internal hex type length: 11



L Type	0.5 Slot	0.9 Hex	1.2 Hex	2.0 Int.Hex	2.7 Int.Hex
Ex.Short (8)	-	AHD <b>09MSH</b>	AHD <b>12MSH</b>	-	-
Short (13)	ASD <b>05SH</b>	AHD <b>09SH</b>	AHD <b>12SH</b>	IHD <b>20H</b>	IHD <b>27H</b>
Middle (15)	-	-	AHD <b>12MH</b>	-	-
Long (18)	ASD <b>05LH</b>	AHD <b>09LH</b>	AHD <b>12LH</b>	-	-
Ex.Long (25)	-	-	AHD <b>12EH</b>	-	-

#### **Machine Screw Driver**

- Engine driver
- Tip holding function (except internal hex type)
- Internal hex type length: 8



L Type	0.5 Slot	0.9 Hex	1.2 Hex	2.0 Int.Hex	2.7 Int.Hex
Osstem Torque	<b>e</b> (5)	-	OTH <b>12S</b>	-	-
Short (5.6)	AMSD <b>05S</b>	AMSD <b>09S</b>	AMSD <b>12S</b>	-	-
Long (11.6)	AMSD <b>05L</b>	AMSD <b>09L</b>	AMSD <b>12L</b>	EIHD <b>20</b>	EIHD <b>27</b>
Ex.Long (17.6)	-	-	AMSD <b>12E</b>	-	-
Application		Cover screw	Healing abutment,	Esthetic abutment screw	Wide esthetic-low
Driver Applied (hand, machine scr	ew,	(US mini)	UCLA, Cemented abutment screw, Mount screw	regular, Esthetic-low abutment screw, standard	abutment screw

### **Torque Driver**

- Driver for torque wrench
- Tip holding function
- Recommended use (excessive torque causes fracture)
- Possible to generate fracture even at low torque when it is applied after
- When torque is applied, it should be vertically erected and torque is requested
- If tip is bent for long period of use or over torque, be sure to replace it

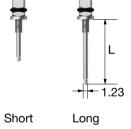


		11.
Short	Long	Ext lor

L Type	0.5 Slot	0.9 Hex	1.2 Hex	2.0 Int.Hex	2.7 Int.Hex
Ex.Short (8)	-	-	TRHD12MS	-	-
Short (13)	TRSD <b>05S</b>	TRHD <b>09S</b>	TRHD <b>12S</b>	TIHD <b>20S</b>	-
Middle (15)	-	-	TRHD <b>12M</b>	-	-
Long (20)	TRSD <b>05L</b>	TRHD <b>09L</b>	TRHD <b>12L</b>	TIHD <b>20L</b>	TIHD <b>27</b>
Ex.Long (25)	TRSD <b>05E</b>	_	TRHD <b>12E</b>	-	-

### **Angled Torque Driver**

- Driver for torque wrench
- No holding function
- Recommended tightening torque: 30Ncm (excessive torque causes fracture)
- Do not remove tube to prevent fragmentation when broken
- Recommended use : 10 times
- Set : 3ea

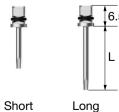


L Type	1.2 Hex	1.2 Hex (Set)
Short (13)	ATD12S	ATD12S3S
Long (20)	ATD12L	ATD12L3S

#### Repair Torque Driver

- Reduced diameter compared to torque driver ( $\emptyset$  2.1  $\rightarrow$  1.6)
- The diameter of the crown hole can be minimized during prosthetic repair or SCRP procedures

L Type	1.2 Hex
Short (13)	TRHD12SR
Long (20)	TRHD12LR



#### **Solid Abutment Driver**

- Driver for solid abutment driver
- Insert the groove of the solid abutment into the
- driver triangle display and apply torque
- Recommended torque : 30Ncm



#### Regular

Long (12)

# Square Round L Type SDSS Short (6) SDRS

SDSL

SDRL

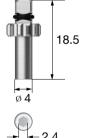
#### Wide



#### **O-ring Abutment Driver**

• Driver for o-ring abutment

AORD



#### **Rigid Outer Driver**

- Driver for rigid abutment
- Recommended torque : 30Ncm

L D (Abutment)	Ø4.0	Ø4.5	Ø5.0	Ø6.0
Short (16.5)	ORDMS	ORD45S	ORDRS	ORDWS
Long (21.5)	ORDML	ORD45L	ORDRL	ORDWL



#### **Excellent Solid Abutment Driver**

- Driver for excellent solid abutment
- Insert the groove of the excellent solid abutment into the driver triangle display and apply torque
- Recommended torque : 30Ncm



#### Regular

L Type	Square	Round
	Source	SOLD
Short (6)	ESDSS	ESDRS
	a soul	SOLID
Long (12)	ESDSL	ESDRL

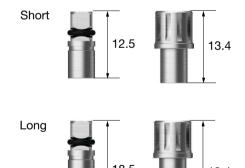
#### Wide



#### Octa Abutment Driver

- Driver for octa abutment
- Recommended torque : 30Ncm

L Type	Square	Round
Short	ODSS	ODRS
Long	ODSL	ODRL





#### **Abutment Holder**

• It is an assist device which can be used to easily fix 2-piece abutment which is inconvenient to hand by all areas of oral cavity

OABH



#### Multi Abutment Outer Driver

• Torque driver for multi abutment

MAOD



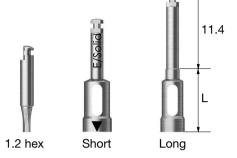
#### Locator® Torque Driver

• Torque driver for locator abutment



#### **Osstem Torque Driver**

- As osstem torque driver, it may not be fastened or disconnected when connecting a normal handpiece
- Driver should be used after matching the groove or section of the outer triangle and abutment
- Solid, excellent solid driver is compatible only with Ø 4.8
- 1.2 hex type L is 5



L Type	1.2 Hex	Rigid 4.0	Rigid 4.5	Rigid 5.0	Rigid 6.0	Solid	<b>Excellent Solid</b>
Short (10)	OTH12S	OTR40S	OTR45S	OTR50S	OTR60S	OTS48S	OTE48S
Long (15)	-	OTR40L	OTR45L	OTR50L	OTR60L	OTS48L	OTE48L

#### Path Probe for TS

- After TS fixture placement, check path and measure gingival height
- C = Connection

∖ C	Mini	Regular	
	GIPAP-3016A	GIPAP-3516A	





• It is a connector that connects a square driver for torque to a bi-directional torque wrench

ORC



# Prosthetic KIT Surgical Instruments

#### **Machine Driver Connector**

• It is a connector that connects driver for machine to a bi-directional torque wrench

OMDC



#### **Driver Handle**

• Use it by connecting with torque driver

TIDHC



FRSC



#### Reamer user guide

- Select a reamer tip that is the same size as the abutment, and connect it to the burn-out cylinder



#### Reamer Bite

• After plastic coping casting, it is a cutting edge that removes the lip on the inner surface of casting

FRBC

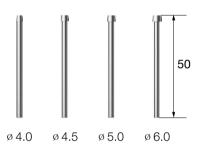


#### Reamer Tip for Rigid Abutment

• After plastic coping casting, it is a guide part that enters inside when removing lip on inner surface of casting (for rigid abutment)

\ **D** Ø4.0 Ø4.5 Ø5.0 Ø6.0

GSRFRT400 GSRFRT450 GSRFRT500 GSRFRT600

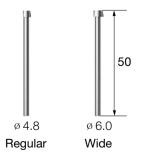


- After plastic coping casting, It is a device used to remove lip on the inner surface of casting
  - - Firmly grasp the casting body and rotate the Reamer Bite with consistent force
       Ream the body until it is clean and free of the



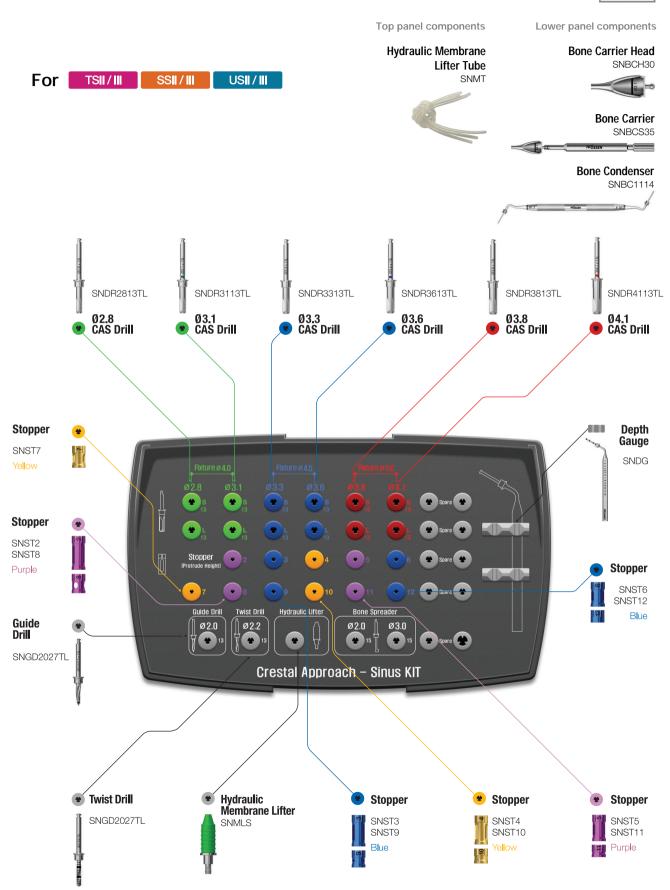
- After plastic coping casting, it is a guide part that enters inside when removing lip on inner surface of casting
- For both solid ø 6.0 and excellent solid ø 4.8
- P= Platform

P	Regular(ø4.8)	Wide(Ø6.0)
Solid	FRTS480	FRTS600
Ex.Solid	FRTE480	FRTE600



# CAS KIT (HCRSNK)

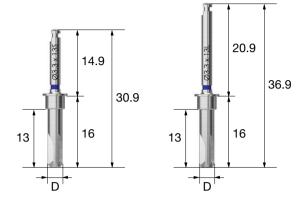




# CAS KIT Surgical Instruments

#### **CAS Drill**

- Specailized drill designed to penetrate the sinus floor without damaging the schneiderian membrane by forming a concial bone lid
- Four blade body drills well at both high and low speeds and is capable of collecting autogenous bone at low speeds
- Use with stoppers for safe and controlled penetration
- Final drill should be based on the bone quality, regardless of the fixture type (straight or tapered)
- Recommended speed: 400~800rpm (first time: 400rpm)

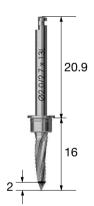


L D	Ø2.8	Ø3.1	Ø3.3	Ø3.6	Ø3.8	Ø4.1	
Short	SNDR2813TS	SNDR3113TS	SNDR3313TS	SNDR3613TS	SNDR3813TS	SNDR4113TS	
Long	SNDR2813TL	SNDR3113TL	SNDR3313TL	SNDR3613TL	SNDR3813TL	SNDR4113TL	

#### Guide Drill

- Marks the fixture's insertion site
- · Side cutting blades trim the extraction socket sidewalls
- Marker 2mm from the tip

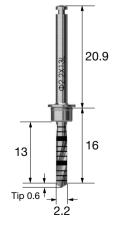
Ø2.0/2.7 \ **D** SNGD2027TL



#### Ø2.2 Twist Drill

- Recommend under-drilling by 1mm less than the bone's thickness
- Use with stoppers for safe and controlled drilling
- The tip measures an additional 0.6mm

Ø2.2 \ D SNTD2213TL

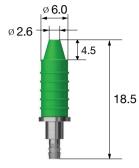


#### Hydraulic Membrane Lifter Set

- Hydraulic pressure is used to separate and lift the sinus membrane
- Securly fits Ø 2.8~ Ø 4.1 CAS drilled osteotomies

\ **D** Ø2.6/6.0

SNMLS



#### Stopper

- Laser marked numbers indicate the remaining tool's (drill, instruments, etc.) length
- · Color-coded by length
- Drill and stopper recommended number of usage is 50 times



#### **Bone Carrier**

- Handle for the bone carrier head
- Connect the bone carrier head and tighten at the opposite end
- Connects both heads (SNBCH30 or SNBCH35)



#### **Bone Carrier Head**

- Cone shaped with an extended tip that reaches the sinus cavity and prevents bone material from spilling out
- SNBCH30 for Ø 3.1/3.3 CAS drilled osteotomy
- SNBCH35 for Ø 3.6/3.8/4.1 CAS drilled osteotomy
- Fill the reservior with bone material (up to the marker), with the bone condenser shuttle the material in small quantities into the sinus. Repeat the process as necessary.





### **Bone Condenser**

- Safely shuttles bone material through the bone carrier head into the sinus cavity
- SNBCH30 : use Ø 1.1 / SNBCH35 : use Ø 1.4

\ D Ø1.1/1.4 SNBC1114



#### Hydraulic Membrane Lifter Tube

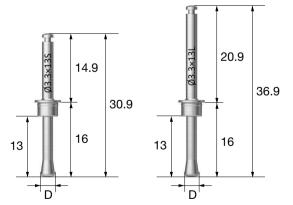
• Tubing connects to the hydraulic membrane lifter and salin filled syringe

SNMT



#### Membrane Lifter

- Round shape, no cutting edge and safe membrane lift
- · After the CAS drill is used, the membrane was lifted and the lifter diameter was selected according to the CAS drill diameter (head diameter : CAS drill diameter -0.2mm)
- Using CAS stopper for depth adjustment
- Recommended speed: 400~800rpm (for first user: 400rpm)
- Be sure to spray water when using



L \ D	Ø2.6	Ø2.9	Ø3.1	Ø3.4	Ø3.6	Ø3.9
Short	SNML2813TS	SNML3113TS	SNML3313TS	SNML3613TS	SNML3813TS	SNML4113TS
Long	SNML2813TL	SNML3113TL	SNML3313TL	SNML3613TL	SNML3813TL	SNML4113TL

# CAS KIT Surgical Instruments

#### Depth Gauge

• Measures the thickness of the residual bone and checks to see if the sinus is properly separated from the floor



SNDG

### Bone Spreader

- A tool that spreads a filled bone by using engine
- Used with stopper
- Recommended speed : 30rpm or less (low speed mode)

Ø2.0

Ø3.0

SNBS2015T

SNBS3015T



1 2 3 4 1 5 6 7 8 9 1 10 11 12 *Hiossen* 

#### **Y-Connector**

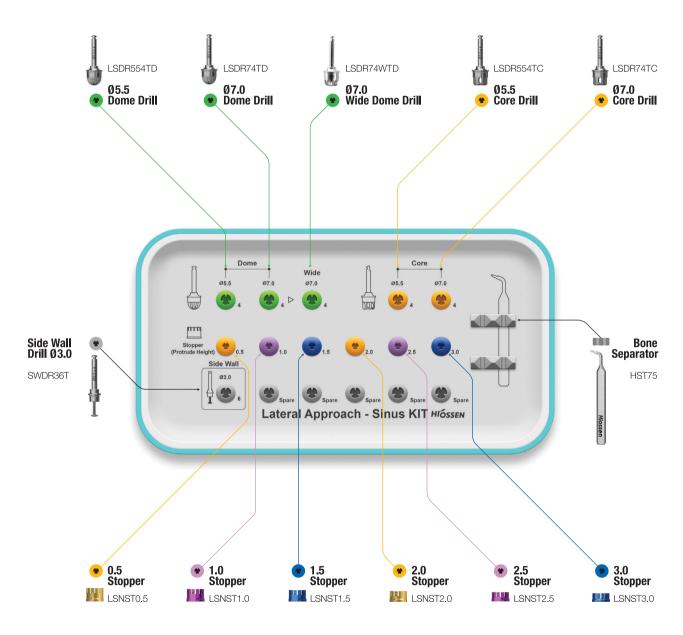
• Y-type connecting tool capable of simultaneous water pressure elevation in two drilling holes







- Lateral Approach Sinus KIT (LAS KIT) : optimized KIT for lateral approach during maxillary sinus surgery
- Dome drills and core drills safely form a lateral window; available sizes Ø5.5 & 7.0
- Stoppers attach to LAS KIT for safety and form a lateral window without membrane perforation



# LAS KIT Surgical Instruments

#### **Dome Drill**

- Forms a bone window, at the same time collects autogenous bone
- Excellent penetration due to the macro and micro cutting blade combination
- Stopper safely controls the penetration depth
- Recommended speed: 1,200~1,500rpm
- \* Excessive drilling may cause damage to the membrane

$L \setminus D$	Ø5.5	Ø7.0	Wide Ø7.0
25	LSDR554TD	LSDR74TD	LSDR74WTD





#### Core Drill

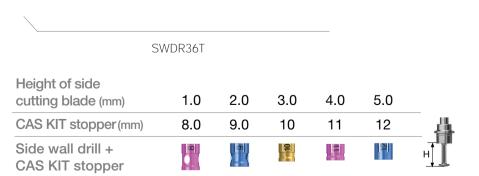
- Forms a bone window and generates a bone lid
- Based on the CAS drill design, excellent cutting ability and no membrane damage
- Recommended speed: 1,200~1,500rpm
- \* Excessive drilling may cause damage to the membrane

$L \setminus D$	Ø5.5	Ø7.0
25	LSDR554TC	LSDR74TC

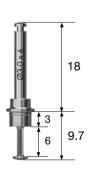


#### Side Wall Drill

- Enlarges the bone window after using the dome drill
- Cut using the blade 1mm above the bottom of the drill
- Recommended speed: 1,500rpm



\* Stopper safely controls the penetration depth



# LAS KIT Surgical Instruments

#### **Bone Separator**

• Removes the bone lid inside the core drill

Hiossen

HST75

#### Stopper

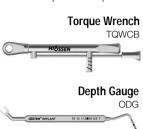
- Laser marked numbers indicate the remaining tool's(drill, instruments, etc.) length when stopper is fastened
- Color-coded by lengt
- Drill and stopper recommended number of usage : 50 times

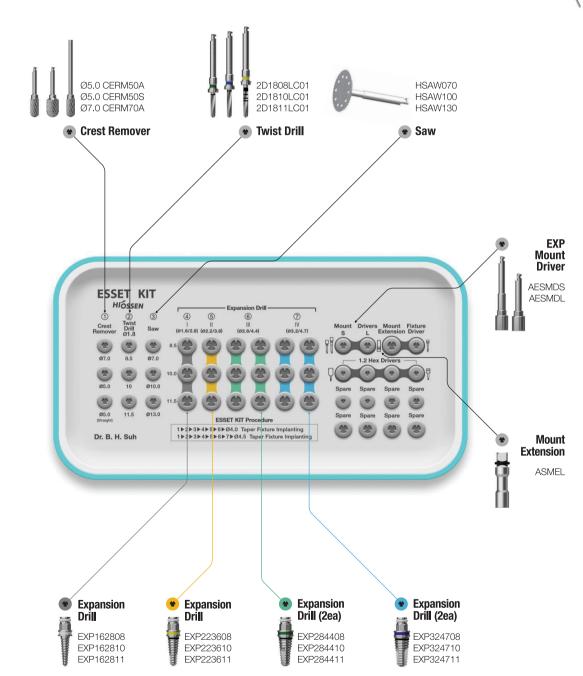




Lower panel components







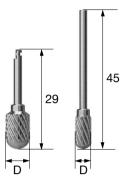
OSSTEM KI

# **ESSET KIT** Surgical Instruments

#### **Crest Remover**

- Grinds down narrow aveolar ridge, and creates an indentation for the fixture's insertion site
- Angled type recommended speed: 1,200~1,500rpm
- Straight type recommended speed: 15,000~30,000rpm

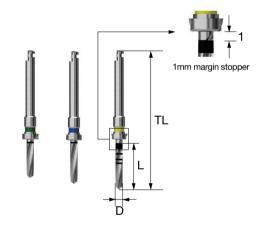
L \ D	Ø5.0	Ø7.0		
29	CERM50A	CERM70A		
45	CERM50S	-		



#### **Twist Drill**

- Marks the fixture's insertion site
- Slide on the stopper to control the depth
- Recommended speed: 1,200~1,500rpm

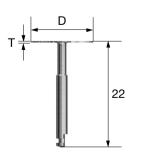
L\TL D	Ø1.8	
8.5 33	2D1808LC01	
10 34.5	2D1810LC01	
11 36	2D1811LC01	



#### Saw

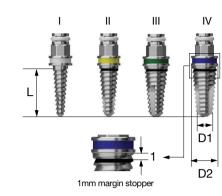
- Saws narrow aveolar ridge
- Saw vertically first, then saw from the mesial to the distal
- Recommended speed: 1,200~1,500rpm
- Recommended number of use : 10 times
- T = Thickness

<b>T</b> \	ø7.0	Ø10.0	Ø13.0
0.3	HSAW070	HSAW100	HSAW130



#### **Expansion Drill**

- Expands narrow aveolar ridge
- Use the SET drills in numerical order based on the diameter of the fixture  $\mathsf{F4.0}:\mathsf{I}\to\mathsf{II}\to\mathsf{III}\,/\,\mathsf{F4.5}:\mathsf{I}\to\mathsf{II}\to\mathsf{III}\to\mathsf{IV}$
- Recommended speed : 25~35rpm



L Type		I	II	III	IV	
	D1/D2	Ø1.6/2.8	Ø2.2/3.6	Ø2.8/4.4	Ø3.2/4.7	
8.5		EXP <b>162808</b>	EXP <b>223608</b>	EXP <b>284408</b>	EXP <b>324708</b>	
10		EXP <b>162810</b>	EXP <b>223610</b>	EXP <b>284410</b>	EXP <b>324710</b>	
11.5	5	EXP <b>162811</b>	EXP <b>223611</b>	EXP <b>284411</b>	EXP <b>324711</b>	

#### **Mount Extension**

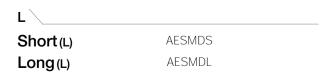
• Connect with SET drills for manual torque

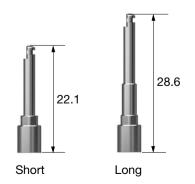
ASMEL



#### **EXP Mount Driver**

• In the process of inserting or removing the expansion drill into the alveolar bone, it is used to increase torque





- Saw cover prevents debris from ejecting outside the oral cavity and protects adjent soft tissue
- $\bullet$  Cover can rotate 360° adding convenience during surgery
- Contra angle type (detachable saw cover)
- KaVo (CL 3-09, S201L), W&H (WS-75)
- Straight type (integrated saw cover) KaVo (CL10)
- W Use an appropriate saw
- X Cover and body need to be ordered separately





Straight type

Туре	D		Ø7.0	Ø10.0	Ø13.0	Ø15.0	Full Set
Kavo	Contra Angled	Cover	SP07AC	SP10AC	SP13AC	-	-
	Contra Angled	Set	SP07A	SP10A	SP13A	-	SP071013A
	Straight	Saw	-	SAW10S	SAW13S	SAW15S	-
		Set	-	SP10S	SP13S	SP15S	SP101315S
W&H	Contra Angled	Cover	SP07ACW	SP10ACW	SP13ACW	-	-
		Set	SP07AW	SP10AW	SP13AW	-	SP071013W

#### **Torque Wrench**

• Use with mount extension and SET drills

TQWCB



#### Depth Gauge

• Releases a wedged SET drill due to over torquing and fir when the hand piece ceases because bit is stuck. Use with an open wrench

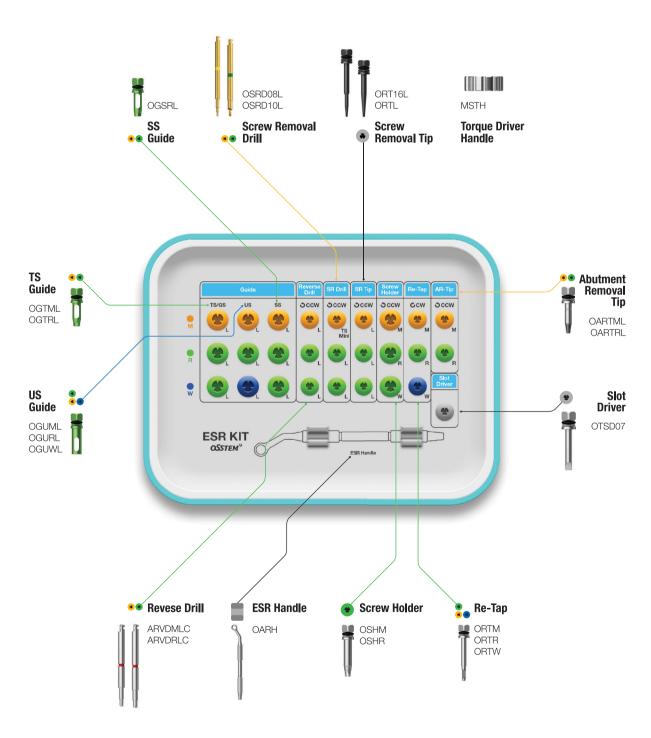




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# ESR KIT Easy Screw Removal KIT (OESRK)





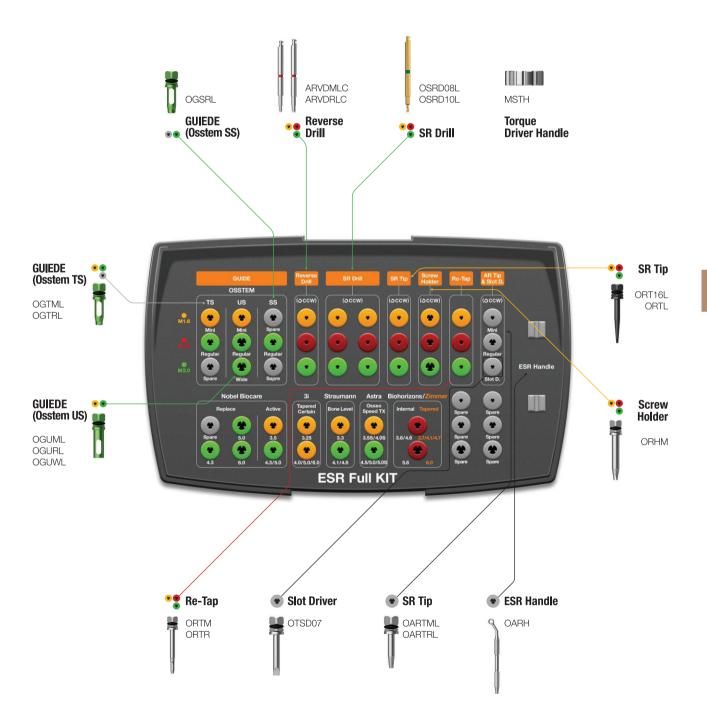
142

# ESR Full KIT Easy Screw Removal Full KIT (OESRFK)

• It is a KIT that has the same components as ESR KIT and can be mounted on competitors' components

Or Nobel Biocare Active/Replace / Straumann Bone Level / Astra Osseo Speed TX

3i Full OSSEOTITE Tapered Certain / Zimmer Tapered / Biohorizons Internal



**ESR Full KIT** Surgical Instruments

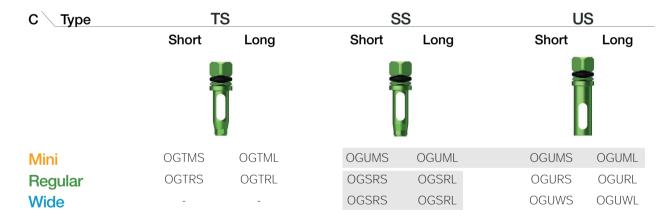
#### Items that are not included in the KIT

Guide									
Nobel	Active OGNA01L OGNA02L	Replace OGNR02L OGNR03L OGNR04L	- -	3i	Tapered ( OGIF01L OGIF02L	Certain	Straumann	Bone Level OGSB01L OGSB02L	Roxolid SLActie OGSTROS OGSTROL
Astra	Osseo Spo OGAO01L OGAO02L	eed TX		Biohorizons	Internal OGZB01L OGZB02L	External OGUBS OGUBL	Zimmer	<b>Tapered</b> OGZB01L OGZB02L	
SR Dri	SR Drill SR Tip		Scr	ew Holder		Re-Tap			
OSRD09L ORT18L		OSHR18L		ORTR18L					

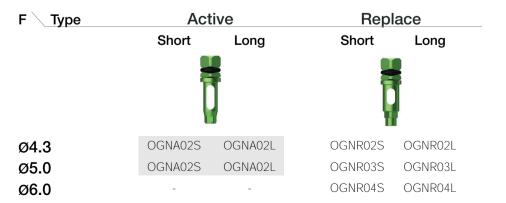
#### Guide

- It is fixed to the fixture to prevent shaking of SR drill and SR tip
- Use according to fixture type and diameter
- (6 overseas companies' internal and submerged type products)
- Select short or long depending on opposite teeth's distance
- C = Connection / F = Fixture / the number of use : 10 times

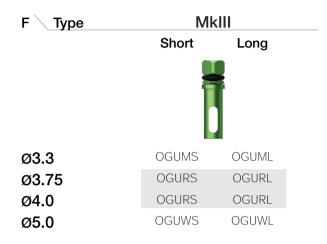
#### Osstem



#### **Nobel Biocare**



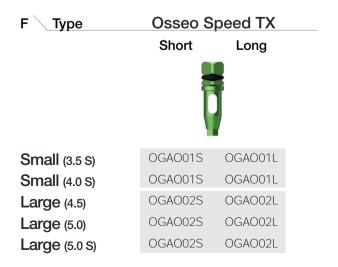
#### **Nobel Biocare**



#### Straumann



#### **Astra**



### **ESR Full KIT** Surgical Instruments

#### 3i

F Type Fapered Certain			F Type	Full Os F \_TypeTape		
	Short Long			Short	Long	
	Ì	Ī			4	
3.25	OGIF01S	OGIF01L	Ø4.0	OGURS	OGURL	
4.0	OGIF02S	OGIF02L	Ø5.0	OGURS	OGURL	
5.0	OGIF02S	OGIF02L	Ø6.0	OGURS	OGURL	
6.0	OGIF02S	OGIF02L				

#### Zimmer



### **Biohorizons**



#### Reverse Drill

- Equipment used to remove fracture screw
- Be sure to use with guide that matches fixture
- If the red marking of the reverse driver is visible on the guide fastened to the fixture, remove the fracture screw using a screw holder
- For hand mode / Direction of rotation : counterclose wise / The number of use : 10 times
- F = Fixture

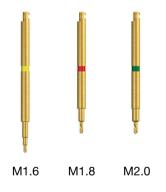
L Type	M1.6	M1.8	M2.0
Short	-	ARVDRSC	ARVDRSC
Long	ARVDMLC	ARVDRLC	ARVDRLC



#### Screw Removal Drill (SR Drill)

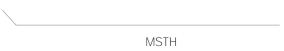
- Used to remove for the formation of holes in the fractured screw
- Make sure to connect the guide, irrigate with saline solution and remove any debris by suction
- Available in long and short lengths for different intermaxillary distances
- Drill until the red color marker is no longer visible
- Recommended speed: 1,200~1,500 rpm (counterclock wise) / Number of uses : 5 times
- Connect the guide before use/Do not apply excessive vertical force / Do not clean with hydrogen peroxide
- Short : single unit purchase available

L Type	M1.6	M1.8	M2.0
Short	OSRD08S	OSRD09S	OSRD10S
Long	OSRD08L	OSRD09L	OSRD10L





• Manual handle for SR Tip, AR Tip, screw holder





# **ESR Full KIT** Surgical Instruments

#### **Reverse Driver**

- Removes fractured screws
- Select the propriate guide that matches the fixture
- Operate the driver in reverse, when the red marker appears above the guide, stop and disconnect the driver. Connect the screw holder to remove the screw.
- For hand mode / Rotate counterclock wise / Number of usages : 10 times
- F = Fixture

L\F	Mini	Regular/Wide
Short	-	ORVDRS
Long	ORVDML	ORVDRL



### Screw Removal Tip (SR Tip)

- Engage counterclock wise into the drilled hole made by the screw removal drill (SR drill) of a fractured screw, continue to rotate to remove screw
- Rotation direction : counterclock wise

L Type	M1.6	M1.8	M2.0
Short	ORT16S	ORT18S	ORTS
Long	ORT16L	ORT18L	ORTL



#### **Screw Holder**

- Grasps onto a protruding fracture screw and unscrews it
- Color-coded
- Rotation direction : counterclock wise

Type	M1.6	M1.8	M2.0
	OSHM	OSHR18	OSHR



#### Re-tap

- Re-threads the internal connection of a fixture, if the screw does not properly engage and tightens
- Connects to a torque wrench or ratchet wrench to re-thread

Type	M1.6	M1.8	M2.0
	ORTM	ORTR18	ORTR



#### **ESR Handle**

• Tools to fix guide to fixture

OARH



### Abutment Removal Tip (AR Tip)

- Removes the remaining part of a fractured abutment or mount in a fixture.
- Engage the tip into the fractured abutment counterclock wise. Using forceps, grasp the removal tip and rock back and forth until the factured abutment is freed.
- Mini : it can be used to remove a screw with a stripped hex
- To remove the screw, engage the tip into the stripped hex and rotate counterclock wise

L Type	Mini	Regular
Short	OARTMS	OARTRS
Long	OARTML	OARTRL
Ex.Long	OARTMEL	OARTREL



## **ESR Full KIT** Surgical Instruments

#### **Slot Driver**

 Cut a slot on a stripped hex; healing abutment, cover screw, or abutment screw using a Ø0.8 bur to unscrew

OTSD07



### **Transfer Abutment Separate Tool**

- Removes stuck or wedged non-hex transfer abutments
- Separate tool tip fits mini abutments; regular tools can also be used through the second groove
- After removing the abutment screw, insert the separate tool body into the abutment. Fasten the driver, securely joining the separate tool body and abutment. Remove the abutment. If this does not release abutment from the fixture, retighten with a ratchet wrench to the driver and try again.

Driver	Body	Set
TASD	TASB	TAST



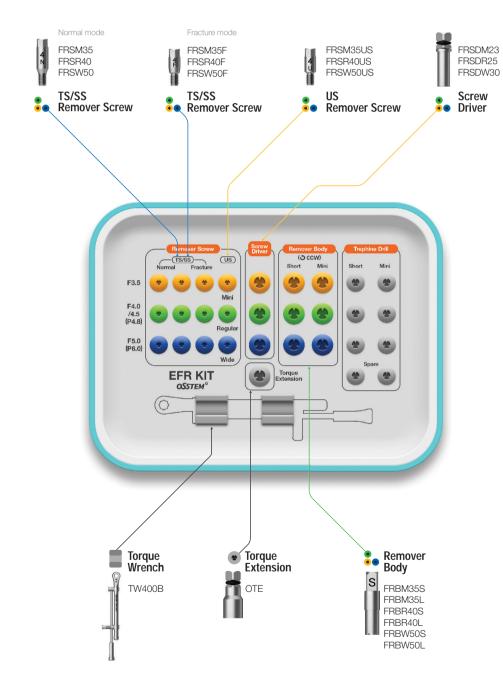
### **EFR KIT** Easy Fixture Removal KIT (OSFRK)



Top panel components

**Fixture Wrench** 

For TSII/III SSII/III USII/III Ultra-wide



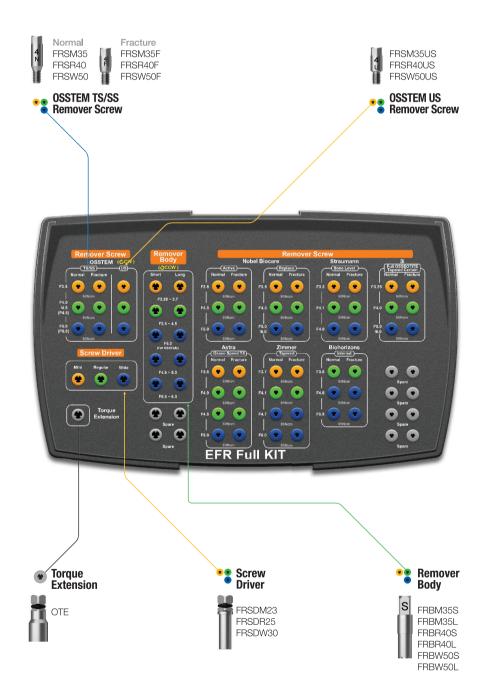
## **EFR Full KIT** Easy Fixture Removal Full KIT (OSFRFK)

• KIT has the same components as EFR KIT and can be put on competitors' components

Nobel Biocare Active/Replace / Straumann Bone Level / Astra Osseo Speed TX

3i Full OSSEOTITE Tapered Certain / Zimmer Tapered / Biohorizons Internal

Lower panel components **Fixture Wrench** FRDFE **Torque Wrench** 



## **EFR Full KIT** Surgical Instruments

### Items that are not included in the KIT

Remover Sc	rew							
Nobel	Active			Replace				
	Normal FRSMNA35 FRSR40 FRSW50	Fracture FRSMNA35F FRSR40F FRSW50F		Normal FRSMNR35 FRSR40 FRSW50	Fracture FRSMNR35F FRSR40F FRSW50F			
Straumann	Bone Leve	I	3i	Full Ossec	otite Tapered Certain	Biohorizons	Internal	
	Normal FRSM33 FRSRS41 FRSWS48	Fracture FRSM33F FRSRS41F FRSWS48F		Normal FRSMI325 FRSRI40 FRSWI50	Fracture FRSMI325F FRSRI40F FRSWI50F		Normal FRSRZ41 FRSWZ47 FRSWZ60	Fracture FRSRZ41F FRSWB46F FRSWB46F
Zimmer	Tapered		Astra	Osseo Spe	ed TX	Remover Body		
	Normal FRSMZ37 FRSRZ41 FRSWZ47 FRSWZ60	Fracture FRSMZ37F FRSRZ41F FRSWZ47F FRSWZ47F		Normal FRSMNA35 FRSRA40 FRSR40 FRSW50	Fracture FRSMNA35F FRSRA40F FRSR40F FRSW50F	FRBW57S FRBW57L FRBUW60S FRBUW60L		

### Remover Screw

- Connects to the failed implant and serves to support the remover body
- Available in different sizes to match the diameter of the fixture to be removed (TS/SS/US, normal/fracture)
- Fracture type is specifically for removing a fractured fixture
- Recommended tightening torque : regular/wide 100Ncm, mini 80Ncm
- Disposable; do not re-use
- T = Type



		Mini	Regular	Wide
T \	Mode	Ø3.5/-	Ø4.0~4.5/P4.8	Ø5.0/P6.0
TS/SS	Normal	FRSM35	FRSR40	FRSW50
	Fracture	FRSM35F	FRSR40F	FRSW50F
US		FRSM35US	FRSR40US	FRSW50US

### **Nobel Biocare**

T \	Mode	Mini Ø3.5	Regular Ø4.3	Wide Ø5.0/6.0
Active	Normal	FRSMNA35	FRSR40	FRSW50
	Fracture	FRSMNA35F	FRSR40F	FRSW50F
Replace	Normal	FRSMNR35	FRSR40	FRSW50
	Fracture	FRSMNR35F	FRSR40F	FRSW50F

#### Straumann

T \	Mode	Mini Ø3.3	Regular Ø4.1	Wide Ø4.8
Bone	Normal	FRSMS33	FRSRS41	FRSWS48
Level	Fracture	FRSMS33F	FRSRS41F	FRSWS48F

#### Astra

T \	Mode	Mini Ø3.5	Regular Ø4.0	Regular Ø4.5	Wide Ø5.0
Osseo	Normal	FRSMNA35	FRSRA40	FRSR40	FRSW50
Speed TX	Fracture	FRSMNA35F	FRSRA40F	FRSR40F	FRSW50F

3i

T \	Mode	Mini Ø3.25	Regular Ø4.0	Wide Ø5.0/6.0
Full	Normal	FRSMI325	FRSRI40	FRSWI50
Osseotite Tapered Certain	Fracture	FRSMI325F	FRSRI40F	FRSWI50F

#### Zimmer

T \	Mode	Mini Ø3.7	Regular Ø4.1	Wide Ø4.7	Ultra-wide Ø6.0
Tapered	Normal	FRSMZ37	FRSRZ41	FRSWZ47	FRSWZ60
	Fracture	FRSM737F	FRSR741F	FRSW747F	FRSW747F

#### **Biohorizons**

T \	Mode	Mini Ø3.8	Regular Ø4.6	Wide Ø5.8
Internal	Normal	FRSRZ41	FRSWZ47	FRSWZ60
	Fracture	FRSRZ41F	FRSWB46F	FRSWB46F

## **EFR Full KIT** Surgical Instruments

#### **Screw Driver**

- Connects and fastens the remover screw to the fixture
- Recommended tightening torque : regular/wide 100Ncm, mini 80Ncm
- F = Fixture





### **Remover Body**

- Connects to a failed fixture via the remover screw and by applying counterclock wise torque, removes the implant
- Available in different sizes to match the diameters of the fixture to be removed
- F = Fixture

\ F	Mini	Regular	Only for osstem Wide	Only for overseas companies Wide	Ultra-wide
Short	FRBM35S	FRBR40S	FRBW50S	FRBW57S	FRBUW60S
Long	FRBM35L	FRBR40L	FRBW50L	FRBW57L	FRBUW60L

### **Torque Extension**

• Extends the length of the screw driver and remover body (by 10mm)



OTE

### **Torque Wrench**

- Connect with screw driver to fasten and remover body to remove the fixture
- Applies up to 400Ncm of torque (markers at 80/100/200/300/400Ncm)
- Torque by pulling the bar back until reaching the desired torque value
- Clean and sterilize for storage





#### **Fixture Wrench**

• Removes implants from the remover body after removing the fixture from the bone

FRDFE



150

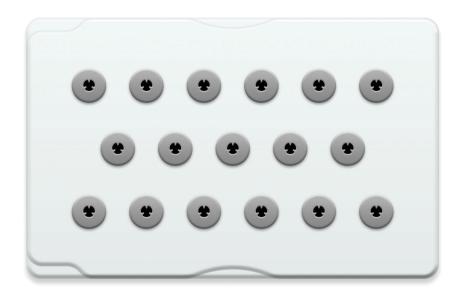
DSSTEM KIT

 Transparent silicone material

## Osstem Basic Instrument KIT (OBKIT)

- Commonly used Implant surgery KIT
- 25 species Instrument (1ea each)

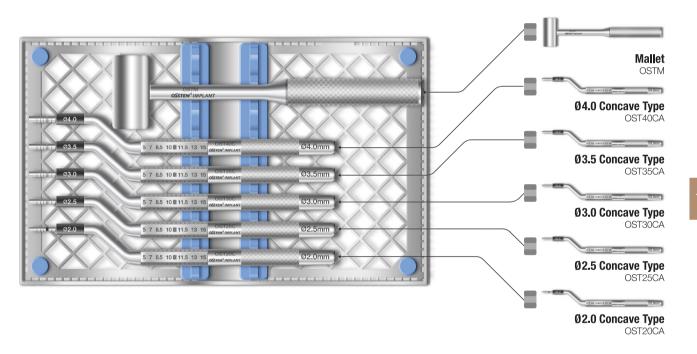






## Osteotome KIT (AOST)

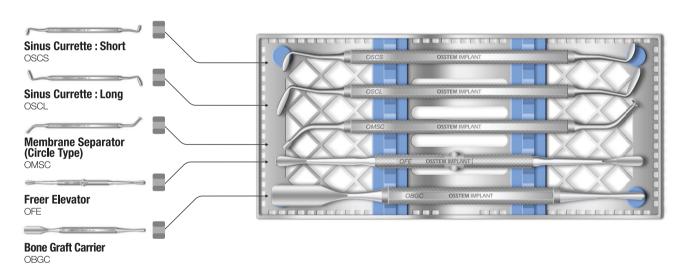
- · Crestal approach sinus lift surgery
- Concave type only
- Includes stopper system for safe and controlled penetration





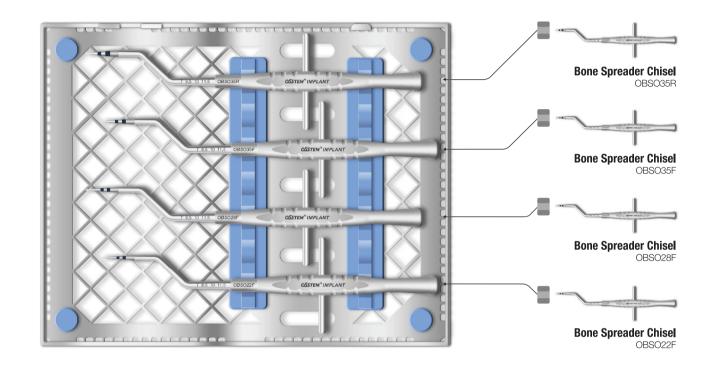
## Sinus KIT (ASLK)

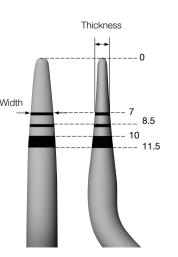
- Tools for lateral approach sinus floor elevation surgery
- Components (5 types)
- Freer elevator : OFE
- Bone graft carrier : OBGC
- Membrane separator (circle type) : OMSC
- Sinus currette-short : OSCS
- Sinus currette-long : OSCL



## Bone Spreader KIT (OBSOK)

- Expands narrow alveolar ridge
- Offset type
- Components (4 types)
- OBSO22F, OBSO28F, OBSO35F, OBSO35R





- Use for alveolar bone expansion
- Offset type for easy operation
- Depth marking corresponding to the implant length

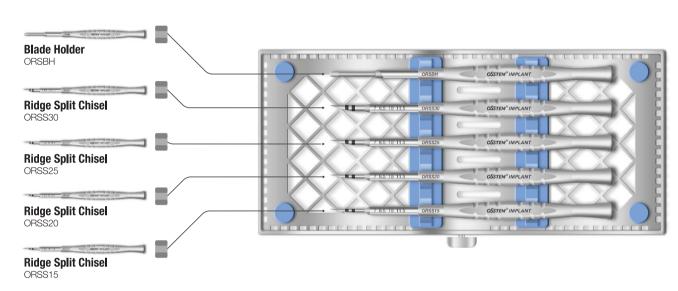


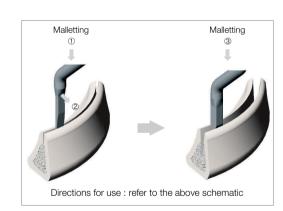
					(Unit : mm)
Code	Tip length Spec.	7	8.5	10	11.5
OBSO22F	Thickness	1.15	1.3	1.45	1.6
	Width	2.1	2.2	2.2	2.2
OBSO28F	Thickness	1.15	1.3	1.45	1.6
	Width	2.65	2.8	2.8	2.8
OBSO35F	Thickness	1.3	1.45	1.6	1.8
	Width	3.3	3.5	3.5	3.5
OBSO35R (round type)	Thickness	1.85	2.1	2.3	2.55
	Width	3.3	3.5	3.5	3.5

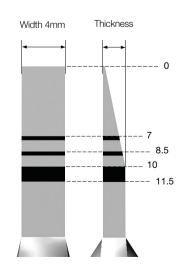
## Ridge Split KIT Straight (ORSSK)

### Straight

- Chisel: expands narrow alveolar ridge
- Blade holder : cuts poor bone quality using a bur, malletting is possible, use a #15 blade
- Ridge split chisel : ORSS15, ORSS20, ORSS25, ORSS30
- Blade holder : ORSBH





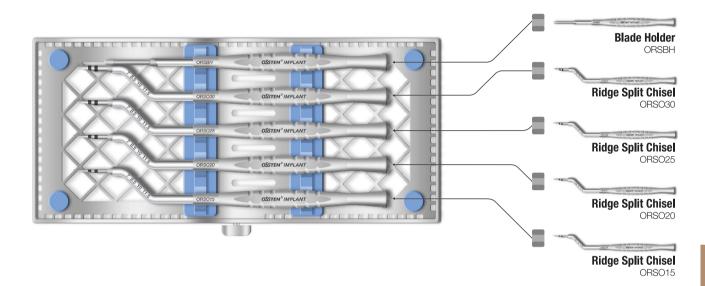


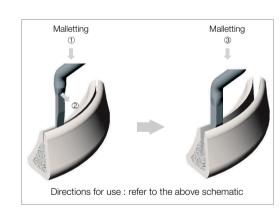
					(Unit : m
Code	Tip length Spec.	7	8.5	10	11.5
000045	Thickness	1.1	1.27	1.5	1.5
ORSS15	Width	4	4	4	4
ORSS20	Thickness	1.45	1.7	2.0	2.0
	Width	4	4	4	4
ORSS25	Thickness	1.8	2.15	2.5	2.5
	Width	4	4	4	4
0.0000	Thickness	2.15	2.5	3.0	3.0
ORSS30	Width	4	4	4	4

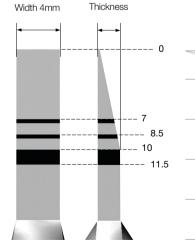
## Ridge Split KIT Offset (ORSOK)

#### Offset

- Chisel: expands narrow alveolar ridge
- Blade holder: cuts poor bone quality using a bur, malletting is possible, use a #15 blade
- Ridge split chisel: ORSO15, ORSO20, ORSO25,ORSO30
- Blade holder : ORSBH







					(Unit : mm)
Code	Tip length Spec.	7	8.5	10	11.5
ORSO15	Thickness	1.1	1.27	1.5	1.5
	Width	4	4	4	4
00000	Thickness	1.45	1.7	2.0	2.0
ORSO20	Width	4	4	4	4
ORSO25	Thickness	1.8	2.15	2.5	2.5
	Width	4	4	4	4
00000	Thickness	2.15	2.5	3.0	3.0
ORSO30	Width	4	4	4	4
					-

### Instructions for Use (AUG. 2017, Ver. 5.5)

#### Description of Osstem implant system

Osstem Implant is a brand for implant materials for dental practices, and the fixture is made resident implant a brain or implant transmiss on deniar practices, and the inactive is made mainly of titanium. The abutment, prosthetic components and tools for the Osstem Implant system are compatible with the Osstem Implant fixture only. Using this product in combination with products from other manufacturers may cause various problems including loosening and fracture due to incomplete locking and compatibility issues. Refer to the manual or the catalogue or our website (www.osstem.com) for details. See the product label for the product code, specifications, manufacturing date, and expiration date.

#### Sterility

The fixture, cover screw, and healing abutment are cleansed and sterilized with gamma radiation. This product is a disposable sterilized medical device intended for one-time use. In order to prevent contamination or infection of the product or operated site, the product must be used using a sterilized instrument in a sterilized environment. Damaged products, products with open packaging, or expired products must be discarded due to potential risks of contamination, infection, or osseointegration failure. Re-sterilization or re-use of the product may result in infection, osseointegration failure, or implant damage due to reduced accuracy.

#### Storage condition

Keep the product in a dry place at room temperature(1~30°C). Keep away from direct sunlight.

#### General precautions

The surgical technology of dental implant involves an expert, complex procedure. Formal training is required to perform implant surgery. Careful considerations must be made before the operation in case of bone disorders (osteoporosis, osteomalacia) or metabolic disorders of the bone.

#### Precautions

Determine the local anatomy and suitability of the available bone for implant placement. Prepare the implant considering the expected situations and cautions. Excessive occlusal load may cause loosening or fracture of an implant. In order to avoid this condition, the implant must be placed in accurate location and direction considering the relationship between the implant and opposing dentition. Visual inspection as well as panoramic and periapical radiographs are essential to determine anatomical landmarks, occlusal conditions, periodontal status, and the adequacy of the bone. Adequate radiographs, direct palpation, and visual inspection of the implant site are necessary prior to implant surgery.

#### Procedural precautions

Osstem Implant System is for single and two stage surgical procedures. As much as possible, try to minimize damage to the cell tissue and surgical trauma, pay special attention to maintaining the temperature at the implant site and removal of the source of contamination and infection. All drills and taps must be sufficiently and continuously irrigated for cooling during use. Implant placement should be accomplished at very low speed (25-30 rpm) or manually. Excessive torque (greater than 55Nom) in the fixture placement can have adverse effects such as partial fracture or necrosis of the bone. Placing an implant tilted by 30° or higher is not recommended due to possible fracture of implant. Immediate loading to the fixture right after the surgery should be avoided. The bone quality and initial stability after fixture placement are important elements in determining the appropriate leading time. Mini-diameter implant or implant with diameter of 4.0 or less and which integrates with angled abutment may be fractured due to limitations of structural rigidity. They are not recommended for use in a posterior area. The Ultra-Wide fixtures are intended to be used only to replace molar teeth and

that angled abutments are not to be used with the Ultra-Wide fixtures. Evaluate the quantity of bone and radiographs to assess any potential anatomical contraindications to use of the Ultra-Wide fixture. For the placement of the Short Implant (diameter is 5mm or more and length is shorter than 7mm) which is used on the molar region only, clinicians should closely examine the patients for any of the following conditions: 1) perimplant bone loss, 2) changes to implant's response to percussion, 3) radiographic changes in bone to implant contact along the implant's length. If a short implant shows mobility or greater than 50% bone loss, the implant should be considered for possible removal. And clinicians should consider a two-stage surgical approach, splinting a short implant to an additional implant, and placement of the widest possible fixture. Allow longer healing periods for osseointegration before fabrication of the prosthesis and avoid immediate loading. Products with diameter of 3.25mm or less must be used exclusively for mandibular anterior teeth in order to prevent fracture due to excessive occlusal load. It is recommended that you should avoid applying HA coated fixture to hard bone, and the insertion torque of the implant should be less than 35Ncm, because cracks or damages might occur in the coated layer during implant placement. The surfaces of CA and SOI have the same physical shape as the SA surface made through blasting and etching treatments. After the SA surface treatment, to prevent the products' exposure to the atmosphere, CA is stored in solution, whereas SOI is stored in water-film coating form; it is designed to maintain the chemically activated state of the SA surface. Thus, CA or SOI products should be implanted in the target region at least within 15 minutes of taking them out

#### Warning

The selection of inappropriate patients and surgical methods can cause implant failure or loss of bone supporting the implant. Osstem implants must not be used for purposes other than the recommended use and must not be remodeled. Implant mobility, bone loss, and chronic infection can result in failure of the implant surgery.

#### Indications for use

The Osstem Implant System is an artificial dental root that has been designed for use in dental implant treatment in order to recover lost teeth. The system is implanted via a surgical method in maxillary or mandibular bone to replace natural dental root. The Osstem Implant System is indicated for use in partially or fully edentulous mandibles and maxillae, in support of single or rations including; cemented retained, screw retained, or overde restorations, and final or temporary abutment support for fixed bridgework. It is intended for delayed loading. Products with diameter of 3.25mm or less must be used exclusively for mandibular anterior teeth in order to prevent fracture due to excessive occlusal load.

A few problems may occur after the operation (loss of implant stability, damage of prosthesis, etc.). Deficient quality and quantity of the remaining bone, infection, allergic reaction, inferior oral hygiene or uncooperativeness of patient, implant mobility, partial deterioration of tissue. and improper position or arrangement of implants may cause the above mentioned problems

#### Contraindications

- Contraindications include the following, but are not limited to:
- Patients with hemophilia or difficulties related to bone or wound treatment
- · Patients with uncontrollable diabetes, heavy smoker or alcoholic
- Patients whose immunity system is inactive due to chemical therapy or radiation therapy
- · Patients with oral infection or inflammation (improper oral hygiene, bruxism) • Patients with untreatable occlusion/joint disorder, insufficient dental arch space
- · Any patient who is not suitable for an surgery

Manufacturer : Osstem Implant Co., Ltd. 203, Geoje-daero, Yeonje-gu, Busan, Korea TEL 82-51-850-2500 FAX 82-51-861-4693











Sterilized using irradiation





Keep away from sunlight

Keep dry











Date of manufacture





Catalogue number





Caution Consult







#### DEUTSCHE OSSTEM GmbH.

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Dry place at room temperature



device to sale by or on the order of a dentist

