

KIT PRODUCT CATALOG

Osstem Implant 2014-15 Comprehensive Catalog

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Production/Distribution Marketing & Planning Team

Date of Publication 2014.

Publisher Osstem Implant

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003	INTRODUCTION
012	CONTENTS
028	OSSTEM KIT
094	REFERENCE

**"Osstem - Future
Technology and
Superior Quality"**

Products that dentists can trust.
That is the mission of
Osstem Implant.

**We deeply appreciate
all of our customers
who use our products.**

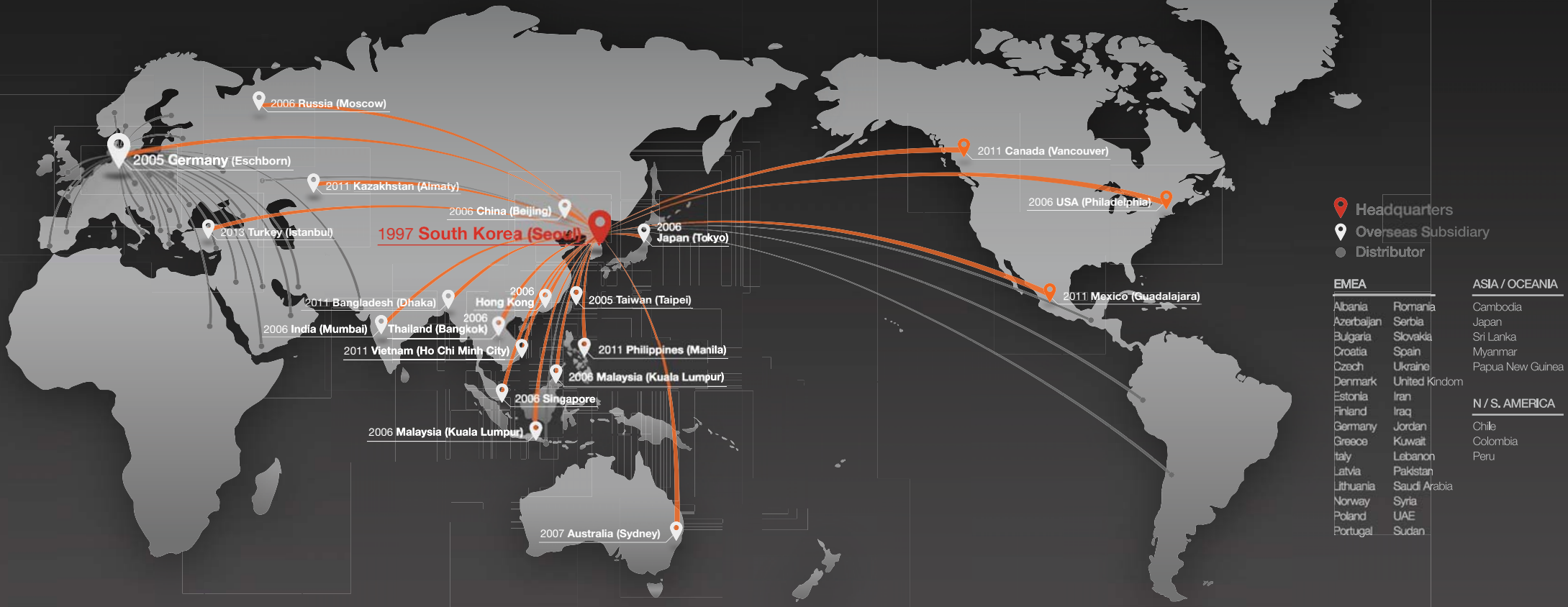
We deeply appreciate all of our customers who use our products. With population aging, rising incomes, and increased interest in health and aesthetics, implants have become an essential treatment in dentistry around the world. Today, implants are well-known as a safe and effective treatment option, and the leading treatment option for patients with no teeth. To satisfy this global trend, Osstem has invested heavily in R&D and continuously promotes innovative products, resulting in it becoming a global leader in technology and product quality. Osstem is releasing new products including TSIII CA, TSIII BA, SSIII HA, and MS SA, and is strengthening its product line-up in order to enable application in a variety of clinical cases. Other products to be released that will enable safe, easy implant procedures include SMARTbuilder, AutoBone collector, 123 KIT, and ESSET KIT.

TSIII CA in particular is expected to become a leading product in the global implant market after launching as a groundbreaking product with superior hydrophilic properties capable of at least 30% greater fusion than ordinary SA products due to its calcium ion solution encapsulation. Also, to improve our customers' convenience and foster reasonable purchasing, we have opened an online store, DenALL (www.denall.com), where dentistry materials can be purchased affordably and conveniently. Osstem leads the way in superior product quality and exports to over 50 countries including the USA, China, Japan, Germany, and India, and is the first company in Korea to record implant sales of over 30 million products and overseas subsidiary sales of over 100 billion won.

Osstem Implant CEO
Gyu-ok Choi (DDS, Ph.D)



Worldwide & History



1997

- 01 OSSTEM Co., Ltd. Founded
- 12 Launched "Doobunae" (health insurance claiming software)

2000

- 06 Launched "Hanaro" (dentistry management software)
- 10 Acquired Korean company Sumin Comprehensive Dental Materials

2001

- 01 Obtained CE-0434 certification
- 03 Established AIC Training Center

2002

- 01 Established Osstem Implant Research Center
- 08 Obtained US FDA certification
Launched USII implant
- 10 Launched SSII implant

2006

- 03 Changed company name to Osstem Implant Co., Ltd.
- 04 Obtained GOST-R certification in Russia
- 12 Established the first incorporation stage of overseas subsidiaries in 12 countries

2007

- 02 Listed on KOSDAQ stock exchange and began trading
- 06 Obtained GOST-R certification in Russia
- 12 Selected next-generation products
Obtained certification from Australia's Therapeutic Goods Administration

2008

- 01 Established Osstem's osteology research center
- 12 Selected as a National Strategic Leading Technology Company

2009

- 10 Obtained permission from Japan's Ministry of Health, Labor, and Welfare to produce and sell medical devices

2010

- 03 Launched TSIII SA implant
- 06 Launched TSIII HA implant
- 08 Selected as WPM Biomedical National Policy Company
- 12 Exceeded 10,000 dentistry software members

2011

- 06 Selected Osstem Implant Research Center as an ATC (Superior Technology Research Center)
- 07 Selected as a world champion business
- 10 Obtained Health Canada certification
- 12 Launched K2 unit chair
Selected as "Global First-Class Product"

2012

- 06 Launched TSIII CA implant
- 07 Established Osstem Medical Equipment Research Center

2013

- 01 Launched Osstem's xenograft "A-Oss"
- 09 Launched K3 unit chair
- 10 Selected as a hidden champion business

2014

- 05 Selected as a WorldClass 300 business

OSSTEM[®] Implant Design feature

Osstem Implant,

the leader in popularizing implants in Korea!
We stand out with our passion for strategic R&D and best products, creating globally trend-setting implants.



Packaging Color Information for Each System

• Submerged type implant with an internal hex 11° taper connection structure

- Connection type and color - **Mini Regular**
- Highest initial stability in soft bone by using upper-section small thread
- Corkscrew thread & cutting edge
 - Easy path adjustment through a superior self-threading effect
 - Acquires insertion torque with an increase in soft bone initial stability and without deviation according to the drill diameters
- The various body shape options are available according to the bone and patient's clinical condition
 - TSII (straight body): Easily adjustable insertion depth
 - TSIII (1.5° taper body): Able to acquire the initial stability needed for immediate loading even in soft bone
 - TSIV (6° taper body): Able to acquire superior initial stability only in maxillary sinus and soft bone

• Applied Surface - SA/CA/BA/HA

• Non-submerged type implant with an internal octa 8° taper connection structure based on one-time procedures

- Connection type and color - **Regular Wide**
- Corkscrew thread & cutting edge
 - Easy path adjustment through a superior self-threading effect
 - Acquires insertion torque with an increase in soft bone initial stability and without deviation according to the drill diameters
- The various body shape options are available according to the bone and patient's clinical condition
 - SSII (straight body): Easily adjustable insertion depth
 - SSIII (1.5° taper body): Able to acquire the initial stability needed for immediate loading even in soft bone
- Applied Surface - SA/CA/HA

• Submerged type implant with an external hex connection structure

- Connection type and color
 - **Mini Regular Wide Wide PS**
- Corkscrew thread & cutting edge
 - Easy path adjustment through a superior self-threading effect
 - Acquires insertion torque with an increase in soft bone initial stability and without deviation according to the drill diameters
- The various body shape options are available according to the bone and patient's clinical condition
 - USII (straight body): Easily adjustable insertion depth
 - USIII (1.5° taper body): Able to acquire the initial stability needed for immediate loading even in soft bone
 - USIV (6° taper body): Able to acquire superior initial stability only in maxillary sinus and soft bone
- Applied Surface - SA

OSSTEM[®] Implant Surface feature

Osstem Implant provides world-class surface technologies in surface treatment, the core implant technology for fast and safe procedures

SA CA BA HA

• Provides optimum surface through acid treatment

- Provides Ra 2.5~3.0 μm surface roughness
- However, upper section 0.5mm area is Ra 0.5~0.6 μm
- Achieved uniform micro-pit 1.3 μm in size
- 46% greater surface area compared to RBM

• Bone reaction performance (in-vitro and in-vivo)

- 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

• Superhydrophilic SA surface encapsulated in calcium solution

- Maintains optimum surface identical to SA surface
- Surface activity maximized after encapsulated in calcium (CaCl₂) solution
- Increased ossification surface area through excellent blood wettability
- Improved bone reaction performance in the early osseointegration stage compared to SA surface

• Bone reaction performance (in-vitro and in-vivo)

- 3x increase in protein, cell adhesion compared to SA
- 19% increase in initial cell separation (7 days) compared to SA
- 34% improvement in initial stability (RT, 2 weeks) compared to SA
- 26% improvement in ossification (BIC, 2 weeks) compared to SA

• Surface coated with low crystalline Nano-HA in SA

- Ultra-thin film with HA coating and 10nm or lower thickness
- HA coating on SA surface (Ra 2.5~3.0 μm)
- Dual function of titanium and HA
- HA is naturally removed during ossification process

• Bone reaction performance (in-vitro and in-vivo)

- Fused surface having advantages of both SA and HA
- Maintains advantage of SA optimum surface formation
- Superior early ossification of the HA in soft bone condition
- 30% improvement in ossification (BIC) compared to SA

• Premium surface coated with high crystalline HA

- High crystalline HA coating 30~60 μm in thickness
- HA coating on RBM surface (Ra 3.0~3.5 μm)
- Achieved at least 98% HA high crystallization
- Solves problem of interbody fusion in low crystalline HA




































































• Bone reaction performance (in-vitro and in-vivo)

- Excellent biocompatibility in HA that is similar to bone
- 2x improvement in osteoblast ossification (5 days) compared to SA
- 40% improvement in initial stability (RT, 4 weeks) in animal models compared to SA
- Suitable for weak bone tissue, or tooth extraction or implant insertion

KIT Contents 1/2

018 Taper KIT 	019 Taper Ultra KIT 	020 123 KIT 	021 123 Full KIT 	022 123 KIT - IV TYPE 	035 Ratchet Wrench 	036 L-Wrench 	036 Torque Wrench - Spring Type 	036 Torque Wrench - Bar Type 	036 NoMount Driver for TS 
023 Ultra KIT 	024 New Hanaro KIT 	026 Lance Drill - Guide Drill 	026 123 Guide Drill 	026 Sidecut Drill 	037 NoMount Driver for SS 	037 NoMount Driver for US 	037 NoMount Torque Driver for TS 	038 NoMount Torque Driver for SS 	038 Fixture Driver for TS 
026 Drill Extension 	027 Twist Drill - Stopper Drill 	027 Twist Drill - Non Stopper Drill 	028 123 Twist Drill 	028 123 Drill Stop 	038 Fixture Driver for SS 	038 Fixture Driver for US 	039 Torque Extension 	039 Simple Mount Driver 	039 Simple Mount Extension 
029 123 Twist Drill - Stopper Drill 	029 IV Type Twist Drill 	030 Direct Drill 	030 Taper Drill 	031 Taper Ultra Drill 	039 Simple Open Wrench 	040 Removal Tool for Fixture Mount 	040 Tissue Punch 	041 TS Bone Profiler 	041 US Bone Profiler 
031 Long Shank Pilot Drill 	031 Cortical Drill 	032 Cortical Drill 2 for TSII, SSII SA 	032 Cortical Drill 3 for Taper Fixture 	032 Taper Cortical Drill for Taper Fixture 	042 Trepine Drill 	042 Bone Mill 	042 Machine Driver Handle 	043 Prosthetic KIT 	044 TS Prosthetic KIT 
033 Cortical Drill for Ultra-Wide 	033 Countersink for USIII, USII SA, USIII SA 	033 Tapered Fixture Tap for TSIII, USIII, SSIII SA 	034 Parallel Pin 	034 Parallel Pin for 123 Drill 	045 Hand Driver 	045 Machine Screw Driver 	046 Torque Driver 	046 O-ring Abutment Driver 	046 Rigid Outer Driver 
034 Depth Gauge 	034 Depth Gauge 	035 Trial Pin for Ultra- wide 	035 Positioning Guide 	035 Tissue Height Gauge for TS 	047 Solid Abutment Driver 	047 Excellent Solid Abutment Driver 	048 Octa Abutment Driver 	048 OSSTEM Torque Driver 	048 Path Probe for TS 

KIT Contents 2/2

049 Connector 	049 Driver Handle 	049 Dalbo Plus Screw Driver 	049 Finishing Reamer Set 	050 Reamer Bite 	063 Ortho KIT 	064 Bone Screw KIT 	065 Custom KIT 	066 Osteo KIT 	067 Osteotome KIT 
050 Reamer Tip for Rigid Abutment 	050 Reamer Tip for Solid, Excellent Solid Abutment 	051 CAS-KIT 	052 CAS-Drill 	052 Guide Drill 	068 Sinus KIT 	069 Bone Spreader KIT 	070 Ridge Split KIT - Straight 	071 Ridge Split KIT - Offset 	072 Osstem Guide KIT 
052 Ø 2.2 Twist Drill 	052 Hydraulic Membrane Lifter Set 	053 Stopper 	053 Bone Carrier 	053 Bone Carrier Head 	073 Osstem Guide Twist Drill 	074 Osstem Guide Mount 	075 Osstem Guide Cylinder (Pin) 	076 ESR KIT 	077 Reverse Driver 
053 Bone Condenser 	054 Hydraulic Membrane Lifter Tube 	054 Depth Gauge 	054 CAS-KIT Plus CAS-Drill 	055 LAS-KIT 	077 Screw Removal Drill (SR Drill) 	077 Guide 	078 Torque Handle 	078 Screw Removal Tip (SR Tip) 	078 Screw Holder 
056 Dome Drill 	056 Core Drill 	056 Side Wall Drill 	057 Bone Separator 	057 Stopper 	078 Re-tap 	079 ESR Handle 	079 Abutment Removal Tip 	079 Transfer Abutment Separate Tool 	079 Slot Driver 
058 LAS-KIT Plus 	059 ESSET KIT 	060 Crest Remover 	060 Twist Drill 	060 Saw 	080 EFR KIT 	081 Remover Screw 	081 Screw Driver 	081 Remover Body 	082 Torque Extension 
061 SET Drill 	061 Mount Extension 	061 Torque Wrench 	061 Depth Gauge 	062 MS KIT 	082 Torque Wrench 	082 Fixture Wrench 			



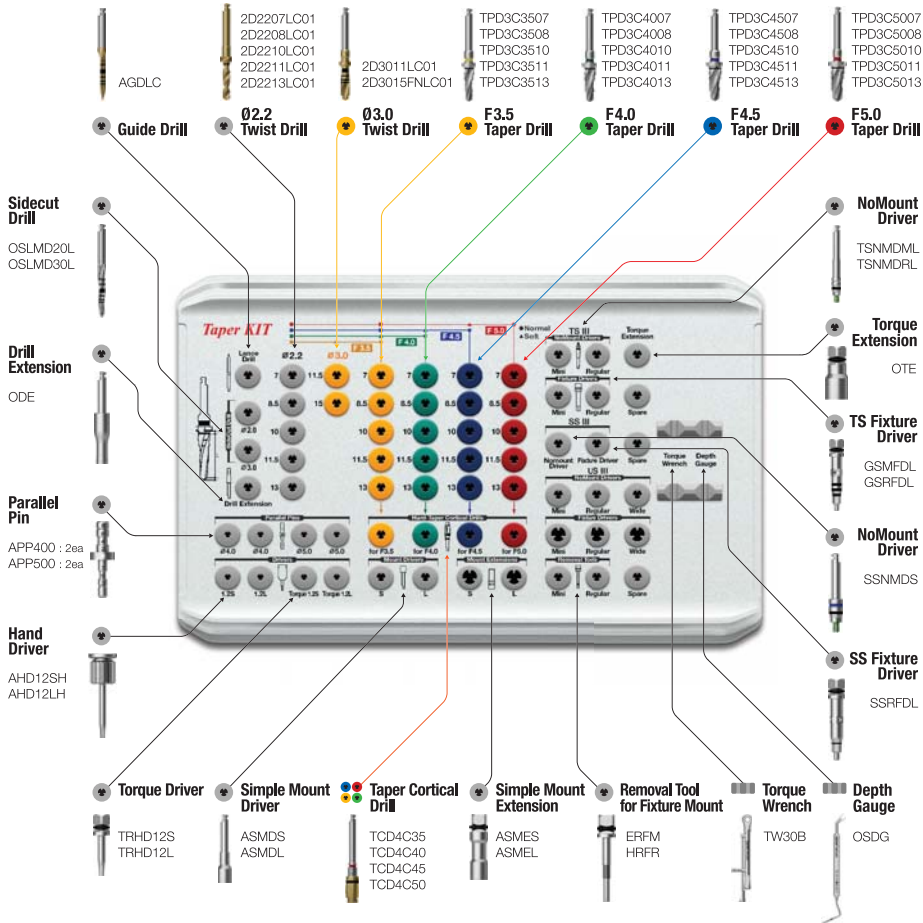
OSSTEM KIT

OSSTEM[®]
IMPLANT

- | | | | |
|------------|-------------------|------------|----------------------------|
| 018 | Taper KIT | 062 | MS KIT |
| 019 | Taper Ultra KIT | 063 | Ortho KIT |
| 020 | 123 KIT | 064 | Bone Screw KIT |
| 021 | 123 Full KIT | 065 | Custom KIT |
| 022 | 123 KIT - IV TYPE | 066 | Osteo KIT |
| 023 | Ultra KIT | 067 | Osteotome KIT |
| 024 | New Hanaro KIT | 068 | Sinus KIT |
| 043 | Prosthetic KIT | 069 | Bone Spreader KIT |
| 044 | TS Prosthetic KIT | 071 | Ridge Split KIT - Straight |
| 051 | CAS-KIT | 072 | Ridge Split KIT - Offset |
| 054 | CAS-KIT Plus | 072 | OsstemGuide KIT |
| 055 | LAS-KIT | 076 | ESR KIT |
| 058 | LAS-KIT Plus | 080 | EFR KIT |
| 059 | ESSET KIT | | |

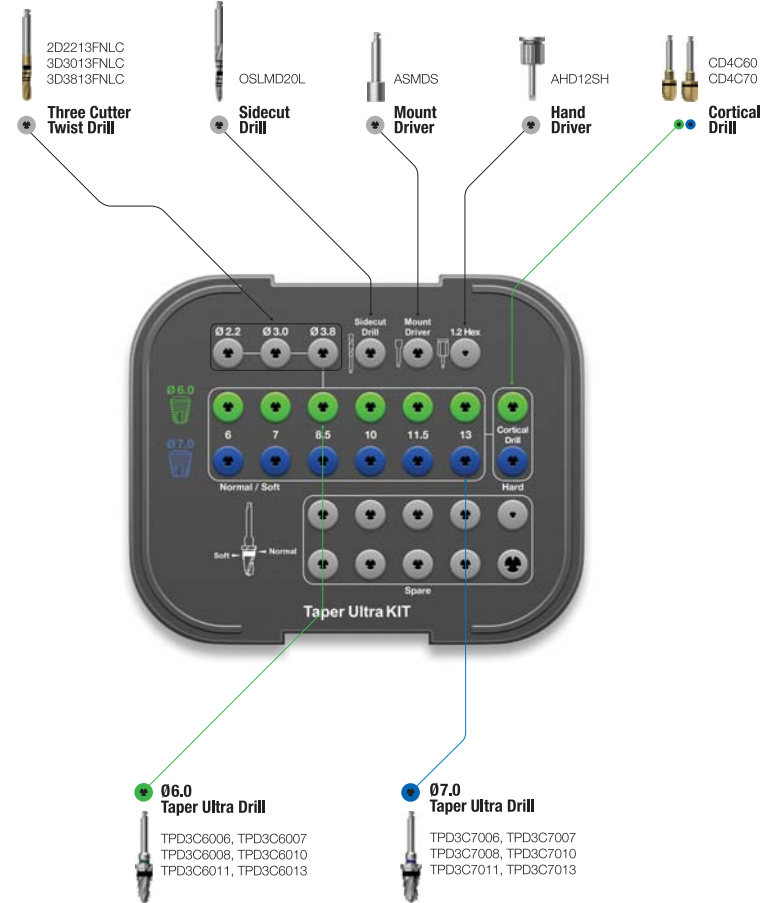
Taper KIT (OTSK)

Available for use **TSIII** **SSIII** **USIII**



Taper Ultra KIT (HULTPK)

Available for use **Ultra-wide**



Base component

Open Wrench
SPOW

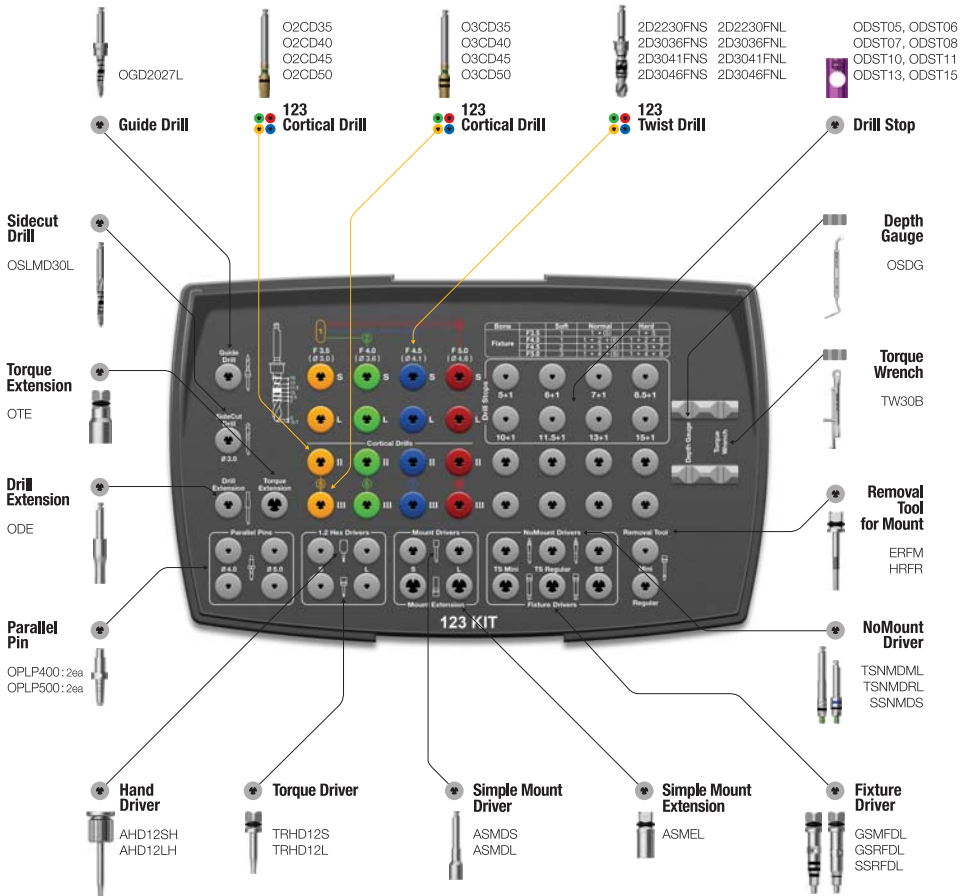


Ratchet Wrench
RCWC



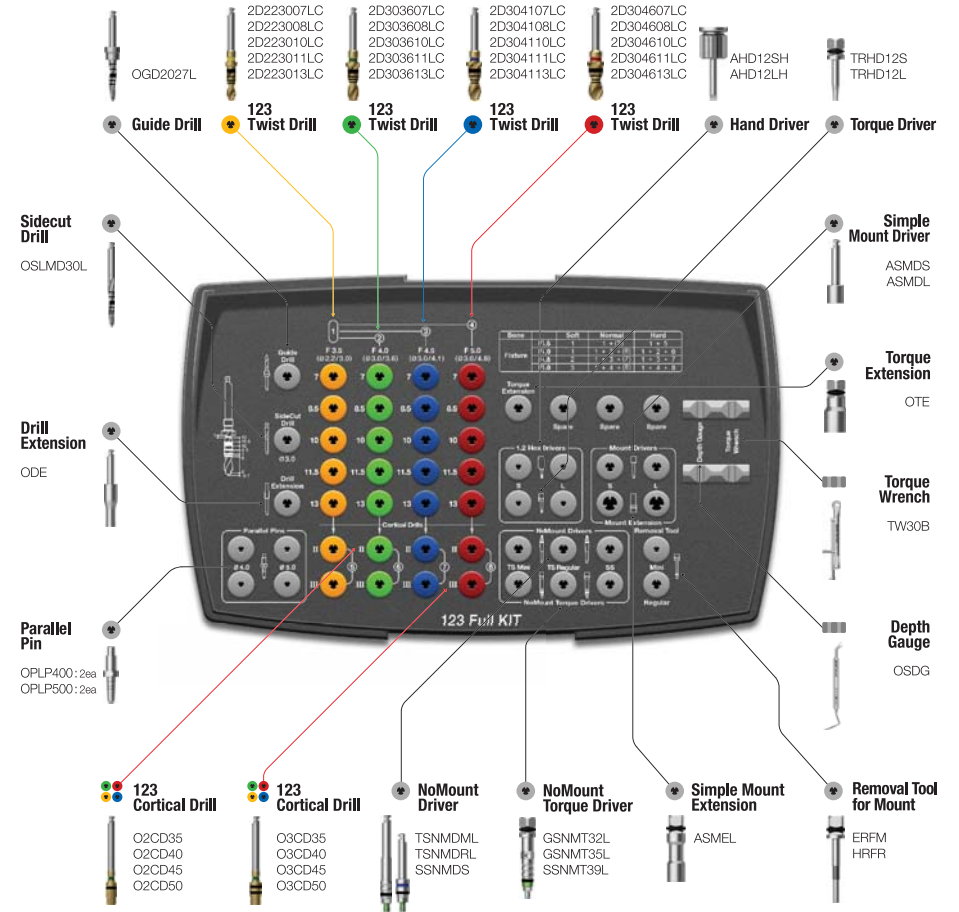
123 KIT (O123K)

Available for use **TSII SA / III SA / III HA** **SSII / III SA** **USII / III SA**



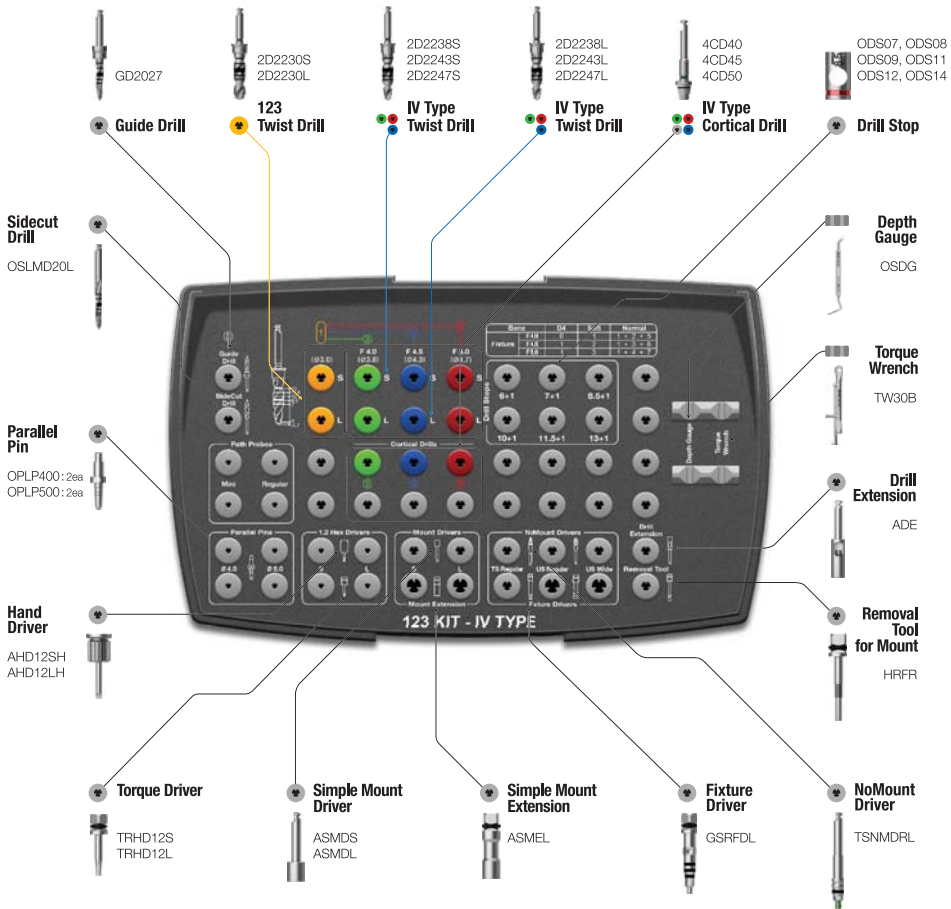
123 Full KIT (O123FK)

Available for use **TSII SA / III SA / III HA** **SSII SA / III SA** **USII SA / III SA**



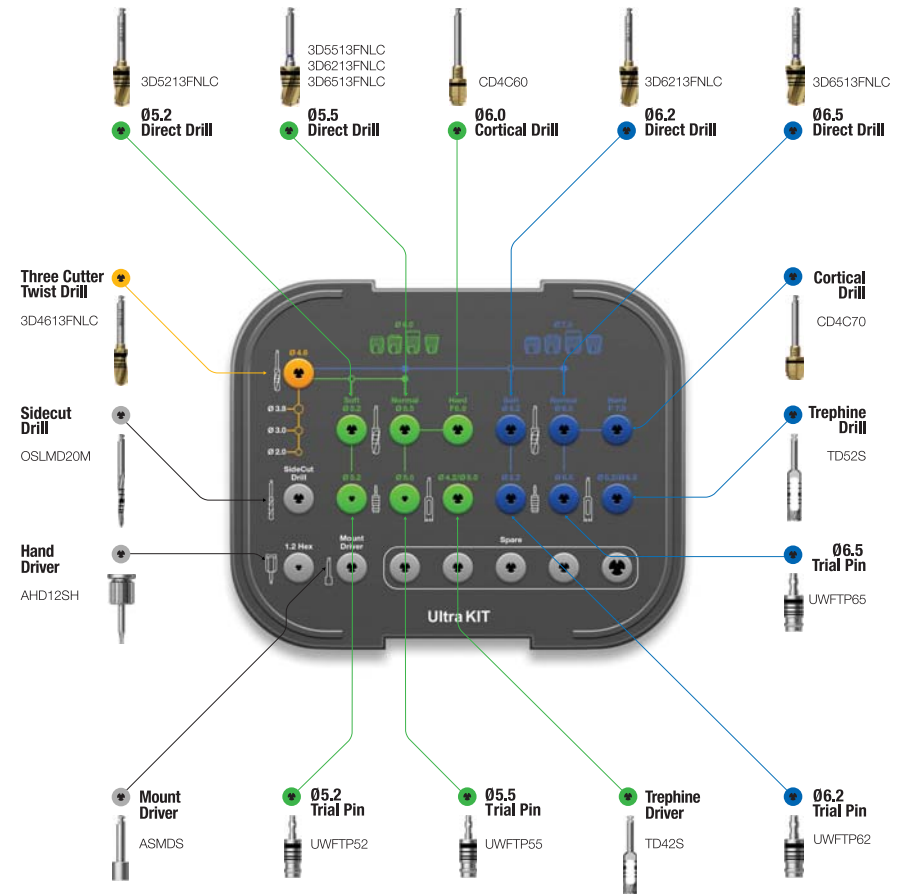
123 KIT - IV TYPE (O4SK)

Available for use **TSIV SA** **USIV SA**



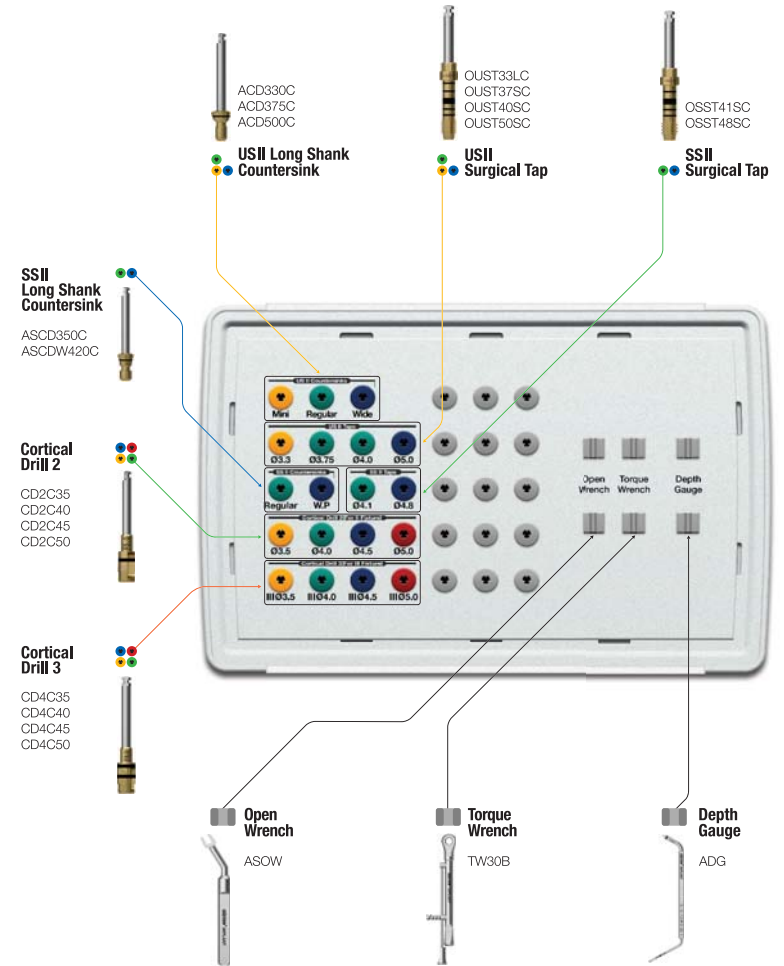
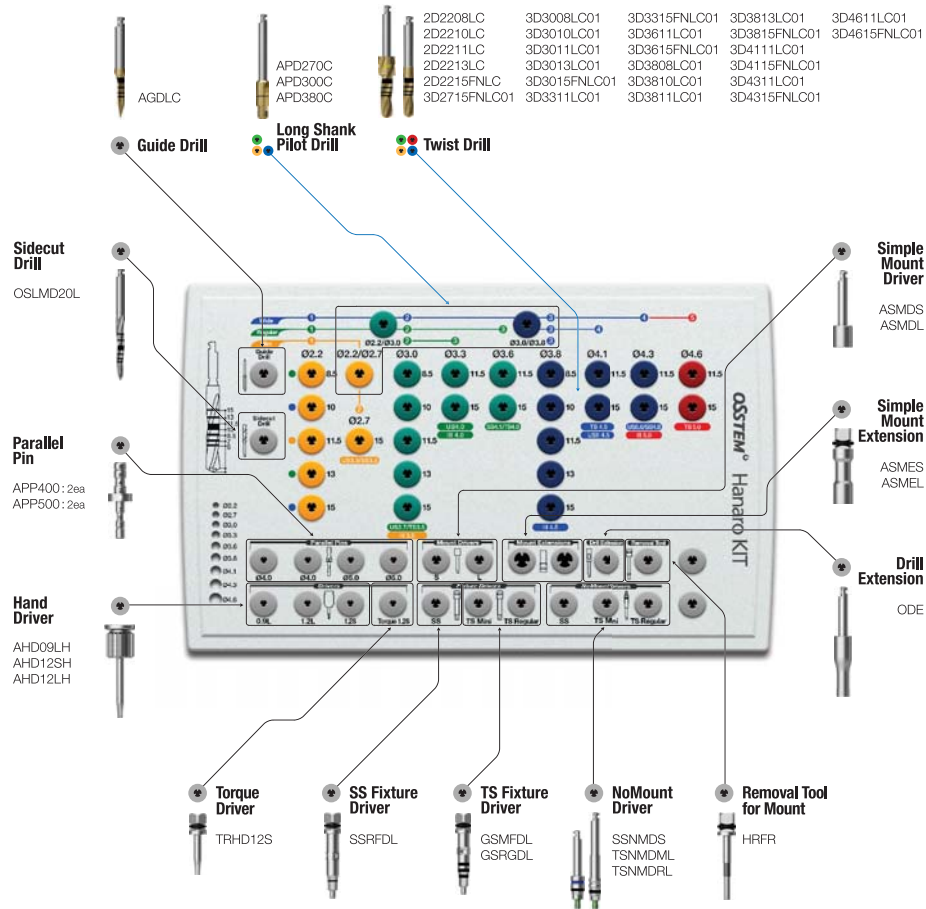
Ultra KIT (HULTRK)

Available for use **Ultra-wide**



New Hanaro KIT (HKA2)

Available for use **TSII / III** **SSII / III** **USII / III**

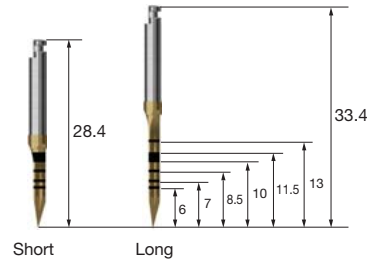


Surgical Instruments

Lance Drill - Guide Drill

- Mark the initial osteotomy position
- Bone density can be judged through drilling

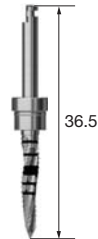
L	Short	Long
	AGDSC	AGDLC



123 Guide Drill

- Drill that forms a hole in the bone to make initial drilling easy
- Easy to adjust the depth of drilling as desired by attaching drill stop

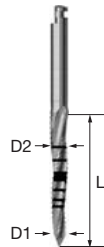
D	Ø2.0
	OGD2027L



Sidecut Drill

- Correct the angle or position of the osteotomy cutting edge on its body
- Used for removing furcation area of fresh extraction site

L \ D1 / D2	Ø1.5 / 2.0	Ø2.0 / 2.5	Ø2.5 / 3.0	Ø3.0 / 3.5
13	OSLMD5	OSLMD20S	OSLMD25S	OSLMD30S
16.5	-	-	OSLMD25L	OSLMD30L
20	OSLMDL	OSLMD20L	-	-



Drill Extension

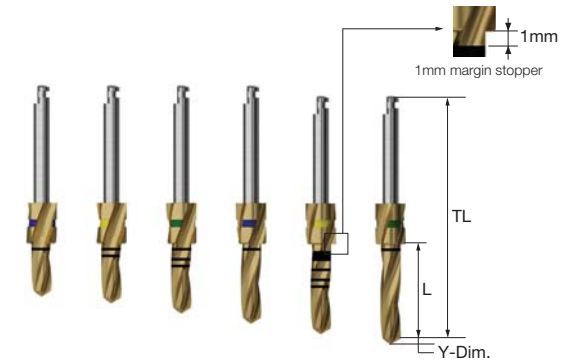
- Tool used to extend the lengths of drills and other miscellaneous hand piece tools
- Be cautious of bending or fracture if excessive force is applied
- Drill length is extended by 16.9mm with drill extension

ODE



Twist Drill - Stopper Drill

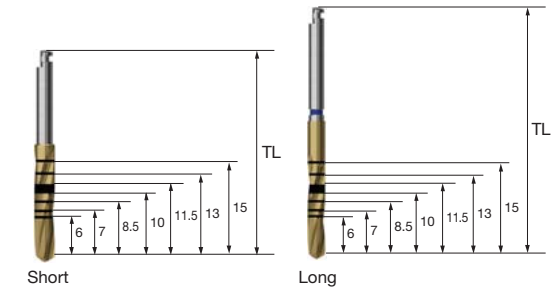
- Long stopper(6mm)
- Safety with built-in stopper
- Procedure possible without drill extension when performing posterior procedures
- Color coding on stopper indicates the drill length



L \ TL D	Ø2.2	Ø3.0	Ø3.3	Ø3.6	Ø3.8	Ø4.1	Ø4.3	Ø4.6
6.0	2D2206LC	3D3006LC	-	-	3D3806LC	-	-	-
7.0	2D2207LC	3D3007LC01	-	-	3D3807LC01	-	-	-
8.5	2D2208LC	3D3008LC01	-	-	3D3808LC01	-	-	-
10.0	2D2210LC	3D3010LC01	-	-	3D3810LC01	-	-	-
11.5	2D2211LC	3D3011LC01	3D3311LC01	3D3611LC01	3D3811LC01	3D4111LC01	3D4311LC01	3D4611LC01
13.0	2D2213LC	3D3013LC01	-	-	3D3813LC01	-	-	-
Y-Dim.	0.6	0.9	1.0	1.0	1.0	1.0	1.0	1.0

Twist Drill - Non Stopper Drill

- A drill that can be used when stopper drill's accessibility in the oral cavity is limited
- Marking drill with short and long specifications
- Refer to the image of non stopper drill for marking measurements



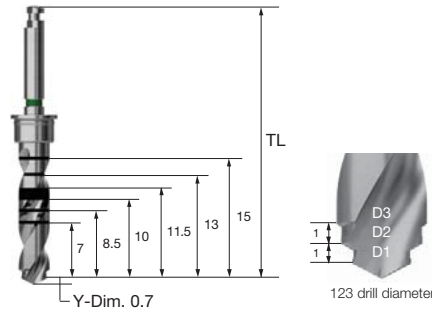
TL \ D	Ø1.5	Ø2.0	Ø2.2	Ø2.7	Ø3.0	Ø3.3
33	2D1518FNLC	2D2018FNLC	2D2218FNLC	3D2718FNLC	3D3018FNLC	3D3318FNLC
41	-	-	2D2215FNLC	3D2715FNLC01	3D3015FNLC01	3D3315FNLC01

TL \ D	Ø3.6	Ø3.8	Ø4.1	Ø4.3	Ø4.6
33	3D3618FNLC	3D3818FNLC	3D4118FNLC	3D4318FNLC	3D4618FNLC
41	3D3615FNLC01	3D3815FNLC01	3D4115FNLC01	3D4315FNLC01	3D4615FNLC01

Surgical Instruments

123 Twist Drill

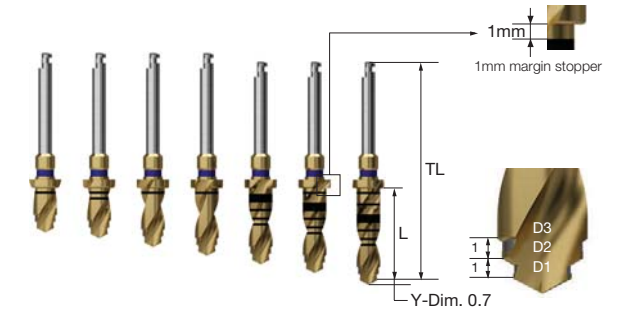
- Straight drill (marking drill) that can reduce the amount of drilling
- Color coded with corresponding fixture sizes
- Easy to adjust the depth of drilling with drill stopper
- Designed to be used with drill stopper
- F = Fixture



TL \	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)
34	2D2230FNS	2D3036FNS	2D3041FNS	2D3046FNS
40.4	2D2230FNL	2D3036FNL	2D3041FNL	2D3046FNL
Color	Yellow	Green	Blue	Red

123 Twist Drill - Stopper Drill

- Straight drill that can reduce the amount of drilling (stopper available)
- Coloring on the grip part of 123 drill indicates diameter and main fixture used
- F = Fixture



L \	TL	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)
6.0	30.5	2D223006LC	2D303606LC	2D304106LC	2D304606LC
7.0	31.5	2D223007LC	2D303607LC	2D304107LC	2D304607LC
8.5	33	2D223008LC	2D303608LC	2D304108LC	2D304608LC
10.0	34.5	2D223010LC	2D303610LC	2D304110LC	2D304610LC
11.5	34.5	2D223011LC	2D303611LC	2D304111LC	2D304611LC
13.0	36	2D223013LC	2D303613LC	2D304113LC	2D304613LC
15.0	38	2D223015LC	2D303615LC	2D304115LC	2D304615LC
Color		Yellow	Green	Blue	Red

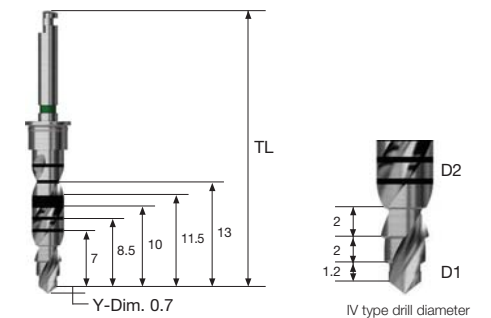
123 Drill Stopper

- The length of drill Stopper indicates the actual length left when drill stop is attached to 123 twist drill
- Coloring is applied to each length, so it is easy to figure out the lengths and relocate in KIT

L	6.2	7	8	9.5	11	12.5	14	16
	ODST05	ODST06	ODST07	ODST08	ODST10	ODST11	ODST13	ODST15

IV Type Twist Drill

- Drill optimized exclusively for bone preparation to place IV type fixture
- Color coded with corresponding fixture sizes
- Designed to be used with drill stopper
- F = Fixture

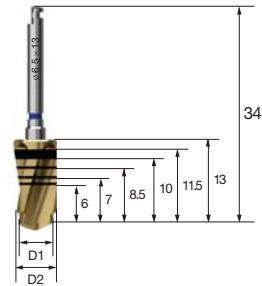


TL \	D1 / D2		
	F4.0 (Ø2.2 / 3.8)	F4.5 (Ø2.2 / 4.3)	F5.0 (Ø2.2 / 4.7)
34	2D2238S	2D2243S	2D2247S
40.4	2D2238L	2D2243L	2D2247L
Color	Green	Blue	Red

Surgical Instruments

Direct Drill

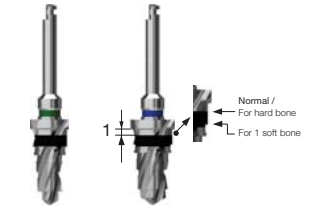
- Direct drill: Dual-gear drill that has both pilot drill and twist drill capabilities
- Final drilling can be done right away without pilot drilling
- To prepare the apex area of the osteotomy for the extraction socket



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

Taper Ultra Drill

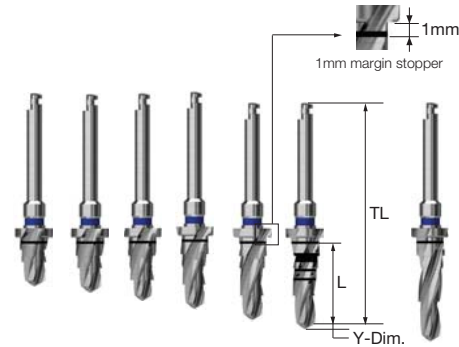
- Taper drill specialized for taper ultra-wide fixture with built-in stopper per diameters or lengths
- Stopper drill with 1mm margin for countersink
- Color coding on grip part indicates fixture diameter
- F = Fixture



L	F6.0	F7.0
6	TPD3C6006	TPD3C7006
7	TPD3C6007	TPD3C7007
8.5	TPD3C6008	TPD3C7008
10	TPD3C6010	TPD3C7010
11.5	TPD3C6011	TPD3C7011
13	TPD3C6013	TPD3C7013
Color	Green	Blue

Taper Drill

- Taper drill specialized for taper (III type) fixture with built-in stopper per diameters or lengths
- Stopper drill with 1mm margin for countersink
- Color coding on grip part indicates fixture diameter
- F = Fixture

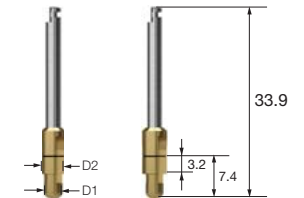


L	TL	F3.5	F4.0	F4.5	F5.0
5.0	29.5	TPD3C3505	TPD3C4005	TPD3C4505	TPD3C5005
6.0	30.5	TPD3C3506	TPD3C4006	TPD3C4506	TPD3C5006
7.0	31.5	TPD3C3507	TPD3C4007	TPD3C4507	TPD3C5007
8.5	33	TPD3C3508	TPD3C4008	TPD3C4508	TPD3C5008
10.0	34.5	TPD3C3510	TPD3C4010	TPD3C4510	TPD3C5010
11.5	34.5	TPD3C3511	TPD3C4011	TPD3C4511	TPD3C5011
13.0	36	TPD3C3513	TPD3C4013	TPD3C4513	TPD3C5013
15.0	38	TPD3C3515	TPD3C4015	TPD3C4515	TPD3C5015
Y-Dim.		0.8	0.9	1.0	1.0
Color		Yellow	Green	Blue	Red

Long Shank Pilot Drill

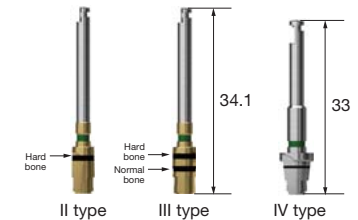
- Guide drill for the next drill sequence
- Used to revise the path in the drilled hole

D1 / D2	Ø2.0 / 2.7	Ø2.0 / 3.0	Ø3.0 / 3.8	Ø3.0 / 4.1
	APD270C	APD300C	APD380C	APD410C



123 Cortical Drill

- Drill used to remove cortical bone at the crest
- Recommended to drill to the bottom marking line
- Marking line of II type cortical drill is for hard bone, and top marking line is for hard bone
- Bottom marking line of III type cortical drill is for normal bone, and top marking line is for hard bone
- Marking line of IV type cortical drill is for normal bone
- Coloring on the grip part indicates diameter and main fixture used
- F = Fixture



Type	F3.5	F4.0	F4.5	F5.0
II	O2CD35	O2CD40	O2CD45	O2CD50
III	O3CD35	O3CD40	O3CD45	O3CD50
IV	-	4CD40	4CD45	4CD50
Color	Yellow	Green	Blue	Red

Surgical Instruments

Cortical Drill 2 for TSII, SSII SA

- Drill used to remove cortical bone from hard bone (for II type)
- Equipped with drills applicable for different fixture diameters
- Recommended to drill to the bottom marking line
- F = Fixture

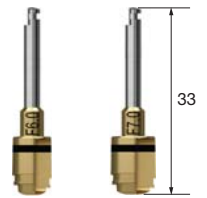
F3.5	F4.0	F4.5	F5.0
CD2C35	CD2C40	CD2C45	CD2C50



Cortical Drill for Ultra-Wide

- Drill used to remove cortical bone from hard bone (for ultra-wide)
- Equipped with drills applicable for different fixture diameters
- Recommended to drill to the bottom marking line
- F = Fixture

F6.0	F7.0
CD4C60	CD4C70



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

- Drill used to remove cortical bone from hard bone (for III type)
- Equipped with drills applicable for different fixture diameters
- Bottom marking line is for normal bone, and top line is for hard bone
- Recommended to drill to the bottom marking line
- F = Fixture

F3.5	F4.0	F4.5	F5.0
CD4C35	CD4C40	CD4C45	CD4C50



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

- Drill that can expand the hole entrance for US fixture
- Specifications for wide PS and wide of USIII, USII SA, and USIII SA
- Recommended drilling speed: 300rpm

USSCS45W



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

- Drill used to remove cortical bone from hard bone (used immediately after taper drill)
- Equipped with drills applicable for different fixture diameters
- Bottom marking line is for fixture insertion less than 8.5mm
Top marking line is for fixture insertion more than 10mm
- Recommended to drill to the bottom marking line
- F = Fixture

F3.5	F4.0	F4.5	F5.0
TCD4C35	TCD4C40	TCD4C45	TCD4C50



Tapered Fixture Tap for TSIII, USIII, SSIII SA

- Tap for tapered fixture (fixture of III type)
- Used for extra hard bones and forms the fixture's screw thread shape
- Use torque wrench after attaching engine (25rpm recommended) or mount extension
- Recommended to tap to the bottom marking line
However, for F5.0, use fixture less than 8.5mm for the bottom line, and more than 10mm for the top line
- F = Fixture

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

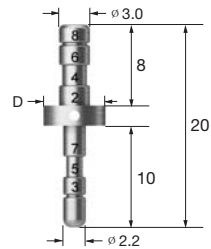


Surgical Instruments

Parallel Pin

- Used to check the position and orientation of osteotomy in the initial drilling sequence

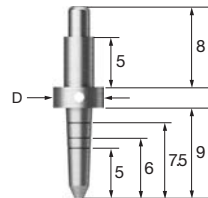
D	Ø4.0	Ø5.0	Ø6.0	Full Set
	APP400	APP500	APP600	APPS



Parallel Pin for 123 Drill

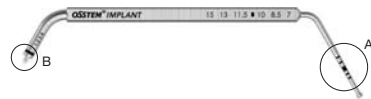
- Parallel pin for 123 twist drill
- Used to check the position and orientation of osteotomy in the initial drilling sequence
- The bottom part is for initial drill, and the top part is for F3.5 (Ø 2.2/3.0) drill

D	Ø4.0	Ø5.0
	OPLP400	OPLP500



Depth Gauge

- A: measure the depth of drilling (7-15mm)
- B: measure the height of gingiva after inserting external fixture



Depth Gauge

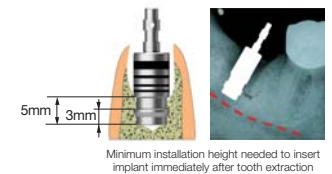
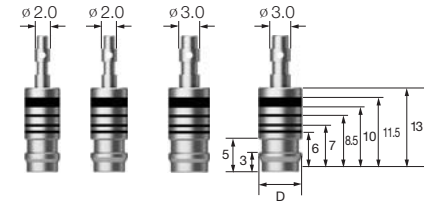
- Used to measure the depth of drilling (7-15mm) and as an open wrench



Trial Pin for Ultra-wide

- Checks the width and depth of the inside of extraction socket or failed implant socket
- Checks the depth of drilling after using direct drill as final drill

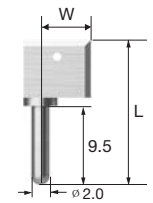
D	Ø5.2	Ø5.5	Ø6.2	Ø6.5
	UWFTP52	UWFTP55	UWFTP62	UWFTP65



Positioning Guide

- To determine space around the implant site
- Used by inserting into hole after initial drilling
- Packing unit: Packaged by each components and sets

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



Tissue Height Gauge for TS

- Tool to measure the height of gingiva by inserting to the fixture connection to select appropriate healing abutment height for TS system.



Ratchet Wrench

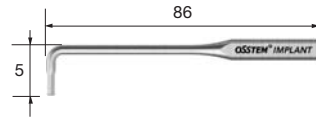
- Wrench for anti-backlashing procedure
- Please be cautious of damaging the bone or inside of fixture when applying excessive torque



Surgical Instruments

L-Wrench

- 1.2 hex driver for the purpose of overcoming limited intermaxillary space
- Torque indication
 - Apply torque of 5-8Ncm when wrench bending is recognized (about 10°)



Torque Wrench - Spring Type

- Wrench that can apply consistent torque (10/20/30Ncm) on screw, abutment, etc.
- Can recognize the bending of the neck part of torque wrench when set torque is applied
- If force is continuously applied when the neck of torque wrench is bent, excessive torque is applied and there can be a screw fracture issue



Torque Wrench - Bar Type

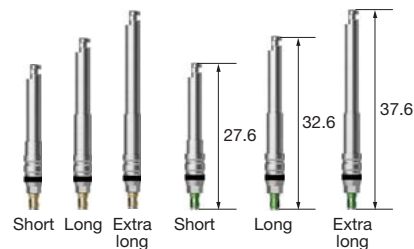
- Used to adjust the implant location or tighten abutment, screw, etc.
- Apply torque after pulling bar to the line indicating torque value to be applied



NoMount Driver for TS

- Driver that can directly attach to fixture when inserting, using hand piece for procedure
- C = Connection

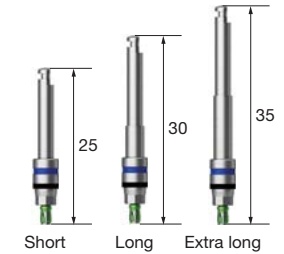
L \ C	Mini	Regular
Short	TSNMDMS	TSNMDRS
Long	TSNMDML	TSNMDRL
Ex.Long	TSNMDME	TSNMDRE



NoMount Driver for SS

- Driver that can directly attach to fixture when inserting, using hand piece for procedure
- C = Connection

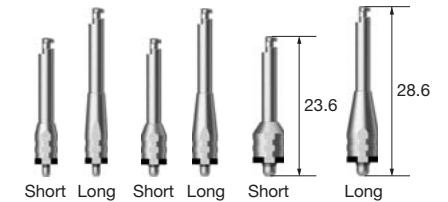
L \ C	Regular / Wide
Short	SSNMDS
Long	SSNMDL
Ex Long	SSNMDE



NoMount Driver for US

- Driver that can directly attach to fixture when inserting, using hand piece for procedure
- C = Connection

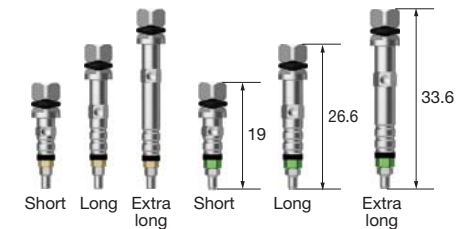
L \ C	Mini	Regular	Wide
Short	USNMD35MS	USNMD41RS	USNMD51WS
Long	USNMD35ML	USNMD41RL	USNMD51WL



NoMount Torque Driver for TS

- Driver that can directly attach to fixture when inserting, using wrench
- Check the correct and complete fit of the fixture before placement.
- Please note that it is impossible to remove when fracture occurs
- C = Connection

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

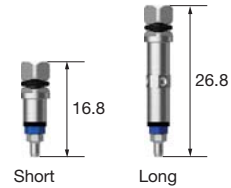


Surgical Instruments

NoMount Torque Driver for SS

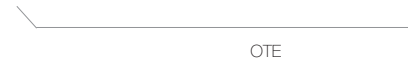
- Driver that can directly attach to fixture when inserting, using wrench
- Check the correct and complete fit of the fixture before placement.
- Please note that it is impossible to remove when fracture occurs
- C = Connection

L \ C	Regular / Wide	
Short	SSNMT39S	
Long	SSNMT39L	



Torque Extension

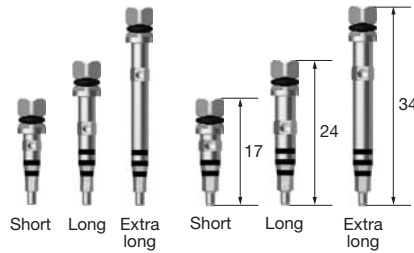
- Extends the length of instrument used as connected to wrench by 10mm



Fixture Driver for TS

- Directly attached to fixture, used to adjust final depth of insertion using wrench
- C = Connection

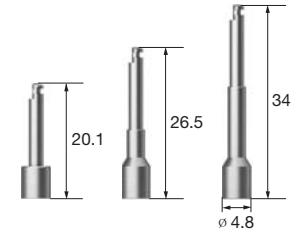
L \ C	Mini	Regular
Short	GSMFDS	GSRFDS
Long	GSMFDL	GSRFDL
Ex.Long	GSMFDE	GSRFDE



Simple Mount Driver

- Used to insert fixture with mount using hand piece

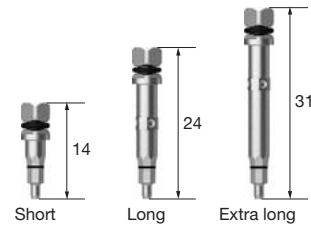
L	
Short	ASMDS
Long	ASMDL
Ex.Long	ASMDE



Fixture Driver for SS

- Directly attached to fixture, used to adjust final depth of insertion using wrench
- C = Connection

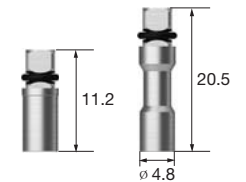
L \ C	Regular / Wide	
Short	SSRFDS	
Long	SSRFDL	
Ex.Long	SSRFDE	



Simple Mount Extension

- Used by attaching to wrench if it is desired to extend the length of simple mount or apply torque manually

L	
Short	ASMES
Long	ASMEL



Fixture Driver for US

- Directly attached to fixture, used to adjust final depth of insertion using wrench
- C = Connection

C	Mini	Regular	Wide
	USMFDL	USRFDL	USWFDL



Simple Open Wrench

- Used to remove simple mount when the initial stability is low or patient has weak bone tissue
- Intraoral usability with 30-degree neck angle



ASOW

Surgical Instruments

Removal Tool for Fixture Mount

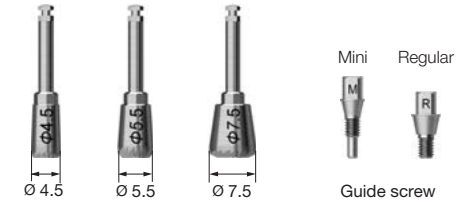
- Used after removing mount screw when jamming occurs between fixture and mount
- Used after attaching to driver handle or torque wrench
- Removes mount by inserting vertically and turning clockwise
- App = Application



App	Mini (TS,US)	Regular (TS,SS,US) / Wide (SS)	Wide (US)
	ERFM	HRFR	ERFW

TS Bone Profiler

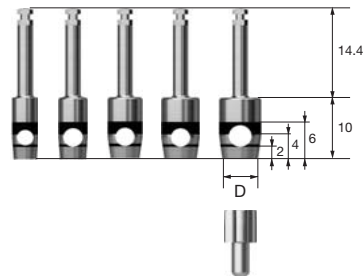
- Used to remove bone around fixture in the first or secondary surgery
- Remove any interfering bone for the correct section of prosthetic components, connect guide screw to fixture in line of connection and remove bone.
- Guide screw protects fixture shoulder
- Packing unit : bone profiler + guide screw
- C = Connection



C \ Healing Abutment D	Ø4.5	Ø5.5	Ø6.5 / 7.5
Mini / Regular	GSBP45	GSBP55	GSBP75
	Mini + Regular guide screw	Mini + Regular guide screw	Regular guide screw

Tissue Punch

- Tool used for flapless surgery procedure
- Features laser marking at an interval of 2mm and enables measurement of gingiva height
- Packing unit : tissue punch + guide pin
- ※ Recommended to use tissue punch that has 0.7-1.5mm smaller diameter than healing abutment



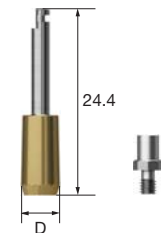
D	Ø3.3	Ø3.8	Ø4.3	Ø4.8	Ø5.3
	OSTP33	OSTP38	OSTP43	OSTP48	OSTP53

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

The application of Healing abutment

US Bone Profiler

- Used to remove bone built around cover screw in the second procedure
- Used to compensate for the angle of healing abutment after removing cover screw and connecting guide screw to fixture
- Guide screw protects hex of fixture
- Packing unit : bone profiler + guide screw
- P = Platform

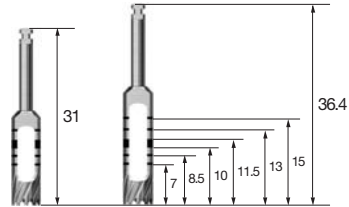


D \ P	Mini	Regular	Wide	T-type
Ø4.0	ABPM400C	-	-	-
Ø5.0	ABPM500C	ABPR500C	-	-
Ø6.0	-	ABPR600C	ABPW600C	TBPW600C
Ø7.0	-	-	ABPW700C	-

Surgical Instruments

Trephine Drill

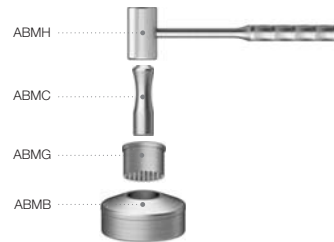
- Used to collect bone or remove broken or failed fixture
- Used to remove septal bone
- Available for use as initial drill when inserting ultra fixture



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

Bone Mill

- Forms particulate bone with autogenous bone collected



ABM

Machine Driver Handle

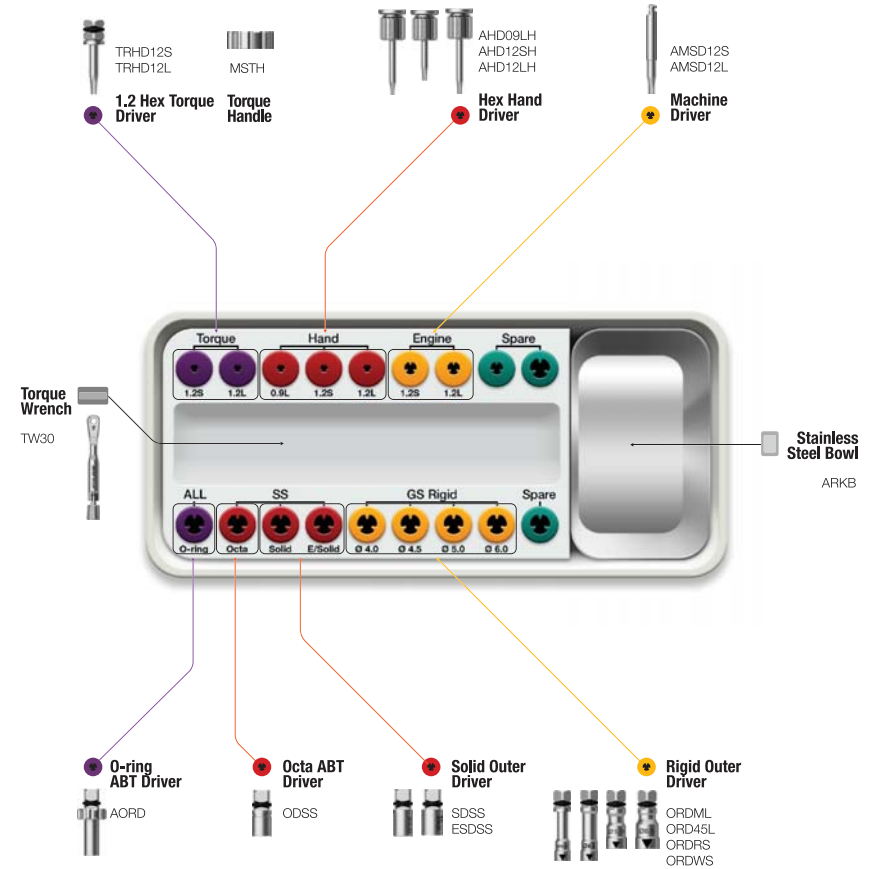
- Can turn by hand, connecting all operation tools for engine



OMDH

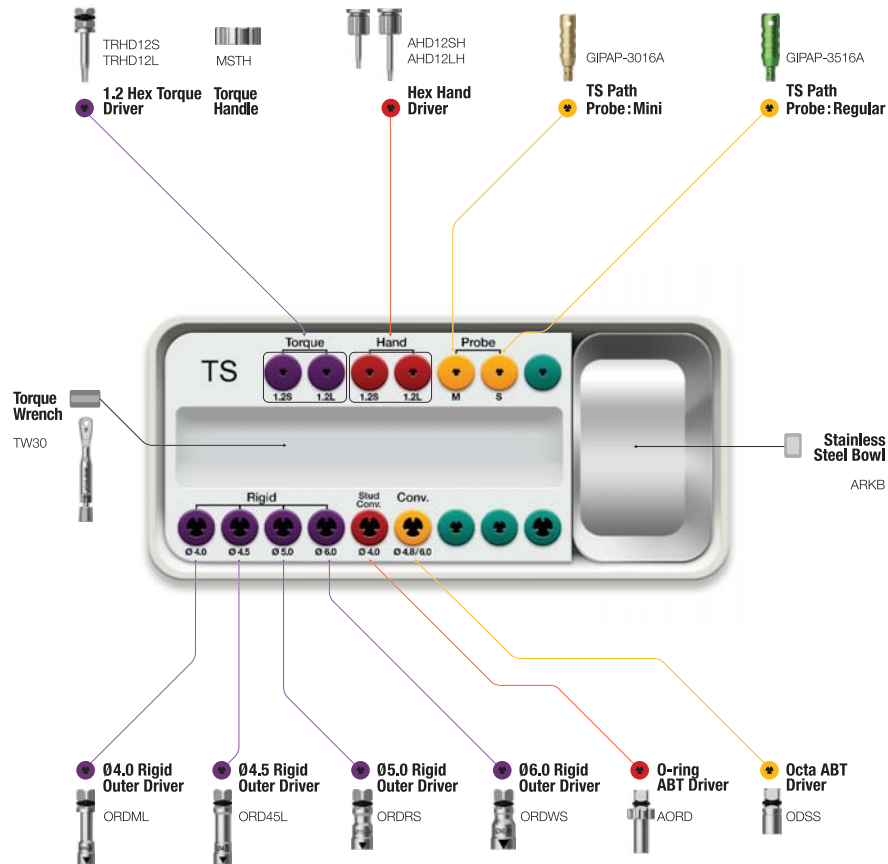
Prosthetic KIT (OPK)

Available for use TSII / III SSII / III USII / III Ultra-wide



TS Prosthetic KIT (GSPK)

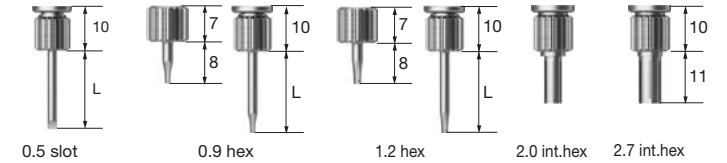
Available for use **TSII/TSIII**



Prosthetic Instruments

Hand Driver

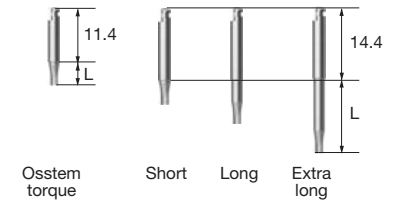
- Manual-type driver
- Features tip holding function (internal hex type excluded)
- Internal hex type L is 11mm



L \ Type	0.5 Slot	0.9 Hex	1.2 Hex	2.0 Int.Hex	2.7 Int.Hex
Ex.Short (8)	-	AHD09MSH	AHD12MSH	-	-
Short (13)	ASD05SH	AHD09SH	AHD12SH	IHD20H	IHD27H
Middle (15)	-	-	AHD12MH	-	-
Long (18)	ASD05LH	AHD09LH	AHD12LH	-	-
Ex.Long (25)	-	-	AHD12EH	-	-

Machine Screw Driver

- 1.2hex Driver for hand piece
- Internal hex type L is 8mm



L \ Type	0.5 Slot	0.9 Hex	1.2 Hex	2.0 Int.Hex	2.7 Int.Hex
Osstem Torque (5)	-	-	OTH12S	-	-
Short (5.6)	AMSD05S	AMSD09S	AMSD12S	-	-
Long (11.6)	AMSD05L	AMSD09L	AMSD12L	EIHD20	EIHD27
Ex.Long (17.6)	-	-	AMSD12E	-	-

Application

Driver applicable product
(common for hand, machine screw, and torque driver)

Cover screw
(US mini)

Healing abutment,
UCLA,
Cemented abutment
screw,
Mount screw

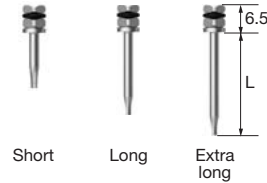
Esthetic abutment screw
regular,
Esthetic-low abutment screw,
standard

Wide esthetic-low
abutment screw

Prosthetic Instruments

Torque Driver

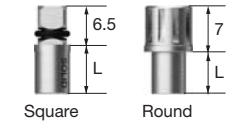
- Driver for torque wrench (features tip holding function)
- Must conform to recommended torque, and be cautious of fracture if excessive torque is applied
- Fracture of torque driver can occur even on low torque if torque is applied after incomplete attachment
- When applying torque, insert vertically pressure (do not tilt)
- If tip is bent or stripped due to use for long period or excessive torque, it must be replaced



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)	TRSD05S	TRHD09S	TRHD12S	TIHD20S	-
Middle (15)	-	-	TRHD12M	-	-
Long (20)	TRSD05L	TRHD09L	TRHD12L	TIHD20L	TIHD27
Ex.Long (25)	TRSD05E	-	TRHD12E	-	-

Solid Abutment Driver

- Driver specialized for solid abutment
- Apply torque after inserting groove of solid abutment into the driver part with triangle indication
- Recommended tightening torque : 30Ncm



Regular

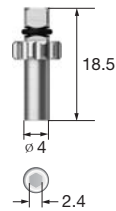
L \ Type	Square	Round
Short (6)	SDSS	SDRS
Long (12)	SDSL	SDRL

Wide

L \ Type	Square
Short (10)	SD60S

O-ring Abutment Driver

- Driver specialized for O-ring abutment



Rigid Outer Driver

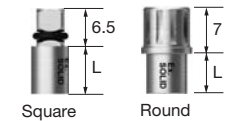
- Driver specialized for rigid abutment
- Recommended tightening torque : 30Ncm

L \ Abutment D	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
- Apply torque after inserting groove of excellent solid abutment into the driver part with triangle indication
- Recommended tightening torque : 30Ncm



Regular

L \ Type	Square	Round
Short (6)	ESDSS	ESDRS
Long (12)	ESDSL	ESDRL

Wide

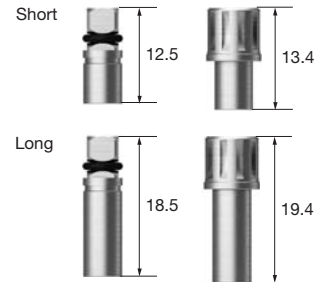
L \ Type	Square
Short (10)	ESD60S

Prosthetic Instruments

Octa Abutment Driver

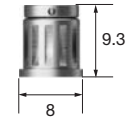
- Driver for octa abutment
- Recommended tightening torque : 30Ncm

L \ Type	Square	Round
Short	ODSS	ODRS
Long	ODSL	ODRL



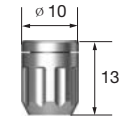
Connector

- Connector that enables square driver for torque to connect to round-type torque wrench



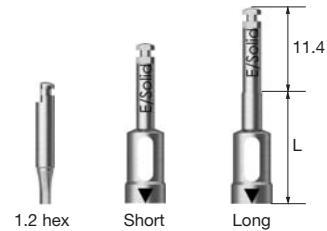
Driver Handle

- Used by connecting with torque driver



Osstem Torque Driver

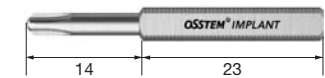
- It is specialized to the Osstem torque so it may not match other low and high speed hand pieces
- Use after aligning triangle on the surface of driver and the groove or cross section of abutment
- Solid and excellent solid drivers are only compatible with ϕ 4.8
- 1.2 hex type L is 5



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

Dalbo Plus Screw Driver

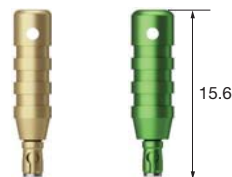
- Used to adjust retention capacity of Dalbo plus attachment



Path Probe for TS

- Check path and measure the height of gingiva after inserting TS fixture
- C = Connection

C	Mini	Regular
	GIPAP-3016A	GIPAP-3516A



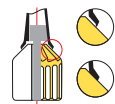
Finishing Reamer Set

- Tool used to remove lip inside the cast after plastic coping is cast



Reamer user guide

1. Reamer tip of the same size as abutment is selected and connected to burn-out cylinder after casting
2. Hold casting body and turn reamer bite with consistent force
3. Ream until cutting stops occurring



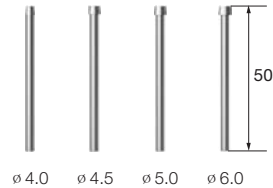
Reamer Bite

- Cutting edge part that removes lip inside the cast after plastic coping is cast



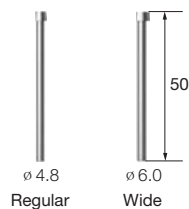
Reamer Tip for Rigid Abutment

- Guide portion that enters inside when removing lip inside the cast after plastic coping is cast (for rigid abutment)



Reamer Tip for Solid, Excellent Solid Abutment

- Guide portion that enters inside when removing lip inside the cast after plastic coping is cast
- Solid Ø6.0 type and excellent solid Ø4.8 type are interchangeable



CAS-KIT (HCORSNK)

Available for use TSII / III SSII / III USII / III

Base component

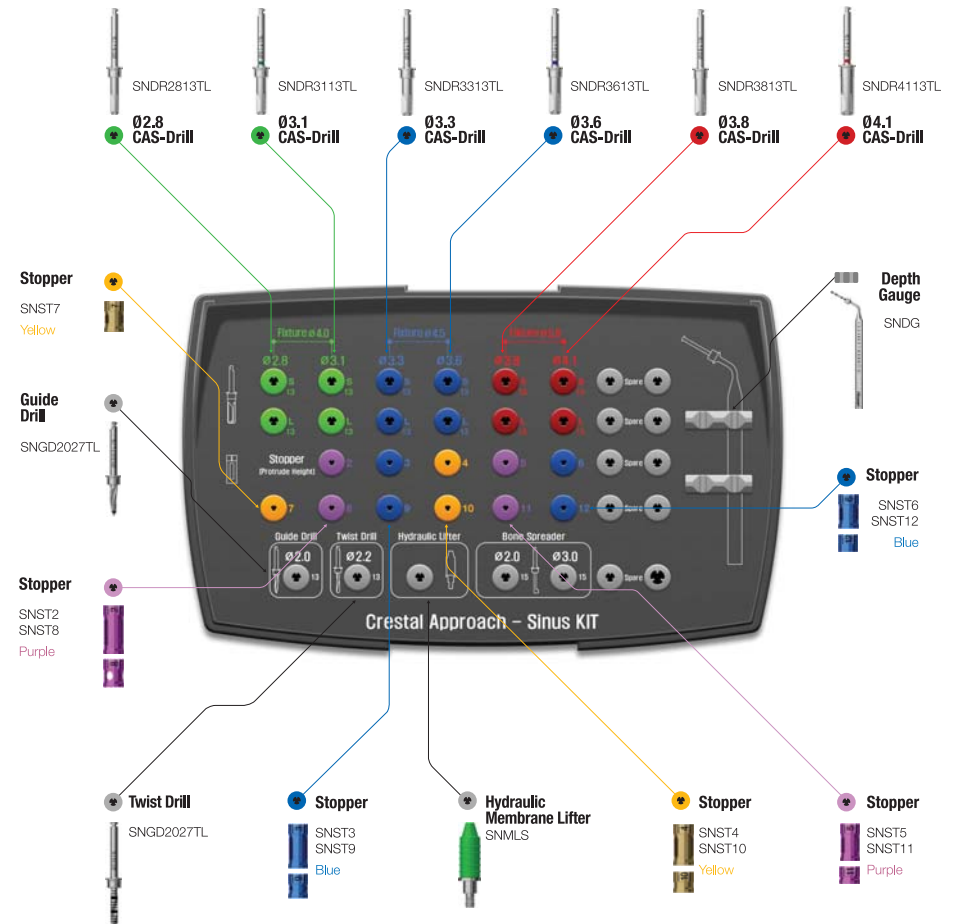
Bone Carrier Head
SNBCH30



Bone Carrier
SNBCS35



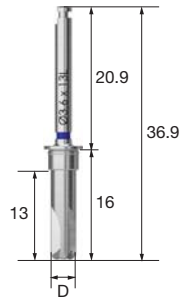
Bone Condenser
SNBC1114



CAS-Drill

- When operating on maxillary sinus, forms conical bone lid and augments membrane safely
- Superior bone removing capability from low speed to high speed, collection of autogenous bone on low speed
- Safely advance to the floor of sinus with stoppers (1mm increment)
- Choosing final drill diameter based on bone density, regardless of straight or tapered fixture type

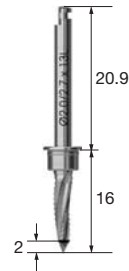
D	Ø2.8	Ø3.1	Ø3.3	Ø3.6	Ø3.8	Ø4.1
	SNDR2813TL	SNDR3113TL	SNDR3313TL	SNDR3613TL	SNDR3813TL	SNDR4113TL



Guide Drill

- Drill used to mark fixture insertion location
- Used to remove side wall of extraction site with its side blade formation
- Marking on apex at 2mm

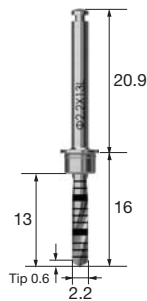
D	Ø2.0 / 2.7
	SNGD2027TL



Ø2.2 Twist Drill

- Recommended to drill 2mm below the floor of sinus
- Use with stopper for safety
- Apex tip 0.6mm

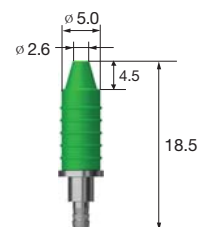
D	Ø2.2
	SNTD2213TL



Hydraulic Membrane Lifter Set

- Tool to augment maxillary sinus membrane using hydraulic pressure augmentation
- Used for all CAS-drill Ø2.8 - Ø4.1 drilling holes

D	Ø2.6 / 5.0
	SNMLS



Stopper

- The number on each stopper is the length of protruding apex when drill or tool is attached
- Color code per length
- Number of uses of drill and stopper: 50 times

L	2	3	4	5	6	7	8	9	10	11	12
	SNST2	SNST3	SNST4	SNST5	SNST6	SNST7	SNST8	SNST9	SNST10	SNST11	SNST12
Color	Purple	Blue	Yellow	Purple	Blue	Yellow	Purple	Blue	Yellow	Purple	Blue

Bone Carrier

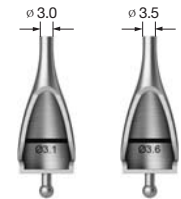
- Used to fill bone inside sinus
- Fixes head part by tightening the back of body part
- Head (SNBCH30 or SNBCH35) can be replaced



SNBCS35

Bone Carrier Head

- Used to fill bone inside sinus
- SNBCH30: Use after drilling with CAS-drill Ø3.1/Ø3.3
- SNBCH35: Use after drilling with CAS-drill Ø3.6/Ø3.8/Ø4.1
- Fill in bone material to the back of marking line on head part, separate gradually with bone condenser to fill inside of sinus completely, and repeat the procedure



D	Ø3.1	Ø3.6
	SNBCH30	SNBCH35

Bone Condenser

- Tool to push in when filling bone material inside sinus
- SNBCH30: Uses Ø1.1 / SNBCH35: Uses Ø1.4



D	Ø1.1 / 1.4
	SNBC1114

CAS-KIT Surgical Instruments

Hydraulic Membrane Lifter Tube

- Attach to hydraulic membrane lifter



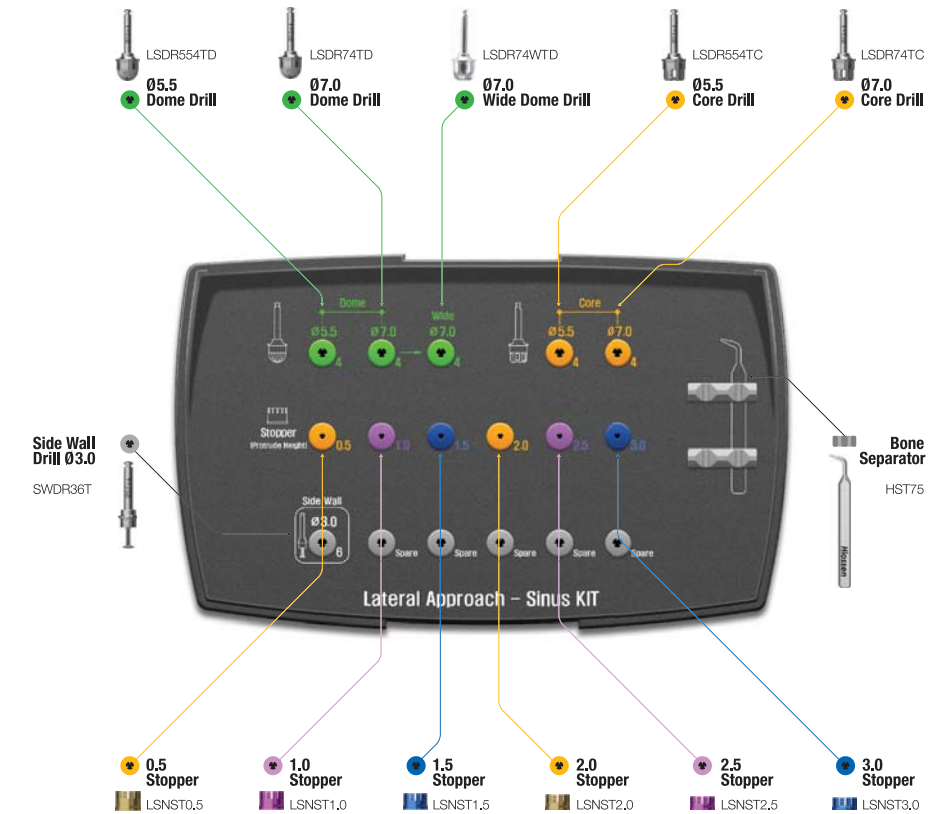
Depth Gauge

- Check the opening of the sinus floor and measure the depth of remaining bone



LAS-KIT (HLRSNK)

- Lateral Approach - Sinus KIT (LAS-KIT) is a surgical tool optimized for lateral approach when operating on maxillary sinus
- Dome drill and core drill, which can safely form lateral window, are included and equipped with diameters of $\varnothing 5.5$ and $\varnothing 7.0$, depending on the size of window
- LAS drill is equipped with stopper (0.5mm increment), which enables adjustment of depth, and can safely form window without perforating membrane

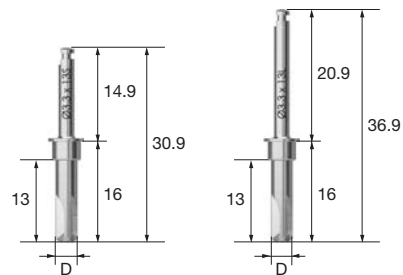


CAS-KIT Plus (HCRSNKP)

Crestal Approach - Sinus KIT Plus (CAS-KIT plus) is a KIT that includes 6 short types of CAS-drill in addition to CAS-KIT

CAS-Drill

- When operating on maxillary sinus, forms conical bone lid and augments membrane safely
- Superior bone removing capability from low speed to high speed, collection of autogenous bone on low speed
- Safely advance to the floor of sinus with stoppers (1mm increment)
- Final drill diameter selected according to bone density, regardless of straight or tapered fixture type

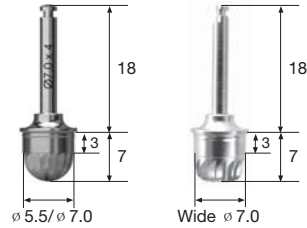


L \ D	Ø2.8	Ø3.1	Ø3.3	Ø3.6	Ø3.8	Ø4.1
Short	SNDR2813TS	SNDR3113TS	SNDR3313TS	SNDR3613TS	SNDR3813TS	SNDR4113TS
Long	SNDR2813TL	SNDR3113TL	SNDR3313TL	SNDR3613TL	SNDR3813TL	SNDR4113TL

Dome Drill

- Forms window while collecting part of autogenous bone
- Improved cutting force due to the combination of macro cutting edge and micro cutting edge
- Stopper attachment enables adjustment of depth
- Cutting speed : 1,200~1,500rpm
- ※ Excessive over drilling damages membrane

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



Bone Separator

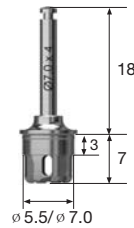
- Removes bone lid inside core drill



Core Drill

- Create bone lid on the lateral window
- Same cutting edge design as CAS-KIT to enhance the safety of procedure
- Cutting speed : 1,200~1,500rpm
- ※ Excessive over drilling damages membrane

L \ D	Ø5.5	Ø7.0
25	LSDR554TC	LSDR74TC



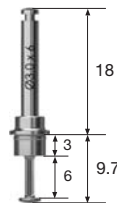
Stopper

- The number on each stopper is the length of protruding apex when drill or tool is attached
- Color code per length
- Number of uses of drill and stopper: 50 times

L	0.5	1.0	1.5	2.0	2.5	3.0
Color	LSNST0.5 Yellow	LSNST1.0 Purple	LSNST1.5 Blue	LSNST2.0 Yellow	LSNST2.5 Purple	LSNST3.0 Blue

Side Wall Drill

- Expands window after and trims the rough edges around the window
- Requires cutting at the 1mm upper part of the lowest part of drill blade
- Cutting speed : 1,500rpm



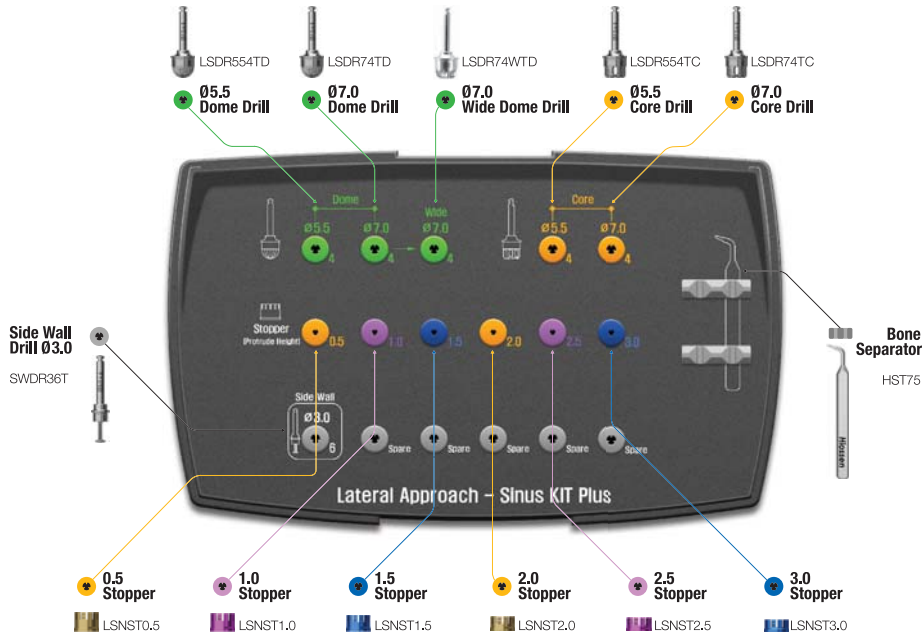
Height of side cutting part (mm)	1.0	2.0	3.0	4.0	5.0
CAS-KIT stopper (mm)	8.0	9.0	10	11	12
Side wall drill + CAS-KIT stopper					



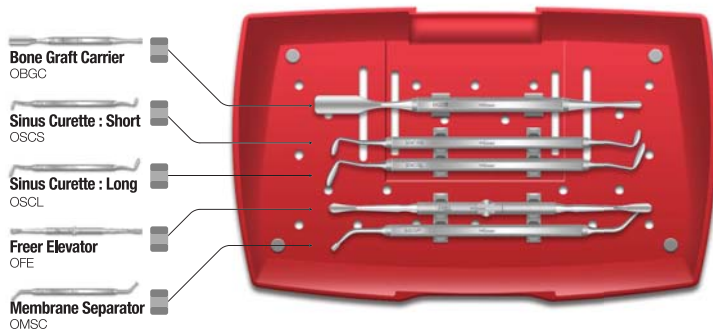
※ Used for all CAS-KIT stoppers and can adjust depth

LAS-KIT Plus (HLRSNKP)

• KIT A KIT that includes 6 types of sinus lift surgical tools in addition to LAS-KIT



LAS-KIT Plus Lower Plate



ESSET KIT (HESEK)

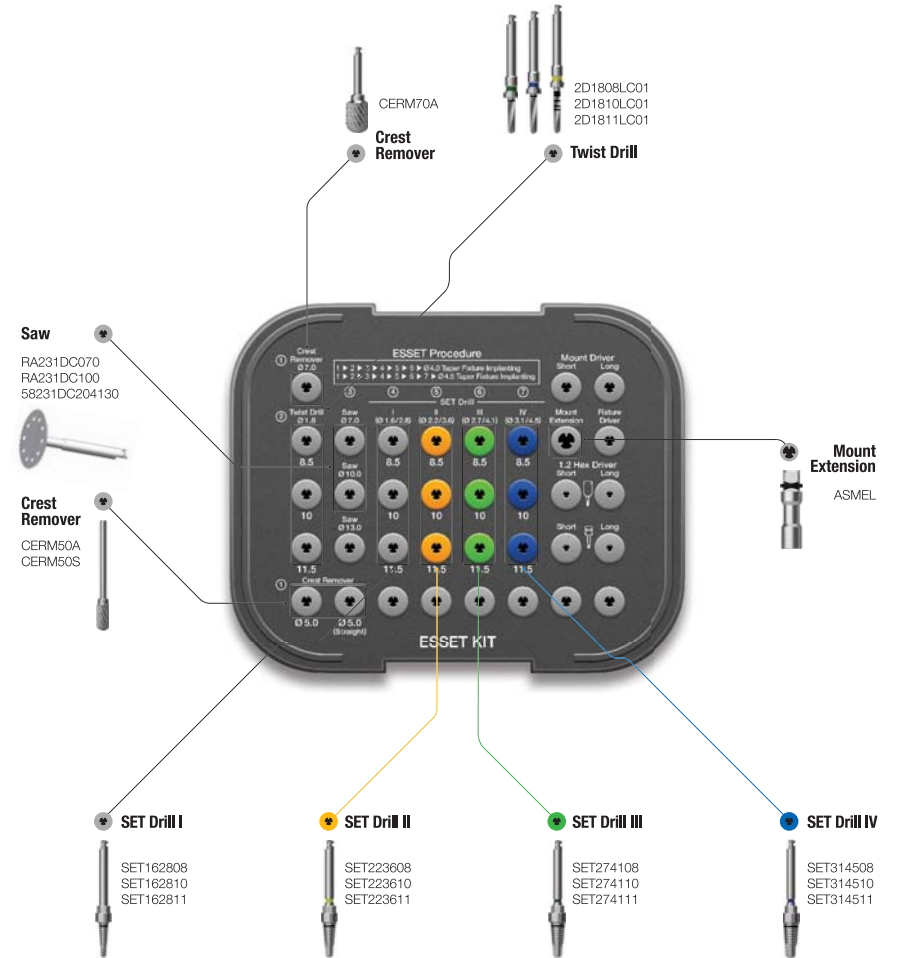
Available for use **TSII / III** **SSII / III** **USII / III**

Base component

Torque Wrench
TQWCB



Depth Gauge
ODG

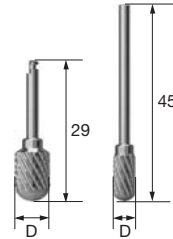


ESSET KIT Surgical Instruments

Crest Remover

- Removes the narrowed bone width horizontally, and marks the fixture insertion location
- Recommended speed for angled type : 1,200-1,500rpm
- Recommended speed for straight type : 15,000-30,000rpm

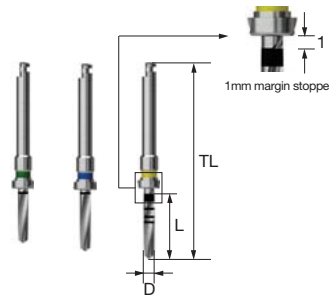
L \ D	Ø5.0	Ø7.0
29	CERM50A	CERM70A
45	CERM50S	-



Twist Drill

- Marks fixture insertion location
- Controls depth with built-in stopper
- Recommended speed : 1,200-1,500rpm

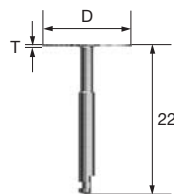
L \ TL \ D	Ø1.8
8.5 \ 33	2D1808LC01
10 \ 34.5	2D1810LC01
11 \ 36	2D1811LC01



Saw

- Used to split the bone from the crest
- Cut vertically and incise the whole part from mesial → distal direction
- Recommended speed : 1,200-1,500rpm
- T = Thickness

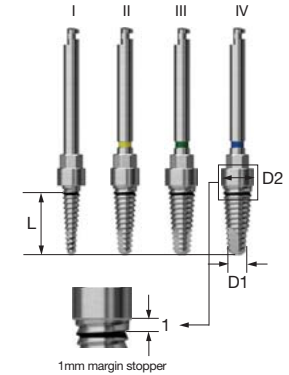
T \ D	Ø7.0	Ø10.0	Ø13.0
0.3	RA231DC070	RA231DC100	58231DC204130



SET Drill

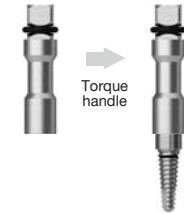
- Gradually expand the bone width
- SET drill is sequentially used according to the diameter of fixture
F4.0 : I → II → III / F4.5 : I → II → III → IV
- Recommended speed : 25-35rpm

L \ Type	I	II	III	IV	
	D1 / D2	Ø1.6 / 2.8	Ø2.2 / 3.6	Ø2.7 / 4.1	Ø3.1 / 4.5
8.5	SET162808	SET223608	SET274108	SET314508	
10	SET162810	SET223610	SET274110	SET314510	
11.5	SET162811	SET223611	SET274111	SET314511	



Mount Extension

- Used to apply torque in manual mode in the process of inserting /removing SET drill into alveolar bone



Torque Wrench

- Used to apply torque to SET drill



Depth Gauge

- Used to remove excessive torque by turning hex part of SET drill, using open wrench, in case hand-piece does not move when fused with alveolar bone in the process of removing SET drill



MS KIT (OMSK)

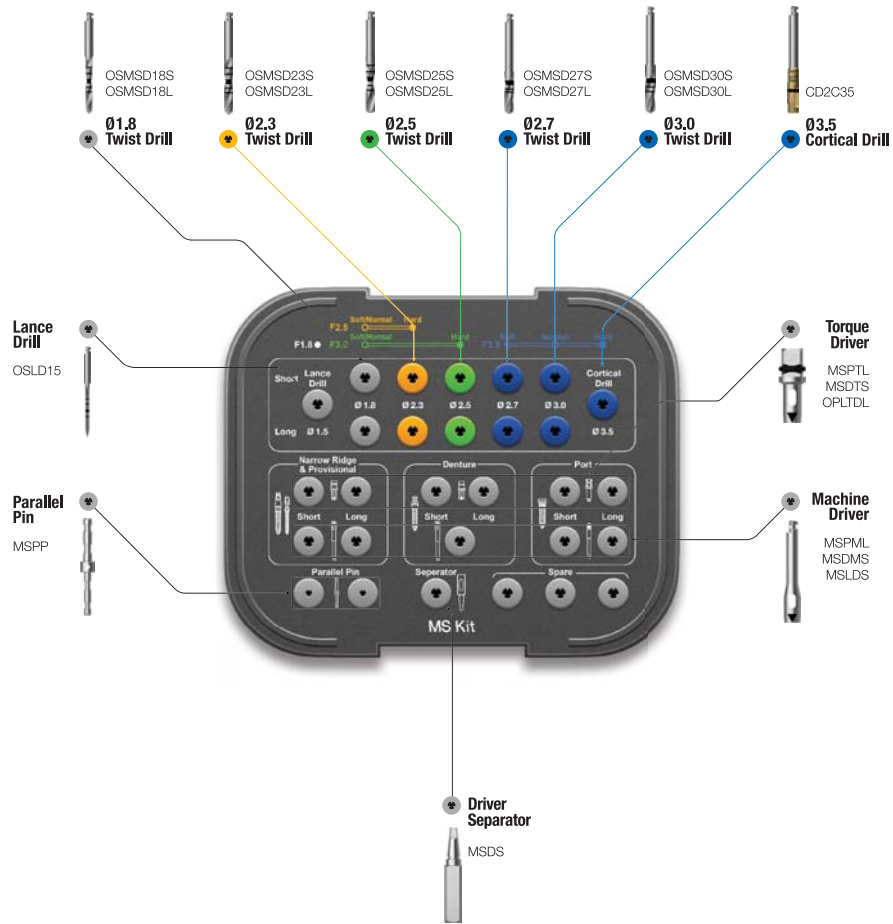
Available for use **MS**

Base component

Depth Gauge
MSDG

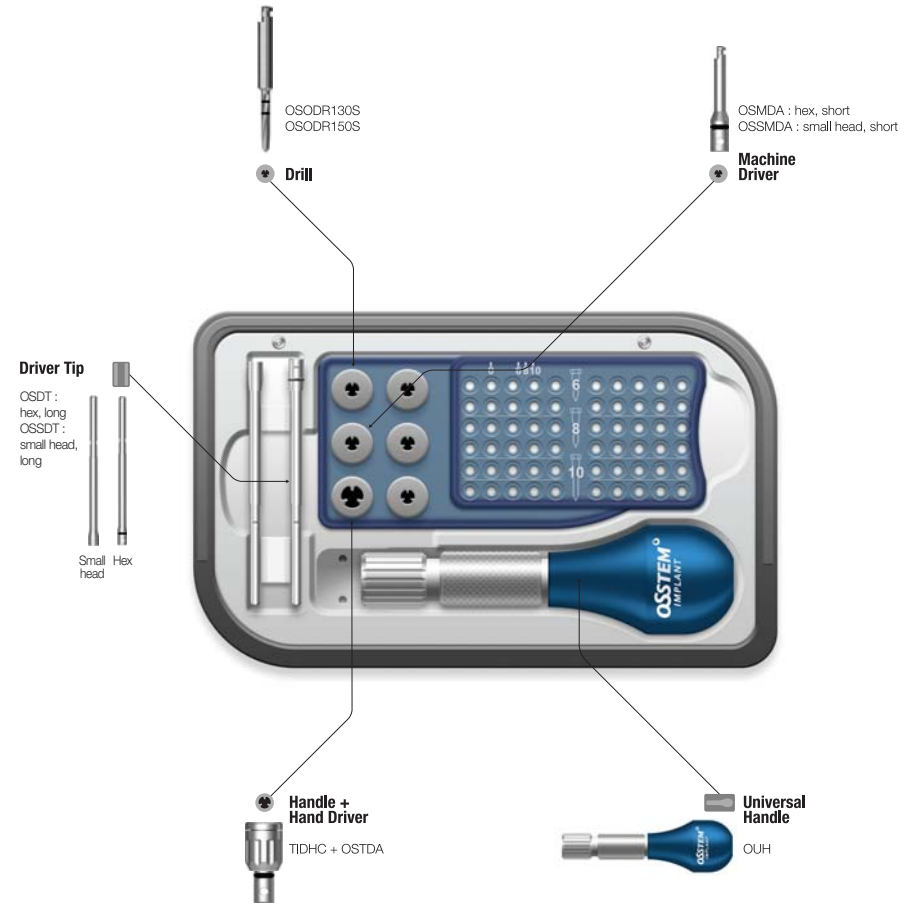


Ratchet Wrench
CITQW-1185A



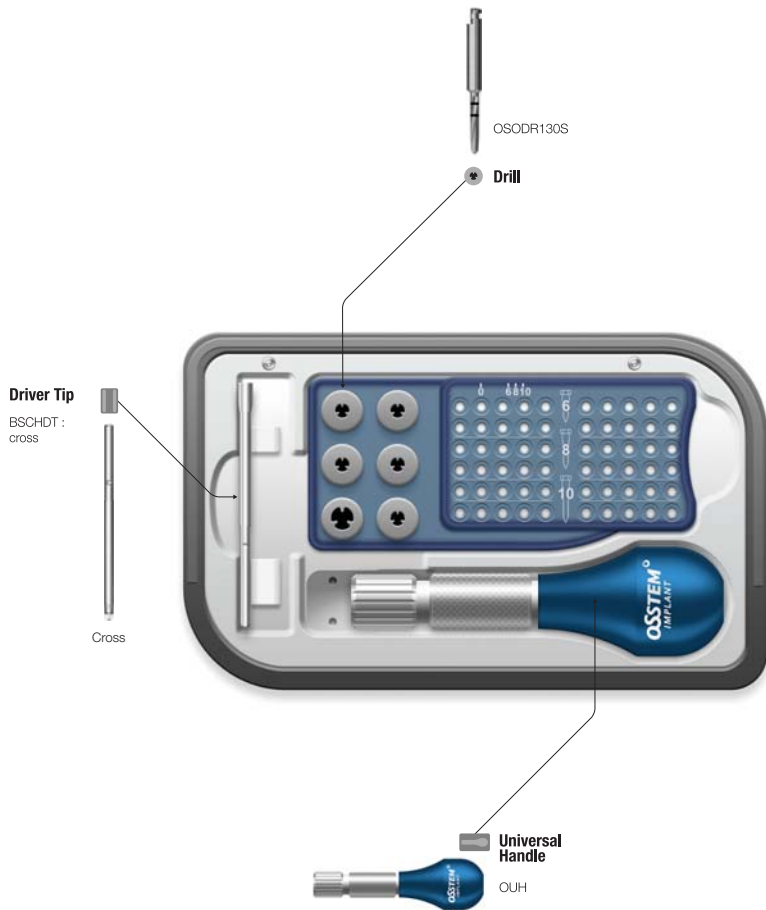
Ortho KIT (OOKS)

Available for use **OS**



Bone Screw KIT (BSSTKT)

Available for use BS



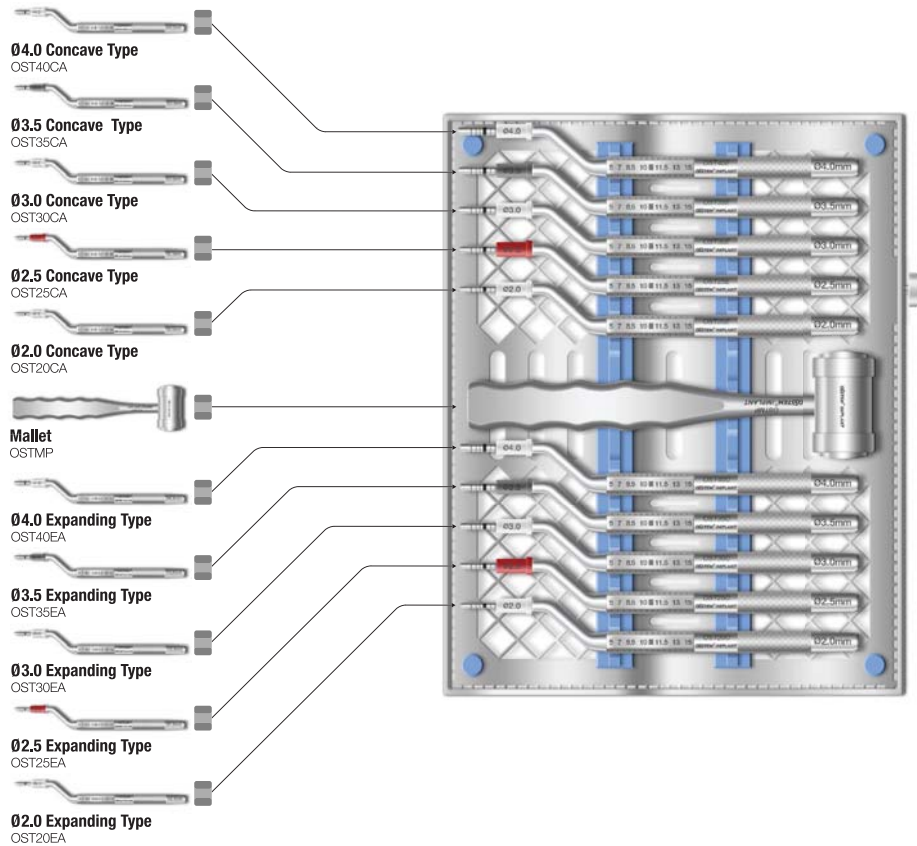
Custom KIT (OCTK)

- KIT for disinfecting only part of operation tools or storing extra tools
- 3 extra types of rubber (large, medium, small) are included for user's preference
- Features materials that can be sterilized (132°C, 15 minutes)



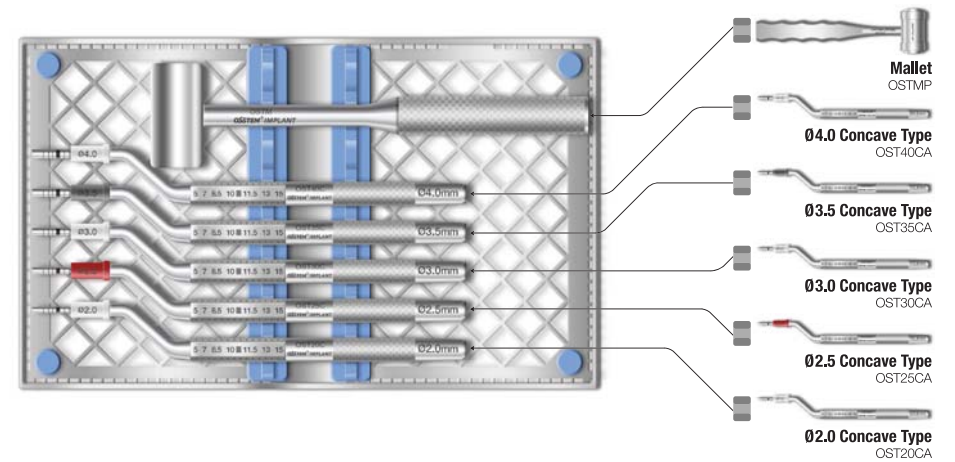
Osteo KIT (OSTK)

- KIT Concave osteotome: KIT used for maxillary sinus floor augmentation to increase the amount of alveolar bone that can be used within maxillary molar area vertically
- KIT Expanding osteotome: KIT used to increase initial stability of implant by preserving bone and densifying trabecular bone to compensate for bone removal in poor bone condition
- Features stopper for adjusting depth of procedure



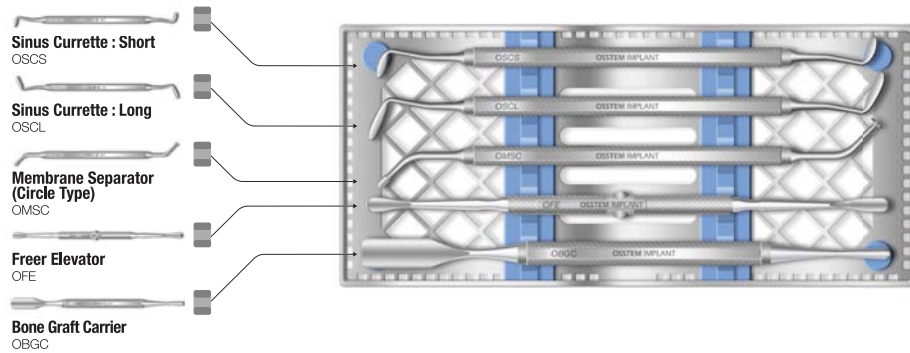
Osteotome KIT (AOST)

- KIT KIT for maxillary sinus floor augmentation to increase the amount of alveolar bone that can be used within maxillary molar area vertically
- Only includes concave type
- Features stopper for adjusting depth of procedure



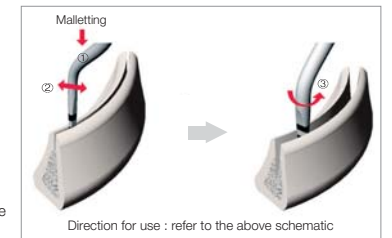
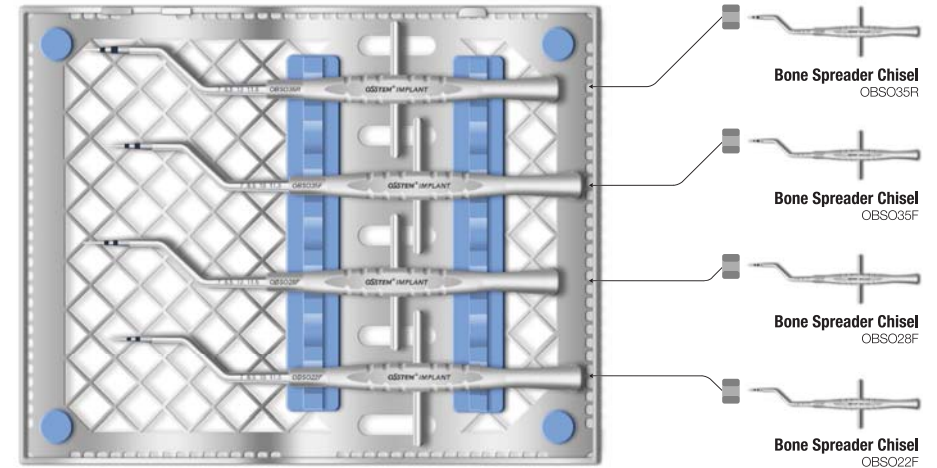
Sinus KIT (ASLK)

- Various tools used for maxillary sinus membrane elevation and grafting procedure
- Sinus procedure tool for lateral approach
- Components (5 types)
 - Freer elevator : OFE
 - Bone graft carrier : OBGC
 - Membrane separator (circle type) : OMSC
 - Sinus currette-short : OSCS
 - Sinus currette-long : OSCL

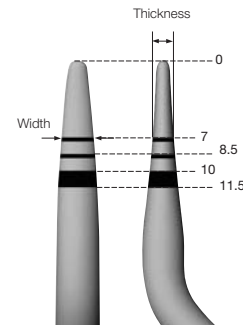


Bone Spreader KIT (OBSOK)

- KIT used to expand the ridge of narrowed alveolar bone
- Offset type for convenient procedures
- Components (4 types)
 - OBSO22F, OBSO28F, OBSO35F, OBSO35R



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

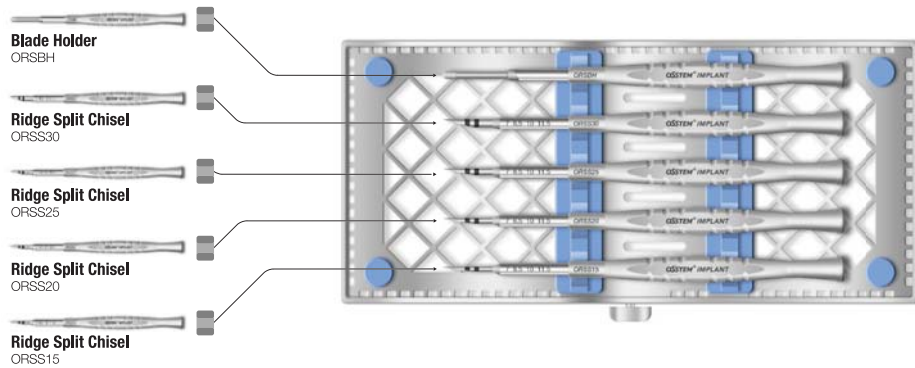


(Unit : mm)

Code	Spec.	Tip length			
		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)

- Chisel: KIT used to expand the ridge of narrowed alveolar bone
- Blade holder: When it is difficult to incise bone using bur in case of poor bone condition, malletting can be done by attaching #15 blade
- Components
 - Ridge split chisel : ORSS15, ORSS20, ORSS25, ORSS30
 - Blade holder : ORSBH



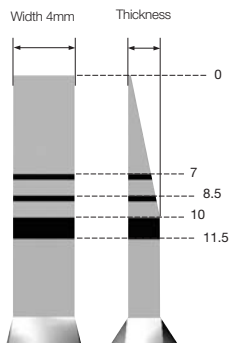
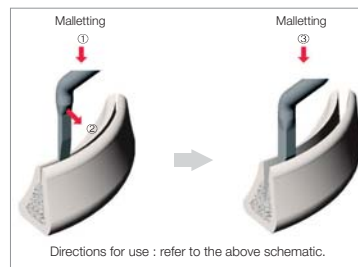
Blade Holder
ORSBH

Ridge Split Chisel
ORSS30

Ridge Split Chisel
ORSS25

Ridge Split Chisel
ORSS20

Ridge Split Chisel
ORSS15

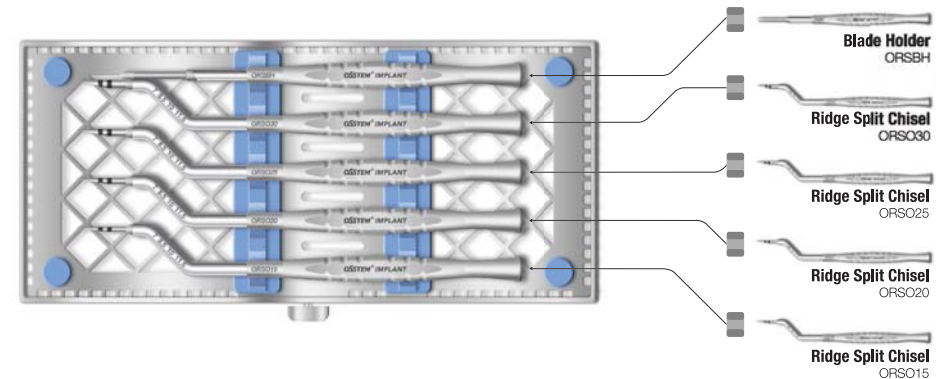


Code	Spec.	Tip length			
		7	8.5	10	11.5
ORSS15	Thickness	1.1	1.27	1.5	1.5
	Width	4	4	4	4
ORSS20	Thickness	1.45	1.7	2.0	2.0
	Width	4	4	4	4
ORSS25	Thickness	1.8	2.15	2.5	2.5
	Width	4	4	4	4
ORSS30	Thickness	2.15	2.5	3.0	3.0
	Width	4	4	4	4

(Unit : mm)

Ridge Split KIT- Offset (ORSOK)

- Chisel: KIT used to expand the ridge of narrowed alveolar bone
- Blade holder: When it is difficult to incise bone using bur in case of poor bone condition, malletting can be done by attaching #15 blade
- Components
 - Ridge split chisel : ORSO15, ORSO20, ORSO25, ORSO30
 - Blade holder : ORSBH



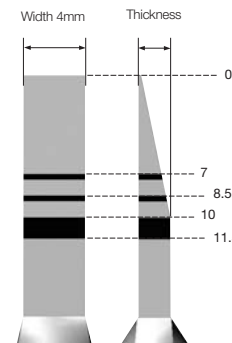
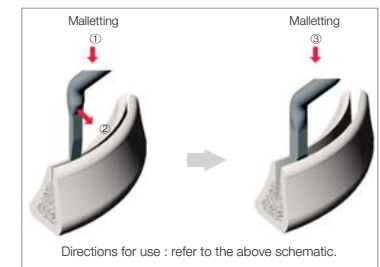
Blade Holder
ORSBH

Ridge Split Chisel
ORSO30

Ridge Split Chisel
ORSO25

Ridge Split Chisel
ORSO20

Ridge Split Chisel
ORSO15



Code	Spec.	Tip length			
		7	8.5	10	11.5
ORSO15	Thickness	1.1	1.27	1.5	1.5
	Width	4	4	4	4
ORSO20	Thickness	1.45	1.7	2.0	2.0
	Width	4	4	4	4
ORSO25	Thickness	1.8	2.15	2.5	2.5
	Width	4	4	4	4
ORSO30	Thickness	2.15	2.5	3.0	3.0
	Width	4	4	4	4

(Unit : mm)

OsstemGuide KIT (OGDK)

• osstem과 hiossen implant의 tapered type implant system OsstemGuide operation-enabled implant: Osstem and Hiossen implant's tapered type implant system

※ If planned implant operation of 7mm or 15mm lengths, applicable drills can be purchased additionally for such operations

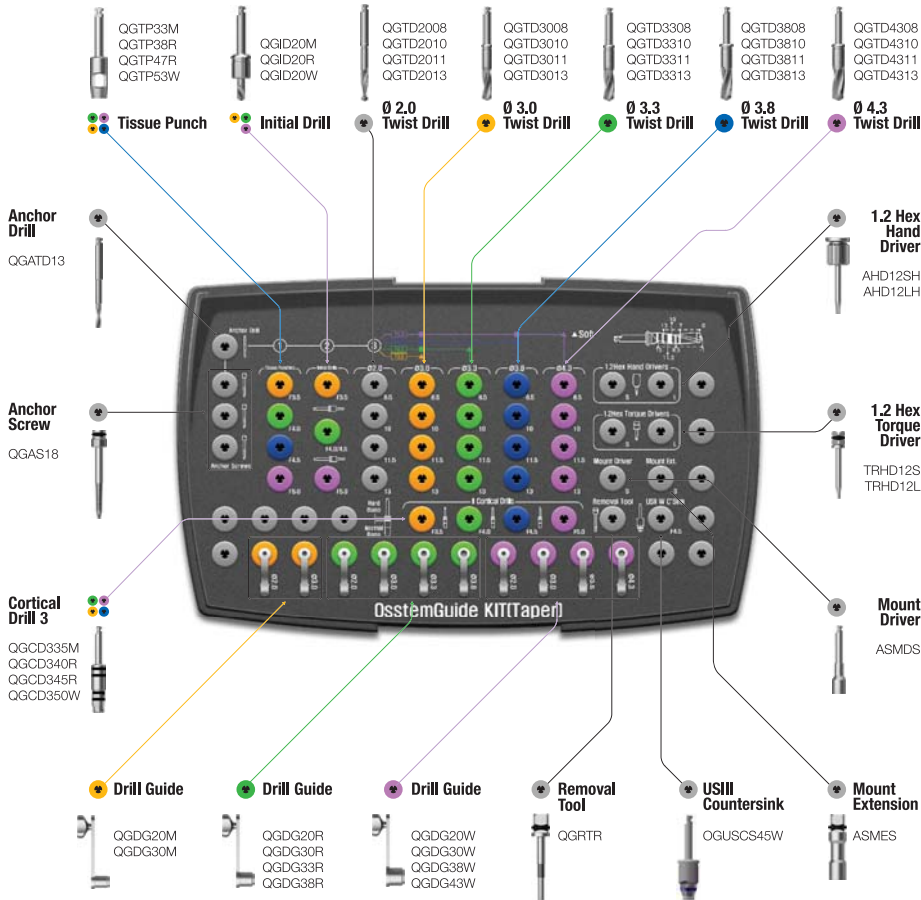
Base component

Kit Steel bowl
AKB*

Ratchet Wrench
CITQW-1185A*



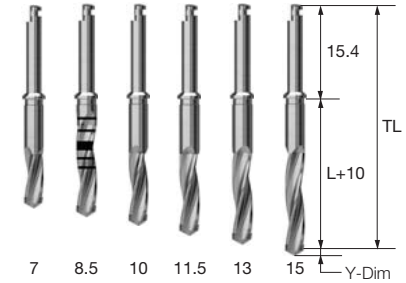
Open Wrench
ASOW*



OsstemGuide KIT Components

OsstemGuide Twist Drill

- Includes stopper conforming to OsstemGuide drill guide
- Applied design that does not damage gingiva even when side blade of the drill contacts gingiva in flapless operations
- Conforming to the length of the attachment of surgical guide and drill guide, designed to be 10mm longer compared to regular procedure drills that do not use OsstemGuide
- 8.5mm drill is laser marked and can be used in regular procedures that do not use OsstemGuide
- * Codes indicated are products included in OsstemGuide KIT












L (TL) \ D	Ø 2.0	Ø 3.0	Ø 3.3	Ø 3.6	Ø 3.8	Ø 4.1	Ø 4.3	Ø 4.6
7.0 (32.4)	QGTD2007	QGTD3007	QGTD3307	QGTD3607	QGTD3807	QGTD4107	QGTD4307	QGTD4607
8.5 (33.9)	QGTD2008*	QGTD3008*	QGTD3308*	QGTD3608	QGTD3808*	QGTD4108	QGTD4308*	QGTD4608
10 (35.4)	QGTD2010*	QGTD3010*	QGTD3310*	QGTD3610	QGTD3810*	QGTD4110	QGTD4310*	QGTD4610
11.5 (36.9)	QGTD2011*	QGTD3011*	QGTD3311*	QGTD3611	QGTD3811*	QGTD4111	QGTD4311*	QGTD4611
13 (38.4)	QGTD2013*	QGTD3013*	QGTD3313*	QGTD3613	QGTD3813*	QGTD4113	QGTD4313*	QGTD4613
15 (40.4)	QGTD2015	QGTD3015	QGTD3315	QGTD3615	QGTD3815	QGTD4115	QGTD4315	QGTD4615

OsstemGuide KIT Components










OsstemGuide Mount

- Used to insert implant by attaching to fixture as a mount for OsstemGuide procedures
- Used in accordance with the color of the sleeve attached to surgical guide
- P = Platform
- C = Connection

TS System	D	Ø3.5	Ø4.0 / 4.5	Ø5.0
				
		QGHGMM	QGHGMR	QGHGMW
SS System	P (G/H)	Ø4.8 (1.8)	Ø4.8 (2.8)	Ø6.0 (2.0)
				
		OGSSMR18	OGSSMR28	OGSSMW20
US System	C	Mini	Regular	Wide
				
		OGUSMM	OGUSMR	OGUSMW

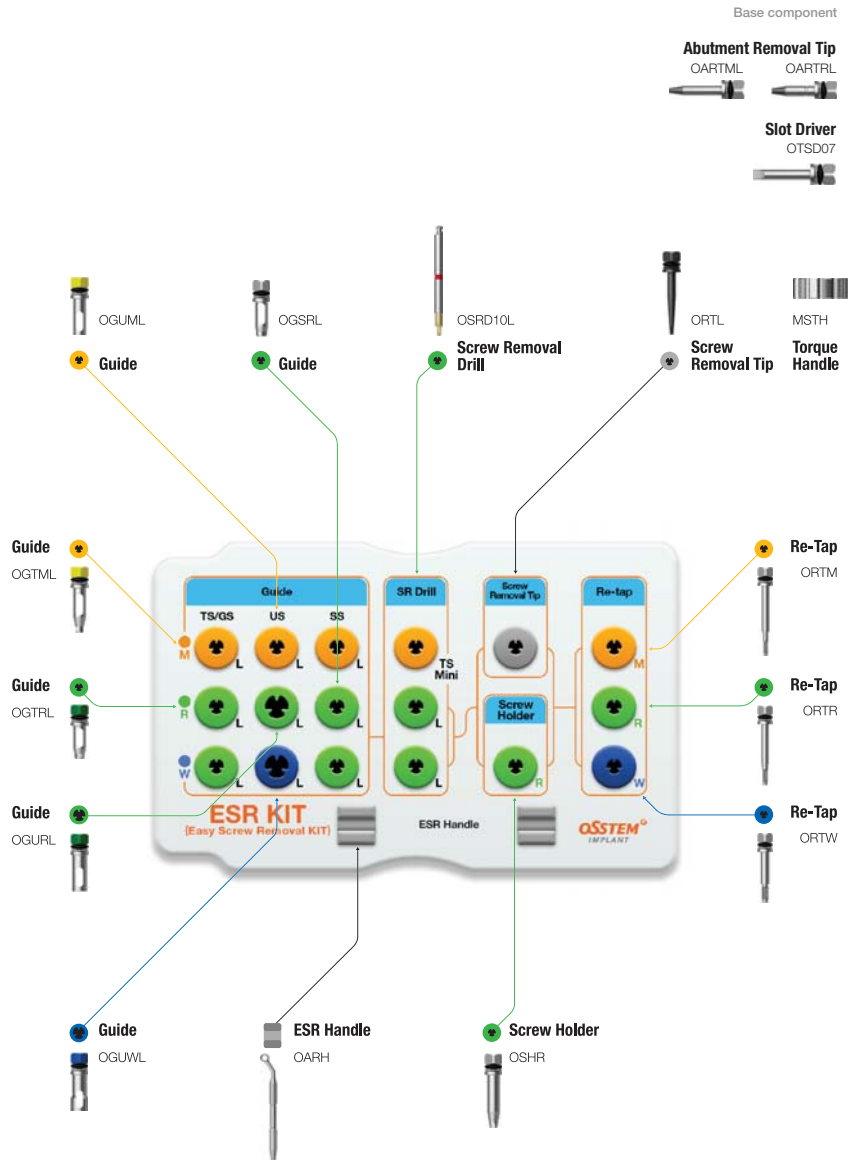
OsstemGuide Cylinder (Pin)

- Component for making dentures for OsstemGuide procedures
- Can make plaster cast by connecting to existing fixture lab analog
- Use in accordance with the color of the sleeve attached to OsstemGuide template

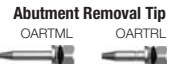
TS System	D	Ø3.5	Ø4.0 / 4.5	Ø5.0
				
		QGHGCGM	QGHGCGR	QGHGCGW
SS System	P (G/H)	Ø4.8 (1.8)	Ø4.8 (2.8)	Ø6.0 (2.0)
				
		OGSSCGR18	OGSSCGR28	OGSSCGW20
US System	C	Mini	Regular	Wide
				
		OGUSCGM	OGUSCGR	OGUSCGW

ESR KIT Easy Screw Removal KIT (OESRK)

ESR KIT Surgical Instruments

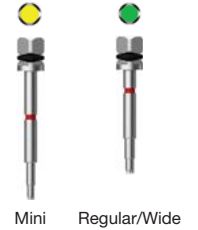


Base component



Reverse Driver

- Tool used to remove fractured screw
- Must be used with a guide that fits the fixture
- When red marking indication of the reverse driver is displayed on the guide attached to fixture, use screw holder to remove fractured screw
- For hand mode / Rotating direction: Reverse / Number of use: 10 times
- F = Fixture



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

Screw Removal Drill (SR Drill)

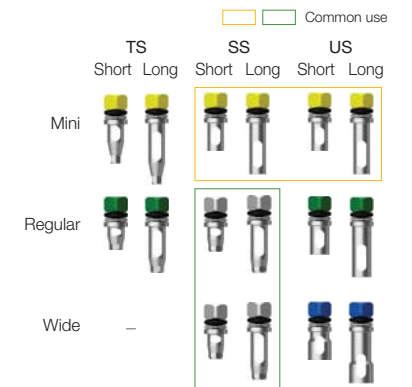
- Used to remove in order to form a hole in the fractured screw
- Must remove cut chip by suction after attaching guide and spraying water on window
- Short and long specifications suitable for different intermaxillary spaces
- Drill until the red band on the grip part cannot be seen
- Recommended speed: 1,200-1,500rpm in reverse
- Number of uses: 5
- ※ Must be used as attached to guide / Do not apply excessive vertical force / Do not immerse in hydrogen peroxide
- F = Fixture



L \ F	Mini (GS/TS)	Regular / Wide (GS/TS/SS/US)
Short	OSRD08S	OSRD10S
Long	OSRD08L	OSRD10L

Guide

- Guide used for centering and preventing wobble of reverse driver, screw removal drill (SR drill), and re-tap
- Short and long used according to intermaxillary spaces
- Used in combination with ESR handle
- F = Fixture



F \ Type	TS (Hex)		SS (Octa)		US (Hex)	
	Short	Long	Short	Long	Short	Long
Mini	OGTMS	OGTML	OGUMS	OGUML	OGUMS	OGUML
Regular	OGTRS	OGTRL	OGSRS	OGSRL	OGURS	OGURL
Wide	-	-	OGSRS	OGSRL	OGUWS	OGUWL

Torque Handle

- Used by combining to the attaching part of torque driver, etc. and turning by hand



MSTH

ESR Handle

- Used to stabilize by connecting guide



OARH

Screw Removal Tip (SR Tip)

- Removes fractured screw by turning screw removal tip in reverse in the hole of fractured surface of the screw formed by screw removal drill (SR drill)
- Rotating direction: Reverse



Short Long

L

Short ORTS

Long ORTL

Abutment Removal Tip

- Used in case where part of abutment and mount are fractured and jammed and left over in the fixture
- Combine to the fractured abutment hole, turn counterclockwise (in reverse), and, when fixed tightly, use forceps or other tools to sway and remove
- In case of mini, if hex of screw causes slips, use to remove screw
- After attaching to hex with slips and turning counterclockwise, combines with screw and removes
- * Mini: Can remove screw when hex causes slips
- F = Fixture



Mini Regular

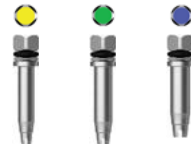
F Mini Regular

OARTML

OARTRL

Screw Holder

- If part of fractured screw is protruding, remove in combination with screw holder
- Colors assigned for easily distinguishable specifications
- F = Fixture



Mini Regular Wide

F Mini Regular Wide

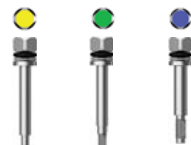
OSHM

OSHR

OSHW

Re-tap

- Tool that restores the initial state of thread when the thread inside fixture is damaged and screw cannot be attached
- Using torque wrench or ratchet wrench, forms thread by hand mode
- F = Fixture



Mini Regular Wide

F Mini (M1.6) Regular (M2.0) Wide (M2.5)

ORTM

ORTR

ORTW

Transfer Abutment Separate Tool

- Used to remove jamming due to contact between fixture and Morse taper of non-hex type transfer abutment
- The end of body is for mini; regular can be inserted to the 2nd groove for common use
- Remove abutment screw, insert separate tool body into the hole inside abutment, tighten clockwise with driver, and align body and abutment for easy separation. However, if there is difficulty separating, attach ratchet wrench and use



Driver Body

Driver Body Set

TASD

TASB

TAST

Slot Driver

- Tool used after forming slot by $\varnothing 0.8$ bur when driver cannot apply force due to the damage in hex of healing abutment, cover screw, and abutment screw



OTSD07

EFR KIT Easy Fixture Removal KIT (OSFRK)

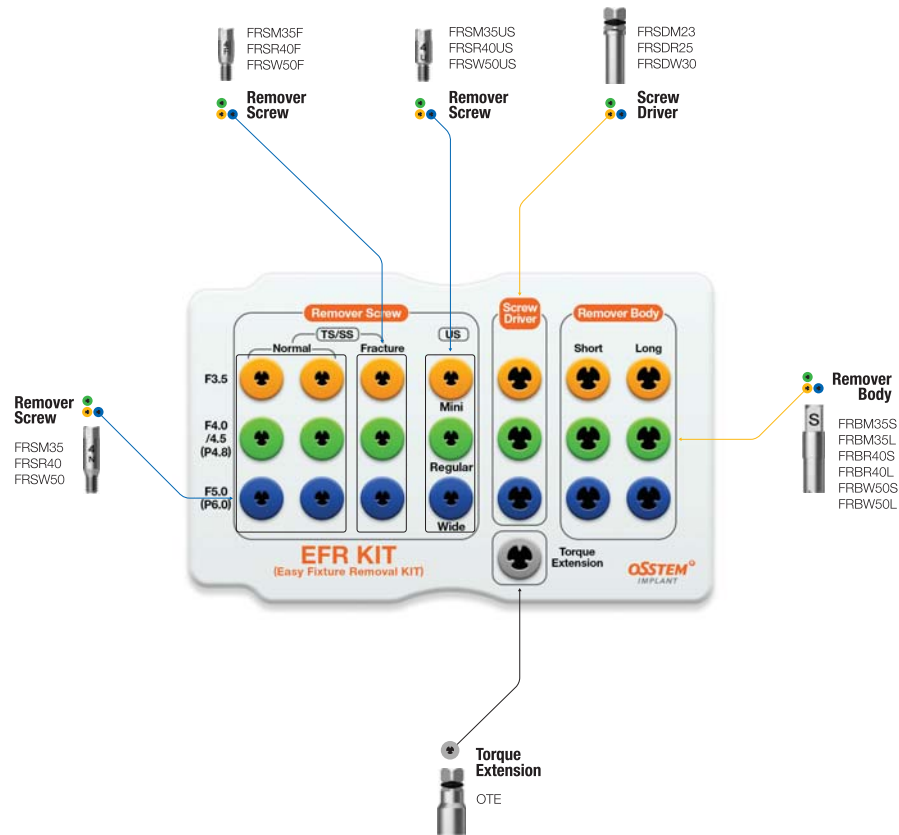
Available for use **TSII / III** **SSII / III** **USII / III** **Ultra-wide**

Base component

Fixture Wrench
FRDFE



Torque Wrench
TW400B



EFR KIT Surgical Instruments

Remover Screw

- Serves as supporting structure for connecting and stabilizing to fixture and enabling turning remover body in reverse
- Use accordingly with regards to type and diameter of the fixture to be removed (TS/SS/US, normal/fracture)
- Use fracture when removing fractured fixture
- Recommend tightening torque : 100Ncm
- F = Fixture
- P = Platform



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

Screw Driver

- Driver that can connect/fix remover screw to fixture
- Recommend tightening torque : remover screw 100Ncm
- F = Fixture



F	Mini	Regular	Wide
	FRSDM23	FRSDR25	FRSDW30

Remover Body

- Tool that can be connected to remover screw and apply loosening torque to fixture
- Use accordingly with regards to diameter of the fixture to be removed
- F = Fixture



F	Mini	Regular	Wide
Short	FRBM35S	FRBR40S	FRBW50S
Long	FRBM35L	FRBR40L	FRBW50L

EFR KIT Surgical Instruments

Torque Extension

- Can extend the length (10mm) of screw driver and remover body



Torque Wrench

- Used to tighten screw driver and remove fixture using remover body
- Can apply maximum torque of 400Ncm (scale marks on every 100Ncm)
- Apply torque after pulling bar to set the center of the bar to the torque value to be applied
- After use, store after washing and sterilizing



Fixture Wrench

- Wrench used to remove fixture from remover body after removing fixture



OSSTEM[®]
IMPLANT

Osstem Implant Key References

Clinic

No.	Title	Reference / Author
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2	A randomized controlled clinical trial of two types of tapered implants on immediate loading in the posterior maxilla and mandible	Int J Oral Maxillofac Implants. 2013 Nov-Dec;28(6):1602-11 (IF 1.908) / Young-Kyun Kim et al.
3	Bony window repositioning without using a barrier membrane in the lateral approach for maxillary sinus bone grafts: clinical and radiologic results at 6 months.	Int J Oral Maxillofac Implants. 2012 27:211-217 / Chang-Joo Park et al.
4	A relaxed implant bed: implants placed after two weeks of osteotomy with immediate loading: a one year clinical trial.	J Oral Implantol. 2012 Apr;38(2):155-64 / Bansal J et al.
5	A multicenter prospective study in type IV bone of a single type of implant	Implant Dent. 2012 Aug;21(4):330-34 / Su-Gwan Kim et al.
6	Comparison of clinical outcomes of sinus bone graft with simultaneous implant placement: 4-month and 6-month final prosthetic loading	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2011 Feb;111(2):164-9 / Young-Kyun Kim et al.
7	Prospective study of tapered resorbable blasting media surface implant stability in the maxillary posterior area	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2012 Feb 28. [Epub ahead of print] / Young-Kyun Kim et al.
8	A 1-year prospective clinical study of soft tissue conditions and marginal bone changes around dental implants after flapless implant surgery	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2011 Jan;111(1):41-6 / Byung-Ho Choi et al.
9	Evaluation of peri-implant tissue in nonsubmerged dental implants: a multicenter retrospective study	Clin Implant Dent Relat Res. 2011 Dec;13(4):324-9 / Young-Kyun Kim et al.
10	A relaxed implant bed: implants placed after two weeks of osteotomy with immediate loading: a one year clinical trial	J Oral Implantol. 2012 Apr;38(2):155-64 / Bansal J et al.
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13	A randomized clinical one-year trial comparing two types of nonsubmerged dental implant	Clin. Oral Impl. Res. 2010;21(2):228-36 / Jong-Ho Lee et al.
14	Short-term, multi-center prospective clinical study of short implants measuring less than 7mm	J Kor Dent Sci. 2010;3(1):11-6 / Young-Kyun Kim et al.
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17	Evaluation of peri-implant tissue response according to the presence of keratinized mucosa	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2009;107:e24-8 / Young-Kyun Kim et al.
18	Study on radiographic evaluation of marginal bone loss around osseointegrated implant after functional loading	J Kor Oral Maxillofac Surg. 2009;35:240-7 / Young - Deok, Chee
19	Four-year survival rate of RBM surface internal connection non-submerged implants and the change of the peri-implant crestal bone	J Korean Assoc Maxillofac Plast Reconstr Surg. 2009;31(3):237-42 / Sok-Min Ko et al.

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1	Experiment study of bone response to hydroxyapatite coating implants: bone-implant contact and removal torque test	Oral Surg Oral Med Oral Pathol Oral Radiol. 2012 Jun 29. [Epub ahead of print] / Young-Kyun Kim et al.
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4	Effects of soft tissue punch size on the healing of peri-implant tissue in flapless implant surgery	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2010;109:525-30 / Byung-Ho Choi et al.
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No.	Title	Reference / Author
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4	Effect of impression coping and implant angulation on the accuracy of implant impressions: an in vitro study	J Adv Prosthodont. 2010;2(4):128-33 / Seung-Geun Ahn et al.
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6	Mechanical strength of zirconia abutment in implant restoration	J KASFO. 2009;25(4):349-60 / Young-Chan Jeon et al.
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8	Fatigue fracture of different dental Implant system under cyclic loading	J Kor Acad Prosthodont. 2009;47(4):424-34 / In-Ho Cho et al.
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10	The effect of various thread designs on the initial stability of taper implants	J Adv. Prosthodont. 2009;1:19-25 / Young-Jun Lim et al.
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Osstem Implant product information

Osstem Implant dental fixtures and products are manufactured using medical grade Titanium. Osstem Implant abutments, denture material and surgical tools are only compatible with Osstem fixtures. For more detailed information about each product, please refer to the user manuals, catalogs or please visit our corporate website (www.osstem.com). Please check all product labels for product codes, specifications, manufactured dates and expiration dates.

Sterility

Fixtures, cover screws and healing abutments are cleansed and gamma-sterilized. These products are disposable sterile medical appliances, and must be used in a sterile field. If the package is damaged or has expired, it must not be used. If the product package has been opened but not used, there is a risk of contamination and it is not recommended that the product be resterilized and therefore should be discarded.

Storage conditions

Store all products in a dry place at room temperature (30°C). Avoid direct sunlight.

General precautions

Dental implant surgery require proper and formal training and education.

Cautions before dental surgery

Before dental implant surgery, a thorough patient health history review, oral and radiographic examinations must be completed to determine bone quality and proper treatment planning.

Cautions during dental implant surgery

Osstem Implant System are for single or two stage dental implant procedures. In order to minimize damage to the patient's tissue, special attention to temperature, surgical lesions and eliminating all sources of contamination and infection are needed. Any deviation from the standard surgical protocol increases the risk of failure. When inserting the dental implant, sufficient cooling must be introduced (water or saline) and excessive torque (greater than 55Ncm) can result in dental implant fracture or possibly bone necrosis. Placing dental implants greater than 300 has a very high risk of implant fracture. Direct pressure to the fixture should be avoided right after surgery. Immediate or delayed loading of the fixture must be determined after proper examination of the patient's bone condition and initial stability after placement.

Mini implants or implants with a diameter less than 4.0mm are not recommended for the posterior region.

Ultra-wide dental implants are recommended for the posterior region but should not be used with angled abutments. If considering an Ultra-wide dental implant, proper radiographic evaluation must be made to determine the bone mass and potential anatomical restrictions. Short dental implants (diameter greater than 5mm and shorter than 7mm) are only used for the posterior region. The clinician must

thoroughly evaluate the patient's condition and recognized the following issues:
1) bone loss due to peri-implantitis, 2) changes to the dental implant condition, 3) proper osseointegration determined by a x-ray examination. If there is movement or if there is bone loss more than 50%, removing the dental implant should be a course of action. Wide diameter implants should be performed as a two stage surgery. Sufficient healing time must be given before splinting with other implants or when loading. Immediate loading is not recommended.

Take care when placing dental implants with HA coating. The coating is prone to cracking or fracturing under high torque, therefore hard bone should be avoided and be inserted under 35Ncm of force.

CA and SOSI treated dental implants are encased in a solution to prevent the chemically treated surface from reacting with air. After removing the CA or SOSI dental implant, place the implant within 15 minutes to avoid degradation of the surface.

Warning

Improper patient selection and treatment planning may result in dental implant failure or loss of bone. Osstem Implants must not be used for purpose other than prescribed and must not be alter in any shape or form. Implant movement, bone loss, and chronic infections can result in implant failure.

Indications

Osstem Implant Systems are designed to replace a patient's tooth or teeth. They can be placed in both the maxillary and submaxillary alveolar bones and after full osseointegration can be restored prosthetically. Osstem Implant Systems offer both temporary and final prosthesis and can be retained by cement, screw, overdenture or fixed bridge.

Side effects

There are possible side effects after implant surgery (lost of implant stability, damage to dentures). These issues can be due to the lack of bone or poor bone quality, an infection, patient's poor oral hygiene, non compliance with post op procedures, movement of the implant, degradation of surrounding tissue, or improper placement of the dental implant.

Contraindications

- Patients with the following contraindications are not eligible for dental implants:
- Patients with blood clotting issues or issues with wound healing.
 - Diabetic patients
 - Patients that smoke or drink excessively
 - Patient's with compromised immune systems due disease or chemo and radiation therapy.
 - Patients with an oral infection or inflammation (improper oral hygiene or teeth grinding)
 - Patients with an incurable malocclusion/arthritis and insufficient arch space.

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Storage condition
Dry place at room temperature



Rx only

For USA only : Federal law restricts this device to sale by or on the order of a dentist



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