SS SYSTEM CATALOG

Osstem Implant 2014-15 Comprehensive Catalog

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CEO's Message

"Osstem - Future Technology and Superior Quality"

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

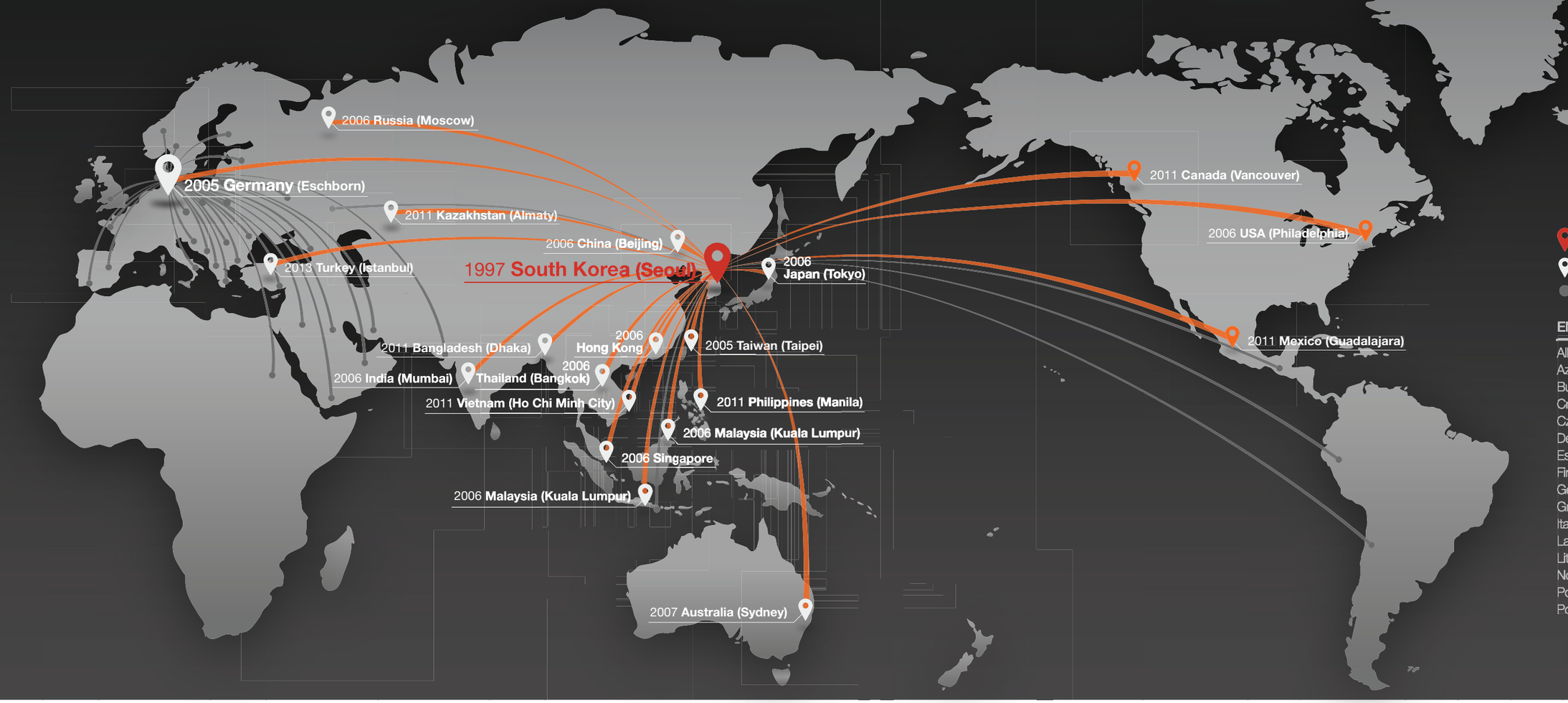
We deeply appreciate all of our customers who use our products.

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

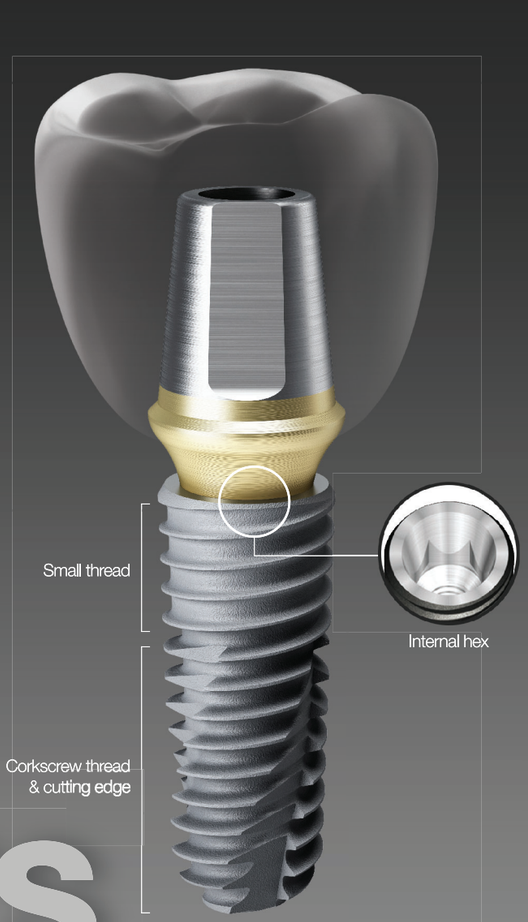
10 Selected as a hidden champion business

2014

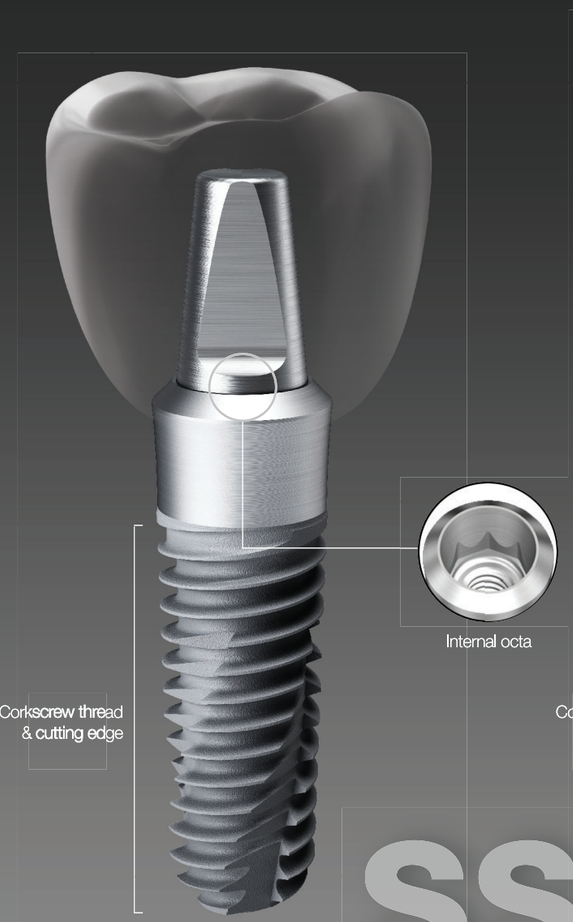
05 Selected as a WorldClass 300 business

OSSTEM Implant Design feature

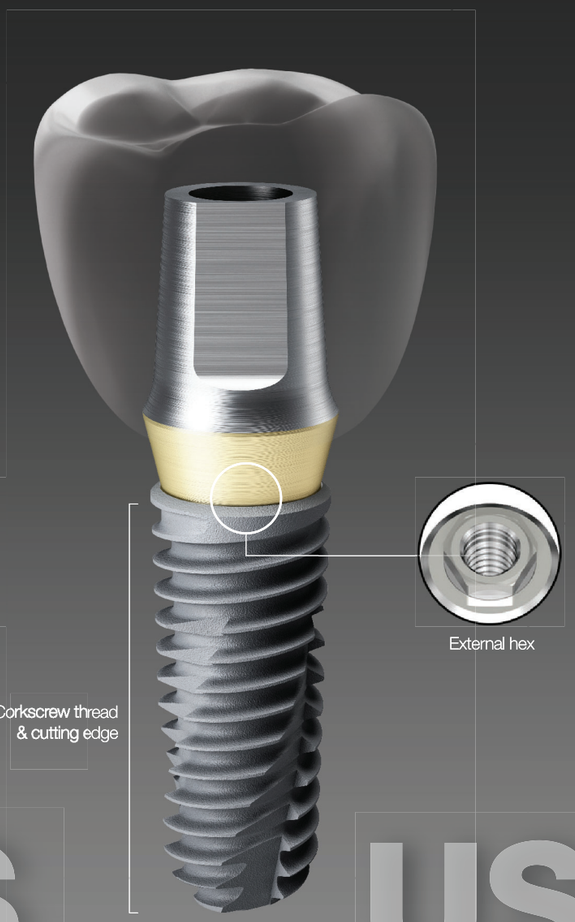
Osstem Implant,
the leader in popularizing implants in Korea!
We stand out with our passion for strategic R&D and best products, creating globally trend-setting implants.



TS



SS



US

Packaging Color Information for Each System

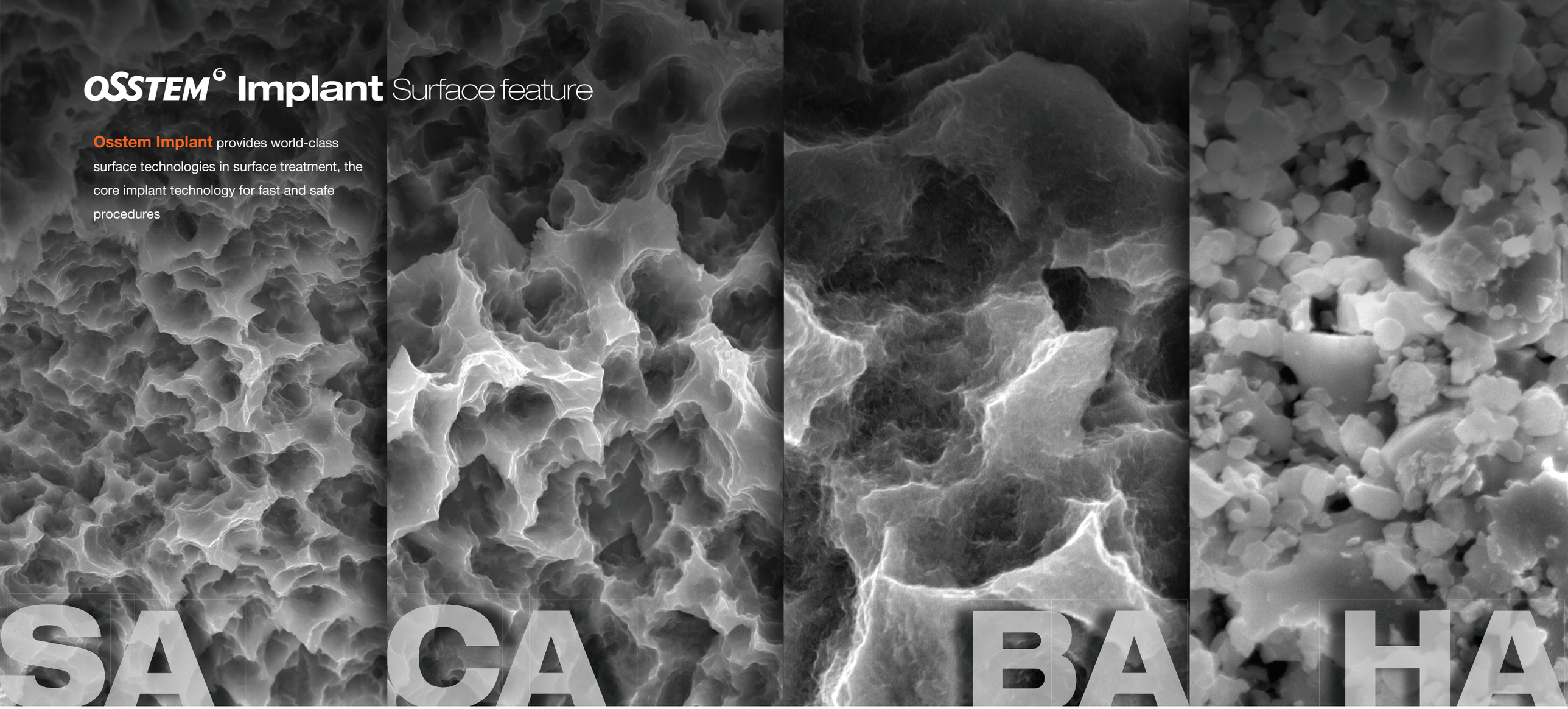
- **Submerged type implant with an Internal hex 11° taper connection structure**
- Connection type and color - Mini/Regular
- Highest initial stability in soft bone by using upper-section small thread
- Corkscrew thread & cutting edge
  - Easy path adjustment through a superior self-threading effect
  - 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

- **Provides optimum surface through acid treatment**
  - Provides Ra 2.5~3.0㎛ surface roughness However, upper section 0.5mm area is Ra 0.5~0.6㎛
  - Achieved uniform micro-pit 1.3㎛ 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

CA

- **Superhydrophilic SA surface encapsulated in calcium solution**
  - Maintains optimum surface identical to SA surface
  - Surface activity maximized after encapsulated in calcium ($CaCl_2$) 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

BA

- **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㎛)
  - 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

HA

- **Premium surface coated with high crystalline HA**
  - High crystalline HA coating 30~60㎛ in thickness
  - HA coating on RBM surface (Ra 3.0~3.5㎛)
  - 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

SS SYSTEM Contents

OSSTEM
IMPLANT

SS SYSTEM

FIXTURE

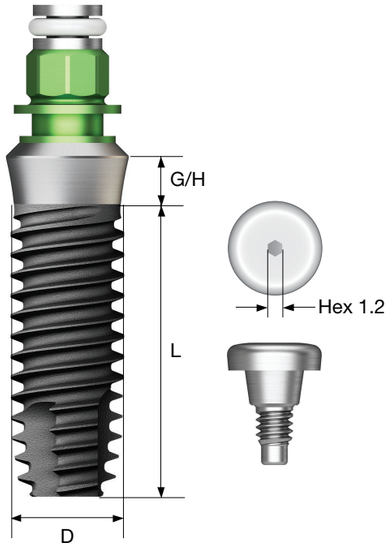
COMPONENTS

SSII SA Fixture

- Non-submerged implants based on one-stage surgery with internal octa and 8° taper connections
- Optimum screw thread design for optimum SA surface
- Straight body design for easy adjustment of insertion depth
- Powerful self-threading effect using corkscrew thread
- Recommended insertion torque : 40Ncm or lower

※ In single implant cases for posterior region, use of fixture at least 4.5mm in diameter is recommended

NoMount fixture order code
: fixture product code (ex : SS2R4011S18)
Pre-Mounted fixture order code (fixture + simple mount + cover screw)
: **A** + fixture product code (ex : **A**SS2R4011S18)



D ø4.0
P ø4.8
R

G/H \ L	7	8.5	10	11.5	13
1.8	SS2R4007S18	SS2R4008S18	SS2R4010S18	SS2R4011S18	SS2R4013S18
2.8		SS2R4008S28	SS2R4010S28	SS2R4011S28	SS2R4013S28

D ø4.5
P ø4.8
R

G/H \ L	7	8.5	10	11.5	13
1.8	SS2R4507S18	SS2R4508S18	SS2R4510S18	SS2R4511S18	SS2R4513S18
2.8		SS2R4508S28	SS2R4510S28	SS2R4511S28	SS2R4513S28

D ø4.5
P ø6.0
W

G/H \ L	7	8.5	10	11.5	13
2.0	SS2W4507S20	SS2W4508S20	SS2W4510S20	SS2W4511S20	SS2W4513S20

D ø5.0
P ø6.0
W

G/H \ L	6	7	8.5	10	11.5	13
	Short					
2.0	SS2W5006S20	SS2W5007S20	SS2W5008S20	SS2W5010S20	SS2W5011S20	SS2W5013S20

SSIII SA Fixture

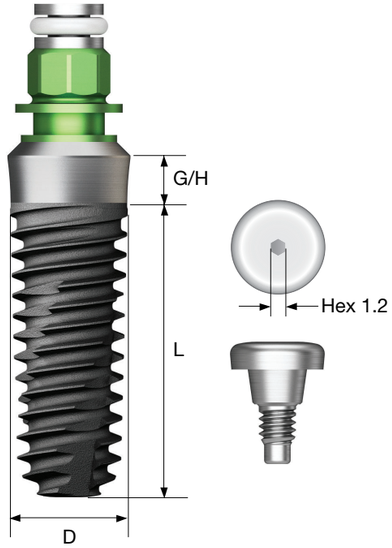
- Non-submerged implants based on one-stage surgery with internal octa and 8° taper connections
- Optimum screw thread design for optimum SA surface
- Taper body design with superior initial stability
- Powerful self-threading effect using corkscrew thread
- Acquires the initial stability needed in immediate loading even in soft bone

Ultra-wide

- Immediate placement in tooth extraction case and useful in exchanging a failed implant
- With its optimized apex design, capable to obtain stable initial stability in the cases of tooth extraction and at the bottom 3mm
- Recommended insertion torque : 40Ncm or lower

※ In single implant cases for posterior region, use of fixture at least 4.5mm in diameter is recommended

NoMount fixture order code
: fixture product code (ex : SS3R4011S18)
Pre-Mounted fixture order code (fixture + simple mount + cover screw)
: **A** + fixture product code (ex : **A**SS3R4011S18)



D ø3.5 P ø4.8 R

G/H \ L	8.5	10	11.5	13
1.8	SS3R3508S18	SS3R3510S18	SS3R3511S18	SS3R3513S18
2.8	SS3R3508S28	SS3R3510S28	SS3R3511S28	SS3R3513S28

D ø4.0 P ø4.8 R

G/H \ L	7	8.5	10	11.5	13
1.8	SS3R4007S18	SS3R4008S18	SS3R4010S18	SS3R4011S18	SS3R4013S18
2.8		SS3R4008S28	SS3R4010S28	SS3R4011S28	SS3R4013S28

D ø4.5 P ø4.8 R

G/H \ L	7	8.5	10	11.5	13
1.8	SS3R4507S18	SS3R4508S18	SS3R4510S18	SS3R4511S18	SS3R4513S18
2.8		SS3R4508S28	SS3R4510S28	SS3R4511S28	SS3R4513S28

D ø4.5 P ø6.0 W

G/H \ L	7	8.5	10	11.5	13
2.0	SS3W4507S20	SS3W4508S20	SS3W4510S20	SS3W4511S20	SS3W4513S20

D ø5.0 P ø6.0 W

G/H \ L	6	7	8.5	10	11.5	13
2.0	SS3W5006S20	SS3W5007S20	SS3W5008S20	SS3W5010S20	SS3W5011S20	SS3W5013S20

Short

Ultra-wide

D ø6.0 P ø6.0 W

G/H \ L	6	7	8.5	10	11.5	13
2.0	SS3WB6006S20	SS3WB6007S20	SS3WB6008S20	SS3WB6010S20	SS3WB6011S20	SS3WB6013S20

Short

D ø7.0 P ø6.0 W

G/H \ L	6	7	8.5	10	11.5	13
2.0	SS3WB7006S20	SS3WB7007S20	SS3WB7008S20	SS3WB7010S20	SS3WB7011S20	SS3WB7013S20

Short

SSIII CA Fixture

- Non-submerged implants based on one-stage surgery with internal octa and 8° taper connections
- Superior hydrophilic SA surface encapsulated in calcium solution
- Taper body design with superior initial stability
- Powerful self-threading effect using corkscrew thread
- Acquires the initial stability needed in immediate loading even in soft bone

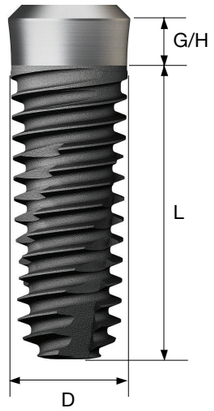
Ultra-wide

- Immediate placement in tooth extraction case and useful in exchanging a failed implant
- With its optimized apex design, capable to obtain stable initial stability in the cases of tooth extraction and at the bottom 3mm
- Recommended insertion torque: 40Ncm or lower

※ In single implant cases for posterior region, use of fixture at least 4.5mm in diameter is recommended

NoMoun fixture order code

: fixture product code (ex : SS3R4011C18)



D ø3.5 P ø4.8 R

G/H \ L	8.5	10	11.5	13
1.8	SS3R3508C18	SS3R3510C18	SS3R3511C18	SS3R3513C18
2.8	SS3R3508C28	SS3R3510C28	SS3R3511C28	SS3R3513C28

D ø4.0 P ø4.8 R

G/H \ L	7	8.5	10	11.5	13
1.8	SS3R4007C18	SS3R4008C18	SS3R4010C18	SS3R4011C18	SS3R4013C18
2.8		SS3R4008C28	SS3R4010C28	SS3R4011C28	SS3R4013C28

D ø4.5 P ø4.8 R

G/H \ L	7	8.5	10	11.5	13
1.8	SS3R4507C18	SS3R4508C18	SS3R4510C18	SS3R4511C18	SS3R4513C18
2.8		SS3R4508C28	SS3R4510C28	SS3R4511C28	SS3R4513C28

D ø4.5 P ø6.0 W

G/H \ L	7	8.5	10	11.5	13
2.0	SS3W4507C20	SS3W4508C20	SS3W4510C20	SS3W4511C20	SS3W4513C20

D ø5.0 P ø6.0 W

G/H \ L	6	7	8.5	10	11.5	13
2.0	SS3W5006C20 (Short)	SS3W5007C20	SS3W5008C20	SS3W5010C20	SS3W5011C20	SS3W5013C20

Ultra-wide

D ø6.0 P ø6.0 W

G/H \ L	6	7	8.5	10	11.5	13
2.0	SS3WB6006C20 (Short)	SS3WB6007C20	SS3WB6008C20	SS3WB6010C20	SS3WB6011C20	SS3WB6013C20

D ø7.0 P ø6.0 W

G/H \ L	6	7	8.5	10	11.5	13
2.0	SS3WB7006C20 (Short)	SS3WB7007C20	SS3WB7008C20	SS3WB7010C20	SS3WB7011C20	SS3WB7013C20

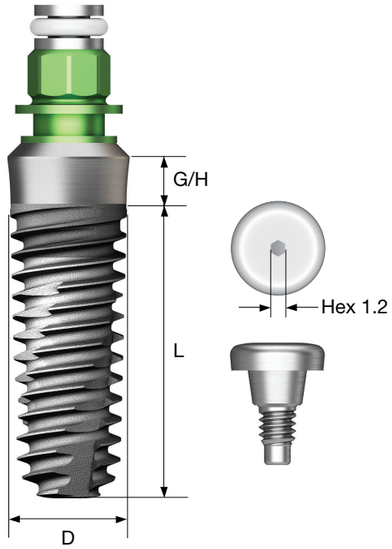
SSIII HA Fixture

- Non-submerged implants based on one-stage surgery with internal octa and 8° taper connections
- Premium surface coated with high crystalline HA
- Taper body design with superior initial stability
- Powerful self-threading effect using corkscrew thread
- Acquires the initial stability needed in immediate loading even in soft bone
- Recommended insertion torque: 35Ncm or lower

※ In single implant cases for posterior region, use of fixture at least 4.5mm in diameter is recommended

※ HA fixture is not recommended in hard bone due to possibility of coating layer cracks and desquamation

Pre-Mounted fixture order code (fixture + simple mount + cover screw)
: **A** + fixture product code (ex : **A**SS3R4011H18)



D ø4.0
P ø4.8
R

G/H \ L	7	8.5	10	11.5	13
1.8	SS3R**4007H18**	SS3R**4008H18**	SS3R**4010H18**	SS3R**4011H18**	SS3R**4013H18**
2.8		SS3R**4008H28**	SS3R**4010H28**	SS3R**4011H28**	SS3R**4013H28**

D ø4.5
P ø4.8
R

G/H \ L	7	8.5	10	11.5	13
1.8	SS3R**4507H18**	SS3R**4508H18**	SS3R**4510H18**	SS3R**4511H18**	SS3R**4513H18**
2.8		SS3R**4508H28**	SS3R**4510H28**	SS3R**4511H28**	SS3R**4513H28**

D ø4.5
P ø6.0
W

G/H \ L	7	8.5	10	11.5	13
2.0	SS3W**4507H20**	SS3W**4508H20**	SS3W**4510H20**	SS3W**4511H20**	SS3W**4513H20**

D ø5.0
P ø6.0
W

G/H \ L	6	7	8.5	10	11.5	13
	Short					
2.0	SS3W**5006H20**	SS3W**5007H20**	SS3W**5008H20**	SS3W**5010H20**	SS3W**5011H20**	SS2W**5013H20**

Mount & Screw

Simple Mount

- Hex driver : 1.2
- Recommended tightening torque : 8~10Ncm
- Packing unit : mount + mount screw
- C = Connection

R Regular
W Wide

C

R

SSH**RG**

W

SSH**WB**

Headless Cover Screw

- Used when adjacent space is limited or there is insufficient gum tissue in the suture area
- Hex driver : 0.9(mini)
- Recommended tightening torque : 5~8Ncm
- C = Connection

M Mini
R Regular
W Wide

C

M

HCM**100**

Cover Screw

- Hex driver : 0.9(mini), 1.2(regular/wide)
- Recommended tightening torque : 5~8Ncm
- C = Connection

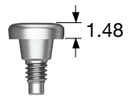
M Mini
R Regular
W Wide

C

M

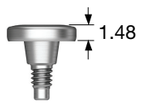
SGCM**100**

R



SSCS**480**

W



SSCS**600**

Closing Screw

- Used when adjacent space is limited or there is insufficient gum tissue in the suture area
- Hex driver : 1.2
- Recommended tightening torque : 5~8Ncm
- C = Connection

R Regular
W Wide

C

R

SSCS**480N**

W

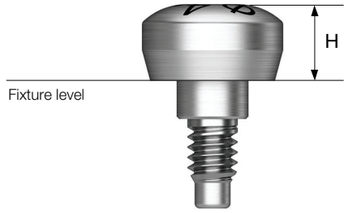
SSCS**600N**

Healing Abutment

- Hex driver : 1.2
- Recommended tightening torque : 5~8Ncm

R Regular

W Wide



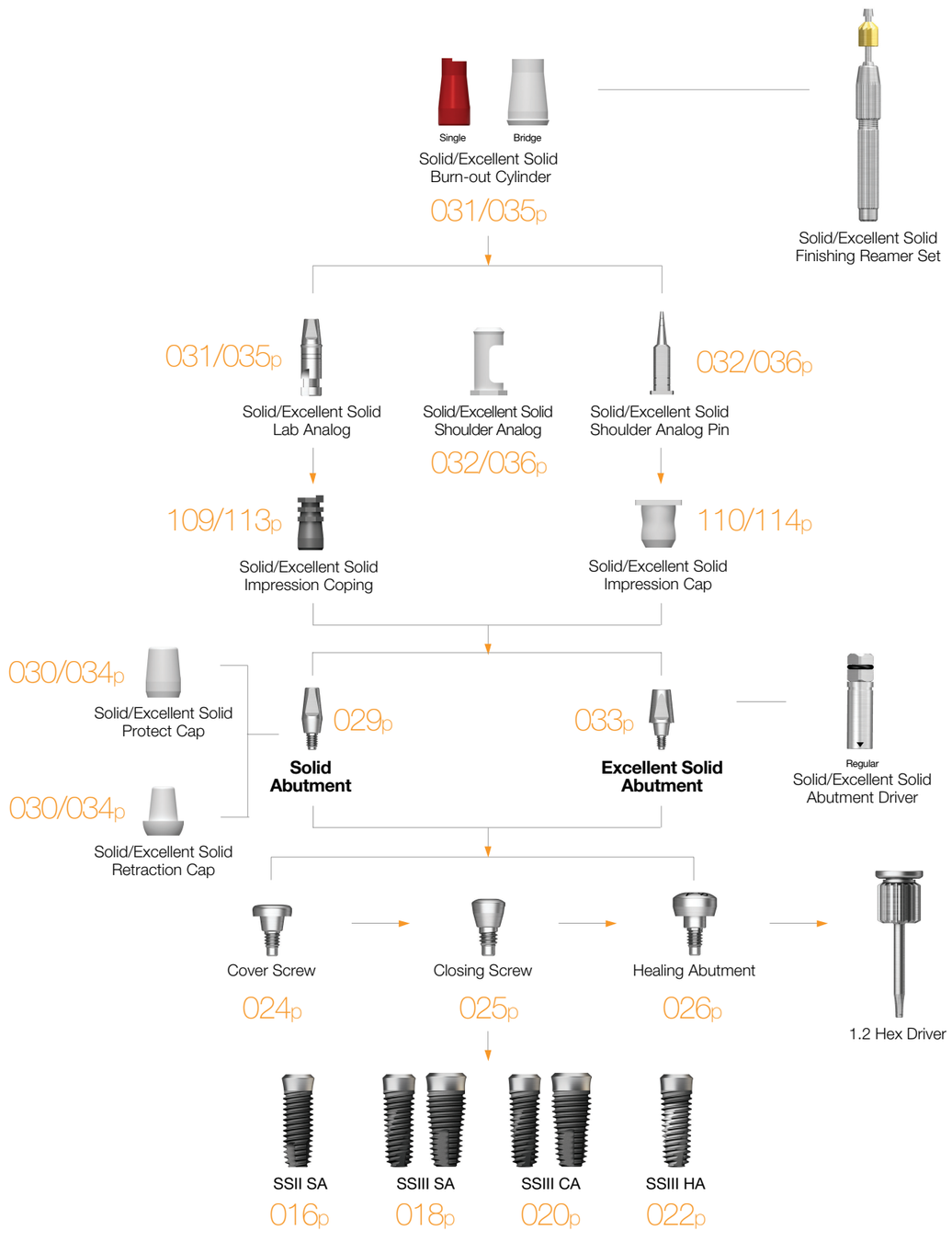
D \ H	2.0	3.0	4.0	5.0
ø 4.8	SSH482	SSH483	SSH484	SSH485

D \ H	2.0	3.0	4.0	5.0
ø 6.0	-	SSH603	SSH604	SSH605

PROSTHETIC FLOW DIAGRAM 1

Solid / Excellent Solid

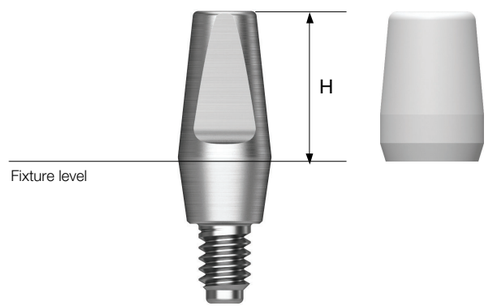
Abutment Level Impression



Solid Abutment

- Used in producing ordinary cement type prosthetics
- ø 4.8 : solid abutment driver (243p)
- ø 6.0 : 1.2 hex driver
- Recommended tightening torque : 30Ncm
- Packing unit : abutment + protect cap

Abutment + protect cap order code
: product code + **P** (ex : SSS485**P**)



D ø4.8

R

H	4.0	5.5	7.0
			
	SSS**484**	SSS**485**	SSS**487**

D ø6.0

W

H	4.0	5.5	7.0
			
	SSS**604**	SSS**605**	SSS**607**

Solid Abutment Components

Solid Protect Cap

- Used when protecting a solid abutment in the oral cavity and minimizing foreign body sensation in the patient
- Able to be applied in lower structure of a temporary prosthetic

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSC**484**	SSC**485**	SSC**487**
ø 6.0	SSC**604**	SSC**605**	SSC**607**

Solid Retraction Cap

- Accurate margin impression function when taking impression directly from a solid abutment

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSSRC**484**	SSSRC**485**	SSSRC**487**
ø 6.0	SSSRC**604**	SSSRC**605**	SSSRC**607**

Solid Positioning Cylinder

- Used in taking impressions when solid impression cap is attached

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSPG**484**	SSPG**485**	SSPG**487**
ø 6.0	SSPG**604**	SSPG**605**	-

Solid Impression Coping

- Used in taking impressions
- Unification of existing positioning cylinder and impression cap

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSIC**484**	SSIC**485**	SSIC**487**
ø 6.0	SSIC**604**	SSIC**605**	SSIC**607**

Solid Lab Analog

- Achieves solid abutment of the oral cavity on a working model
- Achieves small groove for G/H identification

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSSA**484**	SSSA**485**	SSSA**487**
ø 6.0	SSSA**604**	SSSA**605**	SSSA**607**

Solid Burn-out Cylinder

- Used as a prosthetic framework when solid lab analog is attached
- After casting a prosthetic, margin area is adjusted using specialized reamer

R Regular
W Wide

D \ H	Single	Bridge
		
ø 4.8	SSSP**480S**	SSSP**480B**
ø 6.0	SSSP**600S**	SSSP**600B**

Solid Abutment Components

Solid Impression Cap

- Component for impression used when removing solid abutment
- Used when solid shoulder analog is attached

R Regular
W Wide

D

Ø 4.8
Ø 6.0

SSIP**480**
SSIP**600**

Solid Shoulder Analog

- Component for impression used when removing solid abutment
- Achieves fixture platform in working model
- Used with excellent solid shoulder analogs

R Regular
W Wide

D

Ø 4.8
Ø 6.0

SSSLA**480**
SSSLA**600**

Solid Shoulder Analog Pin

- Component for impression used when removing solid abutment
- Used when solid shoulder analog is attached
- Prosthetic component for preventing fractures in working models
- Used with excellent solid shoulder analog pins

R Regular
W Wide

D

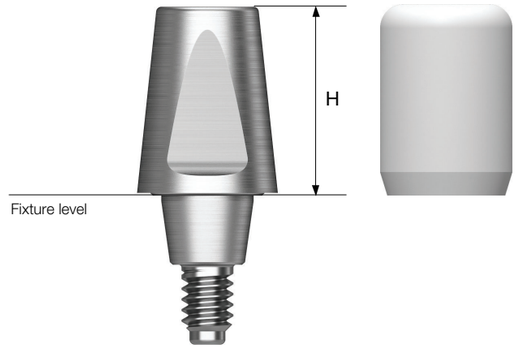
Ø 4.8
Ø 6.0

SSSAP**480**

Excellent Solid Abutment

- Advantageous when altering abutments to be larger than solid abutments
- Ø 4.8 : excellent solid abutment driver or 1.2 hex driver
  Ø 6.0 : 1.2 hex driver
- Recommended tightening torque : 30Ncm
- Packing unit : abutment + protect cap

Abutment + protect cap order code
: product code + **P** (ex : SSE485**P**)



D Ø 4.8

R

H	4.0	5.5	7.0
			
	SSE**484**	SSE**485**	SSE**487**

D Ø 6.0

W

H	4.0	5.5	7.0
			
	SSE**604**	SSE**605**	SSE**607**

Excellent Solid Abutment Components

Excellent Solid Protect Cap

- Used when protecting an excellent solid abutment in the oral cavity and minimizing foreign body sensation in the patient
- Able to be applied in lower structure of a temporary prosthetic

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSEC**484**	SSEC**485**	SSEC**487**
ø 6.0	SSEC**604**	SSEC**605**	SSEC**607**

Excellent Solid Impression Coping

- Used in taking impressions
- Unification of existing positioning cylinder and impression cap

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSEIC**484**	SSEIC**485**	SSEIC**487**
ø 6.0	SSEIC**604**	SSEIC**605**	SSEIC**607**

Excellent Solid Retraction Cap

- Able to take an impression with an accurate margin when taking a direct impression from an excellent solid abutment

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSERC**484**	SSERC**485**	SSERC**487**
ø 6.0	SSERC**604**	SSERC**605**	SSERC**607**

Excellent Solid Lab Analog

- Achieves an excellent solid abutment of the oral cavity on a working model
- Achieves small groove for G/H identification

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSEA**484**	SSEA**485**	SSEA**487**
ø 6.0	SSEA**604**	SSEA**605**	SSEA**607**

Excellent Solid Positioning Cylinder

- Used when taking an impression while excellent solid impression cap is attached

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSEPG**484**	SSEPG**485**	SSEPG**487**
ø 6.0	SSEPG**604**	SSEPG**605**	-

Excellent Solid Burn-out Cylinder

- Used as a prosthetic framework when excellent solid lab analog is attached
- After casting a prosthetic, margin area is adjusted using specialized reamer

R Regular
W Wide

D \ H	Single	Bridge
		
ø 4.8	SSEP**480S**	SSEP**480B**
ø 6.0	SSEP**600S**	SSEP**600B**

Excellent Solid Abutment Components

Excellent Solid Impression Cap

- Component for impression to be used when removing an excellent solid abutment
- Attach excellent solid shoulder analog and use

R Regular
W Wide

ø 4.8
ø 6.0

D

SSEIP**480**
SSEIP**600**

Excellent Solid Shoulder Analog

- Component for impression to be used when removing an excellent solid abutment
- Achieves fixture platform in working model
- Used with solid shoulder analog

R Regular
W Wide

ø 4.8
ø 6.0

D

SSSLA**480**
SSSLA**600**

Excellent Solid Shoulder Analog Pin

- Component for impression to be used when removing an excellent solid abutment
- Attach excellent solid shoulder analog and use
- Prosthetic component for preventing fractures in working models
- Used with solid shoulder analog pin

R Regular
W Wide

ø 4.8
ø 6.0

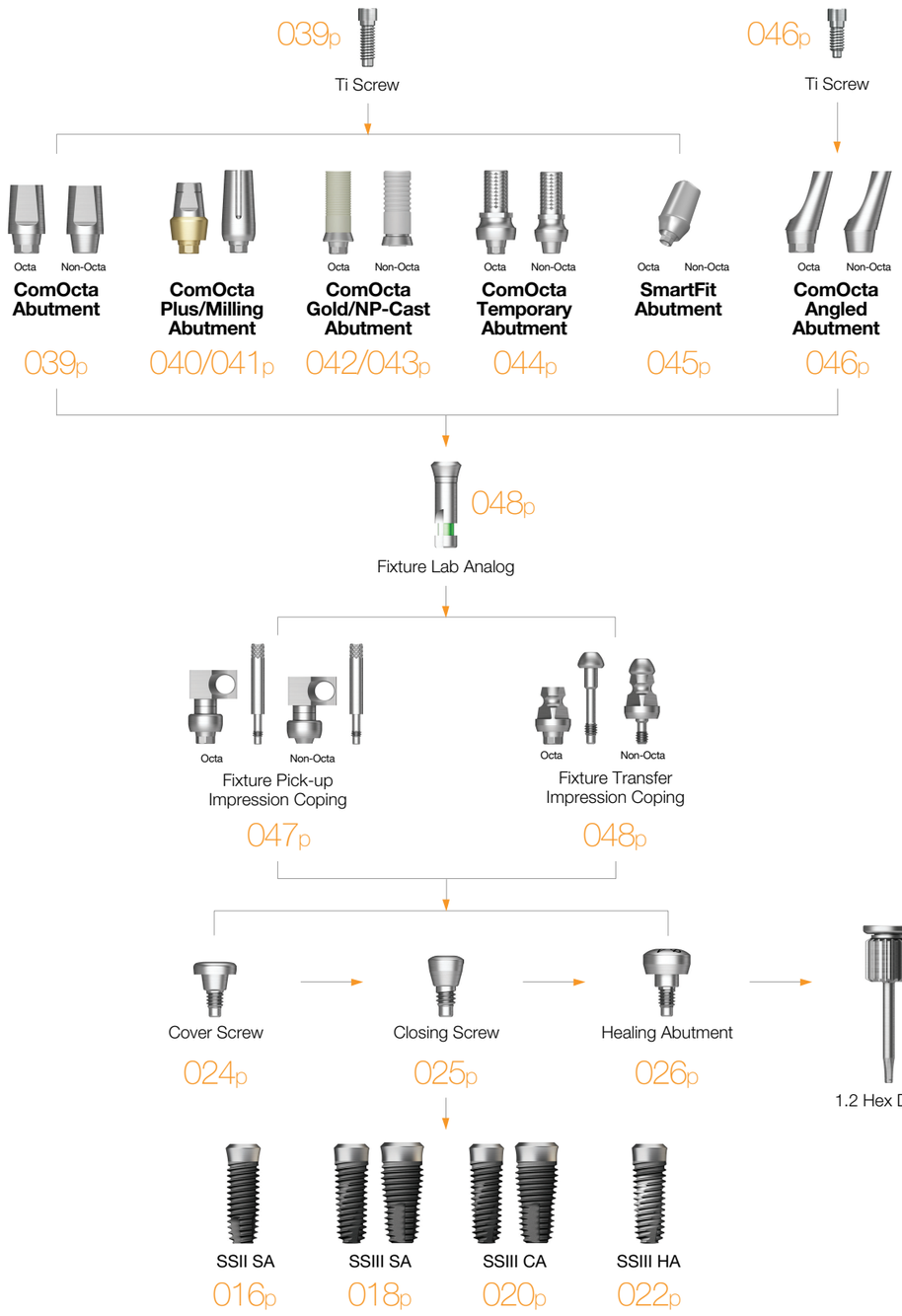
D

SSSAP**480**

PROSTHETIC FLOW DIAGRAM 2

ComOcta / SmartFit

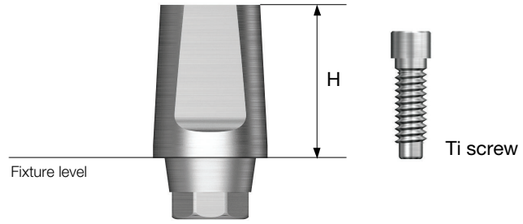
Fixture Level Impression



ComOcta Abutment

- Used in producing ordinary cement type prosthetics
- 1.2 hex driver
- Recommended tightening torque : 30 Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code
: product code + **TH** (ex : SSCA485**TH**)



D ø4.8

R

Ti screw
: ASR200

H	4.0	5.5	7.0	4.0	5.5	7.0
Type	Octa			Non-Octa		
	SSCA**484**	SSCA**485**	SSCA**487**	SSCA**484N**	SSCA**485N**	SSCA**487N**

D ø6.0

W

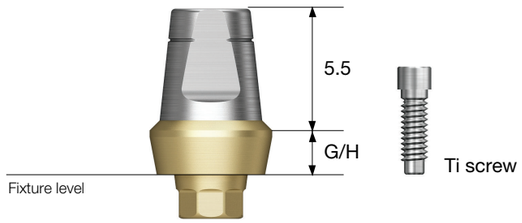
Ti screw
: ASR200

H	4.0	5.5	7.0	4.0	5.5	7.0
Type	Octa			Non-Octa		
	SSCA**604**	SSCA**605**	SSCA**607**	SSCA**604N**	SSCA**605N**	SSCA**607N**

ComOcta Plus Abutment

- Used when there is deep gingiva or a fixture is to be deeply inserted
- Gold coloring on gingiva region for aesthetics
- Shoulder contact with fixture platform region
- 1.2 hex driver
- Recommended tightening torque : 30 Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code
: product code + **TH** (ex : SSCAP4826C**TH**)



D ø4.8

R

Ti screw
: ASR200

G/H	1.0	2.0	3.0	4.0
Octa	SSCAP**4816C**	SSCAP**4826C**	SSCAP**4836C**	SSCAP**4846C**
Non-Octa	SSCAP**4816CN**	SSCAP**4826CN**	SSCAP**4836CN**	SSCAP**4846CN**

D ø6.0

W

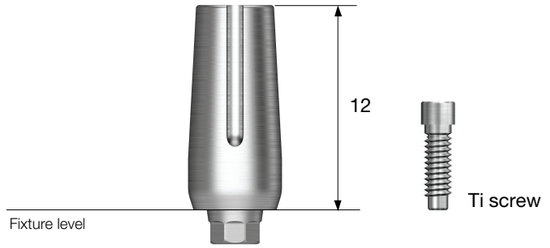
Ti screw
: ASR200

G/H	1.0	2.0	3.0	4.0
Octa	SSCAP**6016C**	SSCAP**6026C**	SSCAP**6036C**	SSCAP**6046C**
Non-Octa	SSCAP**6016CN**	SSCAP**6026CN**	SSCAP**6036CN**	SSCAP**6046CN**

ComOcta Milling Abutment

- Tightening torque : 30 Ncm
- Uses 1.2 hex driver
- Used when an abutment's path must be altered or a prosthetic's margin area must be customized
- Shoulder contact with fixture platform region
- Packing unit : abutment + Ti Screw

Abutment + Ti screw order code
: product code + **TH** (ex : SSCMA4830**TH**)



D ø4.8

R

Ti screw
: ASR200

G/
SSCMA**4830**

D ø6.0

W

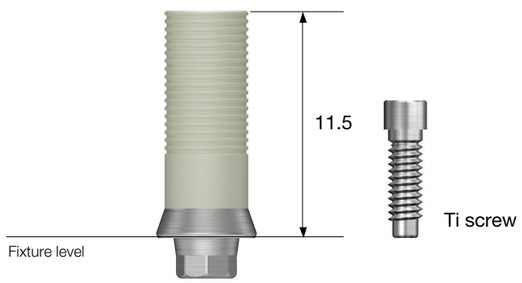
Ti screw
: ASR200

2.0
SSCMA**6030**

ComOcta Gold Abutment

- Used when path, aesthetics, or space have limitations
- Shoulder contact with fixture platform region
- Prosthetic must be produced by casting dental-grade gold alloy
- Abutment region fusion range : 1400℃~1450℃
  (casting with non-precious metal alloys is incompatible)
- 1.2 hex driver
- Recommended tightening torque : 30 Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code
: product code + **TH** (ex : COG480S**TH**)



D ø4.8 Type Octa Non-Octa

R
Ti screw
: ASR200


COG**480S**

COG**480B**

D ø6.0 Type Octa Non-Octa

W
Ti screw
: ASR200

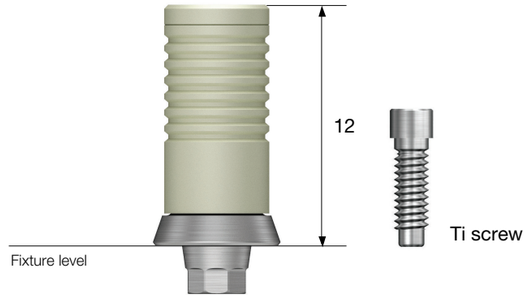

COG**600S**


COG**600B**

ComOcta NP-Cast Abutment

- Used when path, aesthetics, or space have limitations
- Shoulder contact with fixture platform region
- Prosthetic must be produced by casting dental-grade
  non-precious metal alloy
- Abutment region fusion range : 1400℃~1550℃
- 1.2 hex driver
- Recommended tightening torque : 30 Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code
: product code + **TH** (ex : CON480S**TH**)



D ø4.8 Type Octa Non-Octa

R
Ti screw
: ASR200


CON**480S**


CON**480B**

D ø6.0 Type Octa Non-Octa

W
Ti screw
: ASR200

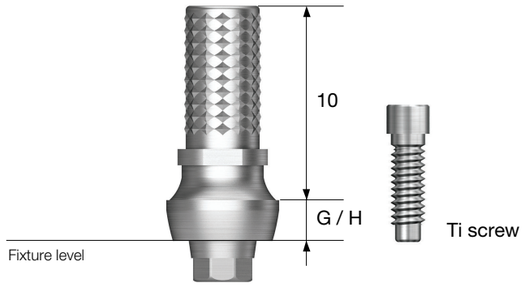

CON**600S**


CON**600B**

ComOcta Temporary Abutment

- Used in producing temporary prosthetics (Material: Ti Gr-3)
- Structure enabling easy customization and minimizing indication restrictions
- 1.2 hex driver
- Recommended tightening torque : 20Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code
: product code + **TH** (ex : SSTAO480**TH**)



D ø4.8

R

Ti screw
: ASR200

G/H	0	2.0	0	2.0
Type	Octa		Non-Octa	
				
	SSTAO**480**	SSTAO**482**	SSTAN**480**	SSTAN**482**

D ø6.0

W

Ti screw
: ASR200

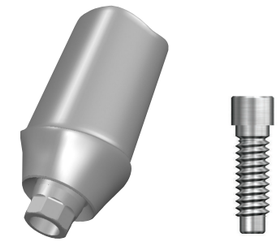
G/H	0	2.0	0	2.0
Type	Octa		Non-Octa	
				
	SSTAO**600**	SSTAO**602**	SSTAN**600**	SSTAN**602**

SmartFit Abutment

- CAD/CAM abutment
- 1.2 hex driver
- Recommended tightening torque : 20Ncm(mini), 30Ncm(regular)

- Recommended clinical case
  - Case where implant insertion area or angle is incorrect (max 30°)
  - Multiple cases requiring consistent path and stable support
  - Anterior case where aesthetic design is required
  - Irregular or exceedingly deep gingiva case

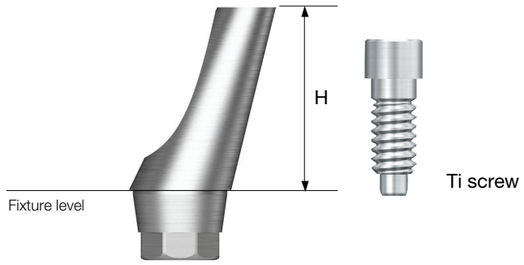
How to Order
- Fill out order sheet
- Send necessary items for each case to Osstem Implant CAD/CAM center
- Working time : 5~7days



ComOcta Angled Abutment

- Used when adjusting path of prosthetic is necessary
- Stable connection with 8° morse taper structure
- 1.2 hex driver
- Recommended tightening torque : 30 Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code
: product code + **TH** (ex : SSA4815**TH**)



D ø4.8

R

Ti screw
: ASS200

Angle	15°	20°	15°	20°
Type	Octa		Non-Octa	
	SSA**4815**	SSA**4820**	SSA**4815N**	SSA**4820N**

D ø6.0

W

Ti screw
: ASS200

Angle	15°	20°	15°	20°
Type	Octa		Non-Octa	
	SSA**6015**	SSA**6020**	SSA**6015N**	SSA**6020N**

ComOcta Abutment Components

ComOcta Retraction Cap

- Able to take an accurate margin impression when taking an impression directly from a ComOcta abutment

R Regular
W Wide

D \ H	4.0	5.5	7.0
			
ø 4.8	SSCRC**484**	SSCRC**485**	SSCRC**487**
ø 6.0	SSCRC**604**	SSCRC**605**	SSCRC**607**

Fixture Pick-up Impression Coping

- Takes impression using open tray
- Superior impression stability with holinone structure
- 1.2 hex driver
- * Label is basic packaging specification
- Packing unit : impression coping body + guide pin

R Regular
W Wide

D \ L	5		10		Guide Pin		
					10	15	17
Type	Octa	Non-Octa	Octa	Non-Octa			
							
ø 4.8	SSICAS**480**	SSICAS**480N**	SSICA**480**	SSICA**480N**	CSR**100***(L5)	CSR**150***(L10)	CSR**170**
ø 6.0	SSICAS**600**	SSICAS**600N**	SSICA**600**	SSICA**600N**			

ComOcta Abutment Components

Fixture Transfer Impression Coping

- Takes impression using closed tray
- Increased popularity after creating impression with gemstone-shaped structure (◇)
- 1.2 hex driver
- Packing unit : octa - Impression coping + guide pin
  non-octa - Impression coping

R Regular
W Wide

D \ L	9.5	12.5	9.5	12.5
Type	Octa		Non-Octa	
				
Ø 4.8	SSCTIS**480**	SSCTIL**480**	SSCTIS**480N**	SSCTIL**480N**
Ø 6.0	SSCTIS**600**	SSCTIL**600**	SSCTIS**600N**	SSCTIL**600N**

Fixture Lab Analog

- Achieves a fixture of the oral cavity on a working model
- Achieves small groove for G/H identification

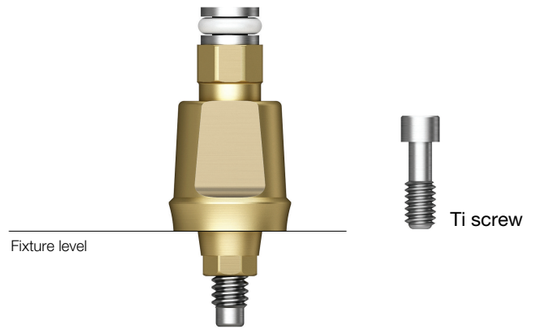
R Regular
W Wide

D	
	
Ø 4.8	SSFA**480**
Ø 6.0	SSFA**600**

Hanaro Abutment

- Has three functions: fixture mount, transfer impression coping, abutment
- Must use specialized screw when using as an abutment
- Shoulder contact with fixture platform region
- Gold coloring for aesthetics
- 1.2 hex driver
- Recommended tightening torque : 30 Ncm
- Packing unit : abutment + Ti screw + mount screw

Order made
Abutment + Ti screw + mount screw order code
: product code + **TH** (ex : SSHM480C**TH**)

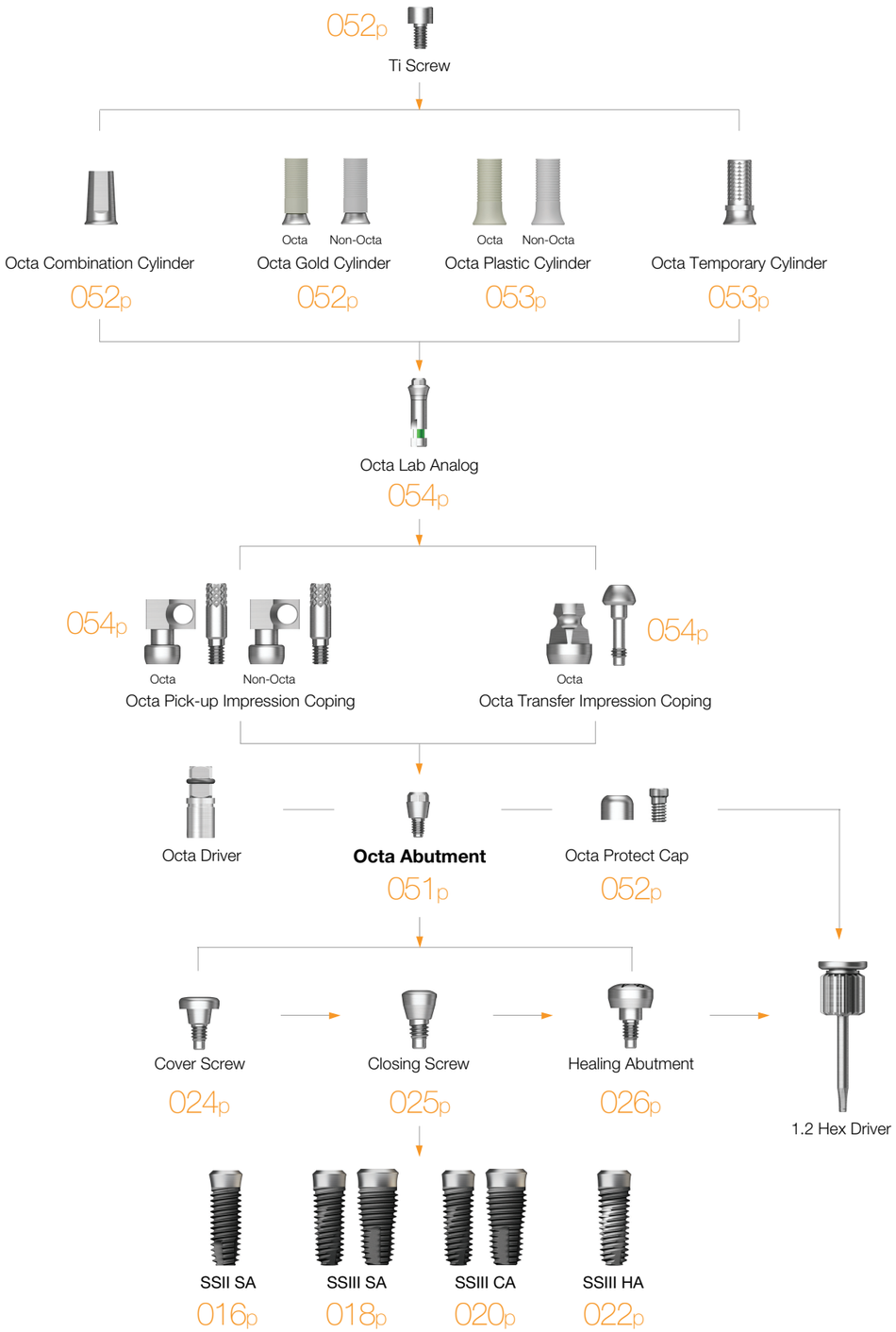


D Ø4.8	D Ø6.0
R	W
Ti screw : SSHAS	**Ti screw** : SSHAS
	
SSHM**480C**	SSHM**600C**

PROSTHETIC FLOW DIAGRAM 3

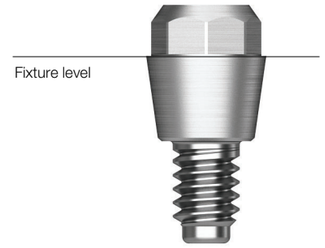
Octa

Abutment Level Impression



Octa Abutment

- Used in producing a screw-maintained prosthetic in bridge cases where path is not aligned
- Octa abutment driver (244p)
- Recommended tightening torque : 30Ncm



D ø4.8

R

SSOA**480**

D ø6.0

W

SSOA**600**

Octa Abutment Components

Octa Protect Cap

- Used when protecting an octa abutment in the oral cavity and minimizing foreign body sensation in the patient
- 1.2 hex driver
- Recommended tightening torque : 20Ncm
- Packing unit : protect cap + Ti screw

Protect cap + Ti screw order code
: product code + **TH** (ex : SSHC480**TH**)

R Regular
W Wide

D	
	
Ø 4.8	SSHC**480**
Ø 6.0	SSHC**600**

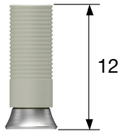
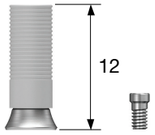
Ti screw
: SSFS **(Ø 4.8 / Ø 6.0)**

Octa Gold Cylinder

- Prosthetic must be produced by casting dental-grade gold alloy
- Cylinder region fusion range : 1400℃~1450℃ (casting with non-precious metal alloys is incompatible)
- 1.2 hex driver
- Recommended tightening torque : 20Ncm
- Packing unit : cylinder + Ti screw

Cylinder + Ti screw order code
: product code + **TH** (ex : SSGCO480**TH**)

R Regular
W Wide

D	Type	Octa	Non-Octa
			
Ø 4.8		SSGCO**480**	SSGCN**480**
Ø 6.0		SSGCO**600**	SSGCN**600**

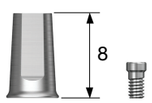
Ti screw
: SSFS **(Ø 4.8 / Ø 6.0)**

Octa Combination Cylinder

- Used in making a combination-retained prosthetic
- Inherent connection structure with two octa/non-octa advantages (max 60° path compensation)
- 1.2 hex driver
- Recommended tightening torque : 20Ncm
- Packing unit : cylinder + Ti screw

Cylinder + Ti screw order code
: product code + **TH** (ex : SSOCC480**TH**)

R Regular
W Wide

D	
	
Ø 4.8	SSOCC**480**
Ø 6.0	SSOCC**600**

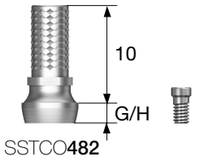
Ti screw
: SSFS **(Ø 4.8 / Ø 6.0)**

Octa Temporary Cylinder

- Used in producing temporary prosthetics (Material: Ti Gr-3)
- Structure enabling easy customization and minimizing indication restrictions
- Inherent connection structure with two octa/non-octa advantages (max 60° path compensation)
- 1.2 hex driver
- Recommended tightening torque : 20Ncm
- Packing unit : cylinder + Ti screw

Cylinder + Ti screw order code
: product code + **TH** (ex : SSTCO480**TH**)

R Regular
W Wide

D	G/H	0	2
			
Ø 4.8		SSTCO**480**	SSTCO**482**
Ø 6.0		SSTCO**600**	SSTCO**602**

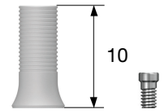
Ti screw
: SSFS **(Ø 4.8 / Ø 6.0)**

Octa Plastic Cylinder

- Prosthetic production by casting with dental-grade alloy (gold, non-precious metals) after customization
- Lower precision in connection area compared to gold cylinder
- 1.2 hex driver
- Recommended tightening torque : 20Ncm
- Packing unit : cylinder + Ti screw

Cylinder + Ti screw order code
: product code + **TH** (ex : SSPSO480**TH**)

R Regular
W Wide

D	Type	Octa	Non-Octa
			
Ø 4.8		SSPSO**480**	SSPSN**480**
Ø 6.0		SSPSO**600**	SSPSN**600**

Ti screw
: SSFS **(Ø 4.8 / Ø 6.0)**

Octa Abutment Components

Octa Pick-up Impression Coping

- Takes impression using open tray
- Superior impression stability with holinone structure
- 1.2 hex driver
- * Label is basic packaging specification
- Packing unit : impression coping body + guide pin

R Regular
W Wide

D \ L	Octa	Non-Octa	Guide Pin 10	Guide Pin 15
				
Ø 4.8	SSICO**480**	SSICN**480N**	SSGS**100**	SSGS**150***
Ø 6.0	SSICO**600**	SSICN**600N**		

Octa Transfer Impression Coping

- Takes impression using closed tray
- Packing unit : impression coping body + guide pin

R Regular
W Wide

D	
	
Ø 4.8	SSOTI**480**
Ø 6.0	SSOTI**600**

Octa Lab Analog

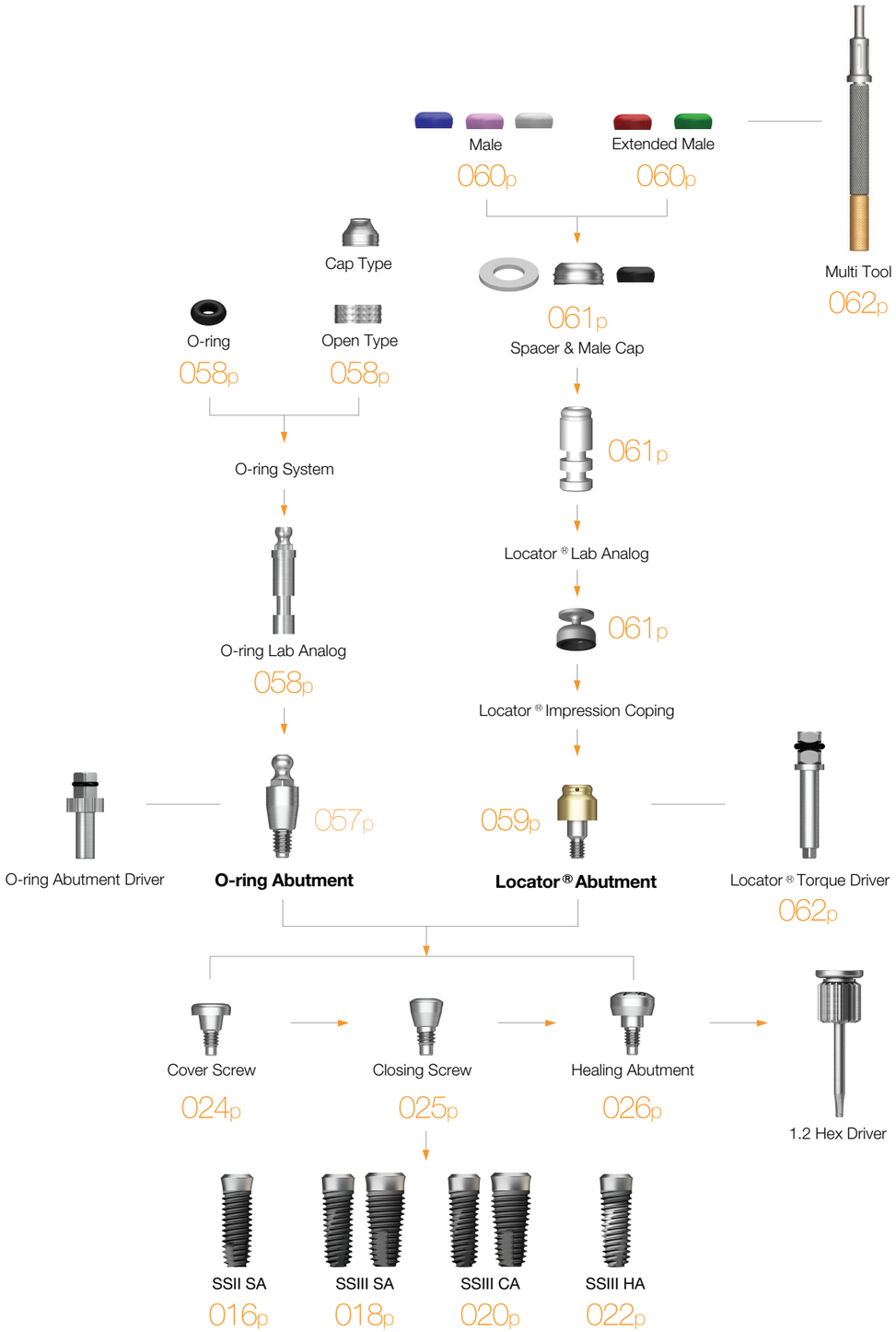
- Achieves octa abutment of the oral cavity on a working model
- Achieves small groove for G/H identification

R Regular
W Wide

D	
	
Ø 4.8	SSLA**480**
Ø 6.0	SSLA**600**

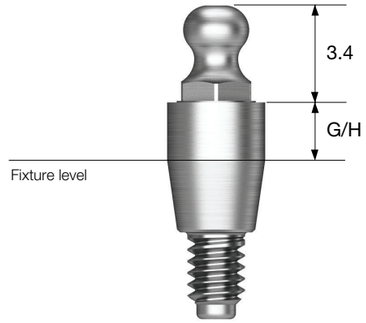
O-ring / Locator®

Overdenture



O-ring Abutment

- Used in creating stud type overdenture prosthetics
- Compensates the path up to 20°
- O-ring abutment driver를 사용 (AORD)
- Recommended tightening torque : 30Ncm



D ø4.8

R

G/H	0	2	4
	SSRA**000**	SSRA**200**	SSRA**400**

O-ring Abutment Components

O-ring Retainer Cap Set

- Used in creating stud type overdenture prosthetics
- Packing unit : retainer cap + o-ring

RCS01

O-ring Retainer Set

- Advantageous when occlusal clearance is low compared to retainer cap
- Packing unit : retainer + o-ring

RS01

O-ring Set

- Packing unit : 5ea

OAON01S

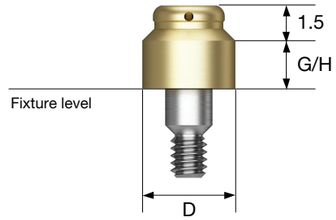
O-ring Lab Analog

- Achieves O-ring abutment of the oral cavity on a working model

OAL

Locator® Abutment

- Achieves low vertical dimension, stability, and various attachments with retention
- Possible path compensation up to 40° (two implant standard)
- Tightening by using a locator torque driver
- Recommended tightening torque : 30Ncm



D ø4.8

R

G/H	0.7	2.0	3.0	4.0
				
	HSLCA**4810R**	HSLCA**4820R**	HSLCA**4830R**	HSLCA**4840R**

Locator® Abutment Components

Locator® Male Processing Kit

- Component
  - Block out spacer / denture cap connected black processing male
  - Replacement male blue/pink/clear
- Used after selecting retention males that are appropriate for the case
- Exchanged with male using a locator core tool
- Packing unit : 2set

LMPS

Locator® Replacement Male

- Retention: Approximately 6N
- 0˚~20˚ paths (two implant standard)
- Packing unit : blue replacement male 4ea

LRM06S

- Retention: Approximately 12N
- 0˚~20˚ paths (two implant standard)
- Packing unit : pink replacement male 4ea

LRM12S

- Retention: Approximately 22N
- 0˚~20˚ paths (two implant standard)
- Packing unit : clear replacement male 4ea

LRM22S

Locator® Extended Replacement Male

- Retention: Approximately 6N
- 20˚~40˚ paths (two implant standard)
- Packing unit : red extended replacement male 4ea

LEM06S

- Retention: Approximately 12N
- 20˚~40˚ paths (two implant standard)
- Packing unit : green extended replacement male 4ea

LEM12S

Locator® Black Processing Male

- Used in lab. process
- Packing unit : 4ea

LBPS

Locator® Block Out Spacers

- Gap sealing component between denture cap and abutment
- Packing unit : 20ea

LBSS

Locator® Impression Coping

- Used in taking impressions after attaching locator abutment
- Packing unit : 4ea

LICS

Locator® Lab Analog

- Achieves locator abutment on the model
- Packing unit : 4ea

LAL50S

Locator® Abutment Components

Locator® Core Tool

- Used in attaching and changing replacement males

LCCT

Locator® Torque Driver

- Used in locator abutment tightening

Type	Short	Long
		
	TWLD**SK**	TWLD**LK**

Osstem Implant Key References

Clinic

No.	Title	Reference / Author
1	Retrospective clinical study of new tapered design implants in maxillary posterior areas	Oral Biology Research. 2013; 37(2):105-111 **/ Young-Kyun Kim et al.**
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 dentalImplants: 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.**
11	A comparison of implant stability quotients measured using magnetic resonance frequency analysis from two directions: prospective clinical study during the initial healing period	Clin. Oral Impl. Res. 2010;21(6):591-7 **/ Jong-Ho Lee et al.**
12	A short-term clinical study of marginal bone level change around microthreaded and platform-switched implants	J Periodontal Implant Sci. 2011;41:211-217 **/ Kyoo-Sung Cho et al.**
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.**
15	Evaluation of peri-implant tissue in nonsubmerged dentalImplants: a multicenter retrospective study	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2009;108(2):189-95 **/ Young-Kyun Kim et al.**
16	Evaluation of sinus bone resorption and marginal bone loss after sinus bone grafting and implant placement	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2009;107:e21-8 **/ Young-Kyun Kim et al.**
17	Evaluation of peri-implant tissue response according to the presence of keratinized mucosa	Oral Surg Oral Med Oral Pathol OralRadiol Endod. 2009;107:e24-8 **/ Young-Kyun Kim et al.**
18	Study on radiographic evaluation of marginal bone loss around osseonintegrated 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.**

Biology

No.	Title	Reference / Author
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.**
2	Experimental study about the bony healing of hydroxyapatite coating implants	J Kor Oral Maxillofac Surg. 2011;27(4):295-300 **/ Young-Kyun Kim et al.**
3	The use of autologous venous blood for maxillary sinus floor augmentation in conjunction with sinus membrane elevation: an experimental study	Clin. Oral Impl. Res. 2010;21:346-9 **/ Byung-Ho Choi et al.**
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.**
5	Morphogenesis of the peri-implant mucosa: a comparison between flap and flapless procedures in the canine mandible	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2009;107:66-70 **/ Byung-Ho Choi et al.**
6	A comparative study of two noninvasive techniques to evaluate implant stability: periotest and osstell mentor	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2009;107:513-8 **/ Su-Gwan Kim et al.**
7	Influence of abutment connections and plaque control on the initial healing of prematurely exposed implants: an experimental study in dogs	J Periodontol. 2008;79(6):1070-4 **/ Byung-Ho Choi et al.**
8	Er:YAG laser irradiated implant surface observation with scanning electron microscopy	J Korean Assoc Maxillofac Plast Reconstr Surg. 2008;30(6):540-5 **/ Seung-Ki Min et al.**
9	The effect of surface treatment of the cervical area of implant on bone regeneration in mini-pig	J Kor Oral Maxillofac Surg. 2008;34:285-92 **/ Hong-Ju Park et al.**

10	Histologic and histomorphometric evaluation of early and immediately loaded implants in the dog mandible	J Biomed Mater Res A. 2008;86:1122-7 **/ Su-Gwan Kim et al.**
11	Effects of different depths of gap on healing of surgically created coronal defects around implants in dogs: a pilot study	J Periodontol. 2008;79(2):355-61 **/ June-Sung Shim et al.**
12	Comparative study of removal effect on artificial plaque from RBM treated implant	J Korean Assoc Maxillofac Plast Reconstr Surg. 2007;29(4):309-20 **/ Hee-Jyun Oh et al.**

Biomechanics

No.	Title	Reference / Author
1	Evaluation of the correlation between insertion torque and primary stabilityof dental implants using a block bone test	J Periodontal Implant Sci. 2013;43:41-46 **/ Ki-Tae Koo et al.**
2	Self-cutting blades and their influence on primary stability of tapered dental implants in a simulated low-density bone model: a laboratory study	Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2011;112:573-580 **/ Young-Jun Lim et al.**
3	Variation in the total lengths of abutment/implant assemblies generated with a function of applied tightening torque in external and internal implant-abutment connection	Clin. Oral Impl. Res. 2011;22:834-9 **/ Ki-Seong Kim et al.**
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.**
5	Influence of implant diameter and length changes on initial stability	J Kor Acad Prosthodont. 2009;47:335-41 **/ Chang-Mo Jeong et al.**
6	Mechanical strength of zirconia abutment in implant restoration	J KASFO. 2009;25(4):349-60 **/ Young-Chan Jeon et al.**
7	Heat transfer to the implant-bone interface during preparation of zirconia/alumina complex abutment	Int J Oral Maxillofac Implants. 2009;24(4):679-83 **/ Yong-Geun Choi et al.**
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.**
9	Effect of tightening torque on abutment-fixture joint stability using 3-dimensional finite element analysis	J Kor Acad Prosthodont. 2009;47(2):125-35 **/ Chang-Mo Jeong et al.**
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.**
11	Influence of tungsten carbide/carbon coating of implant-abutment screw on screw loosening	J Kor Acad Prosthodont. 2008;46(2):137-47 **/ Chang-Mo Jeong et al.**

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 resterilized and therefore should be discarded.

Storage conditions

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

General precautions

Dental implant surgery require proper and formal training and education.

Cautions before dental surgery

Before dental implant surgery, a through 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/arthropathia and insufficient arch space.

Manufacturer : Osstem Implant Co., Ltd.
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TEL 82-51-850-2500 **FAX** 82-51-861-4693

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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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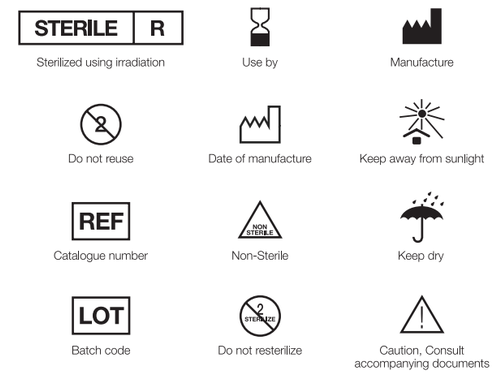

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