US SYSTEM CATALOG

Osstem Implant 2014-15 Comprehensive Catalog

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Supervision Implant Lab, Marketing PM

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O16 US SYSTEM

064 REFERENCE



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)





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

08 Obtained US FDA

certification

Implant Research Center

Launched USII implant

10 Launched SSII implant

12 Established the first incorporation stage of countries

2006

- 03 Changed company name to 02 Listed on KOSDAQ Osstem Implant Co., Ltd.
- **04** Obtained GOST-R certification in Russia
- overseas subsidiaries in 12

2007

- stock exchange and began trading
- 06 Obtained GOST-R certification in Russia
- 12 Selected nextgeneration products Obtained certification from Australia's Therapeutic Goods Administration

2008

- 01 Established Osstem's osteology research
- 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"

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

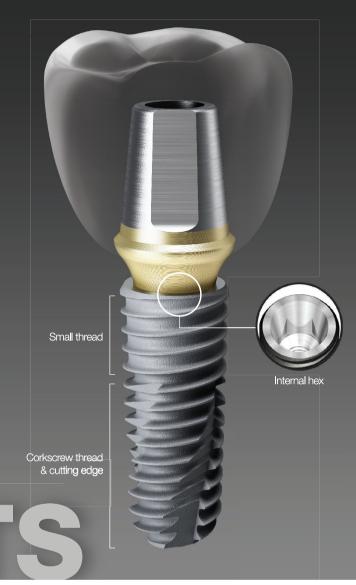
2012

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

OSSTEM⁶ 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.









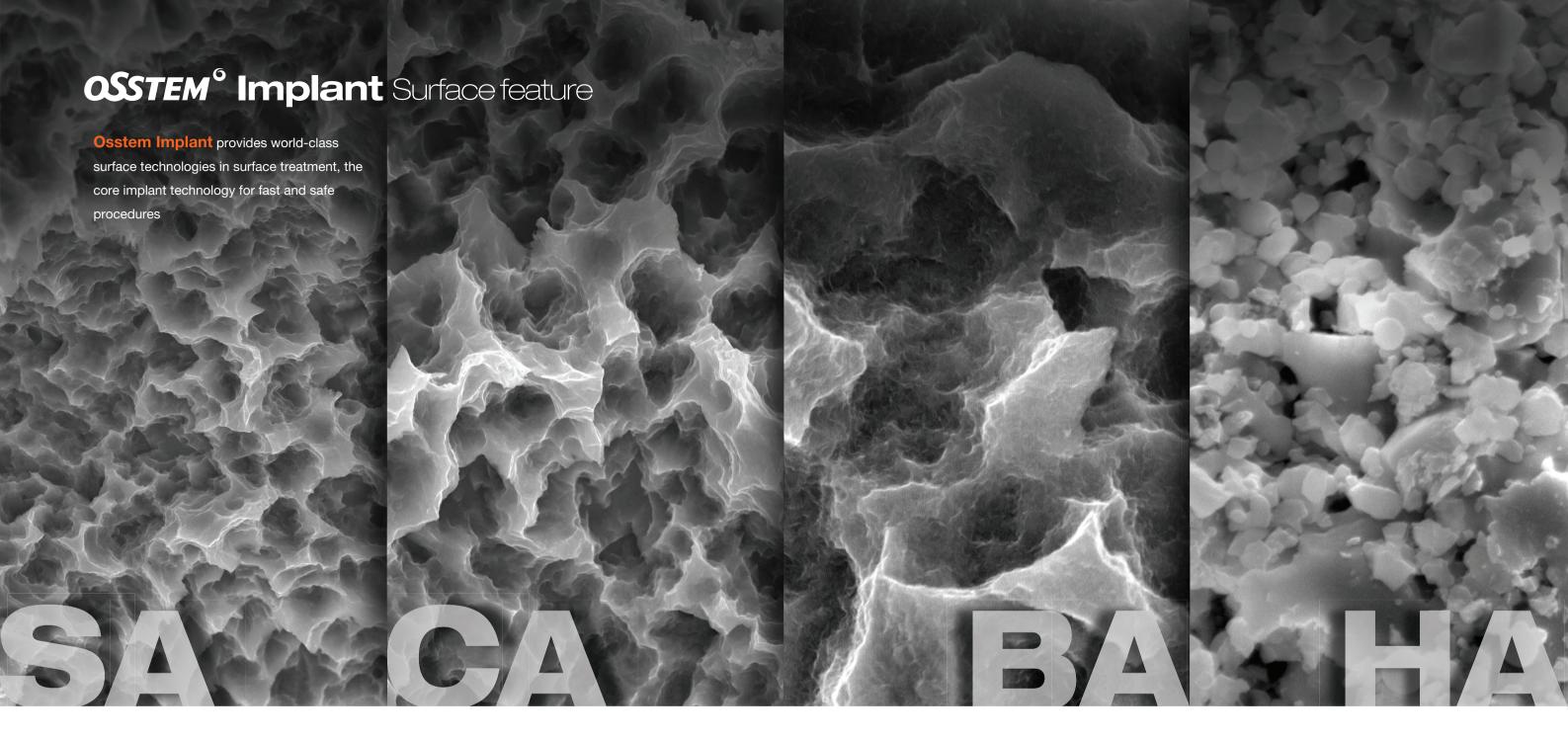


Packaging Color Information for Each System

- 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 uppersection 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
- \bullet 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



Provides optimum surface through acid treatment

- Provides Ra 2.5~3.0 $\mu\rm m$ surface roughness However, upper section 0.5mm area is Ra 0.5~0.6 $\mu\rm m$
- 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
- 30% improvement in ossification (BIC) compared to SA

Premium surface coated with high crystalline HA

- High crystalline HA coating 30~60 μ m 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

US SYSTEM Contents



052

Multi

Angled

056

Standard 4

Temporary

Cylinder

059

O-ring

 06°

Locator®

Abutment

063

Locator ®

Block Out

Spacers

Abutment

Abutment





FIXTURE

O16 USII SA Fixture

USIII SA Fixture

USIV SA FixtureSimple Mount

O22 Cover Screw

Headless Cover Screw

Healing Abutment

COMPONENTS

PROSTHETIC FLOW DIAGRAM 1

Cement Abutment

Angled Abutment

O30 UCLA Gold Abutment

UCLA NP-Cast AbutmentUCLA Plastic Abutment

UCLA Temporary Abutment

SmartFit Abutment

ZioCera Abutment

ZioCera Angled Abutment

Safe Abutment

PROSTHETIC FLOW DIAGRAM 2

Esthetic Abutment

Esthetic-low Abutment

052 Multi Angled Abutment054 PROSTHETIC FLOW DIAGRAM 3

Standard Abutment

PROSTHETIC FLOW DIAGRAM 4

O-ring Abutment

061 Locator®Abutment

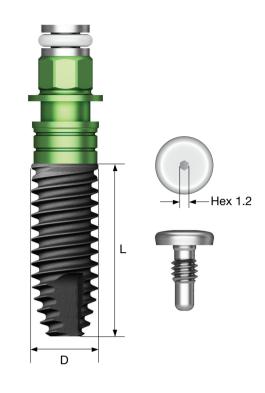
- Submerged type implant with external hex connection structure
- Optimum screw thread design for optimum SA surface
- Straight body design for easy adjustment of insertion depth
- Powerful self-threading effect using corkscrew thread
- Recommended insertion torque : 40Ncm ০|ক
- In single implant cases for posterior region, use of fixture at least 4.5mm
 in diameter is recommended

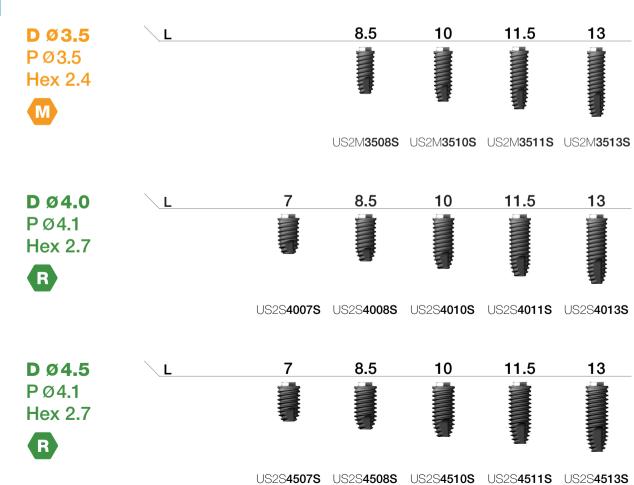
NoMount fixture order code

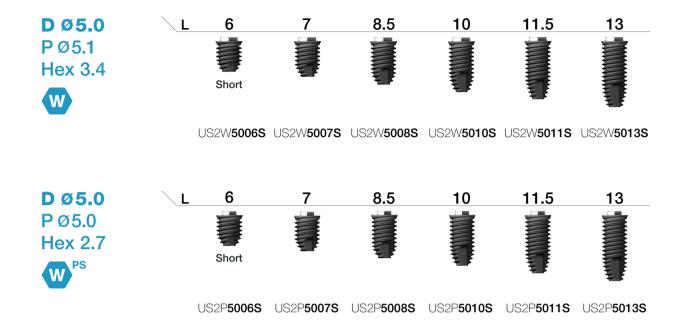
: fixture product code (ex : US2R4010S)

Pre-Mounted fixture order code (fixture + mount + cover screw)

: **A** + fixture product code (ex : **A**US2R4010S)







- Submerged type implant with external hex connection structure
- 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

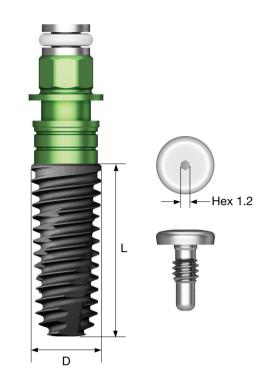
- In implant cases for posterior tooth extraction and immediate insertion, this fixture is useful in exchanging a failed implant
- With its optimized apex design, capable of extracting a tooth and obtaining initial stability safely even at the bottom 3mm
- Recommended insertion torque : 40Ncm 0|5|
- * In single implant cases for posterior region, use of fixture at least 4.5mm in diameter is recommended

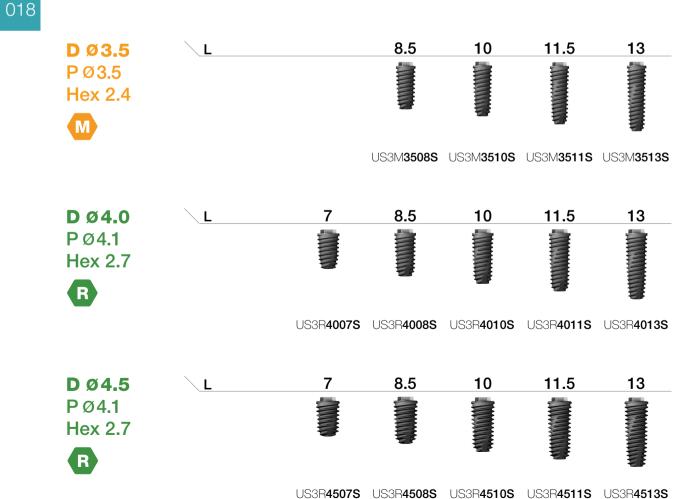
NoMount fixture order code

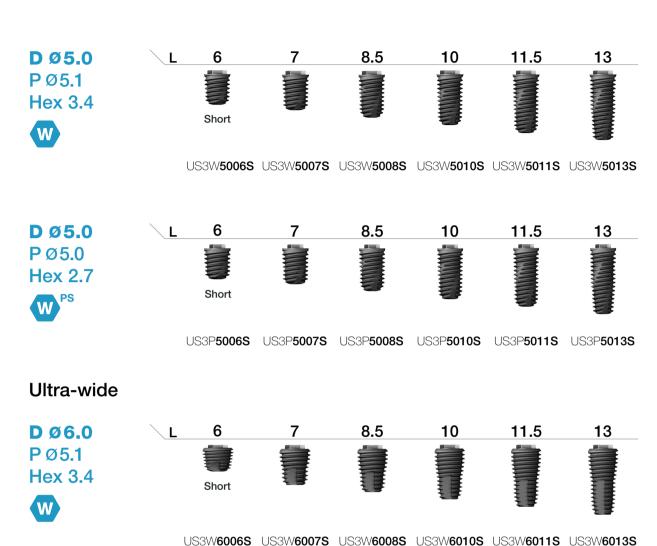
: fixture product code (ex : US3R4010S)

Pre-Mounted fixture order code (fixture + mount + cover screw)

: **A** + fixture product code (ex : **A**US3R4010S)

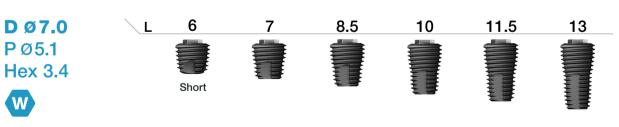








US3W7006S US3W7007S US3W7008S US3W7010S US3W7011S US3W7013S



implant insertion is possible

• Submerged type implant with external hex connection structure

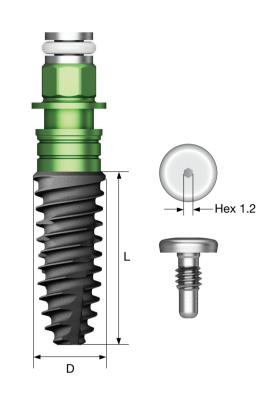
 W USIV fixture insertion is recommended at 15 rpm or lower due to large thread pitch and high insertion speed

NoMount fixture order code (fixture + mount + cover screw)

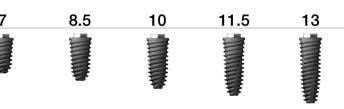
: fixture product code (ex : US4R4010S)

Pre-Mounted fixture order code (fixture + mount + cover screw)

: **A** + fixture product code (ex : **A**US4R4010S)



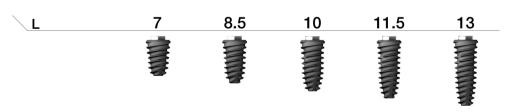






US4R4007S US4R4008S US4R4010S US4R4011S US4R4013S

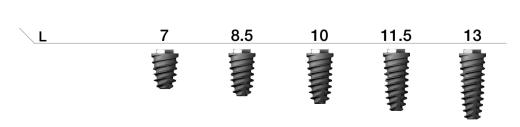






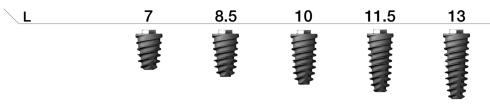
US4R**4507S** US4R**4508S** US4R**4510S** US4R**4511S** US4R**4513S**

D Ø 5.0 P Ø 5.1 Hex 3.4



US4W5007S US4W5008S US4W5010S US4W5011S US4W5013S

D Ø 5.0 P Ø 5.0 Hex 2.7



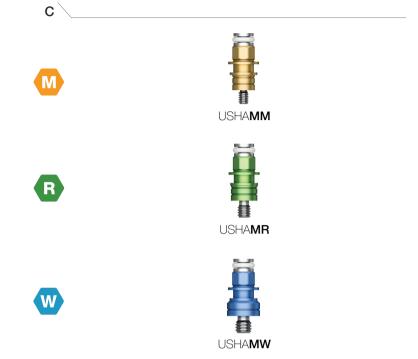
US4P5007S US4P5008S US4P5010S US4P5011S US4P5013S

• Packing unit : mount + mount screw

• C = Connection







Cover Screw

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









R

HC**R100**

W

HCW100

M

HCM100

\ C

Headless Cover Screw

- · Used when adjacent space is limited or there is insufficient gum tissue in the suture area
- Hex driver : 0.9(mini), 1.2(regular/wide)
- Recommended tightening torque : 5~8Ncm
- C = Connection







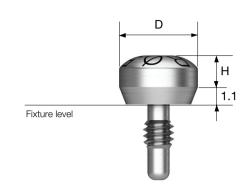


• Recommended tightening torque : 5~8Ncm

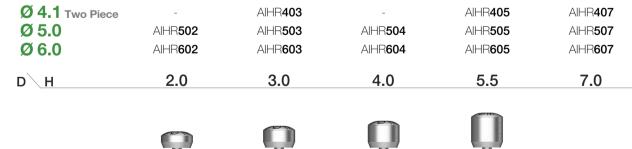








D\H	2.0	3.0	4.0	5.5	7.0
Ø 4.0	-	AIHM 403	-	AIHM 503	-
Ø 5.0	-	AIHM 405	-	AIHM 505	-
D <u>H</u>	2.0	3.0	4.0	5.5	7.0



AIOHR**403**

	#
Ø 5.1 One Piece	-
Ø 5.1 Two Piece	=
Ø 6.0	AIHW 602
Ø 7.0	AIHW 702
Ø 6.0 PS	

Ø 4.1 One Piece



AIHW603

AIHW703

TIHW603





TIHW605

AIOHR**405**

AIOHR**407**

Fixture Level Impression



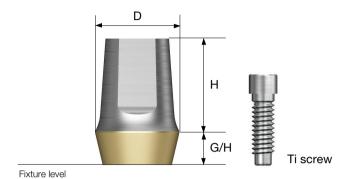
Cement Abutment

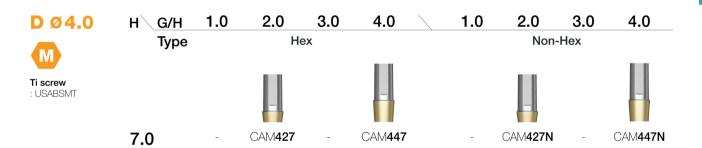
• Used in producing ordinary cement type prosthetics

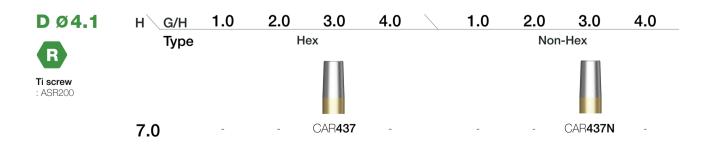
- Gold coloring on gingiva region for aesthetics
- 1.2 hex driver
- Recommended tightening torque : 30 Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code

: product code + TH (ex : CAR525TH)

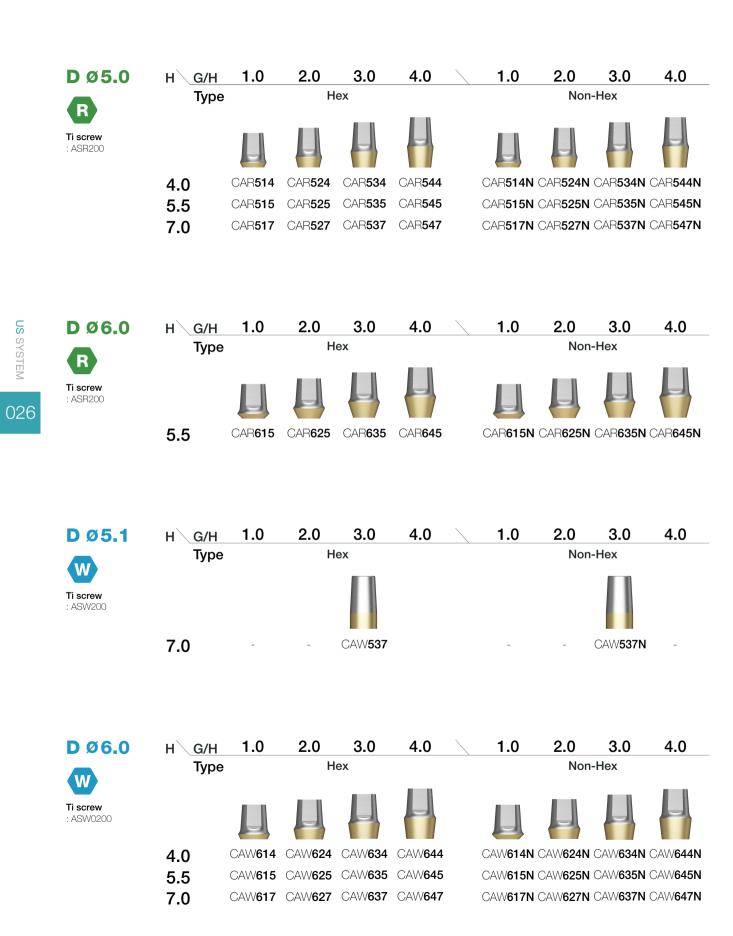


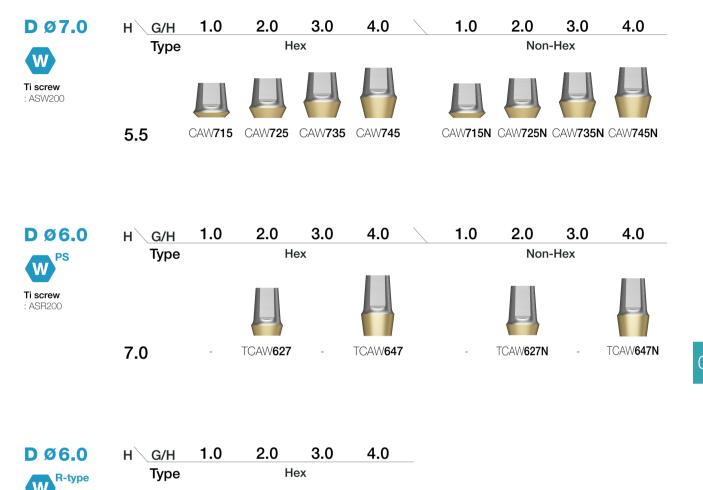




Cement Abutment

US SYSTEM





RCAW**647**

RCAW**627**

: RASW200

7.0

- Through double hex connection, abutment direction limit is
- 1.2 hex driver
- Recommended tightening torque : Ti screw 30Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code

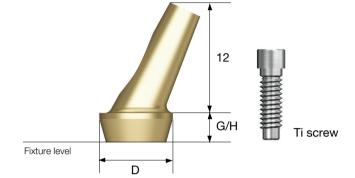
: product code + TH (ex : AAR5152CTH)

G/H

G/H

Angle

Angle



D Ø 4.0

Ti screw

AAM**4152C**

2.0

2.0

AAM**4154C**

15°

15°

4.0

2.0

25°

25°

25°

4.0

AAM**4252C**

AAM**4254C**

D Ø 5.0

R Ti screw : ASR200

AAR5152C

AAR5154C

4.0



2.0



AAR5254C

4.0

4.0

D Ø 6.0

G/H Angle 2.0 15°

4.0

2.0

: ASW200



AAW6154C





028



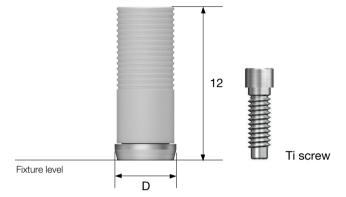
030

031

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

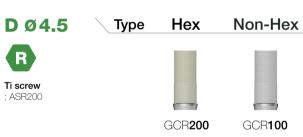
Abutment + Ti screw order code

: product code + TH (ex : GCR200TH)

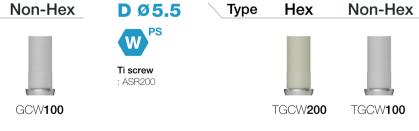


D Ø 4.0 Tyl









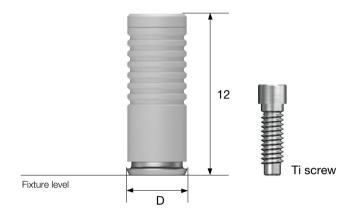


UCLA NP-Cast Abutment

- Used when path, aesthetics, or space have limitations
- Prosthetic production by casting with dental-grade non-precious metal alloy
- Abutment region fusion range : 1400°C~1550°C
- 1.2 hex driver
- Recommended tightening torque : 30 Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code

: product code + TH (ex : NCR200TH)



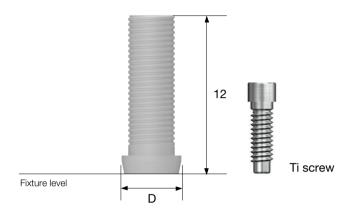


UCLA Plastic Abutment

- Used when path, aesthetics, or space have limitations
- Prosthetic production by casting with dental-grade alloy (gold, non-precious metals)
- Connection region's precision is reduced compared to UCLA gold abutment
- 1.2 hex driver
- Recommended tightening torque : 30 Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code

: product code + **TH** (ex : PSR200**TH**)

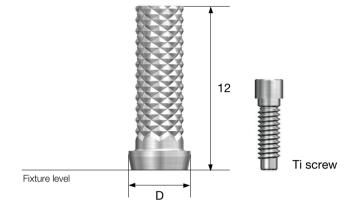


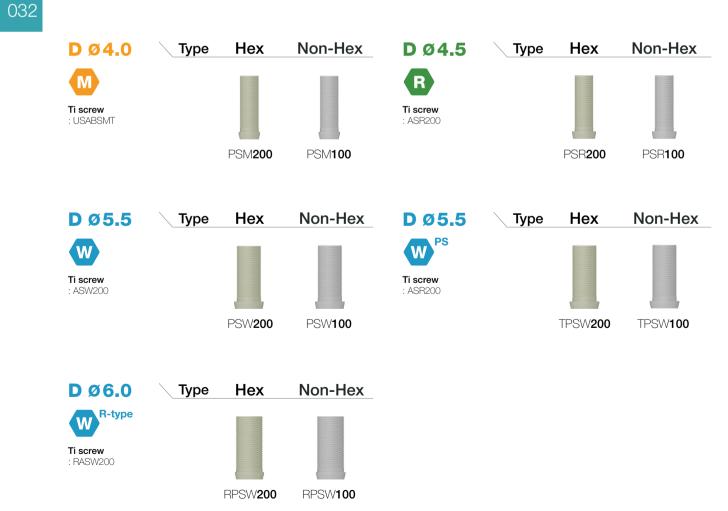
UCLA Temporary Abutment

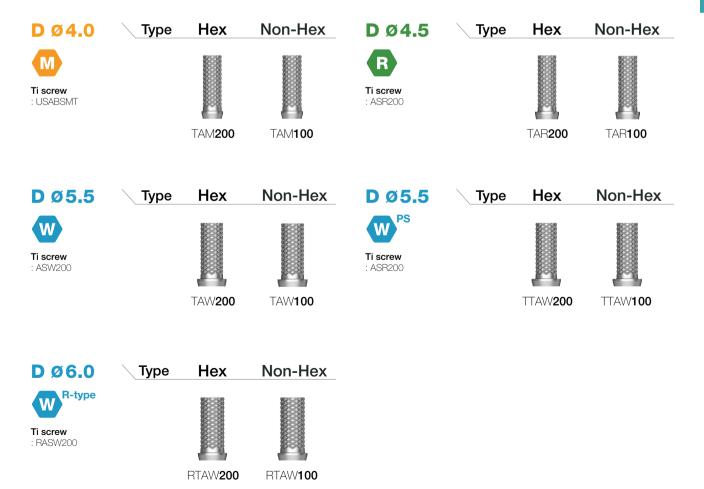
- Used in producing temporary prosthetics (Material: Ti Gr-3)
- Structure enabling easy customization and minimizing indication restrictions
- 1.2 hex driver
- Recommended tightening torque : 20 Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code

: product code + TH (ex : TAR200TH)







- 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







D\ L		7	1	12	10	Guide Pin 15	17
Туре	Hex	Non-Hex	Hex	Non-Hex			
							100 H
Ø 4.0	=	=	ICFM 400	ICFM 400N	=	CSM 150	=
Ø 5.0	ICSR500	ICSR 500N	ICFR 500	ICFR 500N	CSR 100	CSR 150*	CSR 170
Ø 6.0	-	-	ICFR600	ICFR600N	=	-	-
Ø 6.0	ICSW600	ICSW600N	ICFW600	ICFW 600N	CSW 100	CSW 150*	-
Ø 6.0 _{PS}	-	-	TICFW600	TICFW 600N	=	TCSW 150	-
Ø 6.0 _{R-type}	-	-	RICFW600	RICFW 600N	=	RCSW 150	-

Fixture Transfer Impression Coping

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



VI Wilni



W Wide

D\L	10.5			13	13.5	
Туре	Hex	Non-Hex	· · · · · · · · · · · · · · · · · · ·	Hex	Non-Hex	
Ø 4.0	ICPM 402S	ICPM 401S		ICPM 402L	ICPM 401L	
Ø 5.0	ICPR 502S	ICPR 501S		ICPR 502L	ICPR 501L	
Ø 6.0	ICPW 602S	ICPW 601S		ICPW 602L	ICPW 601L	
Ø 6.0 _{PS}	-	-		TICPW 602	TICPW 601	
Ø 6.0 _{R-type}	-	=		RICPW 602	RICPW 601	

034



C		_
M	FAM 300	
R	FAR 300	
W	FAW 300	
W PS	TFAW 300	
W R-type	RFAM 300	

UCLA Polishing Protector

• Used to prevent damage to connection part when polishing after casting a prosthetic



036



c \		
M	UPCM 100	
R	UPCR 100	
W	UPCW 100	
W PS	TUPCW100	
R-type	RUPCW100	

- 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

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

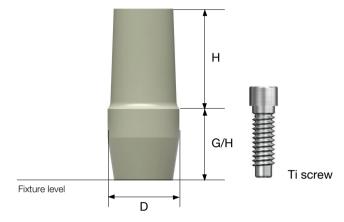




- 1.2 hex driver
- Recommended tightening torque : Ti screw 30Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code

: product code + **TH** (ex : ZAR537**TH**)



3.0

5.0

R Ti screw

D Ø **5.0** H G/H

7.0



3.0



5.0

ZAR**557**

D Ø 6.0 H G/H 3.0 5.0







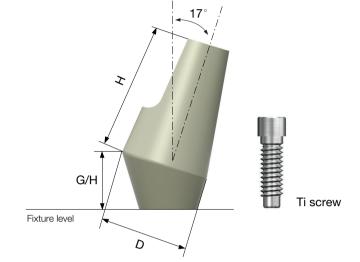


ZioCera Angled Abutment

- Used in producing aesthetic prosthetics with significant path adjustment
- Advantageous in aesthetic prosthetics due to having similar color with natural teeth
- Capable of screw restoration through direct build-up
- 1.2 hex driver
- Recommended tightening torque : 30Ncm(regular)
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code

: product code + TH (ex : ZAAR5173TH)



D Ø **5.5** H G/H

9.0







3.0

D Ø 6.5 H G/H R Ti screw

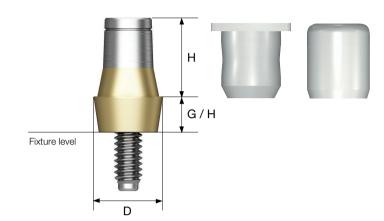
9.0

5.0

04-

Safe Abutment

- Used in producing single prosthetics for preventing screw loosening
- Prevents rotation of prosthetic with elliptical abutment body
- Gold coloring on gingiva region for aesthetics
- 1.2 hex drive
- Recommended tightening torque : 30Ncm
- Packing unit : abutment + Ti screw + carrier cap + protect cap



J40

D Ø 4.8





D Ø 6.0







USII SA

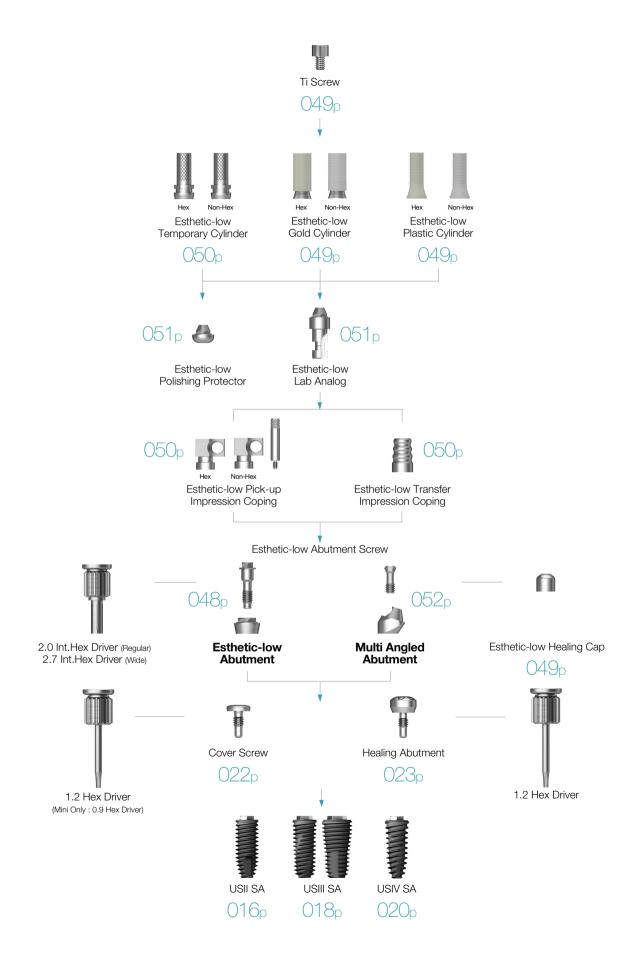
016p

USIII SA

018p

USIV SA

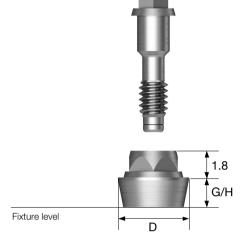
020p



- Compensates the path up to 30°
- 2.0 internal hex driver (241p)
- Recommended tightening torque : 30Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code

: product code + TH (ex : EAR200TH)



044





Esthetic Abutment Components

Esthetic Healing Cap

- Used when protecting aesthetic-low abutment in the oral cavity and minimizing foreign body sensation in patient
- 1.2 hex driver
- Recommended tightening torque: 20Ncm





Esthetic Gold Cylinder

- Prosthetic must be produced by casting dental-grade gold alloy
- Cylinder region fusion range : 1400° C~1450° C (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 : EGC200TH)





Esthetic Plastic Cylinder

- Produces prosthetics by casting with dental-grade alloy (gold, non-precious metals)
- Connection region's precision is reduced 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 : ETT200**TH**)





Esthetic Temporary Cylinder

- Used in producing temporary prosthetic with aesthetic abutment (Material: Ti Gr-3)
- Structure allows for easy customization and minimization of indication constraints
- 1.2 hex driver
- Recommended tightening torque : 20Ncm
- Packing unit : cylinder + Ti screw

Cylinder + Ti screw order code

: product code + TH (ex : ETT200TH)





Esthetic Pick-up Impression Coping

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





Esthetic Transfer Impression Coping

Takes impression using closed tray





Achieves aesthetic abutment of the oral cavity on a working model





Esthetic Polishing Protector

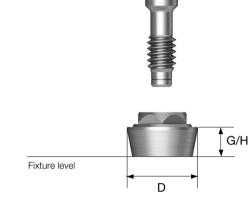
• Used with the goal of preventing damage to the connection area of cylinder when polishing after casting the prosthetic





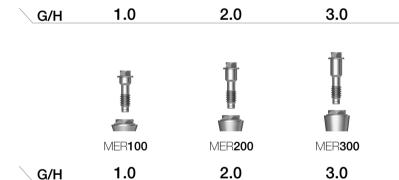
lower than aesthetic abutment

• Used when gap between opposing teeth is





048









TMEW100

G/H



TMEW200



MEW300

3.0

TMEW300

TMEW400

MEW400

4.0

MER**400**

4.0

Esthetic-low Healing Cap

- · Used when protecting aesthetic-low abutment in the oral cavity and minimizing foreign body sensation in patient
- 1.2 hex driver
- Recommended tightening torque : 20Ncm





Esthetic-low Gold Cylinder

- Prosthetic must be produced by casting dental-grade gold alloy
- Cylinder region fusion range : 1400° C~1450° C (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 : MGR200TH)





Hex

MEPR200

MEPW200

Hex

D Type

Non-Hex

Non-Hex

MEPR100

MEPW100

Esthetic-low 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 : MEPR200TH)





: MTS200 (Ø 4.8) : WTS200 (Ø 5.5/Ø 5.5PS)

Ø 4.8

Ø 5.5/Ø 5.5 PS

D Type

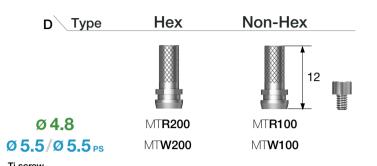
- 1.2 hex driver
- Recommended tightening torque : 20Ncm
- Packing unit : cylinder + Ti screw

Cylinder + Ti screw order code

: product code + **TH** (ex : MTR200**TH**)





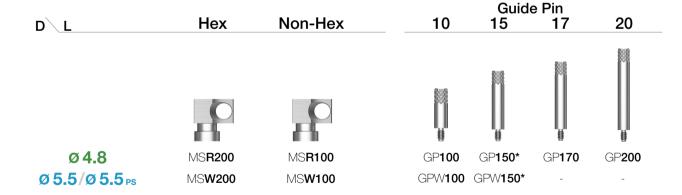


Esthetic-low Pick-up Impression Coping

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







: MTS200 (Ø 4.8)

: WTS200 (Ø 5.5/Ø 5.5PS)

Esthetic-low Transfer Impression Coping

8.0

• Takes impression using closed tray



W Wide

Ø 4.8 Ø 5.5/Ø 5.5 PS



· Achieves aesthetic abutment of the oral cavity on a working model





Esthetic-low Polishing Protector

• Used with the goal of preventing damage to the connection area of cylinder when polishing after casting the prosthetic





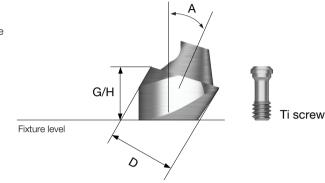
Ø 4.8 MPCR100 Ø 5.5/Ø 5.5 PS MPCW100

US SYSTEM

- Up to 60° path compensation (two implant standard)
- Prosthetic production using US aesthetic-low cylinder(non-hex)
- Recommended tightening torque : 20Ncm(mini), 30Ncm(regular)
- Packing unit : multi angled abutment + Ti screw

Abutment + Ti screw order code

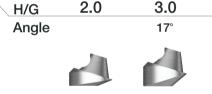
: product code + **TH** (ex : US17MAR4830**TH**)



D Ø 4.8



Ti screw



2.0 3.0 4.0 3.0 4.0 5.0 US17MAM**4820** US17MAM**4830**

D Ø 4.8



Ti screw



2.0



3.0

17°



4.0





4.0



US30MAR4830 US30MAR4840 US30MAR4850

H/G

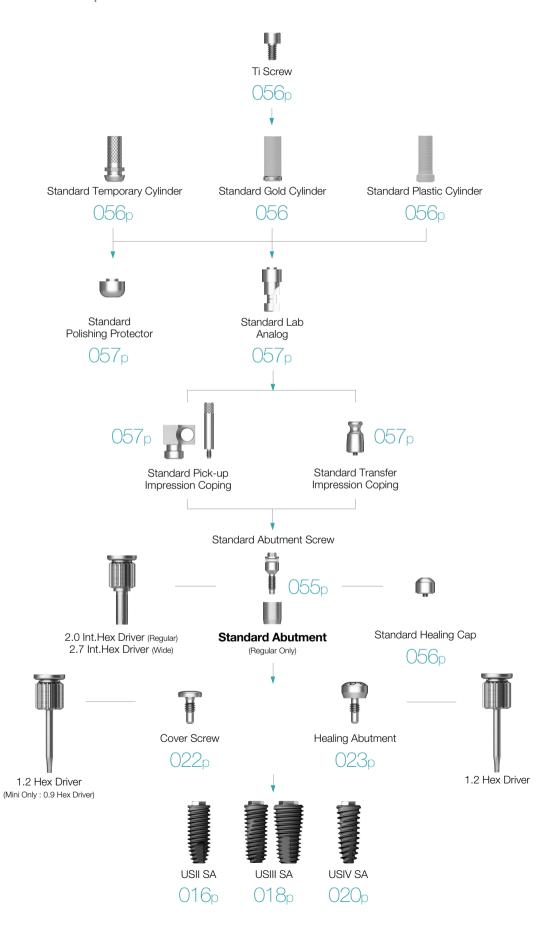
Angle

US17MAR4820 US17MAR4830 US17MAR4840

3.0

5.0

Abutment Level Impression

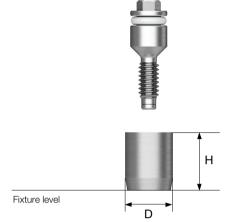


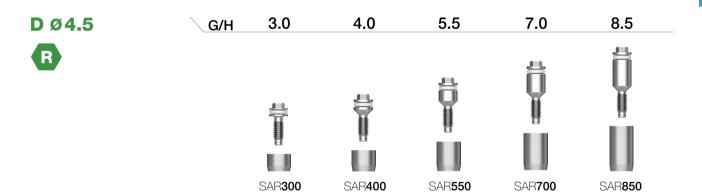
Standard Abutment

- Used in producing bridge prosthetics when requiring hybrid type denture or hygiene management
- Advantageous in oral hygiene after producing prosthetic along gum line
- 2.0 internal hex driver (241p)
- Recommended tightening torque : 30Ncm
- Packing unit : abutment + Ti screw

Abutment + Ti screw order code

: product code + **TH** (ex : SAR300**TH**)





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Standard Abutment Components

Standard Healing Cap

- Used when protecting standard abutment in the oral cavity and minimizing foreign body sensation in patient
- 1.2 hex driver
- Recommended tightening torque : 20Ncm



Standard Gold Cylinder

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

Cylinder + EbonyGold screw order code

: product code + **WH** (ex : SGC300**WH**)





Esthetic Plastic Cylinder

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

Cylinder + Ti screw order code

: product code + TH (ex : SPS100TH)



Standard Temporary Cylinder

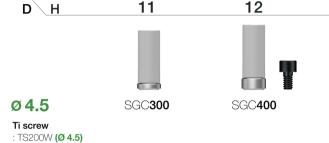
- Used in producing temporary prosthetic with standard abutment (Material: Ti Gr-3)
- Structure enabling easy customization and minimizing indication restrictions
- 1.2 hex driver
- Recommended tightening torque : 20Ncm
- Packing unit : cylinder + Ti screw

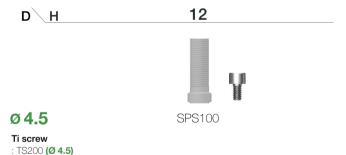
Cylinder + Ti screw order code

: product code + TH (ex : SPS100TH)











R Regular

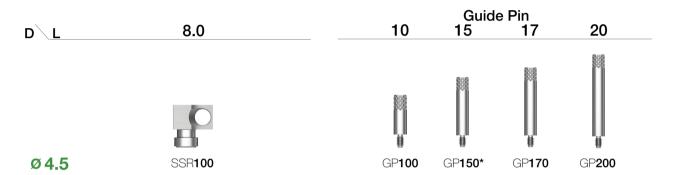
Standard Pick-up Impression Coping

• Superior impression stability with holinone structure

• Packing unit: impression coping body + guide pin

• Takes impression using open tray

• *Label is basic packaging specification



D

Standard Transfer Impression Coping

• Takes impression using closed tray





Standard Lab Analog

· Achieves standard abutment of the oral cavity on a working model



Standard Polishing Protector

• Used with the goal of preventing damage to the connection area of cylinder when polishing after casting the prosthetic







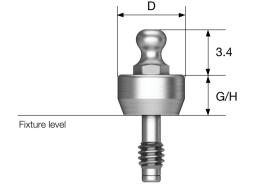
O-ring Abutment

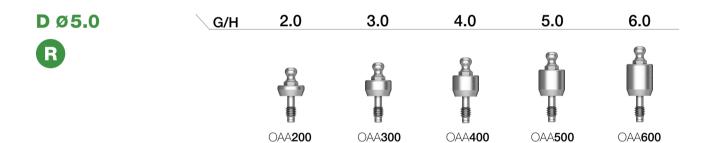
• Used in creating stud type overdenture prosthetics

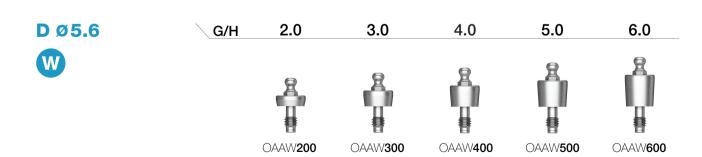
• Compensates the path up to 20°

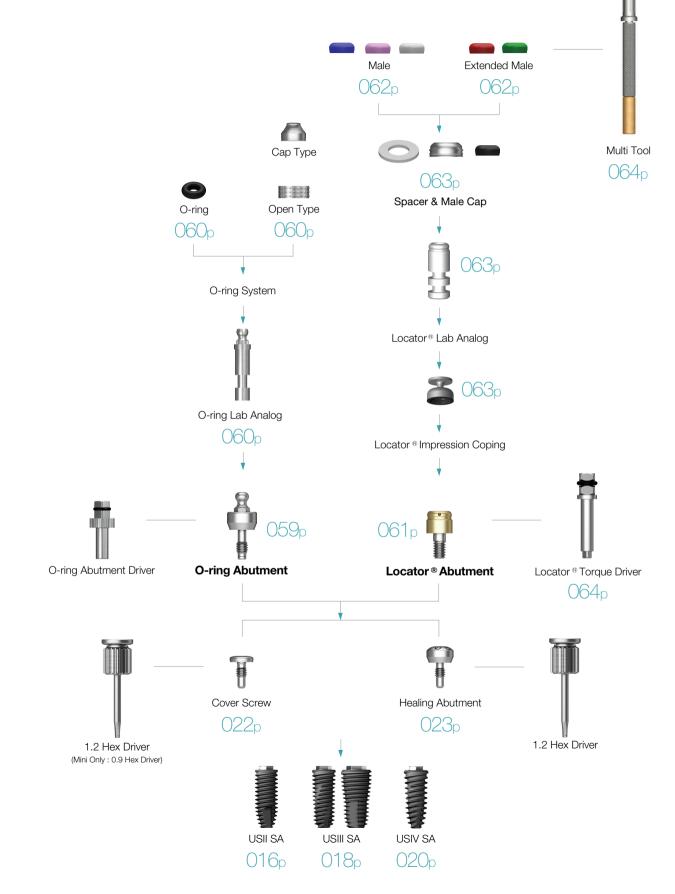
Uses O-ring abutment driver (AORD)

• Recommended tightening torque : 30Ncm









060

061

Locator® Abutment

O-ring Retainer Cap Set

• Used in creating stud type overdenture prosthetics

O-ring Abutment Components

• Packing unit : retainer cap + o-ring





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

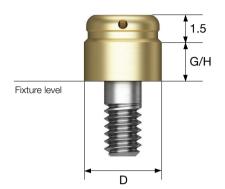
O-ring Lab Analog

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



· Achieves low vertical dimension, stability, and various attachments • Possible path compensation up to 40° (two implant standard)

- Tightening by using a locator torque driver
- Recommended tightening torque : 30Ncm





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
- Exchanged with male using a locator core tool
- Packing unit : 2set

Locator® Replacement Male

- Retention: Approximately 6N
- 0°~20° paths (two implant standard)
- Packing unit : blue replacement male 4ea
- Retention: Approximately 12N
- 0°~20° paths (two implant standard)
- Packing unit : pink replacement male 4ea
- Retention: Approximately 22N
- 0°~20° paths (two implant standard)
- Packing unit : clear replacement male 4ea

LMPS

LRM06S

LRM12S

LRM22S

Locator® Extended Replacement Male

- Retention: Approximately 6N
- 20°~40° paths (two implant standard)
- Packing unit : red extended replacement male 4ea
- Retention: Approximately 12N
- 20°~40° paths (two implant standard)
- Packing unit : green extended replacement male 4ea

LEM06S



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



Locator® Impression Coping

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



Locator® Lab Analog

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



LAL40S

Locator ® Core Tool

• Used in attaching and changing replacement males



Locator ® **Torque Driver**

• Used in locator abutment tightening





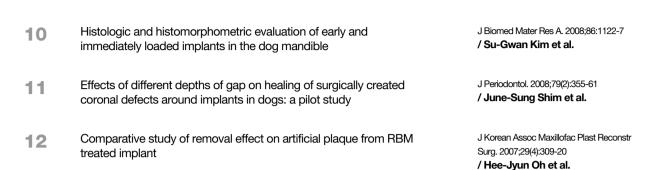
Osstem Implant Key References

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 dentallmplants: 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 dentallmplants: 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.



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.

User Manual 2013.02 ver.4.0 "Disposable, re-use prohibited, medical appliance"

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

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 hone 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 natients
- 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
- Patients with an incurable malocclusion/arthropathia and insufficient arch space.

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

DEUTSCHE OSSTEM GmbH.





(2)

Do not reuse













LOT









Rx only For USA only: Federal law restricts this

EC REP

Mergenthalerallee 25

65760 Eschborn, Germany +49-(0)6196-777-550

Storage condition Dry place at room temperature

device to sale by or on the order of a dentist





Caution, Consult accompanying documents

