

# This is



**iSy® Implant System**

Surgical and prosthetic procedures



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# iSy® Options





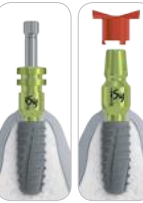



Optimal prosthetic restoration options offer the user a variety of different perspectives and ensure the all-round efficiency of the iSy® Implant System.

The iSy® Implant is inserted via the implant base already pre-mounted to the implant. Healing with the appropriate iSy® Components and the prosthetic restoration can be performed optionally on the implant base already pre-mounted in the implant, or also directly on the implant shoulder without the base.

## Procedure with iSy® Implant base

							
Implant insertion with pre-mounted implant base	Transgingival healing	Temporary restoration	Impression taking, conventional and digital	Intraoral scan with iSy® Scan adapter for Sirona Scanbody	Bite registration	Cast fabrication	Final restoration
Page 11	Page 12	Page 24	Pages 21–23	Page 33	Page 23	Page 35	

## Procedure on iSy® Implant shoulder without implant base

							
Removing the implant base	Transgingival healing	Subgingival healing	Temporary restoration	Impression taking, open and closed tray	Digital impression taking	Cast fabrication	Final restoration
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# iSy® Overview

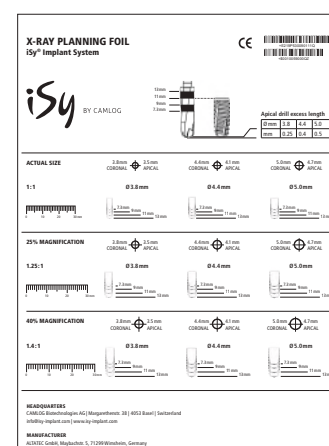
## Implant-set

iSy® Implants are available in three diameters and four lengths:  
 Implant diameter (A): 3.8 mm, 4.4 mm and 5.0 mm  
 Implant lengths (L): 7.3 mm, 9 mm, 11 mm and 13 mm

Implant diameter (A)	Implant core diameter (B)	Apical implant diameter (C)
3.8 mm	3.3 mm	3.5 mm
4.4 mm	3.9 mm	4.1 mm
5.0 mm	4.5 mm	4.7 mm

The sets include the specific consumables required for implantation:

	Single pack implant-set	4-pack implant-set
<b>Implants</b> (pre-mounted with implant base)	1	4
<b>Gingiva former, cylindrical (PEEK)</b>	1	4
<b>Multifunctional caps (PEEK)</b>	2	8
<b>Single patient form drill</b>	1	1
<b>Cover cap</b>	1	4



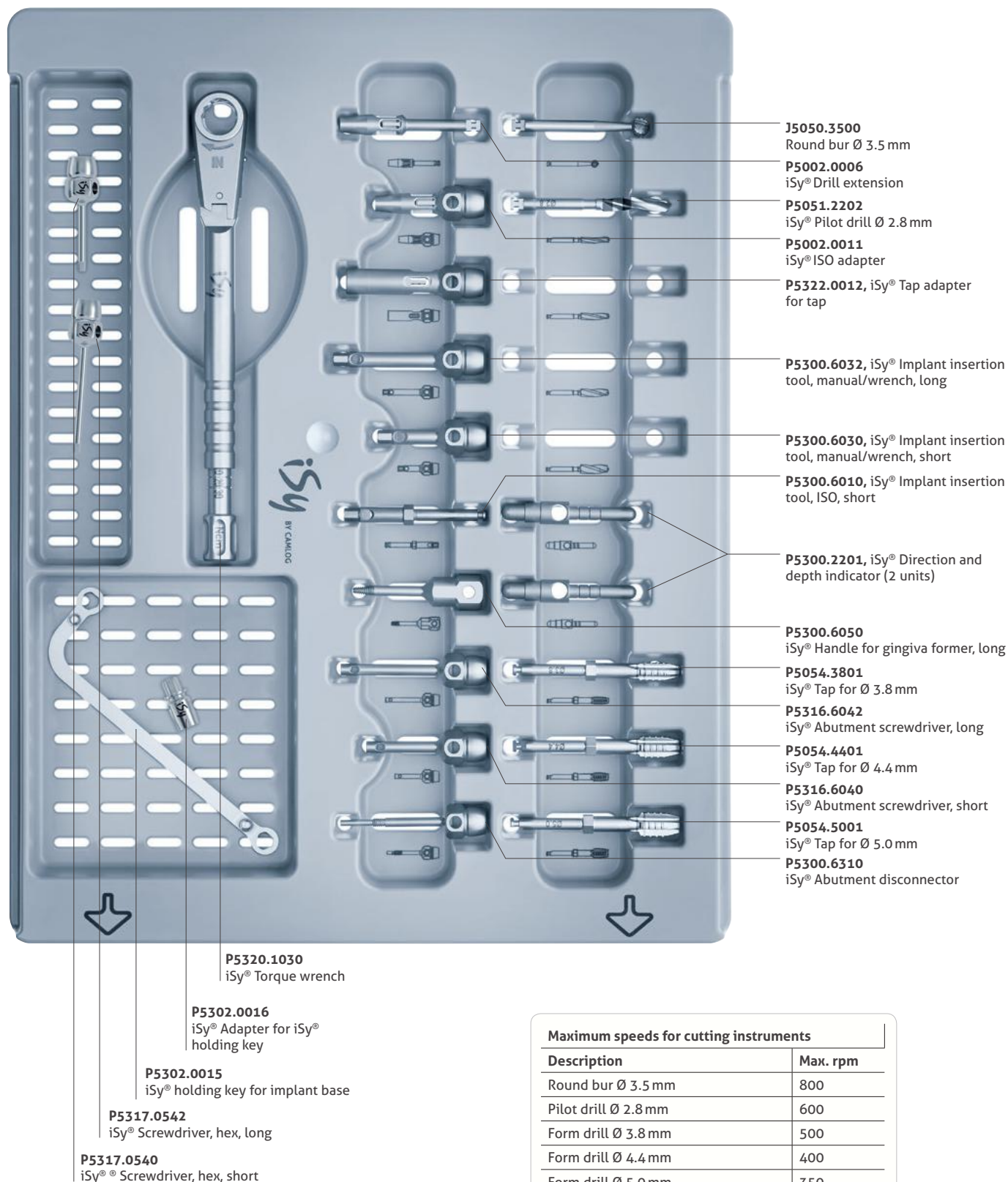
An X-ray planning foil with 1:1, 1.25:1 and 1.4:1 scales is available to check the dimensions in the OPG.

The implant-sets are supplied sterile in cartons of one or three blisters. Each blister has three cavities to be opened independently. The contents of the closed cavities are sterile. The implants are supplied in a holder and are pre-assembled with an implant base fixed with an abutment screw. The Gingiva former is also positioned on the same holder. The single patient form drill is supplied attached to a holder. Two multifunctional caps each and a cover cap are packaged together in one cavity.



# Instruments

The iSy® Surgical and prosthetic set includes the specific surgical instruments required for implant bed preparation and is autoclavable with the inserted instruments.



## Maximum speeds for cutting instruments

Description	Max. rpm
Round bur Ø 3.5 mm	800
Pilot drill Ø 2.8 mm	600
Form drill Ø 3.8 mm	500
Form drill Ø 4.4 mm	400
Form drill Ø 5.0 mm	350
Tap Ø 3.8/4.4/5.0 mm	15

# Compatibility

## Insertion tools, handles and screwdrivers

			
<p>iSy® Implant insertion tool, manual/wrench, extra short, short, long, with ISO shaft, for:</p>	<p>iSy® Handle for iSy® Gingiva former and caps, short, long, for:</p>	<p>iSy® Screwdriver, hex, manual/wrench, extra short, short, long, ISO shaft, short, long, for:</p>	<p>iSy® Abutment screwdriver, extra short, short, long, for:</p>
 <p>iSy® Implant with screw-retained implant base</p>	 <p>iSy® Gingiva former, cylindrical (PEEK)</p>	 <p>iSy® Impression post, open and closed tray (titanium alloy)</p>	 <p>iSy® Implant and lab base (titanium alloy)</p>
 <p>iSy® Multifunctional cap (PEEK)</p>	 <p>iSy® Esthomic® Healing cap (titanium alloy)</p>	 <p>iSy® Abutments (titanium alloy)</p>	 <p>iSy® Cover cap (PEEK)</p>
 <p>iSy® Cover screw (titanium alloy)</p>	 <p>iSy® Scanbody on implant (PEEK)</p>	 <p>iSy® ScanPost for Sirona (titanium alloy)</p>	

PEEK (Poly ether ether ketone)  
Titanium alloy (Ti6Al4V ELI)



# Planning the implant position

## Indications

Implants of the iSy® Implant System are intended for endosseous implantation in the maxillary or mandibular jaw. The implants can be loaded immediately if the primary stability achieved for functional loading is adequate. Prosthetic restoration can be performed with crowns, bridges or full dentures.

### Note:

Additional indication restrictions apply to iSy® Implants with a length of 7.3 mm: These implants should only be used when there is not enough space for a longer implant. These implants are indicated for delayed loading in single-tooth restorations. If the ratio of crown length to implant length is unfavorable, the biomechanical risk factors have to be considered and appropriate measures have to be taken by the dental professional. Immediate loading is not recommended in the case of single-tooth restorations on implants with a length of 7.3 mm.

### Warning:

Implants with small diameters and angled abutments are not recommended for use in the molar region.

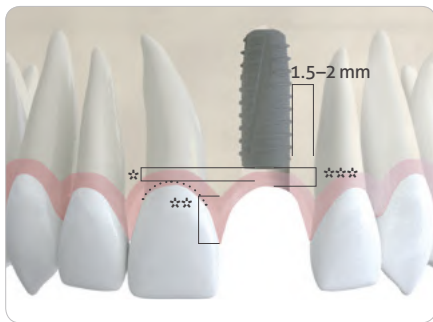
## Healing phase

The selected healing technique is transgingival or submerged. The healing phase should last at least 6 weeks in good bone quality and 12 weeks in cancellous bone quality. These values apply to both maxilla and mandible.

## Single crowns

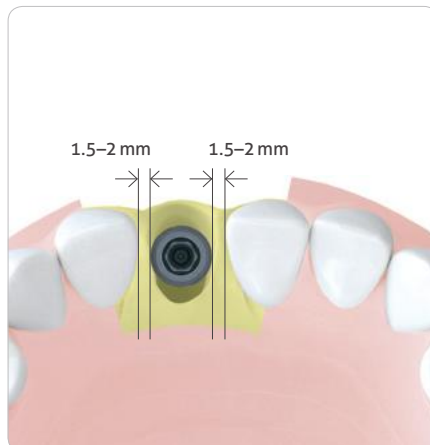
A restoration with single crowns includes all the benefits possible with a perio-prosthetic rehabilitation:

- Good preconditions for natural-looking esthetics
- Hygiene friendliness
- Technically simple fabrication
- Easy to expand / modify

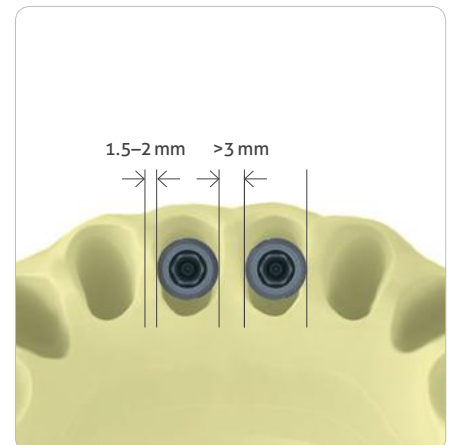


Vertical implant position

- \* 2–3 mm implant shoulder up to the cemento-enamel junction
- \*\* 5 mm bone level up to the approximal contact point
- \*\*\* 3–4 mm implant shoulder up to the gingival margin



Mesio-distal implant position at bone level



Distances at bone level



### Esthetics

For an optimal esthetic restoration, the harmonious course of the gingiva, the optimal implant position, both vertically as well as orofacially and mesio-distally, a physiological crown shape and the presence of interdental papillae are important. When planning, the instructions for the hard tissue configurations to be maintained and for soft tissue management must be observed.

### Splinted crowns

If leverage ratios on the implant are unfavorable, either a longer implant must be selected or when not possible anatomically, adjacent crowns can be splinted. If splinting is required, hygiene must be ensured.

The preparation of the abutments must ensure the common insertion direction for the crown block. The implant-abutment connection may not be altered.

### Bridge constructions

At positions where implantation is not possible, implant-borne bridges can be inserted. Implant distribution should be structured in such a way that spanned segments are kept small.

Development of a uniform insertion direction for the bridge pillars should be part of the abutment preparation. The implant-abutment connection may not be altered.

### Removable restorations

A hybrid prosthesis can be borne implant-retained, mucosa-supported and implant-supported.

The aim is a tension-free fit of the prosthesis. When planning a removable design, the position of the implants should allow expansion to a fixed restoration.



**Wax-up / Set-up**

The wax-up or set-up is fabricated on the diagnostic cast in the dental laboratory. In this way, the optimal tooth position from an esthetic and functional perspective can be planned. A possible discrepancy between an atrophic jawbone and the required prosthetic size and position of the restoration is used for the diagnosis of necessary augmentative measures.

A planning template is fabricated to review the planned implant positions in the mouth. This template can later be converted to a drilling template for pilot drilling.

For the preliminary design of the prosthetic restoration, the dental technician first fabricates a complete wax-up/set-up with all missing teeth in an ideal prosthetic position. In terms of "backward planning", no consideration is initially shown for possible anatomical deficits. The goal of treatment determines the surgical-prosthetic procedure.

A silicone index is fabricated over the set-up. After hardening, the index is divided along the central occlusion to form a vestibular and an oral section similar to an anterior wall.

An acrylic template can be fabricated with the aid of the silicone index. Alternatively, a rigid thermoforming sheet can also be used over a duplicate cast. Depending on the radiological evaluation process, radio-opaque marker elements are integrated (e.g. titanium, steel, barium sulfate coating).

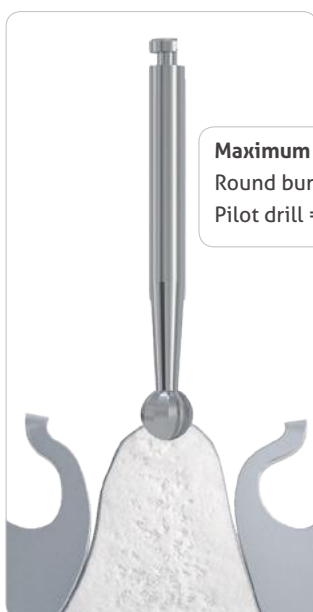
## Opening

The indication example demonstrates insertion of an iSy<sup>®</sup> Implant, size Ø 4.4 mm and length 11 mm in the lateral mandible. After marking the required position of the implant (using a drilling template if necessary), the periosteum is removed circularly in the area of this position only. The implant bed is designed with the instruments intended for the iSy<sup>®</sup> Implant based on the implant diameter selected.



## Implant bed preparation

The round bur Ø 3.5 mm is used to center-punch the cortical bone, making it easier to place the drill to be used later. The ball is plunged to its equator. A point drill can also be used as an alternative to center-punching. However, when drilling, the existing anatomical structures need to be taken into account. The pilot drill (Ø 2.8 mm) is used to determine the depth and axis of the implant site. Two block marks indicate the drilling depth on the pilot drill. In each case, the upper and lower edges of the two marks correspond to the 7.3/9/11/13 mm long implants (see graph on right). The direction and depth indicator is used to check the depth and direction of the implant site. To prepare the implant bed in the vicinity of elongated teeth, a drill extension is available to avoid placing the angled handpiece on the residual teeth. Make sure there is adequate cooling when drilling. Intermittent drilling is recommended.



Round bur Ø 3.5 mm



Pilot drill Ø 2.8 mm



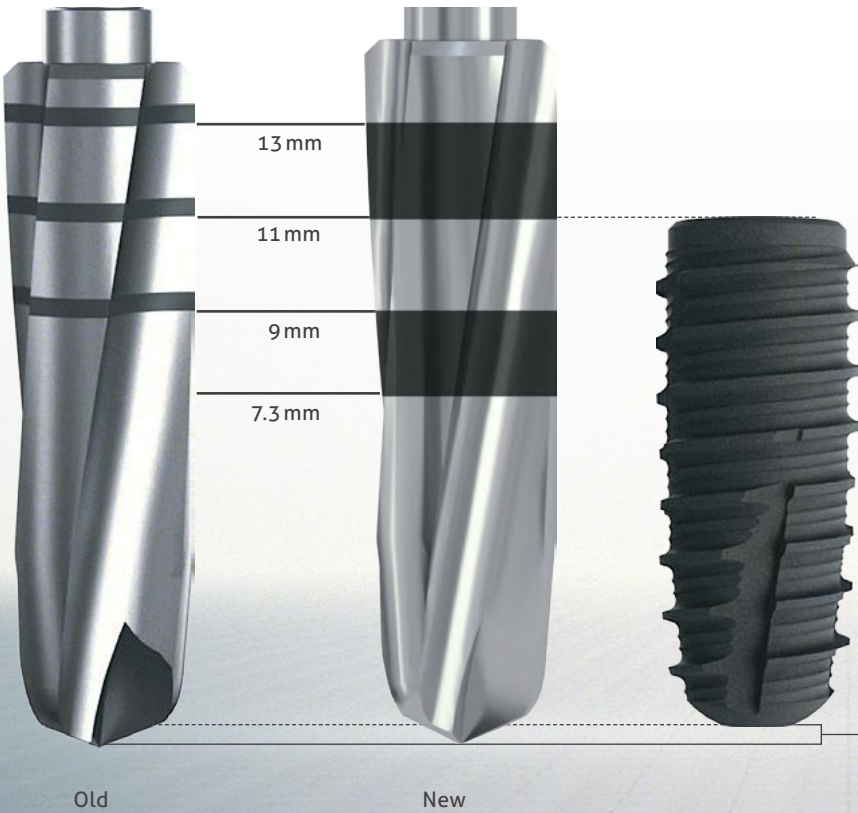
Direction and depth indicator

**Maximum speeds:**  
Round bur = 800 rpm  
Pilot drill = 600 rpm

# Form drilling

The angled handpiece can be used to remove the single patient form drill supplied with the implant from the holder directly. Pull the drill out of the holder at a slight angle. The single patient form drill is used to widen the implant bed to the planned diameter. Two block marks indicate the drilling depth on the single patient form drills. In each case, the upper and lower edges of the two marks correspond to the 7.3/9/11/13 mm long implants (see graphs). The direction and depth indicator is used to check the depth and direction of the implant site.

**Maximum speeds:**  
 Form drill Ø 3.8 mm = 500 rpm  
 Form drill Ø 4.4 mm = 400 rpm  
 Form drill Ø 5.0 mm = 350 rpm



Form drilling

Apical excess drill length

Ø mm	3.8	4.4	5.0
mm	0.25	0.4	0.5

## Excess drill length

Preparation according to the protocol using the single patient form drill is up to 0.5 mm longer than the implant. It must be ensured that this additional length does not injure important anatomical structures.

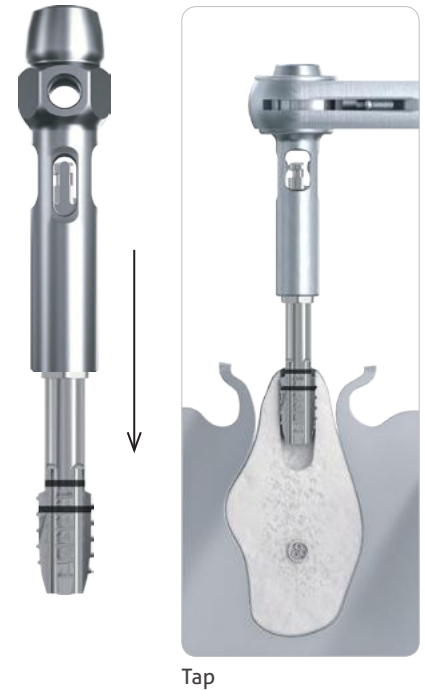
### Optional: Tapping

If the bone quality is 1 or 2 (Lekholm & Zarb 1985\*), you may need to cut the thread with the tap. Insert the tap maximal to the upper edge of the cutting work element, for 7.3 mm long implants only up to the first mark. The tap adapter and locked torque wrench are used to manually cut the thread. Pay attention to the axial alignment of the implant bed when inserting and removing the tap. Alternatively, the thread can be cut by machine at 15 rpm.

#### Maximum speeds:

All taps  $\varnothing$  = 15 rpm

\* Lekholm U, Zarb GA. Patient selection and preparation. In: Brånemark PI, Zarb GA, Albrektsson T, editors. Tissue-integrated prostheses-Osseointegration in Clinical Dentistry. Chicago: Quintessence Publishing Co; 1985. p. 199–209.



Tap

## Implant insertion

There are two options for inserting the implant:

- Power-assisted insertion (max. 15 rpm)
- Manual insertion with torque wrench

The iSy® Implant insertion tool with ISO shaft or manual/wrench can be used optionally to remove the implant from the holder directly. For that purpose the tool is inserted into the implant base. The insertion tool audibly snaps into place under slight pressure.

#### Note:

Do not use an iSy® Abutment screwdriver for insertion of the implant!



The implant is then pulled out of the holder laterally and transferred to the implant bed. Pay attention to the axial alignment of the implant bed. If the thread was cut in advance, the positions of the threaded ends in the cortical bone and on the implant must match. The implant has been inserted according to protocol when the implant shoulder is at bone level (epicrestal) and a surface of the hexagon is oriented buccally.

#### Note:

During transgingival healing with the iSy® Gingiva former, cylindrical (PEEK) as well as the iSy® Multifunctional cap (PEEK), the implant base remains on the implant until final restoration. These components are placed directly on the implant base.



## HEALING OPTIONS AND SOFT TISSUE CONDITIONING

### Transgingival healing with iSy® Gingiva former, cylindrical

Use of the iSy® Gingiva former, cylindrical (PEEK) supports the development of peri-implant soft tissue. To provide safe transfer, the iSy® Handle for iSy® Gingiva formers and caps is rotated into the occlusal opening of the gingiva former, the gingiva former is removed from the implant holder and then placed on the pre-mounted implant base **taking the rotation position into account**. The outside of the gingiva former has three marks which correspond to the three surfaces of the antirotational mechanism. The gingiva former snaps into place under slight pressure. The soft tissue is then sutured close after removal of the iSy® Handle.



**Gingiva former made of PEEK may remain in situ up to 180 days!**



\* 3 surfaces function as antirotational mechanism

**Note:**

If individual shaping of the soft tissue is necessary, then the multifunctional cap, which can be shortened appropriately and veneered with a suitable resin, can be used. See also "Temporary restoration with iSy® Multifunctional cap (PEEK)" on page 24.

# Removing the implant base for immediate loading and submerged healing

Should it be necessary to remove the implant base from the implant just placed, e.g. for immediate loading or healing without implant base, the holding key for implant base must be placed on the implant base to counteract the torque of the abutment screwdriver when removing the abutment screw and thus prevent the implant from unscrewing.

In case of a deeply placed implant base, the adapter for the holding key can be mounted on the base for extension purposes.

## Note:

Immediate loading is not recommended in the case of single-tooth restorations on iSy® Implants with a length of 7.3 mm.

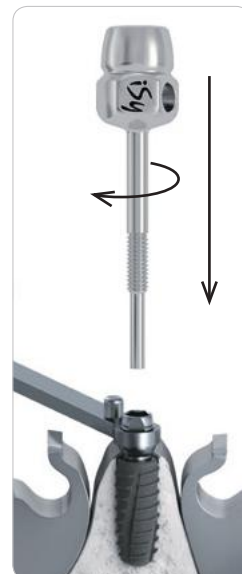


iSy® Adapter for iSy® Holding key with abutment screwdriver



Removal of the abutment screw with an abutment screwdriver and mounted iSy® Holding key for implant base

The abutment disconnecter is used in conjunction with the holding key for implant base to remove the implant base. The abutment disconnecter is screwed clockwise into the implant base until the tapered connection is disengaged.



Remove the implant base by using the abutment disconnecter and mounted iSy® Holding key for implant base



# Transgingival healing with iSy® Esthomic® Healing cap

If a prosthetic restoration is planned with iSy® Esthomic® Abutments, then appropriate shaping of the soft tissue can be achieved using the iSy® Esthomic® Healing caps. These healing caps correspond to the design of the iSy® Esthomic® Abutments and are of one-piece design.

The healing caps are available in various diameters and gingival heights in the sizes S (small), M (medium) and L (large), corresponding to subsequent restoration with iSy® Esthomic® Abutments.



iSy® Esthomic® Healing caps			
Height of healing caps	Size S	Size M	Size L
3.0 mm	Ø 5.3 mm	Ø 5.8 mm	Ø 6.3 mm
4.5 mm	Ø 5.4 mm	Ø 5.9 mm	Ø 6.6 mm
6.0 mm	Ø 5.4 mm	Ø 5.9 mm	Ø 6.6 mm

After removing the implant base, the healing cap is screwed carefully by hand into the previously cleaned implant using an iSy® Screwdriver, hex. Make sure no soft tissue is trapped. The wound margins are closed tightly with atraumatic suture material. Do not tie the sutures too tightly. The gingiva must adapt tightly against the healing cap. The healing cap should sit 1–1.5 mm supragingivally.



Insert the Esthomic® Healing cap



Transgingival healing for 6–12 weeks

# Subgingival healing with iSy® Cover cap and iSy® Cover screw

If required, submerged healing can be performed using an iSy® Cover cap or an iSy® Cover screw. The cover cap and the cover screw are packed sterile, are to be integrated directly into the implant and fit all implant diameters.

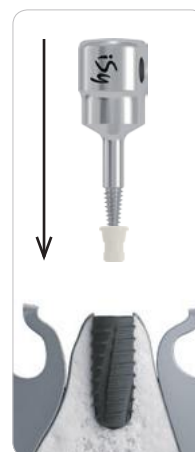
The implant base needs to be removed after insertion of the implant. Then the inner configuration of the implant is cleaned.

## iSy® Cover cap

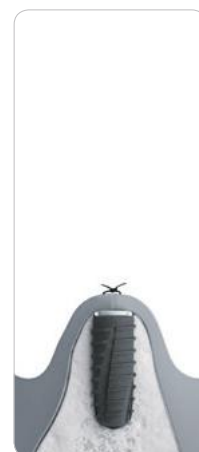
For insertion purposes, the iSy® Handle for iSy® Gingiva formers and caps is rotated into the occlusal opening of the cover cap. Paying attention to the alignment of the hex, the cover cap is carefully inserted into the implant until the flat part of the cap's head makes contact with the implant shoulder. Make sure there is no soft tissue trapped between the implant and cap. The handle for gingiva formers is unscrewed anti-clockwise from the cap and the soft tissue sutured tightly with atraumatic suture material. Cover caps made of PEEK must not remain in situ for longer than 180 days.



iSy® Cover cap  
(PEEK)



Insert the cover  
cap



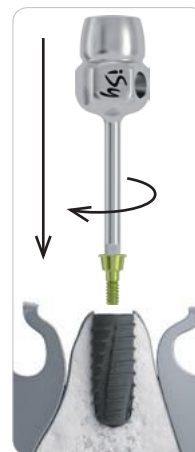
Subgingival healing  
for 6–12 weeks

## iSy® Cover screw

For insertion purposes, the iSy® Screwdriver, hex, is inserted into the occlusal opening of the cover screw. Then the cover screw is screwed into the implant carefully by hand. Make sure there is no soft tissue trapped between the implant and screw. Remove the iSy® Screwdriver, hex, and suture the soft tissue tightly with atraumatic suture material.



iSy® Cover screw



Insert the cover  
screw



Subgingival healing  
for 6–12 weeks

# Exposure of the implant and conditioning of the soft tissue after subgingival healing

In case of a two-stage subgingival healing phase, the soft tissue needs to be conditioned at least three weeks prior to impression taking by inserting an implant base into the implant with an iSy® Gingiva former, cylindrical (PEEK) or an iSy® Esthomic® Healing cap (titanium alloy) or a temporary restoration respectively.

After exposure of the implant, the iSy® Cover cap (PEEK) is removed with the iSy® Handle for iSy® Gingiva former and caps or the iSy® Cover screw (titanium alloy) unscrewed using the iSy® Screwdriver, hex.

After thorough cleaning and drying of the implant's inner configuration, the implant can optionally be temporarily restored with the following components:

## **iSy® Implant base with iSy® Gingiva former, cylindrical (PEEK)**

The implant base is inserted into the implant taking the alignment of the hex into account. The implant base is supplied sterile packed with an iSy® Abutment screw and an iSy® Gingiva former, cylindrical (PEEK). Only use new and unused abutment screws. The screw is attached to the iSy® Abutment screwdriver and screwed into the implant for fixation of the implant base. Then the torque wrench is mounted on the abutment screwdriver and the abutment screw tightened with 20 Ncm. Retighten with 20 Ncm after 5 minutes to reach the maximum screw tension.

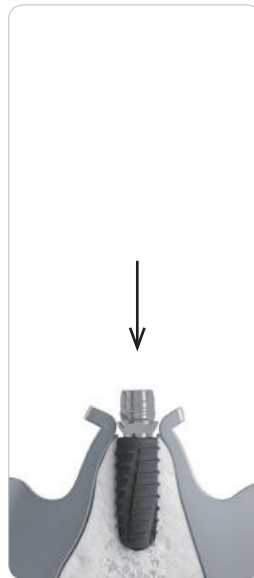
To provide safe transfer, the iSy® Handle for iSy® Gingiva formers and caps is rotated into the occlusal opening of the gingiva former, the gingiva former is removed from the implant holder and then placed on the pre-mounted implant base taking the rotation position into account. The outside of the gingiva former has three marks which correspond to the three surfaces of the antirotational mechanism. The gingiva former snaps into place under slight pressure. Then the iSy® Handle is unscrewed anticlockwise and the soft tissue is sutured close.



Remove the cover cap respectively the cover screw



Clean the inner configuration



Insert the implant base



Fixation of the implant base with the abutment screw



Mount the gingiva former

**Gingiva former and multifunctional caps made of PEEK must not remain in situ for longer than 180 days.**

#### **iSy® Implant base with iSy® Multifunctional cap (PEEK)**

Conditioning of the soft tissue can be achieved by mounting an iSy® Multifunctional cap with appropriately designed anatomical veneer on the implant base. Veneering with plastic can be performed optionally in the dental laboratory on the working cast or chairside. See "Temporary restoration with iSy® Multifunctional cap (PEEK)" on page 24.



#### **iSy® Esthomic® Healing cap (titanium alloy)**

See description under "Transgingival healing with iSy® Esthomic® Healing cap (titanium alloy)" on page 14.



#### **iSy® Temporary abutment (titanium alloy)**

Conditioning of the soft tissue can also be achieved with an iSy® Temporary abutment with appropriately designed anatomical veneer. Veneering with plastic can be performed optionally in the dental laboratory on the working cast or chairside. See "iSy® Temporary abutments (titanium alloy)" on page 43.



# iSy® Prosthetics

## Overview iSy® Prosthetic components

### Impression taking

A number of impression taking options are available depending on the choice of restoration.

#### Conventional or digital impression taking with iSy® Multifunctional cap on iSy® Implant base

Impression taking can be performed conventionally with silicone or polyether materials via the pre-mounted iSy® Implant base with mounted iSy® Multifunctional cap (PEEK) or digitally by scanning.

#### Digital impression taking with iSy® Scan adapter for Sirona on iSy® Implant base

The iSy® Scan adapter allows digital impression taking with the mounted Sirona scanbody of the CEREC system. With the use of the iSy® Scan adapter the removing of the iSy® implant base is not necessary for the intraoral scan.



iSy® Multifunctional cap (PEEK)



iSy® Scan adapter for Sirona on iSy® Implant base

#### Digital impression taking with iSy® Scanbody on implant or iSy® ScanPost for Sirona

Digital impression taking is performed directly on the implant shoulder without implant base.

Tightening torque: tightened by hand

(Recommended impression taking method for bridge restorations)



iSy® Scanbody on implant (PEEK)



iSy® ScanPost for Sirona (titanium alloy)

#### Conventional impression taking with iSy® Impression posts, open or closed tray

Conventional impression taking with iSy® Impression posts, open or closed tray, is performed directly on the implant shoulder without implant base using silicone or polyether materials.

Tightening torque: tightened by hand

(Recommended impression taking method for bridge restorations)



iSy® Impression post, open tray



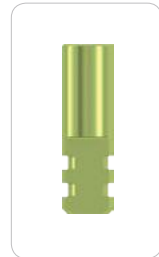
iSy® Impression post, closed tray incl. impression cap, bite registration cap

For more information see [www.isy-implant.com](http://www.isy-implant.com)

### Cast fabrication

The yellow-green anodized iSy® Lab analog is used for cast fabrication or, as an option, with an iSy® Implant analog for printed 3D-casts, depending on the choice of restoration or prior impression taking with multifunctional cap (with lab base) or with impression posts (without lab base).

Tightening torque: tightened by hand



iSy® Implant analog



iSy® Lab analog



iSy® Lab base



iSy® Lab abutment screw

### Prosthetic restoration

The prosthetic treatment of the iSy® Implants occurs with single crowns, bridges or full dentures.

#### iSy® Implant base

Temporary crowns and final cementable crown and bridge restorations.

Tightening torque: 20 Ncm



#### iSy® Temporary Abutments

Temporary crown restorations in esthetic regions.

Tightening torque: hand-tightened or with 20 Ncm after concluded healing phase



#### iSy® Titanium bases CAD/CAM

For crown restorations.

Tightening torque: 20 Ncm



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### **iSy® Universal abutment**

For cementable crown and bridge restorations and double crown restorations.

Tightening torque: 20 Ncm



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### **iSy® Esthomic® Abutments, straight and 15° angled**

Cementable crown and bridge restorations in esthetically challenging areas.

Tightening torque: 20 Ncm



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### **iSy® Locator® Abutment**

Resilient anchoring of implant-supported full dentures for the edentulous maxilla and mandible.

Tightening torque: 30 Ncm



More information about using the products of the Locator® Anchoring system can be requested directly from the manufacturer:

Zest Anchors LLC., 2875 Loker Avenue East, Carlsbad, CA 92010, USA

Locator® is a registered trademark of Zest Anchors LLC.

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### **DEDICAM® CAD/CAM**

Individual prosthetics for crown, bridge and bar restorations ([www.dedicam.com](http://www.dedicam.com)).

The logo for DEDICAM PROSTHETICS, featuring the word "DEDICAM" in a large, bold, sans-serif font, with "PROSTHETICS" in a smaller, bold, sans-serif font below it.

**The iSy® Implant-abutment connection is identical for all implant diameters.**

Not all products are available in all countries.



# iSy® Multifunctional cap

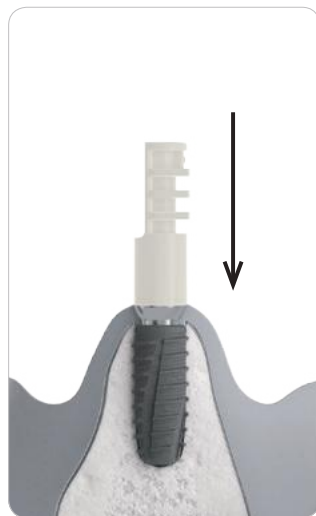
## Impression taking, bite registration, temporary restoration

### Conventional impression taking with iSy® Multifunctional cap (PEEK)

The iSy® Multifunctional cap provides a precise, rotation-resistant transfer system for both closed impression methods and intraoral scanning. If applicable, a present gingiva former is removed first. To do this, the handle for the gingiva former is carefully screwed into the occlusal opening of the gingiva former by hand and the gingiva former removed. After cleaning the pre-mounted implant base, the multifunctional cap is placed on the implant base **taking the rotation position into account**. This snaps into place under slight pressure.



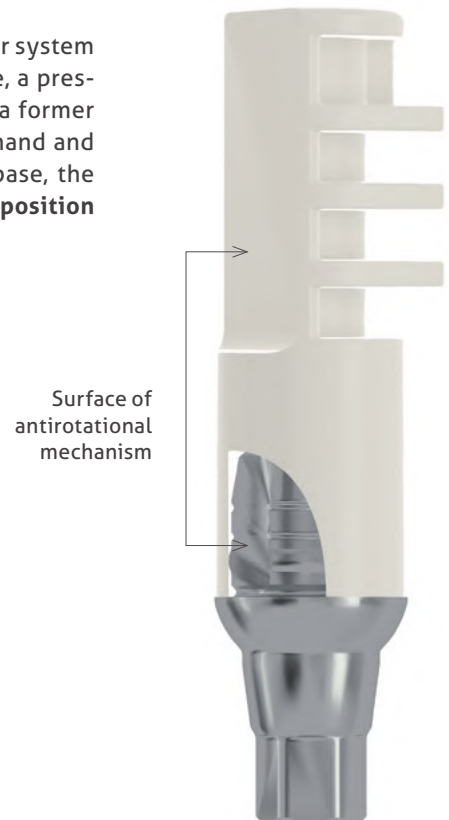
Removing the gingiva former



Attaching the multifunctional cap

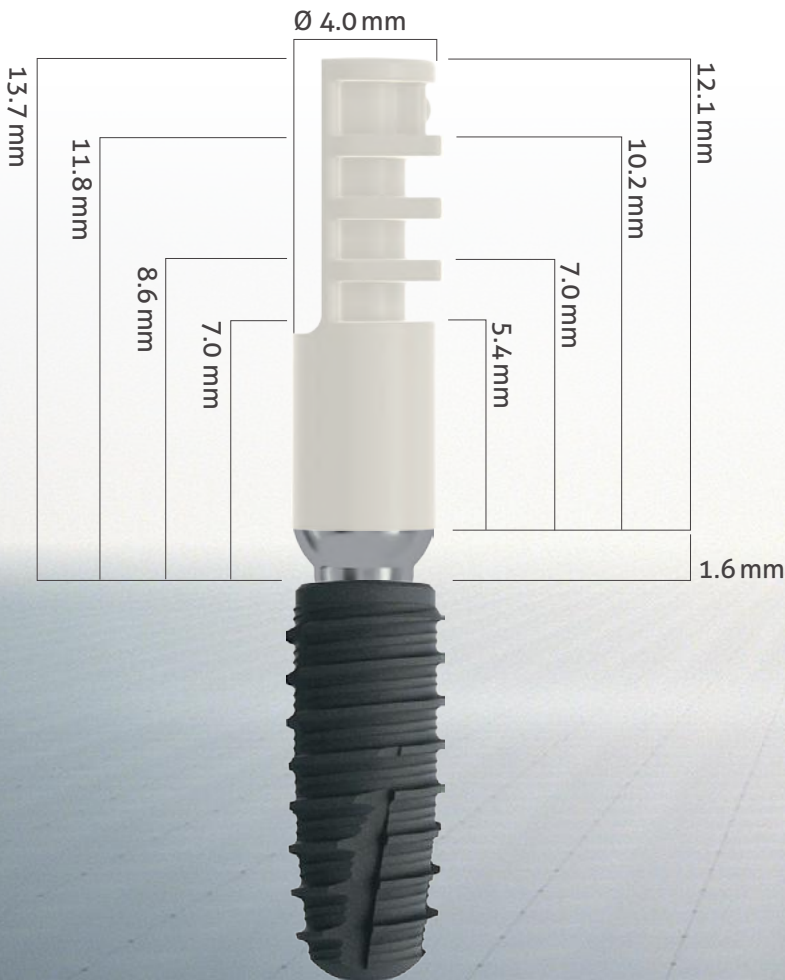
#### Note:

To ensure the greatest possible precision, do not move the multifunctional cap after it has engaged.



\* 3 surfaces function as antirotational mechanism

The impression is taken in the conventional manner using a conventional impression tray. The impression tray must not touch the multifunctional cap in order to avoid impression taking errors. The cap can be shortened accordingly. Silicone or polyether materials can be used to take the impression.



Depending on the application, the multifunctional cap can be shortened:

Application	Prosthetic height	Height (min.)
Scanning (unshortened)	13.7 mm	12.1 mm
Impression taking	11.8 mm	10.2 mm
Temp. restoration	8.6 mm	7.0 mm
Gingiva former and bite registration	7.0 mm	5.4 mm

### Digital impression taking with iSy® Multifunctional cap (PEEK)

The manufacturer's instructions for the intraoral scanner must be observed for intraoral scanning.

Only perform the intraoral scan with an unshortened cap (risk of matching problems). Note the proper seating of the cap.

After digital impression, a further scan can be performed for bite registration. The implant is then fitted with a temporary restoration or the cleaned gingiva former is placed again.

**Use multifunctional caps only once intraorally!**

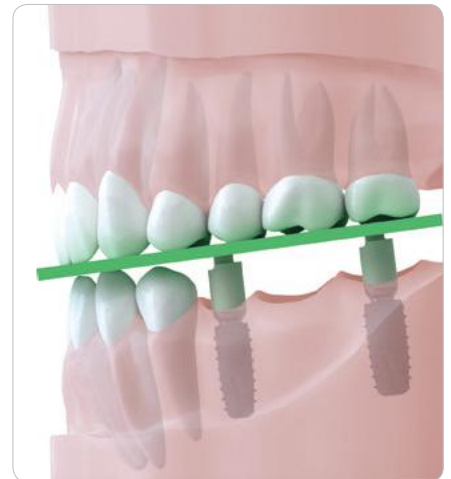


### Bite registration with iSy® Multifunctional cap (PEEK)

The exact implant-supported measurement of the arch relations and their transfer to the cast situation can be carried out using the iSy® Multifunctional cap.

The gingiva former is first removed. After cleaning the implant base, the multifunctional cap is placed on the implant base and the occlusion checked. Taking the rotation position into account, the cap snaps into place under slight pressure. The multifunctional cap can be shortened if necessary. Registration of the habitual arch relations is carried out using standard materials. The caps should not be allowed to bond to the register.

Remove the bite registration and multifunctional caps and give to the dental laboratory. After the bite registration, the temporary restoration is inserted or the cleaned gingiva former is placed again.



### Temporary restoration with iSy® Multifunctional cap (PEEK)

The multifunctional cap can be used for a temporary esthetic single-tooth immediate restoration. The temporary restoration can be fabricated on the patient directly or in the dental laboratory on the working cast.

#### Example: Chairside fabrication

The handle for gingiva former is used to remove the gingiva former. After cleaning the implant base, the multifunctional cap is placed on the implant base. Taking the rotation position into account, it snaps into place under slight pressure. If space is limited, the multifunctional cap can be shortened extra-orally to above the lower-most groove.

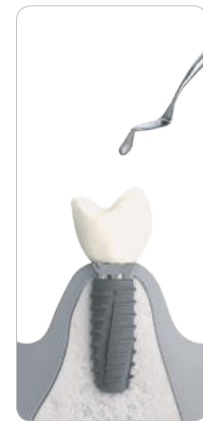


Removing the gingiva former



Attaching the multifunctional cap

A temporary crown (e.g. strip crown) is filled with appropriate acrylic material and attached to the multifunctional cap. Roughening of the cap surface supports bonding of the temporary crown. The crown is then shaped. The multifunctional cap or the reconstruction respectively, must be fixed adhesively to the implant base temporarily for a sufficiently stable connection. Prior to this, the screw channel of the implant base should be sealed with removable material (e.g. wadding).



**Multifunctional caps made of PEEK may remain in situ up to 180 days.**

After successful healing period (osseointegration) of the implant and molding of the soft tissue a new impression is taken for the definitive restoration.

#### Note:

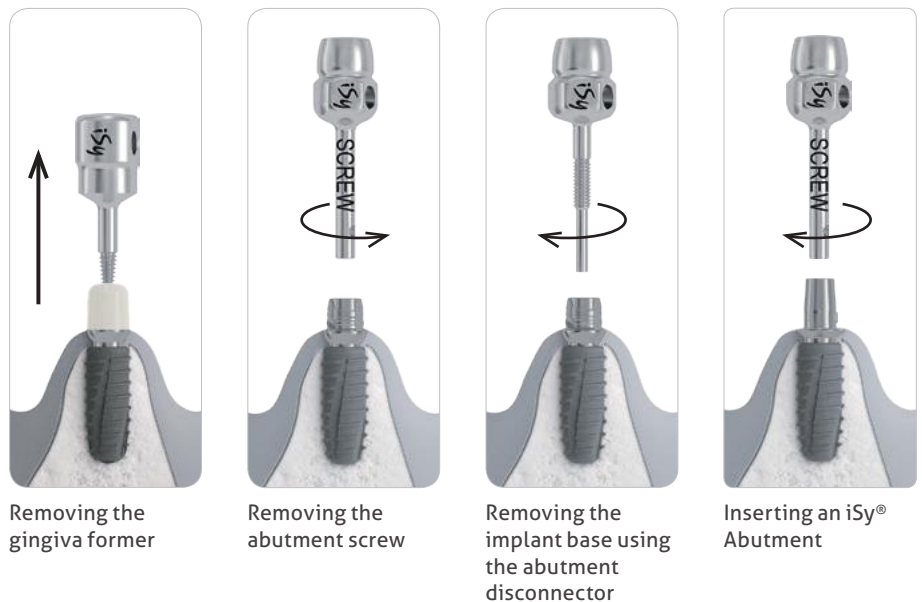
After removing a cemented temporary restoration, all the remaining cement residues must be removed completely from the implant base. Otherwise, the cement residues can lead to imprecisions during subsequent impression taking with the multifunctional cap.

**Insertion of the prosthetic restoration after using the iSy® Gingiva former, cylindrical (PEEK) or the iSy® Multifunctional cap (PEEK)**

After completion of the healing phase, the gingiva former or temporary restoration is removed. To do this, the handle for the gingiva former is carefully screwed into the opening of the gingiva former by hand and the gingiva former removed. To remove the implant base, loosen the abutment screw with an abutment screwdriver and remove. The abutment disconnecter is used to remove the implant base.

**Note:**

If the prosthetic restoration was fabricated directly on the implant base, the pre-mounted base remains in the implant.



After the inner configuration of the implant has been thoroughly cleaned and dried, the abutment can be inserted into the implant taking into account the rotation position.

iSy® Abutments are supplied with an abutment screw. Only use new and unused abutment screws. The screw is attached to the iSy® Abutment screwdriver and the abutment screwed with the implant. Tighten the screw with 20 Ncm using the torque wrench. Retighten with 20 Ncm after 5 minutes to reach the maximum screw tension.

**Note:**

For treatment with cementable restorations, the screw head must be covered by an easily removable material (e.g. wadding).

## ISY® IMPRESSION TAKING OPTIONS

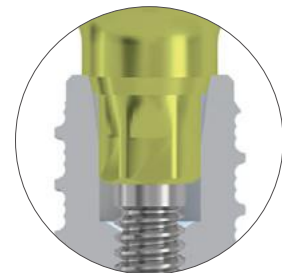
### Impression taking with iSy® Multifunctional cap

Impression taking with the iSy® Multifunctional cap is performed directly on the implant base (see pages 21–23).



### Impression taking with iSy® Impression post, open and closed tray

The iSy® Impression taking components provide a highly precise, rotation-resistant transfer system for both closed and open impression methods. The iSy® Impression posts do not lock into the cone of the iSy® Implants, but lie on the implant shoulder. This avoids an offset in height during impression taking (recommended impression taking method for bridge restorations). The antirotational mechanism is ensured by the iSy® Hex connection. The impression posts are anodized yellow-green and equipped with a fixing screw.





In the cervical region, the impression posts correspond to the design of the iSy® Esthomic® Abutments and are available in various diameters and gingival heights in the sizes S (small), M (medium) and L (large), corresponding to subsequent restoration with the iSy® Esthomic® Abutments.



**Impression taking methods**

The open (A) or closed (B) tray method may be selected for impression-taking. The open impression-taking method should be used for heavily divergent implant axes or the combination with functional impression-taking.

Silicone or polyether materials are suitable for the open and closed impression-taking methods.

iSy® Impression post, open tray, incl. fixing screw			
Art. No.	P2121.3800	P2121.4400	P2121.5000
			
Diameter	5.4 mm, size S	5.9 mm, size M	6.6 mm, size L
PH in mm	10 mm	10 mm	10 mm

PH: Prosthetic height



**iSy® Impression posts, closed tray**  
incl. fixing screw, impression cap, bite registration cap

Art. No.	P2110.3800	P2110.4400	P2110.5000
			
<b>Diameter</b>	5.4 mm, size S	5.9 mm, size M	6.6 mm, size L
<b>PH in mm</b>	10.7 mm	10.7 mm	10.7 mm

PH: Prosthetic height

**Note:**

The components for impression taking are for single use only and must not be modified.

**Required instruments**



iSy® Screwdriver, hex, manual/wrench  
extra short, short, long

### A. Open impression taking

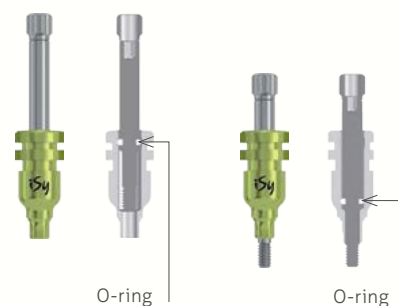
For the open impression-taking method, an individually fabricated impression tray is required which needs to be perforated on the extension of the implant axis to allow emergence of the fixing screw.

The fixing screw is secured in the iSy® Impression post with an O-ring and may only be tightened carefully by hand using the iSy® Screwdriver, hex, both in the iSy® Implant as well as the iSy® Lab analog.



#### Note:

Before removing the impression, loosen the screw and pull it back until the stop (O-ring) is felt. Otherwise the axis divergences of the implants can make removing the impression difficult or can deform the impression due to excessive compression. Impressions can be taken with implant axis divergences of up to 20° (10° for each iSy® Implant).



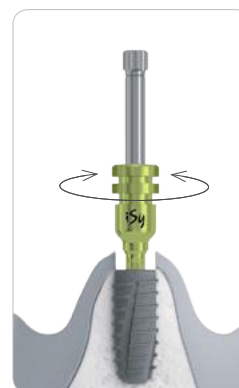
The fixing screw is equipped with a break-off point. If space limitations are encountered, it can be shortened by 3.0 mm by breaking it off with an iSy® Screwdriver, hex.

**Caution: shorten extra-orally only!**

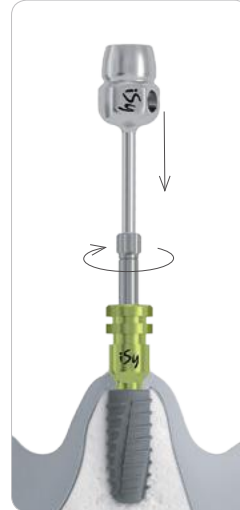


### Insertion of the iSy® Impression post

Remove the gingiva former, healing cap or temporary abutment. Place the impression post for open impression-taking on the implant and tighten the fixing screw gently. The impression post is rotationally symmetrical; no special orientation is required. Carefully rotate the impression post in the implant until the hex connection engages in the implant.



The fixing screw must be hand-tightened with the iSy® Screwdriver, hex. For tight and thick gingiva in particular, we recommend a radiographic check of the correct seating of the impression post prior to taking the impression.

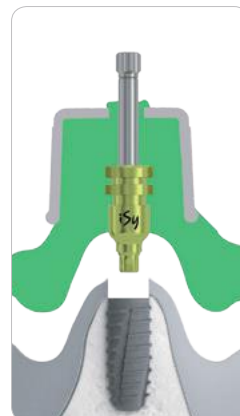


#### **Impression taking**

Before taking the impression, check the tray for a precision fit. The fixing screws protruding from the perforations must not touch the tray. Then use a silicone or polyether impression-taking material to take the impression.

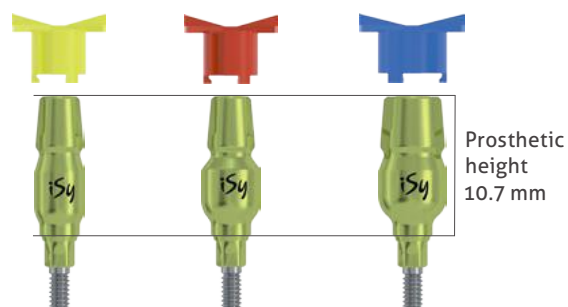


To remove the impression, loosen the fixing screw, pull it back completely and then lift off the impression tray.



## B. Closed impression taking

The iSy® Impression posts, closed tray, have an internal fixing screw and are delivered with an impression cap and a bite registration cap. A prefabricated impression tray is used for the closed impression-taking method, whereby the tray must not touch the impression posts with mounted impression caps.



The fixing screw in the iSy® Impression post may only be hand-tightened using the iSy® Screwdriver, hex, both in the iSy® Implant as well as the iSy® Lab analog.



The fixing screw extends about 2.0 mm above the inserted impression post.



After tightening the fixing screw, it sits flush with the upper edge of the impression post (4–5 rotations).

## Insertion of the iSy® Impression post

Following removal of the gingiva former, healing cap or the temporary abutment, insert the impression post with its attached fixing screw into the implant. Carefully rotate the impression post in the implant until the hex connection engages in the implant.



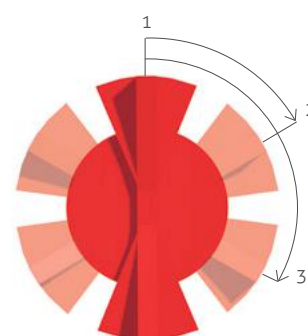
The fixing screw must be hand-tightened with the iSy® Screwdriver, hex. For tight and thick gingiva in particular, we recommend a radiographic check of the correct seating of the impression post prior to taking the impression.



The color-coded impression cap is now placed onto the impression post using the guide grooves until a detectable pressure point is reached and the impression cap is clearly fixed into place. Three guide grooves on the impression post (placed at 120° intervals) facilitate contact-free placement relative to adjacent impression caps or teeth. The extensions of the impression caps must not be removed.

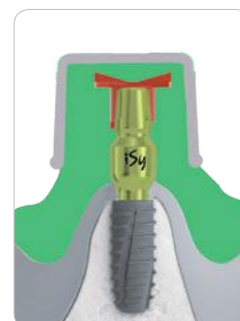


Three guide grooves make three positioning options possible for the impression cap



### Impression taking

Right before taking the impression, check again to ensure that the impression caps are seated correctly. The impression caps should remain in the impression after the impression tray is lifted. If this is not the case, repeat the impression-taking.



# Digital impression taking with iSy® Scan adapter on iSy® Implant base with Sirona scanbody

The iSy® Scan adapter allows digital impression taking with the mounted Sirona scanbody of the CEREC system directly on the implant base. This dispenses with removing the iSy® Implant base for the intraoral scan (in the case of transgingival healing).

The scan adapter is mounted on the iSy® Implant base with the aid of the handle for iSy® Scan adapters on iSy® Implant base. Correct engagement is indicated by a perceptible click. Then the handle is unscrewed anticlockwise and a Sirona scanbody, size S, is mounted. This is followed by the intraoral scan. Due to the identical construction height of the iSy® Scan adapter and the iSy® ScanPost, the Sirona scanbody rests at the same height on both components measured in terms of the implant shoulder. Prior to scanning, this requires the scanbody setting "ScanPost".

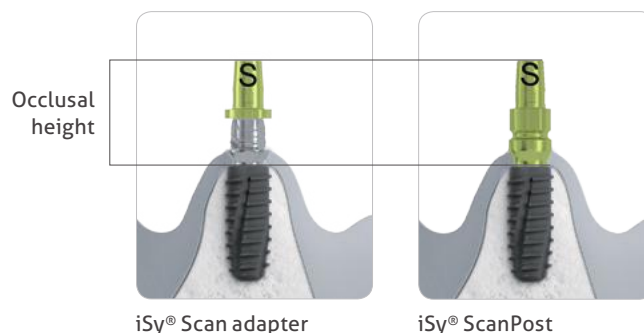
After the successful scanning process, the iSy® Scan adapter including the Sirona scanbody are removed from the implant base. The iSy® Scan adapters can be reused several times and can be reprocessed accordingly.



Sirona scanbody

## Note:

The occlusal height measured from the implant shoulder is identical for the iSy® Scan adapter mounted on the implant base and the iSy® ScanPost.



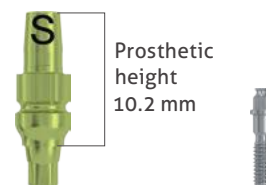
# Digital impression taking with iSy® ScanPost for Sirona

Digital impression taking with iSy® ScanPost for Sirona (titanium alloy) is performed directly in the iSy® Implant without implant base (in the case of subgingival healing). The iSy® ScanPost is supplied inclusive of the iSy® Abutment screw.

Following removal of the implant base or the healing cap respectively or the temporary abutment, the iSy® ScanPost is inserted into the implant with the iSy® Abutment screw attached. Carefully rotate the scanbody in the implant until the hex connection engages in the implant. Carefully screw in the iSy® Abutment screw manually with an iSy® Abutment screwdriver. Then mount the Sirona scanbody of size S on the ScanPost (scanbodies by Sirona Dental Systems GmbH are available separately for various camera systems in various connection sizes. Information about the Sirona Scanbodies is available from Dentsply Sirona Dental Systems GmbH).

The scanning of the ScanPost/Sirona Scanbody follows with suitable devices. Observe the manufacturer's instructions here. After scanning, remove the Sirona Scanbody, loosen the abutment screw, remove the ScanPost and seal the implant again appropriately.

iSy® ScanPosts can be reused several times and can be reprocessed accordingly.



iSy® ScanPost for Sirona, incl. iSy® Abutment screw



# Digital impression taking with iSy® Scanbody on implant

Digital impression taking with the iSy® Scanbody on implant (PEEK) is taken directly in the iSy® Implant without implant base. The iSy® Scanbody incl. the iSy® Abutment screw are supplied packed sterile.

Following removal of the implant base or the healing cap respectively or the temporary abutment, the iSy® Scanbody is inserted into the implant with the iSy® Abutment screw attached. Carefully rotate the scanbody until the hex connection engages in the implant. Carefully screw in the iSy® Abutment screw manually with an iSy® Abutment screwdriver. This is followed by a digital scan using appropriate devices. Observe the manufacturer's instructions here. After scanning, loosen the abutment screw, remove the Scanbody and seal the implant again appropriately.



iSy® Scanbody on implant incl. iSy® Abutment screw



## Warning:

The iSy® Scanbodies on implants (PEEK) may only be used once intra-orally and solely on one patient.



## CAST FABRICATION AND BITE REGISTRATION

### iSy® Implant analog for printed models

#### Cast fabrication

The iSy® Implant analog is intended for use in printed models. The implant analog and the geometry of the plug-in position can be called up from the CAD libraries under [www.isy-implant.com/en/](http://www.isy-implant.com/en/).

The implant analog is screw-retained manually with the iSy® Handle for implant analogs and inserted exercising pressure until it snaps perceptibly into the plug-in position of the model. Note the surface of the antirotational mechanism of the analog.

Due to the identical inner configuration with the iSy® Lab analog, the implant analog can also be used for the fabrication of conventionally cast models in conjunction with a screw-retained iSy® Impression post, open and closed tray.



iSy® Implant analog with iSy® Handle for implant analog

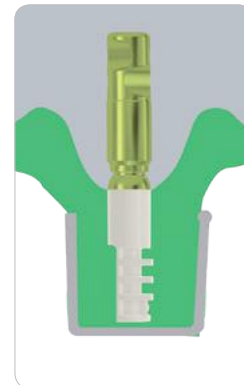
### iSy® Multifunctional cap

#### Cast fabrication

To fabricate the master cast, the lab base and lab analog are screwed together hand-tight with the lab abutment screw (also available as set). The screwdriver audibly clicks into place under slight pressure. The lab analog / lab base combination is inserted into the multifunctional cap in the impression. With correct rotational position, the lab base snaps into the cap.

#### Note:

To ensure the greatest possible precision, do not move the combination lab base / lab analog after it has engaged in the multifunctional cap.





The impression is cast with suitable model material and removed again after the impression has hardened. The multifunctional cap remains in the impression.



\* 3 surfaces function as antirotational mechanism

### Bite registration

After performing bite registration, the multifunctional caps previously used in the mouth, are attached to the lab bases in the cast. Place the bite registration on the caps, connect the opposing jaw cast to the bite registration and mount the casts in an articulator (see also page 23).



# iSy® Impression posts, open and closed tray

## Preparation

After impression taking with iSy® Impression posts, open (A) or closed (B) tray directly on the implant, the cast is fabricated with iSy® Lab analogs.

iSy® Impression posts, an iSy® Screwdriver, hex, and iSy® Lab analogs or iSy® Implant analogs are required for cast fabrication. The fixing screws of the iSy® Impression posts are carefully screwed manually to the iSy® Lab analogs with the screwdriver.

## Tip:

We recommend that you fabricate the cast with a gingival mask. The surrounding gingiva is represented elastically and true to the situation especially for subgingival crown margins and restorations in esthetic areas. An optimal design of the crown contour is easier to achieve.



iSy® Impression posts, open and closed tray



iSy® Screwdriver, hex



iSy® Lab analog

## Note:

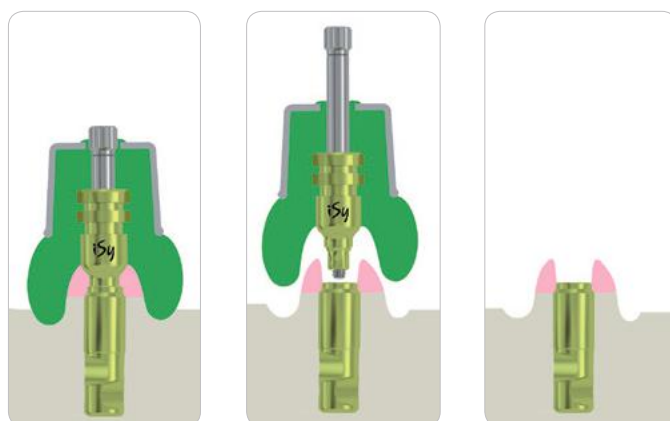
The impression posts and lab analogs may not be modified!

### A. Cast fabrication open tray

After the impression is taken, the iSy® Impression posts, open tray, are in the impression. In the dental laboratory, the iSy® Lab analogs or iSy® Implant analogs are connected to the iSy® Impression posts, open tray, in the impression (note proper seating). The fixing screws are carefully hand-tightened with the iSy® Screwdriver, hex.

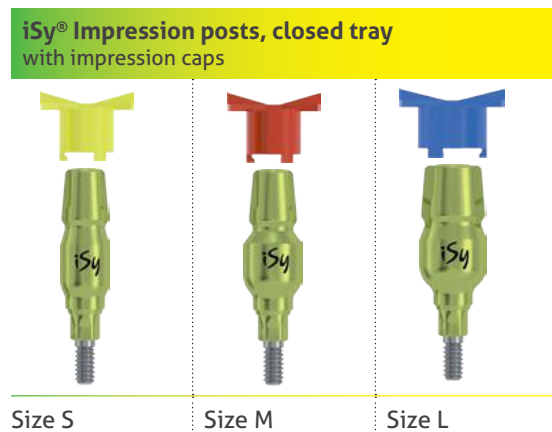


The impression is cast with suitable model material. After curing, the iSy® Impression posts are loosened from the iSy® Lab analogs or iSy® Implant analogs and the impression is removed.



### B. Cast fabrication closed tray

After the impression is taken, the impression cap remains in the impression.



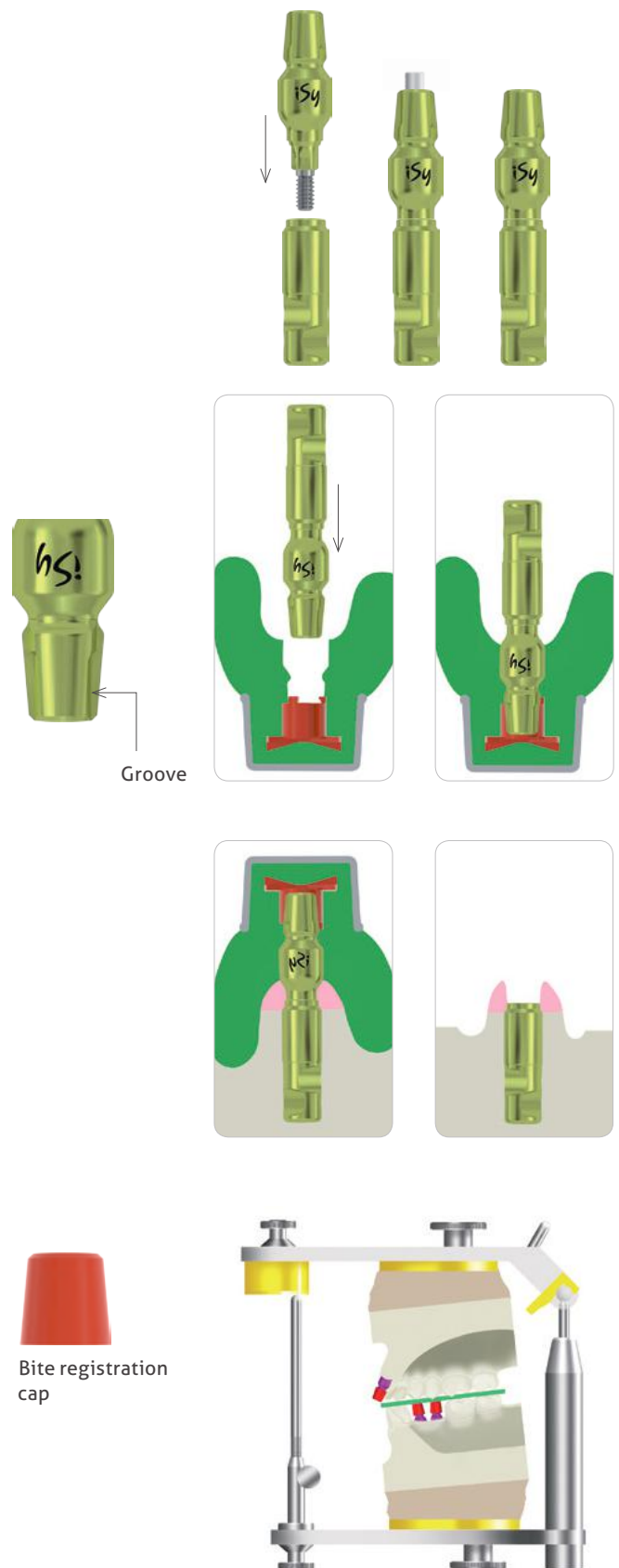
In the dental laboratory, the iSy® Impression posts, closed tray, are connected to the iSy® Lab analogs or iSy® Implant analogs (note proper seating). The fixing screws are carefully hand-tightened with the iSy® Screwdriver, hex.

The components are repositioned in the impression caps. Make sure that the grooves correctly engage in the impression cap. Do not use bonding material!

The impression is cast with a suitable model material and the impression posts may not loosen. After curing, the impression is removed and the impression posts loosened from the lab analogs.

**Tip:**

After removing the impression, the bite registration caps can be positioned on the impression posts still in the plaster cast for mounting. The bite registration taken before the impression is then placed on the caps and the cast mounted.








## ISY® ABUTMENTS

### iSy® Implant base

#### Temporary respectively final restorations

The iSy® Implant base already pre-mounted in the implant, can be used for a temporary respectively final prosthetic restoration. Cementable crowns and bridge constructions can be fabricated with the aid of prefabricated burn-out plastic copings.

The iSy® Implant base, incl. iSy® Abutment screw and an iSy® Gingiva former, cylindrical (PEEK), is also available as sterile packed set. Fabrication of the prosthetic restoration is performed on the iSy® Lab base on the cast. The implant and lab base are compatible with all iSy® Implant diameters.

iSy® Implant base incl. corresponding components				
Art. No. P2900.0002	Art. No. P3010.8001	Art. No. P2553.0010	Art. No. P2553.0020	Art. No. P2553.0025
				
iSy® Implant base, Ø 4.0 mm, gingival height 1.6 mm, incl. iSy® Abutment screw (titanium alloy) and iSy® Gingiva former, cylindrical (PEEK), sterile	iSy® Lab kit, Content: 1 iSy® Lab analog, 1 iSy® Lab base, 1 iSy® Lab abutment screw, yellow-green anodized (titanium alloy)	iSy® Plastic coping for cemented bridge on implant base, without rotation securing device, burn-out, POM (2 units)	iSy® Plastic coping for cemented crown on implant base, with rotation securing device, burn-out, POM	iSy® Plastic coping for hybrid abutment on implant base, with rotation securing device, burn-out, for shortening, POM

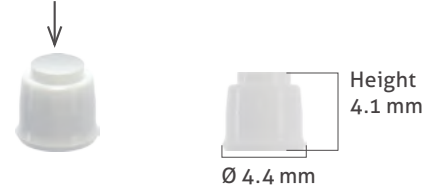
#### Notes:

- The iSy® Implant and lab base may not be modified.
- iSy® Implant bases are factory-provided screw-retained on the implants with 20 Ncm.
- The iSy® Lab base and the iSy® Lab abutment screw must not be used on patients.
- In case of direct modeling of the crown or bridge framework, the undercuts on the iSy® Lab base must be blocked out with suitable materials.

### iSy® Plastic copings on implant base, burn-out (POM)

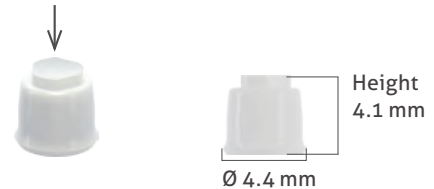
Residue-free burn-out plastic copings for metal casting and pressed ceramic techniques are available for the conventional fabrication of cementable crown and bridge constructions. As an option, a wax-up created on plastic copings can be digitalized by scanning and read into suitable CAD software as a three-dimensional dataset for further processing. The copings are available in three versions:

Round coping head



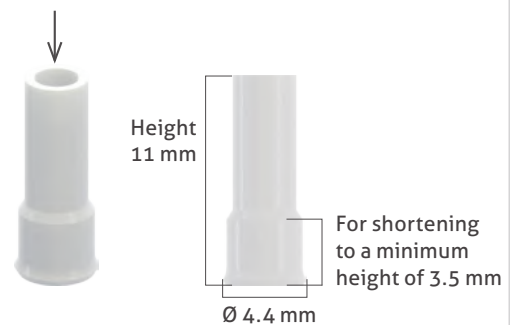
iSy® Plastic coping bridge without rotation securing device

Coping head with 3 surfaces



iSy® Plastic coping crown with 3-surface rotation securing device

Occlusal screw opening without screw seat



iSy® Plastic coping for hybrid abutment, with rotation securing device, for occlusal shortening

### **Fabrication of the prosthetic restoration**

Individual fabrication of the prosthetic restoration is performed with suitable materials taking the initial anatomical situation into consideration. To prevent non-axial loads and over-contouring in the posterior area, we recommend reducing the prosthetic restoration to premolar size.

The following should be observed when processing iSy® Plastic copings with casting techniques:

- The minimum wax thickness on the copings must be 0.3 mm. When heating the casting muffle, the wax softens first and gives the plastic enough space to expand (avoids casting errors due to inclusion of investment material).
- Do not cover the delicate coping edge with wax.
- Use of phosphate-bonded investment materials.
- Do not use any quick heating processes (speed investment materials).

### **Hybrid abutment**

When using the iSy® Plastic coping for the hybrid abutment on implant base for fabricating a single crown, the crown is cemented directly and definitively onto the implant base. The occlusal screw opening remains open and ensures removability of the abutment screw and the cemented connection single crown/iSy® Implant base (occlusally screw-retainable hybrid abutment) from the implant.



### **Insertion**

After removing the gingiva former or the temporary restoration, the implant base located in the implant is cleaned and dried thoroughly. For removal purposes, the iSy® Abutment screw head must be sealed with an easily removable material (e.g. gutta-percha).

- iSy® Plastic coping for hybrid abutment on implant base: a single crown fabricated with the iSy® Plastic coping for hybrid abutment on implant base, is cemented directly onto the implant base. After sealing the screw head with a removable material the screw canal is sealed with composite for esthetic and hygienic reasons.
- iSy® Plastic coping for cemented crown and bridge on implant base: crowns and bridge restorations fabricated with the aid of iSy® Plastic copings are cemented directly onto the implant base.

We recommend phosphate or carboxylate cements for the final cementation. Manufacturers instructions must be observed. To avoid an air cushion in the cement, only a thin layer of cement should be brushed onto the inner surface of the crown.

#### **Note:**

To remove any remaining cement better, the cement gap should not lie deeper than 1.5 mm subgingivally for cemented restorations.





# iSy<sup>®</sup> Temporary Abutments

iSy<sup>®</sup> Temporary abutments are available in two sizes for all iSy<sup>®</sup> Implant diameters. They are suitable for use as single tooth immediate restorations and, if required, can also be used for long-term temporary restorations. The benefits of immediate implantation with an esthetic, non-functional immediate restoration consist in preservation of the structures of the periodontal or peri-implant tissue, particularly in esthetically critical zones. After an adequate healing period (osseointegration) of the implant and maturing of the peri-implant soft tissue, a new impression is taken for the final restoration.

iSy<sup>®</sup> Temporary abutments are fitted with a conical implant abutment connection for positioning/antirotational mechanism and are available in the diameters 3.9 and 4.8 mm.

**Note:**  
These abutments are not suitable for bridge restorations.

iSy <sup>®</sup> Temporary abutment, crown, with conical implant-abutment connection, titanium alloy, incl. iSy <sup>®</sup> Abutment screw		
Art. No.	P2239.3900	P2239.4800
		
Diameter	3.9 mm	4.8 mm
Prosthetic height	11 mm	11 mm

Prosthetic height: measured from the iSy<sup>®</sup> Implant shoulder surface up to the occlusal abutment edge of the screw-retained abutment in the implant.

### Fabrication of the prosthetic restoration

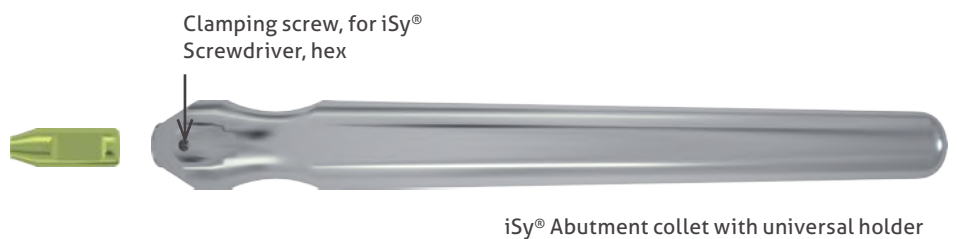
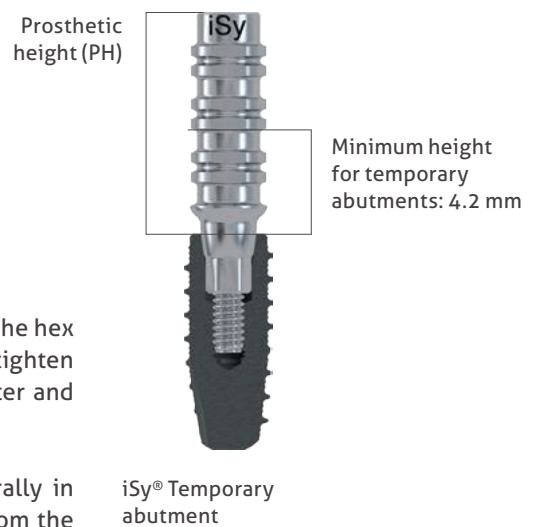
The fabrication of a temporary restoration can be performed optionally chairside or in the dental laboratory on the working cast.

The abutments are veneered with suitable plastic materials and can be shortened occlusally depending on the anatomical situation. However, a minimum height of 4.2 mm must be maintained for reasons of stability.

### Chairside fabrication

The temporary abutment is inserted into the implant taking the position of the hex into account. Insert the abutment screw into the temporary abutment and tighten carefully by hand with the iSy® Abutment screwdriver. The vestibular center and the desired occlusal height (min. 4.2 mm) are marked on the abutment.

The custom shortening of the temporary abutment is performed extraorally in order to prevent contamination of the surrounding tissue with particles from the grinding. For better handling, the abutment can be fixated on a lab analog or abutment collet for the universal holder for this purpose. An iSy® Lab abutment screw is used for fixation purposes.



#### Note:

The iSy® Lab abutment screw must not be used on the patient.



After customizing and covering with opaque, the temporary abutment is inserted into the implant and screw-retained carefully by hand with an abutment screw. The fabrication of a temporary crown can, for example, be performed with the aid of strip crowns. To prevent acrylic material from flowing into the screw channel, the channel needs to be sealed with an easily removable material beforehand.

To loosen the temporary restoration again, the screw channel of the abutment must be opened for the screwdriver after the plastic has hardened. The temporary restoration is then shaped.

#### **Fabrication on the working cast**

The temporary restoration can also be fabricated optionally in the dental laboratory on the working cast based on the procedure for fabricating temporary solutions similar to those used in conventional techniques.

#### **Inserting the temporary abutment**

Clean and dry the inner configuration of the implant. The temporary abutment is inserted into the implant taking the position of the hex into account.

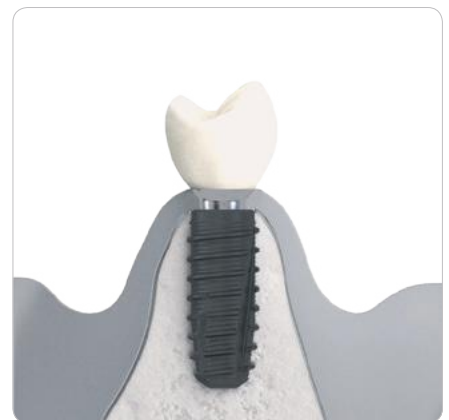
Fixation of the restoration is performed using a new, unused abutment screw. After tightening the abutment screw manually with the screwdriver, the screw head is sealed with an easily removable material (e.g. gutta-percha). The screw canal must be sealed for esthetic and hygienic reasons with a removable material (e.g. composite).

#### **OPTIONAL:**

For fixation of the long-term temporary restoration, the tightening torque is 20 Ncm after a successful healing phase of the implant. Retighten with the same torque after approx. 5 minutes to reach the maximum screw tension.



Customized temporary abutment on the working cast



Temporary single-tooth restoration veneered directly with plastic

# iSy® Titanium bases CAD/CAM

iSy® Titanium bases CAD/CAM act as a bonding basis for customized, implant-supported dental restorations made of suitable materials. For the planning of CAD/CAM fabricated prosthetics, the implant position can be recorded via the iSy® Multifunctional cap on the pre-mounted iSy® Implant base for transgingival healing, or alternatively via the iSy® Scanbody at implant shoulder level without implant base for submerged healing.

iSy® Titanium bases CAD/CAM are available with external diameters of 4.5 mm and 5.2 mm each with gingival heights of 0.8 and 2.0 mm. The titanium bases are supplied non-sterile, each with an iSy® Abutment screw and an iSy® Bonding aid.

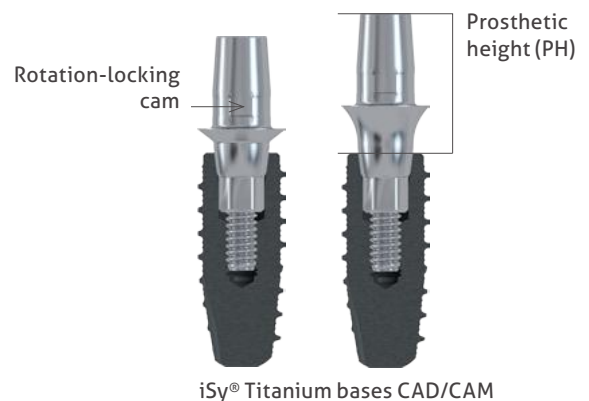
Manufacturer of Sirona products:  
Dentsply Sirona Dental Systeme,  
64625 Bensheim, Germany  
[www.dentsplysirona.com](http://www.dentsplysirona.com)

**For USA:** iSy® Titanium bases CAD/CAM are approved exclusively for use with a Sirona CAD/CAM system.

## Crown restorations

For fabricating crown restorations iSy® Titanium bases CAD/CAM are available with conical implant-abutment connection and hex for positioning/rotation protection. Single crown restorations are secured against rotating with a rotation-locking cam.

**Note:** These abutments are not suitable for primary splinting.



**iSy® Titanium base CAD/CAM for crowns, with conical implant-abutment connection, titanium alloy, incl. iSy® Abutment screw and black iSy® Bonding aid (POM)**

Art. No.	P2244.4408	P2244.4420	P2244.5008	P2244.5020
				
<b>Base Ø</b>	4.5 mm	4.5 mm	5.2 mm	5.2 mm
<b>Gingival height</b>	0.8 mm	2.0 mm	0.8 mm	2.0 mm
<b>Prosthetic height</b>	5.9 mm	7.1 mm	5.9 mm	7.1 mm
<b>Sirona Meso Block</b>	S	S	L	L

Prosthetic height: measured from the iSy® Implant shoulder surface up to the occlusal abutment edge of the screw-retained abutment in the implant.

#### iSy® Bonding aid

Using the enclosed bonding aid made of POM, the titanium bases CAD/CAM can be easily attached to a lab analog by hand. It prevents damage to the screw channel when sandblasting the titanium base and prevents bonding material from getting into the screw channel when bonding the prosthetic restoration.

**Note:** The bonding aid may only be used extraorally.

#### iSy® Modeling aids

The separately available modeling aids made of POM simplify the fabrication of mesostructures and crown frameworks on the titanium base CAD/CAM. The modeling aids are available for both titanium base diameters, can be shortened to a custom length and burn residue free. A wax-up created on the modeling aid can be scanned for further processing. Alternatively, casting technology can be used to transfer the wax-up to a cast framework or molding techniques can be used to transfer the wax-up to a pressed framework.



**iSy® Modeling aids, mesostructures and crown frameworks, burn-out (POM)**

Art. No.	P2244.4402	P2244.5002
		
<b>Titanium base Ø</b>	4.5 mm	5.2 mm
<b>Height</b>	11.0 mm	11.0 mm

### Application on the working cast

After cast fabrication and removal of the lab bases, the titanium bases CAD/CAM are inserted in the lab analogs and fixed using an iSy® Lab abutment screw. The rotation-locking cam of the titanium base CAD/CAM for crowns should be aligned palatal/lingual in each case for the prosthetic restoration. This ensures maximum wall thickness of the mesostructure on the vestibular side.

#### Note:

- The diameter and length of the titanium bases CAD/CAM must not be reduced, e.g. by grinding.
- Primary splinting may not be performed with the titanium bases CAD/CAM for crowns.
- iSy® Modeling aids are only approved for the fabrication of single crowns or mesostructures on "iSy® Titanium bases CAD/CAM for crowns".

### Basics of construction

The following points should be taken into consideration during fabrication of the restoration:

- A minimal wall thickness of 0.5 mm must be maintained around the screw canal.
- A maximum angle of 20° between the implant and the crown axis must not be exceeded.
- When designing a mesostructure on the titanium base CAD/CAM, sufficient space must be given for preparing an esthetic and functional superstructure.
- If the superstructure is veneered directly, one should take note not to narrow the screw canal. The connection point between the base and the screw canal should not be overlayered.
- Avoid sharp edges and corners.

#### Caution:

Non-compliance with specific safety limits of your product can lead to a failure of the component. In such a case, the patient must be informed that he/she will receive a product which does not comply with the manufacturer's specifications.

**For USA:** iSy® Titanium bases CAD/CAM are approved exclusively for use with a Sirona CAD/CAM system.

### Bonding the mesostructure

After fabricating the prosthetic restoration, the bonding surface of the titanium base CAD/CAM is sandblasted with aluminum oxide (50 µm) at max. 2.0 bar. Then ablate the bonding surface or clean with alcohol (bonding surface must be free of dust and grease). The manufacturer's processing instructions for the materials used must be observed.

#### Tip:

For sandblasting and bonding, it is recommended that the titanium base be attached to an abutment collet to protect the implant-abutment connection and for easy handling. The bonding aid can be used to prevent the seepage of bonding material.

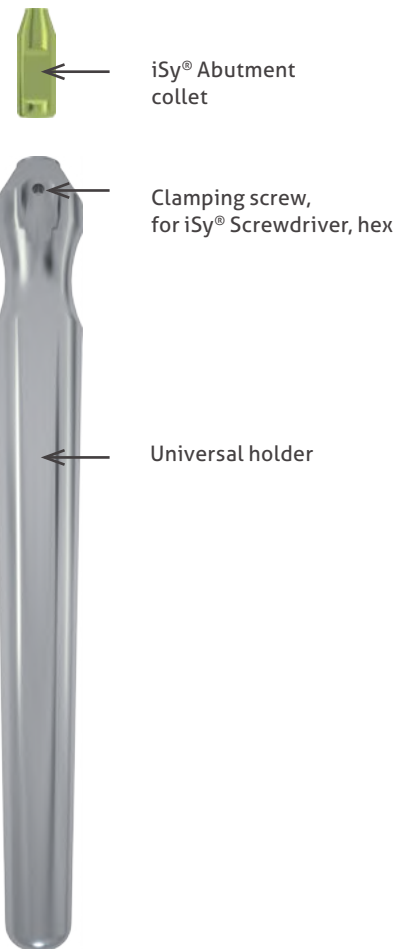
#### Note:

The implant-abutment connection must be covered during sandblasting and bonding. No modifications may be made to the implant-abutment connection.

The components are connected using a suitable bonding material. The bonding material is mixed according to manufacturer's instructions and applied to the titanium base CAD/CAM. The individually fabricated prosthetic restoration is mounted under consideration of the antirotational mechanism. Then press the prosthetic restoration onto the titanium base as far as it will go. Excess bonding material must be removed immediately.

#### Note: suitable bonding material

To bond the titanium base CAD/CAM to a meso or superstructure, we recommend extraoral use of the bonding agent "PANAVIA™ F 2.0" from Kuraray Noritake, or "Multilink® Hybrid Abutment" from Ivoclar Vivadent AG. Observe the manufacturer's processing instructions. ALTATEC GmbH/CAMLOG Biotechnologies AG accepts no responsibility for the durability of the crown/mesostructure and the adhesive used.



PANAVIA is a registered trademark of Kuraray.

Manufacturer PANAVIA: Kuraray Noritake

Multilink® Hybrid Abutment is a registered trademark of Ivoclar Vivadent AG.

Manufacturer Multilink® Hybrid Abutment: Ivoclar Vivadent AG

# iSy® CAM titanium blanks

Customized, one-piece titanium abutments and healing caps can be fabricated with iSy® CAM titanium blanks on CNC milling machines. The CAM titanium blanks contain a prefabricated implant-abutment connection with screw channel. CAM titanium blanks are available in two designs:

## **Type IAC:**

Clamping to the milling machine is performed at the implant-abutment connection. The system-relevant collets for CAM blanks, type IAC, are available as primary clamping devices for this type.

## **Type ME:**

Clamping to the milling machine is performed on the cylindrical section opposite the implant-abutment connection. Abutment holders for the Preface® Abutments by Medentika® can be used as machine-specific clamping devices. These collets are available for suitable CNC milling machines from the respective machine manufacturers.

A corresponding CAM library as well as suitable holders and brackets are required for processing both blank variants. Information on the compatibility of the iSy® CAM titanium blanks with CNC milling machines is available from the respective manufacturers of the machines.

## **CAD LIBRARIES**

CAD libraries with the geometries of the iSy® CAM titanium blanks, the iSy® Scanbodies and the iSy® Multifunctional cap allow the construction of one-piece titanium abutments and healing caps. The libraries including instructions for import are available at [www.isy-implant.com/en/](http://www.isy-implant.com/en/).



# Sirona CEREC – DEDICAM® Workflow

DEDICAM® offers the option of converting the CEREC scan data sets generated with the aid of the iSy® Multifunctional cap or the iSy® Scanbody into open STL data, in order to design the prosthetic restoration with an alternative CAD software (exocad®, Dental Wings®, 3Shape®).

## **Note:**

This service is not offered in all countries and requires access to the Sirona Connect Portal. Furthermore, the data sets must be generated with the aid of the iSy® Multifunctional cap or the iSy® Scanbody. Detailed instructions are available via the DEDICAM® Support Hotline ([www.dedicam.com](http://www.dedicam.com)). Sirona scanbodies cannot be used for this service.



# iSy® Universal abutment

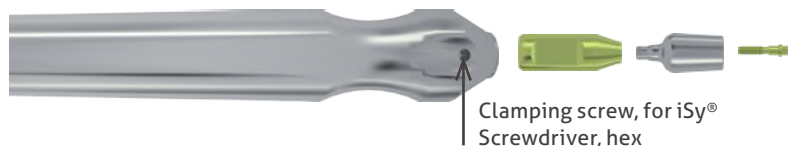
The iSy® Universal abutment can be used for individually fabricated cementable crown and bridge restorations as well as double crown restorations. The abutment is made of a titanium alloy and can be custom trimmed. Divergences to the implant axis can be compensated for by a suitably adapted forming and bridge restorations inserted. Universal abutments are supplied with an iSy® Abutment screw.

## Individual processing / preparation

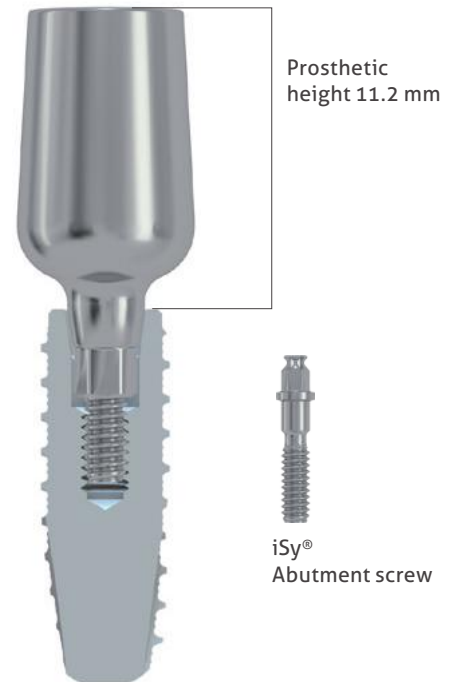
The universal abutment can be individually modified for the planned prosthetic restoration in consideration of the anatomical conditions. To prepare the abutment and to fabricate the superstructure on the plaster cast, the yellow-green anodized lab abutment screw is used. The universal abutment can be processed in two ways:

### A. Processing in the universal holder

To simplify processing of the abutment, a universal holder can be used with an abutment collet. The integrated clamping screw (hex) fixes the insert (abutment collet) in the handle and the lab abutment screw secures the abutment in the insert.



A silicone index prepared in the planning phase is used on the plaster cast for visualization of the desired prosthetic design and as support for achieving the optimal contouring of the universal abutment.



The prosthetic height is the distance between the implant shoulder surface up to the occlusal abutment edge of the abutment screwed into the implant.

Abrasive products suitable for titanium machining are used for the preparation. First, the abutment height and axial inclination are adapted, then followed by preparation similar to standard chamfer preparation of a tooth stump based on the perioprosthetics. The ideal preparation angle is approx. 2°–4°. For esthetic reasons, the crown margin should lie vestibular 1–1.5 mm subgingivally.

The minimum wall thickness is 0.35 mm. To ensure a sufficiently large bonding area, the abutment can be shortened from the preparation margin to a minimum occlusal height of 4.0 mm. The universal abutment must not be used as an angled abutment.

**Warning:**

To safely remove any remaining cement, the cement gap should not lie deeper than 1.5 mm subgingivally by cementable restorations.

**TIPS:**

- Repeatedly check the contouring of the abutment in the cast using the index during the preparation process.
- An oval contour serves as the antirotational mechanism for single crowns.
- An identical mark vestibular on the abutment and the model facilitates insertion of the abutment in the cast respectively in the patient's mouth.

**Fabricating the crown and bridge restoration**

After completing the modifications, the abutment can be restored prosthetically. Before shaping a wax or plastic cap, the lab abutment screw head must be covered with a soft material (e.g. wadding) and the screw channel of the abutment closed with a removable material. The wax-up and finishing of the crown and bridge restoration is carried out in a conventional manner similar to perioprosthetics in consideration of function, esthetics and hygienic potential. Alternatively, the abutment can also be scanned and a prosthetic restoration fabricated using CAD/CAM technology.



## B. Processing on the milling cast for double crowns

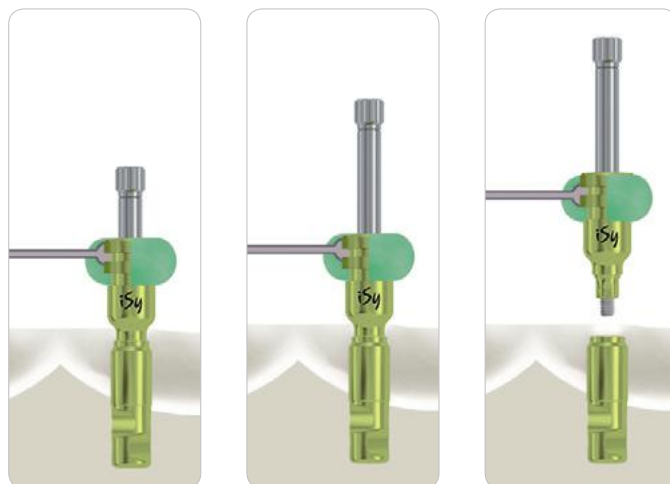
To mill the abutments for a double crown restoration, we recommend fabrication of a milling cast.

### Cast fabrication

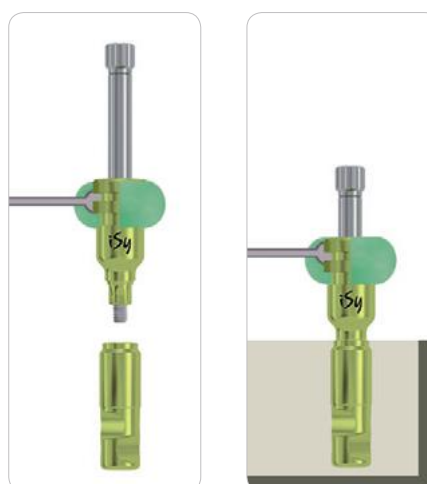
iSy® Impression posts, open tray and iSy® Lab analogs are required to transfer the cast situation to an individually fabricated milling plinth. The impression posts are mounted to the lab analogs in the cast. Note the proper seating. The fixing screws are hand-tightened with an iSy® Screwdriver, hex.



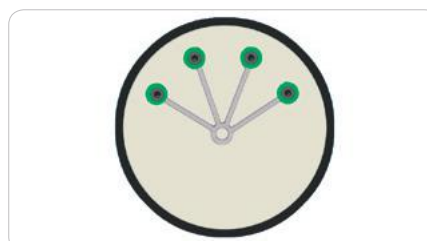
The posts are firmly attached with a transfer assistance with cold-curing plastic in the retentive area (NOT on the fixing screw). After the plastic has cured, and after loosening and completely pulling back the fixing screws, the transfer assistance with the iSy® Impression posts is removed from the cast.



The iSy® Impression posts are screwed together with the iSy® Lab analogs and inserted in a milling disk filled with super-hard dental plaster.



Then loosen the screws again and remove the transfer assistance with the impression post.

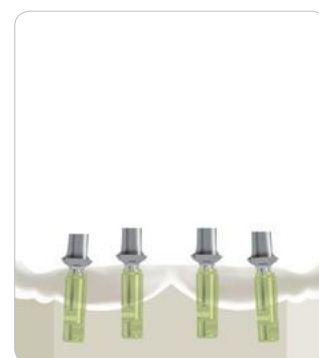
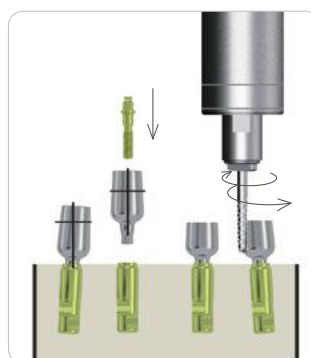


### Trimming

After fabricating the cast, the iSy® Universal abutments are inserted into the iSy® Lab analogs and fixed with the iSy® Lab abutment screw. A previously prepared silicone index is used to mark the height and axis alignments.

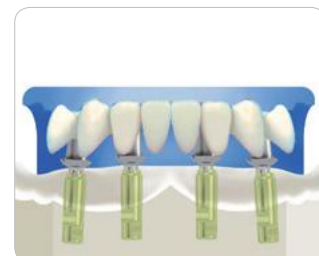


First, the height of the abutments is adjusted. The height of the circular functional surface must not fall below 5 mm, otherwise sufficient retention strength of the construction cannot be achieved. The common insertion direction is then determined and the abutments are machined with suitable abrasives on the milled model in the parallelometer. The specified speeds of each abrasive used for titanium machining must be observed. Overheating the titanium leads to a very hard surface (alpha case layer) and should be avoided.



To prevent the caps from rotating, the abutments are lightly ground in oval form. The surface must be homogeneous.

The space for the tertiary framework required to receive the secondary crowns can be checked at every phase of preparation with the silicone index with the denture teeth bonded in position.



**Fabricating the secondary crowns**

The secondary crowns or superstructure are then fabricated. For fabrication of double crowns using the electroplating technique, the manufacturer's specifications must be observed. Preparation for the cast fabrication of double crowns is performed analog to the cone-telescopic crown technique. The tension-free seat of the superstructure is of paramount importance for the long-term success of an implant-prosthetic restoration. We recommend bonding the secondary copings intraorally into the tertiary framework (passive fit).

**Insertion of the restoration**

Clean and dry the inner configuration of the implants. Insertion of the restoration under consideration of the position of the hex of the abutments in case of single crowns. Fixation of the restoration is performed using new, unused iSy® Abutment screws. The iSy® Abutment screws are tightened with the iSy® Abutment screwdriver and the torque wrench in the implant with 20 Ncm. Retighten with 20 Ncm after 5 minutes to reach the maximum screw tension.

Then the screw head is sealed with an easily removable material (e.g. gutta-percha). The screw canal can be sealed with a removable material (i.e. composite) for esthetic and hygienic reasons.

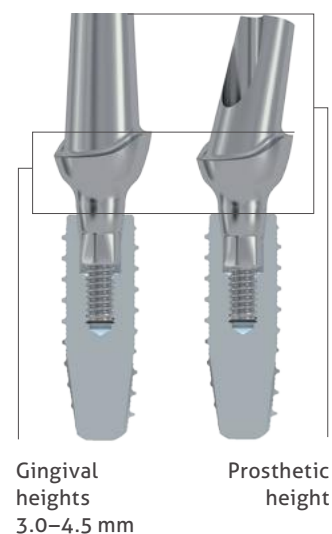
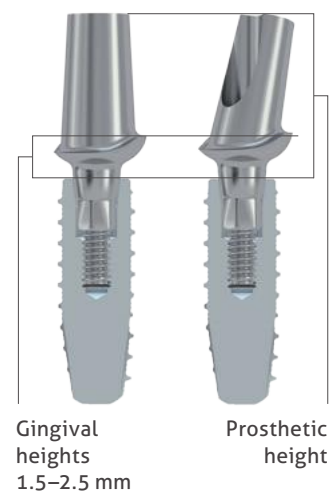
# iSy® Esthomic® Abutments

iSy® Esthomic® Abutments can be used to fabricate cementable crowns and bridge restorations in esthetically challenging areas. iSy® Esthomic® Abutments consist of titanium alloy, are available in straight and 15° angled versions in the sizes S (small), M (medium) and L (large) and can be modified individually in their prosthetic height. iSy® Esthomic® Abutments are supplied with an iSy® Abutment screw.

Due to the anatomically adapted forming of the shoulder and the two selectable gingival heights (1.5–2.5 mm and 3.0–4.5 mm), individual modifications are reduced in the shoulder area and the processing time shortened.

iSy® Esthomic® Abutments are available corresponding to the gingival height in various prosthetic heights (see information in the tables). The prosthetic height (PH) is the distance between the implant shoulder surface up to the occlusal abutment edge of the iSy® Esthomic® Abutment screwed into the iSy® Implant.

The oval base form of the abutment serves as an antirotational mechanism for single crowns.



iSy® Esthomic® Abutments, straight, incl. iSy® Abutment screw, titanium alloy						
Art. No.	P2226.3815	P2226.3830	P2226.4415	P2226.4430	P2226.5015	P2226.5030
Size	S	S	M	M	L	L
						
Abutment Ø	5.4 mm	5.4 mm	5.9 mm	5.9 mm	6.6 mm	6.6 mm
GH	1.5–2.5 mm	3.0–4.5 mm	1.5–2.5 mm	3.0–4.5 mm	1.5–2.5 mm	3.0–4.5 mm
PH	9.7 mm	11.7 mm	9.7 mm	11.7 mm	9.7 mm	11.7 mm

iSy® Esthomic® Abutments, 15° angled, incl. iSy® Abutment screw, titanium alloy						
Art. No.	P2227.3815	P2227.3830	P2227.4415	P2227.4430	P2227.5015	P2227.5030
Size	S	S	M	M	L	L
						
Abutment Ø	5.4 mm	5.4 mm	5.9 mm	5.9 mm	6.6 mm	6.6 mm
GH	1.5–2.5 mm	3.0–4.5 mm	1.5–2.5 mm	3.0–4.5 mm	1.5–2.5 mm	3.0–4.5 mm
PH	9.4 mm	11.4 mm	9.4 mm	11.4 mm	9.4 mm	11.4 mm

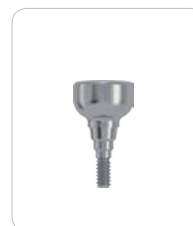
GH: Gingival height PH: Prosthetic height

**Note:**

iSy® Esthomic® Abutments and iSy® Esthomic® Healing caps of the respective sizes S, M and L have an identical neck design. The prior use of the healing caps thus supports appropriate shaping of the surrounding soft tissue.




iSy® Esthomic®  
Abutment



iSy® Esthomic®  
Healing cap

**iSy® Esthomic® Abutment, inset (titanium alloy)**

The iSy® Esthomic® Abutment, inset, is intended for prosthetic restorations where space is limited. The iSy® Esthomic® Abutment, inset, is supplied with an iSy® Abutment screw and is available with gingival heights of 2.0–3.3 mm.

iSy® Esthomic® Abutment, inset, incl. iSy® Abutment screw, titanium alloy	
Art. No.	P2235.3820
	
Abutment Ø	3.8 mm
GH	2.0–3.3 mm
PH	9.1 mm

### Fabrication of a prosthetic restoration

The prosthetic restoration is fabricated on the master cast without iSy® Implant base. The abutment is fixed on the model with an iSy® Lab abutment screw. The iSy® Esthomic® Abutment is modified individually in accordance with the anatomical situation. For better handling, the iSy® Esthomic® Abutment can be mounted on a separate iSy® Lab analog or iSy® Abutment collet for the universal holder for processing and fixed hand-tight with an iSy® Lab abutment screw.

#### Note:

The iSy® Lab abutment screw must not be used on the patient.

Possible reconstructions include cementable crown and bridge restorations and double crown restorations.

#### Note:

To remove any remaining cement better, the cement gap should not lie deeper than 1.5 mm subgingivally for cemented restorations.

### Crown, bridge and double crown restorations

Processing, fabrication and insertion of a crown, bridge and double crown restoration are identical to the iSy® Universal abutment in terms of application, see page 51. See also "Insertion of the prosthetic restoration after using the iSy® Gingiva former, cylindrical (PEEK) or the iSy® Multifunctional cap (PEEK)" on page 25.



iSy® Lab  
analog



iSy® Lab  
abutment screw



iSy® Abutment  
collet



Clamping screw,  
for iSy® Screwdriver, hex

Universal holder



# iSy® Gingiva height indicator

The iSy® Gingiva height indicator can be used for determining the suitable abutment gingival height of the iSy® Titanium bases CAD/CAM. Determination of the gingival height is performed from the implant shoulder, optionally in the implant or the lab analog / implant analog. Measurements up to a gingival height of 7 mm are possible.



iSy® Gingiva height indicator



Measurement of the gingival height



## Application

Application is intraoral without implant base or on the model in the lab analog / implant analog without lab base. The iSy® Gingiva height indicator is inserted into the implant or lab analog / implant analog until it rests correctly on the implant shoulder and held in position applying slight pressure. Then the gingival height can be read and a suitable abutment chosen.

### Note:

To avoid irritations of the gingiva, the gingival height of the selected abutment must not fall below the determined gingival height.

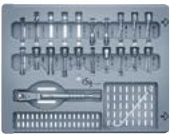





















# Article list




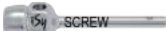










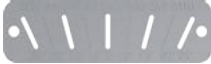

Surgery – Implants				
	Art. No.	Article	Implant Ø in mm	Implant length in mm
	P1110.3807	<b>iSy® Implant set 1x</b>	3.8	7.3
	P1110.3809	Set contents:	3.8	9
	P1110.3811	1 iSy® Implant Promote® plus, titanium grade 4, with screw-retained implant base, titanium alloy	3.8	11
	P1110.3813	1 iSy® Gingiva former, cylindrical PEEK	3.8	13
	P1110.4407	2 iSy® Multifunctional caps, PEEK	3.8	13
	P1110.4409	1 iSy® Single patient form drill, stainless steel	4.4	7.3
	P1110.4409	1 iSy® Cover cap	4.4	9
	P1110.4411		4.4	11
	P1110.4413		4.4	13
	P1110.5007		5.0	7.3
	P1110.5009		5.0	9
	P1110.5011		5.0	11
	P1110.5013		5.0	13
	P1410.3809	<b>iSy® Implant set 4x</b>	3.8	9
	P1410.3811	Set contents:	3.8	11
	P1410.3813	4 iSy® Implants Promote® plus, titanium grade 4, with screw-retained implant base, titanium alloy	3.8	13
	P1410.4409	4 iSy® Gingiva former, cylindrical PEEK	4.4	9
	P1410.4411	8 iSy® Multifunctional caps, PEEK	4.4	11
	P1410.4413	1 iSy® Single patient form drill, stainless steel	4.4	13
	P1410.5009	4 iSy® Cover caps	5.0	9
	P1410.5011		5.0	11
	P1410.5013		5.0	13

Surgery – Components					
	Art. No.	Article	Ø in mm	GH in mm	Material
	P2014.3830	iSy® Esthomic® Healing cap, size S, sterile	5.3	3.0	Titanium alloy
	P2014.3845	iSy® Esthomic® Healing cap, size S, sterile	5.4	4.5	Titanium alloy
	P2014.3860	iSy® Esthomic® Healing cap, size S, sterile	5.4	6.0	Titanium alloy
	P2014.4430	iSy® Esthomic® Healing cap, size M, sterile	5.8	3.0	Titanium alloy
	P2014.4445	iSy® Esthomic® Healing cap, size M, sterile	5.9	4.5	Titanium alloy
	P2014.4460	iSy® Esthomic® Healing cap, size M, sterile	5.9	6.0	Titanium alloy
	P2014.5030	iSy® Esthomic® Healing cap, size L, sterile	6.3	3.0	Titanium alloy
	P2014.5045	iSy® Esthomic® Healing cap, size L, sterile	6.6	4.5	Titanium alloy
	P2014.5060	iSy® Esthomic® Healing cap, size L, sterile	6.6	6.0	Titanium alloy
	P2015.0006	iSy® Cover cap, for all implant Ø, sterile (3 units)			PEEK
	P2019.0001	iSy® Cover screw, for all implant Ø, sterile (3 units)			Titanium alloy
	P2900.0002	iSy® Implant base, for all implant Ø, incl. iSy® Abutment screw and iSy® Gingiva former, cylindrical (PEEK), sterile	4.0	1.6	Titanium alloy/PEEK
	P2015.4036	iSy® Gingiva former, cylindrical, for implant base, height 4.0 mm, sterile (3 units)	4.0		PEEK
	P2130.4004	iSy® Multifunctional cap, for implant base, sterile (3 units)	4.0		PEEK
















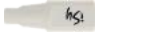
GH: Gingival height

## Surgical and prosthetic – Instruments















	Art. No.	Article	Ø in mm	Material
	P5330.0100	<b>iSy® Surgical and prosthetic set</b> , incl. surgical and prosthetic instruments		Plastic
	B1012	<b>Point drill</b> , resterilizable, length 30 mm	1.5	Stainless steel
	J5050.3500	<b>Round bur</b> , resterilizable	3.5	Stainless steel
	P5051.2202	<b>iSy® Pilot drill</b> , for implant lengths 7.3/9/11/13 mm, resterilizable	2.8	Stainless steel
	P5040.3801	<b>iSy® Single patient form drill</b> , for implant lengths 7.3/9/11/13 mm, sterile (3 units)	3.8	Stainless steel
	P5040.4401		4.4	Stainless steel
	P5040.5001		5.0	Stainless steel
	P5054.3801	<b>iSy® Tap</b> , for implant lengths 7.3/9/11/13 mm, resterilizable	3.8	Stainless steel
	P5054.4401		4.4	Stainless steel
	P5054.5001		5.0	Stainless steel
	P5300.2201	<b>iSy® Direction and depth indicator</b> , for implant lengths 7.3/9/11/13 mm, resterilizable (2 units)		Titanium alloy
	P5322.0012	<b>iSy® Tap adapter for iSy® Taps</b> , length 26.5 mm, resterilizable		Stainless steel
	P5300.6010	<b>iSy® Implant insertion tool, ISO</b> , short, with ISO shaft for angled handpiece, length 27.5 mm, resterilizable		Stainless steel
	P5300.6028	<b>iSy® Implant insertion tool</b> , extra short, manual/wrench, length 14.5 mm, resterilizable		Stainless steel
	P5300.6030	<b>iSy® Implant insertion tool</b> , short, manual/wrench, length 21 mm, resterilizable		Stainless steel
	P5300.6032	<b>iSy® Implant insertion tool</b> , long, manual/wrench, length 29 mm, resterilizable		Stainless steel
	P5300.6048	<b>iSy® Handle, for iSy® Gingiva former and caps</b> , short, length 17 mm, resterilizable		Stainless steel
	P5300.6050	<b>iSy® Handle, for iSy® Gingiva former and caps</b> , long, length 25 mm, resterilizable		Stainless steel
	P5302.0015	<b>iSy® Holding key for implant base</b> , resterilizable		Stainless steel
	P5302.0016	<b>iSy® Adapter for iSy® Holding key</b> , height 7 mm, resterilizable		Stainless steel
	P5002.0006	<b>iSy® Drill extension</b> , ISO shaft, length 26.5 mm, resterilizable		Stainless steel
	P5002.0011	<b>iSy® ISO adapter</b> , manual/wrench, length 21 mm, resterilizable		Stainless steel

Surgical and prosthetic – Instruments			
	Art. No.	Article	Material
	P5320.1030	<b>iSy® Torque wrench</b> , with continuous torque adjustment up to max. 30 Ncm, resterilizable	Stainless steel, titanium alloy
	P5316.6038	<b>iSy® Abutment screwdriver</b> , extra short, manual/wrench, length 14.5 mm, resterilizable	Stainless steel
	P5316.6040	<b>iSy® Abutment screwdriver</b> , short, manual/wrench, length 23 mm, resterilizable	Stainless steel
	P5316.6042	<b>iSy® Abutment screwdriver</b> , long, manual/wrench, length 28 mm, resterilizable	Stainless steel
	P5317.0538	<b>iSy® Screwdriver, hex</b> , extra short, manual/wrench, length 14.5 mm, resterilizable	Stainless steel
	P5317.0540	<b>iSy® Screwdriver, hex</b> , short, manual/wrench, length 22.5 mm, resterilizable	Stainless steel
	P5317.0542	<b>iSy® Screwdriver, hex</b> , long, manual/wrench, length 30.3 mm, resterilizable	Stainless steel
	P5317.0550	<b>iSy® Screwdriver, hex</b> , short, ISO shaft, length 18 mm, resterilizable	Stainless steel
	P5317.0552	<b>iSy® Screwdriver, hex</b> , long, ISO shaft, length 26 mm, resterilizable	Stainless steel
	P5300.6308	<b>iSy® Abutment disconnecter</b> , extra short, for iSy® Abutments and iSy® Implant base, length 23 mm, resterilizable	Stainless steel
	P5300.6310	<b>iSy® Abutment disconnecter</b> , short, for iSy® Abutments and iSy® Implant base, length 28 mm, resterilizable	Stainless steel
	P5300.6312	<b>iSy® Abutment disconnecter</b> , long, for iSy® Abutments and iSy® Implant base, length 35 mm, resterilizable	Stainless steel
	J2253.0001	<b>Driver for Locator® Abutments</b> , manual/wrench, resterilizable	Stainless steel
	J2253.0002	<b>Locator® instrument</b> , 3-part	Stainless steel
	J2253.0003	<b>Locator® Angle measurement guide</b>	Stainless steel
	J2253.0004	<b>Locator® Parallel post</b> (4 units)	Polyethylene

## Prosthetics – Impression taking

	Art. No.	Article	Ø in mm	GH in mm	Material
	P2110.3800	<b>iSy® Impression post, closed tray, size S</b> , for all implant Ø, yellow-green anodized, incl. fixing screw, impression cap and bite registration cap	5.4		Titanium alloy/ POM
	P2110.4400	<b>iSy® Impression post, closed tray, size M</b> , for all implant Ø, yellow-green anodized, incl. fixing screw, impression cap and bite registration cap	5.9		Titanium alloy/ POM
	P2110.5000	<b>iSy® Impression post, closed tray, size L</b> , for all implant Ø, yellow-green anodized, incl. fixing screw, impression cap and bite registration cap	6.6		Titanium alloy/ POM
	P2121.3800	<b>iSy® Impression post, open tray, size S</b> , for all implant Ø, yellow-green anodized, incl. fixing screw	5.4		Titanium alloy
	P2121.4400	<b>iSy® Impression post, open tray, size M</b> , for all implant Ø, yellow-green anodized, incl. fixing screw	5.9		Titanium alloy
	P2121.5000	<b>iSy® Impression post, open tray, size L</b> , for all implant Ø, yellow-green anodized, incl. fixing screw	6.6		Titanium alloy
	J2111.3800	<b>Impression cap for iSy® Impression posts, closed tray, size S (5 units)</b>			POM
	J2111.4300	<b>Impression cap for iSy® Impression posts, closed tray, size M (5 units)</b>			POM
	J2111.5000	<b>Impression cap for iSy® Impression posts, closed tray, size L (5 units)</b>			POM
	2112.3800	<b>Bite registration cap for iSy® Impression post, closed tray, size S (5 units)</b>			POM
	J2112.4300	<b>Bite registration cap for iSy® Impression post, closed tray, size M (5 units)</b>			POM
	J2112.5000	<b>Bite registration cap for iSy® Impression post, closed tray, size L (5 units)</b>			POM
	P2600.0001	<b>iSy® Scanbody on implant (PEEK)</b> , for all implant Ø, incl. iSy® Abutment screw, sterile			PEEK/Tita- nium alloy
	P2620.0006	<b>iSy® ScanPost for Sirona</b> , for all implant Ø, incl. iSy® Abutment screw, yellow-green anodized (suitable for Sirona scanbodies of size S)			Titanium alloy
	P2620.0007	<b>iSy® Scan adapter on iSy® Implant base for Sirona</b> , yellow-green anodized			Titanium alloy
	P2620.1000	<b>Handle for iSy® Scan adapter on iSy® Implant base</b>			Titanium alloy








## Prosthetics – Abutments

	Art. No.	Article	Ø in mm	GH in mm	Material
	P2226.3815	<b>iSy® Esthomic® Abutment</b> , straight, size S, preparable, for all implant Ø, incl. iSy® Abutment screw	5.4	1.5–2.5	Titanium alloy
	P2226.3830	<b>iSy® Esthomic® Abutment</b> , straight, size S, preparable, for all implant Ø, incl. iSy® Abutment screw	5.4	3.0–4.5	Titanium alloy
	P2226.4415	<b>iSy® Esthomic® Abutment</b> , straight, size M, preparable, for all implant Ø, incl. iSy® Abutment screw	5.9	1.5–2.5	Titanium alloy
	P2226.4430	<b>iSy® Esthomic® Abutment</b> , straight, size M, preparable, for all implant Ø, incl. iSy® Abutment screw	5.9	3.0–4.5	Titanium alloy
	P2226.5015	<b>iSy® Esthomic® Abutment</b> , straight, size L, preparable, for all implant Ø, incl. iSy® Abutment screw	6.6	1.5–2.5	Titanium alloy
	P2226.5030	<b>iSy® Esthomic® Abutment</b> , straight, size L, preparable, for all implant Ø, incl. iSy® Abutment screw	6.6	3.0–4.5	Titanium alloy
	P2227.3815	<b>iSy® Esthomic® Abutment, 15° angled</b> , size S, preparable, for all implant Ø, incl. iSy® Abutment screw	5.4	1.5–2.5	Titanium alloy
	P2227.3830	<b>iSy® Esthomic® Abutment, 15° angled</b> , size S, preparable, for all implant Ø, incl. iSy® Abutment screw	5.4	3.0–4.5	Titanium alloy
	P2227.4415	<b>iSy® Esthomic® Abutment, 15° angled</b> , size M, preparable, for all implant Ø, incl. iSy® Abutment screw	5.9	1.5–2.5	Titanium alloy
	P2227.4430	<b>iSy® Esthomic® Abutment, 15° angled</b> , size M, preparable, for all implant Ø, incl. iSy® Abutment screw	5.9	3.0–4.5	Titanium alloy
	P2227.5015	<b>iSy® Esthomic® Abutment, 15° angled</b> , size L, preparable, for all implant Ø, incl. iSy® Abutment screw	6.6	1.5–2.5	Titanium alloy
	P2227.5030	<b>iSy® Esthomic® Abutment, 15° angled</b> , size L, preparable, for all implant Ø, incl. iSy® Abutment screw	6.6	3.0–4.5	Titanium alloy
	P2235.3820	<b>iSy® Esthomic® Abutment, inset</b> , preparable, for all implant Ø, incl. iSy® Abutment screw	3.8	2.0–3.3	Titanium alloy
	P2211.4012	<b>iSy® Universal abutment</b> , preparable, for all implant Ø, incl. iSy® Abutment screw	6.5		Titanium alloy

GH = Gingival height





## Prosthetics – Abutments


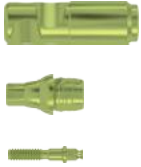











	Art. No.	Article	Ø in mm	GH in mm	Material
	P2239.3900	<b>iSy® Temporary abutment, crown, preparable, for all implant Ø, incl. iSy® Abutment screw</b>	3.9		Titanium alloy
	P2239.4800	<b>iSy® Temporary abutment, crown, preparable, for all implant Ø, incl. iSy® Abutment screw</b>	4.8		Titanium alloy
	P2244.4408	<b>iSy® Titanium base CAD/CAM, crown, for all implant Ø, incl. iSy® Abutment screw and iSy® Bonding aid</b>	4.5	0.8	Titanium alloy/POM
	P2244.4420	<b>iSy® Titanium base CAD/CAM, crown, for all implant Ø, incl. iSy® Abutment screw and iSy® Bonding aid</b>	4.5	2.0	Titanium alloy/POM
	P2244.5008	<b>iSy® Titanium base CAD/CAM, crown, for all implant Ø, incl. iSy® Abutment screw and iSy® Bonding aid</b>	5.2	0.8	Titanium alloy/POM
	P2244.5020	<b>iSy® Titanium base CAD/CAM, crown, for all implant Ø, incl. iSy® Abutment screw and iSy® Bonding aid</b>	5.2	2.0	Titanium alloy/POM
	P2244.4402	<b>iSy® Modeling aid for iSy® Titanium base CAD/CAM, burn-out</b>	4.5		POM
	P2244.5002	<b>iSy® Modeling aid for iSy® Titanium base CAD/CAM, burn-out</b>	5.2		POM
	P2411.5013	<b>iSy® CAM titanium blank, type IAC, Ø 12 mm, length 12.5 mm, for all implant-Ø (2 units)</b>	12.0		Titanium alloy
	P2421.5020	<b>iSy® CAM titanium blank, type ME, Ø 12 mm, length 20 mm, for all implant-Ø (2 units)</b>	12.0		Titanium alloy
	P3720.5000	<b>iSy® Collet for CAM-blank, type IAC, Ø 6 mm, length 17 mm, for all implant-Ø, incl. 2 units iSy® Fixing screw for CAM blank, type IAC, thread M1.6, hex</b>			Stainless steel
	P4005.1614	<b>iSy® Abutment screw, sterile</b>			Titanium alloy

GH = Gingival height



Prosthetics – Locator®				
	Art. No.	Article	GH in mm	Material
	P2253.4010	<b>iSy® Locator® Abutment</b>	1.0	Titanium alloy/TiN
	P2253.4020		2.0	Titanium alloy/TiN
	P2253.4030		3.0	Titanium alloy/TiN
	P2253.4040		4.0	Titanium alloy/TiN
	P2253.4050		5.0	Titanium alloy/TiN
	J2253.0102	<b>Locator® Male processing packages (2 units)</b> Set contents: 1 Titanium housing with processing replacement male 1 Block out spacer, white 1 Replacement male, clear 1 Replacement male, pink 1 Replacement male, blue		Titanium alloy/ polyethylene/ teflon/nylon
	J2253.0112	<b>Locator® Male processing packages for extended range (2 units)</b> Set contents: 1 Titanium housing with processing replacement male 1 Block out spacer, white 1 Replacement male, green 1 Replacement male, orange 1 Replacement male, red		Titanium alloy/ polyethylene/ teflon/nylon
	J2253.0200	<b>Locator® Impression cap (4 units)</b>		Aluminum/ polyethylene
	J2253.0340	<b>Locator® Analog (4 units)</b>		Aluminum
	J2253.0401	<b>Locator® Block out spacer, white (20 units)</b>		Teflon
	J2253.0402	<b>Locator® Processing replacement male, black (4 units)</b>		Polyethylene
	J2253.1002	<b>Locator® Replacement male, blue, LIGHT, Div.: 0°–10° (4 units)</b>		Nylon
	J2253.1003	<b>Locator® Replacement male, pink, MEDIUM, Div.: 0°–10° (4 units)</b>		Nylon
	J2253.1005	<b>Locator® Replacement male, clear, STRONG, Div.: 0°–10°, (4 units)</b>		Nylon
	J2253.2002	<b>Locator® Replacement male for extended range, red, LIGHT, Div.: 10°–20° (4 units)</b>		Nylon
	J2253.2003	<b>Locator® Replacement male for extended range, orange, MEDIUM, Div.: 10°–20° (4 units)</b>		Nylon
	J2253.2004	<b>Locator® Replacement male for extended range, green, STRONG, Div.: 10°–20° (4 units)</b>		Nylon
	J2253.2000	<b>Locator® Replacement male for extended range, gray, NO RETENTION, Div.: 0°–20° (4 units)</b>		Nylon





GH = Gingival height


Lab – Components and instruments			
	Art. No.	Article	Material
	P3550.2200	iSy® Gingiva height indicator, straight	Titanium alloy
	P3010.8001	iSy® Lab kit, Content: 1 iSy® Lab analog, for all implant Ø 1 iSy® Lab base, for all implant Ø 1 iSy® Lab abutment screw, yellow-green anodized	Titanium alloy
	P3010.7010	iSy® Lab analog, for all implant Ø, yellow-green anodized	Titanium alloy
	P3010.7012	iSy® Implant analog, for all implant Ø, yellow-green anodized	Titanium alloy
	P3010.7500	iSy® Handle for implant analog, resterilizable	Stainless steel
	P3010.7020	iSy® Lab base, for all implant Ø, yellow-green anodized	Titanium alloy
	P4006.1614	iSy® Lab abutment screw, yellow-green anodized	Titanium alloy
	P2553.0025	iSy® Plastic coping for hybrid abutment on implant base, with rotation securing device, burn-out	POM
	P2553.0020	iSy® Plastic coping for cemented crown on implant base, with rotation securing device, burn-out	POM
	P2553.0010	iSy® Plastic coping for cemented bridge on implant base, without rotation securing device, burn-out (2 units)	POM
	P5310.6060	iSy® Lab abutment screwdriver, yellow-green anodized	Titanium alloy/ stainless steel
	P3010.0100	iSy® Abutment collet for universal holder, for all implant Ø, yellow-green anodized	Titanium alloy
	J3709.0015	Universal holder	Stainless steel

PEEK (Poly ether ether ketone)

POM (polyoxymethylene)

Titanium alloy (Ti6Al4V ELI)

Accessories			
	Art. No.	Article	Material
	P5300.9011	X-ray planning foil, iSy® Implant System	
	J5330.8700	Prosthetic tray universal, without content, resterilizable	Radel®, silicone
	P5330.0110	iSy® Surgical and prosthetic tray, without content, resterilizable	Plastic
	P8010.1010	<b>iSy® Macro model, scale 3:1</b> Content: 1 iSy® Implant 1 iSy® Implant base 1 iSy® Abutment screw 1 iSy® Implant insertion tool 1 iSy® Screwdriver 1 iSy® Gingiva former 1 iSy® Multifunctional cap 1 iSy® Plinth for iSy® 3:1 Modell	Plastic/ stainless steel

Training materials					
	Art. No.	Article	Ø in mm	Length in mm	Material
	P1019.4411	iSy® Implant for practice, yellow-green anodized (2 units)	4.4	11	Titanium alloy

**Warning: implants for practice are not permitted for use on patients!**

Not all products are available in all countries.

# Materials

## Titanium Grade 4 – Properties (ASTM F67)

### Chemical structure (in %)

O	Fe	C	N	H	Ti		
≤ 0.4	≤ 0.5	≤ 0.08	≤ 0.05	≤ 0.015	Rest		

### Mechanical properties

Tensile strength	Elongation at break
≥ 550 MPa	≥ 12 %

## Titanium alloy Ti6Al4V ELI – Properties (ASTM F136)

### Chemical structure (in %)

Al	V	Fe	C	N	O	H	Ti
5.5–6.5	3.5–4.5	≤ 0.25	≤ 0.08	≤ 0.05	≤ 0.13	≤ 0.012	Rest

### Mechanical properties

Tensile strength	Elongation at break
≥ 860 MPa	≥ 10 %

# Further documentation

Further information about iSy® Products is available in the following documentations:

- “Preparation Instructions for the iSy® Implant System” and “Instructions for use for the iSy® Implant System” (see <http://ifu.camlog.com>)
- [www.isy-implant.com](http://www.isy-implant.com)

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