KYOCERA



FINESIA

Addendum Manual :
Cast-on abutment for BL Implant

* The pictures are concept images.

Addendum Manual : Cast-on abutment for BL Implant Table of Contents

1. Cement-retained superstructure ..... 2 to 7

1 Cast-on abutment ..... 2 to 3
1-1 Precautions for the use of cast-on abutments 4
1-2 Fabrication of a cement-retained superstructure using a cast-on abutment (custom abutment) ..... 5 to 7

2. Screw-retained superstructure ..... 8 to 12

1 Cast-on abutment ..... 8 to 9
1-1 Precautions for the use of cast-on abutments 10
1-2 Fabrication of a screw-retained superstructure using a cast-on abutment ..... 11 to 12

Technical information on the welding technique ..... 13 to 14

1. Cement-retained superstructure

1 Cast-on abutment

◆ Intended use
- Fabrication of provisional crowns for cement- or screw-retained superstructures
- Fabrication of provisional bridges for cement- or screw-retained superstructures

◆ Material
- Gold alloy (Ceramicor, manufactured by CENDRES+METAUX)

◆ Characteristics
- Available for the fabrication of provisional restorations
- Can be customized by milling and building up resin

◆ Intended use
- Creation of an emergence profile

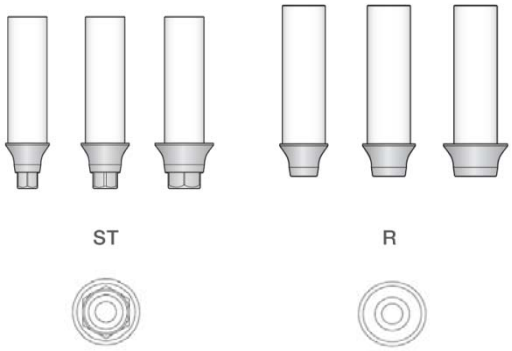
◆ Tightening torque
- NP 20 N•cm
- RP 30 N•cm
- WP 30 N•cm

◆ Indicated driver
- Hexalobular driver

◆ Sterilization condition
- Unsterilized

* Make sure to sterilize an unsterilized component before attaching it to the implant body in the oral cavity.

Cast-on abutment



Basic surgical procedure for cast-on abutments

Primary surgery

- Implant placement.
- Attach cover screw or healing abutment.

Tightening method

Manual (manual tightening)

Indicated driver

Hexalobular driver SH

Temporary prosthesis

- Provisional restoration (attachment of temporary abutment)

Tightening torque

NP	20 N•cm
RP/WP	30 N•cm

Indicated driver

Hexalobular driver

Final prosthesis

- Attachment of abutment/final prosthesis

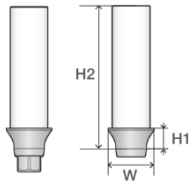
Tightening torque

NP	20 N•cm
RP/WP	30 N•cm

Indicated driver

Hexalobular driver

Variations in cast-on abutment size (Unit: mm)

Product drawing	Platform	Diameter of compatible implant (Φ)	Diameter (W)	Cuff height (H1)	Height (H2)
	NP	3.2/3.4	4.1	2	14
	RP	3.7/4.2	4.5		
	WP	4.7/5.2	5.5		

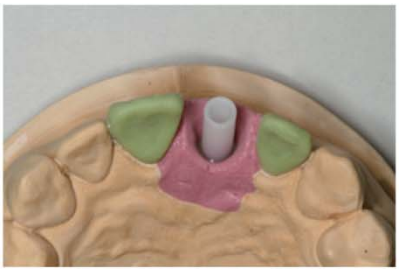
1-1 Precautions for the use of cast-on abutments

1) As a standard, an abutment is installed at least 3 months after implant placement in the mandible and at least 6 months after implant placement in the maxilla. Before abutment placement, please ensure that the soft tissues and bone have healed.
2) This product is not sterilized.
3) Obtain X-ray images as needed and confirm that there is no gap between the abutment and implant body.
4) Before attaching the abutment, thoroughly clean the inside of the implant body and eliminate foreign material, including blood.
5) A lab screw is used for laboratory work. Because the shape of a lab screw is the same as that of an abutment screw, carefully check the product label before use to avoid confusion.
6) The tightening torque for a tightened screw is slightly decreased because of initial plastic deformation of the screw itself. Retightening restores the fastening force, brings the components closer, and prevents loosening. Retighten the abutment screw two or three times.
7) Use an alternatively available abutment screw at the time of replacement during maintenance.
8) Do not store the products in an area exposed to high temperature, humidity, or direct sunlight. To prevent the risk of infection, never use implant bodies dropped on the floor or contaminated by foreign material such as saliva. Please discard such implants.
9) When tightening the abutment or operating a dedicated tool, be careful so that the patient does not accidentally swallow them.
10) Do not subject the abutment to excessive force, which can deform or damage it.
11) Check the package before opening it. Do not use the abutment, if the package is damaged.
12) Do not use any tool other than dedicated ones, otherwise you can damage the implant body.
13) Please read the package inserts before use and thoroughly understand the function, method of use, and surgical procedure.

1-2 Fabrication of a cement-retained superstructure using a cast-on abutment (custom abutment)

Step 1 Adjustment of the cast-on abutment

- Attach the cast-on abutment to an analog model.



Technical points

For a single tooth, use cast-on abutment ST (with an antirotation mechanism).

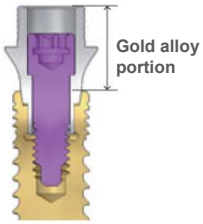


- With reference to the height of the adjacent teeth and clearance of the opposing tooth, perform milling to adjust the post as necessary.



Notes

Adjust the height while taking care not to grind the gold alloy portion.



Step 2 Wax-up

- Considering the anatomic form, fabricate a wax-up of the final post form on the cast-on abutment.



Step 3 Spruing/investing/casting

- Following spruing and investment of the waxed-up superstructure, perform the casting procedure using the conventional technique.





Step 4 Correction of form/polishing

- Correct the form of the cast superstructure and polish it.
  In particular, take care while polishing the portion that comes in contact with the gingiva.



- Check the relationship with the gingiva, perform the necessary adjustments, and create the framework for the final prosthesis.



- Build up facing material, correct the form, and polish the surface. The procedure is now complete.



2. Screw-retained superstructure

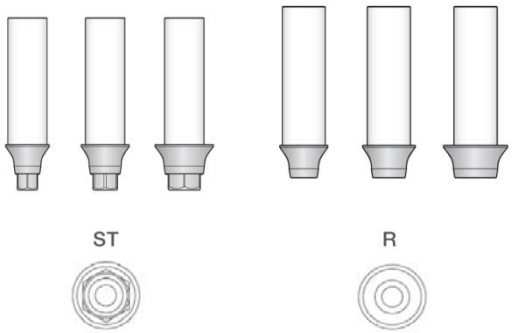
1 Cast-on abutment

◆ Intended use
- Fabrication of cement-retained superstructures using custom abutments
- Fabrication of screw-retained superstructures (single tooth or multiple teeth)

◆ Material
- Gold alloy (Ceramicor, manufactured by CENDRES+METAUX)

◆ Criteria for selection
- Insertion of single-tooth implants
- Insertion of multiple-tooth implants
- Applicable even when the clearance of the opposing tooth is inadequate
  (for screw-retained superstructures)

Cast-on abutment



◆ Tightening torque
- NP 20 N•cm
- RP 30 N•cm
- WP 30 N•cm

◆ Indicated driver
- Hexalobular driver

◆ Sterilization condition
- Unsterilized

* Make sure to sterilize an unsterilized component before attaching it to the implant body in the oral cavity.

Basic surgical procedure for cast-on abutments

Primary surgery

- Implant placement
- Attachment of a cover screw or healing abutment

Tightening method

Manual (manual tightening)

Indicated driver

Hexalobular driver SH

Temporary prosthesis

- Provisional restoration (attachment of temporary abutment)

Tightening torque

NP 20 N•cm

RP/WP 30 N•cm

Indicated driver

Hexalobular driver

Final prosthesis

- Attachment of the abutment/final prosthesis

Tightening torque

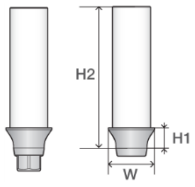
NP 20 N•cm

RP/WP 30 N•cm

Indicated driver

Hexalobular driver

Variations in cast-on abutment size (Unit: mm)

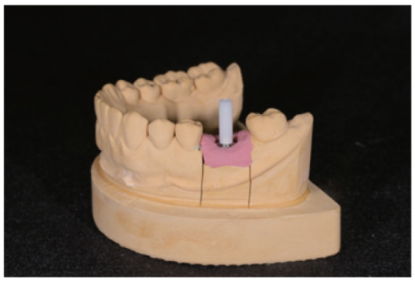
Product drawing	Platform	Diameter of compatible implant (Φ)	Diameter (W)	Cuff height (H1)	Height (H2)
	NP	3.2/3.4	4.1	2	14
	RP	3.7/4.2	4.5		
	WP	4.7/5.2	5.5		

1-1 Precautions for the use of cast-on abutments

1) As a standard, an abutment is installed at least 3 months after implant placement in the mandible and at least 6 months after implant placement in the maxilla. Before abutment placement, please ensure that the soft tissues and bone have healed.
2) This product is not sterilized.
3) Obtain X-ray images as needed and confirm that there is no gap between the abutment and implant body.
4) Before attaching the abutment, thoroughly clean the inside of the implant body and eliminate foreign material, including blood.
5) A lab screw is used for laboratory work. Because the shape of a lab screw is the same as that of an abutment screw, carefully check the product label before use to avoid confusion.
6) The tightening torque for a tightened screw is slightly decreased because of initial plastic deformation of the screw itself. Retightening restores the fastening force, brings the components closer, and prevents loosening. Retighten the abutment screw two or three times.
7) Use an alternatively available abutment screw at the time of replacement during maintenance.
8) Do not store the products in an area exposed to high temperature, humidity, or direct sunlight. To prevent the risk of infection, never use implant bodies dropped on the floor or contaminated by foreign material such as saliva. Please discard such implants.
9) When tightening the abutment or operating a dedicated tool, be careful so that the patient does not accidentally swallow them.
10) Do not subject the abutment to excessive force, which can deform or damage it.
11) Check the package before opening it. Do not use the abutment, if the package is damaged.
12) Do not use any tool other than dedicated ones, otherwise you can damage the implant body.
13) Please read the package inserts before use and thoroughly understand the function, method of use, and surgical procedure.

1-2 Fabrication of a screw-retained superstructure using a cast-on abutment

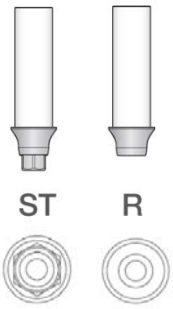
Step 1 Adjustment of the cast-on abutment



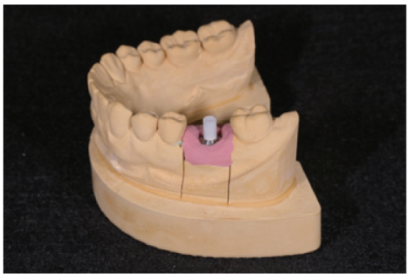
- Attach the cast-on abutment to an analog model.

Technical points

For a single tooth, use cast-on abutment ST (with an antirotation mechanism). For multiple teeth, use cast-on abutment R (without an antirotation mechanism).



- With reference to the height of the adjacent teeth and clearance of the opposing tooth, perform milling to adjust the post as necessary.



Step 2 **Wax-up**

- Considering the anatomic form, fabricate a wax-up on the cast-on abutment.



Step 3 **Spruing/investing/casting**

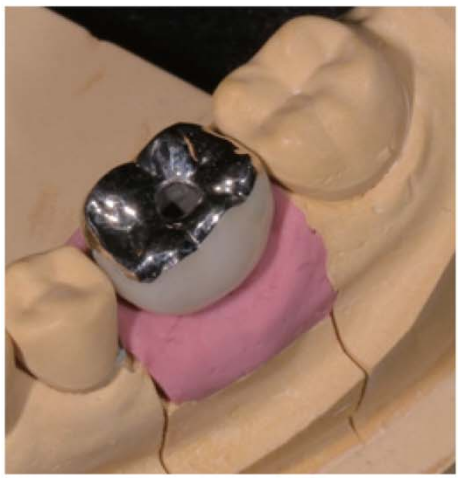
- Following spruing and investment of the waxed-up superstructure, perform the casting procedure using the conventional technique.



Step 4 **Correction of form/polishing**

- Correct the form of the cast superstructure and polish it. The procedure is now complete.

  In particular, take care while polishing the portion that comes in contact with the gingiva.



Technical information on the welding technique

Precautions for use of the welding technique

The cast-on abutment and gold cylinder have a high degree of flexibility and can be used for a wide variety of applications. This enables the clinician to create custom abutments and screw-retained superstructures with high precision. During welding, a metal-to-metal bond is formed through the interface reaction (diffusion) of two alloy materials, which takes place when the CENDRES+METAUX Ceramicor (gold alloy) base and the cast alloy are wetted in molten metal.



In the BL implant system, the welding technique is used for the cast-on abutment/gold cylinder.

To ensure secure welding, it is important to pay attention to the conditions and method of use at each step.

Wax-up

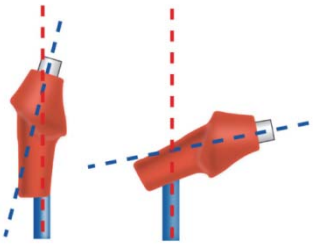
- Ensure that you add wax to the cast-on abutment on an analog and do not let the wax flow over the junction.
- Do not use a metal instrument to adjust excess wax because such instruments can damage the gold alloy base.
- Ensure that the wax layer on the gold alloy base is sufficiently thick (at least 0.75 mm).
- Following completion of the wax-up, remove the oil film and excess wax from the joint and inner surface of the implant using a swab.



The figure shows a cast-on abutment for TL implants.

Spruing

- With regard to the direction of spruing, avoid a sprue that is orthogonal to the long axis of the abutment so that the cast pressure is not directly transmitted to the abutment.
- Consider installing a vent as a measure against back pressure.
- Perform the investment procedure without using a pattern cleaner.



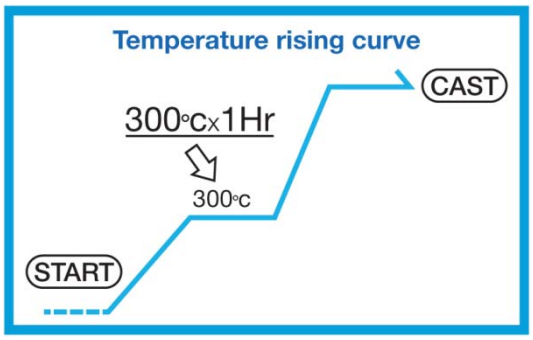
Setting up air vent



The figure shows a cast-on abutment for TL implants.

Investment and ring incineration

- Do not use any investment material of the rapid heating type. Make sure to use an investment material of the conventional heating type.
- Use an investment material that suits the alloy used.
- Before handling the investment material, thoroughly check the manufacturer's instruction manual.
- Be careful about the temperature rise during burning of the ring.
  Be careful when using burnout-type plastic, pattern resin, and plastic sprues for cast-on abutments.
  During the incineration of resin-based material, the softening temperature is approximately 190°C. The material is expected to swell rapidly at this temperature. This type of swelling can damage the investment material; therefore, avoid rapid heating. Moreover, gradually increase the temperature from room temperature to approximately 300°C.
  For the holding temperature and time, check the instruction manual for the investment material being used.



Casting

- Select an alloy for welding from the following: gold alloy for dental casting; ISO 22674:2006 Type 3 and Type 4 equivalent (an alloy with a gold content of 65% or more and a total gold and platinum group element content of 75% or more, or a total gold and platinum group element content of 25% or more and less than 75%).
  Use an alloy with an elongation equal to or greater than 5%.
- For a single crown, select a weld body with a maximum height of 12.0 mm and a maximum diameter of 12.0 mm. In addition, ensure that the weld body is 0.75 mm or more in thickness.
  When correcting the angle of the welding body, set up the dental axis within 15° to the long axis of the implant.
- Maintain a casting temperature of 1,200°C or lower.
- After casting, let the casting ring stand to cool to a room temperature.
- When removing the welding body from the ring, do not subject it to a strong impact with a hammer or any other device.
- Do not sandblast to remove the investing material. Otherwise, the fit will be compromised.

KYOCERA Asia Pacific Pte. Ltd.
Medical division

298 Tiong Bahru Road #13-03/05 Central Plaza Singapore 168730
TEL : 65-6271-0500 FAX : 65-6271-0600

FINESIA is a registered trademark of KYOCERA Medical Corporation.
The information included in this manual is as of December 2017.
Reproduction or copying of this manual, in whole or in part, without permission is prohibited.

D-108-2t

© 2026 KYOCERA Medical Corporation