PROSTHETIC MANUAL

for Izenimplant System







for Izenimplant System

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21p Cemented Abutment

23	Step 1	Separation of Cover Screw or Healing Abutment
24	Step 2	Connect the Impression Coping
26	Step 3	Impression Taking & Connect the Lab Analog
28	Step 4	Working Model Production
29	Step 5	Wax-Up, Casting & Porcelain Build-Up

- 30 Step 6 Transfer Jig Production
- 31 Step 7 Fastening of intraoral Abutment & installation of prosthesis



33p Angled Abutment

35	Step 1	Separation of Cover Screw or Healing Abutment			
35	Step 2	Connect the Impression Coping			
36	Step 3	Impression Taking & Connect the Lab Analog			
37	Step 4	Working Model Production			
37	Step 5	Wax-Up, Casting & Porcelain Build-Up			
38	Step 6	Transfer Jig Production			
39	Step 7	Fastening of Abutment in oral cavity & installation of prosthesis			



41p FreeMilling Abutment

43	Step 1	Separation of Cover Screw or Healing Abutment			
43	Step 2	Connect the Impression Coping			
45	Step 3	Impression Taking & Connect the Lab Analog			
47	Step 4	Working Model Production and Abutment Milling			
48	Step 5	Wax-Up, Casting & Porcelain Build-Up			
49	Step 6	Transfer Jig Production			
50	Step 7	Fastening of Abutment in oral cavity & installation of prosthesis			



51p CCM Cast Abutment

53	Step 1	Separation of Cover Screw or Healing Abutment				
53	Step 2	Connect the Impression Coping				
54	Step 3	Impression Taking				
55	Step 4	Fastening of Healing Abutment or Production of Temporary Abutment				
56	Step 5	Working Model Production				
57	Step 6	Wax-Up				
58	Step 7	Casting				
59	Step 8	Porcelain build up				
60	Step 9	Oxide film removal				

61 Step 10 Fastening of intraoral Abutment & installation of prosthesis

63p Multi Straight & Multi Angled Abutment

- 66 Step 1 Separation of Cover Screw or Healing Abutment
 67 Step 2 Connect the Multi Straight & Multi Angled Abutment in the oral cavity
 68 Step 3 Connect the Impression Coping
 69 Step 4 Impression Taking(Abutment level Impression taking)
 70 Step 5 Working Model Production
 71 Step 6 Wax-Up
 72 Step 7 Casting
 73 Step 8 Porcelain build up
 74 Step 9 Oxide film removal
- 75 Step 10 Ceramic Crown Production
- 76 Step 11 Delivering & Screwing



79p

81	Step 1	Separation of Cover Screw or Healing Abutment
82	Step 2	Connect the Ball Abutment in the oral cavity
83	Step 3	Impression Taking
84	Step 4	Working Model Production
84	Step 5	Wax Denture Production
85	Step 6	Resin denture Production
87	Step 7	Delivering

89p Ti Link Abutment

- 91 Step 1 Separation of Cover Screw or Healing Abutment
 91 Step 2 Impression Taking
 93 Step 3 Working Model Production
 94 Step 4 Scan
- 94 Step 5 Design
- **95 Step 6** Design confirm and processing
- 96 Step 7 Sintering and post-processing
- 97 Step 8 Bonding and completion of Abutment
- 98 Step 9 Final prosthesis fabrication
- 98 Step 10 Fastening of intraoral Abutment & installation of prosthesis

99p Ti Blank Abutment

101	Step 1	Separation of Cover Screw or Healing Abutment
101	Step 2	Impression Taking
103	Step 3	Fastening of Healing Abutment or Production of Temporary Abutment
104	Step 4	Working Model Production
104	Step 5	Scan
105	Step 6	Design
105	Step 7	Design Confirm and processing
106	Step 8	Post Processing
106	Step 9	Connect the Customized Abutment
106	Step 10	Wax-up
107	Step 11	Casting
107	Step 12	Ceramic Crown Product

108 Step 13 Fastening of intraoral Abutment & installation of prosthesis

ZENEX IMPLANT SYSTEM

Designed for various types of bone

Post shape (Rounded top) optimized for digital dentistry system

Wide cross-section to prevent crown rotation and secure accurate placement

Wide marginal area to prevent crown fracture

Small screw guide hole to secure strength of abutment

Optimized abutment screw for Short Fixture

Platform Switching

Prevents crestal bone loss after implant placement and provides esthetic result

Two conical contact point -

Strong tightening force of dual contact between fixture and abutment results in less sink-down which leads to preventing screw loosening







11° tapered double contact connection design to prevent screw loosening

Small connection enables to use on narrow-width bone





Deep hex hole to prevent abutment rotation





5° tapered connection to secure strong fixation Internal screw for easy tightening and separation of abutment



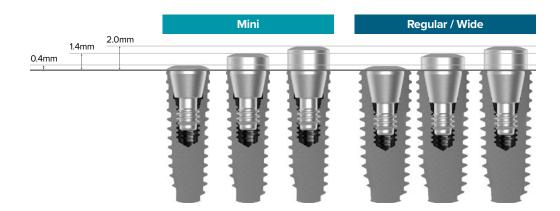
Cover Screw

Stage

Select appropriate Cover Screw height upon depth of implant placement. Select specification fits for fixture connection.

Tighten with 1.2 Hex Driver by hand.

Recommended tightening torque: 5~8Ncm

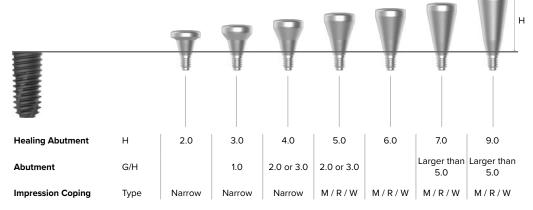


Healing Abutment

Use Healing Abutment fits for the diameter of abutment. Use specification fits for fixture connection.

Tighten with 1.2 Hex Driver by hand.

Recommended tightening torque: 5~8Ncm



ZENEX System Overview



		Ti Link Abutment	Ti Blank Abutment	Multi Straight Abutment	Multi Angled Abutment	
			Ļ		P	
		2-P	2-Piece		3-Piece	
Prosthetic Type	Screw	~	~	Х	Х	
	Cement	~	~	~	~	
	Combination	~	~	~	~	
Impression Type	Abutment Level	Х	Х	~	~	
	Fixture Level	~	~	Х	Х	

Overdenture Ball Abutment Multi Straight Multi Analed Abutment Abutment Case **Prosthetic Type** Retentive Anchor ~ ~ Bar Frame 1 ~ 1 Impression Type Abutment Level ~ ~ ~ Fixture Level Х Х Х

Single / Bridge Case

2 piece

Screw or cement or combination type rosthesis is possible with fixture level

Cemented / Angled / FreeMilling Abutment

Screw or cement or combination type prosthesis is possible with fixture level impression, can be customized depending on oral environment and prosthesis type

CCM Cast Abutment

Screw or cement or combination type prosthesis is possible with fixture level impression (need caution with casting, firing in screw type prosthesis fabrication)

Ti Blank/Ti Link Abutment

CAD/CAM product, fabricate customized abutment for patient using S/W in different oral environment and prosthesis type

3 piece

Multi Straight / Multi Angled Abutment

Cement or combination type prosthesis is possible with abutment level mpression and effective in bridge case with unfavorable path

* Contents above are general guideline from the company and products must be selected in consideration of oral environment, habits, fixture placement condition, clinical experience and aftermath.

Overdenture Case

3 piece

Multi Straight / Multi Angled Abutment

Effective in the fabrication of overdenture using bar frame in abutment level impression

 Contents above are general guideline from the company and products must be selected in consideration of oral environment, habits, fixture placement condition, clinical experience and aftermath.

Prosthetic Type

Screw

Combined with abutment through casting and firing in fabrication process



- Screw hole is exposed above occlusal surface, therefore esthetics and occlusion have to be considered
- Prosthesis can easily be removed with screw, therefore there is no side effects from cement
- Errors can occur in bridge fabrication in casting or firing process
- Setting is affected severely by the fixture angle and adjacent teeth

Cement

Casted or fired separately from abutment in the fabrication process, and combined by cement



- There is no screw hole, therefore esthetic surface can be created
- · Difficult to remove prosthesis
- Cement is difficult to remove and has chances for inflammation
- \cdot Passive fit in bridge is easy
- Relatively easy setting, only affected by adjacent teeth

Combination

 Casted or fired separately from abutment in the fabrication process, and combined by cement (same as cement type)



- Screw hole is exposed above occlusal surface, therefore esthetics and occlusion have to be considered
- Maintenance is easy because prosthesis can
 easily be removed with screw
- After connecting prosthesis with cement, cement can be removed completely outside the mouth, so there is no side effect from cement
- · Passive fit in bridge is easy
- Setting is affected by the fixture angle and adjacent teeth but relatively easy compared to screw type

Impression Type

Abutment Level Impression

- · Similar impression taking as natural teeth
- · Bring abutment shape/position to working model (Impression taking is based on abutment information)
- \cdot Prosthetic process is relatively easy and convenient
- · Close tray (ready made / stock tray) used
- · Exclusive impression coping for each abutment is recommended









Fixture Leve Impression Pick-up Type

- · Bring fixture's connection/position to working model (impression taking is based on fixture information)
- · Impression taking is relatively complicated but accuracy is better than transfer type
- · Impression coping moves as one body with impression body
- · Open tray (custom / individual tray) used













Fixture Level Impression Transfer Type

- · Bring fixture's connection/position to working model (impression taking is based on fixture information)
- \cdot Convenient in posterior area with limited mouth opening
- · Impression coping moves separately from impression body
- · Close tray (ready made / stock tray) used









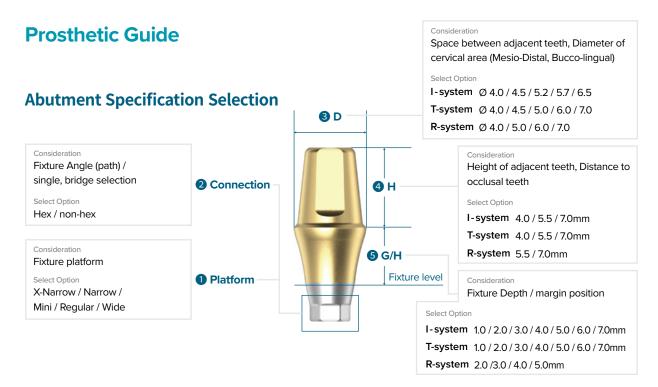
Working Model

Tightening Torque

Recommended to use the tightening torque below

(Need regular maintenance for the abrasion, damage and functionality of components such as driver, torque wrench etc)





Guide Tip.

Emergence Profile Formation Tip

- Pre surgery planning is important since fixture depth decides abutment's G/H and H
- It is important to select abutment diameter similar to natural tooth's cervical area
- **Abutment Diameter Selection**
- Diameter in cervical area
 Abutment Diameter

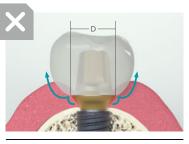


- ※ Natural teeth cervical area mesial-distal / buccal-lingual: Based on smaller specification among standard specification
- When appropriate abutment specification for restoration was not selected Impossible to create natural prosthesis contour like beside



ZENEX System Fixture D Ø 4.5 / L 11.5mm

Cemented Abutment D Ø 6.5 / P/H 5.5mm / G/H 2.0mm

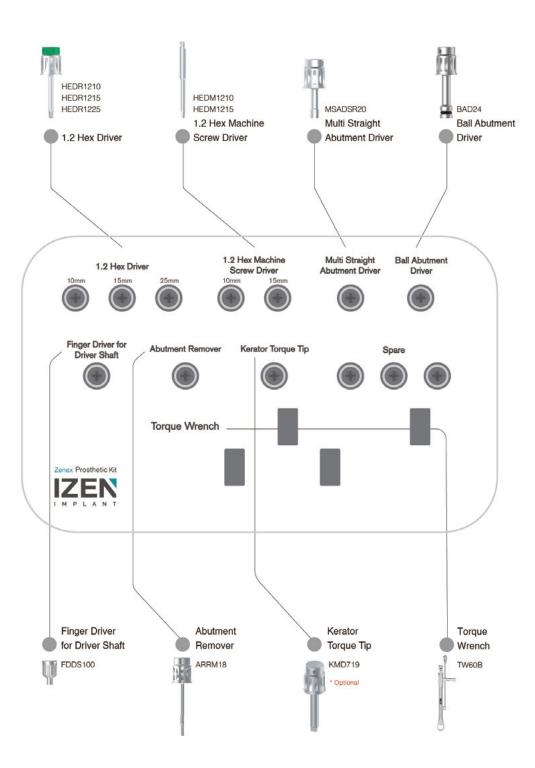


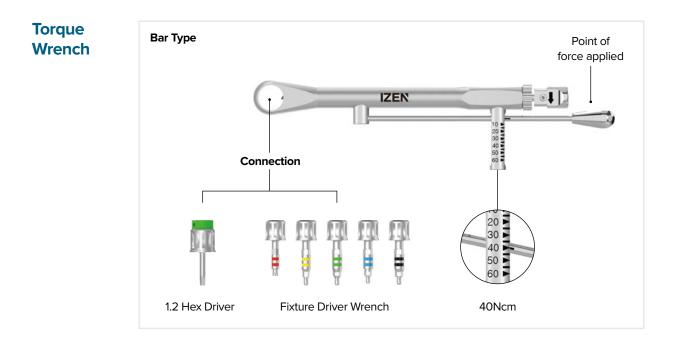
ZENEX System Fixture D Ø 4.5 / L 11.5mm

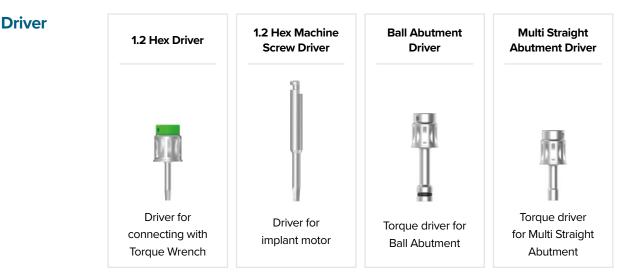
Cemented Abutment D Ø 5.7 / P/H 5.5mm / G/H 2.0mm

Component & Instrument

Prosthetic KIT







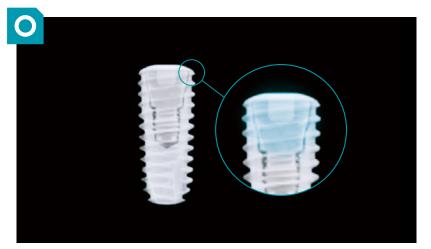
% Normally, perform rough connection by hand first and tighten in final torque with torque wrench

Right Connection Checking Guide

Cover Screw

- Misconnection happens by the bone near fixture or adjacent tissue and foreign substance
- \cdot Check right connection after removing interfering area with bone profiler





Healing Abutment

- If healing abutment and fixture has right connection, there is sealing on the top of taper area inside
- Misconnection happens by the bone near fixture or adjacent tissue and foreign substance
- \cdot Fixture failure can happen with plague and bacteria proliferation in gap
- \cdot Check right connection after removing interfering area with bone profiler



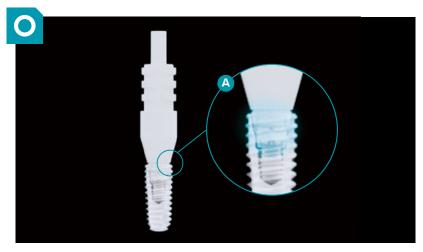


Impression Coping

Pick-up Impression Coping

- \cdot Misconnection occurs when fixture and hex do not connect accurately, or with interference from bone and tissue around fixture
- Check right connection by checking if coping body notch(A) matches with top of fixture or if there is gap inside the 11° taper area





Transfer Impression Coping

- \cdot Check right connection by checking if coping body notch(A) matches with top of fixture or if there is gap inside the 11° taper area
- % Transfer impression coping :

Guide pin will not be connected without accurately setting the hex, therefore reduce errors from users

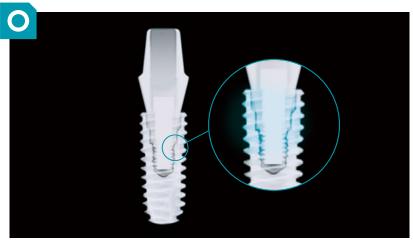


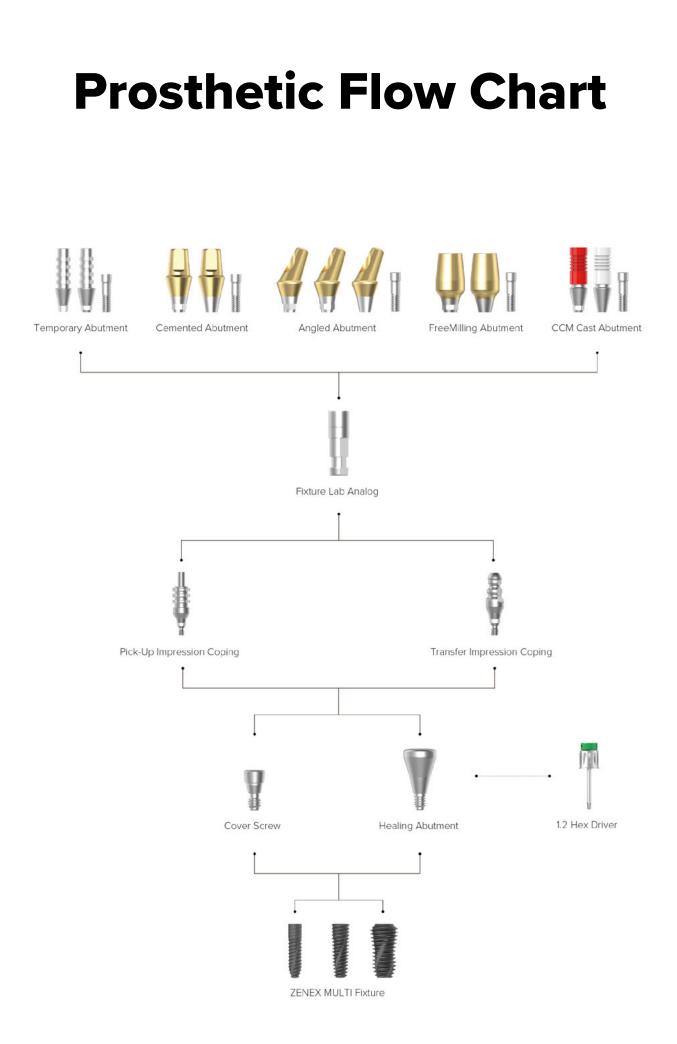


Abutment

- \cdot Misconnection occurs when fixture and hex do not connect accurately, or with interference from bone and tissue around fixture
- \cdot Modify wrong hex setting with x-ray or use Bone profiler to remove interfering area and check right connection







Prosthetic Manual for Izenimplant System



CEMENTED ABUTMENT

Prosthetic Process

- 23 Step 1 Separation of Cover Screw or Healing Abutment
- 24 Step 2 Connect the Impression Coping
- 26 Step 3 Impression Taking & Connect the Lab Analog
- 28 Step 4 Working Model Production
- 29 Step 5 Wax-Up, Casting & Porcelain Build-Up
- **30 Step 6** Transfer Jig Production
- 31 Step 7 Fastening of intraoral Abutment & installation of prosthesis



Cemented Abutment



Abutment Features

The top part of the post is rounded, making it easy to fasten the zirconia crown.



Abutment for manufacturing Cement/Combination-retained type prosthesis

Select specification fits for fixture connection.

Customized by grinding (need to be maintained at least 3.0mm of Abutment Length above Fixture Platform)

Fixture Level Impression

Tighten with 1.2 Hex Driver

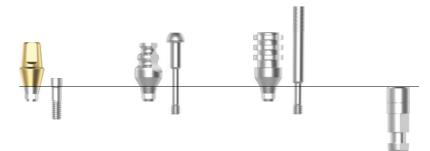
Recommended tightening torque X-Narrow: 20Ncm Narrow, Mini, Regular, Wide: 30Ncm

Abutment Diameter Selection





Fixture Level Impression







Separation of Cover Screw or Healing Abutment



Remove Cover Screw or Healing Abutment with 1.2 Hex Driver. At this time, connect dental floss to the spinner in the handle part of the Driver so that the Driver does not pass to the patient's neck. And prepare Impression Coping for the connection of the Fixture.





Chair Side Step 1

Removal of Cover Screw or Healing Abutment

NOTE: Connect dental floss to the spinner in the handle part of the Driver so that the Driver does not pass to the patient's neck.





Transfer Impression Coping

Connect the Impression Coping

1.2 Hex Driver



Transfer Impression Coping





Check the exact contact between the Impression Coping and the Fixture with X-ray.



Using 1.2 Hex Driver, connect the Transfer Impression Coping that matches the Fixture with the inside of the Fixture, and connect the Guide Pin.

1.2 Hex Driver



Pick-up Impression Coping



Pick-up Impression Coping

Using 1.2 Hex Driver, connect Pick-up Impression Coping that matches the Fixture with the inside of the Fixture and connect the Guide Pin.



Check the exact contact between the Impression Coping and the Fixture with X-ray.



Chair Side Step 2

Connect the Impression Coping

- Select the appropriate type of Impression Coping that matched the Fixture with the inside of the Fixture
- Using 1.2 Hex Driver, connect the Impression Coping and connect the Guide Pin
- Check the exact contact between the Impression Coping and the Fixture with X-ray.



Impression Taking & Connect the Lab Analog

Transfer Impression Coping Lab Analog



Transfer Impression Coping

After injecting the impression material using an Injection syringe around the Coping, the tray filled with the impression material is placed in the oral cavity to obtain an accurate impression.

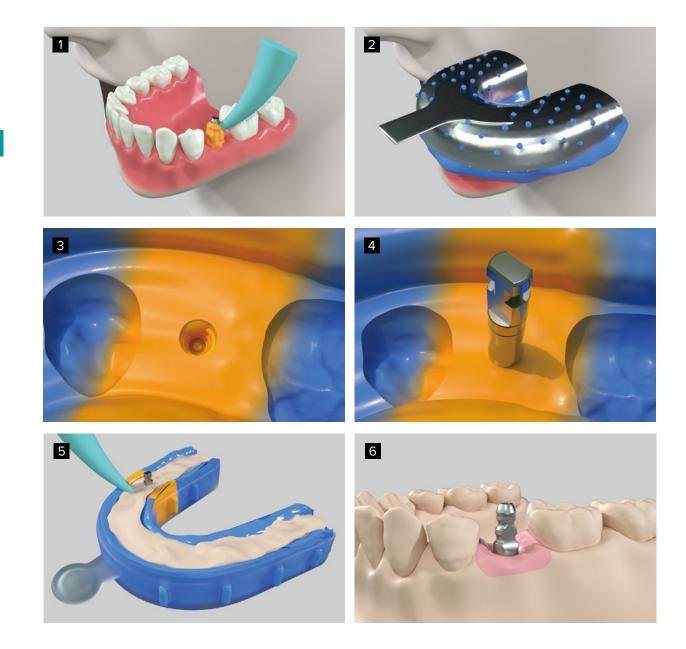
After removing blood marks and other residues deposited in the impression body, separate the intraoral Transfer Impression Coping and connect it to the Lab Analog.

After contacting the connected Coping and Analog with the Transfer Impression Coping in the impression body, confirm the cross section accurately and deliver it to the Lab.

Impression material Injection Impression

Coping and Lab Analog connection

Coping and Lab Analog connected to the impression body



Pick-up Impression Coping





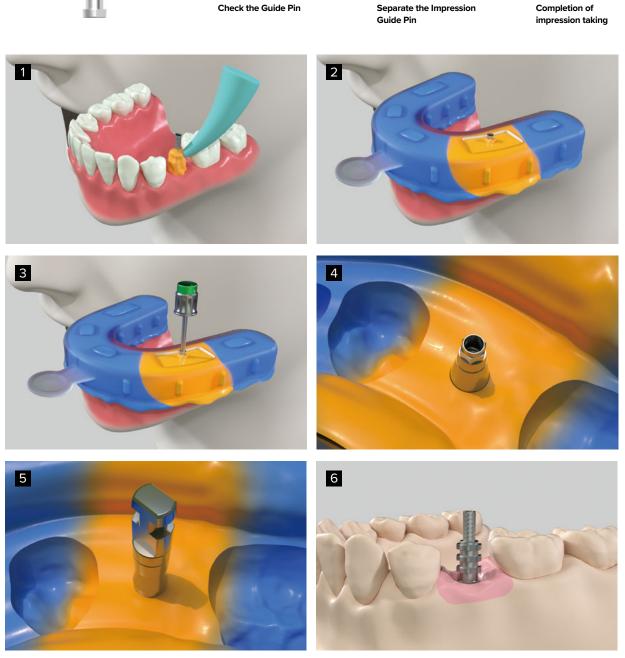


Pick-up Impression Coping

After forming a suitable hole so that the head of the Guide Pin can be exposed outside the prepared individual tray, try the tray first to see if the head of the Guide Pin is visible through the hole.

Rubber impression material is injected without gap around Pick-up Impression Coping, and impression is obtained by accurately positioning the tray coated with the impression material.

After the impression material is hardened, unfasten the Guide Pin to remove the tray from the oral cavity, check for abnormalities in the impression body, remove bloodstains and other residues, and then deliver it to the lab.



Lab Side Step 4

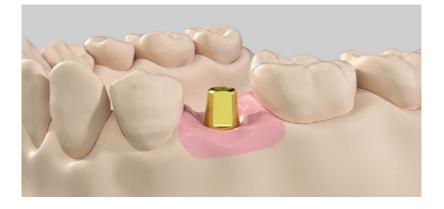
Working Model Production

Cemented Abutment



After passing the body making impressions in the doctor's office after checking the correct fastening of the Lab Analog form an Artificial Gum around Analog, and injecting the anhydrite is produced by the Working Model.

Accurately fasten the Cemented Abutment that matches the Analog on the work model.



Lab Side



Wax-Up, Casting & Porcelain Build-Up

Use Pattern Resin to make Resin Cap, and after Wax-Up, make PFM prosthesis in the usual way.

•	•	•	•	•	— •
Resin Cap production	Wax-Up	Cut-Back	The finished Castings	Firing after Build-Up	Prosthesis completion









Lab Side
Step 6 (optional)

Transfer Jig Production

Remove Artificial Gum from the working model and connect the Abutment accurately using 1.2 Hex Driver. Next, build the Pattern Resin to make the Transfer Jig.

When making a prosthesis by directly fastening the Abutment on the model, it is necessary to make a Transfer Jig to reproduce the position of the Abutment on the model as it is in the oral cavity.

In particular, in the case of using a non-hex type Abutment, there is no repositioning function, so it is necessary to make an accurate Transfer Jig using pattern resin when receiving regardless of single/bridge.









Fastening of intraoral Abutment & installation of prosthesis Using a Transfer Jig, place the Abutment into the oral cavity accurately and fasten the Abutment with a 1.2 Hex Driver.

The correct connection between the Abutment and the Fixture is confirmed by X-ray.

The final tightening is to 30Ncm (to be tightened according to the recommended tightening torque value guided by Abutment) using a 1.2 Hex Driver and a Torque Wrench.

After checking the passive fit of the prosthesis margin, proper contact with the adjacent teeth, and occlusion with the antagonist teeth, block-out the screw hole and cement the final prosthesis on the Abutment.

Abutment connection in the oral cavity Tighten with recommended tightening torque value

Cementation

Final prosthesis fastening







Prosthetic Manual for Izenimplant System

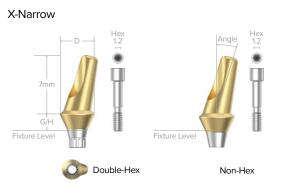


ABUTMENT ABUTMENT

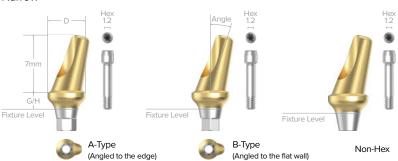
Prosthetic Process

- 35 Step 1 Separation of Cover Screw or Healing Abutment
- 35 Step 2 Connect the Impression Coping
- 36 Step 3 Impression Taking & Connect the Lab Analog
- 37 Step 4 Working Model Production
- 37 Step 5 Wax-Up, Casting & Porcelain Build-Up
- **38 Step 6** Transfer Jig Production
- 39 Step 7 Fastening of Abutment in oral cavity & installation of prosthesis

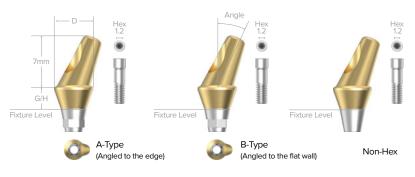
Angled Abutment



Narrow



Mini, Regular & Wide



Abutment Features

The top part of the post is rounded, making it easy to fasten the zirconia crown.



Abutment for manufacturing Cement/Combination-retained type prosthesis

Various types of Angle

- 15° for Ø3.0 X-Narrow Fixture
- 17° for Ø 3.0 Narrow Fixture
- 15° & 25° for Mini, Regular and Wide Fixture [Ø 3.5 \sim Ø 7.0]

Select specification fits for fixture connection.

Fixture Level Impression

Can be positioned in 12 directions by selecting A or B type

Tighten with 1.2 Hex Driver

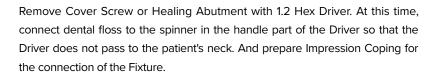
Recommended tightening torque X-Narrow: 20Ncm Narrow, Mini, Regular, Wide: 30Ncm





Separation of Cover Screw or Healing Abutment











Transfer Impression Coping

Connect the Impression Coping

1.2 Hex Driver



Transfer Impression Coping





Using 1.2 Hex Driver, connect the Transfer Impression Coping that matches the

Fixture with the inside of the Fixture, and connect the Guide Pin.

Check the exact contact between the impression Coping and the Fixture with X-ray.







Impression Taking & Connect the Lab Analog



Transfer Impression Coping

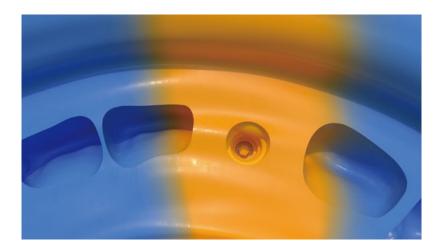
After injecting the impression material using an Injection syringe around the Coping, the tray filled with the impression material is placed in the oral cavity to obtain an accurate impression.

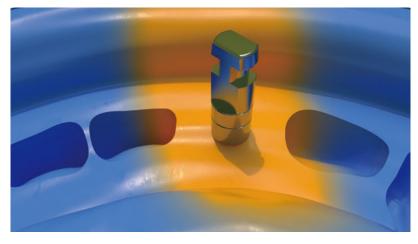
After removing blood marks and other residues deposited in the impression body, separate the intraoral Transfer Impression Coping and connect it to the Lab Analog.

After contacting the connected Coping and Analog with the Transfer Impression Coping in the impression body, confirm the cross section accurately and deliver it to the Lab.

Impression Impression Cop material Ana Injection

Coping and Lab Analog connection Coping and Lab Analog connected to the impression body





Lab Side



Working Model Production





After passing the body making impressions in the doctor's office after checking the correct fastening of the Lab Analog form an Artificial Gum around Analog, and injecting the anhydrite is produced by the Working Model.

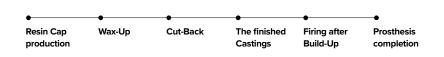
Accurately fasten the Angled Abutment that matches the Analog on the work model.





Wax-Up, Casting & Porcelain Build-Up

Use Pattern Resin to make Resin Cap, and after Wax-Up, make PFM prosthesis in the usual way.







Lab Side
Step 6 (optional)

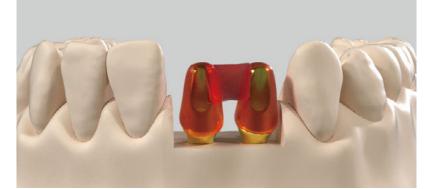
Transfer Jig Production

Remove Artificial Gum from the working model and connect the Abutment accurately using 1.2 Hex Driver. Next, build the Pattern Resin to make the Transfer Jig.

When making a prosthesis by directly fastening the Abutment on the model, it is necessary to make a Transfer Jig to reproduce the position of the Abutment on the model as it is in the oral cavity.

In particular, in the case of using a non-hex type Abutment, there is no repositioning function, so it is necessary to make an accurate Transfer Jig using pattern resin when receiving regardless of single/bridge.









Fastening of Abutment in oral cavity & installation of prosthesis

1.2 Hex Driver

Torque Wrench

Angled Abutment

IZEN

Using a Transfer Jig, place the Abutment into the oral cavity accurately and fasten the Abutment with a 1.2 Hex Driver.

The correct connection between the Abutment and the Fixture is confirmed by X-ray.

The final tightening is tightened to 30Ncm (to be tightened according to the recommended tightening torque value guided by Abutment) using a 1.2 Hex Driver and a Torque Wrench.

After checking the passive fit of the prosthesis margin, proper contact with the adjacent teeth, and occlusion with the antagonist teeth, block-out the screw hole and cement the final prosthesis on the Abutment.

Abutment connection in the oral cavity

Tighten with recommended tightening torque value Cementation

Final prosthesis fastening







Prosthetic Manual for Izenimplant System



FREEMILLING ABUTIMENT

Prosthetic Process

- 43 Step 1 Separation of Cover Screw or Healing Abutment
- 43 Step 2 Connect the Impression Coping
- 45 Step 3 Impression Taking & Connect the Lab Analog
- 47 Step 4 Working Model Production and Abutment Milling
- 48 Step 5 Wax-Up, Casting & Porcelain Build-Up
- 49 Step 6 Transfer Jig Production
- 50 Step 7 Fastening of Abutment in oral cavity & installation of prosthesis

FreeMilling Abutment



Abutment for manufacturing Cement/Combination-retained type prosthesis

Used when creating free marginal space for Abutment

Select specification fits for fixture Connection

Customized by grinding (need to be maintained at least 3.0mm of Abutment Length above Fixture Platform)

Fixture Level Impression

Tighten with 1.2 Hex Driver

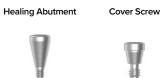
Recommended tightening torque X-Narrow: 20Ncm Narrow, Mini, Regular, Wide: 30Ncm

When using a Narrow Fixture (Ø 3.0), use Mini Type FreeMilling Abutment of T-System.

Step 1



Separation of Cover Screw or Healing Abutment



Remove Cover Screw or Healing Abutment with 1.2 Hex Driver. At this time, connect dental floss to the spinner in the handle part of the Driver so that the Driver does not pass to the patient's neck. And prepare Impression Coping for the connection of the Fixture.







Transfer Impression Coping

Connect the Impression Coping

1.2 Hex Driver



Transfer Impression Coping





Using 1.2 Hex Driver, connect the Transfer Impression Coping that matches the

Fixture with the inside of the Fixture, and connect the Guide Pin.

Check the exact contact between the impression Coping and the Fixture with X-ray.



1.2 Hex Driver

Pick-up Impression Coping



Pick-up Impression Coping

Using 1.2 Hex Driver, connect Pick-up Impression Coping that matches the Fixture with the inside of the Fixture and connect the Guide Pin.



Check the exact contact between the impression Coping and the Fixture with X-ray.







Impression Taking & Connect the Lab Analog



Transfer Impression Coping

After injecting the impression material using an Injection syringe around the Coping, the tray filled with the impression material is placed in the oral cavity to obtain an accurate impression.

After removing blood marks and other residues deposited in the impression body, separate the intraoral Transfer Impression Coping and connect it to the Lab Analog.

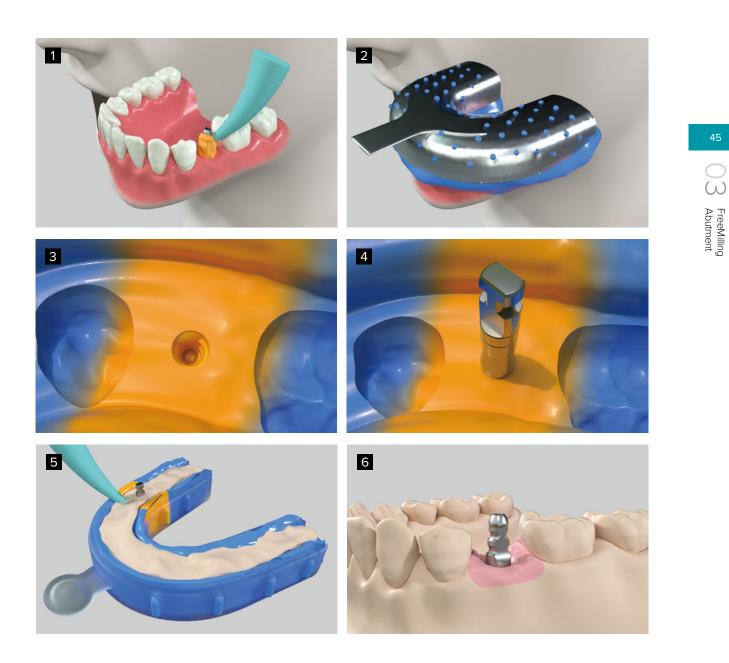
After contacting the connected Coping and Analog with the Transfer Impression Coping in the impression body, confirm the cross section accurately and deliver it to the Lab.

Impression material Injection

Impression

Coping and Lab Analog connection

Coping and Lab Analog connected to the impression body



Lab Analog

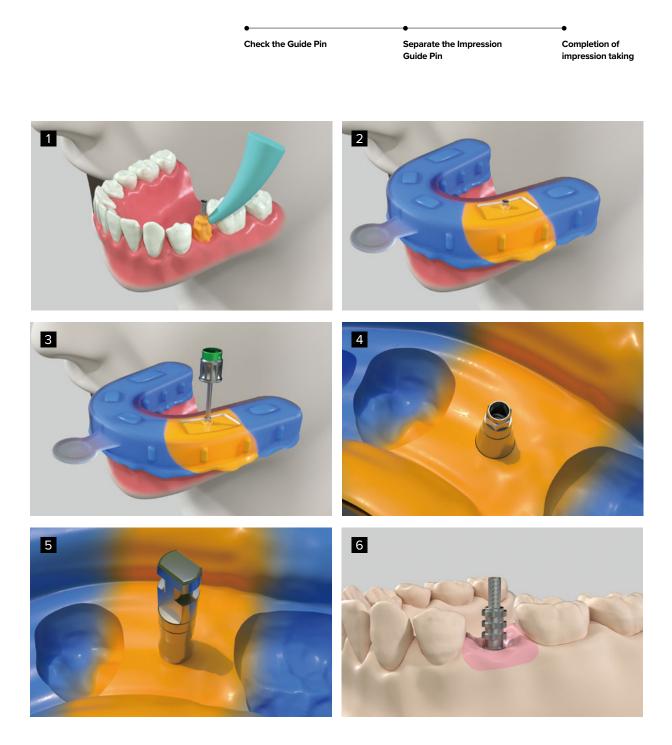


Pick-up Impression Coping

After forming a suitable hole so that the head of the Guide Pin can be exposed outside the prepared individual tray, try the tray first to see if the head of the Guide Pin is visible through the hole.

Rubber impression material is injected without gap around Pick-up Impression Coping, and impression is obtained by accurately positioning the tray coated with the impression material.

After the impression material is hardened, unfasten the Guide Pin to remove the tray from the oral cavity, check for abnormalities in the impression body, remove bloodstains and other residues, and then deliver it to the lab.



Lab Side



Working Model Production and Abutment Milling After passing the body making impressions in the doctor's office after checking the correct fastening of the Lab Analog form an Artificial Gum around Analog, and injecting the anhydrite is produced by the Working Model.

Place the FreeMilling Abutment that matches the Analog on the model on the work surface so that it is reproduced as an optimal Custom Abutment, and then mill.

Therefore, the overall deletion is preceded, and fine parts such as the margin are finished using a carbide bur and milling machine).



FreeMilling Abutment





Lab Side
Step 5

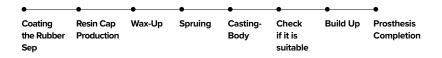
Wax-Up, Casting & Porcelain Build-Up

After milling, make Resin Cap using Pattern Resin, and Wax-Up.

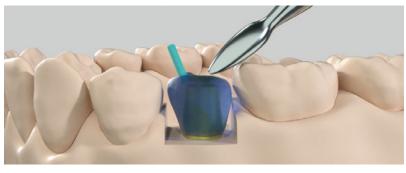
At this time, apply the Rubber Sep that satisfies both the cement space and the separating material role as thin as the color does not reflect on the Abutment surface to make the Resin Cap.

Cap using Rubber Sep is easy to separate, and the space where Rubber Sep is removed has the advantage of compensating for a certain level of metal casting shrinkage.

After Wax-Up, the PFM prosthesis is fabricated in the usual way.













Transfer Jig Production

Remove Artificial Gum from the working model and connect the Abutment accurately using 1.2 Hex Driver. Next, build the Pattern Resin to make the Transfer Jig.

When making a prosthesis by directly fastening the Abutment on the model, it is necessary to make a Transfer Jig to reproduce the position of the Abutment on the model as it is in the oral cavity.

In particular, in the case of using a non-hex type Abutment, there is no repositioning function, so it is necessary to make an accurate Transfer Jig using pattern resin when receiving regardless of single/bridge.





FreeMilling Abutment

Step 7



Fastening of Abutment in oral cavity & installation of prosthesis

1.2 Hex Driver

Torque Wrench

FreeMilling Abutment

IZEN

- × 4 []

Using a Transfer Jig, place the Abutment into the oral cavity accurately and fasten the Abutment with a 1.2 Hex Driver.

The correct connection between the Abutment and the Fixture is confirmed by X-ray.

The final tightening is 30Ncm (to be tightened according to the recommended tightening torque value guided for each Abutment) using a 1.2 Hex Driver and a Torque Wrench.

After checking the passive fit of the prosthesis margin, proper contact with the adjacent teeth, and occlusion with the antagonist teeth, block-out the screw hole and cement the final prosthesis on the Abutment.

Abutment F connection in T the oral cavity

Remove the Tighten with Transfer Jig recommended tightening torque value Hole block-out Cementation

Final prosthesis Fastening





Prosthetic Manual for Izenimplant System



CCM CAST ABUT MENT

Prosthetic Process

- 53 Step 1 Separation of Cover Screw or Healing Abutment
- 53 Step 2 Connect the Impression Coping
- 54 Step 3 Impression Taking
- 55 Step 4 Fastening of Healing Abutment or Production of Temporary Abutment
- 56 Step 5 Working Model Production
- 57 Step 6 Wax-Up
- 58 Step 7 Casting
- 59 Step 8 Porcelain build up
- 60 Step 9 Oxide film removal
- 61 Step10 Fastening of intraoral Abutment & installation of prosthesis

CCM Cast Abutment



Abutment for manufacturing customized abutment in difficult and complicated cases

Select specification fits for fixture connection

Fixture Level Impression

Casting with non-precious alloy for manufacturing customized prosthesis

Melting point of CCM : 1,400 ~ 1,550°C

(This is the melting temperature of our CCM Abutment raw material because it can be mistaken for the recommended temperature during casting. The operator must work at a lower temperature than this.)

Tighten with 1.2 Hex Driver

Recommended tightening torque X-Narrow: 20Ncm Narrow, Mini, Regular, Wide: 30Ncm





Separation of Cover Screw or Healing Abutment



Remove Cover Screw or Healing Abutment with 1.2 Hex Driver. At this time, connect dental floss to the spinner in the handle part of the Driver so that the Driver does not pass to the patient's neck. And prepare Impression Coping for the connection of the Fixture.



Step 2



Pick-up Impression Coping

Connect the Impression Coping

1.2 Hex Driver



Pick-up Impression Coping





Using 1.2 Hex Driver, connect Pick-up Impression Coping that matches the

Fixture with the inside of the Fixture and connect the Guide Pin.

Check the exact contact between the impression Coping and the Fixture with X-ray.



Step 3

Impression Taking

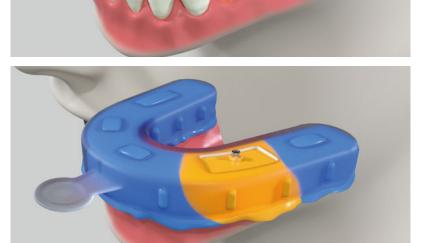
Pick-up Impression Coping

After forming a suitable hole so that the head of the Guide Pin can be exposed outside the prepared individual tray, try the tray first to see if the head of the Guide Pin is visible through the hole.

Rubber impression material is injected without gap around Pick-up Impression Coping, and impression is obtained by accurately positioning the tray coated with the impression material.

After the impression material is hardened, unfasten the Guide Pin to remove the tray from the oral cavity, check for abnormalities in the impression body, remove bloodstains and other residues, and then deliver it to the lab.

Check the Guide Pin Separate the Impression Completion of impression taking





Lab Side
Step 4

Fastening of Healing Abutment or Production of Temporary Abutment After taking the impression, separate from the Impression Coping oral cavity

Retighten the Healing Abutment to protect the Abutment until the prosthesis is installed

The Temporary Abutment production according to the case





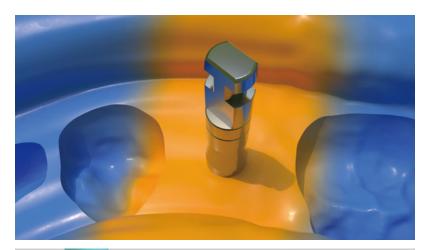
Lab Side Step 5

Working Model Production

Lab Analog



After passing the body making impressions in the doctor's office after checking the correct fastening of the Lab Analog form an Artificial Gum around Analog, and injecting the anhydrite is produced by the Working Model.







CCM Cast Abutment





Wax-Up

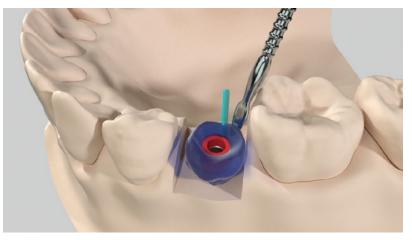
Place the CCM Cast Abutment on the model and fasten it with a screw using a 1.2 Hex Driver.

After adjusting the plastic sleeve to an appropriate height, perform wax-up for the substructure of the prosthesis (Casting metal must use CCM).

After forming a screw hole and wax-up, proceed with the usual PFM manufacturing method.







04

CCM Cast Abutment



Casting

The sprue is mounted on the margin, when forming a sprue for casting,

The Abutment metal part and the adjacent connection part are compensated with wax as much as possible.

It is recommended to use Ni-Cr alloy for casting metal.

Prohibition of use of Co-Cr alloy (excessive oxide film formation and casting shrinkage)

CCM Cast Abutment has different casting characteristics compared to Gold UCLA Abutment, so an oxide film is generated on the metal part after casting.





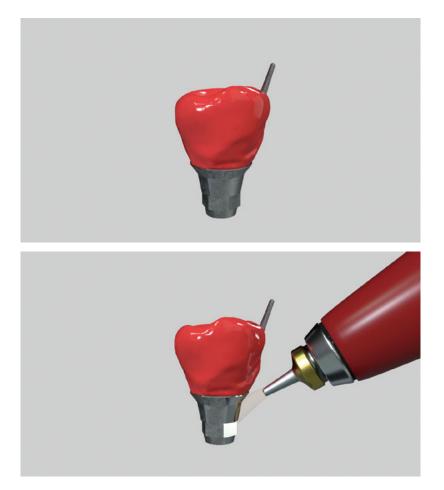
Porcelain build up

Porcelain building up and firing on the casting

Polishing and polishing working in general

Checking if there is anything wrong with the working model

- Removal of oxide film generated during casting and porcelain firing
- ① Block out with utility wax, etc., except for the metal part where the oxide film is generated.
- Primary removal of oxide film by blasting with a glass bead (4~6 bar) :
 Do not use rubber wheel / point (damage to the connection part)



CCM Cast Abutment



- Oxide film removal
- ① Remove the blocked out part : Final removal of oxide film by high polishing with rouge applied to cotton
- (2) After high polishing, Ultrasonic or steam cleaning.





Fastening of intraoral Abutment & installation of prosthesis

1.2 Hex Driver

Torque Wrench

CCM Cast Abutment

- - 4 []

IZEN

Place the Abutment into the oral cavity accurately and fasten the Abutment with a 1.2 Hex Driver.

The correct connection between the Abutment and the Fixture is confirmed by X-ray.

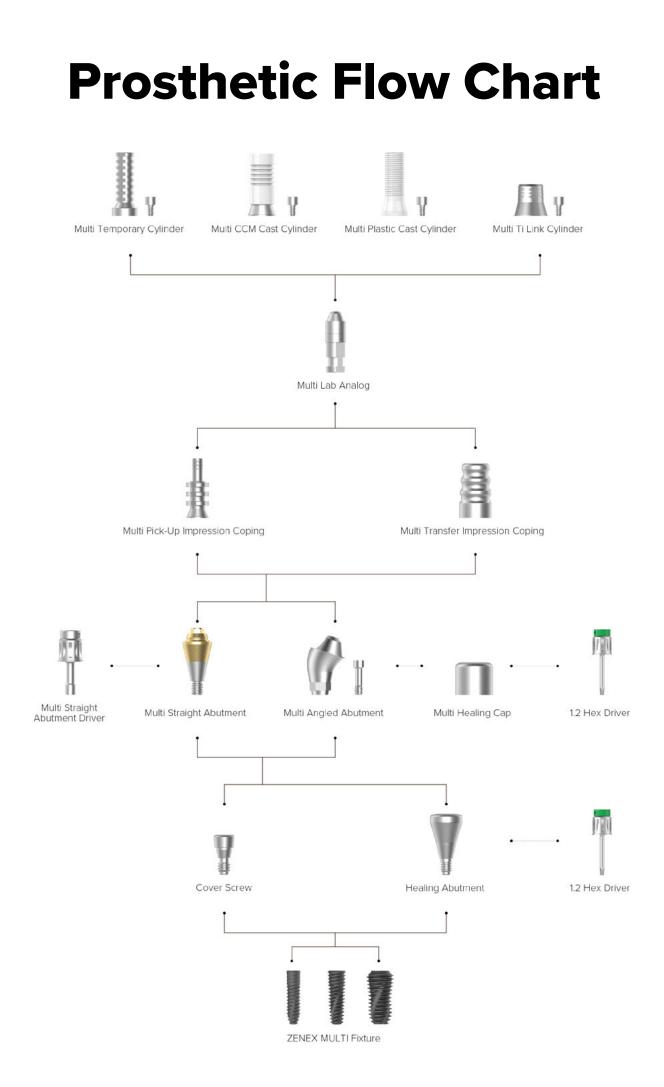
The final tightening is tightened to 30Ncm (to be tightened according to the recommended tightening torque value guided by Abutment) using a 1.2 Hex Driver and a Torque Wrench.

After checking the passive fit of the prosthesis margin, proper contact with the adjacent teeth, and occlusion with the antagonist teeth, block-out the screw hole and cement the final prosthesis on the Abutment.

Abutment connection in the oral cavity Tighten with recommended tightening torque value Cementation Final prosthesis fastening







Prosthetic Manual for Izenimplant System



U Z TRA & MULTI S MULTI S

Prosthetic Process

- 66 Step 1 Separation of Cover Screw or Healing Abutment
- 67 Step 2 Connect the Multi Straight & Multi Angled Abutment in the oral cavity
- 68 Step 3 Connect the Impression Coping
- 69 Step 4 Impression Taking(Abutment level Impression taking)
- 70 Step 5 Working Model Production
- 71 Step 6 Wax-Up
- 72 Step 7 Casting
- 73 Step 8 Porcelain build up
- 74 Step 9 Oxide film removal
- 75 Step10 Ceramic Crown Production
- 76 Step 11 Delivering & Screwing

Multi Straight Abutment





Narrow

Mini, Regular & Wide

Abutment for manufacturing screw-retained prosthesis in Multiple Case

Same platform as Multi Angled Abutment

Move into internal oral part by using exclusive Abutment Carrier (Code: MSACR48)

Tighten with exclusive driver (Code: MSADSR20)

Recommended tightening torque: 30Ncm

Multi Angled Abutment



Narrow

Mini, Regular & Wide

Abutment for manufacturing screw-retained prosthesis in Multiple Case

Abutment of various angles (17°, 30°) for various angled of implant insertion path

Same platform as Multi Straight Abutment

Connect by using exclusive Abutment Carrier (Code: MAACRMC)

Tighten with 1.2 Hex Driver

Recommended tightening torque: 30Ncm

Multi Angled Abutment Screw (MAASTM20 for Narrow & MAASSR23 for Mini, Regular and Wide) included



Separation of Cover Screw or Healing Abutment Remove Cover Screw or Healing Abutment with 1.2 Hex Driver. At this time, connect dental floss to the spinner in the handle part of the Driver so that the Driver does not pass to the patient's neck. And prepare Impression Coping for the connection of the Fixture.

Multi Straight



Cover Screw









Connect the Multi Straight & Multi Angled Abutment in the oral cavity After connecting the Multi Straight Abutment to the Fixture with the Multi Straight Abutment Driver, check the connection between the Abutment and the Fixture with X-ray, and tighten it with 30Ncm using a Torque Wrench.

Multi Straight



After connecting the Multi Angled Abutment to the Fixture with a 1.2 Hex Driver, check the connection between the Abutment and the Fixture with X-ray, and tighten the screw with 30Ncm using a Torque Wrench.





СЛ

Multi Straight & Multi Angled Abutment

Step 3



Multi Transfer Impression Coping

Connect the Impression Coping

Multi Transfer Impression Coping



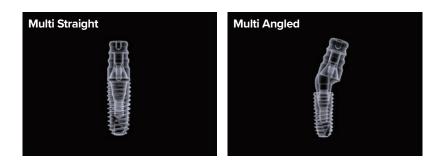


Using 1.2 Hex Driver, connect Multi Transfer Impression Coping to Abutment.

Multi Angled



Check the exact contact between the impression Coping and the Abutment with X-ray.





Impression Taking

(Abutment level Impression taking)





Multi Transfer Impression Coping

After injecting the impression material using an Injection syringe around the Coping, the tray filled with the impression material is placed in the oral cavity to obtain an accurate impression.

After removing blood marks and other residues deposited in the impression body, separate the intraoral Multi Transfer Impression Coping and connect it to the Multi Lab Analog.

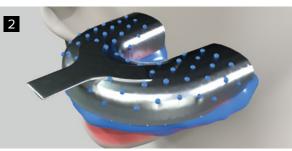
After contacting the connected Coping and Analog with the Transfer Impression Coping in the impression body, confirm the cross section accurately and deliver it to the Lab.

Impression material Injection Impression

Coping and Lab Analog connection Coping and Lab Analog connected to the impression body

Multi Straight

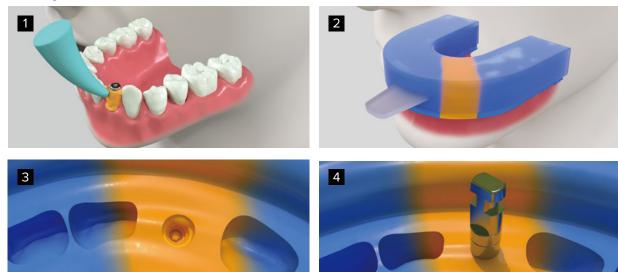








Multi Angled





Working Model Production

Multi Healing Cap



Tighten the Multi Healing Cap to protect the Abutment until the prosthesis is installed.

Checking whether the Coping is well located in Multi Lab Analog.

After injecting artificial gum around the Analog, when it is hardened, pour stone to make a working model.

Connect the Impression Coping and Multi Lab Analog

Multi Lab AnalogArtificial Gumlocated on theFormationimpression body

Plaster Injection after boxing Complete the work model

Multi Straight









Wax-Up

Multi CCM Cast Cylinder



Place the Multi CCM Cast Cylinder above the Abutment and fasten the cylinder screw with 20Ncm using a 1.2 Hex Driver.

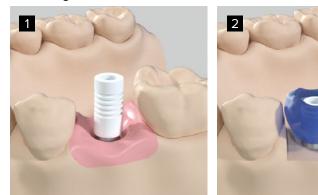
After adjusting the plastic sleeve to the appropriate height, perform wax-up for the metal structure of the prosthesis.

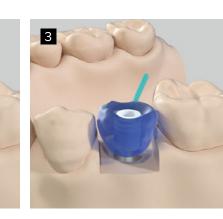
Working Model

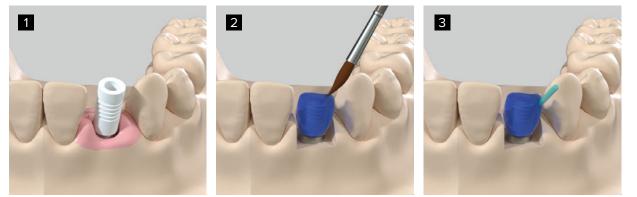
Position the Multi CCM Cast Cylinder Milling Working

Completed custom Abutment Production

Multi Straight









Casting

The sprue is mounted on the margin, when forming a sprue for casting,

The Abutment metal part and the adjacent connection part are compensated with wax as much as possible.

It is recommended to use Ni-Cr alloy for casting metal.

Prohibition of use of Co-Cr alloy (excessive oxide film formation and casting shrinkage)

CCM Cast Abutment has different casting characteristics compared to Gold UCLA Abutment, so an oxide film is generated on the metal part after casting.

Multi Straight





Lab Side
Step 8

Porcelain build up

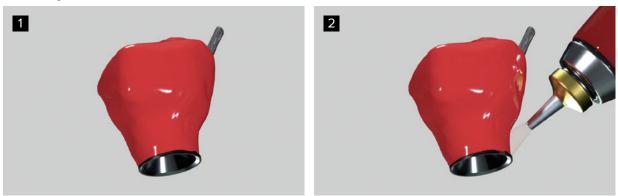
Porcelain building up and firing on the casting

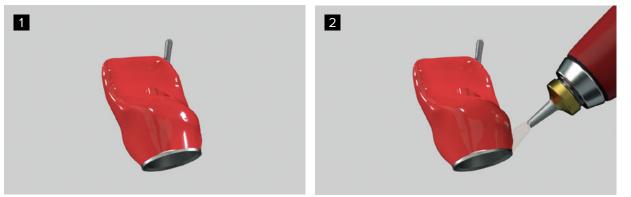
Polishing and polishing working in general

Checking if there is anything wrong with the working model

- Removal of oxide film generated during casting and porcelain firing
- ① Block out with utility wax, etc., except for the metal part where the oxide film is generated.
- Primary removal of oxide film by blasting with a glass bead (4~6 bar) :
 Do not use rubber wheel / point (damage to the connection part)

Multi Straight

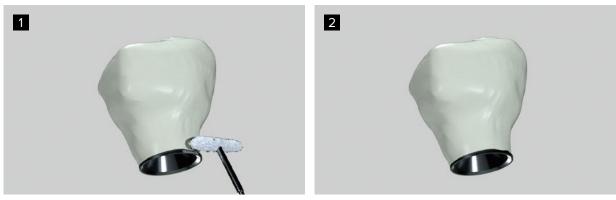


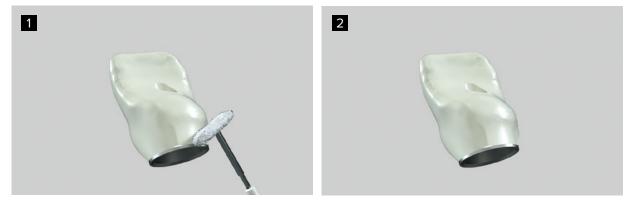




- ① Remove the blocked out part : Final removal of oxide film by high polishing with rouge applied to cotton
- Oxide film removal
- (2) After high polishing, Ultrasonic or steam cleaning.

Multi Straight





Lab Side
Step 10

The planned ceramic prosthesis is fabricated in the usual way.

Ceramic Crown Production

Casting Casting body casting body to Build up after prosthesis the Abutment

Multi Straight



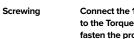




Delivering & Screwing

After checking the margin passive fit of the final prosthesis and checking occlusion and esthetics, first fasten with a 1.2 Hex Driver and a torque wrench with a 1.2 Hex Driver to completely fasten the prosthesis with 20Ncm.

After covering the protective material over the screw head, the access hole finishes the occlusal surface with resin in the oral cavity.



Multi Straight

Connect the 1.2 Hex Driver to the Torque Wrench to fasten the prosthesis Covering the protective material over the screw head

Access hole resin filling

1.2 Hex Driver



Torque Wrench

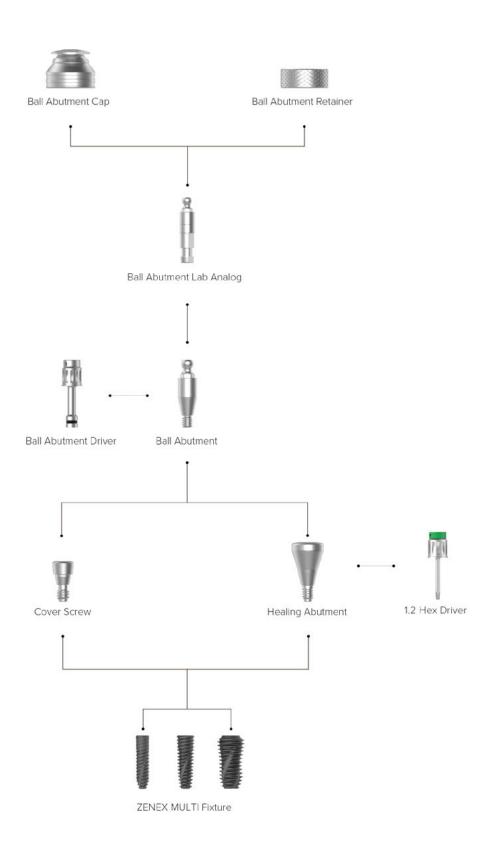








Prosthetic Flow Chart



Prosthetic Manual for Izenimplant System



ABUT MENT

Prosthetic Process

- 81 Step 1 Separation of Cover Screw or Healing Abutment
- 82 Step 2 Connect the Ball Abutment in the oral cavity
- 83 Step 3 Impression Taking
- 84 Step 4 Working Model Production
- 84 Step 5 Wax Denture Production
- 85 Step 6 Resin denture Production
- 87 Step 7 Delivering

Ball Abutment





Narrow

Mini, Regular & Wide

Abutment for overdenture using O-ring attachment Compensation of mounting angle up to 20°

Tighten with exclusive Ball Abutment Driver (Code: BAD24) Recommended tightening torque: 30Ncm



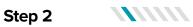


Separation of Cover Screw or Healing Abutment



Remove Cover Screw or Healing Abutment with 1.2 Hex Driver. At this time, connect dental floss to the spinner in the handle part of the Driver so that the Driver does not pass to the patient's neck. And prepare Impression Coping for the connection of the Fixture.





Ball Abutment

Ball Abutment Driver

Torque Wrench

IZEN

Connect the Ball Abutment in the oral cavity Determine the proper height of the Ball Abutment by measuring the depth of the gingival tissue on the Fixture.

The shoulder of the Abutment should be positioned above the tissue (about 1.5-2mm).

Connect the Ball Abutment to the Fixture with the Driver for Ball Abutment.

After confirming by X-ray, connect the Torque Wrench to the Ball Abutment Driver and tighten it to 30Ncm. (\approx When re-fastening the Healing Abutment after taking an impression, fasten it only with finger pressure.)

Connect the Driver to Ball Abutment

Connect the Ball Abutment to Fixture Tighten with recommended tightening torque value Abutment tightening completion





82

Step 3

Impression Taking

Ball Abutment Lab Analog

The rubber impression material is first injected in detail around the Ball Abutment, and then the impression material is filled in the prepared individual tray and placed in the oral cavity to obtain an impression.

After checking for abnormalities in the impression body, send it to the lab.

If there is a denture currently installed, it can be used as a Temporary denture by modifying the part where the Ball Abutment is fastened.

Impression Fine Injection of impression material around the Ball Abutment

The impression body that has been collected

Preliminary procedure: Before installing the Ball Abutment, take an impression of the edentulous extension with alginate impression material and send it to the workshop to make a personal tray (% 2mm more relief than the height of the Abutment).

Scratch is formed on the border so that the impression material can be attached well.

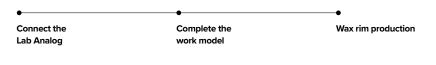


Lab Side
Step 4

Working Model Production When the impression body is delivered for the pore process, the lab Analog is pushed into the inner surface of the impression body until it is completely inserted into the Ball portion.

Make a working model by carefully pouring stone so that the Analog position does not move.

Base plate and wax occlusal rim for occlusal acquisition are made and sent to the clinic with the model.







Wax Denture Production

The occlusal rim is placed in the oral cavity to obtain an intermaxillary occlusion and sent back to the studio.

In the workshop, denture teeth are arranged on the wax rim according to the occlusal record sent.

It is sent back to the doctor's office to check the occlusion of the arranged teeth and check the functionality and aesthetics of the denture.

(% If corrections are made, set up a new occlusal record and retry until fit is achieved.)

Puts Wax-rim in the oral cavity

Artificial tooth arrangement Check the aesthetics of the wax denture in the oral cavity



Lab Side



Resin denture Production

When the oral fit for the wax denture is completed, the final resin denture is fabricated.

Check the black Lab O-ring in the Ball Abutment Retainer or Ball Abutment Cap (% Make the smaller of the Ball Abutment Retainer openings be the occlusal side) and place it on the Lab Analog.

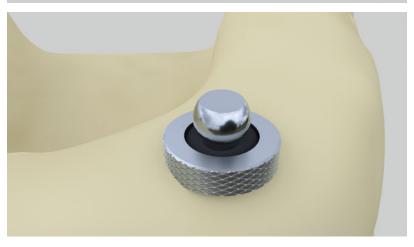
Block-out the lower part of the retainer with a putty to prevent the acrylic resin from flowing under the Ball Abutment Retainer, and make it about 2mm higher than the retainer to give mobility on the denture base.

Check the Lab O-ring in the Ball Abutment Retainer or Ball Abutment Cap Position the Ball Abutment Retainer or Cap Assembly Block-out with Putty









The dentures are buried together with the Ball Abutment Retainer Assembly in place, and flasking, curing, and finishing are performed as usual to complete the fabrication.



86 O 6 Ball Abutment



Delivering

O-ring

Replace the Black Lab O-ring inside the Ball Abutment Retainer with the orange O-ring for final.

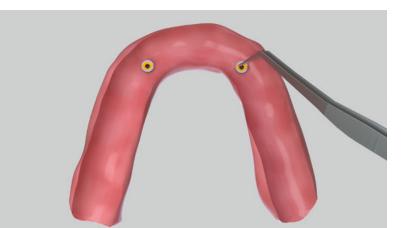
Adjust occlusal and tissue contact areas as needed.

While attaching attachments, inform the patient about oral hygiene and cautions when attaching and detaching dentures.

Replace O-rings when fatigue accumulates and cannot function.

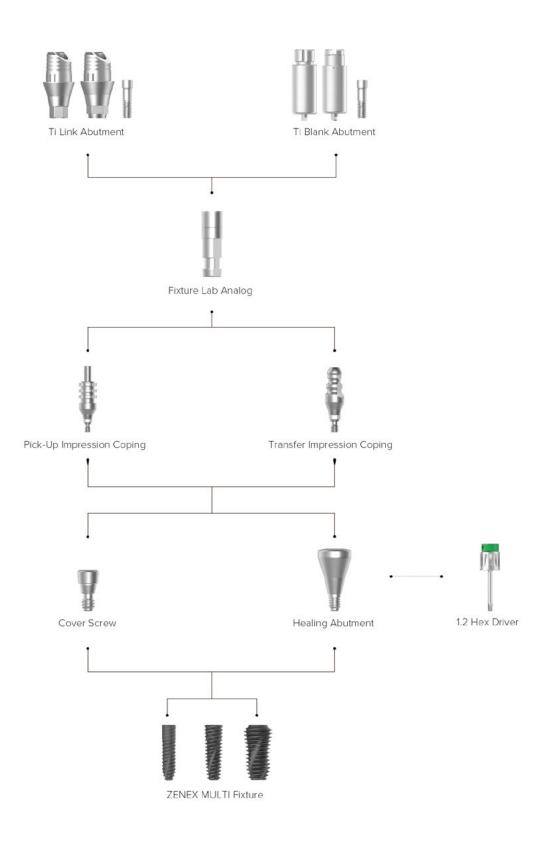
It is replaced approximately once a year.

 Replaced with Replacement Complete Installation in the Orange O-ring for oral cavity
Final





Prosthetic Flow Chart



Prosthetic Manual for Izenimplant System



ABUTINK ABUTIMENT

Prosthetic Process

- 91 Step 1 Separation of Cover Screw or Healing Abutment
- 91 Step 2 Impression Taking
- 93 Step 3 Working Model Production
- 94 Step 4 Scan
- 94 Step 5 Design
- 95 Step 6 Design confirm and processing
- 96 Step 7 Sintering and post-processing
- 97 Step 8 Bonding and completion of Abutment
- 98 Step 9 Final prosthesis fabrication
- 98 Step10 Fastening of intraoral Abutment & installation of prosthesis

Ti Link Abutment





Narrow

Mini, Regular & Wide

Abutment Features

Possible to correct path when manufacturing prosthesis by realizing a cross section with a slope at the top of the product.



Abutment for manufacturing Cement/Combination-retained type prosthesis

For manufacturing custom abutment (Titanium & Zirconia) and crown by CAD/ CAM equipment

Select specification fits for fixture Connection

Use exclusive library for ZENEX MULTI Implant system

Fixture Level Impression

Tighten with 1.2 Hex Driver

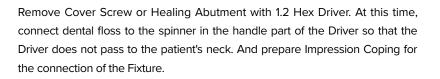
Recommended tightening torque: 30Ncm





Separation of Cover Screw or Healing Abutment











Impression Taking

1.2 Hex Driver



Pick-up Impression Coping



Consider the Abutment diameter and type to be used (Hex/Non-Hex) Selection of Impression Coping specifications (Pick-up Impression Coping / Transfer Impression Coping) Fastening the Pick-up Impression Coping by hand using a 1.2 Hex Driver Block out the Pick-up Impression Coping coping's driver hole recommended



After fastening, be sure to take an apical X-ray to check the correct seating



Impression taking by injecting impression material from around the Impression Coping



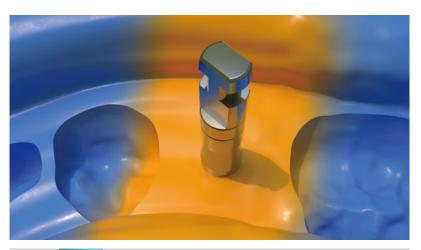
Lab Side
Step 3

Working Model Production

Lab Analog



After passing the body making impressions in the doctor's office after checking the correct fastening of the Lab Analog form an Artificial Gum around Analog, and injecting the anhydrite is produced by the Working Model.









Scan



Lab Analog



After attaching the Scanbody to the working model, it creates digital data through scanning





Lab Side
Step 5

Design

After calling and matching the scan file on S/W, Abutment design based on the order form

For cement type prosthesis production, the final prosthesis shape is predicted and designed in the form of coping.



Lab Side
Step 6

Final design and file confirmation and processing

Design confirm and processing







Processed zirconia coping body sintering

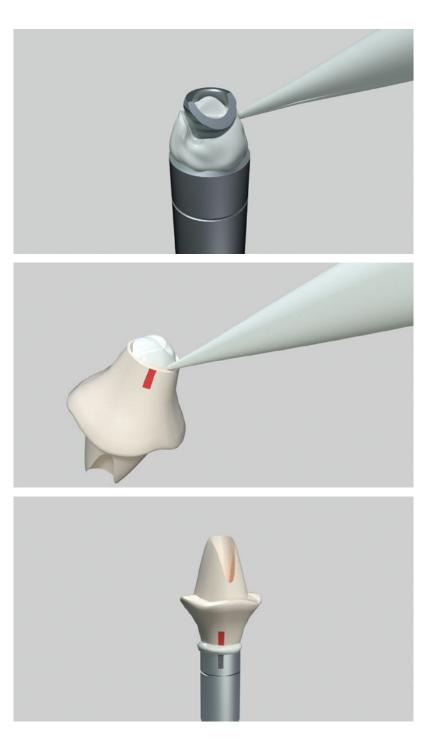
Sintering and postprocessing Ti Link Abutment is sand blasted only the adhesive part





Bonding cleaned Ti Link Abutment and zirconia coping body

Bonding and completion of Abutment



7 Ti Link Abutment



Fabricate the final prosthesis.

Final prosthesis fabrication





Fastening of intraoral Abutment & installation of prosthesis Place the Abutment into the oral cavity accurately and fasten the Abutment with a 1.2 Hex Driver.

The correct connection between the Abutment and the Fixture is confirmed by X-ray.

The final tightening is tightened to 30Ncm (to be tightened according to the recommended tightening torque value guided by Abutment) using a 1.2 Hex Driver and a Torque Wrench.



1.2 Hex Driver

Torque Wrench







Prosthetic Manual for Izenimplant System



ABUTMENT

Prosthetic Process

- **101 Step 1** Separation of Cover Screw or Healing Abutment
- 101 Step 2 Impression Taking
- 103 Step 3 Fastening of Healing Abutment or Production of Temporary Abutment
- 104 Step 4 Working Model Production
- 104 Step 5 Scan
- 105 Step 6 Design
- 105 Step 7 Design Confirm and processing
- 106 Step 8 Post Processing
- 106 Step 9 Connect the Customized Abutment
- 106 Step10 Wax-up
- 107 Step 11 Casting
- 107 Step 12 Ceramic Crown Product
- 108 Step 13 Fastening of intraoral Abutment & installation of prosthesis

Ti Blank Abutment





Narrow

Mini, Regular & Wide

Manufacturing customized abutment with milling machine

Select specification fits for fixture Connection

Digital Impression

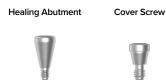
Tighten with 1.2 Hex Driver

Recommended tightening torque: 30Ncm

Product line-up applied for various milling machine brands (Milling machine manufacturer: Arum, Manix, Vatech, RND)



Separation of Cover Screw or Healing Abutment



Remove Cover Screw or Healing Abutment with 1.2 Hex Driver. At this time, connect dental floss to the spinner in the handle part of the Driver so that the Driver does not pass to the patient's neck. And prepare Impression Coping for the connection of the Fixture.





Impression Taking

1.2 Hex Driver



Transfer Impression Coping





Consider the Abutment diameter and type to be used (Hex/Non-Hex) Selection of Impression Coping specifications (Pick-up Impression Coping / Transfer Impression Coping) Fastening the Healing Abutment by hand using a 1.2 Hex Driver

Block out the Transfer Impression Coping's driver hole recommended



After fastening, be sure to take an apical X-ray to check the correct seating



Impression taking by injecting impression material from around the Impression Coping







Fastening of Healing Abutment or Production of Temporary Abutment After taking the impression, separate from the Impression Coping oral cavity

Retighten the Healing Abutment to protect the Abutment until the prosthesis is installed

Or the Temporary Abutment production according to the case





Step 4

Working Model Production

Lab Analog

After passing the body making impressions in the doctor's office after checking the correct fastening of the Lab Analog form an Artificial Gum around Analog, and injecting the anhydrite is produced by the Working Model.









Scan

Scanbody



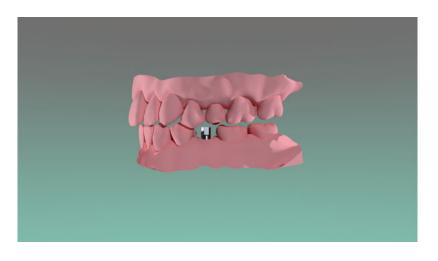
After attaching the Scanbody to the working model, it creates digital data through scanning





After calling and matching the scan file on S/W, Abutment design based on the order form

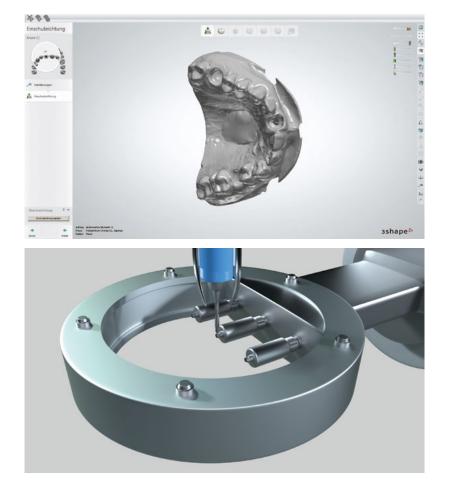
Design





Design Confirm and processing

Final modification and processing based on customer's confirmation



OS Ti Blank Abutment



After processing, clean and polish

Post Processing





Connect the Customized Abutment

After post -processing connect the Customized Abutment to the Lab Analog





Wax-up

Wax-up in the usual way





Casting

Delete operation for resin facing if necessary Casting by connecting sprue in the usual way Post-processing and conformity check for castings





Ceramic Crown Product





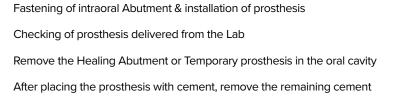
Fastening of intraoral Abutment & installation of prosthesis

1.2 Hex Driver



Torque Wrench
Torque Wrench









IZ-PMA-01 REV.00(JAN.22)



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