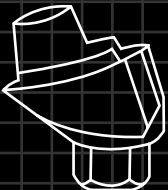


SCREW RETAINED RESTORATION

TRAINING MANUAL

03



Superior Implant Technology

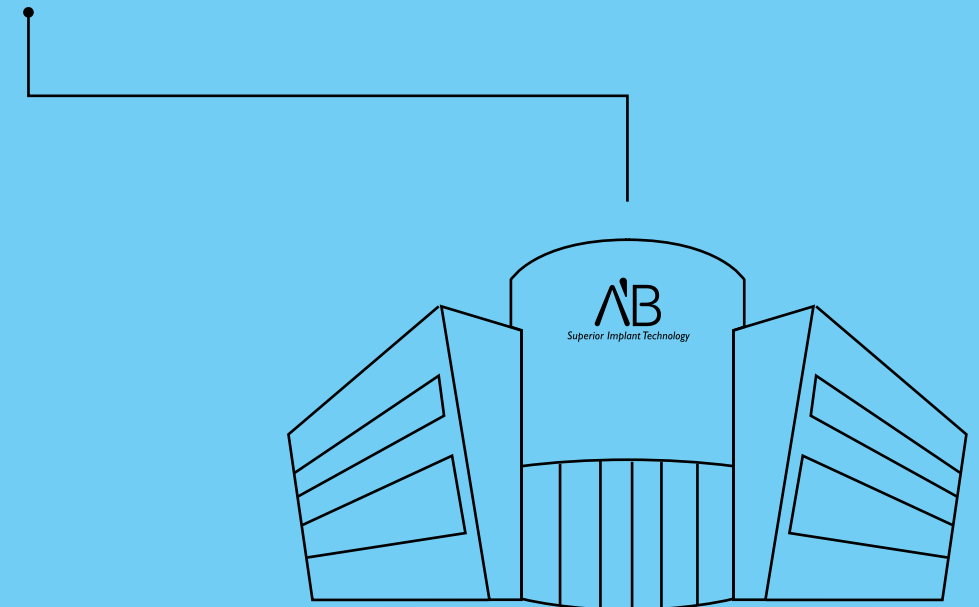
AB DENTAL

AB Dental is proud to present this screw retained internal hex implant reconstruction procedures for both temporary and permanent restorations.

This manual explains, step by step, the procedure while using AB Dental components.

AB Dental scientists and R&D department are committed to the continued innovative approach in both products and advanced technologies.

Our commitment extends beyond providing safe and high precision dental products & services to passing on procedural information through training and instruction.



SCREW RETAINED RESTORATION

Screw-retained restorations are favored by many dentists because they enable easy retrievability of the restoration. It is indicated for all restorations. The restoration is screwed to the abutment through an occlusal opening in the finished restoration.

ADVANTAGES:

- Narrow and standard Implants platforms can be used
- Easier to retrieve for servicing, revisions and hygiene maintenance
- Avoids undesirable cement accumulation subgingivally

DISADVANTAGES:

- Requires splinting the restorations for implants with divergent angles greater than 10° (for AB patented solutions in these cases, please refer to the section follows).
- May restrict optimal occlusion when used for crown & bridge affecting the aesthetic outcome.
- May necessitate double impression procedures: the first one, an implant level impression procedure, for constructing a study model for selecting the proper abutments. The second one, after abutment connection intraorally, an abutment level impression procedure for constructing the working model.

STEP 01

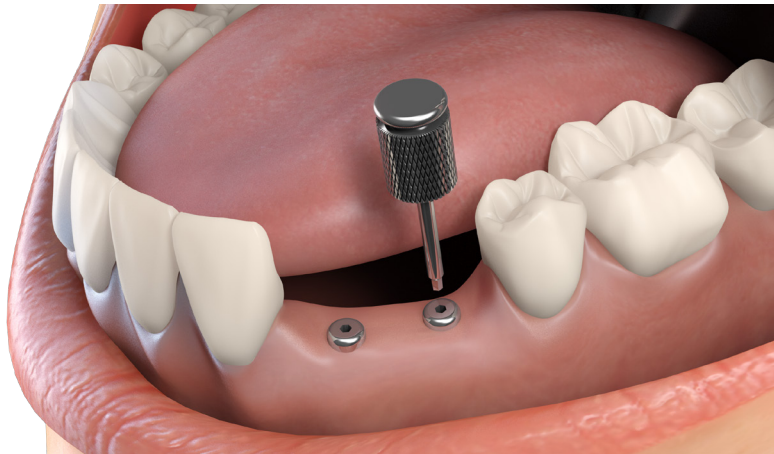
EXPOSE

A.

Remove healing cap from the implant(s) and by using a probe measure the gingival height surrounding every implant.

B.

Choose the proper abutment gingival height according to these measures.



STEP 02

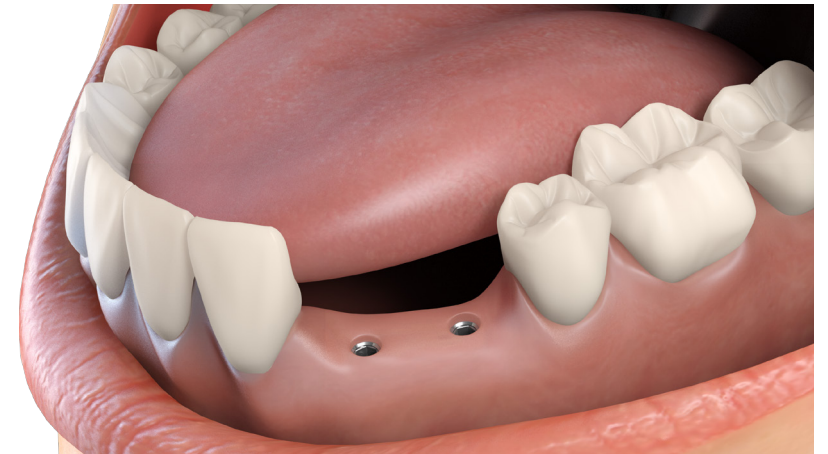
IMPRESSION TAKING

A.

Take an impression of the selected implants using the open or closed tray technique.

B.

Take an impression of the opposite jaw and a bite registration and send to the laboratory.



STEP 03

CHOOSING THE PROPER ABUTMENT

In the laboratory the dental technician pours the impression and creates a stone study or working model. Next, the proper abutments for screw retained restoration are to be chosen according to the specified gingival height of every implant angulation, aesthetic demands and anti rotation requirements.

In case of severe non-parallel implants the P12 flat connection abutment (an AB Dental unique patented device for screw retained restoration on non-parallel implants) is being chosen.

OPTIONAL ABUTMENTS



P7
Anti-rotation
aesthetic abutment



P12 | ISSUED PATENT
Flat connection
abutment

P12 VIDEO



P14 | ISSUED PATENT
Angular adaptor

P14 VIDEO

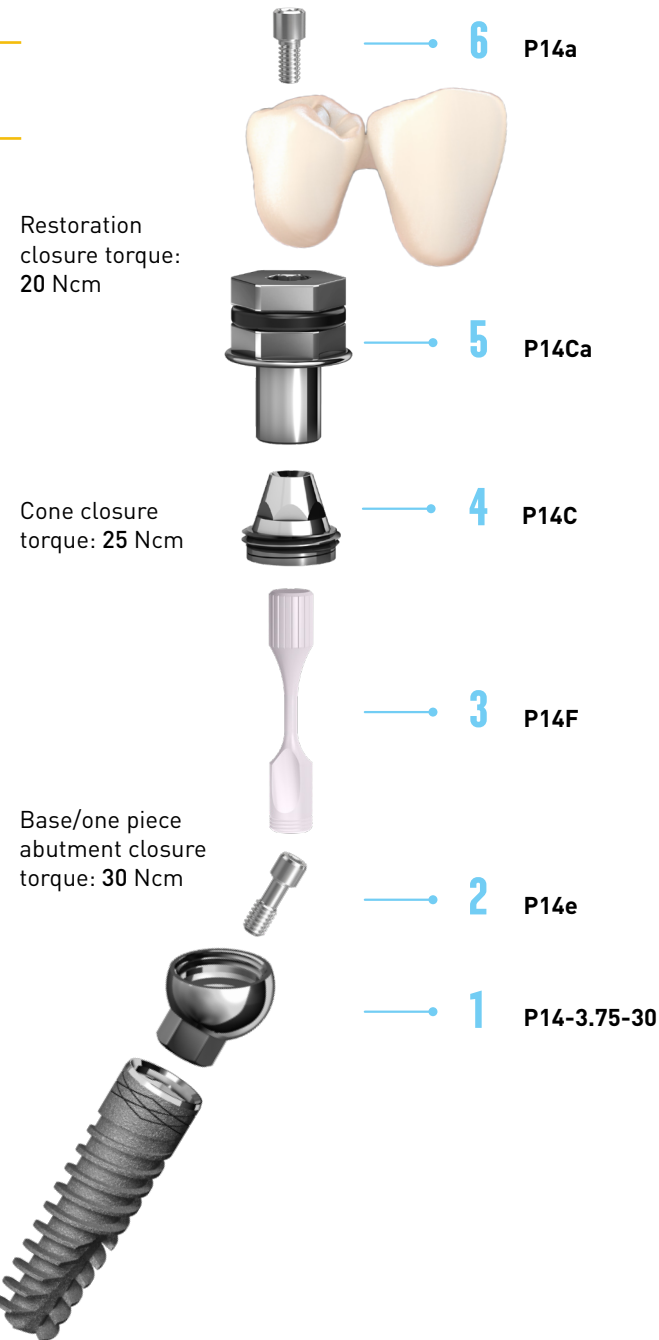
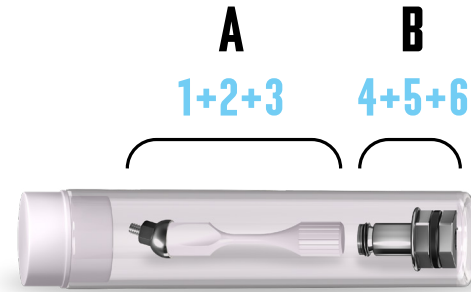


P16
Straight adaptor



P64
Angular/Straight
adaptor single unit

P14 MULTI-UNIT CONNECTION



Using plastic carrier **A** screw base (1) into implant hex.
Secure with closure torque of **30 Ncm**.
Discard plastic carrier.

Using clip carrier **B** screw cone (4) onto base.
Secure with closure torque of **25 Ncm**. Discard clip carrier.

Screw restoration onto cone, closure torque **20 Ncm**.

USEFUL TIP:

When rehabilitating several implants with a single restoration, it is recommended to use multi-unit abutments such as p64, p14 or p16.

The cone shaped abutments cancel out insertion path and allow for a screw retained restoration on multiple implants, even at extreme angles.

STEP 04

ABUTMENT LEVEL IMPRESSION

In cases where the abutments will be permanently engaged over the implants, a second, abutment level, open tray impression should be performed. This procedure necessitates abutment level impression transfers and abutment analogs.

STEP 05

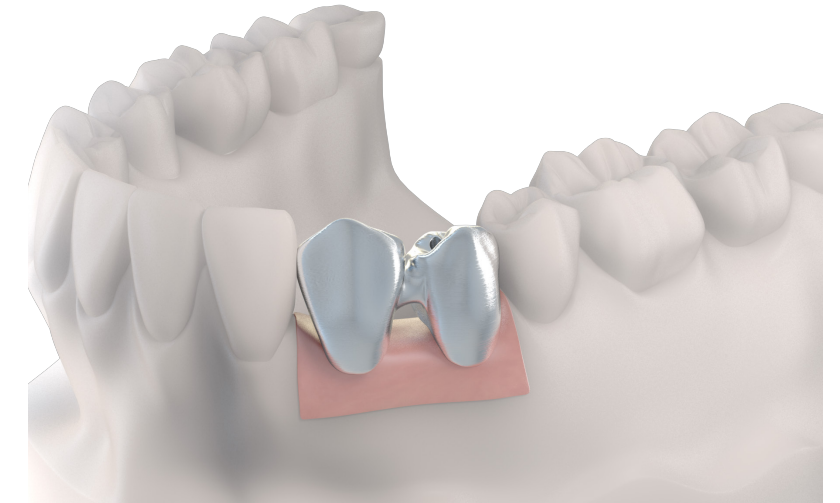
WORKING MODEL

In the laboratory the dental technician uses the working model of choice (implant level or abutment level), to create the metal framework for the restoration according to standard laboratory techniques.

Alternatively, using CAD/CAM technology for creating the framework, the working model will be fitted with AB Dental's scanning bodies and scanned, and the restoration will be milled.

Depending on the dentist preference, a temporary restoration is constructed over the selected abutments. This will allow permanent and final engagement of the abutment over the implant(s) without any need to disassemble the abutments after each appointment.

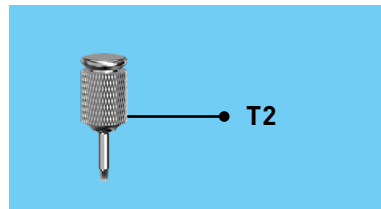
The permanently fitted abutments should be covered by a suitable healing cap or a temporary restoration.



STEP 06

TRY-IN PROCEDURE

COMPONENTS:

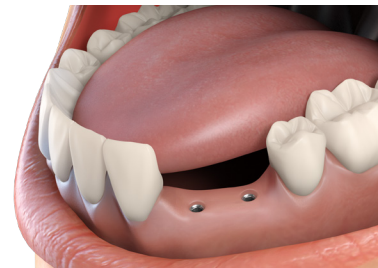


A.



After receiving the framework back from the lab a try-in procedure is carried out.

B.

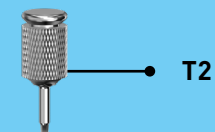


Remove the temporary restoration or the healing cap from the implant/abutments.

STEP 07

CHECKING THE FRAMEWORK

COMPONENTS:



Try the framework over the abutment without screwing it in place. Make sure it fits perfectly and passively to the abutments. While checking the framework for multiple units restoration, make sure it fits correctly over all the abutments, placing one screw at a time until all screws are in place. A perfectly passive fit framework will ensure a smooth screwing procedure without any disturbance.

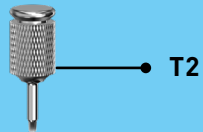
STEP 08

VERIFYING THE FRAMEWORK ACCURACY

COMPONENTS:



P14a



T2



After verifying the accuracy and passivity of the framework it is sent back to the laboratory for the subsequent veneering procedures.

USEFUL TIP:

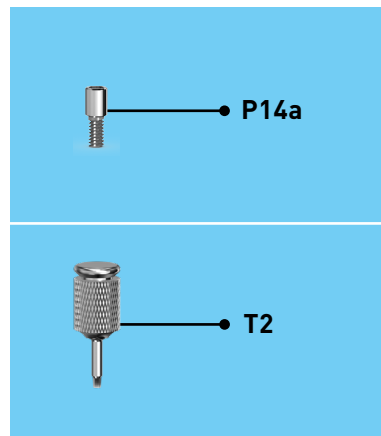
When the metal framework doesn't fit precisely over the abutments, the dentist will have to section the bridge and adapt each piece individually in the patient's mouth. Then the pieces are cold-soldered intraorally using pattern resin, composite or plaster of paris and the framework returned to the lab for definitive soldering.

STEP 09

RESTORATION TRY-IN

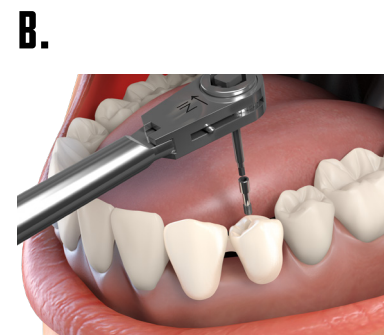
After receiving the restoration with the porcelain built-up back from the lab:

COMPONENTS:



Remove the temporary restoration or the healing cap from the abutments.

Try the framework over the abutments without screwing it in place. Make sure it fits perfectly and passively on the abutments.

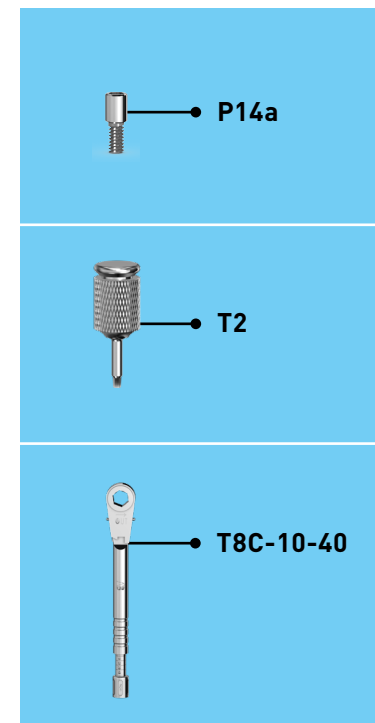


Check the proximal contacts. After verifying the accuracy and passivity of the restoration screw it to the abutments one screw at a time. The screws should fit in smoothly without any disturbance.

STEP 10

TIGHTENING THE SCREW

COMPONENTS:



Tighten the screw using fingers only. Check the proximal contacts, margin integrity and occlusion. Use the torque wrench, applying 20-30 Ncm of torque to finish tightening the screw.

STEP 11

ALLOWING A FUTURE ACCESS



In order to allow future access to the prosthesis screw, use a cotton pellet, wax or Teflon tape to fill the access hole of the screw before covering it with composite. Check occlusion.



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