IMPRESSION PROCEDURES

TRAINING MANUAL

01

AB
Superior Implant Technology

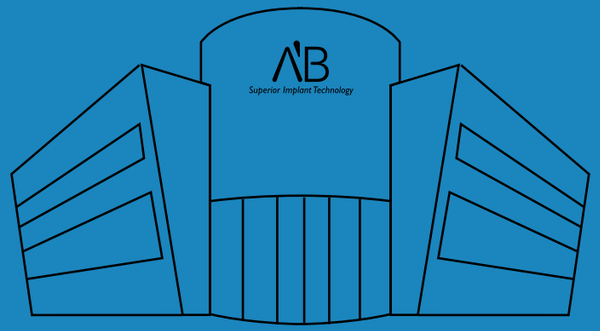
AB DENTAL

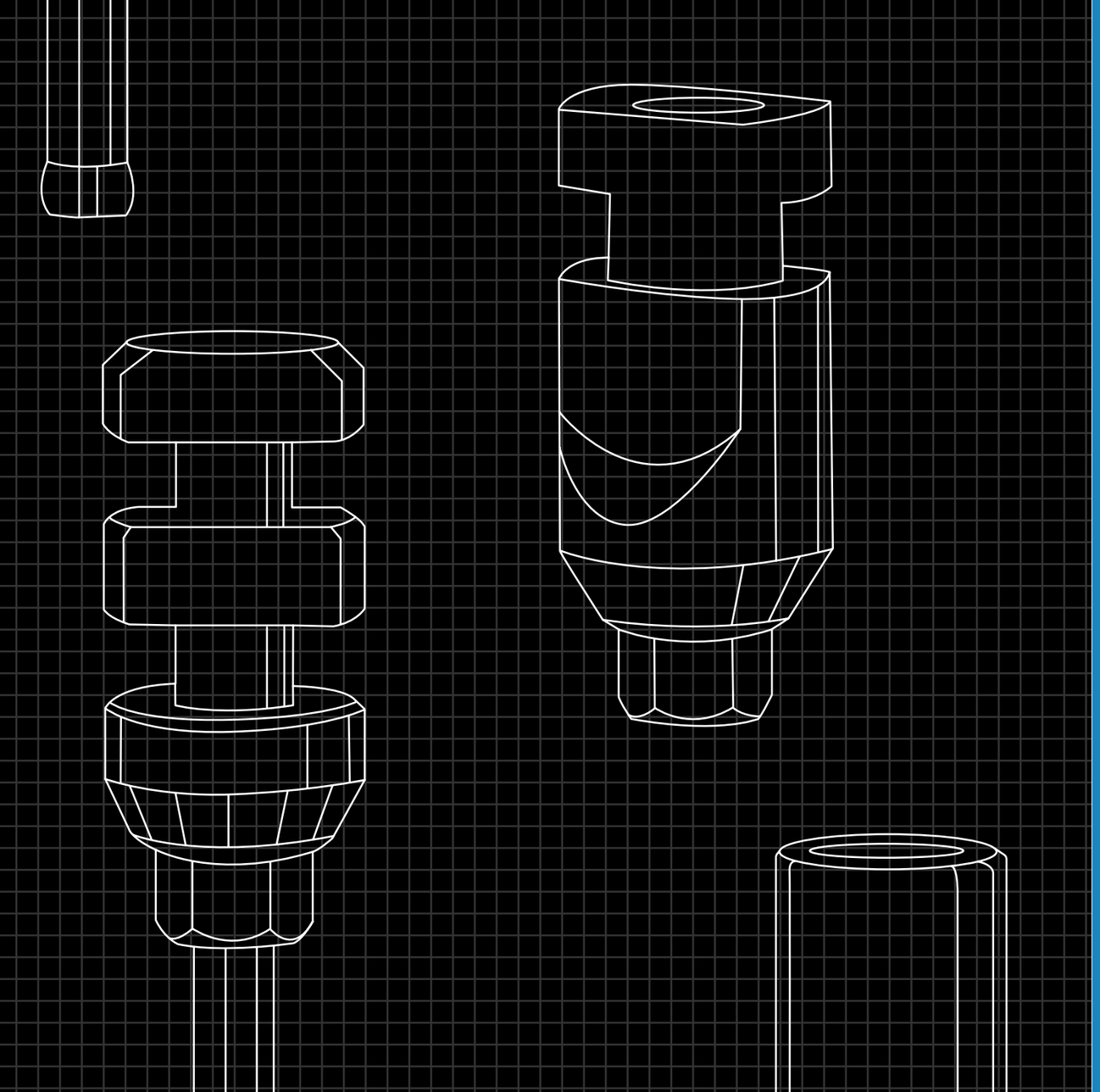
AB Dental is proud to present this impression taking procedure protocol.

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 of 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.





IMPRESSION PROCEDURES

A dental impression is an imprint of hard (teeth) and soft (gums) tissues, traditionally the impression is formed with specific types of impression materials, like alginate or a combination of heavy and light body silicon materials. A cast of gypsum is then made of this imprint. This cast can be used for diagnostics, patient's record, treatment planning, fabrication of custom trays and fabrication of dentures, crowns and other prostheses.

The impression can be made for the entire mouth or a specific area. Lately the intraoral scanners was introduced and afford to make the impression digitally.

Two types of traditional impression techniques can be used according to the treatment necessities and objectives, Closed Tray (Indirect) and Open Tray (Direct).

THIS MANUAL IS ORGANIZED AS FOLLOWS:

Open tray technique – procedure steps

Closed tray technique – procedure steps:

- Standard product
- Clip transfer (D3) – AB Dental's unique product
- Plastic snap transfer with abutment (D4) – AB Dental's unique product

Digital technique - procedure steps

OPEN TRAY IMPRESSION TECHNIQUE

In this technique, the transfer remains in the impression when the tray is removed from the mouth. A custom tray or modified closed tray with screw access holes in the areas above the implants is required.

The Screw that holds the transfer in place while the impression is made is removed through the access holes after the impression material sets. The impression is removed from the patients' mouth with the transfer, still, within the impression. Then the analog is connected to the transfer.

ADVANTAGES

More precise than other techniques, allows effect of splinting and interproximal contact tightness of the transfer.

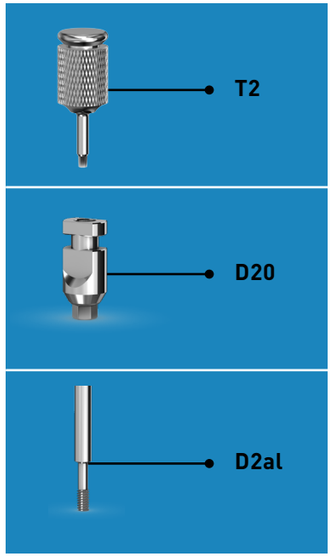
DISADVANTAGES

Not suitable for posterior areas with a limited intermaxillary space.

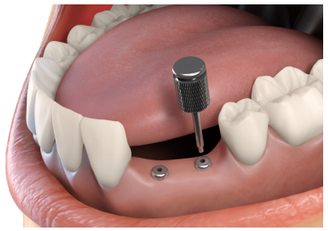
STEP 01

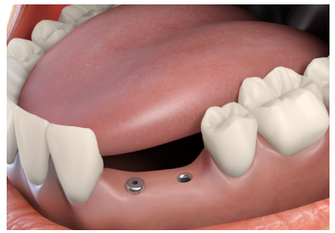
EXPOSURE

COMPONENTS:



A.





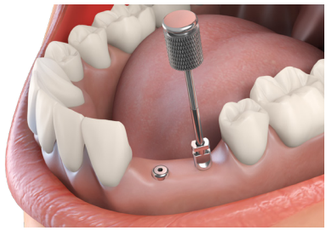
Remove the healing cap from the implant.

USEFUL TIP:

It is recommended to avoid repetitive insertion of the healing cap since it may harm the healing process of the soft tissue around the implants.

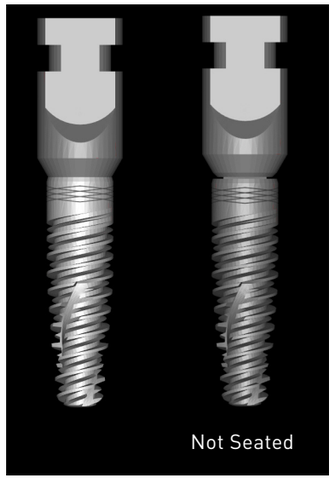
PLACING THE TRANSFER

B.



Place impression transfer (D20 long or short) over the implant and firmly tighten the long screw (D2al) by hand. Make sure that the hex of the transfer fits with the one of the implant and that the flat portion of the transfer corresponds to the buccal side of the jaw.

C.



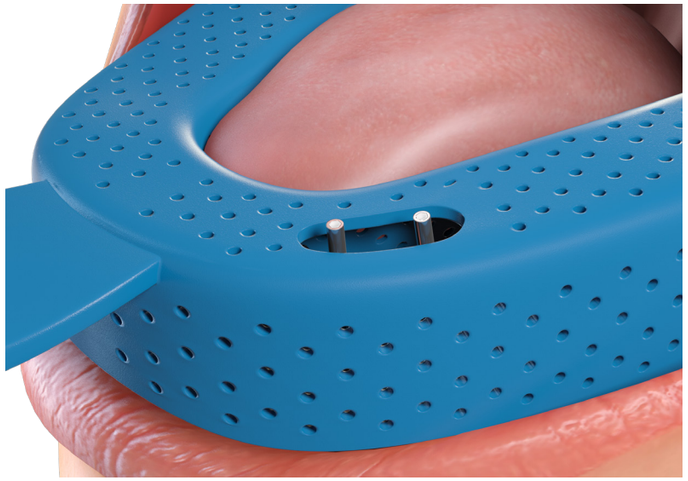
Take an x-ray radiography to verify that the transfer seats completely over the implant without any gaps between the implant and the transfer.

USEFUL TIP:

Transfer length selection should be made according to two criteria:
the gums depth and the length of the neighboring teeth, allowing proper amount of impression material retention.

STEP 02

ADJUST TRAY AND CHECK FIT

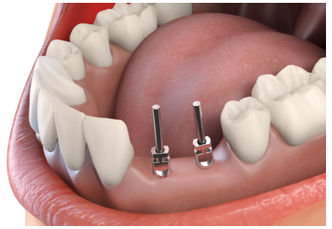


Make holes at the custom impression tray according to the transfers' position. Preferably use individualized impression tray. Otherwise, check that the long screw sticks-out approximately 2mm above the top of the tray.

STEP 03

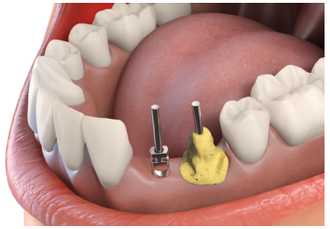
COVER TRANSFER WITH IMPRESSION MATERIAL

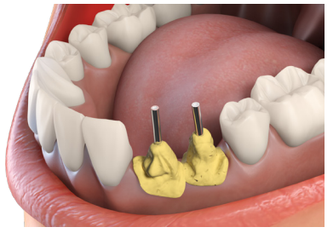
A.



Fill out the hole in the top of the impression transfer screw (using cotton ball or wax or teflon strip).

B.



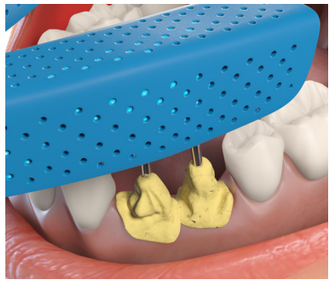


Inject impression material (light body) around the transfer, making sure to leave the top of the screw exposed, starting from distal to mesial.

STEP 04

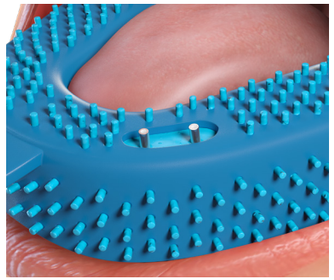
TAKE IMPRESSION

A.



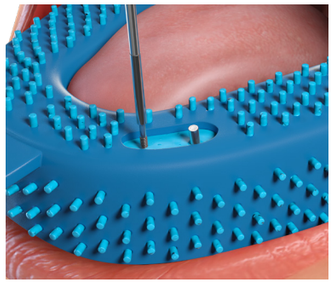
Fill impression tray with impression material (Heavy body) and place it in the patient's mouth, making sure that the top of the transfer screw is completely exposed and clean from any impression material.

B.



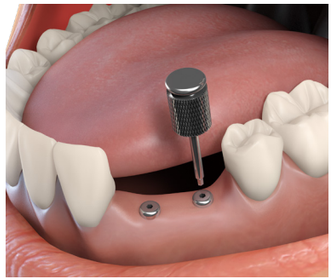
Wait for the impression material to settle

C.



Release the long screws and remove the tray from the patient's mouth. Make sure that the transfers stay firmly inside the impression.

D.

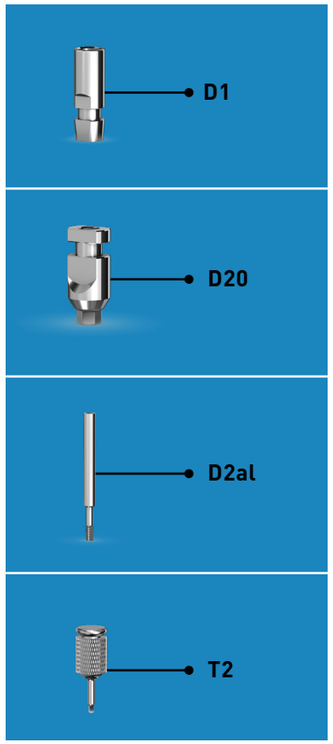


Replace the healing cap onto the implant.

STEP 05

IMPRESSION ACCURACY

COMPONENTS:



A.

Check that the transfer, teeth and gums are correctly imprinted, the impression is homogenous and whole and that the transfer(s) are stable in the impression material.

B.

Place analog (D1) onto the transfer. Avoid any movement of the transfer within the impression.

STEP 06

DONE!

SEND TO THE LAB:

Sterilize the impression and send to the lab:

- Implant impression
- Antagonist impression
- Bite registration and instructions

CLOSED TRAY IMPRESSION TECHNIQUE

In this technique the transfer is screwed into the implant. The impression tray is filled with impression material (heavy body) and placed in the patient's mouth.

The impression is removed from the patients' mouth without the transfer which remains in its place, connected to the implant, in the patients' mouth. The transfer is then being removed from the mouth and connected with the appropriate analog. The transfer, connected to the analog, is then re-inserted back into its position in the impression.

ADVANTAGES

Especially efficient in posterior areas with a limited intermaxillary space

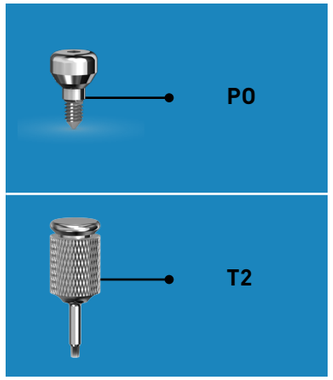
DISADVANTAGES

Occasionally might be less accurate

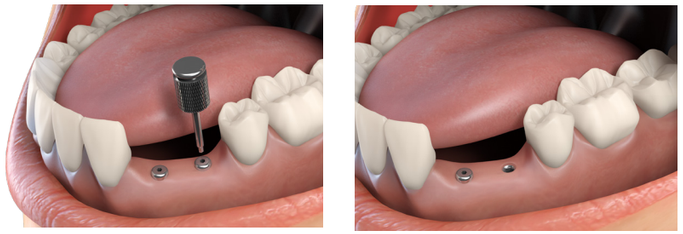
STEP 01

EXPOSURE

COMPONENTS:



A.



Remove the healing cap from the implant, starting from the distal transfer.

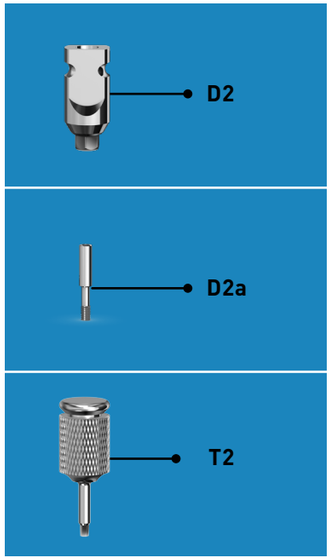
USEFUL TIP:

When placing impression copings on multiple implants, remove one healing abutment at a time, replacing it immediately with the impression coping. This reduces the likelihood of soft tissue collapsing onto the implant and reduces patient inconvenience. Work from the posterior to the anterior.

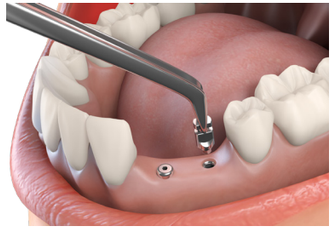
STEP 02

PLACING THE TRANSFER

COMPONENTS:

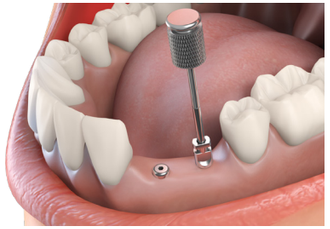


A.



Place impression transfer over the implant and firmly tighten the short screw (D2a) by T2 Hand Driver.

B.

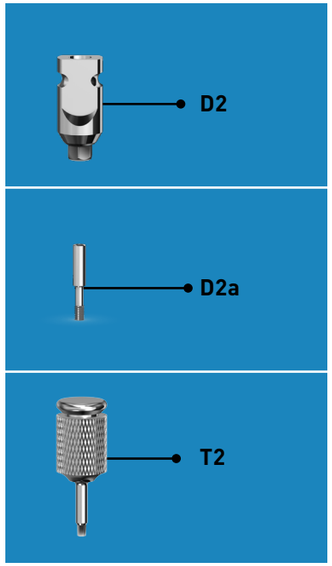


Make sure that the hex of the transfer fits the one of the implant. The flat portion of the transfer corresponds to the buccal side of the jaw.

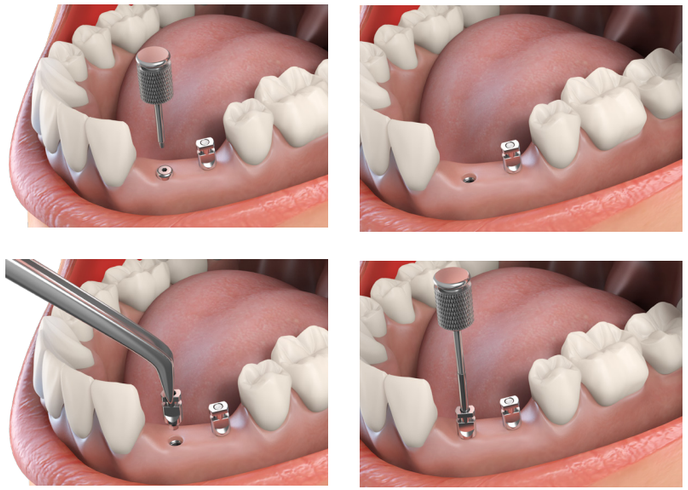
STEP 03

PLACING THE TRANSFER

COMPONENTS:

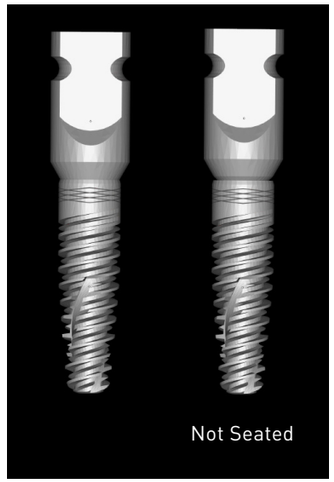


Follow steps 1 and 2 with the mesial implant.



STEP 04

X-RAY

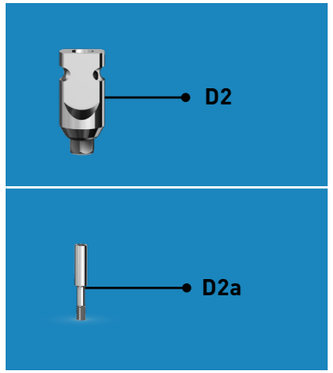


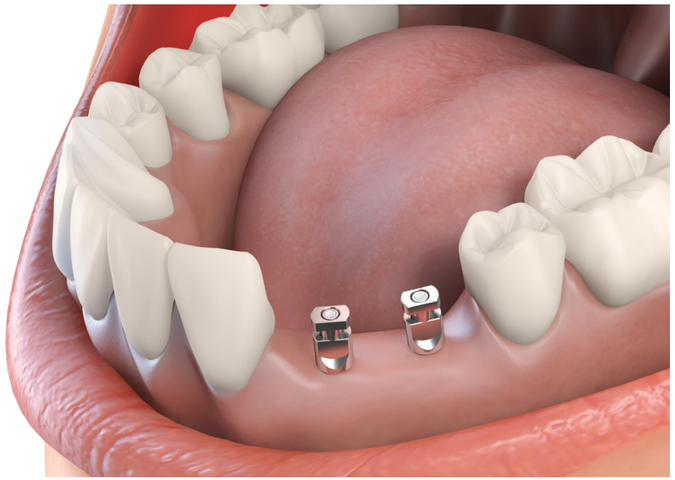
Take an x-ray radiography to verify that the transfer seats completely over the implant without ant gaps between the implant and the transfer.

STEP 05

FILLING OUT THE HOLE

COMPONENTS:

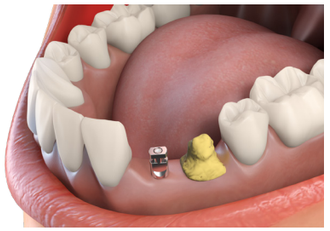




Fill out the hole in the top of the screw (using cotton ball or wax or teflon strip).

STEP 06

COVER TRANSFER WITH IMPRESSION MATERIAL

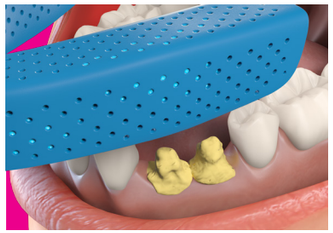


Put impression material (light body) around the transfer starting from distal to mesial.

STEP 07

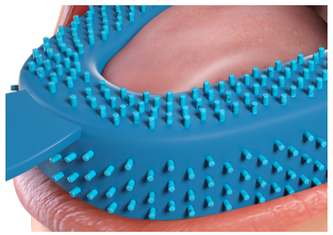
IMPRESSION TAKING

A.



Fill impression tray with impression material (heavy body) and place it in the patient's mouth, making sure that the transfer is completely covered with the impression material.

B.



Wait for the impression material to settle.

USEFUL TIP:

Using a custom tray will ensure a more accurate master model and subsequent passive casting.

STEP 08

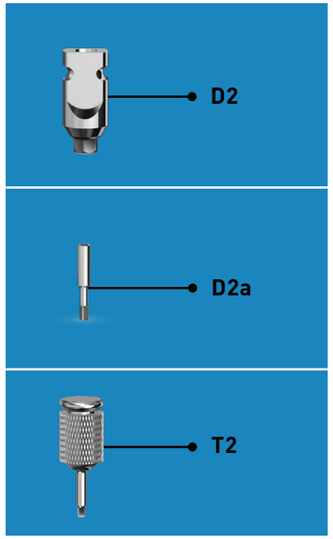
IMPRESSION ACCURACY

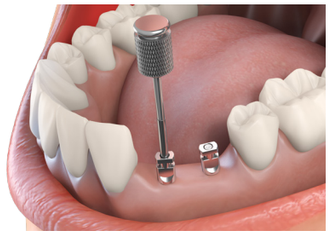
Remove the tray from patient's mouth and inspect impression's accuracy – check that the transfer, position of the teeth and gums are correctly imprinted and the impression is homogenous and whole.

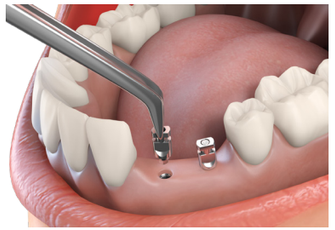
STEP 09

REMOVING THE TRANSFER

COMPONENTS:





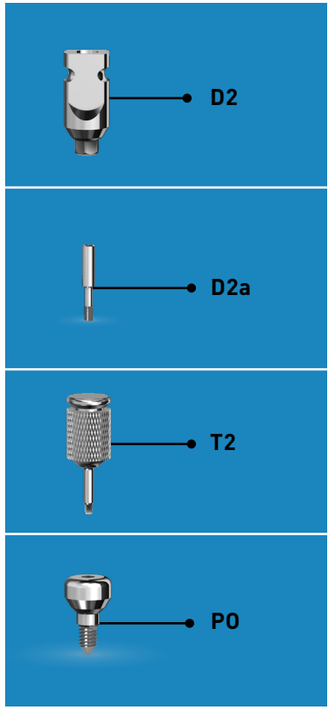


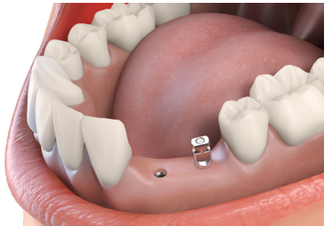
Loosen the short screw of the transfer and remove the transfer from the patient's mouth start from mesial transfer and move distal.

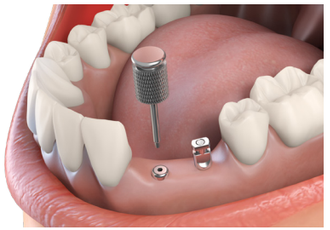
STEP 10

REPLACING THE HEALING CAP

COMPONENTS:





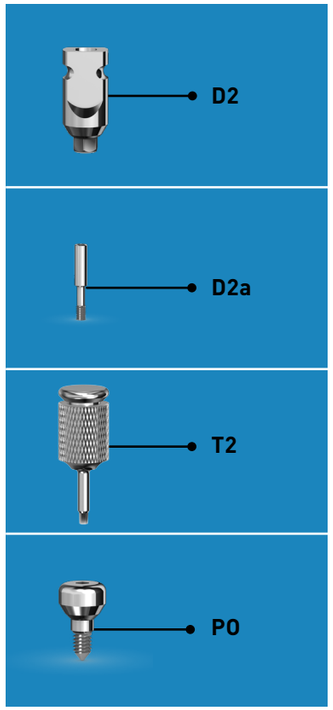


Replace the healing cap into the implant.

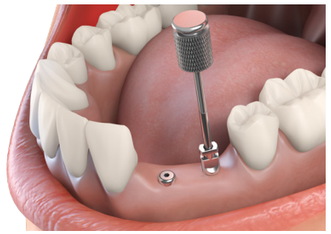
STEP 11

REPLACING THE HEALING CAP

COMPONENTS:



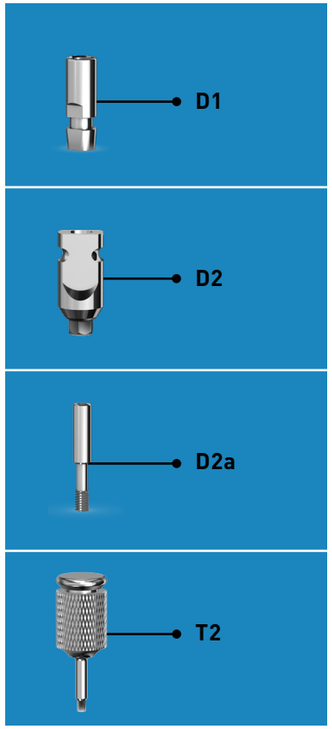
Follow steps 9 and 10 with the distal transfer.

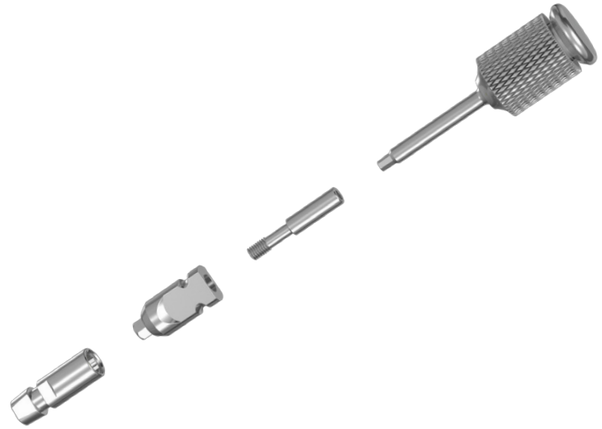


STEP 12

CONNECTING IMPLANT ANALOG AND TRANSFER

COMPONENTS:



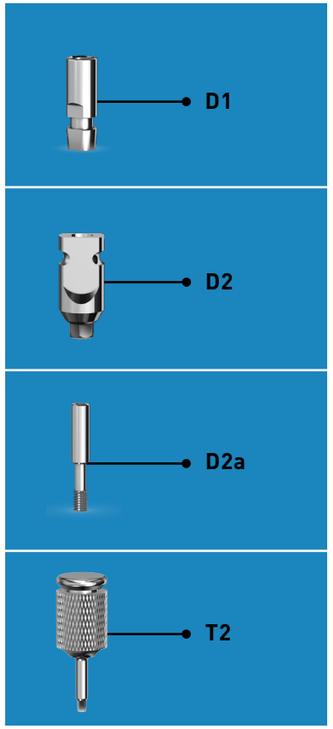


Place analog (D1) on the transfer and tighten the screw in your hand, forming one unit.

STEP 13

SIMULATION OF GINGIVA

COMPONENTS:



Insert transfer-analog unit back into the impression, making sure that the flat side of the transfer matches the flat side in the impression.

STEP 14

DONE!

SEND TO THE LAB:

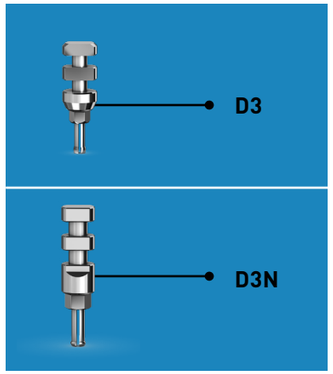
Sterilize the impression and send to the lab:

- Implant impression
- Antagonist impression
- Bite registration and instructions

AB DENTAL'S UNIQUE OPTIONS FOR CLOSED TRAY TECHNIQUE

CLIP TRANSFER – D3

COMPONENTS:



STEP 1

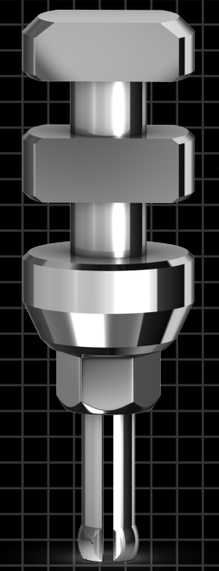
Assemble the transfers in the patient's mouth and place an impression tray with impression material over them.

STEP 2

Once the material hardens, remove the impression tray with the transfer that clip onto the implant with a "click", without the need of a screw.

STEP 3

After assembling the analogs on the transfers the impression is poured to create a mold.



ADVANTAGES

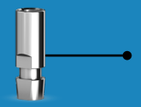
- Especially efficient in posterior areas with a limited intermaxillary space for a driver
- Good retention of the impression material
- Useful for a single implant restoration and overdenture with ball atachments

DISADVANTAGES

- Occasionally might be less accurate
- Suitable for parallel implants as well as with light divergent.

Plastic Snap Transfer with abutment enables quick and simple impression taking as the closed tray technique, **while obtaining maximum precision of the open tray technique.** The set is designed for multiple uses and available in 4 gingival heights (1-4mm).

COMPONENTS:



D1-3.75

PK-D2

PK-P3

PLASTIC SNAP TRANSFER WITH ABUTMENT – D4

STEP 1

Remove the healing cap from the implant

STEP 2

Choose the appropriate abutment (PK-P3) according to the gingival height and screw it into the implant using T1/T2 driver.

STEP 3

Place the transfer (PK-D2) firmly onto the abutment and "click" to ensure retention.

STEP 4

Take impression using the closed tray technique (refer to page 16).

STEP 5

Remove the impression tray from the patient's mouth, making sure that the transfer (PK-D2) stays inside the impression material.

STEP 6

Remove the abutment from the implant.

STEP 7

Replace the healing cap into the implant.

STEP 8

Screw the analog (D1) to the abutment and place this unit (analog-abutment) into the transfer, inside the impression.

STEP 9

Send the impression tray with the above mentioned devices to the lab.

ADVANTAGES

- Combines the simplicity of the "closed tray technique" with the accuracy of the "open tray technique"
- Especially efficient in posterior areas with a limited intermaxillary space for a driver

DIGITAL IMPRESSION TECHNIQUE

Digital impression taking, using an Intra-Oral Scanner, is time-efficient, simple and more comfortable for both Doctor and patient. To assure accuracy of the impressions, it is important to work according to protocol and ensure there are no gaps between implant and scan body.

The Titanium base allow for better durability and longer performance of the scan body and allows the doctor to ensure seating of the scan body by taking an X ray.

ADVANTAGES

- Accurate & precise
- Minimal discomfort for both patient & Doctor

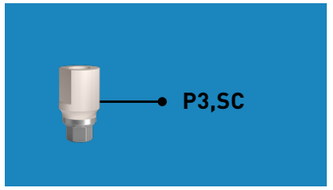
DISADVANTAGES

- Technique sensitive

STEP 01

SCAN

COMPONENTS:



STEP 1

Manually connect the scan abutment or bodies to the implants or to the screw retained P64, P14 or P16 abutments.

STEP 2

Scan intra-orally using an intra-oral scanner.

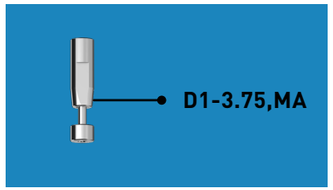
STEP 3

Check the scanning result for missing areas, and rescan if needed.

STEP 02

SEND TO LAB

COMPONENTS:



STEP 1

Send the scan data (STL files) to the dental lab.

STEP 2

In case a digital PRINTED model is needed, send the model analog to the lab as well.

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