# NeoConvert™

Transforming smiles

# **Prosthetic** Manual

NEODENT

A Straumann Group Brand

A smile for eveyone solution

NeoArch® Solution

Helix® Implant

# SUMMARY

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# NEOCONVERT™ BY NEODENT® - TRANSFORMING SMILES

## The Neodent® technique for improving the conversion from removable to fixed dentures.

Fixed full arch solutions have an important role in implant dentistry.[1] For patients, a life-time decision towards an improved quality of life. For dentists, the satisfaction of overcoming limitations to exceed expectations.

The challenges in this journey are directly related to decreasing the time for fixed teeth, and improving comfort during the procedures while keeping treatment affordability. All these aspects are crucial for decision-making, and the technique of choice has a relevant impact on the journey.

NeoConvert™ delivers a different way to transform smiles: a first step to full arch immediacy developed to enable temporary treatment with lower chair time and greater predictability with a straightforward workflow, whether performed chairside or in the lab.

**Discover the NeoConvert™**
Scan the QR or visit the link below:

**neodent.com/neoconvert-video**

## Indications

The NeoConvert™ technique is a viable option for patients with removable full dentures in good condition. This technique involves installing implants and abutments to allow the existing denture to be converted into a fixed temporary denture.

Denture

Convertion

Temporary Screw-retained Prosthesis

The new NeoConvert™ technique represents a significant innovation compared to the currently used conventional technique. The main improvements that this technique offers are related to conversion time, robustness of the temporary prosthesis, and accuracy.

The NeoConvert™ technique provides two types of workflows, the chairside workflow and the laboratory workflow. These options provide the dentist with the choice to offer the patient the best situation.

## A compact toolbox to provide efficiency in your conversions

The NeoConvert™ Compact Kit offers what is essential for a streamlined approach, whether chairside or lab workflow, all designed to be as efficient as possible.

- Intuitive set of drills with an initial guided approach;
- Manual Driver for a precise and swift capture of cylinders.


110.339
Neoconvert Kit Case

## Two coping sizes for best performance in the different clinical situations


118.408
Mini Conical Abutment Coping NeoConvert 5.0 (5 un.)

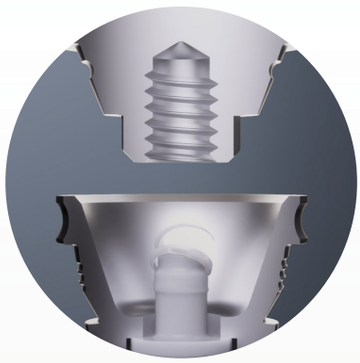

118.409
Mini Conical Abutment Coping NeoConvert 6.5 (5 un.)

## Seamless prosthesis capture and removal

The NeoConvert™ Capture Pin was developed for an uncomplicated capture and removal of the denture, with no previous access to occlusal screws: a cutting-edge Peek solution that eliminates the unscrewing step.

The capture Pin, as a state-of-the-art PEEK solution, enables the disengaging process from the abutment internal threads when submitted to a pull-out force, providing an innovative approach for the prosthesis' removal.

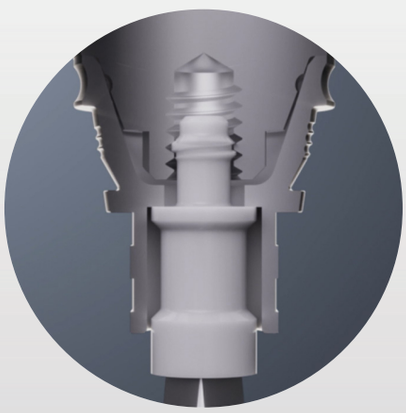
One pull-out movement, and that's it. The Capture Pin is fully removed along with the cylinder and no extra residual pieces remain in the abutment for the next step.



116.300
Pin Capture
NeoConvert
(5 un.)

## Attach the cylinder precisely

Torque Control technology for the precise fit: The Digital Driver avoids the over-torque of the capture pin, providing the optimal capture position of the cylinder over the abutment, and the proper passivity fit of your conversions.

## A complete set of drills and instruments designed to preserve the structure and ensure the strength of the prosthesis by working with an accurate drilling protocol[3]


| 103.676 | 103.677 | 103.678 | 103.679 | 125.206 |
|---|---|---|---|---|
| Preparation Drill Handpiece NeoConvert | First Drill Handpiece NeoConvert 1.5mm | Second Drill Handpiece NeoConvert 1.5mm | Third Drill Handpiece NeoConvert 2.0mm | Drill Guide for Handpiece 1.5mm NeoConvert |

## Planning and preparation

Before using the NeoConvert™ technique is necessary to evaluate the condition of the patient's prosthesis. It must be in good condition and present a balanced occlusion relationship between the arches.

In cases where the patient's denture is not in good condition, or he doesn't have a denture, or the teeth will be extracted, is needed to previously make a new denture by conventional or digital workflow.

Assessing the patient's anatomy is of utmost importance and should be carefully checked. Prolonged use of mobile full dentures can lead to bone resorption, resulting in unfavorable conditions for implant installation and fabrication of fixed implant-supported and retained prostheses.

The NeoConvert™ technique is recommended for implants installed in full arch conditions in immediate loading or after the initial osseointegration period. It is designed for rehabilitation over Mini Conical Abutments.

The suturing and the relationship with the peri-implant mucosa are important factors when the conversion technique is performed post-extraction. A good suture around the Mini Conical Abutments is essential. It must be ensured that the mucosa is adequately accommodated in the transmucosal profile of the abutment, without excessive overlap over the restorative margin. Is highly recommended to use a barrier (light-cured dam) to protect the suture during the conversion process. This adequate preparation of the soft tissue facilitates the application of the NeoConvert™ technique, making it faster and easier to perform.

## Step by Step

After implants are installed, and, in cases of immediate loading, a good suture is done, follow these steps for the NeoConvert™ technique:

For the laboratory workflow, is needed to transfer the position of the Mini Abutment. The NeoConvert™ technique is carried out on the model. Chairside workflow occurs when the conversion of the removable denture is performed in the patient's mouth. For the Chairside workflow skip Step 1.

## Step 1 - Transfer of Mini Conical Abutments position to model (for lab workflow only)

Transfer the position of the Mini conical abutments by conventional or digital workflow.

### Impression taking:

The Impression Coping allows transferring, using an impression, the tridimensional position of the Neodent® abutments.

Within the open tray technique, the body of the Impression Coping should be fit into the abutment and screwed manually or with the aid of the Torque Connection.

The transfers should be screwed out and removed from the patient's mouth with the impression material in the tray. Ensure that you do not move the Impression Coping while fitting the analog.

- Place the Impression Coping on the abutment 10 N.cm of torque;
- Perform the impression;
- Place the Hybrid Repositionable Analog on the mold.

After performing the impression:

- Ensure that the impression coping is correctly adjusted and positioned.
- Place the analog in the right position.
- Continue with placing the artificial gingiva and pouring the plaster mixture. Check if there are no bubbles and if all the details have been completely copied.
- Neodent® has developed a new generation of analogs, which can be used either in the conventional (plaster model) or the digital workflows (printed model), for prototyped models. They are called Hybrid Repositionable Analogs and are available for Neodent® GM portfolio.

108.176
Slim Mini Conical Abutment Open Tray Impression Coping

101.092
Mini Conical Abutment Hybrid Repositionable Analog

## Digital Workflow:

To perform the intraoral or extraoral scanning the dental surgeon should use the Mini Conical Abutment scanbody. Follow the step by step indicated by the scanner manufacturer. The digitalization of a scanbody has to copy as many details as possible and finalize the scan process following the software instructions.

The final scanning files should be sent to the CAD software (Chairside or sent to a dental laboratory by CAD/CAM system) or by e-mail. The laboratory will receive the final scanning files and will design (CAD software) the model.

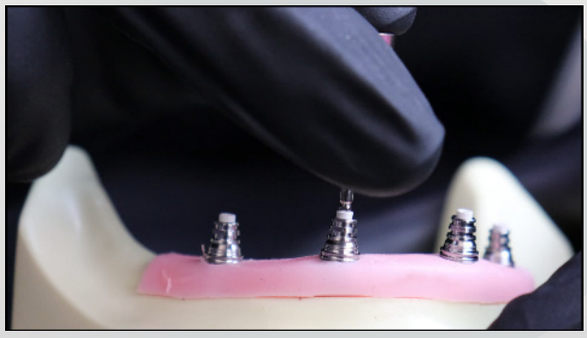
Protect the Mini Conical Abutments with the Mini Conical Protection Cylinders.

Note: The following steps will refer only to the Mini Conical Abutment, however, when using laboratory workflow, read Mini Conical Abutment as Analogue of the Mini Conical Abutment.


## Step 2 - Mini Conical Abutment Coping NeoConvert™ installation

At this stage, it is possible to choose the height of the Coping NeoConvert™. The smaller coping is used in cases in which the mucosa accommodates itself at the level of the Mini Conical margin, without offering resistance to seat. The higher one is intended for cases in which the mucosa invades the Mini Conical platform or is located above the abutment.

The Distal Bar is a component intended for the posterior region of the patient's mouth, in cases when the prosthesis has a long cantilever. It is available in a single height and is indicated to support the masticatory forces and increase resistance.



Install the Mini Conical Abutment Coping NeoConvert™ and/or the distal bar over the Mini Conical Abutments with the Pin Capture NeoConvert™ and the aid of the Digital Driver Pin Capture NeoConvert™. Apply torque until the Digital Driver Pin Capture NeoConvert™ stops applying torque, evidencing the activation of its torque control mechanism.

Carefully check that all Mini Conical Abutment Coping NeoConvert™ are properly attached to the Mini Conical Abutments (application of excessive torque may result in early removal of the Mini Conical Abutment Coping NeoConvert™).

5.0mm 6.5mm

118.408 118.409

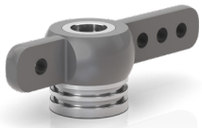
Mini Conical Abutment Coping NeoConvert (5 un.)

104.074

Digital Driver Pin Capture NeoConvert

116.300

Pin Capture NeoConvert (5 un.)



125.207

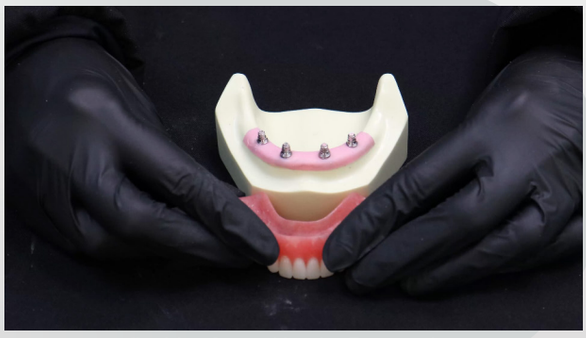
Mini Conical Abutment Distal Bar NeoConvert

## Step 3 - Denture preparation

With the Preparation Drill Handpiece NeoConvert™, wear down the denture, forming cavities over the position of the Mini Conical Abutments that accommodate the cylinders until there is enough space for the Mini Conical Abutment Coping NeoConvert™ and the resin filling. When using the distal bar, it will be necessary to use a special drill with an external geometry similar to that of the copings used. The use of markers facilitates the wear of the correct region at the time of preparation. Use Silicone Impression material, carbon or other material to make these marks on the denture. Do not wear the removable denture too much so that it does not weaken its structure.

Marking the prosthesis with Silicone Impression material

Internal denture wear.



Cavities formed by the Preparation Drill Handpiece NeoConvert™.

## Step 4 - Resin Application

In case of immediate loading, a good suture around the Mini Conical Abutments is essential. It must be ensured that the mucosa is adequately accommodated in the transmucosal profile of the abutment, without excessive overlap over the restorative margin. It is highly recommended to use a barrier (light-cured dam) to protect the suture during the conversion process.

Apply acrylic resin (prepared as instructed by its manufacturer) over the Mini Conical Abutment Coping NeoConvert™ and into the cavities formed in the previous step.

Application of barrier (light-cured dam) over suture.

Application of acrylic resin into the formed cavities.

## Step 5 - Capture of the Cylinders

Fit the resin-coated denture onto the Mini Conical Abutment Coping NeoConvert™ and/or the distal bar, until it is in its natural fit position with the patient's mucosa. Check the occlusion to ensure its correct positioning. Remove excess resin. Wait for the acrylic resin to polymerize (the curing time varies with each manufacturer).

After the resin has cured, remove the denture by applying force to the ends of the denture in the posterior region, to leverage its removal easily. Verify that all Mini Conical Abutment Coping NeoConvert™ have been captured by the denture. Check for remnants of the Convert Capture Pin on the Mini Pillars.

Cylinders Capture.

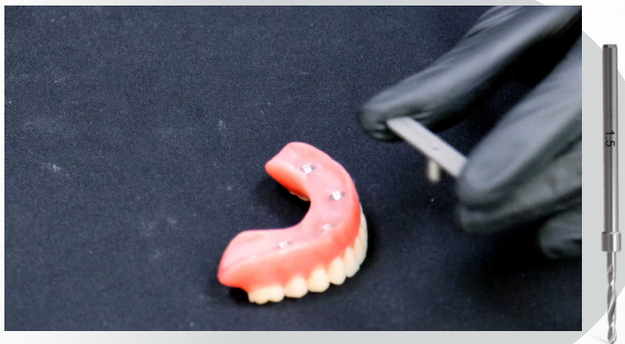
Denture Removal.

If necessary, complete the gaps with more resin.

Verify that all Mini Conical Abutment Coping NeoConvert™ have been captured by the denture.

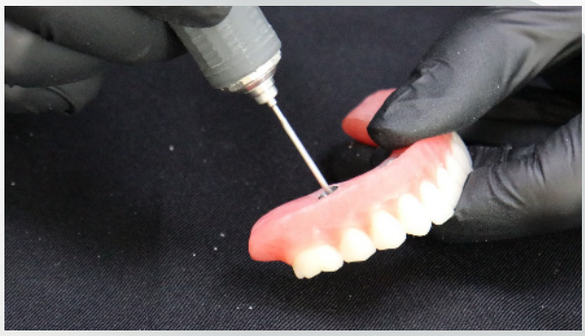
## Step 6 - Drilling and Removing the Pin Capture NeoConvert™

Position the Drill Guide For Handpiece 1.5mm NeoConvert™ over the Mini Conical Abutment Coping NeoConvert™ and check the fitting. With the First Drill Handpiece NeoConvert™, 1.5mm, drill a hole until the drill stop touches the guide. Also with the aid of the Drill Guide For Handpiece 1.5mm, drill a through hole with the Second Drill Handpiece NeoConvert™, 1.5mm (if necessary, remove the guide so that the drill can fully perforate the denture). From the opposite end of the created hole, drill with the Third Drill Handpiece NeoConvert™, 2.0mm until the head of the Pin Capture NeoConvert™ is completely removed. Remove debris from the drill bit before drilling other holes. Note: it is important to do continuous movements of insertion and removal either to avoid the heat of the drill and to facilitate the debris to coming out so the drill doesn't get stuck inside the guide.

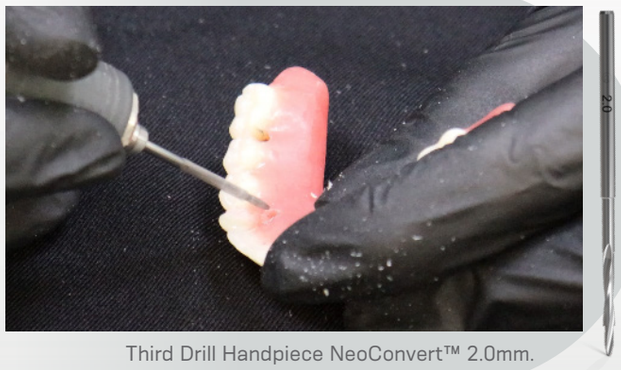



First Drill Handpiece NeoConvert™ 1.5 mm.


Second Drill Handpiece NeoConvert™ 1.5 mm.



If necessary, remove the guide so that the drill can fully perforate the denture.




Third Drill Handpiece NeoConvert™ 2.0mm.

For the Third Drill, make sure to drill until the stop touches the coping

## Step 7 - Finishing the NeoConvert™ tehcnique

Protect Mini Conical Abutment Coping NeoConvert™ with the Mini Conical Abutment Polishing Protector. With the instruments preferred, finish and polish the converted denture. Remember that it no longer needs to be supported by the patient's mucosa. In this step remove the flange and the retentions of the saddle of the prosthesis.

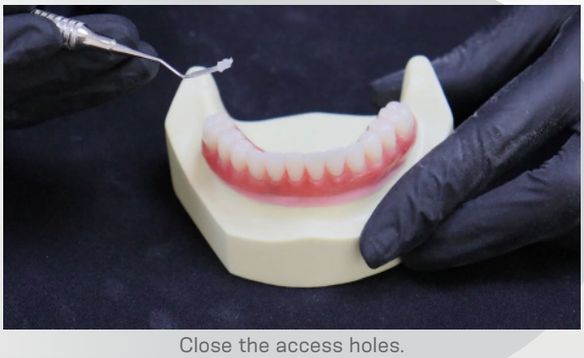
## Step 8 - Installation of the fixed full-arch temporary prosthesis

With the aid of the Neo digital Screwdriver, install the converted denture using Prosthetic Screws and apply a torque of torque of 10 N.cm with the aid of the Neo Torque Screwdriver. Protect the chimney of the screw after installation of the temporary prosthesis. Check for correct occlusion of the patient and make adjustments as needed.

Installation of the converted denture.

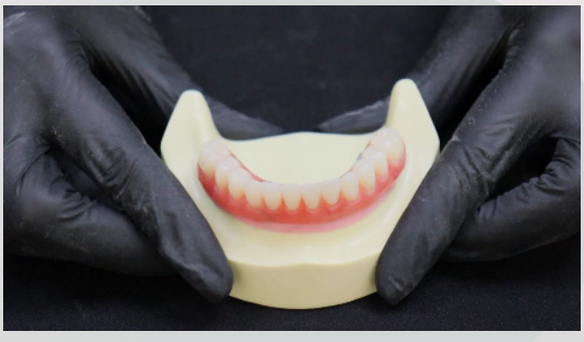
Using the Neo Torque Screwdriver, apply torque of 10 N.cm.

Protect the screw access holes.



Close the access holes.

Cure with the light and check the occlusion.



Final result.

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[5] Straumann Group internal validation.

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