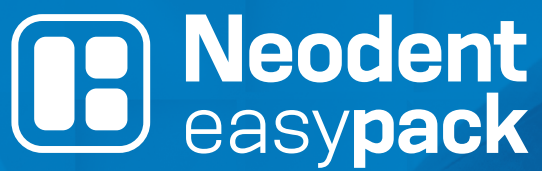




Neodent® EasyPack

Prosthetic Manual





SUMMARY

CONCEPT

GUIDED WORKFLOW

IMMEDIATE TEMPORARY RESTORATION

1 OR 2 STAGE APPROACH

Neodent easypack

The search for implant therapy is constantly growing, as patients' awareness increases, including expectations regarding treatment duration.

Neodent® has developed EasyPack to simplify your daily practice. An all-in-one set that offers everything you need to grow while performing dental implant therapy with confidence, convenience and guidance.

The Neodent® EasyPack includes

- 1 Grand Morse® Helix Implant**
 - (diameters: 3.5, 3.75, 4.0, 4.3 and 5.0, and lengths: 8.0, 10, 11.5 and 13mm)
- 2 Grand Morse® Cover Screw**
 - (0 mm)
- 3 Grand Morse® Healing Abutment**
 - (diameter: 4.5 mm; gingiva height: 2.5mm)
 - (diameter: 5.5 mm; gingiva height: 2.5mm)
- 4 Grand Morse® Hybrid Implant Analog**
 - (implant-level)
- 5 Grand Morse® 3-in-1 Neodent Smart Abutment™**
 - Scanbody for intraoral or model scanning
 - Closed-tray impression coping
 - Temporary Abutment (customizable cementable height, with marks for 4 and 6mm)



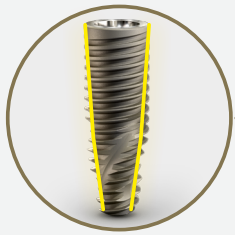
NEODENT® EASY PACK PRODUCT OPTIONS

	Ø 3.5		Ø 3.75		Ø 4.0		Ø 4.3		Ø 5.0	
	Acqua	NeoPoros	Acqua	NeoPoros	Acqua	NeoPoros	Acqua	NeoPoros	Acqua	NeoPoros
	8.0	138.089 138.005	8.0	138.113 138.029	8.0	138.137 138.053	8.0	138.158 138.074	8.0	138.182 138.170
	10.0	138.095 138.011	10.0	138.119 138.035	10.0	138.143 138.059	10.0	138.161 138.077	10.0	138.185 138.173
	11.5	138.101 138.017	11.5	138.125 138.041	11.5	138.149 138.065	11.5	138.164 138.080	11.5	138.188 138.176
	13.0	138.107 138.023	13.0	138.131 138.047	13.0	138.155 138.071	13.0	138.167 138.083	13.0	138.191 138.179

HELIX GM® - UNBEATABLE VERSATILITY

The Neodent® **Grand Morse®** system offers a unique implant designed to maximize primary stability.

Helix® **Grand Morse®** maximizes treatment options and efficiency in all bone types, with a wide portfolio of implant lengths.



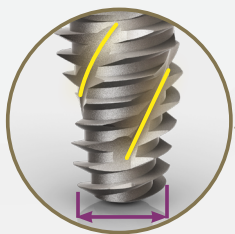
FULLY TAPERED BODY DESIGN

- Coronal: 2° - 12°
- Apex: 16°
- » Allowing under-osteotomy



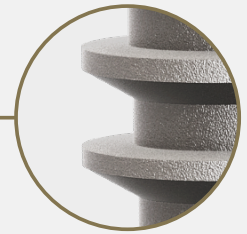
HYBRID CONTOUR

- Coronal: Cylindrical
- Apex: Conical
- » For stability with vertical placement flexibility



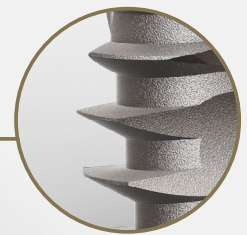
ACTIVE APEX

- Soft rounded small tip
- Helical flutes
- » Enabling immediate loading



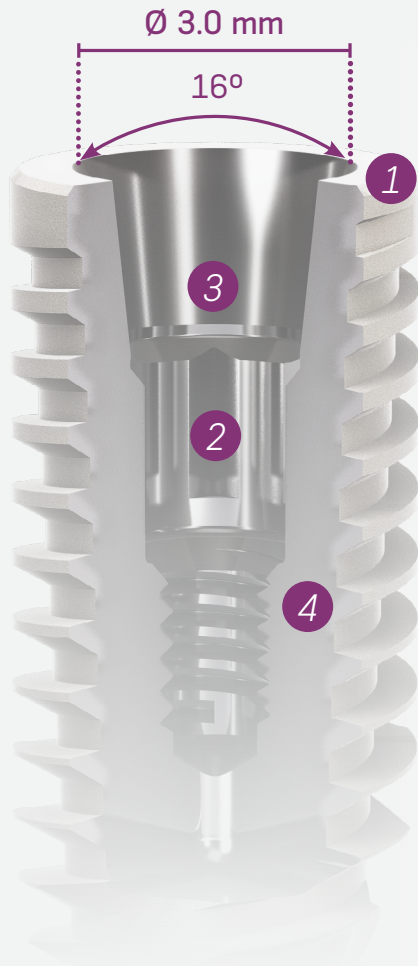
DYNAMIC PROGRESSIVE THREAD DESIGN

- Coronal: Trapezoidal > compressing
- Apex: V-Shape > Self-tapping
- » Achieving high primary stability in all bone types



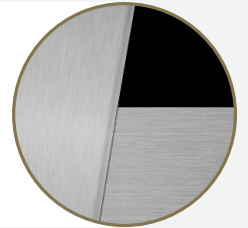
GRAND MORSE® CONNECTION

The Neodent® Grand Morse® connection offers a unique combination based on proven concepts.



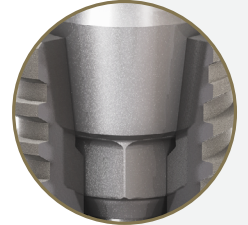
1 PLATFORM SWITCHING

Abutment design with a narrower diameter than the implant coronal area, enabling the platform switching concept⁽¹⁻⁵⁾.



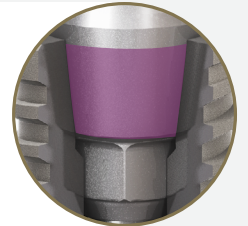
2 INTERNAL INDEXATION

Precise abutment positioning, protection against rotation and easy handling.



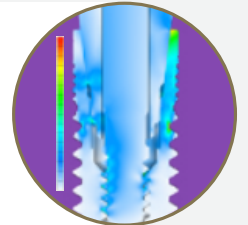
3 DEEP CONNECTION

Allowing a large contact area between the abutment and the implant for an optimal load distribution.

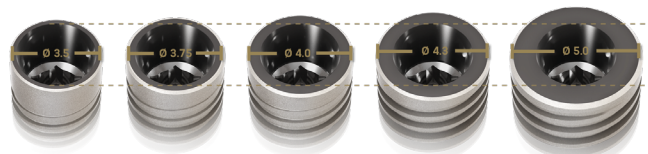


4 16° MORSE TAPER CONNECTION

Designed to ensure tight fit for an optimal connection sealing.



All Neodent® Grand Morse® implants feature the unique Grand Morse® connection regardless of the implant diameter.



PROSTHETIC PROCEDURES

After the surgical procedures and healing phase, the prosthetic workflow should be followed. This means choosing the most appropriate approach for each case: immediate or conventional workflow, and its related prosthetic components.

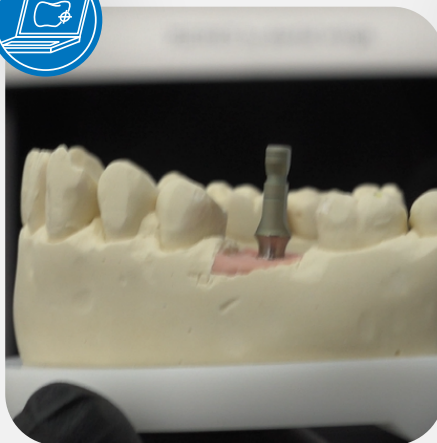
The GM implant prosthetic system provides flexibility, stability and esthetics to the final restoration. Neodent® EasyPack provides single unit prosthesis for screw or cement-retained restorations on implant level impression.

With Neodent® **EasyPack**, it is possible to perform the rehabilitation in 2 different loading protocols, in 2 workflows:

- Immediate temporary approach: Digital (intraoral or plaster model scanning) or conventional workflows;
- 1/2-stage approach: Digital (intraoral or plaster model scanning) or conventional workflows.



**INTRAORAL
SCANNING**



**PLASTER MODEL
SCANNING**



**CLOSED TRAY
IMPRESSION COPING**



**CONVENTIONAL
WORKFLOW**



**DIGITAL
WORKFLOW**

GM SMART ABUTMENT

To optimize options and simplify processes, Neodent® has developed a 3-in-1 component, the GM Smart Abutment. The GM Smart Abutment is a part of Neodent® EasyPack and has 3 different functions:



CLOSED-TRAY IMPRESSION COPING

To use as a closed tray impression coping, the abutment has a fitting geometry for the positioning cap. In this mode of use, the position and orientation of the implants are transferred to the plaster model.

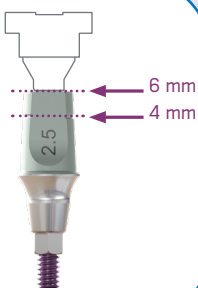


SCANBODY FOR INTRAORAL OR MODEL SCANNING

To use as a scanbody, the abutment is used without the cap. The scanbody can be used on an implant in order to transfer their positions following the scanning to use in CAD/CAM procedure.

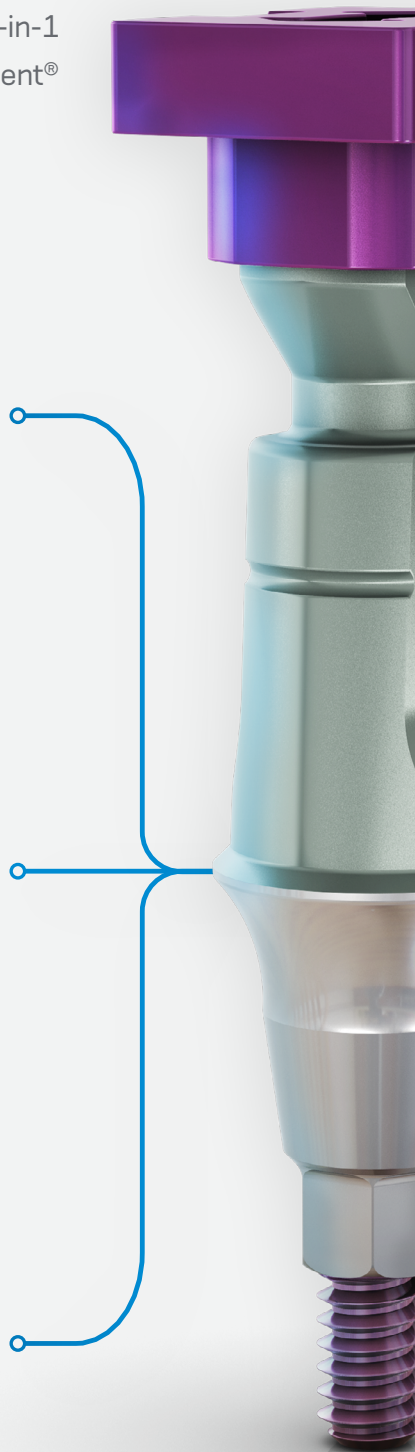
This is used to realign the library of implants with the correct position, according to the reference implant.

The scanning can be performed intraorally or on the plaster model and makes it possible to get the position and orientation of the implants in the digital model.



TEMPORARY ABUTMENT

To use as a temporary abutment, a sectioning of the abutment is necessary and can be performed in two heights: 4.0 or 6.0 mm, depending on the prosthetic need. The heights for cutting are evident in the component.



GUIDED WORKFLOWS

Access to guided restorative workflows with Neodent® EasyPack. The combination of the GM Smart Abutment with healing components and the analog allows you to choose a restorative path guided for achieving predictable results.

IMPLANT PLACEMENT — HEALING PHASE — IMPRESSION PHASE — TEMPORARY RESTORATION — FINAL RESTORATION



CONVENTIONAL
WORKFLOW



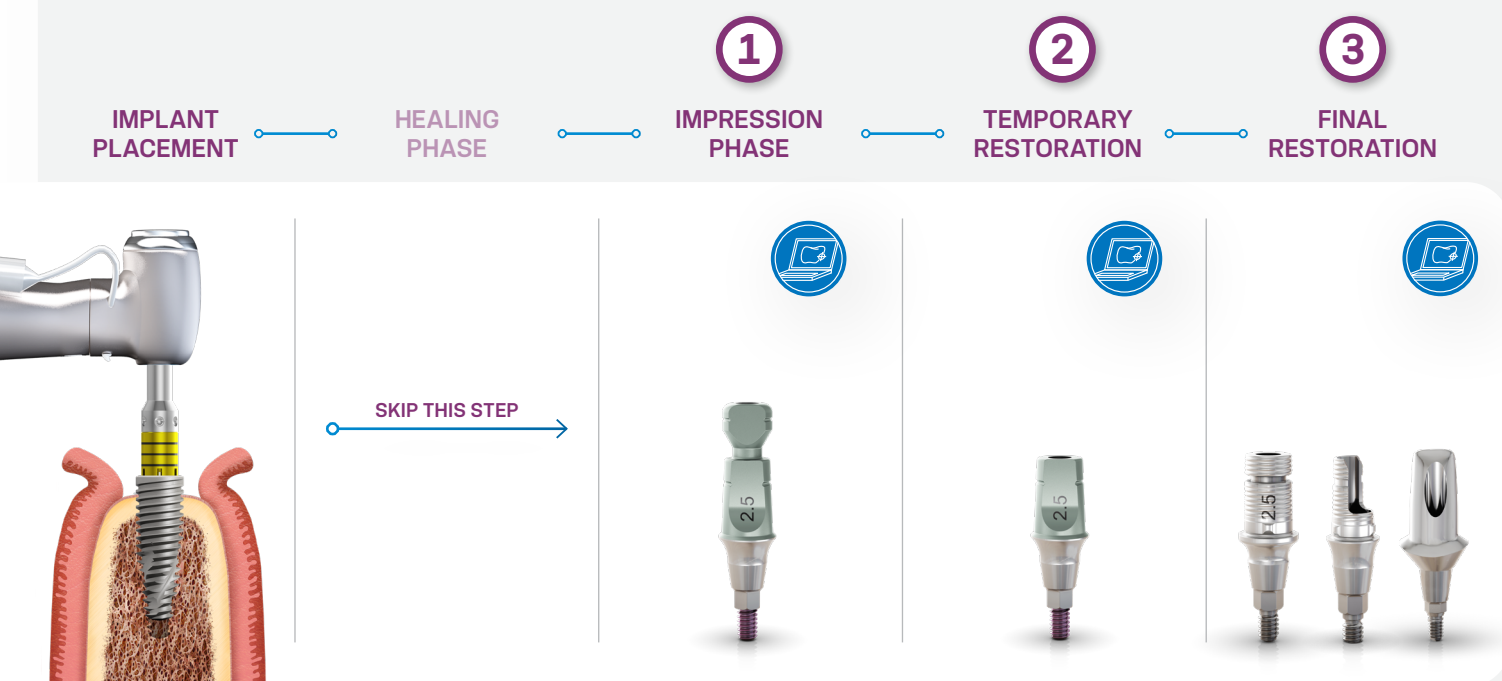
DIGITAL
WORKFLOW



IMMEDIATE TEMPORARY RESTORATION

Digital workflow - Intraoral scanning

After implant placement, perform the digital scanning using the GM Smart Abutment as the scanbody, without the cap (Step 1). Once finalized the scanning, the GM Smart Abutment can be used as a temporary abutment and a provisional crown should be produced and cemented over it, after customization (Step 2). When necessary a new scanning before the final restoration, the usual process, using the GM Scanbody, should be followed. The final restoration can be performed using a Titanium Base, Titanium Base for Angled Solution (AS) or Customized Abutment made from a GM Titanium Block (Step 3).



CONVENTIONAL
WORKFLOW



DIGITAL
WORKFLOW

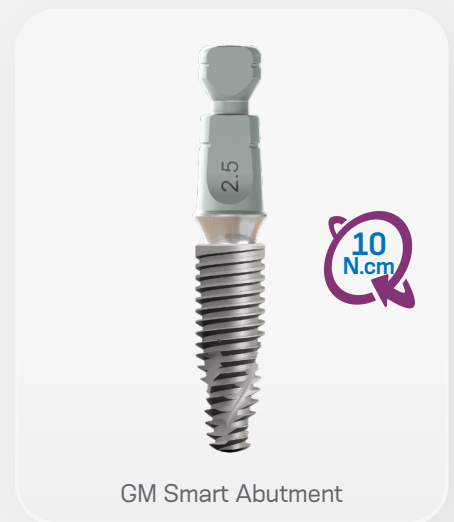
Note: in case of low primary stability, use a cover screw (two-stage approach)



STEP 1 • IMPRESSION PHASE

Intraoral scanning

The scanbody is used on implant level in order to transfer its position following the scanning to use in CAD/CAM procedure. To perform the intraoral scanning the dental surgeon should use the GM Smart Abutment; select correctly the indication, material and specify which is the element implant related; follow the step by step indicated by the scanner manufacturer. The digitalization of a scanbody has to copy as most 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 send to a dental laboratory by CAD/CAM system) or e-mail. The laboratory will receive the final scanning files and will design (CAD software) the future prosthesis. After that, the design will be transferred to the milling machine (CAM). Once the prosthesis is milled, the fit should be tried on onto the abutment.



Notes:

- Make sure that the GM Smart Abutment is properly seated;
- Scanbodies with damaged implant platform may lead to digitalization problems;
- After digitalization, design the prosthesis in the CAD software.



CARES Visual



3Shape



Exocad

**CARES visual is automatically updated with new Neodent Digital Solutions libraries. The files are available for exocad GmbH, and 3Shape A/S at www.neodent.com/cadcam. Make sure that your CAD library is updated.*

Use the Neo Screwdriver to place the GM Smart Abutment on the implant. Maximum torque: 10 N.cm. **Note:** Medium or long screwdrivers should be used.

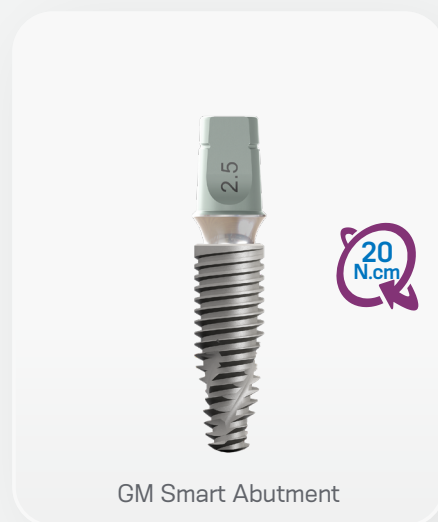


STEP 2 • TEMPORARY RESTORATION

The GM Smart Abutment is a provisional prosthetic solution to be used with a temporary crown, indicated to remain in the mouth up to 6 months. It can be used before the installation of the final abutments to maintain, stabilize and shape soft tissues during the healing phase.

Indications:

- Single-unit screwed/cemented restorations
- Customizable cementable height of 4 or 6 mm
- Diameter: 4.5 mm for implant diameters of 3.5, 3.75, 4.0 and 4.3 mm or 5.5 mm for implant diameters of 5.0 mm
- Gingival height: 2.5 mm



The temporary crown on the GM Smart Abutment can be produced in a clinical environment (chairside) or in a laboratory. It can be milled or printed in a 3D-printer, after designed with a CAD software, or created conventionally.

While the prosthesis is being produced, the GM Healing Abutment must be kept over the implant, in the patient's mouth, and then replaced with the fixture GM Smart Abutment+temporary crown.

*Use the Neo Screwdriver Torque Connection to place the GM Smart Abutment on the implant. Maximum torque: 20 N.cm. **Note:** Medium or long screwdrivers should be used. The short screwdrivers could be used, however, there may be some obstructions depending on the total height of the restoration.*



STEP 3 • FINAL RESTORATION

DIGITAL
WORKFLOW



Titanium Base



Instructions:

- The position of the GM Titanium Base is transferred basing on the position of the GM implant.
- After scanning, these steps should be followed:
- Open the CAD software;
- Carefully select in the CAD software library the correspondent GM Exact Titanium Base, as previously chosen;
- Proceed with the prosthesis CAD design;
- After completing the prosthesis design, start the milling process in the CAM machine ;
- Mill the crown/coping in-house
- Try on the fit of the crown/coping onto the titanium base, preferably in the patient's mouth and check the occlusion;
- The GM Exact Titanium Base should be cemented in the laboratory;
- Screw the GM Exact Titanium Base into the implant analog of the 3D printed model;

- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use. The GM Exact Titanium Base has been tested with chemically-activated resin cement (e.g.: Panavia);
- Apply the cement to the GM Exact Titanium Base and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the GM Exact Titanium Base;
- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth (using the Neo Screwdriver Torque Connection with a torque of 20 N.cm
- Make sure that the Titanium base engaging is aligned with the centre axis of the implant;
- Make sure that the prosthesis is perfectly positioned over the implant (with the aid of a periapical X-ray) and that the restoration is not pressing the peri-implant tissues.

Note: Check in the IFU the indication of minimum material thickness, maximum angulation and other important information of the GM Exact Titanium Bases.



STEP 3 • FINAL RESTORATION

DIGITAL
WORKFLOW



Titanium Base for Angled Solution



The GM Titanium Base AS allows milling of customized prosthesis and it is indicated for single prosthesis: copings and crowns cemented in the laboratory and screwed into the implant in the patient's mouth.

This abutment is supplied with a removable screw.

The GM Titanium Base AS is available in two different cementable areas: 4.0 and 6.0 mm. This solution allows crown screw channel angulation until 25° depending on the gingival height and cementable area of the abutment.

The position of the GM Titanium Base AS is transferred basing on the position of the GM implant.

Instructions (after scanning):

- Open the CAD software;
- Carefully select in the CAD software library the correspondent GM Titanium Base AS, as previously chosen;
- Proceed with the prosthesis CAD design;
- After completing the prosthesis design, start the milling process in the CAM machine ;
- Mill the crown/coping in-house
- Try on the fit of the crown/coping onto the titanium base, preferably in the patient's mouth and check the occlusion;

- The Titanium Base AS should be cemented in the laboratory;
- Screw the Titanium Base AS into the implant analog of the 3D printed model ;
- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use. The Titanium Base AS has been tested with chemically-activated resin cement (e.g.: Panavia);
- Apply the cement to the Titanium Base AS and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the GM Titanium Base AS;
- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth (using the Neo Screwdriver Torque Connection with a torque of 20 N.cm
- Make sure that the Titanium Base engaging is aligned with the centre axis of the implant;
- Make sure that the prosthesis is perfectly positioned over the implant (with the aid of a periapical X-ray) and that the restoration is not pressing the peri-implant tissues.

Note: Check in the IFU the indication of minimum material wall thickness, maximum angulation and other important information of the GM Titanium Base AS.



STEP 3 • FINAL RESTORATION

DIGITAL
WORKFLOW



Customized Abutment



GM Titanium Blocks are pre-milled abutments made in titanium, created to be adapted in milling machines for in-house work flow (laboratory or chairside). The original GM prosthetic interface of the abutment allows it to be applicable to the Original Neodent® program. They are available in two different models: one compatible with Medentika holder and other one compatible with Amann Girrbach holder.

This abutment is supplied with a removable screw.

GM Titanium Blocks for the Medentika holder are available in two different diameters: 11.5 mm and 15.8 mm.

GM Titanium Blocks for AG holders are available in one diameter: 12 mm.

Instructions:

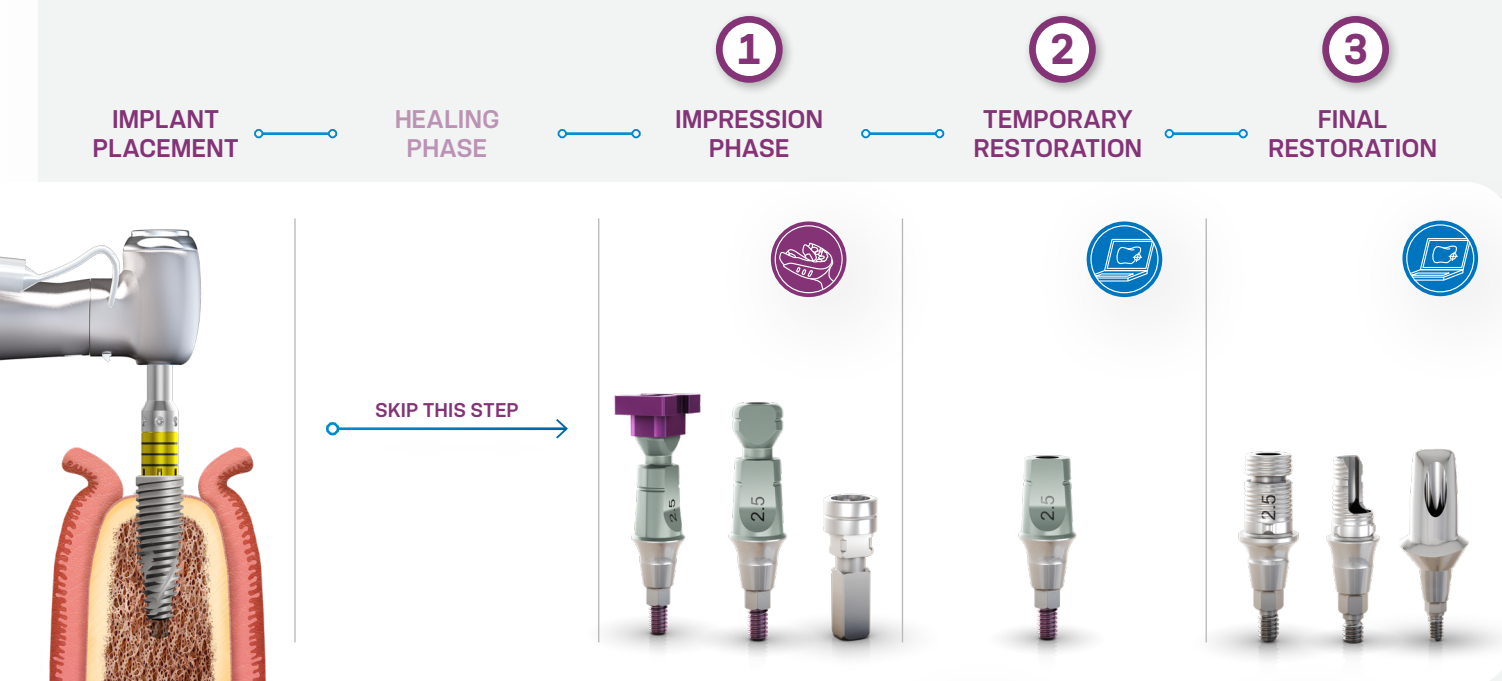
- Select the GM Titanium Block according to the necessity for diameter and angulation of the customized abutment;
- Select in the CAD software the compatible abutment previously chosen and perform the abutment digital design;
- Mill the designed part;
- Before placing the final abutment in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Place the customized abutment into the Grand Morse® Implant, using the Neo Screwdriver Torque Connection with a torque of 20 N.cm.



IMMEDIATE TEMPORARY RESTORATION

Digital workflow - Plaster model scanning

After implant placement, take the impression using the GM Smart Abutment, with the cap, as impression coping for closed-tray technique (Step 1). Once the impression is done, insert the GM Healing Abutment onto the implant. In the plaster model, already containing the GM Hybrid Repositionable Analog, place the GM Smart Abutment, without the cap, and perform the model scanning. Remove the GM Healing Abutment and install the GM Smart Abutment, which now is the basis for a provisional restoration, after customization (Step 2). When necessary a new scanning before the final restoration, the usual process, using the GM Scanbody, should be followed. The final restoration can be performed using a Titanium Base, Titanium Base for Angled Solution (AS) or Customized Abutment made from a GM Titanium Block (Step 3).



Note: in case of low primary stability, use a cover screw (two-stage approach)



CONVENTIONAL
WORKFLOW



DIGITAL
WORKFLOW



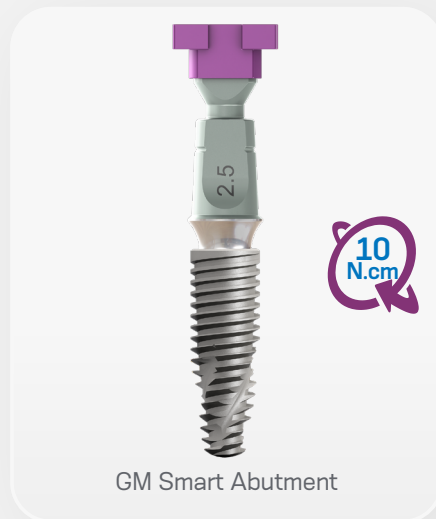
STEP 1 • IMPRESSION PHASE

1.1 • Impression taking

The GM Smart Abutment allows transferring, by means of molding, of the tridimensional position of the GM implant. The solution is for impression techniques with closed tray. Within the closed tray technique, a negative impression of the post is made using an impression material. The impression coping is then removed from the oral cavity and adapted to the impression material in the tray.

Instructions:

- Place the GM Smart Abutment on the implant with the cap;
- Perform the impression;
- Place the GM Hybrid Repositionable Analog on the mold.



GM Smart Abutment



GM Hybrid Analog

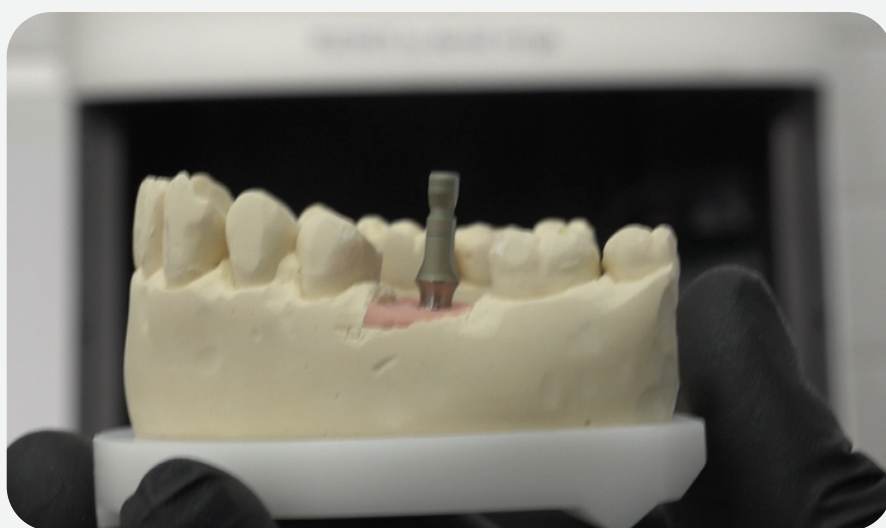
Use the Neo Screwdriver to place the GM Smart Abutment on the implant. Maximum torque: 10 N.cm. **Note:** Medium or long screwdrivers should be used.



STEP 1 • IMPRESSION PHASE

1.2 • Plaster model scanning

Use the preferred artificial gingival material to make a removable, accurate and faithful gum 3 to 4 mm in depth (follow the manufacturer's instructions for the material used for making the artificial gum indicated in the respective IFU). Use and prepare the mixture using Type IV plaster. Make sure to mix the powder and the water correctly, following the manufacturer's instructions. Pour the plaster mixture into the impression. Make sure that the plaster coats all anatomical details and, in particular, that it covers the analog completely. Wait the recommended time for the plaster to set and then carefully remove the model from the impression tray. Check if there are no bubbles and if all the details have been completely copied. Finish the model. It is also important to have a model of the opposite arch and assemble them both in an articulator. Once the plaster model is made it can be scanned. This technique requires a plaster model scanner or a bench scanner. Neodent® Digital Solutions recommends the following scanners: Straumann CARES, 3Shape and Exocad. Use the GM Smart Abutment as scanbody over the analog, without the cap. The laboratory will design (CAD software) the future prosthesis. After that, the design will be transferred to the milling machine (CAM). Once the prosthesis is milled, the fit should be tried on onto the abutment.



Notes:

- The steps set out by the scanner's manufacturer must be followed, the important thing is to scan the plaster model with and without the removable gum (usually carried out at different steps) and, to scan the GM Smart Abutment in the right position.
- The laboratory will receive the final scanning files and will design (CAD software) the future prosthesis. After that, the design will be transferred to the milling machine (CAM).



CARES Visual



3Shape



Exocad

*CARES visual is automatically updated with new Neodent Digital Solutions libraries. The files are available for exocad GmbH, and 3Shape A/S at www.neodent.com/cadcam. Make sure that your CAD library is updated.



STEP 2 • TEMPORARY RESTORATION

The GM Smart Abutment is a provisional prosthetic solution to be used with a temporary crown, indicated to remain in the mouth up to 6 months. It can be used before the installation of the final abutments to maintain, stabilize and shape soft tissues during the healing phase.

Indications:

- Single-unit screwed/cemented restorations
- Customizable cementable height of 4 or 6 mm
- Diameter: 4.5 mm for implant diameters of 3.5, 3.75, 4.0 and 4.3 mm or 5.5 mm for implant diameters of 5.0 mm
- Gingival height: 2.5 mm



GM Smart Abutment

While the prosthesis is being produced in the laboratory, the GM Healing Abutment must be installed on the implant, and then replaced with the fixture GM Smart Abutment+temporary crown.

*Use the Neo Screwdriver Torque Connection to place the GM Smart Abutment on the implant. Maximum torque: 20 N.cm. **Note:** Medium or long screwdrivers should be used. The short screwdrivers could be used, however, there may be some obstructions depending on the total height of the restoration.*



STEP 3 • FINAL RESTORATION

Titanium Base



Instructions:

- The position of the GM Titanium Base is transferred basing on the position of the GM implant.
- After scanning, these steps should be followed:
- Open the CAD software;
- Carefully select in the CAD software library the correspondent GM Exact Titanium Base, as previously chosen;
- Proceed with the prosthesis CAD design;
- After completing the prosthesis design, start the milling process in the CAM machine ;
- Mill the crown/coping in-house
- Try on the fit of the crown/coping onto the titanium base, preferably in the patient's mouth and check the occlusion;
- The GM Exact Titanium Base should be cemented in the laboratory;
- Screw the GM Exact Titanium Base into the implant analog of the 3D printed model;



- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use. The GM Exact Titanium Base has been tested with chemically-activated resin cement (e.g.: Panavia);
- Apply the cement to the GM Exact Titanium Base and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the GM Exact Titanium Base;
- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth (using the Neo Screwdriver Torque Connection with a torque of 20 N.cm
- Make sure that the Titanium base engaging is aligned with the centre axis of the implant;
- Make sure that the prosthesis is perfectly positioned over the implant (with the aid of a periapical X-ray) and that the restoration is not pressing the peri-implant tissues.

Note: Check in the IFU the indication of minimum material thickness, maximum angulation and other important information of the GM Exact Titanium Bases.



STEP 3 • FINAL RESTORATION

Titanium Base for Angled Solution



The GM Titanium Base AS allows milling of customized prosthesis and it is indicated for single prosthesis: copings and crowns cemented in the laboratory and screwed into the implant in the patient's mouth.

This abutment is supplied with a removable screw.

The GM Titanium Base AS is available in two different cementable areas: 4.0 and 6.0 mm. This solution allows crown screw channel angulation until 25° depending on the gingival height and cementable area of the abutment.

The position of the GM Titanium Base AS is transferred basing on the position of the GM implant.

Instructions (after scanning):

- Open the CAD software;
- Carefully select in the CAD software library the correspondent GM Titanium Base AS, as previously chosen;
- Proceed with the prosthesis CAD design;
- After completing the prosthesis design, start the milling process in the CAM machine ;
- Mill the crown/coping in-house
- Try on the fit of the crown/coping onto the titanium base, preferably in the patient's mouth and check the occlusion;



- The Titanium Base AS should be cemented in the laboratory;
- Screw the Titanium Base AS into the implant analog of the 3D printed model ;
- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use. The Titanium Base AS has been tested with chemically-activated resin cement (e.g.: Panavia);
- Apply the cement to the Titanium Base AS and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the GM Titanium Base AS;
- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth (using the Neo Screwdriver Torque Connection with a torque of 20 N.cm
- Make sure that the Titanium Base engaging is aligned with the centre axis of the implant;
- Make sure that the prosthesis is perfectly positioned over the implant (with the aid of a periapical X-ray) and that the restoration is not pressing the peri-implant tissues.

Note: Check in the IFU the indication of minimum material wall thickness, maximum angulation and other important information of the GM Titanium Base AS.



STEP 3 • FINAL RESTORATION

Customized Abutment



GM Titanium Blocks are pre-milled abutments made in titanium, created to be adapted in milling machines for in-house work flow (laboratory or chairside). The original GM prosthetic interface of the abutment allows it to be applicable to the Original Neodent® program. They are available in two different models: one compatible with Medentika holder and other one compatible with Amann Girrbach holder.

This abutment is supplied with a removable screw.

GM Titanium Blocks for the Medentika holder are available in two different diameters: 11.5 mm and 15.8 mm.

GM Titanium Blocks for AG holders are available in one diameter: 12 mm.

Instructions:

- Select the GM Titanium Block according to the necessity for diameter and angulation of the customized abutment;
- Select in the CAD software the compatible abutment previously chosen and perform the abutment digital design;
- Mill the designed part;
- Before placing the final abutment in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;



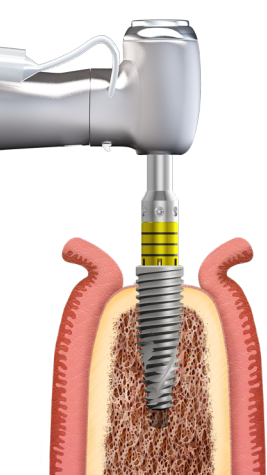
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Place the customized abutment into the Grand Morse® Implant, using the Neo Screwdriver Torque Connection with a torque of 20 N.cm.



IMMEDIATE TEMPORARY RESTORATION

Conventional workflow

After implant placement, take the impression using the GM Smart Abutment and the cap as impression coping for closed-tray technique (Step 1). Once the impression is done, insert the GM Healing Abutment onto the implant (Step 2). Following this, a temporary crown is produced using the customized GM Smart Abutment as basis (Step 2). When necessary a new impression before the final restoration, the usual process, using the GM Impression Coping, should be followed. For the final single-unit restoration, a Titanium Base with a burn-out coping can be used (Step 3).



SKIP THIS STEP →



Note: in case of low primary stability, use a cover screw (two-stage approach)



CONVENTIONAL
WORKFLOW



DIGITAL
WORKFLOW



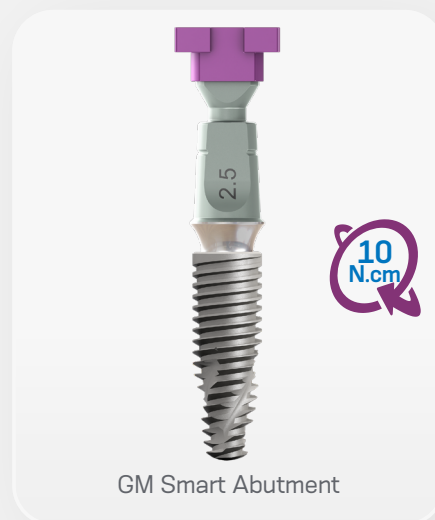
STEP 1 • IMPRESSION PHASE

Impression taking

The GM Smart Abutment allows transferring, by means of molding, of the tridimensional position of the GM implant. The solution is for impression techniques with closed tray. Within the closed tray technique, a negative impression of the post is made using an impression material. The impression coping is then removed from the oral cavity and adapted to the impression material in the tray.

Instructions:

- Place the GM Smart Abutment on the implant with the cap;
- Perform the impression;
- Place the GM Hybrid Repositionable Analog on the mold.



Use the Neo Screwdriver to place the GM Smart Abutment on the implant. Maximum torque: 10 N.cm. **Note:** Medium or long screwdrivers should be used.



STEP 2 • TEMPORARY RESTORATION

The GM Smart Abutment is a provisional prosthetic solution to be used with a temporary crown, indicated to remain in the mouth until 6 months. It can be used before the installation of the final abutments to maintain, stabilize and shape soft tissues during the healing phase.

Indications:

- Single-unit screwed/cemented restorations
- Customizable cementable height of 4 or 6 mm
- Diameter: 4.5 mm for implant diameters of 3.5, 3.75, 4.0 and 4.3 mm or 5.5 mm for implant diameters of 5.0 mm
- Gingival height: 2.5 mm



GM Smart Abutment

While the prosthesis is being produced by the laboratory, the GM Healing Abutment must be installed on the implant, and then replaced with the fixture GM Smart Abutment+temporary crown.

*Use the Neo Screwdriver Torque Connection to place the GM Smart Abutment on the implant. Maximum torque: 20 N.cm. **Note:** Medium or long screwdrivers should be used. The short screwdrivers could be used, however, there may be some obstructions depending on the total height of the restoration.*



STEP 3 • FINAL RESTORATION

CONVENTIONAL
WORKFLOW



Titanium Base



Instructions:

- The technician produces the plaster model in the laboratory;
- The laboratory technician produces a single screw-retained prosthesis using ceramic injection conventional techniques, along with the selected burn-out coping (4.5x4.0; 4.5x6.0; 5.5x4.0; 5.5x6.0);
- The GM Exact Titanium Base can be cemented in the laboratory;
- Screw the GM Exact Titanium Base into the implant analog of model ;
- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use;

Note: The Burn-Out coping is a device designed for the confection of ceramic infrastructures of unitary prostheses cemented over the Titanium Base. To produce the prosthesis, the desired geometry needs to be produced, in the laboratory, in appropriate wax and placed on the Burn-Out coping. In the press technique, the wax is removed and the ceramic material is injected.

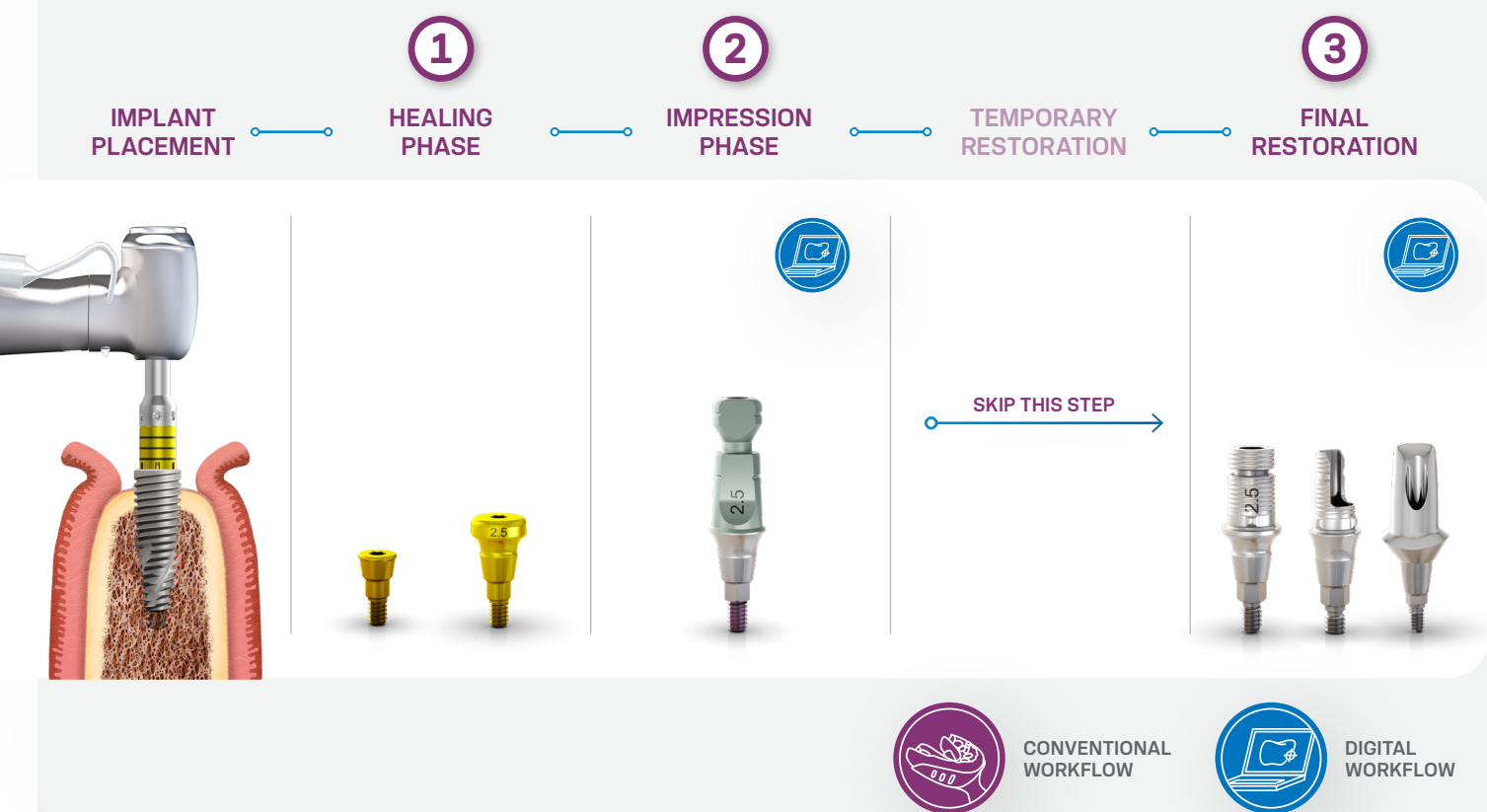
- Apply the cement to the GM Exact Titanium Base and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the GM Exact Titanium Base;
- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth using the Neo Screwdriver Torque Connection with a torque of 20 N.cm;
- Make sure that the Titanium base engaging is aligned with the central axis of the implant;
- Ensure that it fits perfectly on the implant (with the aid of a periapical x-ray) and that the prosthesis is not pressing on the peri-implant tissue.



1 OR 2 STAGE APPROACH

Digital workflow - Intraoral scanning

After implant placement, the cover screw is installed. For torque levels higher than 10 N.cm, the GM Healing Abutment can be inserted directly, to condition the mucosa (Step 1). After the healing of the soft tissue, perform the digital scanning using the GM Smart Abutment as the scanbody, without the cap (Step 2). The final restoration can be performed using a Titanium Base, Titanium Base for Angled Solution (AS) or Customized Abutment made from a GM Titanium Block (Step 3).



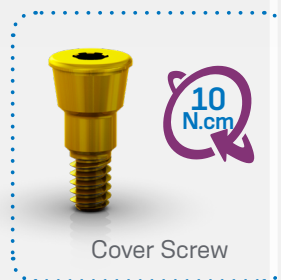
Note: in case of low primary stability ($\leq 10\text{N.cm}$), use a cover screw (two-stage approach)



STEP 1 • HEALING PHASE

1.1 • Two-stage/submucosal healing

For submucosal healing (under a closed mucoperiosteal flap), the use of the GM Cover Screw is indicated, already included in Neodent® EasyPack. A second surgical procedure is necessary to reveal the implant and insert the healing abutment.



1 INSERTING THE COVER SCREW

Ensure that the internal configuration is clean and free of blood residue. Capture the GM Cover Screw with the Neo Manual Screwdriver. A perfect fit ensures the transport for the implant, and manually tighten the screw.

2 CLOSE THE INCISION

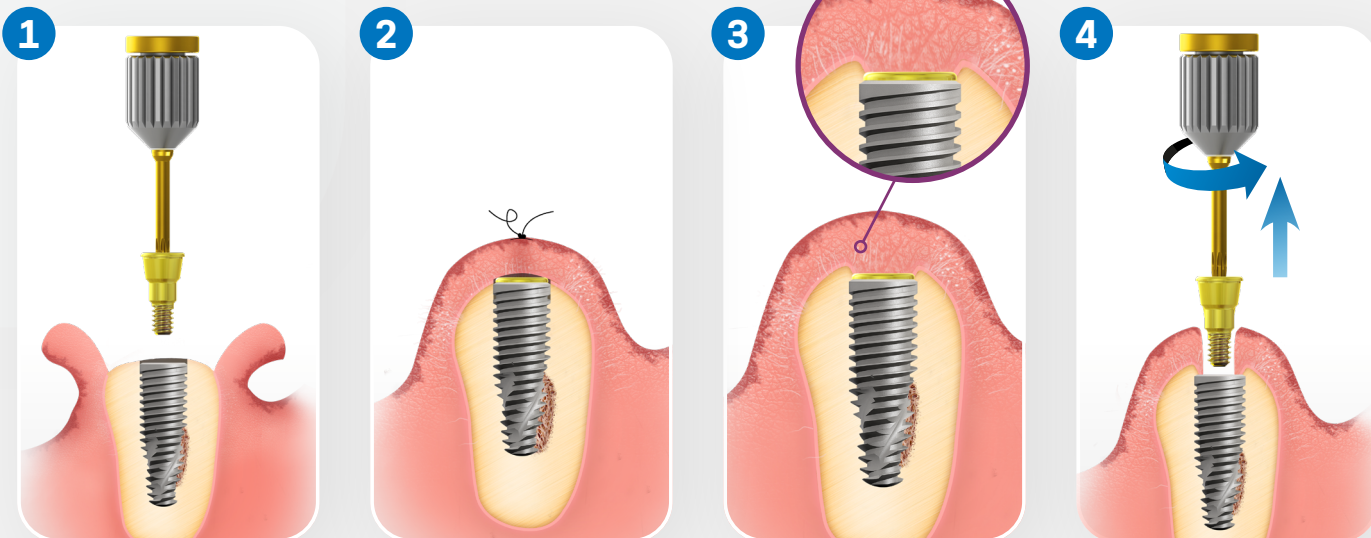
Adjust the edges of the flap and suture with tension-free stitches.

3 REGENERATION PERIOD

Remove the suture after approximately 7 days or once it has lost its function and wait for the bone regeneration phase.

4 REOPENING AND REMOVAL OF THE GM COVER SCREW SECOND SURGERY

After the bone regeneration period for each type of implant and bone, locate the implant with the help of the surgical guide, X-rays or measurements, and, with the desired technique, make an incision to reach the implant, and remove the GM Cover Screw with the Neo Manual Screwdriver.





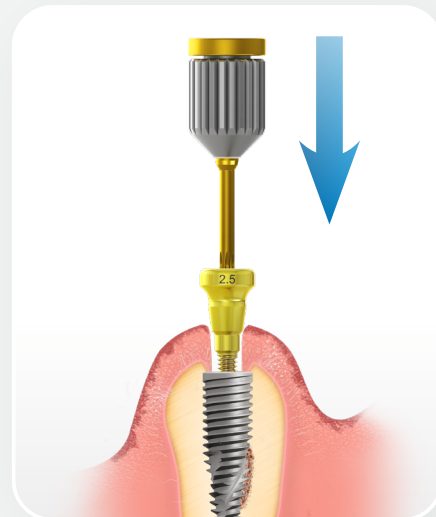
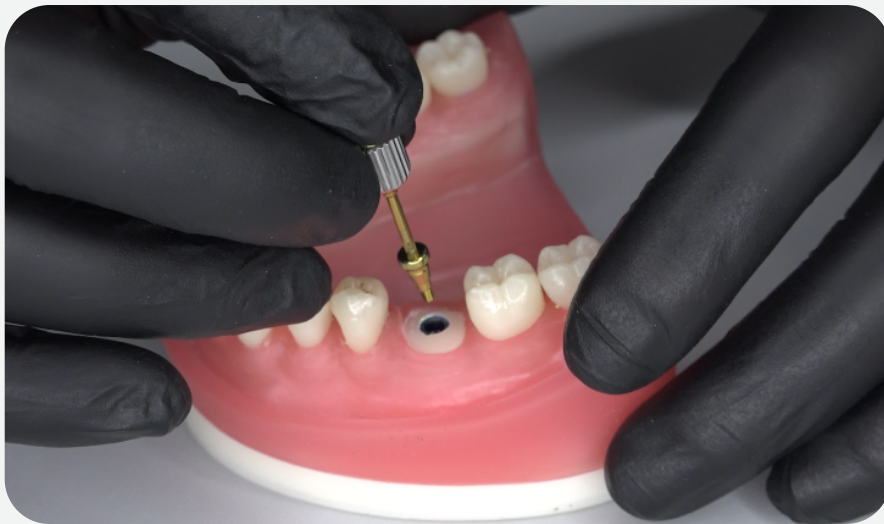
STEP 1 • HEALING PHASE

1.2 • One-stage/Transmucosal healing

GM Healing Abutment is available in Neodent® EasyPack. It is designed to create a suitable gingival emergence profile, which adapts to the final abutments. The correct use of this healing abutment determinates the adequate soft tissue healing process, maintaining the indicated biological distance.

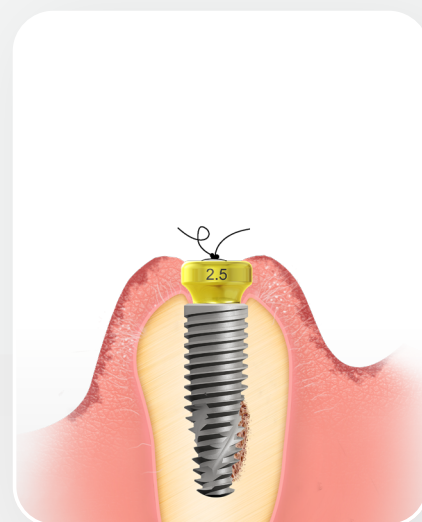


1 INSERTION OF HEALING ABUTMENT



Irrigate the implant's exposed internal connection with sterile saline solution, insert the healing abutment (or an abutment, if applicable). Adjust the soft tissue and suture around the healing abutment.

2 CLOSE THE WOUND



Adjust the soft tissue and suture around the healing abutment.

Note: Use the Neo Screwdriver to place the Healing Abutment on the implant. Maximum torque: 10 N.cm.



STEP 2 • IMPRESSION PHASE

Intraoral scanning

The scanbody is used on implant level in order to transfer its position following the scanning to use in CAD/CAM procedure. To perform the intraoral scanning the dental surgeon should use the GM Smart Abutment; select correctly the indication, material and specify which is the element implant related; follow the step by step indicated by the scanner manufacturer. The digitalization of a scanbody has to copy as most 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 send to a dental laboratory by CAD/CAM system) or e-mail. The laboratory will receive the final scanning files and will design (CAD software) the future prosthesis. After that, the design will be transferred to the milling machine (CAM). Once the prosthesis is milled, the fit should be tried on onto the abutment.



GM Smart Abutment

Notes:

- Make sure that the GM Smart Abutment is properly seated;
- Scanbodies with damaged implant platform may lead to digitalization problems;
- After digitalization, design the prosthesis in the CAD software.



CARES Visual



3Shape



Exocad

**CARES visual is automatically updated with new Neodent Digital Solutions libraries. The files are available for exocad GmbH, and 3Shape A/S at www.neodent.com/cadcam. Make sure that your CAD library is updated.*



STEP 3 • FINAL RESTORATION

Titanium Base



Instructions:

- The position of the GM Titanium Base is transferred basing on the position of the GM implant.
- After scanning, these steps should be followed:
- Open the CAD software;
- Carefully select in the CAD software library the correspondent GM Exact Titanium Base, as previously chosen;
- Proceed with the prosthesis CAD design;
- After completing the prosthesis design, start the milling process in the CAM machine ;
- Mill the crown/coping in-house
- Try on the fit of the crown/coping onto the titanium base, preferably in the patient's mouth and check the occlusion;
- The GM Exact Titanium Base should be cemented in the laboratory;
- Screw the GM Exact Titanium Base into the implant analog of the 3D printed model;



- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use. The GM Exact Titanium Base has been tested with chemically-activated resin cement (e.g.: Panavia);
- Apply the cement to the GM Exact Titanium Base and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the GM Exact Titanium Base;
- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth (using the Neo Screwdriver Torque Connection with a torque of 20 N.cm
- Make sure that the Titanium base engaging is aligned with the centre axis of the implant;
- Make sure that the prosthesis is perfectly positioned over the implant (with the aid of a periapical X-ray) and that the restoration is not pressing the peri-implant tissues.

Note: Check in the IFU the indication of minimum material thickness, maximum angulation and other important information of the GM Exact Titanium Bases.



STEP 3 • FINAL RESTORATION

Titanium Base for Angled Solution



The GM Titanium Base AS allows milling of customized prosthesis and it is indicated for single prosthesis: copings and crowns cemented in the laboratory and screwed into the implant in the patient's mouth.

This abutment is supplied with a removable screw.

The GM Titanium Base AS is available in two different cementable areas: 4.0 and 6.0 mm. This solution allows crown screw channel angulation until 25° depending on the gingival height and cementable area of the abutment.

The position of the GM Titanium Base AS is transferred basing on the position of the GM implant.

Instructions (after scanning):

- Open the CAD software;
- Carefully select in the CAD software library the correspondent GM Titanium Base AS, as previously chosen;
- Proceed with the prosthesis CAD design;
- After completing the prosthesis design, start the milling process in the CAM machine ;
- Mill the crown/coping in-house
- Try on the fit of the crown/coping onto the titanium base, preferably in the patient's mouth and check the occlusion;



- The Titanium Base AS should be cemented in the laboratory;
- Screw the Titanium Base AS into the implant analog of the 3D printed model ;
- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use. The Titanium Base AS has been tested with chemically-activated resin cement (e.g.: Panavia);
- Apply the cement to the Titanium Base AS and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the GM Titanium Base AS;
- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth (using the Neo Screwdriver Torque Connection with a torque of 20 N.cm
- Make sure that the Titanium Base engaging is aligned with the centre axis of the implant;
- Make sure that the prosthesis is perfectly positioned over the implant (with the aid of a periapical X-ray) and that the restoration is not pressing the peri-implant tissues.

Note: Check in the IFU the indication of minimum material wall thickness, maximum angulation and other important information of the GM Titanium Base AS.



STEP 3 • FINAL RESTORATION

Customized Abutment



GM Titanium Blocks are pre-milled abutments made in titanium, created to be adapted in milling machines for in-house work flow (laboratory or chairside). The original GM prosthetic interface of the abutment allows it to be applicable to the Original Neodent® program. They are available in two different models: one compatible with Medentika holder and other one compatible with Amann Girrbach holder.

This abutment is supplied with a removable screw.

GM Titanium Blocks for the Medentika holder are available in two different diameters: 11.5 mm and 15.8 mm.

GM Titanium Blocks for AG holders are available in one diameter: 12 mm.

Instructions:

- Select the GM Titanium Block according to the necessity for diameter and angulation of the customized abutment;
- Select in the CAD software the compatible abutment previously chosen and perform the abutment digital design;
- Mill the designed part;
- Before placing the final abutment in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;



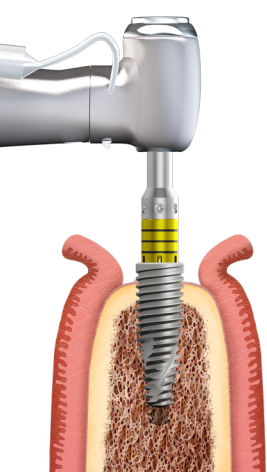
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Place the customized abutment into the Grand Morse® Implant, using the Neo Screwdriver Torque Connection with a torque of 20 N.cm.



1 OR 2 STAGE APPROACH

Digital workflow - Plaster model scanning

After implant placement, the cover screw is installed. For torque levels higher than 10 N.cm, the GM Healing Abutment can be inserted directly, to condition the mucosa (Step 1). After the healing of the soft tissue, perform the digital scanning using the GM Smart Abutment as the scanbody, without the cap (Step 2). The final restoration can be performed using a Titanium Base, Titanium Base ASC or Customized Abutment (Step 3).



SKIP THIS STEP



Note: in case of low primary stability ($\leq 10\text{N.cm}$), use a cover screw (two-stage approach)



CONVENTIONAL
WORKFLOW



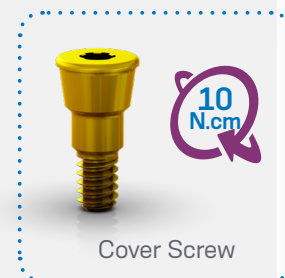
DIGITAL
WORKFLOW



STEP 1 • HEALING PHASE

1.1 • Two-stage/submucosal healing

For submucosal healing (under a closed mucoperiosteal flap), the use of the GM Cover Screw is indicated, already included in Neodent® EasyPack. A second surgical procedure is necessary to reveal the implant and insert the healing abutment.



1 INSERTING THE COVER SCREW

Ensure that the internal configuration is clean and free of blood residue. Capture the GM Cover Screw with the Neo Manual Screwdriver. A perfect fit ensures the transport for the implant, and manually tighten the screw.

2 CLOSE THE INCISION

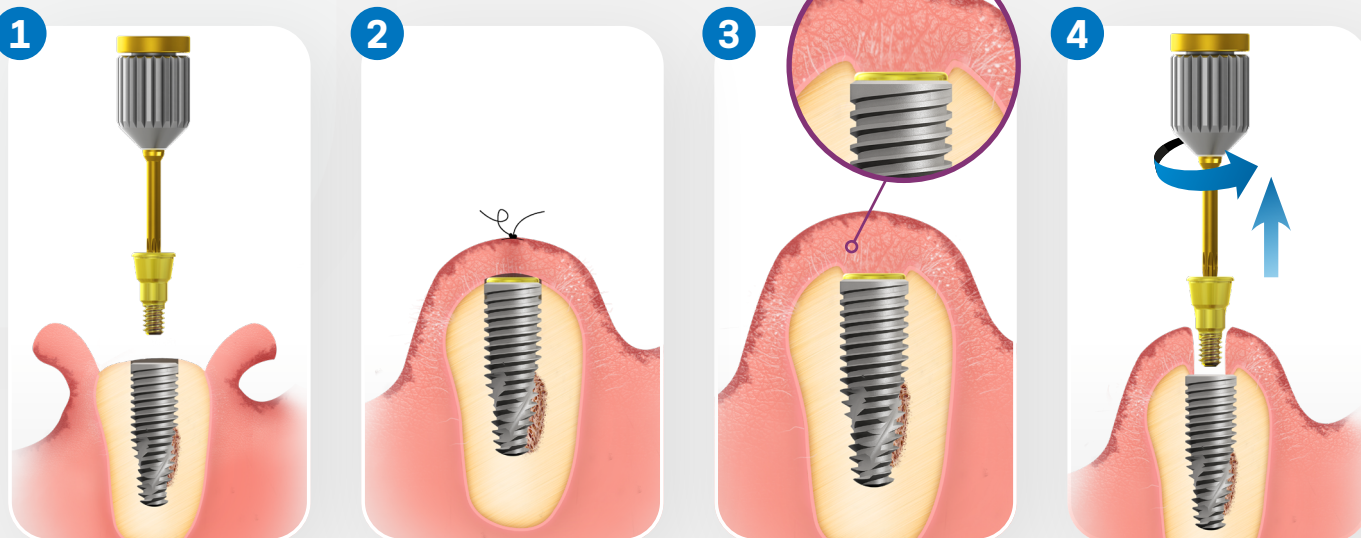
Adjust the edges of the flap and suture with tension-free stitches.

3 REGENERATION PERIOD

Remove the suture after approximately 7 days or once it has lost its function and wait for the bone regeneration phase.

4 REOPENING AND REMOVAL OF THE GM COVER SCREW SECOND SURGERY

After the bone regeneration period for each type of implant and bone, locate the implant with the help of the surgical guide, X-rays or measurements, and, with the desired technique, make an incision to reach the implant, and remove the GM Cover Screw with the Neo Manual Screwdriver.





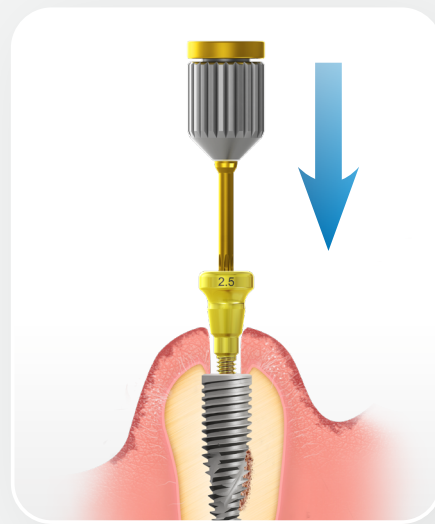
STEP 1 • HEALING PHASE

1.2 • One-stage/Transmucosal healing

GM Healing Abutment is available in Neodent® EasyPack. It is designed to create a suitable gingival emergence profile, which adapts to the final abutments. The correct use of this healing abutment determinates the adequate soft tissue healing process, maintaining the indicated biological distance.

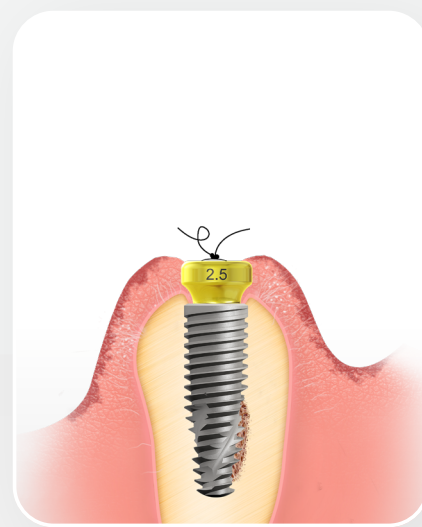


1 INSERTION OF HEALING ABUTMENT



Irrigate the implant's exposed internal connection with sterile saline solution, insert the healing abutment (or an abutment, if applicable). Adjust the soft tissue and suture around the healing abutment.

2 CLOSE THE WOUND



Note: Use the Neo Screwdriver to place the Healing Abutment on the implant. Maximum torque: 10 N.cm.



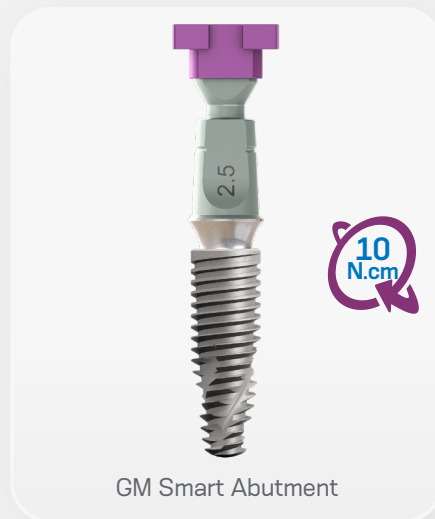
STEP 1 • IMPRESSION PHASE

1.1 • Impression taking

The GM Smart Abutment allows transferring, by means of molding, of the tridimensional position of the GM implant. The solution is for impression techniques with closed tray. Within the closed tray technique, a negative impression of the post is made using an impression material. The impression coping is then removed from the oral cavity and adapted to the impression material in the tray.

Instructions:

- Place the GM Smart Abutment on the implant;
- Perform the impression;
- Place the GM Hybrid Repositionable Analog on the mold.



GM Smart Abutment



GM Hybrid Analog

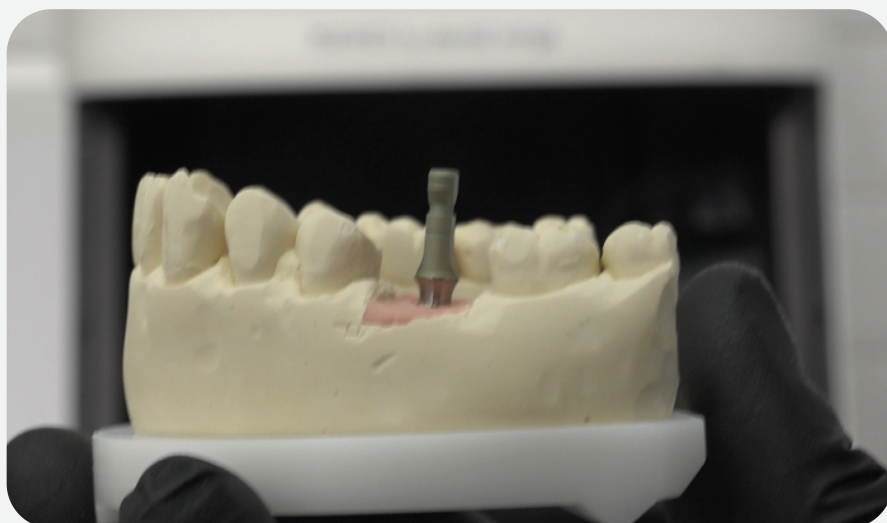
Use the Neo Screwdriver to place the GM Smart Abutment on the implant. Maximum torque: 10 N.cm. **Note:** Medium or long screwdrivers should be used.



STEP 1 • IMPRESSION PHASE

1.2 • Plaster model scanning

Use the preferred artificial gingival material to make a removable, accurate and faithful gum 3 to 4 mm in depth (follow the manufacturer's instructions for the material used for making the artificial gum indicated in the respective IFU). Use and prepare the mixture using Type IV plaster. Make sure to mix the powder and the water correctly, following the manufacturer's instructions. Pour the plaster mixture into the impression. Make sure that the plaster coats all anatomical details and, in particular, that it covers the analog completely. Wait the recommended time for the plaster to set and then carefully remove the model from the impression tray. Check if there are no bubbles and if all the details have been completely copied. Finish the model. It is also important to have a model of the opposite arch and assemble them both in an articulator. Once the plaster model is made it can be scanned. This technique requires a plaster model scanner or a bench scanner. Neodent® Digital Solutions recommends the following scanners: Straumann CARES, 3Shape and Exocad. Use the GM Smart Abutment as scanbody over the analog, without the cap.



GM Smart Abutment

Notes:

- The steps set out by the scanner's manufacturer must be followed, the important thing is to scan the plaster model with and without the removable gum (usually carried out at different steps) and, to scan the GM Smart Abutment in the right position.
- The laboratory will receive the final scanning files and will design (CAD software) the future prosthesis. After that, the design will be transferred to the milling machine (CAM).



CARES Visual



3Shape



Exocad

**CARES visual is automatically updated with new Neodent Digital Solutions libraries. The files are available for exocad GmbH, and 3Shape A/S at www.neodent.com/cadcam. Make sure that your CAD library is updated.*

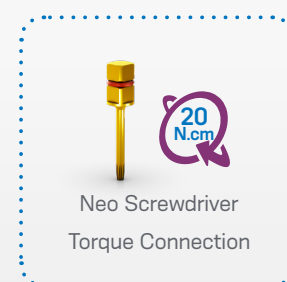


STEP 3 • FINAL RESTORATION

DIGITAL
WORKFLOW



Titanium Base



Instructions:

- The position of the GM Titanium Base is transferred basing on the position of the GM implant.
- After scanning, these steps should be followed:
- Open the CAD software;
- Carefully select in the CAD software library the correspondent GM Exact Titanium Base, as previously chosen;
- Proceed with the prosthesis CAD design;
- After completing the prosthesis design, start the milling process in the CAM machine ;
- Mill the crown/coping in-house
- Try on the fit of the crown/coping onto the titanium base, preferably in the patient's mouth and check the occlusion;
- The GM Exact Titanium Base should be cemented in the laboratory;
- Screw the GM Exact Titanium Base into the implant analog of the 3D printed model;

- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use. The GM Exact Titanium Base has been tested with chemically-activated resin cement (e.g.: Panavia);
- Apply the cement to the GM Exact Titanium Base and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the GM Exact Titanium Base;
- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth (using the Neo Screwdriver Torque Connection with a torque of 20 N.cm
- Make sure that the Titanium base engaging is aligned with the centre axis of the implant;
- Make sure that the prosthesis is perfectly positioned over the implant (with the aid of a periapical X-ray) and that the restoration is not pressing the peri-implant tissues.

Note: Check in the IFU the indication of minimum material thickness, maximum angulation and other important information of the GM Exact Titanium Bases.



STEP 3 • FINAL RESTORATION

DIGITAL
WORKFLOW



Titanium Base for Angled Solution



The GM Titanium Base AS allows milling of customized prosthesis and it is indicated for single prosthesis: copings and crowns cemented in the laboratory and screwed into the implant in the patient's mouth.

This abutment is supplied with a removable screw.

The GM Titanium Base AS is available in two different cementable areas: 4.0 and 6.0 mm. This solution allows crown screw channel angulation until 25° depending on the gingival height and cementable area of the abutment.

The position of the GM Titanium Base AS is transferred basing on the position of the GM implant.

Instructions (after scanning):

- Open the CAD software;
- Carefully select in the CAD software library the correspondent GM Titanium Base AS, as previously chosen;
- Proceed with the prosthesis CAD design;
- After completing the prosthesis design, start the milling process in the CAM machine ;
- Mill the crown/coping in-house
- Try on the fit of the crown/coping onto the titanium base, preferably in the patient's mouth and check the occlusion;

- The Titanium Base AS should be cemented in the laboratory;
- Screw the Titanium Base AS into the implant analog of the 3D printed model ;
- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use. The Titanium Base AS has been tested with chemically-activated resin cement (e.g.: Panavia);
- Apply the cement to the Titanium Base AS and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the GM Titanium Base AS;
- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth (using the Neo Screwdriver Torque Connection with a torque of 20 N.cm
- Make sure that the Titanium Base engaging is aligned with the centre axis of the implant;
- Make sure that the prosthesis is perfectly positioned over the implant (with the aid of a periapical X-ray) and that the restoration is not pressing the peri-implant tissues.

Note: Check in the IFU the indication of minimum material wall thickness, maximum angulation and other important information of the GM Titanium Base AS.



STEP 3 • FINAL RESTORATION

DIGITAL
WORKFLOW



Customized Abutment



GM Titanium Blocks are pre-milled abutments made in titanium, created to be adapted in milling machines for in-house work flow (laboratory or chairside). The original GM prosthetic interface of the abutment allows it to be applicable to the Original Neodent® program. They are available in two different models: one compatible with Medentika holder and other one compatible with Amann Girrbach holder.

This abutment is supplied with a removable screw.

GM Titanium Blocks for the Medentika holder are available in two different diameters: 11.5 mm and 15.8 mm.

GM Titanium Blocks for AG holders are available in one diameter: 12 mm.

Instructions:

- Select the GM Titanium Block according to the necessity for diameter and angulation of the customized abutment;
- Select in the CAD software the compatible abutment previously chosen and perform the abutment digital design;
- Mill the designed part;
- Before placing the final abutment in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Place the customized abutment into the Grand Morse® Implant, using the Neo Screwdriver Torque Connection with a torque of 20 N.cm.



1 OR 2 STAGE APPROACH

Conventional workflow

After implant placement, the cover screw (Step 1) is installed. For torque levels higher than 10 N.cm, the GM Healing Abutment can be inserted directly, to condition the mucosa. Once finalized the conventional impression (Step 2) and model production, the final restoration can be performed using a Titanium Base (Step 3).



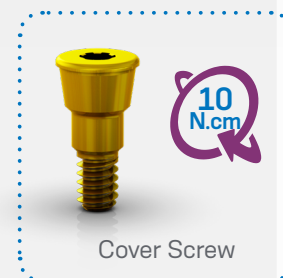
Note: in case of low primary stability ($\leq 10\text{N.cm}$), use a cover screw (two-stage approach)



STEP 1 • HEALING PHASE

1.1 • Two-stage/submucosal healing

For submucosal healing (under a closed mucoperiosteal flap), the use of the GM Cover Screw is indicated, already included in Neodent® EasyPack. A second surgical procedure is necessary to reveal the implant and insert the healing abutment.



1 INSERTING THE COVER SCREW

Ensure that the internal configuration is clean and free of blood residue. Capture the GM Cover Screw with the Neo Manual Screwdriver. A perfect fit ensures the transport for the implant, and manually tighten the screw.

2 CLOSE THE INCISION

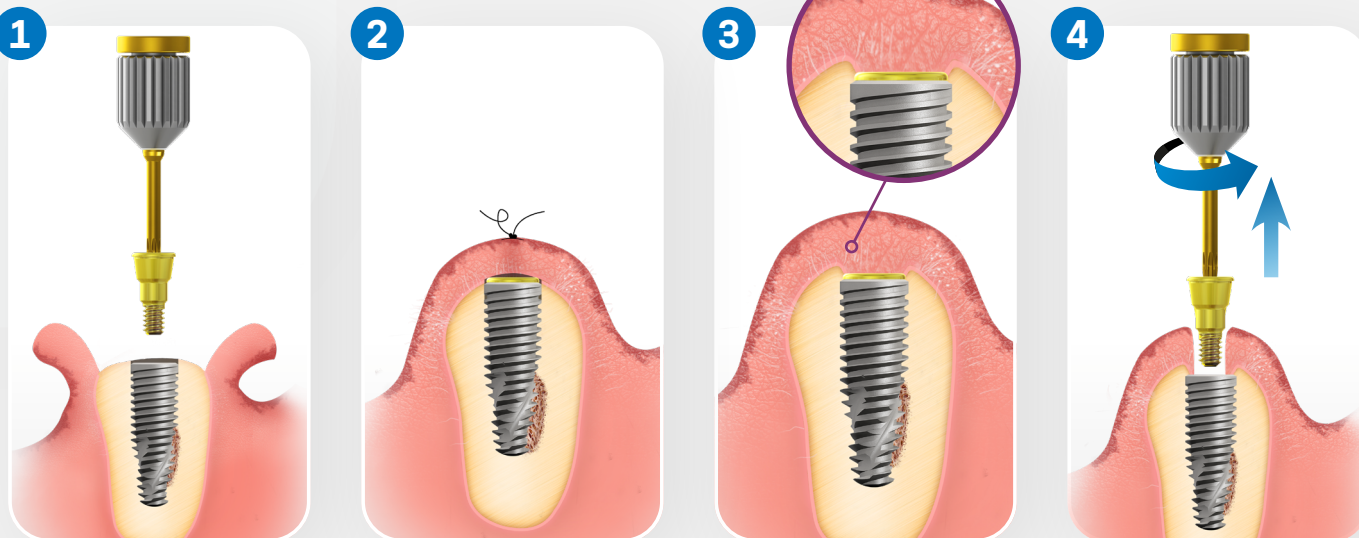
Adjust the edges of the flap and suture with tension-free stitches.

3 REGENERATION PERIOD

Remove the suture after approximately 7 days or once it has lost its function and wait for the bone regeneration phase.

4 REOPENING AND REMOVAL OF THE GM COVER SCREW SECOND SURGERY

After the bone regeneration period for each type of implant and bone, locate the implant with the help of the surgical guide, X-rays or measurements, and, with the desired technique, make an incision to reach the implant, and remove the GM Cover Screw with the Neo Manual Screwdriver.





STEP 1 • HEALING PHASE

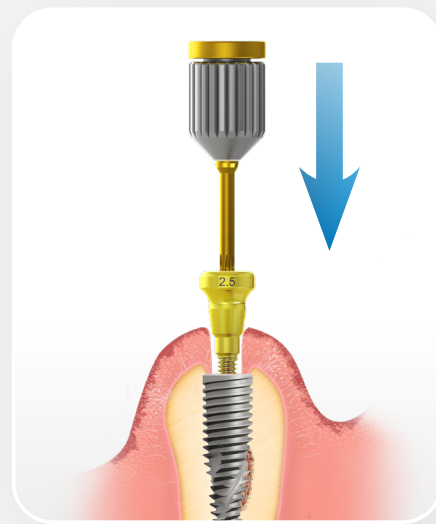
1.2 • One-stage/Transmucosal healing

GM Healing Abutment is available in Neodent® EasyPack. It is designed to create a suitable gingival emergence profile, which adapts to the final abutments. The correct use of this healing abutment determinates the adequate soft tissue healing process, maintaining the indicated biological distance.



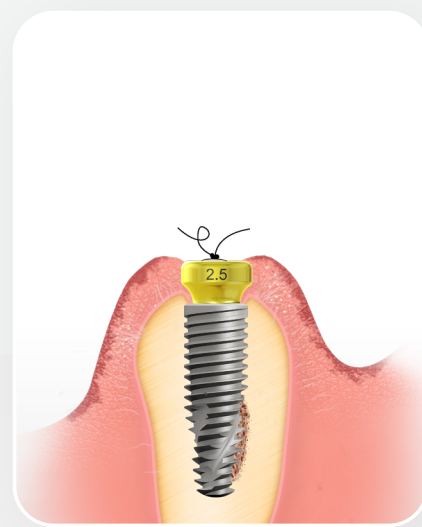
Healing Abutment

1 INSERTION OF HEALING ABUTMENT



Irrigate the implant's exposed internal connection with sterile saline solution, insert the healing abutment (or an abutment, if applicable). Adjust the soft tissue and suture around the healing abutment.

2 CLOSE THE WOUND



Note: Use the Neo Screwdriver to place the Healing Abutment on the implant. Maximum torque: 10 N.cm.



STEP 2 • IMPRESSION PHASE

Impression taking

The GM Smart Abutment allows transferring, by means of molding, of the tridimensional position of the GM implant. The solution is for impression techniques with closed tray. Within the closed tray technique, a negative impression of the post is made using an impression material. The impression coping is then removed from the oral cavity and adapted to the impression material in the tray.

Instructions:

- Place the GM Smart Abutment on the implant with the cap;
- Perform the impression;
- Place the GM Hybrid Repositionable Analog on the mold.



GM Smart Abutment



GM Hybrid Analog

Use the Neo Screwdriver to place the GM Smart Abutment on the implant. Maximum torque: 10 N.cm. **Note:** Medium or long screwdrivers should be used.



STEP 3 • FINAL RESTORATION

Titanium Base



Instructions:

- The technician produces the plaster model in the laboratory;
- The laboratory technician produces a single screw-retained prosthesis using ceramic injection conventional techniques, along with the selected burn-out coping (4.5x4.0; 4.5x6.0; 5.5x4.0; 5.5x6.0);
- The GM Exact Titanium Base can be cemented in the laboratory;
- Screw the GM Exact Titanium Base into the implant analog;
- Protect the access to the screw;
- Follow the cement manufacturer's instructions for use;
- Apply the cement to the GM Exact Titanium Base and apply pressure to the restoration, following the three indexes;
- Remove any cement excess immediately;
- Remove the infrastructure from the analog after the cement sets and remove any remaining cement surrounding the



GM Exact Titanium Base;

- Before placing the prosthesis in the mouth, give it a final clean and sterilization :
- Immerse the piece completely in a solution of enzymatic detergent (diluted according to the manufacturer's instructions);
- Leave in the ultra-sonic cleaning equipment for approximately 10 to 15 minutes;
- Rinse thoroughly with distilled water to completely remove any remaining solution;
- The use of nylon brushes is recommended;
- Dry with a clean, dry cloth or with compressed air;
- Perform a visual inspection, noticing possible failures in the cleaning process. If there is any remaining dirt, the part must be immersed again in the enzyme solution and, if necessary, cleaned with the aid of a nylon brush. Repeat the process of rinsing and drying;
- After cleaning, the following sterilization methods are recommended: moist heat (steam) autoclave, gravity-displacement or dynamic-air-removal (fractionated vacuum) cycle, unwrapped, 3 minute exposure at 132 °C (270 °F). The product must be unwrapped on an appropriate tray. Use the sterilized restoration immediately after sterilization, do not store;
- Proceed with the placement in the mouth using the Neo Screwdriver Torque Connection with a torque of 20 N.cm;
- Make sure that the Titanium base engaging is aligned with the central axis of the implant;
- Ensure that it fits perfectly on the implant (with the aid of a periapical x-ray) and that the prosthesis is not pressing on the peri-implant tissue.

Note: The Burn-Out coping is a device designed for the confection of ceramic infrastructures of unitary prostheses cemented over the Titanium Base. To produce the prosthesis, the desired geometry needs to be produced, in the laboratory, in appropriate wax and placed on the Burn-Out coping. In the press technique, the wax is removed and the ceramic material is injected.

