Disclaimer: The scope of this Restorative procedures manual is to provide a comprehensive overview of the restorative steps and options for the usage of the Multi-unit Abutment Xeal.

This Restorative procedures manual does not replace the Instructions For Use (IFU).

Please review the Instructions For Use, including Indications For Use, Contraindications, Warnings and Cautions before using the products.

Instructions For Use are available at ifu.nobelbiocare.com
Content

Clinical Procedure Multi-unit Abutment Xeal™  3
Clinical procedure Straight Multi-unit Abutment Xeal™  4
Clinical procedure 17° and 30° Multi-unit Abutment Xeal™  5
Clinical procedure Impression taking  6
Laboratory procedure (temporization)  7
Clinical procedure (temporization)  8
Laboratory procedure (finalization)  9
Clinical procedure (finalization)  10
Clinical procedure
Multi-unit Abutment Xeal™

- Multi-unit Abutment Xeal is used in screw-retained multiple unit restorations. Multi-unit Abutment can support either partially or fully edentulous arches in for instance the All-on-4® treatment concept.
- Depending on the chosen loading protocol, the Multi-unit Abutment can be connected to the implant at time of surgery or after one-stage/two-stage healing.
- If applicable, remove cover screw, healing abutment or temporary abutment from implant prior to placement of the Multi-unit Abutment.

1. Remove the Cover Screw, Healing Abutment or Temporary Abutment using the Screwdriver Unigrip and by rotating it counterclockwise.
Clinical procedure
Straight Multi-unit Abutment Xeal™

1. Multi-unit Abutment is available in different margin heights to accommodate different soft tissue heights. Select and place appropriate abutment. Use plastic holder to facilitate the insertion. It is recommended to verify the final abutment selection and seating using radiographic imaging.

2. Unscrew holder.

3. Tighten the abutment according to 35 Ncm, using Screwdriver Machine Multi-unit and Manual Torque Wrench Prosthetic.

**Warning** Narrow platform implants are not recommended for the posterior region of the mouth due to risk of prosthetic overload. Multi-unit Abutment Xeal™ is to be used only in combination with other implants in Multi-unit restorations.

**Caution** Never exceed recommended maximum tightening torque for the abutment screw. Overtightening of an abutment may lead to a screw fracture.
Clinical procedure 17° and 30° Multi-unit Abutment Xeal™

1. Multi-unit Abutment is available in different margin heights to accommodate different soft tissue heights. Select and place appropriate abutment. Use the holder to facilitate a proper position, as there are several positions possible based on the implant connection and the abutment angulation. It is recommended to verify the final abutment selection and seating using radiographic imaging. Tighten the abutment according to 15 Ncm, using Screwdriver Machine Multi-unit and Manual Torque Wrench Prosthetic.

2. Unscrew holder

3. Tighten the abutment to 15 Ncm using Unigrip™ Screwdriver and Manual Torque Wrench prosthetic.

Caution Never exceed recommended maximum 15 Ncm tightening torque for the abutment screw. Overtightening of abutment may lead to a screw fracture.

Caution To place the abutment, the implant should be able to withstand the recommended tightening torque for the abutment screw. For Immediate Function, the implant should be able to withstand a torque of at least 35 Ncm.
Clinical procedure
Impression taking

Closed tray
1. Take impression of abutments using open or closed impression tray technique.
2. Provisionalize or attach healing caps.

Note: Hand-tighten only, and close impression coping recess prior to impression taking.

Open tray
1. Take impression of abutments using open or closed impression tray technique.
2. Provisionalize or attach healing caps.

Note: Hand-tighten only, and close impression coping recess prior to impression taking.
Laboratory procedure (temporization)

1. – Fabricate a soft tissue model using Abutment Replicas Multi-unit.
   – Use guide pins (available in 10 mm and 20 mm lengths) or lab screws to place Temporary Copings Multi-unit on the replicas. It is preferable to use temporary copings in titanium.
   – Adjust the copings if needed.

2. – Fabricate an all-acrylic bridge using a high-density acrylic.
   – Reinforce the weak points of the prosthesis around the cylinders with more acrylic.

Note
– If possible, a tooth set-up should be tried in the patient’s mouth before finalizing the bridge.
– The bridge can also be made by converting the existing denture into a bridge.
Clinical procedure (temporization)

1. Insert the temporary prosthesis and tighten the prosthetic screws by alternating left and right side. Finally tighten the prosthetic screws to 15 Ncm using Unigrip Screwdriver and Manual Torque Wrench Prosthetic.
Laboratory procedure (finalization)

1. Attach abutment replicas to impression copings.
2. Fabricate a working model with removable gingival material.
3. NobelProcera® Implant Bridge Wax-up:
   a) Create implant bridge framework using non-engaging temporary cylinders as a foundation and add pattern resin to fabricate desired framework design.
   b) Scan the acrylic framework using the NobelProcera® Scanner according to the tutorial found within the software.
   c) Once precision milled framework is delivered back to lab, veneering material is added for completion.
Clinical procedure (finalization)

1. Remove temporary restoration if applicable.
2. Use the Screwdriver Machine Multi-unit and Manual Torque Wrench Prosthetic to verify the tightening of the straight Multi-unit Abutment Xeal™ to 35 Ncm. Use the Unigrip™ Screwdriver and Manual Torque Wrench Prosthetic to verify tightening of the angulated Multi-unit Abutment Xeal™ to 15 Ncm.
3. Insert final prosthesis and tighten the prosthetic screws by alternating left and right side. Finally, tighten the prosthetic screws to 15 Ncm using Unigrip Screwdriver and Manual Torque Wrench Prosthetic.
For a full list of article numbers and for ordering information, refer to the Product overview – Conical connection implants and prosthetics available at:

nobelbiocare.com/en-us/