This manual covers the prosthetic and laboratory procedures for screw retained restorations using the Cresco™ Method.

The most important process steps, using the Cresco API™ Kit and the Cresco™ Precision Method, are presented in the manual but the main focus is on the Design Laboratory handling procedures.

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A straightforward, easy-to-use prosthetic solution for screw retained implant bridges.

The patented Cresco™ Precision Machine is used by certified dental laboratories systematically to correct the framework distortion that occurs in the casting processes. This allows Precision Laboratories to deliver frame-works with guaranteed passive fit properties. Cresco provides the freedom and flexibility of a perfect passive fit between the customized restoration and the implants, whether it be a partial bridge, full arch or bar construction – without mechanical stress. For the patient, Cresco means a prosthetic solution that offers long-term comfort and an optimal esthetic result.
Cresco API™—All Parts Included

Cresco API™ is a simple, yet revolutionary concept that helps streamline the prosthetic process. All components needed to carry out the complete prosthetic restoration come in one standardized Cresco API Kit per installed implant. This helps reduce your stock and simplifies the ordering procedure.

The following products are included in a Cresco API™ Kit:
- Impression Element (Impression Pin included)
- Bridge Screw
- Replica
- Wax Tube
- Process Screw
- Bridge Support (Titanium, Burnout or Cobalt-Chrome)

Some kits contain other products like inserts, gingiva former and gingiva former screw.

Select a Cresco API Kit according to the implant platform to be restored and the material of choice in the final restoration. The framework can be fabricated in titanium or in a precious or non-precious material. Depending on the preferred framework material, the Bridge Support included in the Cresco API Kit is made of either titanium, burnout plastic or cobalt-chrome. This gives you total freedom to work with any material of your choice.

Cresco™ Method - step by step

1. Impression procedure
2. Master model fabrication
3. Framework fabrication
4. Relational transfer
5. Precisioning process
6. Finalizing the framework
7. Framework try-in
8. Finalizing the restoration
9. Final restoration

Cresco™ Method applies precisioning and laser welding to ensure a perfect passive fit between the final restoration and implants (step 4,5,6) – thereby eliminating "built-in" mechanical stresses in the framework.

Prosthetic Procedure
Laboratory Procedure
Case report

This patient, a 48 year old male, has recently been periodontally restored. Now he wants to get tooth replacements in both sides of the upper jaw. He also wants to get the proclination of tooth 22 reduced with crown therapy. The existing bridges in the right and left side of the lower jaw have poor fit, but the patient decides to leave them without any action. Treatment was planned for a 3-unit screw retained implant bridge in the right upper side and one implant supported single crown in the left upper side. Tooth 22 was prepared for a porcelain crown.

1. Three Straumann implants were installed in the upper jaw, in a one-stage surgical procedure, two Straumann®-WN Ø 6.5 mm in region 16 and 26, and one Straumann®-RN Ø 4.8 mm in region 14.

2. Two Straumann Cresco API™ Kits in cobalt-chrome, art.no. 308-40 and 308-44 are ordered. All components needed to carry out the restoration are delivered in one package per installed implant. The package is cut up into two parts, one is kept by the dentist and one is sent to the dental technician together with the impression.

3. Three Straumann implants were installed in the upper jaw, in a one-stage surgical procedure, two Straumann®-WN Ø 6.5 mm in region 16 and 26, and one Straumann®-RN Ø 4.8 mm in region 14.

4. The healing abutments are removed and preparations are made for the impression procedure. In the dentist part of the API™ Kit there are one impression element (pin included) and one bridge screw for the final restoration.

5. The impression elements are placed on the implants with the impression pin and tightened with light finger force. A Cresco™ slot screwdriver is used. The position integrity is checked either by clinical inspection or with X-ray examination.

6. An elastomeric impression material and a rigid impression tray is used, preferably a customized one. It is important to check that the impression material hasn’t penetrated into the interface between the impression element and the implant. The impression is delivered to the dental technician, together with the impression pins, bite registration, impression of the opposite jaw, and the laboratory part of the Cresco API™ Kit.

7. In the laboratory part of the Cresco API Kit there is; one replica, one wax tube, one process screw and one bridge support. The replicas and the wax tubes are used for the master model and framework fabrication. With the wax tubes you can easily make adjustments to the angulation of the screw holes, make individual solutions and compensate for less favorable implant placements.

8. The framework is casted and processed in the Cresco™ Precisioning Machine together with the prefabricated bridge supports. The Cresco™ Precisioning Process corrects the framework distortion that occurs in the casting process and ensures a stress free solution and a perfect fit.

9. Try-in of framework in cobalt-chrome. The fit and dimension of the framework is checked so there will be ample room for the veneering material. A new bite registration is done.

10. The final Cresco™ implant superstructure in place. The passive fit, the appropriate design, and the soft-tissue situation is confirmed. The bridge screws are tightened to 35 Ncm with a Cresco™ Slotscrewdriver and an Elos® Torque Wrench.

11. After final adjustments and closure of screw access holes, the patient is satisfied with aesthetics and function of the new fixed Cresco™ implant superstructure.

12. Photo and x-ray of the finished case!
Install the implant and prepare for the impression procedure or remove the healing abutment or temporary restoration after the healing period, and prepare for the impression procedure.

1. Prepare a rigid impression tray, preferably a customized tray, with space for the Impression Element without interfering with the tray.
2. Grip the Impression Elements with a straight forceps and place them on top of the restorative platform. Insert the Impression Pins and tighten using a Cap Screwdriver with light finger force. The Cap Screwdrivers can be effectively utilized at an angle deviating up to 15 degrees. X-ray examination can be used to determine positional integrity.
3. Try in the impression tray. Ensure that the tray, delivered from the dental technician, gives a secure fit and can be inverted without interfering with the teeth and the Impression Elements. Make sure that the Impression Pins can penetrate the tray without interference.
4. Cover the prepared hole in the impression tray with a thin sheet of wax.
5. Apply a suitable adhesive to the impression tray.
6. Fill the impression tray with elastomeric impression material.
7. Inject the elastomeric impression material around the Impression Elements.
8. Place the tray filled with impression material intraorally.
9. Localize the Impression Pins immediately after positioning the tray. Make sure the top of the Impression Pins goes through the wax sheet, in order to give access the pins for unscrewing after the impression material has set.
10. Allow the impression material to set according to the impression material manufacturer’s instructions.
11. Unscrew the Impression Pins after the impression material has set, using a suitable Slot Screwdriver. Make sure that the Impression Pins are completely disengaged from the restorative platform before lifting the tray.
12. Remove the impression tray. Ensure that the impression is correct and acceptable. The impression, with the Impression Elements embedded, is delivered to the dental technician, together with the Impression Pins and the laboratory components in the Cresco API™ Kit. The dental technician undertakes the master model fabrication, the framework fabrication, the relational transfer and the precisioning. The handling procedures are carried out by the Method Laboratory and the Precision Laboratory. Sometimes all the procedures are performed at the same laboratory.
5. When the Replicas are attached to the Impression Elements, use a brush to apply the separator, if this is not done before. Pay careful attention in order to avoid getting material on the Replicas.

Note: It is important to follow the handling procedures to ensure good stability for the Replicas in the master model during the precisioning process.

6. Fabricate a removable soft-tissue mask. When the mask material has set, the removable soft-tissue mask can be trimmed to create a shape that can easily be removed.

7. Make sure that the soft-tissue mask covers half of the non-retentive surface of the Replicas. This to ensure good stability during the precisioning process.

8. Pour high-quality stone material (type IV stone) into the impression tray. For the correct expansion of the stone material, follow the manufacturer’s instructions. It is important to use stone material that features smooth surfaces, excellent flow, low expansion, and an exact reproduction of fine details.

Note: Follow the stone material manufacturer’s instructions to ensure the correct expansion of the stone material in the master model. The correct expansion of the stone material also ensures good stability for the Replicas in the master model during the precisioning process.

9. Unscrew the Impression Pins when the stone material has set. Lift the tray carefully away from the master model.

Note: Make sure that the Impression Pins are completely disengaged from the Replicas before lifting the tray.

10. Grind and finalize the master model. Grinding should not infringe on the length of the Replicas. At least 10 mm should be left intact laterally of the Replicas to ensure the strength of the master model during the precisioning process.

A regular stone model should be made, avoiding the use of tray-based model systems. The master model should never be sectioned between the Replicas that are going to be used as a base for the same construction. If a section has to be made in order to separate remaining teeth, this should preferably be done after the precisioning process.

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**Design Laboratory Procedure**

**Cresco API™ components used in this section:**
- Impression Element (Impression Pin included)
- Bridge Screw
- Replica
- Wax Tube
- Process Screw
- Bridge Support (Titanium, Burnout or Cobalt-Chrome)

**Master model fabrication**

The impression, with the Impression Elements embedded, is delivered to the dental laboratory, together with the Impression Pins and the laboratory components in the Cresco API™ Kit.

1. Make sure the Impression Elements are correctly embedded in the impression material. There should not be any material on the interfaces to the restorative platform.

Note: Ensure that the Impression Elements, embedded in the impression material, are components from the Cresco API™ Kits. Impression Elements from other brands are not always compatible with Cresco™ Replicas.

2. Apply separator to make sure the isolating material does not affect the retentive surface of the Replicas. When the impression is isolated by sprays, this should be done before the Replicas are attached.

3. Attach one Replica to each embedded Impression Element using an Impression Pin and a Slot Screwdriver.

Note: It is important to work with Cresco™ Replicas from the Cresco API™ Kits as they have sufficient retentive qualities to withstand the forces they undergo during the precisioning process.

4. It is vital that only the Replica is handled when tightening it to the Impression Element. To avoid disturbing the Impression Element in the impression material, hold the Replica with a firm grip when tightening the Impression Pin to the Replica.

After tightening the Replicas ensure that the Impression Elements are rigidly fixed in the impression material, both vertically and horizontally.
1. Ensure that the Replicas are firmly embedded in the finished master model.

2. At this point general case planning can take place regarding the ultimate degree of angulations of the Wax Tube. The use of a guide pin may be useful for the case planning. The Impression Pin can be used as a guide pin.

3. Attach the Wax Tubes to the Replicas. Tighten the Wax Tubes using the Process Screw and a Slot Screwdriver. Determine the degree of angle of the Wax Tubes that are required to achieve an optimal entry point for the Bridge Screws. The Wax Tubes can be rotated 360 degrees to find the optimal position.

4. Mount the Wax Tube in the Waxing Tool if angulation is needed. Heat the exposed length of the Wax Tube over a flame under constant rotation.

5. Bend the Wax Tube. The Wax Tube can be bent at an angle of up to 17 degrees, depending on the design of the final restoration.

6. Screw the Wax Tubes loosely back into place on the Replicas. Make final adjustments to the rotational placement to optimize the esthetic and functional outcome of the final framework.

7. The design of the Slot Screwdriver allow access to the screw after the Wax Tube has been bent at an angle of up to 17°.

8. Adapt the vertical height of the Wax Tubes with a suitable grinding tool. The final height of the Wax Tubes should reflect the desired height of the final framework.

9. Wax-up the bridge framework according to the final design desired.

10. Remove excess wax using the Waxing Tool. The wax margin must end at least 3 mm above the apical end of the Wax Tubes.

Note: It is important to remove excess wax to ensure the correct precisioning process.

11. Ensure that the Replicas are firmly embedded in the finished master model.

12. The soft-tissue mask can be removed at your convenience to expose the working ends of the Replicas and facilitate subsequent steps in the creation of a passive fit framework.

13. Finalize the master model. Retention grooves under the master model facilitates re-positioning in the articulator after the precisioning process. They also increase the stability of the connection between the master model and the stone material that fixes the master model and the opposing jaw model onto the Magnetic Discs used in the precisioning process.

Note: If the previous instructions have been followed, no more than half the non-retentive surface of the Replicas should now be exposed, ensuring the stability of the Replicas during precisioning. During subsequent steps, the soft-tissue mask should be replaced in position on the master model as an aid to assessing the relationship between the gingival borders and framework construction components.

14. Mount the master model and the opposing jaw model in the articulator to determine jaw relations and the spatial parameters available for the framework.

Framework fabrication

1. Mount the Wax Tube in the Waxing Tool if angulation is needed. Heat the exposed length of the Wax Tube over a flame under constant rotation.

2. Bend the Wax Tube. The Wax Tube can be bent at an angle of up to 17 degrees, depending on the design of the final restoration.

3. The maximum angle of the Wax Tube is affected by the height of the framework.

4. Screw the Wax Tubes loosely back into place on the Replicas. Make final adjustments to the rotational placement to optimize the esthetic and functional outcome of the final framework.

5. The design of the Slot Screwdriver allow access to the screw after the Wax Tube has been bent at an angle of up to 17°.

6. Adapt the vertical height of the Wax Tubes with a suitable grinding tool. The final height of the Wax Tubes should reflect the desired height of the final framework.

7. Wax-up the bridge framework according to the final design desired.

8. Mount the master model and the opposing jaw model in the articulator to determine jaw relations and the spatial parameters available for the framework.

9. Ensure that the Replicas are firmly embedded in the finished master model.

10. The soft-tissue mask can be removed at your convenience to expose the working ends of the Replicas and facilitate subsequent steps in the creation of a passive fit framework.

11. Finalize the master model. Retention grooves under the master model facilitates re-positioning in the articulator after the precisioning process. They also increase the stability of the connection between the master model and the stone material that fixes the master model and the opposing jaw model onto the Magnetic Discs used in the precisioning process.

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14. Mount the master model and the opposing jaw model in the articulator to determine jaw relations and the spatial parameters available for the framework.

Framework fabrication

1. At this point general case planning can take place regarding the ultimate degree of angulations of the Wax Tube. The use of a guide pin may be useful for the case planning. The Impression Pin can be used as a guide pin.

2. Attach the Wax Tubes to the Replicas. Tighten the Wax Tubes using the Process Screw and a Slot Screwdriver. Determine the degree of angle of the Wax Tubes that are required to achieve an optimal entry point for the Bridge Screws. The Wax Tubes can be rotated 360 degrees to find the optimal position.
1. Place the wax sprue in the occlusal end of the Bridge Support. The wax sprue should not interfere with the thin groove on the Bridge Support. After the casting procedures, the Bridge Support will be cut at the thin groove, and it is important that there should be no residual material on the final Bridge Support.

2. Mount the wax sprue, together with the Bridge Support, onto the investment cone so as to facilitate investing. Usually this means placing the Bridge Supports as vertically as possible, with the apical end facing upwards.

Note: Preparations for investing may vary with different investment techniques and casting processes. Follow the investment material manufacturer’s instructions.

The Bridge Support can usually be invested and cast in the same investment as the framework, but sometimes the expansion properties call for separate investment material.

Note: Follow the instructions given by the investment material and equipment supplier. Do not use a setting agent during the investing procedures. This may affect the casting of the Bridge Support.

3. Pour the investment material and allow the investment to fill the screw access hole from below upwards. This to ensure that the holes are filled properly.

Note: Avoid using speed investment techniques and speed burnout processes. This may cause the investment material to crack as a result of the pressure of the expanding acrylic.

4. Devest after casting and clean the supports using aluminum oxide and low pressure.

5. Cut the Bridge Support at the thin groove. This will give the cast Bridge Support the correct length. It is important that there should be no residual material on the final Bridge Support.

Check that all the investment material has been removed and that no casting flaws, such as porosities or external bubbles are present. The Bridge Supports will undergo a reaming process, using a Reamer and a Reamer Jig, at the Precision Laboratory to optimize the design of the cast Bridge Support and the fit to the restoring platform.

Note: The reaming process can only correct minor flaws. It is important to deliver the cast Bridge Support to the Precision Laboratory, as close to final design as possible.

6. Finalize the cast framework. Grind the framework until the final design is reached. This facilitates the handling procedures after the precisioning process.

7. Distortion of the cast framework is usually inherent to the casting of a one-piece framework and is a consequence of the cooling phase of the casting procedure.

The distortion does not need to be taken into consideration at this point. After the precision process, the framework will have a perfect passive fit.

Casting a burnout Bridge Support

When making a titanium or cobalt-chrome framework, the corresponding Bridge Support should be used. The prefabricated Bridge Supports are sent to the Precision Laboratory together with the framework.

When working with the Bridge Support – burnout the Bridge Supports have to be casted separately in the same alloy as the framework.

This is done by the Design Laboratory and the casted Bridge Supports are sent to the Precision Laboratory together with the framework.

To get the best possible final result from the casted Bridge Support, it is important to carry out the investing and casting procedure with care and follow the instructions.

11. Finalize the wax-up and prepare the framework for investing. Invest, burnout and cast the framework according to the alloy manufacturer’s instruction.

Note: The Cresco API™ Kits are available in three versions with a prefabricated Bridge Support in titanium, cobalt-chrome or with a burnout template for casting procedures in the alloy of choice. Be sure to cast the framework in an alloy that corresponds to the Bridge Support or to cast the Bridge Support – Burnout in the same alloy as the framework.
Cresco™ Precision Machine

The patented Cresco™ Precision Machine is used by certified dental laboratories systematically to correct the framework distortion that occurs in the casting processes. This allows Precision Laboratories to deliver frameworks with guaranteed passive fit properties. Cresco provides the freedom and flexibility of a perfect passive fit between the customized restoration and the implants, whether it be a partial bridge, full arch or bar construction – without mechanical stress. For the patient, Cresco means a prosthetic solution that offers long-term comfort and an optimal esthetic result.

Summary

The Cresco™ Method simplifies handling procedures to create passive fit on screw retained restorations. Dental technician Mikael Larsson has successfully completed several cases using the Cresco™ Method, which is part of his everyday practice. This case illustrates some of the laboratory handling steps for the Cresco™ Method. The patient is a 75-year-old man who has a restored upper and lower titanium framework with prefabricated teeth and acrylic base.

Case presented in collaboration with Anders Reinert, Prosthodontist, Mariestad, Sweden

1. The Replicas mounted in the impression.
2. Check-up of implant positioning using guide pins and silicone key.
3. A Wax Tube mounted in the Waxing Tool. The tube is carefully heated over a flame and bent to the desired angle.
4. The framework being built up with wax. Note the corrected screw access holes, especially position 23.
5. After casting and final grinding, the framework is precisioned in accordance with the Cresco™ Precision Method.
6. The Bridge Supports are attached to the framework with laser welding.
7. Final restoration with veneers of prefabricated teeth and acrylic.
**Cresco AP™ components used in this section**
- Impression Element (Impression Pin included)
- Bridge Screw
- Replica
- Wax Tube
- Process Screw
- Bridge Support (Titanium, Burnout or Cobalt-Chrome)

The manual guides you through the Precision Laboratory and Prosthetic procedures but retains the main focus on the Design Laboratory handling procedures. Therefore a more detailed Precision Laboratory procedure is needed for the Precision Laboratories.

### Precision Laboratory Procedure

1. Screw-retain the Bridge Support to the Replica in the master model using the Process Screw and a slot screwdriver. Place the two Magnetic Disc’s on the two holders in the Cresco™ Precision Machine.
2. Program the Cresco Precision Machine with the desired heights to cut the apical ends of the framework. Each apical end is cut to the desired transversal plane, creating the space required for the corresponding Bridge Support.
3. The individual lengths of the Bridge Supports are calculated and cut automatically by the Cresco™ Precision Machine to fill the created spaces perfectly.
4. The end result is two transversal planes fitting each other precisely, thus creating the optimal situation for a laser weld connection.
5. Laser weld the cut Bridge Supports to their corresponding apical ends of the framework in accordance with the laser welding protocol.
   - Note: Remove all plaster from the precisioned parts before laser welding.

### Relational transfer

1. Screw-retain the framework to the master model using at least two Process Screws and a slot screwdriver. Tighten the framework using light finger force.
2. Apply sticky wax to the interface between the ends of the Replicas and the apical ends of the framework to secure the position between the framework and the Replica in the master model.
3. Remove the retaining Process Screws carefully, leaving the sticky wax intact.
   - Note: The Process Screws must be completely removed.
4. Mount the master model with the sticky wax-retained framework onto a Magnetic Disc using plaster. Place the unit in the top holder of the Fixator. Build up plaster on an additional Magnetic Disc and place it on the bottom holder of the Fixator.
5. Lower the framework unit to a fixed vertical level by closing the Fixator and thereby dipping the framework into the plaster material. After the material has set, remove the sticky wax.
6. Separate the two Magnetic Discs with the framework now embedded in the hardened plaster material of the opposing Magnetic Disc. The Fixator preserves the vertical and horizontal relationship between the Replicas in the master model and the framework. If necessary, remove plaster material to expose at least 3 mm of the apical ends of the framework.

### Precisioning process

The patented Cresco™ Precision Machine is used by certified dental laboratories systematically to correct the framework distortion that occurs in the casting processes. This allows Precision Laboratories to deliver frameworks with guaranteed passive fit properties.

1. Screw-retain the Bridge Support to the Replica in the master model using the Process Screw and a slot screwdriver. Place the two Magnetic Disc’s on the two holders in the Cresco™ Precision Machine.
2. Program the Cresco Precision Machine with the desired heights to cut the apical ends of the framework. Each apical end is cut to the desired transversal plane, creating the space required for the corresponding Bridge Support.
3. The individual lengths of the Bridge Supports are calculated and cut automatically by the Cresco™ Precision Machine to fill the created spaces perfectly.
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5. Laser weld the cut Bridge Supports to their corresponding apical ends of the framework in accordance with the laser welding protocol.
   - Note: Remove all plaster from the precisioned parts before laser welding.

The precisioned, ground and finalized framework is sent back to the Design Laboratory.
## Design Laboratory Procedure

Cresco API™ components used in this section:
- Impression Element (Impression Pin included)
- Bridge Screw
- Replica
- Wax Tube
- Process Screw
- Bridge Support (Titanium, Burnout or Cobalt-Chrome)

### Finalizing the framework

Before the framework is sent to the clinician for a try-in, make a final check to verify the grinding and precisioning process, final design and the passive fit of the framework.

1. Verify the design and occlusal clearance of the framework. If additional grinding is needed, do not grind directly on the laser weld.

   **Note:** Grinding directly on the laser weld will reduce its strength, possibly causing future failures.

2. Make sure the Bridge Screws function correctly and smoothly. If additional grinding is needed, carefully use a round-drill (size 27) and grind the inside of the screw entrance hole where this is needed. By holding the construction with the apical ends upwards, it is easy to ensure that the screw seats are not affected by the grinding.

   **Note:** Avoid using fissure drills or inverted conical drills, as these types of drill can make grooves inside the screw access holes.

### Framework try-in

Try-in the framework in the mouth to confirm a passive fit and the appropriate design for functional contacts and the optimal soft-tissue condition.

1. Remove the healing abutment or the temporary restoration.

2. Try-in the bridge in the mouth. Use a slot screwdriver and light finger force to screw-retain the framework to the restorative platform. The try-in should confirm a passive fit and an appropriate design for functional contacts and the optimal soft-tissue relation.

   **An X-ray examination can verify the junctional integrity between the framework and the restorative platform.**

3. The framework is returned to the dental technician to be finalized.
Finalizing the restoration
Before the framework is finalized, verify the anatomical guidelines and final framework design.

1. Check that there is ample room for the application of veneering material. Perform additional grinding if needed.

Careful grinding can be performed near the laser weld to make a bevel in order to get a smoother transition between metal and veneering. Do not grind directly on the laser weld.

Note: Grinding directly on the laser weld will reduce its strength.

2. Veneering material can be applied all the way down to the apical end of the framework, covering the laser weld. Make sure that no veneering material is in contact with the interface between the framework and the restorative platform.

Follow the veneering material manufacturer’s instructions when applying the material.

3. Avoid applying veneering material in such a way that it increases the angle of the screwdriver access to the Bridge Screw to an extent that negatively affects the tightening of the screws.


The final restoration is sent to the prosthodontist for final seating.

Final restoration
Before installation, the final restoration must undergo a cleaning and sterilization process. The cleaning should preferably take place in an ultrasonic unit with a mixture of dishwasher detergent and water. Steam-autoclave the final restoration according to the autoclave manufacturer’s instructions.

1. Install the final restoration using the Bridge Screws and a Slot Screwdriver. Confirm a passive fit and appropriate design for functional contacts and optimal soft-tissue situation.

Cover the screw head with rubber, cotton or a temporary filling material, which is easy to retrieve.

Note: Do not use polythene materials in the screw channels as they can be difficult to remove.

For the final tightening of the Bridge Screws, use a Slot Screwdriver or a Torque Wrench.

Cover the screw head with rubber or cotton before the screw entrance hole is filled with a suitable composite material.

Finalize the screw entrance hole with a suitable composite material in a shade that corresponds to the final restoration for the optimal esthetic result.
Cresco™ Instruments

Cresco™ Prosthetic and Laboratory procedures are performed with ease, requiring only a limited number of instruments.

- **Laboratory Instruments**
  - Waxing Tool used to angle the Wax Tube
  - Slot Screwdriver, Long is a useful screw driver for the laboratory work
  - Cresco™ Extended Grip with RA connection

- **Prosthetic Instruments**
  - Slot Screwdriver of various lengths for optimal prosthetic procedures. To secure the framework the Slot Screwdriver or RA Slot Screwdriver must be used.
  - Cap Screwdrivers simplify tightening of the Impression Pin
  - Elos® Torque Wrench that can give a torque of up to 35 Ncm. It has a dual function: torque control and ratchet wrench. In the restorative situation, the torque control is used to tighten the Bridge Screw in the final restoration.

**Recommended torque**

- For seating during try-in, use light finger force
- For tightening of an insert, 15 Ncm
- For final seating of the bridge: Tighten to 20 Ncm when you have an insert
- Tighten to 35 Ncm when you don’t have an insert

Cresco™ Insert Installation

Some of the Cresco™ restorations require a separate part between the implant and the superstructure. This part, called “Insert,” is used to attach the implant to the design that allows passive fitting screw-retained restorations. The inserts are included in the Cresco™ API Kit used for each implant.

1. The Insert is included in the first compartment from the left in the Cresco™ API Kit, together with the Impression Element and Pins. For easy handling, the Insert comes pre-mounted on the Impression Pin.
2. UnscREW the healing abutment from the implant. Fit the Insert, mounted on the Impression Pins, into the implant. Tighten very lightly.
3. Before final tightening of the Insert, assess if the height may pose an esthetic problem.
4. A Ra Cap Screwdriver eases the final tightening of the Insert. This can be fitted in a design that allows passive fitting screw-retained restorations. The Inserts are included in the Cresco™ API Kit used for each implant.
5. When the Insert has been tightened with the correct torque, remove the Impression Pin. The Insert will stay in the implant.
6. Re-use the Impression Pin together with the Ra Hex Screwdriver (REF 31241). The process described here should be sufficient to remove the Ra Hex Screwdriver from the fixture.
7. There are three different Gingiva Formers included in the Cresco™ API Kit. Choose the one suitable for the situation at hand and tighten into place using a Hex Screwdriver.

Cresco™ Insert Retrieval

Once the Insert is in place and tightened to its final torque, it is very difficult to remove. If the instructions above have been followed, and the insert has not been tightened fully, the process described here should be sufficient to remove the insert. If the insert has been fully tightened and the process described here does not work, please contact Elos Customer Support for further instructions.

1. Fit the Impression Element and the Impression Screw on the Insert. Tighten very lightly by hand.
2. Use some kind of counter torque device on the Impression Element, a Counter Torque Key.
3. Tighten the Impression Pin as hard as possible, while holding the counter torque device firmly still so that the force is transferred to the Counter Torque Key. The Insert will be released from the fixture.
4. Turn the Impression Element counter clockwise using the Counter Torque Key, or a pair of pliers. The Insert will be released from the fixture.
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