



Attachment-retained restorations

Clinical and laboratory procedures



Welcome to the world of Astra Tech Dental

Our goal is to provide you with the **freedom of unlimited possibilities™** when it comes to implant therapy. We develop products and solutions to help make your job as simple as possible, but we never compromise on reliable long-term function and esthetics.

The Astra Tech Implant System™ is developed with a biological and biomechanical approach. Every detail is carefully designed to fit together and work in harmony with each other and with nature. The implant system is proven clinically to maintain marginal bone levels which has been demonstrated in excellent long-term results.

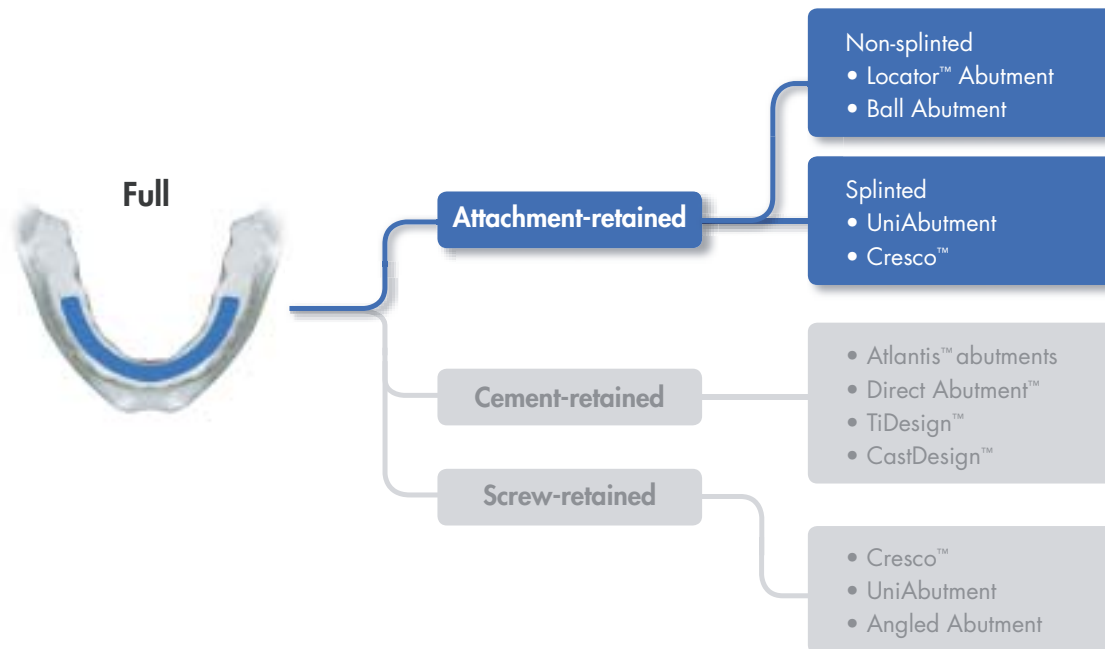
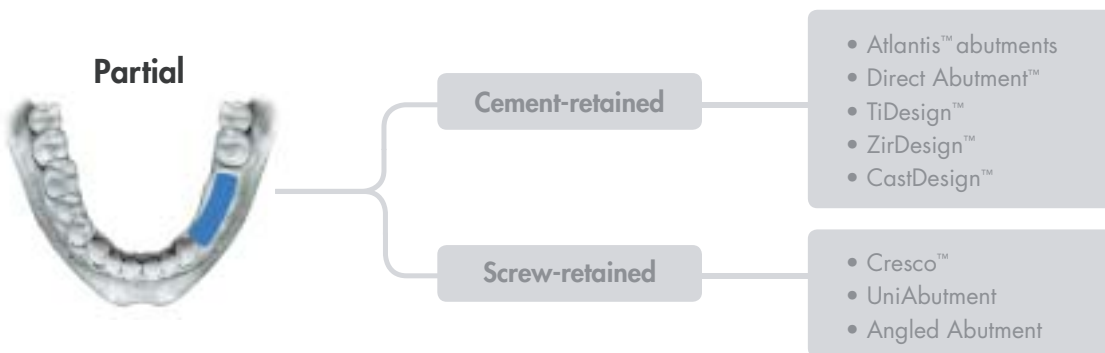
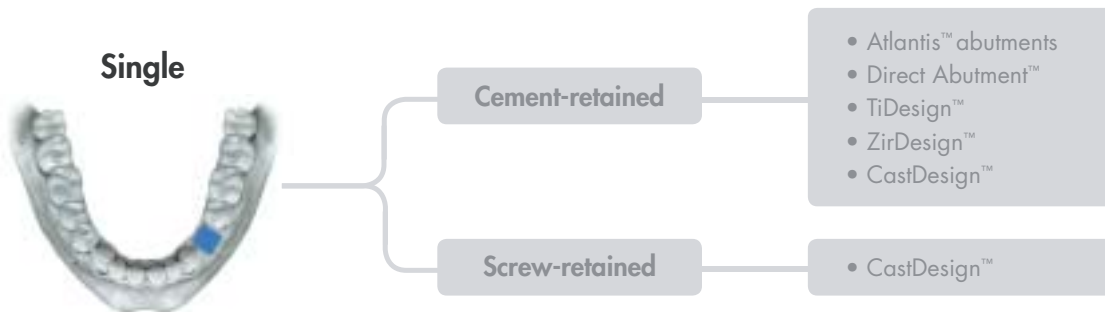
To support you in the use of the Astra Tech Implant System, we offer education seminars, training programs and materials for you and all members of your treatment team. This manual provides a step-by-step overview for attachment-retained restorations.

Contents

Clinical and laboratory procedures for attachment-retained restorations utilizing the Astra Tech Implant System™.

This manual is designed for use by dental professionals who have undergone at least basic prosthetic and in-clinic training. Staying current on the latest trends and treatment techniques in implant dentistry through continued education is the responsibility of the clinician.

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Introduction

The Astra Tech Implant System™ is designed to meet various clinical situations found in partially dentate and edentulous patients. It has been thoroughly investigated in numerous technical, experimental and prospective clinical studies and the extensive research and documentation have yielded a simple, flexible and reliable implant system that is clinically proven to maintain marginal bone levels. A variety of prosthetic treatment options including overdentures can be undertaken using Astra Tech implants as anchorage units.

There are several indications for overdenture treatment in connection with implant treatment. Functional, esthetic, phonetic and hygienic requirements in certain clinical situations support the use of the overdenture as a treatment option. The presence of at least one implant in each quadrant of the jaw, combined with a suitable attachment system, makes overdenture treatment a viable alternative when treating totally edentulous jaws.

Overdenture treatment in the lower jaw

In the lower jaw, the installation of a fixed bridge restoration is often possible; however, patients sometimes prefer to have an overdenture for reasons of economics. Clinical studies with the Astra Tech Implant System show that the survival rate of implants in the lower jaw is the same for overdentures as for fixed bridge restorations, regardless of the retaining system.

Based on clinical results, the following protocol is recommended in the lower jaw:

- Minimum 2 implants, splinted or non-splinted

Overdenture treatment in the upper jaw

In the upper jaw, the clinical result and long term predictability is more dependent on the mode of implant support and the design of the denture. A prefabricated or customized bar, splinting four or more implants can help to ensure equally good results as in the lower jaw.

Based on clinical results, the following protocol is recommended in the upper jaw:

- Minimum 4 implants, splinted



Non-splinted attachments
in the lower jaw



Splinted attachments
in the lower jaw



Splinted attachments
in the upper jaw

Indications for overdenture treatment

- An unfavorable jaw relation which makes treatment with a fixed bridge restoration difficult
- Esthetic problems, e.g. the need for lip support in the upper jaw
- Phonetic problems due to loss of alveolar bone in the upper jaw
- Patient dissatisfaction with removable denture due to oral irritations and/or loss of bone for denture fixation
- A bridge option makes satisfactory oral hygiene impossible or extremely difficult to achieve
- Edentulous patients with a cleft palate
- Economic constraints

Contraindications for overdenture treatment

- At least one implant in each quadrant cannot be achieved
- Untreatable, prosthesis-related stomatitis
- Certain general illnesses and forms of medication are relative contraindications for implant treatment (e.g. osteoporosis, uncontrolled diabetes, cortisone treatment, radiotherapy)

Factors to consider

Factors which govern the planning of the overdenture treatment are the number and length of the implants, together with quality and quantity of the anchoring bone tissue.

In cases where there are three or more implants, greater accuracy is required in order to achieve proper distribution of loading on implants and mucosa.

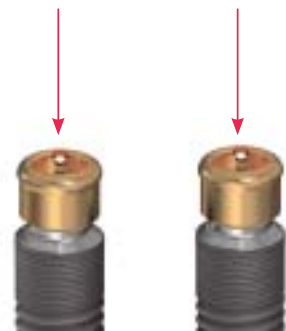
To ensure an optimal restorative treatment, make sure that the following conditions are met:

- Parallel implants
- Rigid bar connector without large distances between implants
- Appropriate length of extension bars, not too long
- Adequate resilience of the mucosa. The mucosa should not be too soft
- Provide an even load on the mucosa when the prosthesis is in function

Creating an overdenture

Creating an attachment-retained overdenture can be made in different ways.



1. Creating a complete new overdenture at the laboratory.
2. When the existing denture is judged suitable for further function:
 - Laboratory conversion of an existing denture
 - Chairside retrofitting of an existing denture



Implants should be as parallel as possible to ensure optimal results.



Adjust the extension bars to appropriate length. Extension bars should be short to avoid lever forces.

Abutments designed for attachment-retained restorations	Indication and intended use	Features and benefits	Page
<p>Locator™ Abutment Titanium</p> 	<ul style="list-style-type: none"> • Non-splinted restorations in the mandible 	<ul style="list-style-type: none"> • Designed to accommodate the maximum denture-bearing area • Self-aligning design with exceptional durability • Available in multiple vertical height options starting as low as 2.0 mm • Available in multiple retention options and replaceable • Up to 40° angle correction 	8
<p>Ball Abutment Titanium</p> 	<ul style="list-style-type: none"> • Non-splinted restorations in the mandible 	<ul style="list-style-type: none"> • Designed to accommodate the maximum denture-bearing area • Eliminates wear on the implant ball abutment and minimizes the need for maintenance • Available in multiple retention options and replaceable 	19
<p>20° or 45° UniAbutment Titanium</p> 	<ul style="list-style-type: none"> • Splinted restorations in the mandible/maxilla in combination with a bar <p>Note: It is contraindicated to use 45° UniAbutment as the only support for restorations on 3 implants or less. For these situations at least one support should be a 20°UniAbutment.</p>	<ul style="list-style-type: none"> • The design offers flexibility in the clinical situation for implants placed in non-parallel situations by maintaining an axis of withdrawal for implants converging or diverging up to angles of 90° • Available in 45° or 20° tapered top cones 	30
<p>20° or 45° Cresco™ Insert from a Cresco API™ kit Titanium</p> 	<ul style="list-style-type: none"> • Splinted restorations in the mandible/maxilla in combination with a bar 	<ul style="list-style-type: none"> • Cresco™ Precision Method corrects casting distortions to help ensure a passive fit • Available in choice of alloy fabrication • Available in a convenient API™ kit (All Parts Included) • Framework screw holes can be angled up to 17° 	For more information about Cresco™ technique, see the Cresco™ manual.

Locator™ attachment

With Locator™ you can offer your patients an excellent implant-supported overdenture solution. Locator provides long-term stability and ease of use, minimizing the time needed to adjust loose dentures. Its low vertical height is ideal for all overdenture patients. Cases with angulation problems and limited occlusal space can be easily corrected using Locator.

Taking into consideration clinical documentation available, non-splinted Locator™ Abutments are indicated in the lower jaw only.

Locator components and instruments you will need

Locator™ Abutment

Available for connection sizes:
 3.5/4.0 and 4.5/5.0
 Height: 0.5 – 5 mm.



Processing Cap



Locator™ Inserts

The Locator™ inserts come with five different retentive holding force levels.

** for non-parallel implants*



Blue
680 grams



Pink
1361 grams



Clear
2268 grams



Red
680 grams



Green*
1361–1814 grams

Locator™ Abutment Pick-up



Locator™ Abutment Replica



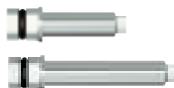
Block-out Spacer



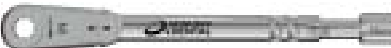
Locator™ Core Tool

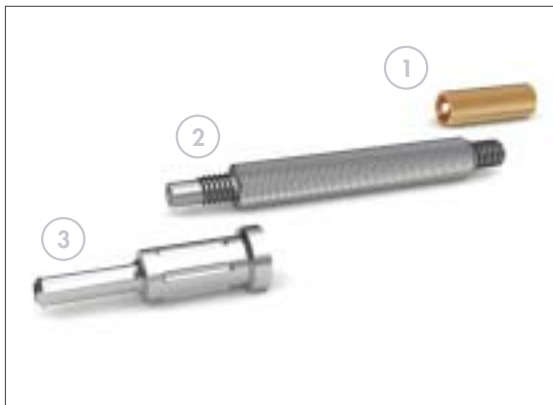


Locator™ Torque Wrench Bit



Torque Wrench

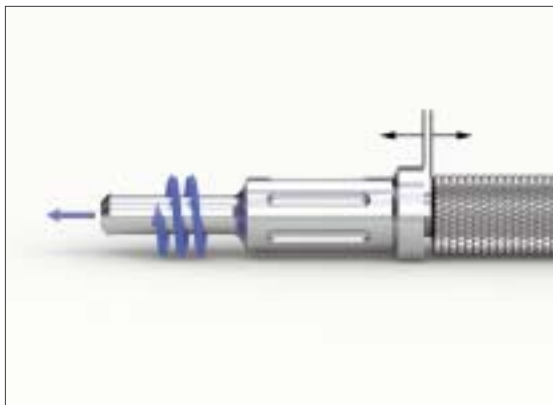




Using the Locator™ Core Tool

The Locator™ Core Tool is made up of three tools in one:

1. **Locator™ Abutment Driver** for tightening of abutment.
2. **Locator™ Insert Seating Tool** for seating an insert into the titanium processing cap.
3. **Locator™ Insert Removal Tool** for catching and pulling the used insert out of the permanent metal housing.



Locator™ Insert Removal Tool – Preparing

Loosen the insert removal tool by making three full turns counterclockwise. You will see a visible gap.



Removing

To remove an insert from the titanium metal housing, place the tip into the nylon insert and push to the bottom. Then tilt the tool so that the sharp edge of the tip grabs hold of the insert. Pull the insert out of the cap.



Discarding

To discard the insert from the tip of the Locator™ Core Tool, point the tool down and away from you and tighten the Insert Removal Tool back onto the Locator Core Tool. This will activate the removal pin and dislodge the insert from the tip end of the Insert Removal Tool.

LOCATOR™ ATTACHMENT

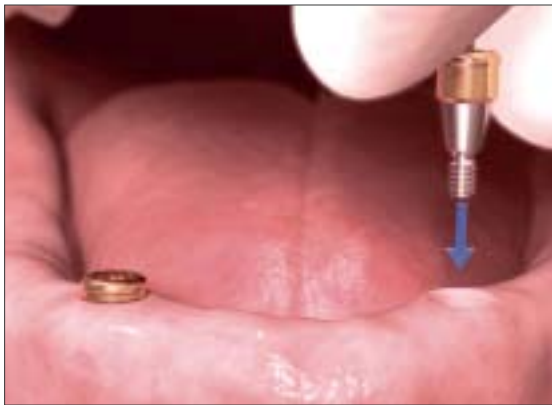
Abutment installation

■ CLINICAL PROCEDURE



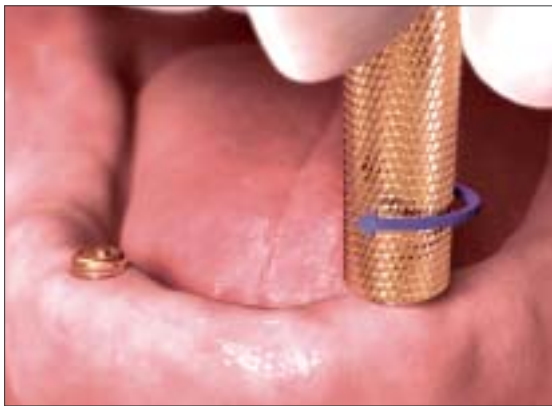
Abutment selection

The height of the Locator™ Abutment selected should be based on the highest level of tissue measured with the Abutment Depth Gauge. This will allow the retention groove to be at the appropriate supragingival height.



Abutment installation

Install the Locator™ Abutment into the implant manually.



Seating

Manually seat the abutment using the Locator™ Abutment Driver part of the Locator™ Core Tool.



Final tightening

Torque the Locator™ Abutment using the Locator™ Torque Wrench Bit together with the Astra Tech Torque Wrench for final tightening.

Recommended torque:

- 25 Ncm
- 25 Ncm



Creating a new overdenture

Placing Locator™ Abutment Pick-up

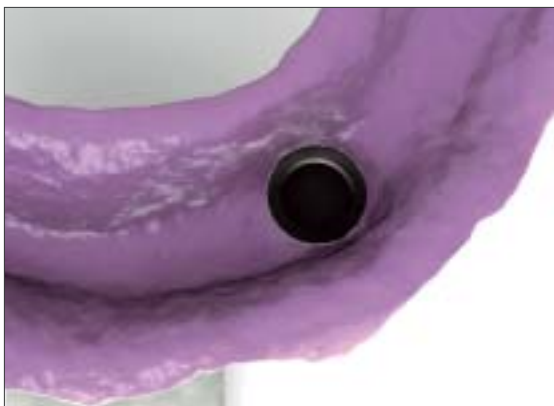
Firmly attach the Locator™ Abutment Pick-up to each Locator™ Abutment. The pick-up should have stable friction retention.



Impression taking

Take the abutment-level impression in a customized impression tray with an elastomeric impression material.

Remove the impression once the impression material has set.



Verifying impression

The black processing inserts of the pick-ups should be clearly visible within the impression. Send the impression to the laboratory.

LOCATOR™ ATTACHMENT-RETAINED OVERDENTURE

Creating a new overdenture

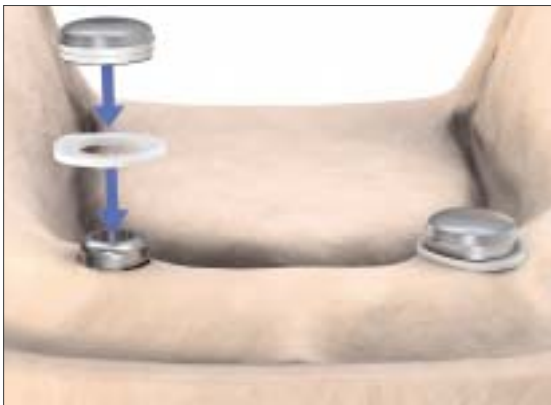
LABORATORY PROCEDURE



Working Model

Firmly place the Locator™ Abutment Replica in the Locator™ Abutment Pick-up.

Fabricate a working model with the Locator™ Abutment Replica and high-quality stone material.



Processing

Place the spacer over the head of each Locator™ Abutment Replica providing primary soft tissue support and a resilient situation. Firmly attach the Locator™ Processing Cap to each replica and process and cure it into the overdenture.

Remove the overdenture and discard the spacer after the acrylic has cured.



Finishing

Add acrylic as necessary. Use a burr to remove excess acrylic, and polish the overdenture base.

Send the final overdenture with the Locator™ Processing Cap and insert to the clinician.



Removing

Remove the black processing insert using the Locator™ Insert Removal Tool.



Inserting

Press the preferred Locator™ insert into the Processing Cap's metal housing, using the Insert Seating Tool.



Final result

Seat the overdenture over the Locator™ abutments.
Verify that the required retention is obtained.
Gradual increase of retention is always recommended. It is best to start with low retention.

LOCATOR™ ATTACHMENT-RETAINED OVERDENTURE
Converting an existing denture with lab support

CLINICAL PROCEDURE



Converting an existing denture with lab support

Marking

Firmly attach the Locator™ Abutment Pick-up to each Locator™ Abutment. The pick-up should have stable friction retention.

Mark the top of the pick-up using articulating paper, denture pencil, pressure-indicating paste, etc.



Reaming

Place the existing denture over the Locator™ Abutment Pick-up and remove. A landmark will now be visible on the denture.

Use an acrylic laboratory burr to relieve the denture base in the indicated areas. Ream enough room to accommodate passive fit when seated over the pick-up.



Impression-taking

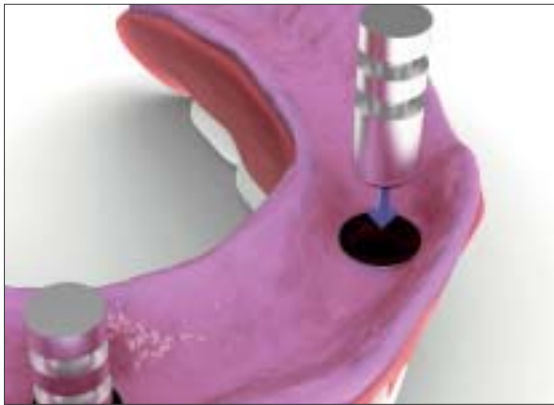
Take an impression using the existing denture as an impression tray with an elastomeric impression material. Remove the impression once the impression material has set.



Verifying the impression

The black processing inserts of the pick-ups should be clearly visible within the impression. Make a reline if needed.

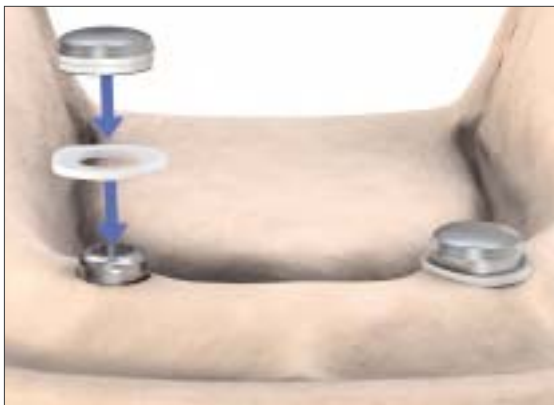
Send the impression to the laboratory for processing.



Working model

Firmly place the Locator™ Abutment Replica in the Locator™ Abutment Pick-up.

Fabricate a working model with the Locator™ Abutment Replica and high-quality stone material.



Processing

Place the spacer over the head of each Locator™ Abutment Replica providing primary soft tissue support and a resilient situation. Firmly attach the Locator™ Processing Cap. Process and cure it into the overdenture. Remove processed denture and discard the spacer once acrylic has set.



Finishing

Add acrylic as necessary. Use a burr to remove excess acrylic, and polish the overdenture base.

Send the final overdenture with the Locator™ Inserts to the clinician.

LOCATOR™ ATTACHMENT-RETAINED OVERDENTURE Converting an existing denture with lab support

CLINICAL PROCEDURE



Removing

Remove the black processing insert using the Locator™ Insert Removal Tool.



Inserting

Press the preferred Locator™ insert into the Processing Cap's metal housing, using the Insert Seating Tool.

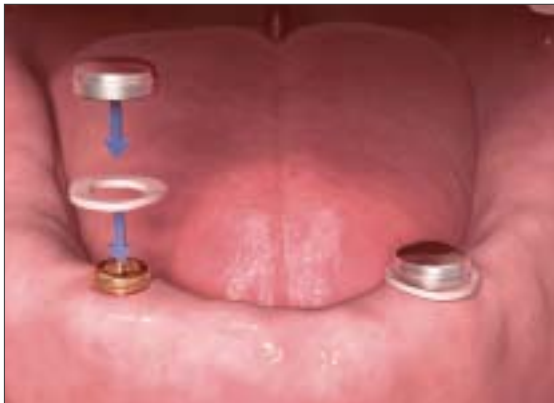


Final result

Seat the overdenture over the Locator™ abutments.

Verify that the required retention is obtained. Gradual loading is always recommended. It is best to start with low retention.

Converting an existing denture – chairside



Placing

Place the spacer over the head of each Locator™ Abutment providing primary soft tissue support and a resilient situation. Firmly attach the Locator™ Processing Cap.



Marking

Mark the top of the Processing Cap using articulating paper, denture pencil, pressure-indicating paste, etc.



Reaming

Place the existing denture over the Processing Cap and remove. A landmark will now be visible on the denture.

Use an acrylic laboratory burr to relieve the denture base in the indicated areas. Ream enough room to accommodate passive fit when seated over the Processing Cap.



Processing

Fill relieved areas in the denture with acrylic of choice and seat the denture over the Processing Caps without compressing the soft tissue too much. Follow manufacturer's recommendations for use. Remove processed denture once acrylic has set.

LOCATOR™ ATTACHMENT-RETAINED OVERDENTURE
Converting an existing denture – chairside

■ CLINICAL PROCEDURE



Finishing

Add acrylic as necessary. Use a burr to remove excess acrylic, and polish the overdenture base before removing the black processing insert.



Removing

Remove Spacer from the Locator™ Abutment. Remove the Processing Insert from the Processing Cap in the overdenture using the Locator Insert Removal Tool.



Inserting

Press the preferred Locator™ insert into the Processing Cap's metal housing, using the Insert Seating Tool.

Verify that the required retention is obtained. Gradual loading is always recommended. It is best to start with low retention.



Final result

Seat the overdenture over the Locator™ abutments.

Verify that the required retention is obtained. Gradual increase of retention is always recommended. It is best to start with low retention.

Ball attachment

The clinical process for the ball attachment is quick and easy. The Clix Metal Housing is cured into the denture and custom retention is achieved with the plastic insert, snapped into the housing. The Clix Inserts are available in three different strengths, offering optimal retention for every individual situation.

The Clix attachment is designed to virtually eliminate wear on the Ball Abutment and minimize the need for maintenance. Changing the Clix Inserts to alter the retention is done easily.

Taking into consideration clinical documentation available, non-splinted Ball Abutments are indicated in the lower jaw only.

Ball attachment components and instruments you will need

Ball Abutment



Clix Female



Clix Inserts

Inserts come with different retentive holding force levels.



750
grams



1150
grams



1500
grams

Ball Abutment Pick-up



Ball Abutment Replica



Ball Wrench



Torque Wrench



Clix Insertion Tool



Paralleling Mandrel, Female



BALL ATTACHMENT

Installation

CLINICAL PROCEDURE



Abutment selection

The height of the Ball Abutment selected should be based on information using the Abutment Depth Gauge. The highest point of the soft tissue margin should be at or slightly "apical" to the tapered neck of the Ball Abutment.



Abutment Installation

Seat the Ball Abutment into the implant with the Ball Wrench.



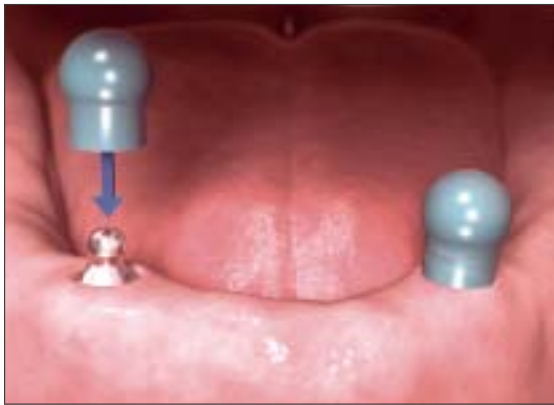
Final Tightening

Torque the Ball Abutment into the implant with the Ball Wrench in combination with the Torque Wrench.

Recommended torque:

- 25 Ncm
- 25 Ncm

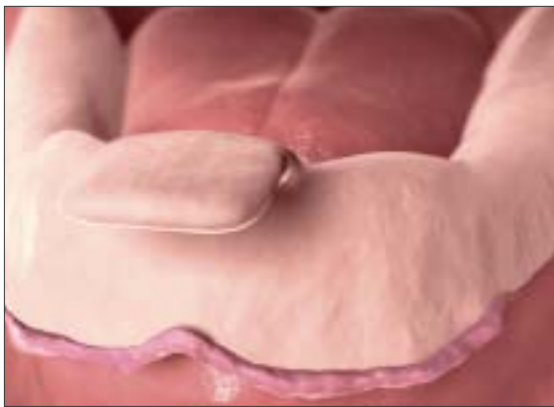
Creating a new overdenture



Placing the Ball Abutment Pick-up

Firmly attach the Ball Abutment Pick-ups and check to ensure that they are securely in place. The pick-ups should have a stable friction retention.

Verify that there is adequate space in the tray for impression material and the Ball Abutment Pick-up. It is essential to have enough space around the copings to achieve good retention within the impression material.



Impression taking

Take the abutment-level impression using a customized impression tray and an elastomeric impression material. Remove the impression once the impression material has set.



Verifying the impression

The pick-ups should be captured in the impression and be clearly visible. If the pick-ups remain seated on the Ball Abutments, remove and re-seat them in the impression. Send the impression to the laboratory.

BALL ATTACHMENT-RETAINED OVERDENTURE

Creating a new overdenture

LABORATORY PROCEDURE



Working model

Place the Ball Abutment Replicas firmly into the Ball Abutment Pick-up.

Fabricate a working model with the Ball Abutment Replica and high-quality stone material.



Paralleling

Place the O-ring spacer over the ball of the Ball Abutment Replica providing primary soft tissue support and a resilient situation. Determine a common path of insertion for the ball attachment-retained overdenture by using the Paralleling Mandrel and a surveyor.



Mounting

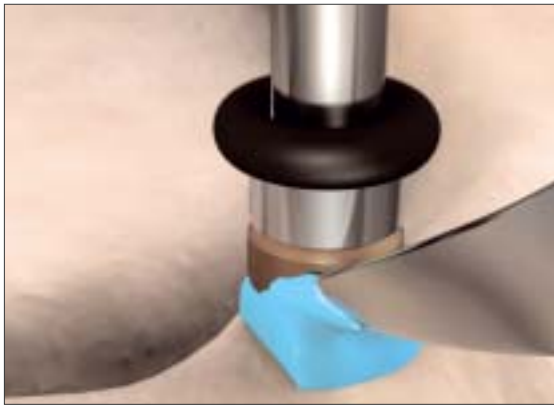
Mount the Paralleling Mandrel in the surveyor with the O-ring upwards. Insert the Clix Female in the Paralleling Mandrel.

Secure the component by moving the O-ring down towards the Clix Female.



Blocking

Apply an A-silicone block-out material into the Clix Female. Lower the Clix Female and connect to the Ball Abutment Replica.



Removing

Block out any undercuts under and around the attachment by using the A-silicone material. Remove expelled excess block-out material. Keep the outside of the Clix Female clear for the acrylic resin retention. Release the Clix Female from the Paralleling Mandrel by moving the O-ring upwards. Repeat the procedure for next ball attachment.



Processing

Final working model with the Clix Females in place.



Investing

Make a wax-up with a teeth set-up on the model. Prepare for investing. Polymerize the prosthesis with the Clix Females.

Remove the O-ring spacer after polymerization.



Finishing

Finalize the ball attachment-retained overdenture. Add acrylic if necessary. Use a burr to remove excess acrylic, and polish the overdenture.

Send the overdenture back to the clinician for placement.

BALL ATTACHMENT-RETAINED OVERDENTURE

Creating a new denture

■ CLINICAL PROCEDURE

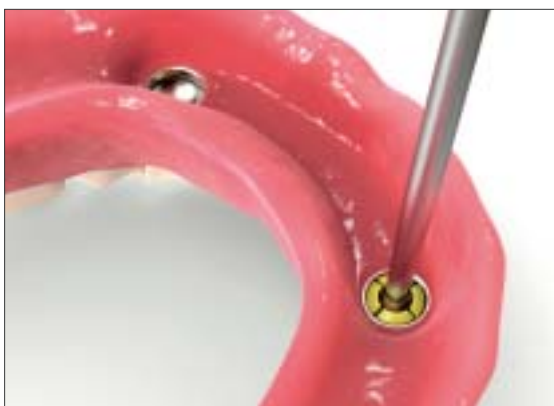


Final result

Seat the overdenture over the Ball Abutments.

Verify that the required retention is obtained.

Gradual increase of retention is always recommended. It is best to start with low retention.



Adjusting the retention

Removing

If the required retention is not obtained, remove the Clix Insert by using a reversed conical burr or a hot instrument. Do not damage the retentive metal ledge of the housing.



Inserting

Press a new Clix Insert over the Clix Insertion Tool.

Press the Clix Insert into the housing part of the Clix Female.

Converting an existing denture with lab support



Placing the Ball Abutment Pick-up

Firmly attach the Ball Abutment Pick-ups and check to ensure that they are securely in place. The pick-ups should have a stable friction retention.



Marking and reaming

Mark the top of the pick-up using articulating paper, denture pencil, etc. Place the existing denture over the Ball Abutment Pick-ups and remove. A landmark will now be visible on the denture.

Use an acrylic laboratory burr to relieve the denture base in the indicated areas. Ream enough room to accommodate passive fit when seated over the Ball Abutment Pick-up. It is essential to have enough space around the copings to achieve good retention within the impression material.



Impression-taking

Take an impression using an elastomeric impression material. Remove the impression once the impression material has set.



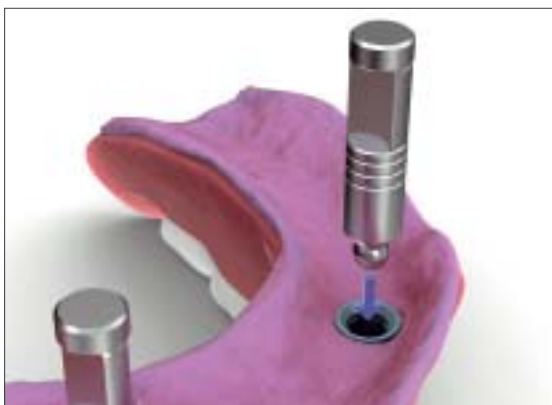
Verifying the impression

The pick-ups should then be captured in the impression and clearly visible. If the pick-ups remain seated on the Ball Abutments, remove and re-seat them in the impression. Send the impression to the laboratory.

BALL ATTACHMENT-RETAINED OVERDENTURE

Converting an existing denture with lab support

LABORATORY PROCEDURE



Working Model

Place the Ball Abutment Replica firmly into the Ball Abutment Pick-up.

Fabricate a working model with the Ball Abutment Replica and high-quality stone material.



Placing

Place the O-ring spacer on the replica providing primary soft tissue support and a resilient situation.



Processing

Securely seat the Clix Female. Process and cure the Clix Female into the overdenture. Remove processed overdenture once the acrylic has set.



Finishing

Add acrylic as necessary. Use a burr to remove excess acrylic, and polish the overdenture.

Send the final overdenture to the clinician.



Final result

Seat the overdenture over the Ball abutments.
Verify that the required retention is obtained.
Gradual increase of retention is recommended.
It is best to start with low retention.



Adjusting the retention

Removing

If the required retention is not obtained, remove the Clix Insert by using a reversed conical burr or a hot instrument. Do not damage the retentive metal ledge of the housing.



Inserting

Press a new Clix Insert over the Clix Insertion Tool.
Press the Clix Insert into the housing part of the Clix Female.

BALL ATTACHMENT-RETAINED OVERDENTURE

Converting an existing denture – chairside

CLINICAL PROCEDURE



Converting an existing denture – chairside

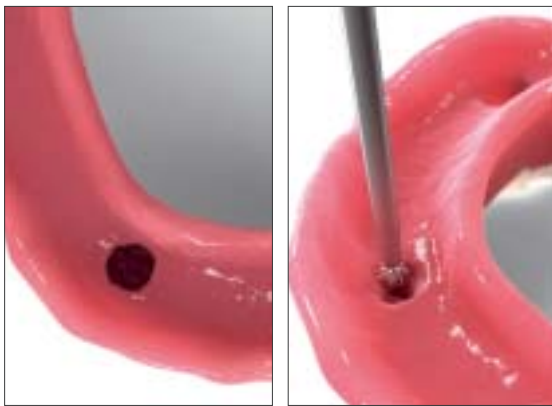
Placing Clix Female

Place the O-ring spacer around the Ball Abutment providing primary soft tissue support and a resilient situation. Securely seat the Clix Female.



Marking

Mark the top of the Clix Female using articulating paper, denture pencil, pressure-indicating paste, etc.



Reaming

Place the existing denture over the Clix Female and remove. A landmark will now be visible on the denture.

Use an acrylic laboratory burr to relieve the denture base in the indicated areas. Ream enough room to accommodate passive fit when seated over the Clix Female.



Processing

Fill relieved areas with acrylic of choice and seat denture over the Clix Female without compressing the soft tissue too much. Follow manufacturer's recommendations for use. Remove processed overdenture once acrylic has set. Add acrylic if necessary. Use a burr to remove excess acrylic, and polish the overdenture.

Remove the O-ring spacers.



Final result

Seat the overdenture over the Ball Abutments.
Verify that the required retention is obtained.
Gradual increase of retention is recommended. It is best to start with low retention.



Adjusting the retention

Removing

If the required retention is not obtained, remove the Clix Insert by using a reversed conical burr or a hot instrument. Do not damage the retentive metal ledge of the housing.



Inserting

Press a new Clix Insert over the Clix Insertion Tool.
Press the Clix Insert into the housing part of the Clix Female.

Profile Bar System

With the Profile Bar System you can offer your patients a customized cast bar with built-in retention system.

The metal housings are cured into the denture and custom retention is achieved by using plastic inserts that snap into the housing. The inserts are available in three different strengths, offering optimal retention for each individual situation. Changing the inserts to alter retention can be done in seconds.

Profile Bar System components and instruments you will need

20° UniAbutment



Profile Bar System



Inserts



Reduced retention



Normal retention



Increased retention

Semi-Burnout Cylinder



Bridge Screw



20° UniAbutment Pick-up



20° UniAbutment Replica



Hex Screwdriver



Torque Wrench





Abutment selection

Select the appropriate abutment using the Healing Abutment Uni. The bands correspond to millimeters as well as to the available UniAbutment heights. The Abutment Depth Gauge can also be used.



Removing

Remove the Healing Abutment Uni using the Hex Screwdriver.



Abutment installation

Seat the self-guiding UniAbutment manually with the pre-mounted Carrier.



Final tightening

Remove the Delivery Cap. Use the Torque Wrench, preset at 15 Ncm for final tightening. The preset torque is reached when the handle snaps away.

Recommended torque:

- 15 Ncm
- 15 Ncm

UNIABUTMENT

Abutment-level impression

CLINICAL PROCEDURE



Releasing

Release the Carrier manually by unscrewing it with the Delivery Cap, or turn the Torque Wrench upside down and turn it counter-clockwise.



Seating UniAbutment Pick-up

Select the appropriate Abutment Pick-up. Make sure the pick-up is in the correct position before tightening the abutment guide pins with the Hex Screwdriver using light finger force.



Impression-taking

Use a standard or customized impression tray. Make an opening in the tray for the guide pins. Cover the hole with wax. Make sure the guide pin can penetrate the hole and wax without interfering with the tray during impression-taking.

Inject the elastomeric impression material around the abutment pick-up and into the impression tray and place intraorally.



Working model

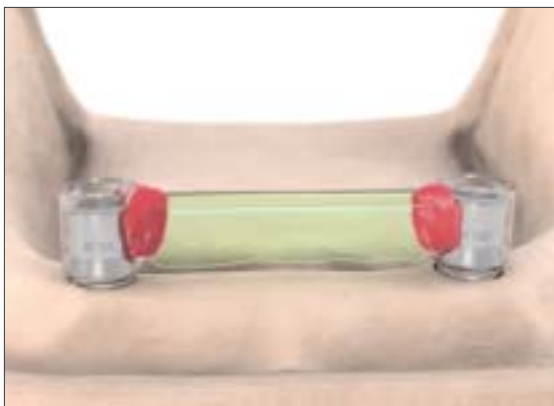
Place the UniAbutment Replica in the UniAbutment Pick-up. Check the impression for correct and stable retention of the abutment replicas. Tighten the replica into the impression tray.

Fabricate a working model with the abutment replicas and high-quality stone material.



Bar fabrication

Place the Semi-Burnout Cylinder on the replica and tighten it with a Laboratory Bridge Screw. The plastic part of the cylinders are cut back to appropriate dimensions.

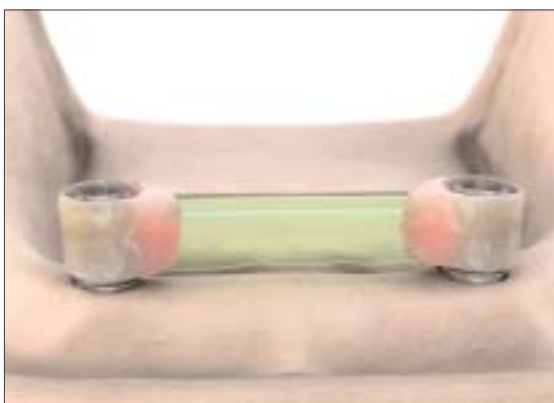


Customizing

Reduce the bar height, leaving a minimum of 2.5 mm to ensure a proper fit of the inserts.

Note: Do not grind the retention surface of the bar.

Attach the bar to the plastic sleeve with a material that has a low polymerization shrinkage.



Waxing

Cover the plastic parts of the cylinders with a thin layer of wax to get an accurate casting.

UNIABUTMENT

Bar fabrication

LABORATORY PROCEDURE



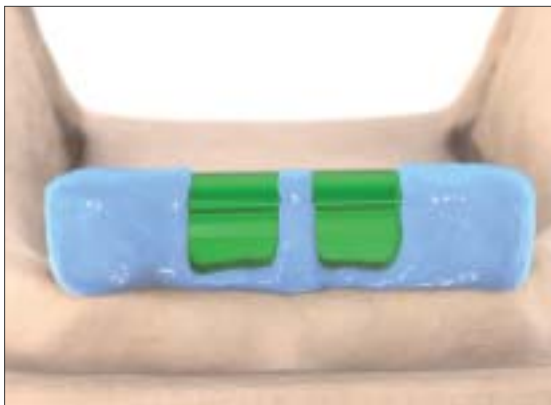
Processing

Apply casting sprues outside the functional areas of the bar.

Invest, burnout and cast with an appropriate metal alloy according to standard working procedures.

Finish and thoroughly polish the bar. Protect the margins of the cylinders during grinding and polishing by using the Polishing Protectors.

Note: It is important to use an alloy compatible with the alloy in the cylinder base of the Semi-Burnout Cylinder.



Spacing and blocking

Place the bar restoration on the UniAbutment Replicas and tighten with the Laboratory Bridge Screws. Press the green plastic spacer onto the bar. The spacer is used to enable positioning of the Profile Bar Insert after polymerization of the overdenture.

Block out the undercuts and leave the spacers free. Cover the upper free areas of the bar and the Semi-Burnout Cylinders.



Polymerizing

Place the housings on the spacers before investing of the overdenture. Make sure the housings are fully seated.

Process the acrylic resin and finish the prosthesis as usual.

(If preferred, duplicate this model to avoid damage to the master model during deflasking.)



Finishing

After polymerization the spacers are easily removed.

Send the overdenture, bar and bridge screws together with the remaining Profile Bar System components to the clinician for placement.



Inserting

Install the Profile Bar Insert into the housing with the supplied Insertion Tool. The Profile Bar Insert should snap in audibly.



Installation

Attach the cleaned bar to the UniAbutments with the Bridge Screws using the screwdriver. Tighten the screws using the screwdriver and Torque Wrench.

Recommended torque for final seating:

- 15 Ncm
- 15 Ncm



Final result

Seat the overdenture over the bar. Verify that the required retention is obtained.



Care and maintenance

Replace the Profile Bar Insert, if the required retention is not obtained.

To remove the Profile Bar Insert from the overdenture, push it laterally with a flat instrument. The Profile Bar Insert will fall out of the metal housing. Position the new insert with the desired retention on the supplied Insertion Tool and press it in position. Verify that the required retention is obtained.

Recommended tightening torque

Type of product	Torque – Ncm		
	X-Small	Small	Large
Cover Screw			
Healing Abutment Healing Abutment Uni ProHeal Cap Healing Cap Angled	  		
TempDesign™ Temporary Abutment			
20°/45° Cresco™ Insert for Astra Tech Implant System™ 20°/45° UniAbutment	 		
Bridge Screws Cresco™ Bridge Screw	 		
Atlantis™ abutment for Astra Tech Implant System™ ZirDesign™ TiDesign™ CastDesign™ Angled Abutment	    		
Direct Abutment™ Ball Abutment Locator™ Abutment	  		

* Only light finger force (5–10 Ncm) using a manual screwdriver or contra angle preset at 25 rpm and 5–10 Ncm torque.

** Only light finger force (5–10 Ncm) using a manual screwdriver. Do not use a Ratchet Wrench or Torque Wrench.

*** **Note:** Available for TiDesign™, Atlantis™ abutment in titanium, and Atlantis GoldHue™ abutment.

Non-sterile abutments

Before installation, the abutments must undergo a cleaning and sterilization procedure. The cleaning should preferably take place in an ultrasonic unit with a mixture of dishwashing detergent and water. For sterilization procedures, follow the instructions below.

Abutment	Sterilization procedure
Locator™ abutment	Steam sterilization with a pre-vacuum cycle (134°C/270–275°F for 3 minutes).

Sterile abutments

Product	Sterilization	Package
Healing Abutment	The product is sterilized by irradiation and intended for single use only.	The Healing Abutment is delivered in a sterile plastic container.
UniAbutment	The product is sterilized by irradiation and intended for single use only.	The UniAbutment is packed pre-mounted with a disposable carrier in stainless steel. The carrier also serves as an installation device, together with a plastic insertion head.
Ball Abutment	The product is sterilized by irradiation and intended for single use only.	The Ball Abutment is delivered in a sterile plastic container.

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A successful implant system cannot be determined by one single feature alone. Just as in nature, there must be several interdependent features working together. The following combination of key features is unique to the Astra Tech Implant System™:

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- **Connective Contour™** – increased soft tissue contact zone and volume



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