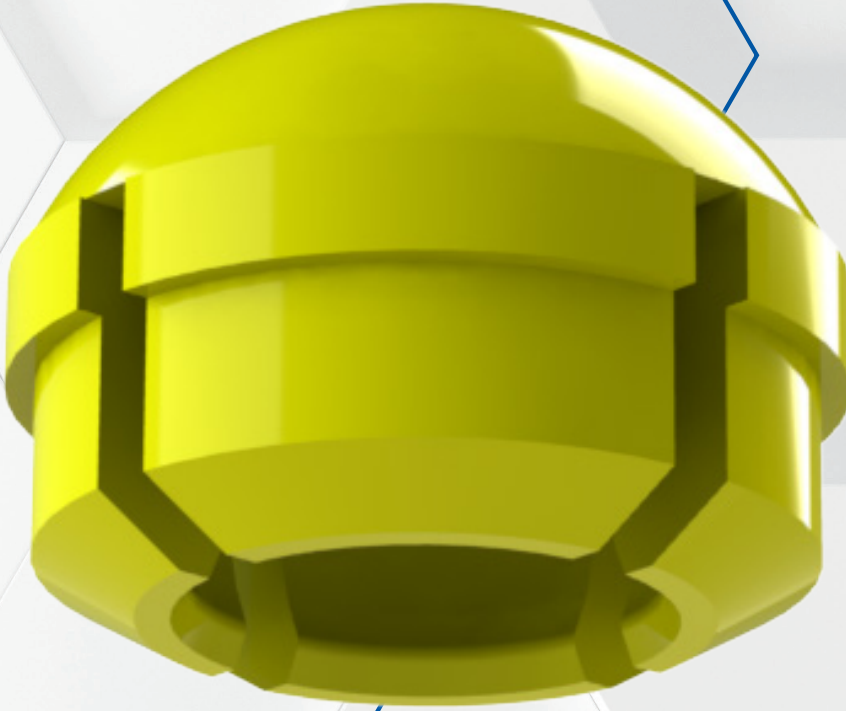




HADER
SOLUTIONS



Hader CX

USER GUIDE



www.hader.eu

Hader CX. A game changer in dental attachments.

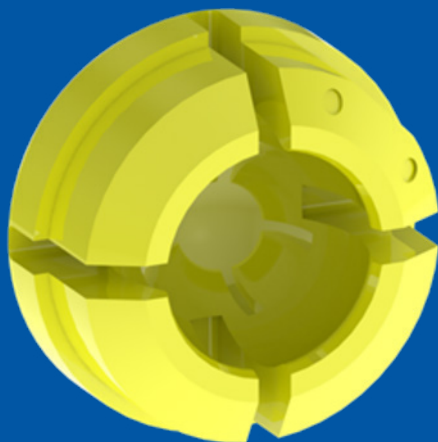


MAJOR COMPATIBILITY AND GREATER AREA OF RETENTION

Its $\varnothing 2.25$ mm design guarantees standard compatibility. Additionally, the female component engages all around the ball, providing an increased area of retention for the utmost stability.

SMART DESIGN

The four-segment design of the plastic insert is one of the stand-out features of Hader CX. It generates an audible click, reassuring users that their prosthesis is securely seated, offering them peace of mind.



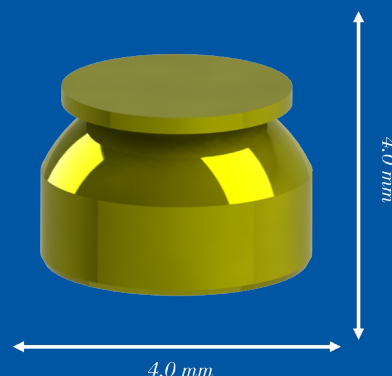
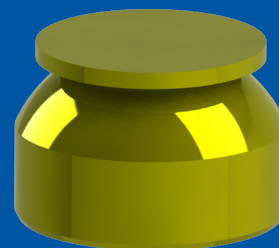
THREE RETENTION LEVELS

Simplify maintenance with easy-to-replace plastic inserts, ensuring hassle-free upkeep. Choose from three retention options: yellow for standard, white for reduced, and red for increased retention. Hader CX allows customisation to suit the needs of every case.



SMALL HOUSING

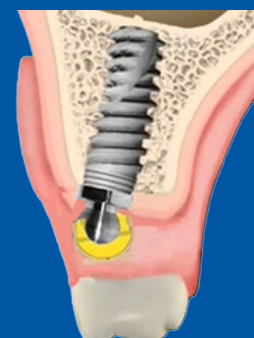
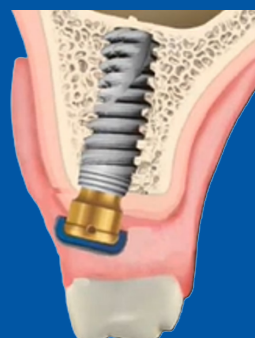
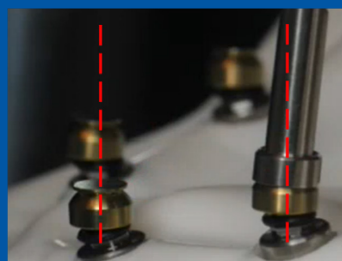
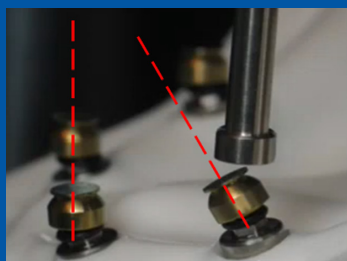
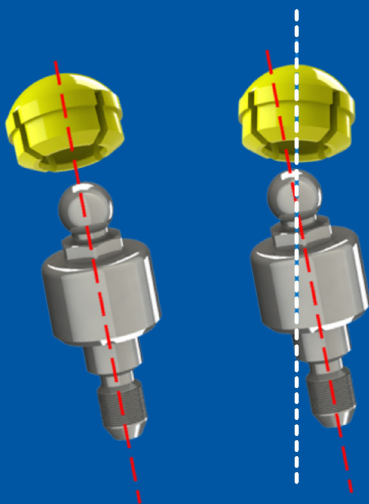
A metal housing of just 4.0 mm diameter. A small size that is ideal for cases of compromised bucco-lingual space.



EASY PARALLELING

The round design of Hader CX, coupled with the convenient paralleling mandrel, enables easy parallelization of the females. This feature corrects divergences of up to 30° or up to 60° between two pillars with ease.

- Easier path of insertion and removal
- Free rotation
- Less wear of the attachment
- Improved aesthetics



Hader CX is your go-to solution, covering all bases. It's not just for implants - it works wonders as an extracoronary element, alongside bars, and even on endodontically treated roots. Versatile and dependable, it's the answer for every case, no matter the challenge

Plus, **Hader CX** brings you a range of males for threading, bonding, or casting - whatever suits your needs best. And with carefully crafted kits, we've got you covered with everything you need for each procedure. Whether you're sticking to the classics or diving into the latest digital methods, our specialized CAD-CAM kits put the power of cutting-edge technology in your hands, making crafting precise constructions easier than ever.

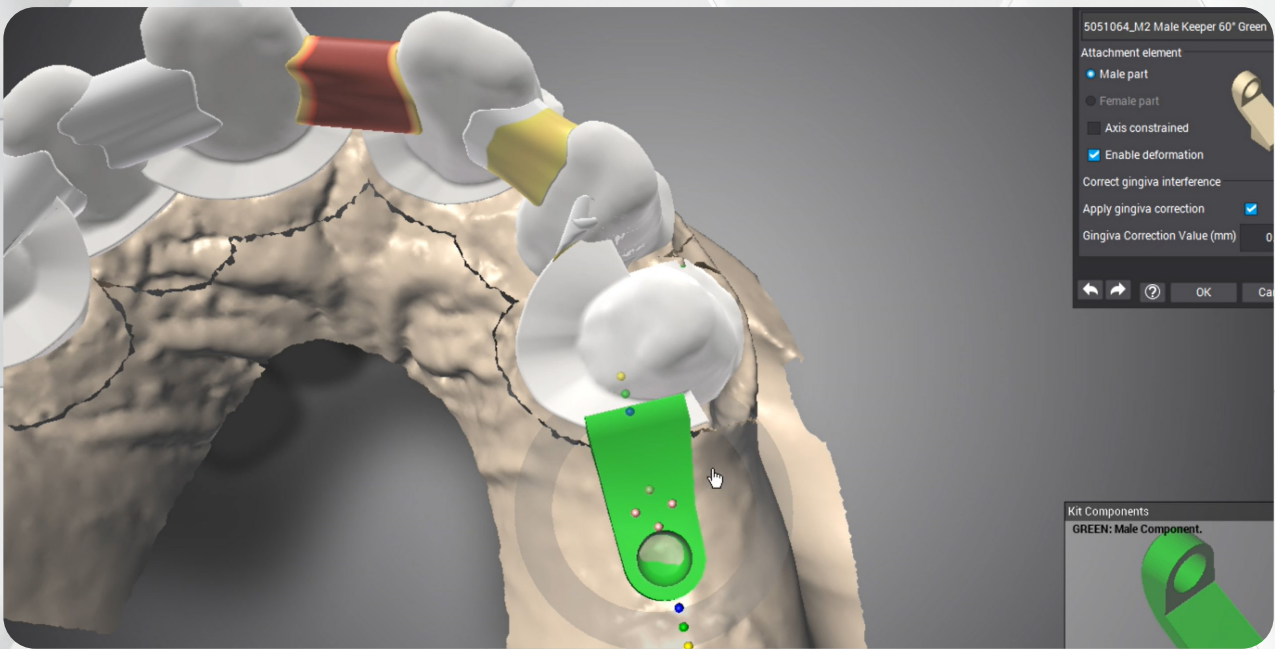


ALSO AVAILABLE FOR



**CAD
CAM**

It's time to unlock the full potential of digital dentistry with the Hader Digital Library. Visit our website www.hader.eu, or **scan the QR code** to download the Digital Library today, and take your dental practice to new heights.



Explore our website at www.hader.eu to access a wealth of resources, including user guides, inspiring design videos, brochures, and many more valuable tools to enhance your experience. Dive into a world of innovation and excellence today!

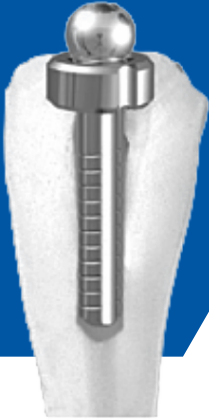


Manufacturing / Placement of male components

* Please refer to the chapter "Manufacturing / placement of female components" for next steps.

1. Hader CX Post

Hader CX posts offer an economical and efficient solution for supporting prostheses over endodontically treated roots, ensuring secure retention for patients. Choose between two options: a post fixed with a ball or a post with a replaceable threaded male, providing versatile solutions tailored to individual needs.



1. Preparation of the canal

Use the **Hader CX Burr Set** (ref- 5011001) at slow speed extending to 2/3 of the canal.

1. Pre-drilling bur to create initial shape (ref- 5011015-1)
2. Cavity bur to shape the rounded base (ref- 5011016-1)
3. Precision reamer to calibrate the diameter (ref- 5011017-1)



2. Cementation, impression and laboratory

Keep these essential tips in mind:

- Always clean and sterilize the post before cementation.
- Double-check the fit of the post before applying cement to ensure a perfect result.

For Post & Ball (ref- 5011029-1)

1. Apply cement following the recommendations of the manufacturer, seat the post and clean any excess of material.

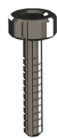


2. Take the impression, ensuring accurate replication of the ball shape and fit the Hader Round Model Analog (ref- 5011008) to the ball index in the impression to prepare the stone model.



For Post (ref- 5011028-1)

1. Thread the male impression tool (ref- 5011044) to the post to be used as a handle. Cover the post and the canal with cement following the recommendations of the manufacturer. Seat the post, clean any excess of bonding material.



2. Leave the male impression tool in the cemented post and take the impression.
3. With the Hader CX 0.9mm driver (ref- 5011040-1), thread the Hader CX protection cap (ref- 5011039) to the post while the prosthesis is processed.



4. In the laboratory, thread the male impression tool (ref- 5011044) to the female impression tool (ref- 5011043) and fit the assembly to the index in the impression to prepare the stone model.



5. When the prosthesis is ready, remove the protection cap and thread the Hader Ball Standard (ref- 5011010-1), or Long (ref- 5011011-1).



Available Kits



5013001

Hader CX Dentists Starter Kit 001

Starter kit for dentists. All of the major components and tools needed for a Hader CX post & ball procedure.



5012012

Hader CX 0012

Hader CX threaded post & ball complete.



5012014

Hader CX 0014

Hader CX one piece post & ball.



5013002

Hader CX Dentists Starter Kit 002

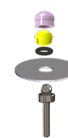
Starter kit for dentists. All of the major components and tools needed for a Hader CX post with removable ball procedure.



5012013

Hader CX 0013

Hader CX threaded post & ball complete with duplicating dummy.



5012015

Hader CX 0015

Hader CX one piece post & ball with duplicating dummy.

2. Hader Round Castable Male

Hader CX Round Castable offers an economical solution for casting post-copings and copings.

1. Laboratory instructions

1. Wax-up the post coping as low as possible and incorporate the castable male (ref- 5011009-1)



2. Use the Hader Male Paralleling Mandrel (ref-5011034-1) to ensure the males are parallel to each other.

The occlusal surface must be at a 90° angle to the path of insertion.



3. Invest and cast in a hard alloy.

4. Use the Hader CX Cup Bur (ref- 5011018-1) to finish the casted male. Polish. Do not sandblast.

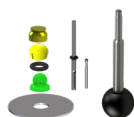


2. Chairside instructions

1. After trying in the casted structure, it is possible to:

- A- Cement, take a full impression copying the ball accurately and use the Hader Round Analog (ref- 5011008) to prepare the stone model, or,
- B- Take a pick-up impression and prepare the stone model.

Available Kits



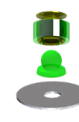
5013003
**Hader CX Lab
Starter Kit 003**



5012002
Hader CX 002
Metal housing and
plastic male for
incorporation into post
copings.



5012003
Hader CX 003
Plastic male for
incorporation into post
copings with duplicating
dummy.



5012022
Hader CX 022
Attachment kit with Hader
round female in TITANAX
and castable male.

3. Threaded Base Ring + Male

Also available for



To be used on copings, post-copings, and bar constructions. It allows the easy replacement of the male. It is available in IRAX for precious alloys and NOPRAX for non-precious alloys.

1. Laboratory instructions

1. Wax-up the post coping as low as possible and incorporate the base ring with the paralleling mandrel (ref- 5051047-1). IRAX (ref- 5011037-1) is for use with precious alloys and NOPRAX (ref- 5011038-1) with non-precious alloys.



2. Ensure all base rings are parallel to each other and that the occlusal surface is at a 90° angle to the path of insertion. Add wax all around the base ring. It is recommendable to limit the waxing just before the upper ledge of the metal ring (a few tenths of a mm), to prevent metal from flowing into the ring during processing.



3. It is advisable to confirm the correct position of the base rings. This can be done with the help of the diagnostic impression used as a matrix.



4. Invest and cast in the chosen alloy. Polish. Do not sandblast.

2. Chairside instructions

1. Try-in to ensure fit and cement following the recommendations of the manufacturer.
2. Thread the male impression tool (ref- 5011044) in the base ring and take the impression.
3. With the Hader CX 0.9mm driver (ref- 5011040-1), thread the Hader CX protection cap (ref- 5011039) to the post while the prosthesis is processed.



4. In the laboratory, thread the male (ref- 5011044) and female impression tool (ref- 5011043) and fit the assembly to the index in the impression to prepare the stone model.



5. When the prosthesis is ready, remove the protection cap and thread the Hader Ball Standard (ref- 5011010-1), or Long (ref- 5011011-1).



Available Kits

5012005
Hader CX 005
Axial attachment with
replaceable male and
female components.

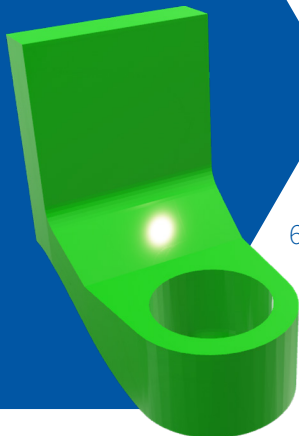


5012016
**Hader CX 016
CAD-CAM**
Axial attachment with
replaceable male and
female components.



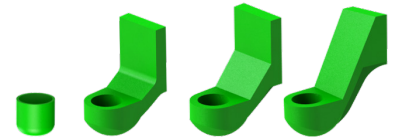
4. Hader CX Extracoronaral

Also available for



Hader CX Extracoronaral, a versatile and efficient solution for extracoronaral attachments with a periodontal-friendly design. Compatible with both traditional casting methods and modern CAD-CAM techniques, the Hader CX Extracoronaral offers multiple options for the male components, including bonding, casting, and threading. This provides a flexible and adaptable solution to meet your specific needs.

The set of plastic male keeper patterns (ref- 5011041-1) includes four angles: 0°, 30°, 45°, and 60°. These patterns are also available in our Digital Library for CAD-CAM.



1. Laboratory instructions

1. Determine the path of insertion of the prosthesis, and choose the appropriate male keeper angle.

For Casting



1 PCS 5011027-1
30 PCS 5011027-30

Cast in hard alloys.
Ball height: 2.05mm - Ø: 2.25mm

2. Press the Castable Male (ref- 5011027-1) into the cavity of the male keeper and use the Hader CX Male Paralleling Mandrel (ref- 5011034-1) to position the male into the wax-up. Ensure keeping the papilla free and maintaining a passive contact with the alveolar ridge.



4. Reinforce the wax-up in lingual, Invest, burn out and cast in a hard alloy.
6. Use the Hader CX Cup Bur (ref- 5011018-1) to finish the sphere. Polish.

For Bonding



5011025-1

Male in TITANAX
Ball height: 2.05mm - Ø: 2.25mm

2. Use the Hader RX M2 Paralleling Mandrel Profile (ref- 5051048-1) to position the male keeper into the wax-up. Keep the papilla free and in passive contact with the alveolar ridge.
3. Reinforce the wax-up in lingual.

4. Invest in two stages. First the cavity of the male keeper, then sprue the crowns and complete the investing.
5. Burn-out, cast in a hard alloy and sandblast ensuring not to damage the cavity for the male.

Bond the male

6. Apply Site B (ref- 1041020-1) in the cavity. Use the Hader CX male paralleling mandrel (ref- 5011034-1) to insert the Hader CX Titanax Male (ref- 5011025-1) and hold it in place for 5 to 10 minutes. Clean any excess



For Threading



Standard 2.8mm. 5011010-1
Long 3.1mm. 5011011-1

Base in TITANAX M2 threading. H: 1.9mm - Ø: 2.3mm. 5011042-1

2. Use the Hader RX M2 Paralleling Mandrel Profile (ref- 5051048-1) to position the male keeper into the wax-up. Keep the papilla free and in passive contact with the alveolar ridge.
3. Reinforce the wax-up in lingual.

4. Invest in two stages. First the cavity of the male keeper, then sprue the crowns and complete the investing.
5. Burn-out, cast in a hard alloy and sandblast ensuring not to damage the cavity for the male.

Bond the base and thread the male

6. Apply Site B (ref- 1041020-1) in the cavity. Use the Hader RX M2 Paralleling Mandrel (ref- 5051047-1) to insert the Base (ref- 5011042-1) and hold it in place for 5 to 10 minutes. Clean any excess.



7. Use the 0.9mm driver (ref- 5011040-1) to thread the Male Standard (ref- 5011010-1), or Long (ref- 5011011-1).

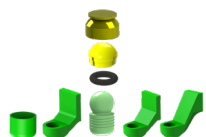
2. Chairside instructions

Cementation and Impression

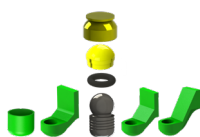
1. Try-in the construction and ensure it fits. Take a pick-up impression and send back to the lab.
2. Once the attachment is back, cement according to the recommendations of the cement manufacturer. Clean any excess of bonding material.



Available Kits



5012010
Hader CX 010
With castable male and housing in TITANAX



5012006
Hader CX 006
5012017
Hader CX 017 CAD-CAM
With housing in TITANAX



5012008
Hader CX 008
5012019
Hader CX 019 CAD-CAM
With housing in TITANAX



5012011
Hader CX 011
With castable male and duplicating dummy



5012007
Hader CX 007
5012018
Hader CX 018 CAD-CAM
With duplicating dummy



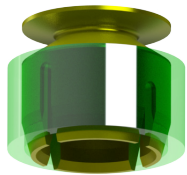
5012009
Hader CX 009
5012020
Hader CX 020 CAD-CAM
With duplicating dummy

Manufacturing / Placement of female components

1. Metal Housing

Choose between the adjustable retention Hader Round Female Component and the Hader CX Metal Housing that works together with the plastic inserts.

Hader Round Female Component



| | |
|-----------------------|------------|
| ORAX 1 PCS | 5011003-1 |
| ORAX 20 PCS | 5011003-20 |
| TITANAX 1 PCS | 5011005-1 |
| TITANAX 20 PCS | 5011005-20 |

Adjustable female with retention for acrylic resin.
In Orax for precious materials or Titanium for non-precious materials.
H: 2.8 mm - Ø 3.0 mm

Use the Hader CX Activation Tool (ref-5011012-1) to tighten the housing segments and increase retention



Use the Hader CX Deactivating Tool (ref-5011013-1) to spread the housing segments and decrease retention



Hader CX Metal Housing



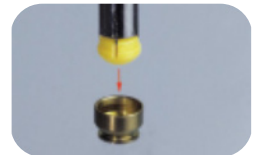
| | |
|---------------|------------|
| 6 PCS | 5011022-6 |
| 30 PCS | 5011022-30 |

In TITANAX for inclusion into acrylic resin.
H: 2.65 mm - Ø 4.0 mm

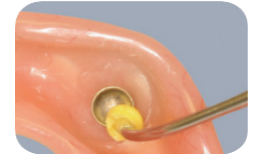
Choose between three levels of retention:
(ref- 5011019) – Yellow for standard retention
(ref- 5011020) – White for reduced retention
(ref- 5011021) – Red for increased retention



Use the Hader CX Insertion Tool (ref- 5011014-1) to insert the plastic element into the metal housing by placing it on a flat surface and pressing down firmly.



To replace a plastic insert, use a hot or sharp instrument to remove it from the housing and repeat the previous step to insert a new one.



2. New Acrylic Resin Denture

Follow this instructions for processing a Hader CX Housing into a new acrylic resin denture.

1. Laboratory instructions

For Hader CX Post&Ball, castable males or Titanax males:

Use the Hader Round Model Analog (ref- 5011008) by inserting it in the index created by the male in the impression. Pour the master model.



1. Produce the master model

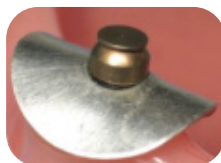


For cases with threadable males:

Thread the male (ref- 5011044) and female (ref- 5011043) impression tool together and insert them in the index in the impression. Pour the master model. Remove the male impression tool. The analogue will stay in the master model. Use the Hader CX 0.9mm driver (ref- 5011040-1) to thread the Hader Threaded Male Ball Standard (ref- 5011010-1), or Long (ref- 5011011-1), to the analog.



2. Place the Hader O'Ring space maintainer (ref- 5011024) and the Hader round tin spacer (ref- 5011036-1) over the male and adjust to the shape.
3. Use the Hader CX Insertion Tool (ref- 5011014-1) to insert the plastic female into the metal housing (ref- 5011022) and click this assemble to the male.



4. The Hader CX metal housing and round female component can correct misalignments of up to 30° for each abutment. Use the Hader female paralleling mandrel to ensure the housings are parallel to each other and in 90° angle insertion path.



5. Protect the inside of the housing with a small amount of Vaseline, place the wax denture over the model and invest.
6. Process the acrylic denture, finish, and polish accordingly.

7. Remove and discard both space maintainers and ensure the retention is appropriate. The plastic insert can be replaced if necessary.



3. Existing Acrylic Resin Denture

Follow this instructions to transform an existing denture to receive a Hader CX housing. This procedure can be done in the laboratory (indirect method) or chairside (direct method)

Indirect Method

1. Laboratory instructions

For Hader CX Post&Ball, castable males or Titanax males:

Use the Hader Round Model Analog (ref- 5011008) by inserting it in the index created by the male in the impression. Pour the master model.



1. Produce the master model



2. Relieve the denture that will receive the Hader CX Housing and create vents to permit any excess of fluid acrylic to escape to the lingual side of the denture.



5. The Hader CX metal housing and round female component can correct misalignments of up to 30° for each abutment. Use the Hader female paralleling mandrel to ensure the housings are parallel to each other and in 90° angle insertion path.



7. Let the acrylic set according to the recommendations of the manufacturer. Remove any excess of acrylic. Finish and polish.

For cases with threadable males:

Thread the male (ref- 5011044) and female (ref- 5011043) impression tool together and insert them in the index in the impression. Pour the master model. Remove the male impression tool. The analogue will stay in the master model. Use the Hader CX 0.9mm driver (ref- 5011040-1) to thread the Hader Threaded Male Ball Standard (ref- 5011010-1), or Long (ref- 5011011-1), to the analog.



3. Place the Hader O'Ring space maintainer (ref- 5011024) and the Hader round tin spacer (ref- 5011036-1) over the male and adjust to the shape.

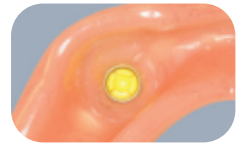


4. Use the Hader CX Insertion Tool (ref- 5011014-1) to insert the plastic female into the metal housing (ref- 5011022) and click this assemble to the male.



6. Protect the inside of the housing with a small amount of Vaseline, add acrylic resin to the relieves in the denture and place over the model.

8. Remove and discard both space maintainers and ensure the retention is appropriate. The plastic insert can be replaced if necessary.



Direct Method

1. Chairside instructions

1. Relieve the denture that will receive the Hader CX Housing and create vents to permit any excess of fluid acrylic to escape to the lingual side of the denture.

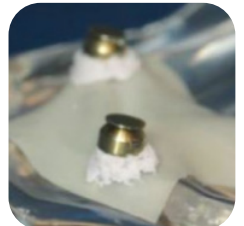


5. The Hader CX metal housing and round female component can correct misalignments of up to 30° for each abutment. In the mouth, the housings can be rotated with any flat instrument like a tongue depressor.



7. Let the acrylic set according to the recommendations of the manufacturer. Remove any excess of acrylic. Finish and polish.

2. Place the Hader O'Ring space maintainer over the male in the mouth (ref- 5011024) and a rubber dam over the ball and surrounding areas.



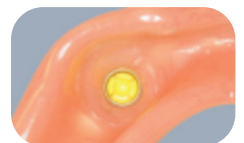
3. Use the Hader CX Insertion Tool (ref- 5011014-1) to insert the plastic female into the metal housing (ref- 5011022) and click this assemble to the male.

4. Block any undercuts.

6. Add cold cure acrylic resin to the relieves in the denture and seat in place.



8. Remove and discard both space maintainers and ensure the retention is appropriate. The plastic insert can be replaced if necessary.



4. Partial Metal Frames

Hader CX is a great option for partial dentures and it gives the flexibility to add a metal housing into the frame (female in housing method) or to use the duplicating dummy for inclusion of the plastic insert directly into the frame (female in frame method)

Female in housing

1. Laboratory instructions

1. Prepare the work model for duplication by applying wax under the attachment to block undercuts. The wax must be applied parallel to the male keeper.

2. Produce a refractory model and surround the replica of the male keeper with a sleeve of wax up to the upper edge, that connects to the metal frame.



6. Place the Hader O'Ring space maintainer over the male (ref- 5011024).

7. Seat the metal frame in place and use the Hader CX Insertion Tool (ref- 5011014-1) to insert the plastic female into the metal housing (ref- 5011022) and click this assemble to the male.



3. Cast and finish the metal frame.

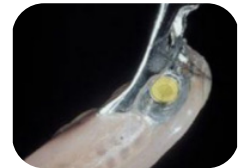
4. Send for try-in and new pick-up impression.

5. Include the Hader Round Model Analog (5011008) in the new work model.



8. Protect the inside of the housing with a small amount of Vaseline and process the acrylic resin according to the recommendations of the manufacturer. Finish and polish.

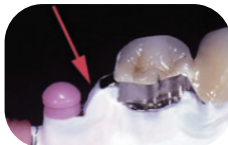
9. Remove and discard the space maintainer. Ensure the retention is appropriate. The plastic insert can be replaced if necessary.



Female in frame

1. Laboratory instructions

1. Prepare the work model for duplication by applying wax under the attachment to block undercuts, parallel to the male keeper.

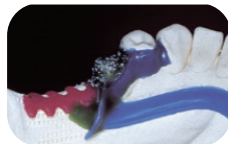


2. Apply a thin coat of wax to the angled arm of the male keeper and seat the Hader CX Duplicating Dummy (ref- 5011023) on the male. Do not use an O'Ring space maintainer.

3. Produce a refractory model. The duplicating dummy must be accurately reproduced.



4. Surround the replica of the male keeper with a sleeve of wax and connect it to the wax structure of the frame.

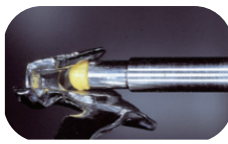


5. Cast and finish the metal frame. Sandblast carefully without altering the cavity for the female. Polish the access to the cavity to a high shine.



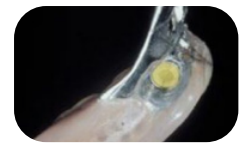
6. Use the Hader CX Insertion Tool (ref- 5011014-1) to insert the plastic female into the cavity in the frame.

7. Place the Hader O'Ring space maintainer over the male (ref- 5011024) and Seat the metal frame in place.



8. Process the acrylic resin according to the recommendations of the manufacturer. Finish and polish.

9. Remove and discard the space maintainer. Ensure the retention is appropriate. The plastic insert can be replaced if necessary.



Relining

1. Chairside instructions

1. Apply soft wax under the attachments in the mouth to block them out.

2. Place the O'Ring space maintainer (ref- 5011024) over the male in the mouth.

3. Apply a small amount of self-curing acrylic in the retromolar pad area of the prosthesis to create a stop.

4. Seat the prosthesis and bring the patient jaws to centric relation while the acrylic cures.

5. Prepare the impression material, apply it to the prosthesis and take impression ensuring that the attachments snap in correctly.

1. Laboratory instructions

1. Clean the female from any impression material.

2. Place the Hader Round Model Analog (ref- 5011008) or an assembly of the Female Impression Tool (ref- 5011043) and the CX Threadable Male Ball (ref- 5011010-1 and ref- 5011011-1) into the females.

If using the assembly of female impression tool and threadable male, wax-up the space between the impression tool and the metal sleeve.

3. Pour the model and place the O'Ring space maintainer (ref- 5011024) over the males and reline as usual.

4. Finish and polish. Replace the plastic insert if necessary.

General Recommendations

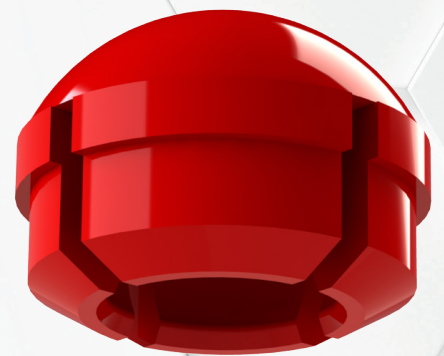
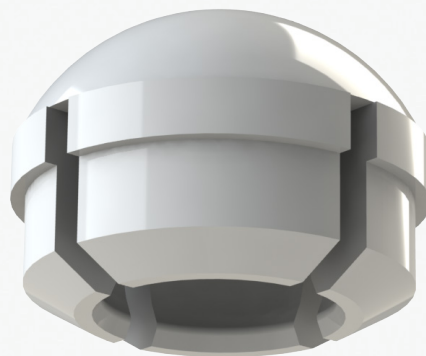
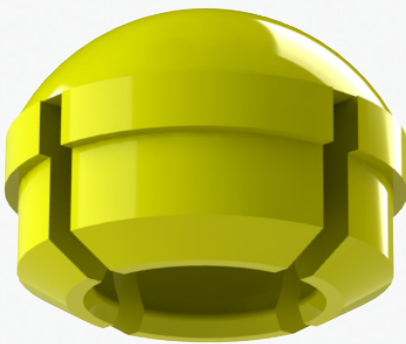
- Any element which is visibly altered or damaged (corrosion, breakage, cracks) must be immediately disposed.
- Products made from plastic through injection moulding may exhibit a slight change in coloration, but this does not affect their quality or characteristics.
- The plastic inserts might wear after prolonged use, and it will be necessary to replace them regularly (max every 5 years) to maintain sufficient retention force.
- When replacing a plastic insert, all the elements, as well as the maintenance of the sealed parts, must be checked.
- Drills must be carefully manipulated. Follow the cleaning and using instructions in this document.

Use them at slow speeds with appropriate irrigation. We recommend extending the preparation to 2/3 of the canal.

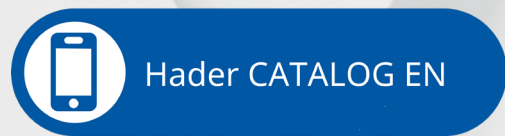
Before reprocessing, visually check the drills and ensure that there are no signs of breakage or damage, the integrity of the markings and colour codes is intact, the cutting surface is not damaged and there are no signs of corrosion. Dispose immediately otherwise.

Alloys and Materials

- IRAX: Au 60 - Pt 24 - Pd 15 - Ir 1 / Melting range: 1400-1460 °C
- NOPRAX: White - Cr 28 - Co (balance) - Mo 6 - others: Si, Mn / Melting range: 1355-1450 °C
- ORAX: Yellow - Au 67 - Ag 13.5 - Pt 8.5 - Cu 10.8 - Zn 0.2 / Melting range: 910-995 °C / Heat treatment: 60 min at 400 °C
- TITANAX: White - Ti 90 - Al 6 - V 4 / Melting range: 1663-1682 °C
- POLYACETAL: Plastic Inserts



Visit our website at www.hader.eu or simply **scan the QR code** to download our comprehensive product catalogue. Inside, you'll find a wide array of attachment systems, instruments, and innovative solutions designed for dentists and dental laboratories. Explore our offerings and discover how we can support your practice with high-quality, reliable products.



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