HADER SOLUTIONS

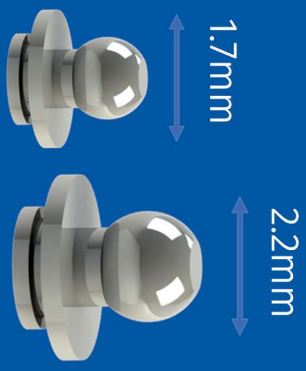
Hader SX

USER GUIDE

Swiss Made

www.hader.eu

Hader SX. The solution for compromised space.



COMPACT DESIGN

Hader SX features two ultra-small male sizes, offering a standard option of 2.2mm and an extra-small alternative of only 1.7mm. Its compact design ensures seamless integration into prosthetic restorations while maintaining optimal retention and aesthetics.

THREE RETENTION LEVELS

Hader SX ensures easy maintenance with user-friendly replaceable inserts. It features three retention levels: yellow for standard, white for reduced, and red for increased retention. It provides a tailored solution for each case while ensuring long-term stability and reliability.

VERSATILITY

Hader SX offers exceptional versatility, making it suitable for use as both an extracoronal attachment and in bar constructions. With a range of prefabricated components for casting, cast-on, and threading, it allows dental professionals to select the most adaptable configuration for each case, ensuring a precise fit and long-lasting performance.

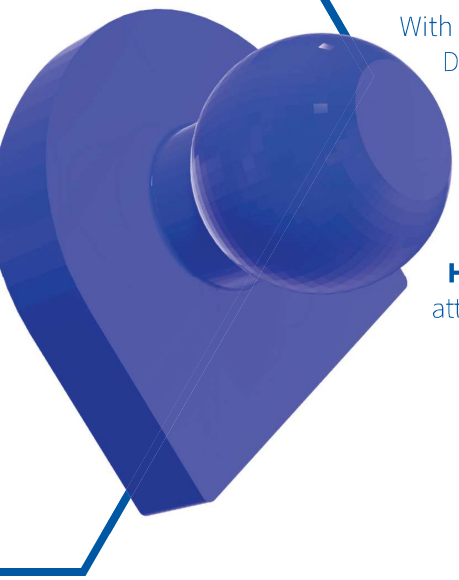
AESTHETIC EXCELLENCE

Designed to provide the most aesthetic solution, Hader SX remains discreet while delivering exceptional retention. Whether used as an extracoronal attachment or for bar constructions, it ensures seamless integration with the prosthesis, enhancing the final result.

SMALL HOUSING

The female component requires minimal space, offering two options: use the prefabricated housing, available in standard and extra-small sizes, or create the space directly in the metal frame with our duplicating dummy. This second option ensures the smallest footprint in the denture, requiring only Ø 4.2mm for the standard version and Ø 3.1mm for the extra-small version, while maintaining great retention.

Hader SX Combine precision, versatility, and CAD-CAM integration. Designed for compromised spaces, it features ultra-small male sizes while maintaining optimal retention and aesthetics. With its advanced digital adaptability, **Hader SX** ensures smooth integration into modern CAD workflows, allowing for effortless design and fabrication in both extracoronal applications and bar constructions.



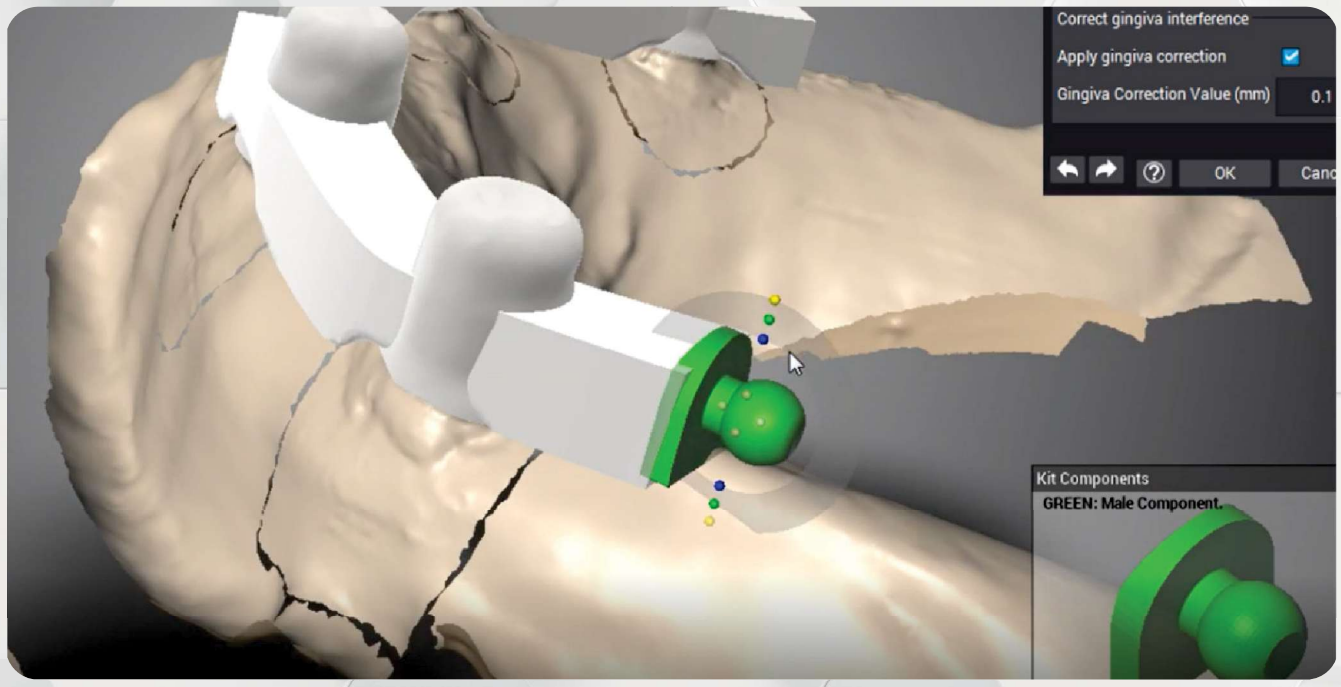
With carefully designed CAD-CAM kits and a Digital Library offering high-quality digital files, **Hader SX** is ideal for digital workflows, ensuring efficiency and accuracy in design. It provides a seamless solution for digital manufacturing, streamlining production and guaranteeing precision-fit restorations. **Hader SX** represents the next generation of attachment solutions.

Swiss Made

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!

HADER SOLUTIONS

Manufacturing / Placement of male components

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

1. Hader SX Extracoronal

Hader SX offers an efficient solution for sagittal attachments in cases with limited space. Available in two compact sizes: 1.7 mm and 2.2 mm, it provides flexibility and precision. Choose between a plastic male for traditional casting or a prefabricated NOPRAX male for the cast-on technique, offering versatility and ease of use for the dental technician.

1. Laboratory instructions

1- Choose the plastic or prefabricated male size. We recommend selecting the 2.2 mm option when space permits.
2- Wax up the crowns, making sure to create space to fit the plate of the male.
3- Determine the path of insertion of the prothesis and use the paralleling mandrel (5031003) to incorporate the male to the wax up. Place the male as gingival as possible while leaving enough space for cleaning, and for NOPRAX males, make sure to fully incorporate the back plate to the wax-up.
4- Remove the paralleling mandrel and prepare for investing.
5- Plastic males: Cast in a hard alloy. Sandblast carefully ensuring not to damage the male.
NOPRAX males: Cast in a non-precious alloy. Finish and polish carefully to avoid altering the dimensions of the male

Plastic castable male

SX 1.7:	6 PCS	5031008-6
	30 PCS	5031008-30
SX 2.2:	6 PCS	5031017-6
	30 PCS	5031017-30

Cast in hard alloys.
SX 1.7: Base Ø: 3 mm - Ball Ø: 1.7 mm
SX 2.2: Base Ø: 4 mm - Ball Ø: 2.2 mm

NOPRAX male

SX 1.7:	6 PCS	5031008-6
	30 PCS	5031008-30
SX 2.2:	6 PCS	5031017-6
	30 PCS	5031017-30

Cast-on with non-precious alloys.
SX 1.7: Base Ø: 2.8 mm - Ball Ø: 1.7mm
SX 2.2: Base Ø: 3.8 mm - Ball Ø: 2.2mm

2. Chairside instructions

1- Try the construction in the mouth and ensure fit. 2- Take a pick-up impression and send back to the laboratory.
3- When the final prothesis is received. Cement the crowns according to the recommendations of the bonding agent manufacturer. Clean any excess of bonding material.

1. Hader SX on a Bar

Hader SX can also be incorporated into a bar construction. The threaded base rings are available exclusively in the 2.2 mm size, in IRAX (ref- 5011037) for use with precious alloys, and NOPRAX (ref- 5011038) for use with non-precious alloys.

Threaded base ring

IRAX	5011037-1
NOPRAX	5011038-1

H: 1.3 mm - Ø: 3.4 mm - M2

NOPRAX Threaded Male

5031019-1
Ball Ø: 2.2 mm - M2

Universal Threaded Ball

5031023-1
Ball Ø: 2.2 mm - M2
Base: Ø: 3.6 mm

1. Laboratory instructions

1- Wax-up the bar construction and prepare a straight hole in the bar where the male will be inserted. Use a milling device or a surveyor.
2- With the screwdriver (ref- 5011040), assemble the threaded male (ref- 5031019 or ref- 5031023-1) with the base ring. Choose the IRAX base ring (ref- 5011037) for precious alloys, and the NOPRAX base ring (ref- 5011038) for non-precious alloys.
3- Use the paralleling mandrel (ref- 5031003) to incorporate the assembly to the wax up.
4- Remove the threaded male with the screwdriver (ref- 5011040) and prepare the bar for a two-phase investing. Make sure to completely fill up the internal threads of the base ring with investing material.
5- Cast and finish. Sandblast carefully to avoid damaging the internal threads of the ring. Finish and polish.
6- Thread the male into the base ring with the screwdriver (ref- 5011040).

2. Chairside instructions

1- Try-in the bar construction and return to the laboratory for processing the prothesis.

Manufacturing / Placement of female components

1. New Construction

1. Laboratory instructions

Female in frame

Instructions to manufacture a prosthesis using Hader SX females in a custom-made metal framework.

1- Pour a model from the pick-up impression.
2- Place a duplicating dummy over each male and make sure they are parallel to each other. Choose the dummy that matches the size of the male, 1.7mm (ref- 5031007) or 2.2mm (ref- 5031016).

3- Block all undercuts with wax and pour a refractory model.
4- Wax-up the framework. Cast and sandblast carefully to avoid damaging the space for the female. We recommend using glass beads for this purpose. Polish thoroughly.

5- Insert the dummy inside the space in the metal frame with the Hader SX insertion tool (ref- 5031010) and process the acrylic resin.
6- Finish and polish the prothesis.

7- Replace the processing dummy for the appropriate plastic insert. We recommend using the yellow one for standard retention: 1.7mm (ref- 5031004), 2.2mm (ref- 5031013), for new prothesis.

Female in housing

Instructions to manufacture a prosthesis using Hader SX females into the prefabricated housing. The Hader SX metal housing is available in 1.7mm (ref- 5031011) and 2.2mm (ref- 5031021).

1- After a pick-up impression is received, use the Hader SX insertion tool (ref- 5031010) to insert a processing dummy into the housing. Choose the dummy that matches the size of the housing, 1.7mm (ref- 5031007) or 2.2mm (ref- 5031016).
2- Seat the previous assembly on each male ensuring they are parallel. Block any undercuts and prepare for duplication.
3- Wax-up the framework. Leave enough space to incorporate the housing into acrylic resin. The housing can also be laser welded.
4- Cast and finish the framework. Send for try-in.
5- Place the framework and the assembly of housing and male in the model and process the acrylic resin following the recommendations of the manufacturer.
6- Finish and polish the prothesis.
7- Replace the processing dummy for the appropriate insert. We recommend using the yellow one for standard retention: 1.7mm (ref- 5031004), 2.2mm (ref- 5031013).

2. Chairside instructions

1- Try-in and ensure the retention is optimal. If necessary, adapt the retention by replacing the female insert.

2. Existing Attachment

Instructions to manufacture and service a prothesis over existing Hader SX attachments.

New denture

1- Identify the size of the male and place the appropriate Hader SX analog in the impression, 1.7mm (ref- 5031012) or 2.2mm (ref- 5031022).
2- Pour the stone model
3- Continue with steps 2 to 7 of “female in housing” or “female in frame” sections.

Replacing females

Choose between three levels of retention and two sizes:
Yellow for standard retention: 1.7mm (ref- 5031004), 2.2mm (ref- 5031013)
White for reduced retention: 1.7mm (ref- 5031005), 2.2mm (ref- 5031014)
Red for increased retention: 1.7mm (ref- 5031006), 2.2mm (ref- 5031015)

1- Remove the plastic insert to replace with a pointed instrument.
2- Insert the new plastic inserts with the Hader SX insertion tool (ref- 5031010).
3- Seat the prothesis and ensure the fit is correct and the retention is appropriate.

Relining

1. Chairside instructions

1- Apply soft wax under the attachments in the mouth to block them out.
2- In prothesis of distal end, apply a small amount of self-curing acrylic in the retromolar pad area to create a stop.
3-Seat the prothesis and bring the patient jaws to centric relation while the acrylic cures.
4- Prepare the impression material, apply it to the prothesis and take impression ensuring that the attachments snap in correctly.

2. Laboratory instructions

1- Clean the female from any impression material.
2- Place the Hader SX analog 1.7mm (ref- 5031012) or 2.2mm (ref- 5031022) into the female in the prothesis. Protect with wax any sensible area around the female.
4- Pour the model as usual. It is recommended to use a reline jig or flask.
5- Reline ensuring that the acrylic does not flow into the attachments area.
6- Finish and polish. Replace the plastic inserts if necessary.

Available Kits

5033001
Hader SX Starter Kit Plastic Male
Starter kit with all the tools and female inserts 1.7 and 2.2 in all colours. With plastic males.

5033002
Hader SX Starter Kit Cast-to Metal Male
Starter kit with all the tools and female inserts 1.7 and 2.2 in all colours. With NOPRAX males.

Hader SX Complete Plastic with Housing
1.7 - 5032001
2.2 - 5032003

Hader SX Complete Plastic
1.7 - 5032002
2.2 - 5032004

Hader SX Complete Metal with Housing
1.7 - 5032005
2.2 - 5032007

Hader SX Complete Metal
1.7 - 5032006
2.2 - 5032008

Hader SX 2.2 Complete CAD-CAM
2.2 - 5032012

Hader SX 2.2 Complete with Housing CAD-CAM
2.2 - 5032011

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.
- Handle with care to avoid aspiration or ingestion by the patient.

Alloys and Materials

- TITANAX: White - Ti 90 - Al 6 - V 4 / Melting range: 1663-1682 °C
- NOPRAX: White - Cr 28 - Co (balance) - Mo 6 - others: Si, Mn / Melting range: 1355-1450 °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.

HADER SOLUTIONS

Hader CATALOG EN

Swiss Made

HADER SOLUTIONS

HADER
SOLUTIONS

Hader Solutions & Distribution LTD.
Unit 9, 70 Applewood Main St.
Applewood, Swords
CO. Dublin, K67 V4H1
Ireland