

# The Coupler™

*An improved method of attaching a prosthetic socket to an endoskeletal system.*

The Coupler features a unique combination of shape, material and feature benefits previously unavailable to prosthetists. It saves time and creates a more secure attachment. The Coupler is also compatible with most endo systems.

Three distinct designs are available: **Plate**, **Conical Block**, and **Post-OP**.

Contact Becker Orthopedic today to get more information about The Coupler.



## Plate

Model P403000

The plate model has deep undercuts and knurls, which are designed to eliminate the need to draw thermoplastic under the plate for most test sockets. This prevents compression of the plastic between two metal surfaces and the subsequent loosening of the socket. The Coupler's conical pocket significantly decreases build height as it contours better to the model than flat attachment plates.



## Conical Block

Model P403005

This model is designed for use with wet laminations and incorporates all the advantages of the plate plus molded urethane on the conical surface. The cone aids in the alignment and location of the Coupler on the residual limb model. In many cases, the need for filler is eliminated.



## Post-OP

Model P403010

The Post-Op model consists of the basic plate and includes contoured stainless steel attachment straps. Grooves prevent the straps from shifting. This design decreases the weight and bulk of previous Post-Op designs.



# The Coupler Directions & Use

## Plate Model P403000

### Method 1 - Distal End Up

1. The modified cast is secured in a vise or fixture, distal end up.
2. The Coupler is then placed onto the distal end of the model in the proper alignment. Since the Coupler has a conical indentation, this placement is usually easy and self-centering.
3. The Coupler can be held in place either by applying wet plaster or fitting gel to the conical pocket, or by nailing it to the model. Nailing requires the drilling of a small hole through the center of the plate. When the plaster begins to set, it can be smoothed and contoured as desired.
4. The plastic for the socket is then applied over the cast/Coupler under vacuum.

### Method 2 - Distal End Down: Duplicating Alignment

1. Secure modified cast to vertical alignment jig (VAJ), distal end down.
2. Attach the Coupler to the top of the preferred endoskeletal system.
3. Secure endoskeletal system to foot plate of VAJ.
4. Establish proper alignment.
5. Pour plaster into the conical pocket and lower the cast to contact the plaster, allowing the plaster to squeeze out. When plaster begins to set, it can be smoothed and contoured as desired. Alternatively, one may use fitting gel in place of the plaster.
6. After the plaster has set up, remove the 6 mm screws which held the Coupler to the endo system. The cast/Coupler is now ready for application of the plastic per usual method, under vacuum. **NOTE: The Coupler has generous undercuts and knurls. If a rigid thermoform plastic, such as PETG is used, it is not necessary to have the plastic drawn under the plate; the plastic can be trimmed flush with the distal surface of the plate. Low rigidity material, such as Surlyn, should be drawn under the plate and should not be used for non-test socket applications.**

## Conical Block Model P403005

Installation is similar to the Plate Model. This model is intended for use with wet laminations. The prosthetist can add urethane to the proximal urethane cone to improve cosmesis and contact between the Coupler and the model. **NOTE: Do not pull the inner PVA over the Coupler as resin must be allowed to flow into the knurls. Reinforce with carbon fiber straps and/or braid as appropriate for patient size and activity level.**

## Post-OP Model P403010

**NOTE: Install attachment straps before application.**

1. Place the end of the straps with the large hole into the provided grooves on the distal end of the plate. Line up the large hole of the strap with the 6 mm hole of the plate.
2. Apply any standard socket adapter over the attachment straps, lining up all the holes.
3. Secure assembly with the four 6 mm screws (provided). The straps are now securely clamped between metal components.
4. Apply initial pads and first layers of rigid casting material. This must extend further proximal to where the straps of the Post-Op Coupler will be located. This layer should be sufficiently thick to prevent straps from deforming material during loading. Allow to fully set.
5. Contour straps to match cast in alignment.
6. Apply a couple of layers of casting material to the distal end of the cast before aligning the Post-Op Coupler to the distal end of the cast.
7. Wrap in firmly, making sure to cinch in the knurled groove and extending as far proximal and as thick as necessary for the size/weight of the patient.

