

How to Modify a Push® MetaGrip® Thumb CMC Brace to Fit your Patient

TOOLS NEEDED



84922 Dremel® Grinding Tip



#12 curved Scalpel Blades



Fingertip Protectors



Dremel® Rotary Tool 15,000 - 35,000 RPMs
(NOTE: 100 Series only goes 35,000 RPMs)



Scalpel Handle



Heat Gun

ROLLING AN EDGE

Unlike low temperature thermoplastic materials, the MetaGrip cannot be heated and reformed. It is possible, however, to heat a small part of an edge and roll it: 1) edge at the base of the index finger 2) proximal-volar edge of thumbhole and 3) proximal edge at base of thumb.

- Remove straps temporarily from slits and keep away from heat. If heating near the metal insert, protect metal from heat.
- Direct heat to one localized edge, moving the MetaGrip over heat gun until heated.
- **CAUTION:** the heated area is too hot to manipulate with your fingers: USE protection on your fingertips.
- Push on the edge to roll it and HOLD it rolled until it cools.
- **NOTE:** If both cutting and rolling: Cut and finish before rolling.



ENLARGING THE THUMB HOLE

The thumb hole may be a bit tight or high for certain patients, indicating the thumb hole needs enlarging.

- Trim a small amount at a time from the inside of the thumb hole with a curved No. 12 scalpel blade to keep the edge smooth and curved; to just lower the thumb hole, concentrate trimming just at the bottom.
- Use this curved blade inside a curve but it will not be very useful on a straight or convex shape.
- Always use a hemostat to hold the blade as you attach and remove the blade from its handle. Used blades should be discarded in a sharps container or stored in a sturdy glass or plastic container with a screw top until appropriately disposed of.

TRIMMING & FINISHING AN EDGE

Trim the edge of the MetaGrip only if you cannot roll it enough.

- When you cut off an edge with scissors the cut edge is square with sharp corners; these edges must be rounded and smoothed to be comfortable.
- Use a rotary tool such as a Dremel with a No. 84922 Silicon Carbide Grind Wheel at the 15,000 RPM to smooth the edges; If you are experienced, you may be comfortable using the 35,000 RPM setting.
- Keep the tip constantly moving to slowly smooth the edges.

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CONTROLLING THE MP JOINT IN THE METAGRIP

Although fitting the MetaGrip will place the thumb CMC joint in the ideal position, some patients continue to hyperflex or hyperextend the MP joint when using the thumb. The goal is to assure a position of slight MP and IP joint flexion, so the thumb is in an arc when pinching.

For MP Joint Hyperflexion

- Mold a small piece of splinting material on the volar aspect of the thumb MP joint with the joint in slight flexion.
- Place the molded piece inside the thumb hole before placing the thumb in the MetaGrip.

For MP Joint Hyperextension

If the patient hyperextended the MP joint before wearing the MetaGrip, it may persist in the MetaGrip.

- Mold a dorsal block proximal and distal to the MP Joint when it is in slight flexion.
- Place the block inside the MetaGrip before inserting the thumb. The MetaGrip® holds the extension block in place.
- Use thin orthotic thermoplastic materials to minimize bulk



Videos of these modification techniques can be found on our website under “MetaGrip/Medical Professionals.”



(scroll down)



For your convenience, you may order directly from BraceLab

- **MetaGrip Modification Kit**
 - 1- Pkg. of 2: Dremel® Grinding Bits-84922
 - 3- Silicone Fingertip Protectors
 - 1- Pkg. of 10: #12 Curved Scaphel Blades
 - 1- Scaphel Handle
 - 1- Hemostat
 - 1- 8GB USB Drive with instructional videos & printable PDF instruction sheet
- **Dremel® Rotary Tool**
- **Pkg. of 2: 84922 Dremel® Grinding Bits**

