

HAND SPECIMEN HOLDER for Metallography and Histology Product Numbers: 813-755, 756, 757, 758



Figure 1: Hand Specimen Holder for Metallography and Histology

DESCRIPTION

The Hand Specimen Holder is used for manual sample preparation in metallography for embedded specimens. By using the Hand Specimen Holder, absolutely flat specimens can be achieved. While designed for 40mm diameter specimens, smaller specimen diameters can be processed with the corresponding 30 mm or 25 mm Inserts. The combination of the Hand Specimen Holder with the Insert "H" is used to create thin sections in histology. A defined removal rate can be preset using the scaling where one graduation line is equal to 0.02 mm.

USING THE HAND SPECIMEN HOLDER

1. Loosen the Set Ring and turn the Setting Ring forward until the Specimen Locking Screw appears in the Setting Ring hole.
2. Lock this position by turning the Set Ring against the Setting Ring.
3. Place the Hand Specimen Holder, ceramic ring down, on a flat surface. Place the section to be prepared into the Hand Specimen Holder so the surface to be prepared rests on the flat surface.
4. Press the Hand Specimen Holder and specimen onto the flat surface and clamp the specimen by tightening the Specimen Locking Screw (2.5 mm key not included).
5. Loosen the Set Ring and turn the Setting Ring back to the desired value by which the specimen should be ground. Lock the Setting Ring with the Set Ring.

Note: The Hand Specimen Holder is intended for manual use only. Do not use in an automatic grinder or on diamond discs. Do not grind without liquid (abrasive suspension, water, lubricant, etc.).

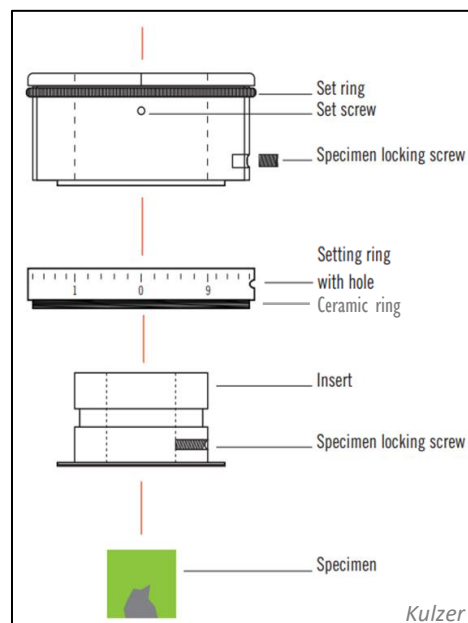


Figure 2: Installing the Specimen

INSTALLING INSERTS

1. Unscrew the Setting Ring from the Hand Specimen Holder, then unscrew the Specimen Locking Screw from the Hand Specimen Holder (2.5 mm hex key, not included) Figure 3a.
2. Turn the Set Ring back until the Set Screw located at the zero mark (under the set ring) becomes visible (Figure 3b). Back the Set Screw out 2 turns.

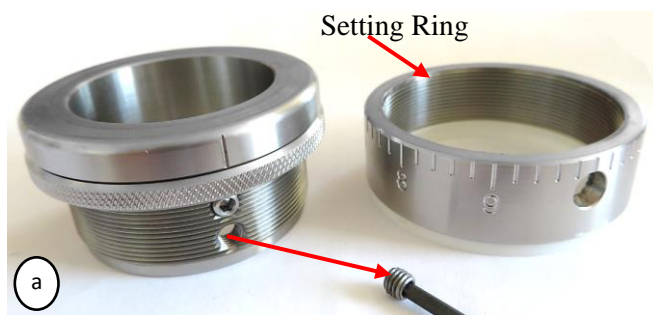


Figure 3: a) Remove Setting Ring and Specimen Locking Screw



(b) Set Screw at Zero Mark

3. Place Insert on a flat surface with the flange side down (Figure 4a).
4. Push the Insert into the Hand Specimen Holder from below aligning the locking screw holes in insert and holder (Figure 4b,c).



Figure 4: a) Insert with Specimen Locking Screw Hole shown; b) Slide Holder over Insert; c) Align Specimen Locking Screw holes in Insert and Holder

5. Retighten the Set Screw (top hole) to secure the insert to the Holder (Figure 5a).
6. Screw the Setting Ring back onto the Hand Specimen Holder until the Specimen Locking Screw hole is visible through the hole in the ring (Figure 5b).

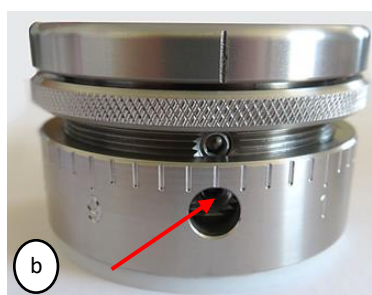
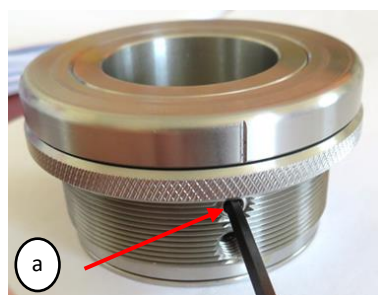


Figure 5: a) Tighten Set Screw onto Insert; b) Align Holes in Setting Ring and Specimen Holder

7. Orient the Specimen Holder with the ceramic ring down (on tabletop) Figure 6a.
8. Push the Specimen into the insert from above with the side to be ground facing down (Figure 6b).
9. Press down on the Specimen and Specimen Holder so the base of the Specimen and the base of the ceramic ring are both on the tabletop.
10. Hold the Specimen and Specimen Holder in this position and secure with the Specimen Locking Screw (Figure 6c).

NOTE: Be sure to keep the Specimen (not the insert sleeve) and ceramic ring planar.



Figure 6: Installing the Specimen: a) Specimen Holder on Tabletop, Ceramic Ring Down, Specimen Locking Screw Holes Aligned; b) Specimen Inserted, Side to be Ground Facing Down; c) Specimen Secured with Specimen Locking Screw

11. Turn the Setting Ring back to the desired value by which the Specimen should be ground (Figure 7a).
12. Hold the Specimen Holder and Setting Ring in place. Turn the Set Ring against the Setting Ring to lock this position (Figure 7b).

NOTE: Grinding depth and polish will work best for shallow depths.

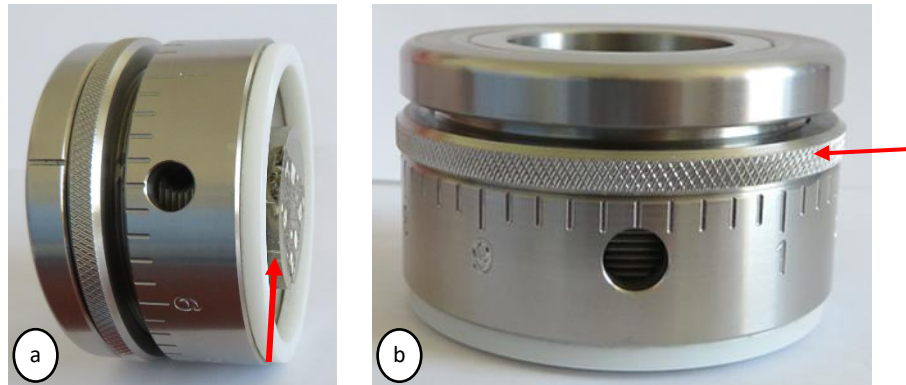


Figure 7: Setting Grinding Depth: a) Turn Setting Ring to Expose Desired Grinding Depth; b) Lock Setting Ring in Place with Set Ring

CLEANING AND MAINTENANCE

The Hand Specimen Holder should be cleaned after use and the threads re-greased if necessary. Dirt or abrasions between the threads can cause the Setting Ring to seize and render the Hand Specimen Holder unusable. Insert inserts carefully; do not tilt.

If the ceramic ring becomes worn and unserviceable, replacement is done by the manufacturer. Please contact sales@tedpella.com to request a quote.

PRODUCTS AVAILABLE

The table below lists hand specimen holder products available.

Part#	Description
813-755	Manual Specimen Holder M
813-756	Insert H for Manual Specimen Holder M
813-757	25 mm Insert for Manual Specimen Holder
813-758	30mm Insert for Manual Specimen Holder

SOURCE DOCUMENT

Hand Specimen Holder User Instructions, Kulzer Mitsui Chemicals Group
 Kulzer GmbH, Kulzer Technik, Leipziger Straße 2, 63450 Hanau, Germany
 Tel +49 (0)6181.9689-2574 o. 2571
 Fax +49 (0)6181.9689-3864
 Email: info@kulzer-technik.com
 Web: www.kulzer-technik.de