

How to Mount and Align a Sample on 150 Low Speed Saw

1. Using 1" Aluminum Plate for Cutting Small Samples (Fig.1)

- (1) Place the 1" Aluminum plate onto a Hot Plate and heat it to 70~90C. Glue Buffer Plate (graphite, ceramic or glass) to the aluminum plate by low melting point (70C~90C) wax (Fig. 1b)
- (2) Glue a sample to the buffer plate by low melting point (70C~90C) wax (Fig. 1c)
- (3) Put The sample mount kit (sample + buffer plate + aluminum plate) to the mounting groove(Fig 1d) on the cutting arm (Fig 1e)
- (4) The reference line may be created on the buffer plate before mounting sample (Fig. 1f) by diamond blade cutting , then glue sample along or parallel to the reference line to get more accurate cutting.

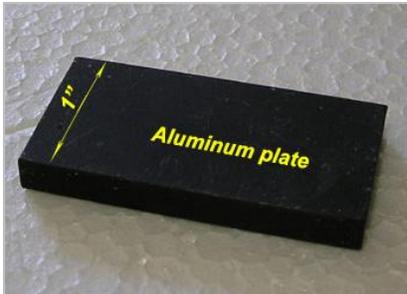


Fig. 1a

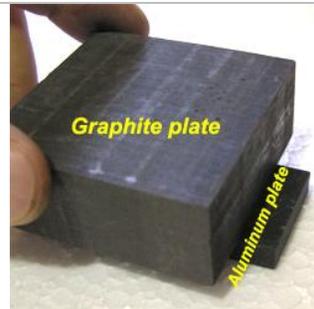


Fig. 1b

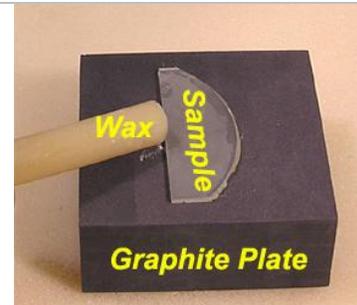


Fig. 1c



Fig. 1d



Fig. 1e

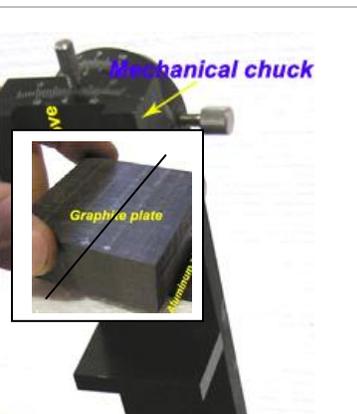


Fig. 1f

2. Using Cross Vise to cut sample with perfect 90° Angle (Fig 2)

- (1) 90° cross vise (P/N EC401) can be mounted to mechanical chuck in cutting arm (Fig 2b)
- (2) Similar to procedures above (Fig. 1a, b, and c), make sample holding kit with 1" aluminum plate, graphite plate and sample by epoxy and wax.
- (3) Then, slide the sample holding kit to mechanical chuck (Fig. 2c) and tighten all screws
- (4) After finishing several cuts in this direction, take off sample holding kit from cross vise, and mount it to another direct on the cross vise to make several cuts. Then, you get perfect 90° angle edge sample



Fig. 2a

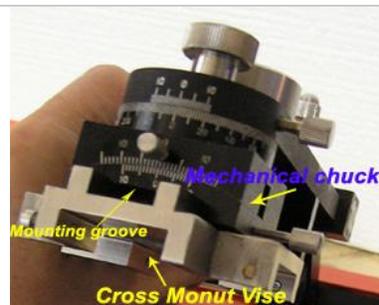


Fig. 2b

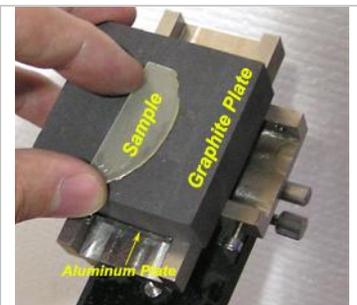


Fig. 2c

3. Using Mini Vise to cut rod up to 1" diameter (Fig. 3)

- (1) Optional mini vise (P/N LSS011) is used for cutting rod sample up to 1" diameter

- (2) Open the jaw of the vise for holding rod sample (Fig. 3b)
- (3) Mount rod sample into the vise and tighten it by a screw (Fig. 3c)

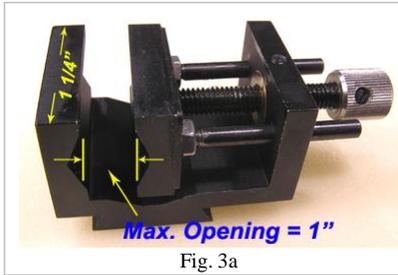


Fig. 3a

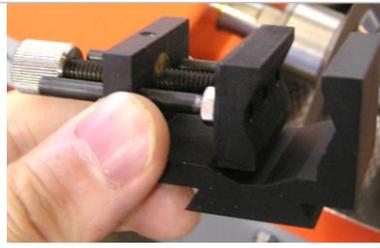


Fig. 3b

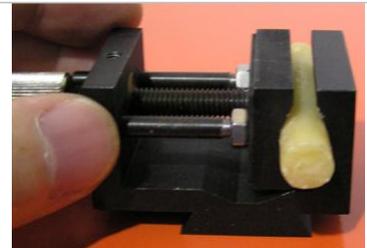


Fig. 3c

- (4) Slide the vise with sample into the groove of mechanical chuck on the cutting arm (Fig. 4a)
- (5) Then fix the vise on the chuck via a screw (Fig. 4b)
- (6) Before turning the mechanical chuck around please loose the screw on top of the cutting arm (Fig. 4c)

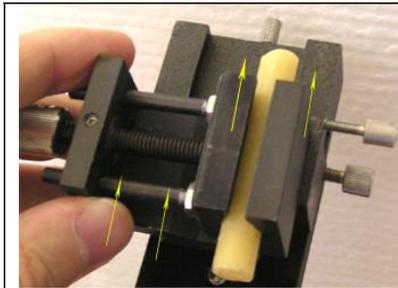


Fig. 4a

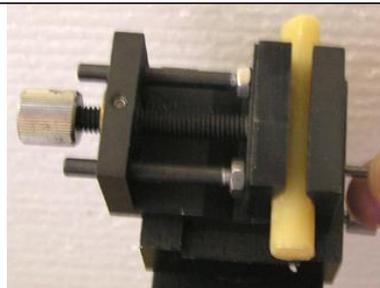


Fig. 4b



Fig. 4c

- (7) Before turning the mechanical chuck around please loose the screw on top of the cutting arm (Fig. 4c)
- (8) Turn the mechanical chuck with the vise to let the cutting sample perpendicular to the cutting blade (Fig. 5a and Fig. 5b), then tighten the screw as shown in Fig. 4c
- (9) Double check all screws to make sure everything is ready for cutting (Fig. 5c)

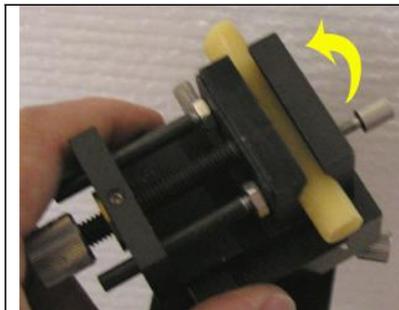


Fig. 5a

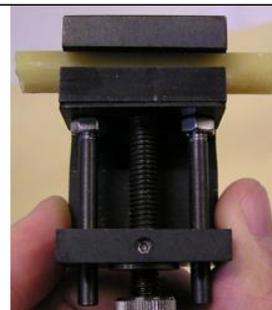


Fig. 5b

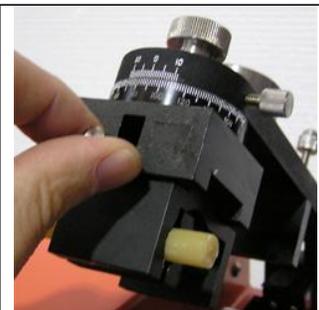


Fig. 5c

- (10) Gently put the sample down to the cutting blade after turning on the saw (Fig. 6a)
- (11) Please increase or decrease cutting speed gradually during operation

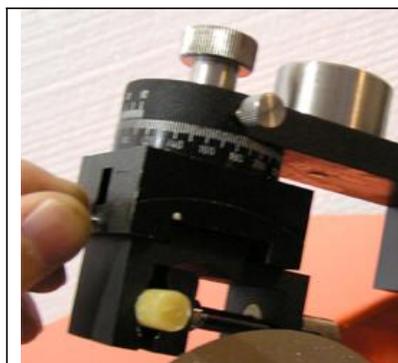


Fig. 6a

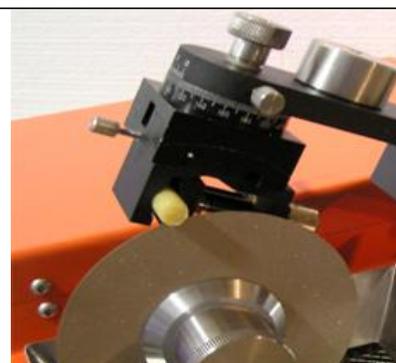


Fig. 6b

Just email us at info@mticrystal.com if any question.