LEITZ 2145 ROTARY MICROTOME - OPERATING PROCEDURE

I. Instrument Name: Leitz 2145 Rotary Microtome

II. Suggested Uses: Cutting thin sections of polymer materials to obtain uniform thicknesses.

III. Operating Procedure

A. Start-up

1. Activate by turning the toggle switch on the right rear of the instrument to the "ON" position.
2. Loosen or remove the sample chuck by turning in a counterclockwise direction. Place the embedded sample in the chuck and position it so that an adequate amount protrudes in the front of the sample chuck. Tighten.
3. Set the blade angle using the lever just to the lower right of the blade.
4. Position the blade holder by freeing the holder with the lever on the right side near the front of the instrument and sliding the holder forward or back to achieve a close proximity to the sample. It may be necessary to position the blade to the left or right also. This lever is on the lower left side of the blade holder.
5. Unlock the rotor using the lever on the right side of the instrument directly under the rotary arm and slowly lower sample holder until it is near the blade. Reposition the blade holder if necessary and lock into place.
6. Set the sample thickness by pressing the keypad to the desired numerical value. (3-5 µm recommended for paint samples embedded in epoxy or acrylate resin). The TRIM feature may be selected if the sample is deeply embedded in the medium and then the sample thickness may be set after the excess medium is removed.

B. Sectioning

1. Clean the blade by wiping very carefully with a Kimwipe and a suitable solvent.
2. Slowly turn the lever away from the operator and continue this direction through the sample.
3. Collect the thin sections as they are produced by carefully lifting them from the blade with a metal probe. Place the sections on a glass slide or other suitable container.

C. Shut-down procedure

1. Always leave the sample holder in its uppermost position. Lock rotor.
2. Clean the blade and close the safety rods directly over the blade.
3. Ensure that the blade holder is locked in position.
4. Turn the toggle switch to the "OFF" position.

D. Safety concerns

1. The blade is extremely sharp and is capable of slicing off a finger. Always keep the safety rods closed when setting up the instrument parameters and shutting down.
2. When the blade is in use take care to any avoid contact.
3. When cleaning the blade always wipe from the bottom of the blade to the top - very carefully.