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## ACRLIC MIRROR - CUTTING INSTRUCTIONS

### *Scribing And Breaking:*

This method is used to achieve a quick, straight line cut of single sheets of Plaskolite acrylic mirror less than 3mm thick. Mark the line to be scribed (scored) on the acrylic mirror with a commercial scriber. Firmly place a straight edge along the line and use it as a guideline for the scriber or knife. Scribe the mirror along the line using several firm, evenly pressured strokes. Then, overhand the end of the mirror off the work table. Break the acrylic mirror with sharp downward pressure,\*

### *Circular Table And Panel Saw Cutting:*

These saws are used to achieve a precise, straight line cut of one or more sheets of acrylic mirror. Because vibration is minimal, this method of cutting is recommended. The best way to avoid vibration and unwanted runout is to install a stiffener 1/2 to 2/3 the saw blade diameter and mount it against the outside of the blade. To prevent back cutting, the saw arbor, the saw table and the table fence must be properly aligned. Also, the throat plate (table kerf) must be kept to a minimum. A 10", 80 tooth carbide tipped blade is recommended for all-purpose cutting. The blade's teeth should be the triple-chip design, where every other tooth has a beveled cutting edge to help clear away saw chips,. For best results, the teeth should have a clearance angle of 10 to 15". **Material should be cut with masked side down.** Any paper interleaf should be kept intact between sheets to protect paint back coat during cutting. Use enough power to make the needed cuts, using a smooth and even feed rate. Uneven feed rates may produce gumming or chipping of the acrylic mirror.\*

### *Saber Saw Cutting:*

Saber saws are generally used for cuts involving a frequent change in direction. Maintaining adequate support is important to prevent vibration which may cause chipping. To achieve this, clamp a straight board on the sheet near the cutting line. This may also be used as a saw guide. Set the saw to full speed before cutting the acrylic mirror. Without feeding too fast, press the saw shoe firmly against the mirror while cutting." Blades for saber saws should have at least 14 teeth per inch.

### *Jig Saw Cutting:*

Jig saws should be used primarily for inside cuts and intricate letters. Since the stroke is short, the blade heats up quickly and tends to soften and fuse the acrylic mirror. To avoid this, use a fast and steady feed rate." Blades for jig saws should have at least 14 teeth per inch.

### *Band Saw Cutting:*

Band saws are used for cutting curved sections or trimming thermoformed parts." Blades for band saws should have at least 10 teeth per inch.

### *Laser Cutting:*

Lasers may be used to cut virtually any image on acrylic mirror with minimal material waste. The CO<sup>2</sup> laser operates by focusing a large amount of energy on a small defined area and melting and vaporizing the material. It produces a clean, polished edge without any saw chips. An average of 200 inches per minute may be accomplished by using about 200 watts from a 1200 watt laser. Annealing the sheet is recommended after cutting, especially when cementing is anticipated. Caution: lasers can create stresses along cut areas. Be sure to use a test piece before fabrication.

**\*CAUTION:** A cool air mist should be in contact with the blades of all cutting devices before and during penetration of the plastic.

All information is given in good faith, but it is strongly recommended to test your preferred cutting technique on test material first.