

## To Process Acrylic Products

Some points might to be noticed during processing, acrylic products.

### 1. CUTTING

Acrylic products could be cut easily on saw sable by tungsten saw blade. However, be aware that in the process of cutting heal would be generated by friction which could result cutting surface becoming inferiority. Below list is showing some status should be noticed during the process.

SAW BLADE CONDITION	CUTTING			
	MATERIAL	THICKNESS UNDER 10 mm	THICKNESS 10 - 50 mm	BUNDLE UNDER 50 mm
<b>DIAMETER</b>		8"	10"	12"
<b>THICKNESS</b>		1.4mm	2.0mm	2.6mm
<b>SAWTEETH</b>		100 T	120 T	120 T
<b>REVOLVING</b>		Above 3600 RPM	Above 3600 RPM	Above 3600 RPM
<b>CUTTING SPEED</b>		5 M/ MINUTE	5 M/ MINUTE	5 M/ MINUTE

REMARK: Above information is only for reference, doer should apply various machine characteristic to find out better effect

### 2. To Form By Heating

1. Acrylic tube & rod can be softened after heating and easily to bend or form to different shape.
2. Apply hot wind blowing type oven equipped with thermometer controller to heat products.
3. Before laying products on the plate to heat in the oven, one piece of cotton cloth should be used to cover the place or use silicon sheet as plate. This will avoid the surface of acrylic products to be damaged or scraped.
4. Do not crowd or pile up acrylic tubes or rods together to avoid products could be adhered during heating.
5. To have good result for processing, the temperature of healing should be kept around from 130°-150°C.
6. Once acrylic product is exposed in humid area too long lime and need for re-heating. Temperature for re-healing should be from 80°-90°C and last for 2- 3 hours. Without re-heating to get rid of humidity, your products will generate bubbles.
7. Product after healing will result some shrinkage. We control our product within 3% shrinkage. Therefore, before heating you must arrange some extra length.
8. Wood, aluminum, brass and silicon can be used to make mould for forming product shape, However, surface of mould must be polished smoothly to avoid acrylic product scraping.

### 3. Surface polishing

1. Extruded acrylic product itself is bright, no polishing is required.
2. Cutting face of acrylic product can be polished by wheeled-cloth.
3. To flame the cutting face also will result shining surface.

#### 4. Adhesion

1. Surface for adhesion must be cleaned before adhering.
2. Use (CHCl<sub>3</sub>) as bonding agent or instant adhesive agent or suggestion from bonding agent factory.

#### 5. DRILLING

- **Selection of drill**

Point angle 60° - 90° are suitable,

Lip relief angle 12° -15°

Helix angle 10° - 20°

- **Drilling Speed**

The speed to drill 100 diameter rod is 800 rpm. Smaller drill can drill faster. Otherwise the speed has to slow down.

- **Attention points**

1. Friction would generate heat in the process of drilling and causes drilling hole undesirable, in this case use low dissolve soap water as drilling agent or high pressure cold air to decrease the friction heat.
2. Drilling bits must be expelled, otherwise bits would affect the surface of drilled product.
3. Hole should be drilled gradually and many times. Avoid to drill only one time to get through to the bottem.
4. Drill must be inspected to make sure it is sharp before using. Make sure point angle, lip angle as well as helix angle are at proper positium.

- **To drill a good hole besides paying attention to the above few points, driller could always make proper adjustment. So drilling is no more a difficult task.**