

Post-processing includes cutting ARPRO parts, assembling ARPRO parts and screwing or thermo-bonding ARPRO parts with other materials.

Cutting	Cutting tips	Comments
Band saw (horizontal or vertical)	<ul style="list-style-type: none"> • Straight set saw blade with cutting speed of 800m/min. • Spray coolant on the surface of the spinning saw blade to reduce the temperature from friction. • Reduce speed for higher density ARPRO, in order to avoid welding and use a rough saw blade, to create a better surface. 	<ul style="list-style-type: none"> • Results in a rough surface
Hot wire	<ul style="list-style-type: none"> • A nickel-chromium wire at a speed of 0.5 - 2.0cm/s is recommended. • The lower the speed the higher the temperature, therefore adjustments are required to ensure the wire temperature does not get too high. 	<ul style="list-style-type: none"> • Hot wire has minimum diameter of 1mm
Welding	Comments	Equipment used
Hot plate	<ul style="list-style-type: none"> • Joint area density can be effected by the temperature and pressure applied during the welding process. 	<ul style="list-style-type: none"> • Commercial welding system
Hot air	<ul style="list-style-type: none"> • Ideally used for single parts or small series of parts. • Joint area density can be effected by the temperature and pressure applied during the welding process. 	<ul style="list-style-type: none"> • Industrial hot air blower
Gluing*	Comments	Example
Cyano- acrylate	<ul style="list-style-type: none"> • Surface treatment or use of a primer will improve adhesion strength. • Mono-component. • Curing time is between a few seconds to a few minutes depending on substrates, temperature, moisture and surface treatment etc. 	<ul style="list-style-type: none"> • 3M Scotch-Weld PR100 • 3M Scotch-Weld AC77 • Loctite SF 770
Amino- acrylate	<ul style="list-style-type: none"> • Two-component glue required. • Clean surface required. 	<ul style="list-style-type: none"> • Scotch-Weld DP-8005
Double face adhesive	<ul style="list-style-type: none"> • Difficult, as tape cannot penetrate the surface and create a strong bond. Therefore, a surface treatment is required to create a rough surface. 	<ul style="list-style-type: none"> • Gerband Klebeband 094500 – Gerlinger
	<ul style="list-style-type: none"> • No surface treatment is required if prototypes are cut from a block and have a rough surface. 	<ul style="list-style-type: none"> • Nitto – 5015E, D9605 or 3M 9472LE
Hot melt	<ul style="list-style-type: none"> • Glue gun is required. 	<ul style="list-style-type: none"> • Jet melt 3764Q – 3M Temperature 140-150°C

* Recommend surface treatment with solvent (such as acetone or alcohol), or with sandpaper.

Screwing ARPRO parts

ARPRO parts can be screwed together with the following devices.



[sys D](#)



[sys RSD](#)



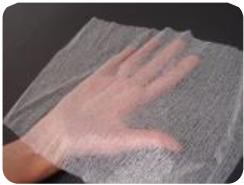
[sys DR](#)



[TSSD](#)

Thermo-bonding ARPRO parts

ARPRO can be attached to other materials using adhesive fabric.



Examples can be found at ab-tec.com or spunfab.com