

CNC Water Jet Cutting

Advantages of Water Jet Cutting

At Prolec our CNC (Computer Numerical Control) Water Jet uses a cold cutting method which means there are no heat affected zones and no hardening of the material.

This cold cutting method means that a water jet will cut virtually any material of any thickness. The process is environmentally friendly and reduces dust and hazardous gases.

The water jet cutting process has the ability to cut in any direction using Omni directional cutting and will perforate most materials without the need of a starting hole. Prolec's water jet has a five axis cutting head meaning our water jet has the capabilities to create more than just a flat profile, it can be used to create 3D objects, beveled edges and counter sunk holes in thicker materials.

Prolec's TJ400-X2 water jet has an accuracy of motion that cuts with-in +/- 0.025mm.

Water jet Applications

Glass

- Splash backs
- Shower Screens
- Laminated/Bulletproof Glass
- Stained Glass

Stone

- Custom Border Tiles
- Floor and Wall Inlays
- Kitchen and Vanity Bench tops
- Custom Stepping Stone
- Architectural Applications

Metals

- Stainless Steel
- Tool Steel
- Aluminium
- Brass
- Copper
- Titanium
- Nickel
- Alloys
- Laminates like Kevlar

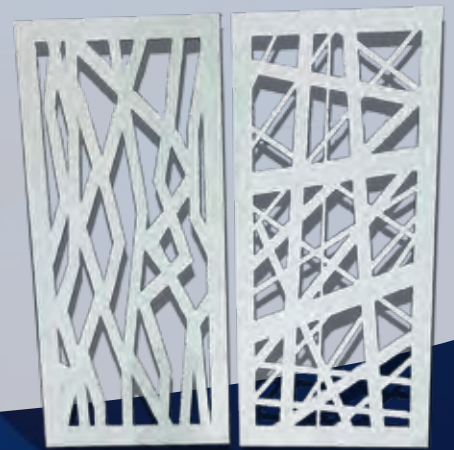
Gaskets

- Automotive
- Marine
- Small Engine
- Motorcycle
- Aircraft
- Metal
- Copper

Foam

- Custom Foam Packaging
- Sound Insulation
- Vibration Isolation
- Archery Targets

A major advantage of water jet cutting is water jet's ability to cut fiber-reinforced materials, reflective materials, uneven surfaces and stacked layers of different materials. Since the mechanical processes take place on a microscopic level, the contents and surface finish of the material are not critical factors.





Foam



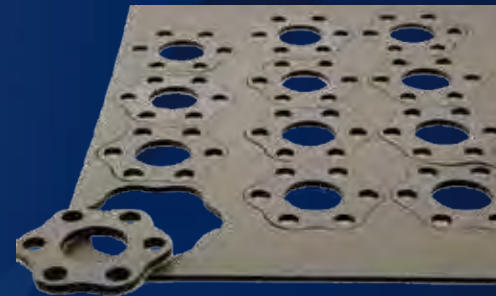
Aluminium Fan



10.0mm Steel



Lexan



Rubber Gaskets



Stainless Steel Profile



Glass

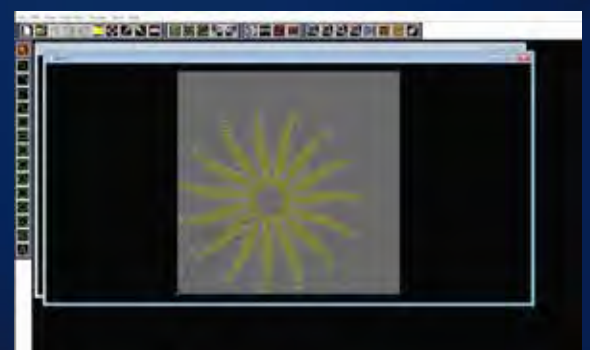


Custom Screen

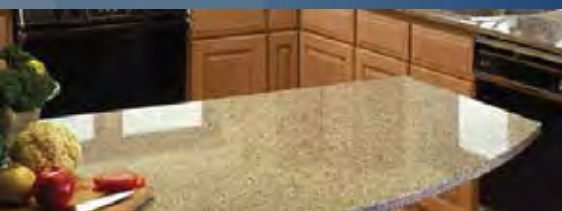


Custom Tiles

From a simple CAD drawing...



...to a 3D shape with beveled edges.



Stone Bench Tops