Why Choose Niagara Waterjet?

Located in St. Catharine’s industrial core, Niagara Waterjet Inc. is an employee owned and operated manufacturing Company committed to providing high quality custom precision cutting, on time, every time.

Our state-of-the-art facility offers leading edge waterjet and laser cutting services, utilizing robotics with omni-directional 6-axis cutting capability. This allows us to cut precise 3D parts and designs out of virtually any material; no secondary machining required. Niagara Waterjet can help optimize your manufacturing process by providing finished precision parts helping to boost your productivity.

Capable of pumping out 100 000 PSI, we have the most powerful waterjet in the Niagara Region. This means we can cut thicker materials **more than 50% faster** and with greater precision when compared to other waterjet service providers.

One of our greatest competitive advantages stems from our talented operators with over 35 years of collective and comprehensive knowledge and experience. At Niagara Waterjet, our ability to program, code and troubleshoot in-house leads to faster turnaround times, higher throughput and the ability to complete complex jobs while maintaining the highest precision and quality.

The combination of operator knowledge and leading-edge technology allows us to cut within standard tolerances of +/- 0.002” and the ability to get as tight as +/- 0.001”. Our focus on precision work, quick turnaround times and transparent communication allows us to deliver unwavering customer satisfaction, guaranteed.

Benefits of Waterjet Cutting with Niagara Waterjet

Versatility

* Can cut any material from 1/16th of an inch to over 20” in high or low volume

Increased Productivity

* Elimination of secondary processing increases productivity while maintaining high quality

Speed

* Faster than conventional cutting tools for quick turnaround

Precision

* Waterjet cutting can make parts to extremely tight tolerances (Typically +/- 0.002” and as tight as +/- 0.001”). Precision cutting reduces scrap and raw material costs

Simple

* Setup and fixturing can be completed in minutes no matter the shape, material or dimensions

Cold Cutting Process

* No heat affected zones (HAZ), stress or hardening imparted into your cut materials

Smooth Edge Finish

* No secondary finishing processes necessary unlike other conventional cutting methods

Minimal Kerf

* High accuracy and the ability to cut endless materials means unlimited opportunities

Omni-directional Cutting

* Allows for complex 3D designs and tight corners

Comparative Cutting Technologies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Waterjet | PLASMA | LASER | EDM |
| Process | Erosion using high pressure water and garnet | Burning/melting using a high temperature arc | Melting using a concentrated laser light beam | Erosion using an electrical discharge |
| Secondary Processing | Usually none. The cold cutting process typically leaves a finished edge product ready for end use | Typically yes. Slag grinding required for removal of HAZ and flattening to eliminate distortion from heat. | Sometimes yes. Required removal of oxidized edge and HAZ. | Usually none. Very shallow HAZ imparted |
| Materials Cut | Virtually any material. | Primarily steel, stainless steal and aluminum | A variety of materials, but typically steel, stainless steel and aluminum | Conductive materials |
| Thickness cut | Up to 24” | Up to 2-3” | Generally 1” or less | Generally 12” or less |
| accuracy | Up to 0.001” | Up to 0.010” | Up to 0.001” | Up to 0.001” |
| machine setup | Same setup for all materials | Different setup for different jobs | Different gasses and parameters for different jobs | Different wire types for different jobs |

Materials We Cut

METALS

* Abrasive Waterjet cutting is perfectly suited for all types of metal fabrication. Common metals like steel, copper and aluminum as well as brass, iron, titanium and tool steel can all be cut with ease, regardless of thickness.

COMPOSITES

* Composite materials are quickly becoming an integral part of our future. At the same time, the various layers of composites make them difficult to cut and shape using traditional methods. Fiberglass, carbon fiber, composite plastics, foams and even metals can all be precision cut using our waterjet technology without causing cracking, fraying or delamination.

STONE & TILE

* Slate, marble, granite, engineered stone, ceramic, porcelain, limestone, soapstone and everything in between can be cut to spec fast and efficiently with minimal waste. Whether it’s for floors and counters, inlays and signage or intricate designs for artistic works and landscaping, Niagara Waterjet has your project covered. Compared to traditional cutting tools and CNC machines, our waterjet services can significantly help your business reduce work-in-process time, boost productivity and profits.

GLASS

* Piercing and cutting glass is simple and effective using waterjet technology leaving a perfect edge and eliminating any need to etch and break. Custom windows, doors, stained glass and even laminated ballistic glass can all be cut with precision.

PLASTIC, RUBBER & ACRYLIC

* The material distortions that occur when machining plastic, rubber and acrylic on conventional CNC machines is nullified when using waterjet cutting. The cold-cutting process leaves a perfect edge without heating, warping or melting the material.

WOOD

* The wood materials used primarily in today’s industries are fabricated ones like plywood and veneer. Whether you’re cutting these composites, hardwood or softwood, waterjet cutting is a perfect option. Fast set up times, no splintering and minimal kerf allows for precise cutting without any thermal changes to the material.

CEMENT

* Abrasive waterjet cutting can be used effectively for the difficult task of breaking concrete down into smaller sections. No matter what you’re building, Niagara Waterjet can help shape your vision and bring your project to life.

Contact Us

Not sure if we can help? Give us a call!

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