



JIT SOLUTIONS

4th Quarter - 2007

JIT Companies Open House

Thank you to all who attended our open house which was held Thursday, September 20th. We gave guided tours through the glass production area and the waterjet shop. Guests were able to view all of the steps it takes to produce a leaded glass window, and were also able to watch as one of our waterjets cut a sample for them. We had many other samples on display as well as a slide show of jobs we've completed.

Registered guests had the opportunity to win a prize drawing. The following door prizes were awarded following the event.

- Framed Leaded glass window - Arts & Crafts design
- Etched & Framed mirror - pheasant design
- Etched & Framed mirror - chickadee design
- Welcome plaque - pheasant design

Recently Completed Projects

Listed below are a few recently completed projects which are featured on our websites. Enter the web addresses below to view descriptions and project photos.

[Greater Mankato Convention & Visitors Bureau](http://www.jitwaterjet.com/intsigns.html) - <http://www.jitwaterjet.com/intsigns.html>

[Lifecore Dental](http://www.jitwaterjet.com/intsigns.html) - <http://www.jitwaterjet.com/intsigns.html>

[Kreft Cabinets](http://www.jitwaterjet.com/surface.html) - <http://www.jitwaterjet.com/surface.html>

Pictured to the right is a brick monument sign featuring 1/4" Aluminum custom waterjet cut to an 89" long frame and connected script lettering. Includes a black, medium powder coat finish. Stud mounted with 1/4" spacers.



Suitable for Waterjet Series

The waterjet is a remarkable machine that can cut through most anything. It can be a very cost effective tool when other shape cutting methods can not be used. Pricing for the waterjet is based on cut time per part, but there are many variables that can affect cut times or the over all price of waterjet cutting services. "Suitable for Waterjet" is a four part series that will examine estimating simulations that will help the reader determine if utilizing JIT Companies waterjet cutting service is the most beneficial option for their project. For the purpose of this article we have categorized the problem solving items that need to be considered when estimating or managing a shape cutting project in the following manner: programming, precutting set ups, tool settings, post cutting processes. Each variable can be adjusted to achieve a specified part quality at the best value for the customer. With nine years of waterjet cutting experience JIT Companies is very adept at manipulating all of these variables.

Programming: Because JIT Companies is a custom job shop, translation of technical drawings or software occurs frequently and seems to go faster and easier here at JIT as opposed to waterjet operators that cut long-

run projects. While AutoCAD is the native language of the waterjet our technicians can work with most CAD software such as Solid Works, ProE, and CAD Key, as well as with other drawing software such as Illustrator or CorelDraw. EPS files from Macintosh are also acceptable.

The skillful optimization of material is common practice here at JIT Companies. Many times whole sheets of material can be returned to the customer because the part layouts have been optimized so effectively. With the waterjet, parts can be nested to within .001 of an inch.

Occasionally, the finish of the precut part needs to be optimized. In these instances the tolerances of the part are so tight that even the minute amount of abrasive over spray escaping the .045 inch jet stream can not be tolerated in the final part outcome. By cutting the part upside down this over spray can be eliminated. However, the tool path will have to be reprogrammed to mirror the path that would occur if the material were cut face up.

In addition to cutting material face down there are many pre-cutting set-ups that can be utilized to protect the material surface. Precutting set-up will be the topic in part 2 of this series, "Suitable for Waterjet". Part two will be included in the next edition of "JIT Solutions"; due out early next quarter.

Customer Profile - Wolf Material Handling Systems

Wolf Material Handling Systems designs and manufactures industrial bulk material handling systems and equipment for a variety of industries that require material handling. The company is a "Single Source" provider of complete in-house engineering and design, manufacturing, assembly, and installation.

Wolf MHS expands its manufacturing capabilities through selected outside fabricators. Quality is accomplished through an enforced quality assurance program, including in-house assembly and inspection. All subcontractors must fulfill these quality standards to remain a subcontractor of Wolf MHS.

Roy Ohlandkamp – Engineering and Procurement Agent for Wolf MHS needed a dozen various parts precision cut from half inch UHWMP. The parts were irregularly shaped and needed precision hole locations cut. While a laser or router would be capable of cutting this material, Roy needed a different solution in order to meet the client's precision specifications. Being familiar with the cold, precision process of waterjet cutting, Roy did a quick web search to find a precision waterjet operator that could fulfill the order to within the specification of his customer and the standards of Wolf Material Handling Systems. He was not only searching for quality but also a competitive price and an advantageous time frame. JIT Companies arrived at the top of the search list.

Bob Pflipsen, Director of Engineering at JIT concurred that waterjet cutting would accomplish the project in the most efficient and cost effective manor. Bob also suggested a cost saving technique that would cut down on waterjet cutting time and save Wolf MHS some money. Although the waterjet could have precisely cut 1/4" holes to drawing specifications, Bob suggested that JIT should only pierce the hole locations. In this circumstance the parts would need to be drilled and counter-bored later in the fabricating process so the option of just piercing the hole locations did provide a cost savings for Wolf MHS.

The time frame for the project was a key issue in satisfying the ultimate client. The initial quote turn around from JIT was timely in comparison to competing subcontractors and JIT's lead times were more appropriate to the project. Material logistics can always slow down a project if not handled correctly, but JIT Companies truck alleviated this problem, by picking up the material on the front end of the project and then delivering the cut parts and drop material back to Wolf MHS on the back end of the project. It was the next best thing to having the material drop-shipped directly to JIT Companies, which is also an option with JIT, but it wasn't necessary within the scope of this project.

The parts turned out precisely as Wolf Material Handling Systems had requested. JIT followed up, both after the parts were delivered and after they were installed, to ensure that all had gone well. JIT Companies is a great match for Wolf Material Handling Systems since both companies hone engineering practices from across various industries to create custom solutions that are innovative yet practical.

"When the project calls for the cold precision that waterjet cutting can provide Wolf Material Handling Systems trusts JIT Companies to provide these services at a competitive price, with advantages lead times, and within the high quality standards that Wolf MHS promises its clients."

*Roy Ohlandkamp
Engineering and Procurement Agent
Wolf Material Handling Systems*

More about JIT Companies

JIT Companies fabricates unique projects and custom parts for design professionals, specialty contractors and a broad range of manufacturers. We focus on challenging, short-run projects that require high quality outcomes. Our capabilities include custom waterjet cutting services and made-to-order glass fabrications for both architectural and industrial applications.

We process all types of metal, glass, stone, foam, plastics and laminates. We smoothly integrate into your production cycle to reduce your production costs and overall time-to-market. We have had experience with many different materials, techniques and technological changes. It has always been our mission to maintain Old World quality, even as we introduce New World technology into our fabrications.

For well over twenty years, we have provided innovative solutions to the likes of Goodrich Corporation, Hutchinson Technology, Medallion Cabinetry, and The Science Museum of Minnesota; to name a few. We have succeeded in coming up with solutions when others have said that it could not be done; let our experience be your guide.

Mission Statement

"Blending experience with innovation and technology to create custom solutions."

JIT COMPANIES

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