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▶ CUSTOM LETTERS ARE DONE FOR A CUSTOMER, SEE WHAT KIND OF STORY IS BEHIND THIS PROJECT ..... 1



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# Fedtech focus

◦ Issue 3 ◦ Volume 2 ◦ October 2008 ◦

KEEPING YOU UPDATED WITH WHAT IS NEW AND IMPORTANT IN THE MANUFACTURING INDUSTRY



## Swiss Precision Makes A Home in Minnesota



Bystronic Bystar 4020 Laser Cutting Machinery

*“It came time to expand with the industry,” says president of Fedtech, David Fox, “and in our case that meant stepping up to purchase additional advanced equipment to better serve our customers.”*

Well there is no denying Fedtech went big with its latest purchase. Coming soon to the production floor this fall will be a brand new Bystronic Bystar 4020, one of the best pieces of laser cutting equipment in the industry.

The Bystar 4020 offers many benefits such as a 157”x 79” cutting envelope, an automated shuttle table system, speeds up to 1,969 inches per minute, and can hold approximately 3500 pounds of material at once.

An additional feature that was purchased along with the laser was Bystronic’s Bytrans-Cross material automation. This additional piece of

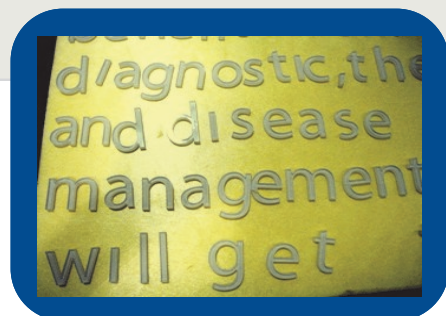
machinery enables smooth, automated production and shortened runtime while still producing the same quality results that Fedtech is known for.

The new laser can hold cutting tolerances of  $\pm .0012$ , and with the automated shuttle table system, rapid production, and minimal operator attention; it’s not hard to see why this recent addition is beneficial in helping us meet our customer demands.

To see more about this machinery, visit our website at [www.fedtech.com](http://www.fedtech.com) and click on “What’s New”.



Laser Cut Pieces



## ‘Custom Letters’ Spell Success

Custom manufacturing isn’t all fun and games, it’s mostly just fun. In the case of this project, we cut small  $\frac{1}{8}$ ” thick polycarbonate letters for a description inside of a medical building. The letters were waterjet cut to better accommodate the material they were being cut from. The finished product you see here was then shipped to the customer.

# Fedtech Presents: Rotary Waterjet Cutting

It came as a surprise to us that many of our customers were not aware that we offered services in rotary waterjet cutting. Because of this, we felt it necessary to make these customers more aware of our rotary waterjet cutting capabilities here at Fedtech!

To help you recognize the opportunity to use rotary waterjet cutting, see the box shown in this article. This demonstrates the many different ways that rotary waterjet cutting can be used.

## Fedtech.com



### Project for Cinemagic Atlantis Theater

Another set of recent projects completed at Fedtech were for a brand new movie theater located in Burnsville, Minnesota.

The statue with wings is all part of their ticket window when you purchase your movie tickets. The parts manufactured at Fedtech were the wings and the grating as seen above. The stainless steel wings were waterjet cut along with the processed grate behind the statue.

### Project Examples of Rotary Waterjet Cutting

- Cutting parts from round bar
- Taking cross sections from pieces
- Splitting material
- Cutting on multiple planes
- Multi-axis near net shape

The benefits of using rotary waterjet cutting are simple. The process uses 4-axis cutting to process multiple planes. In previous projects, we have manufactured nozzles for in-air fueling, hooks to lift fuel rods from nuclear reaction, fuel injector pieces, and more.

Ultimately, rotary waterjet cutting is most often used on hard-to-machine materials such as hard nickel alloys. By choosing this process, customers can save time, money and of course, the hassle of going elsewhere.



## Fedtech Premieres at the Movies

*All different kinds of industries are served here at Fedtech, but this one was rated G for great.*

The same customer had another project for us as well. This next task was along the same lines, as it required us to waterjet cut more ticket windows for Cinemagic Metropolitan theater, located in St. Michael, Minnesota. This time the pieces were cut from A36 Carbon Steel.

When all was said and done with this project, the finished results were proudly displayed in the main entrance of the theaters for everyone to see. The creative designs now attract much attention from movie goers, along with providing a good conversation piece for customers.



### Ticket window for Cinemagic Metropolitan Theater

"THE GUYS AT YOUR COMPANY WERE SO GREAT IN HELPING US TO FINISH THIS PROJECT."  
- FEDTECH CUSTOMER

## 5 Signs You Went to the Wrong Place for Your Project



#5

They said they were so good they didn't need a design, just a credit card number

#4

They thought they finally had their first person who would ride their water "jet"

#3

They wouldn't accept check, or credit card, or oddly enough anything that might leave a paper trail

#2

The only format of design they would take was a sharpie on the back of \$100 bills

#1

You went somewhere other than Fedtech

## Materials We Process

Stainless Steels

Aluminum

Copper

Titanium

Rubber

Plastic

Brass

Armor Plating

Granite

Glass

Carbon Steels

# The Delrin Stops Here

The project featured here is 4" thick Delrin® from DuPont. The customer wanted to process the polymer to use as a guide blocks in their business.

The material is traditionally known as an engineering plastic, often used as a substitute to metal. The Delrin® was chosen for its low friction properties, since the blocks would be stacked 12" high (three guide blocks) and used to navigate extrusions into a different machine.

The customer chose to use water-jet cutting as it was the best method for processing this thickness and type of material.

Another interesting aspect in this project was that there was an anticipated taper. To solve this problem, the engineers planned for this taper by working their designs so that when the blocks were stacked, the taper would gradually form a continuous line.

With experience and knowledge in our field, our Fedtech team completed another successful project for one of our customers, while still having fun of course.

(Below) Sales team member, Brent shows off his Delrin® project



(Left) 4" thick Delrin  
(Below) Another past acetal project



Request For Quote!

Email:

[Sales@Fedtech.com](mailto:Sales@Fedtech.com)

## Beware of Lasers: May Cut Excellence

*While laser cutting is usually thought of as an industrial means of cutting, see a success story that isn't just another project.*

A fun project, hot off the laser are these fixtures. The material used in this project was an 11 gauge cold roll steel.

The laser was best suited for this project since the pieces were extremely intricate. Not only this, but these custom parts required nice smooth edges that is most easily obtained by using laser cutting.

If you look closely, there is a small circle near the larger end of the part where the company will be running wires through. This part of the project required careful attention as the circle would be a knock-out slug. This meant that the

customer would be using the pieces with the slug in place but also wanted the option to knock it out given the occasion.

Fortunately, the engineers knew just what to do, and programmed the challenging circle so that it may be easily removed in the field during installation without causing any damage in the process.

Ultimately the customer received their parts to their specifications and were able to continue business sooner than if the parts were made by any other traditional method of tooling.

(Below) Laser cut structures



# The Inside Scoop

## Quality Ensured

A lot have changes have been taking place at Fedtech and we are happy to say so! Some of our latest news is about our new quality specialist, Tony Chulla.

"I look forward to bringing the skills and knowledge I have developed over the years, both on the shop floor and in the sales office, to aid in continuing Fedtech's commitment to quality." Chulla explains with a smile. He enjoyed three and a half years in the sales department of Fedtech, but is excited for what quality has in store for him.

Because of our ISO 9001:2000 certification that we have proudly upheld, it's important for us to have a designated manager in charge of our quality.



(Left: Tony Chulla,  
Right: John Bobrowski)

## Sold on Sales

Another new addition to the Fedtech sales roster is Nate Novak. He has just recently joined the sales team in quoting and estimating.

Nate has four years of first-hand experience in waterjet cutting and laser cutting. He really knows his stuff!

Fedtech wants to give Nate a warm welcome to the sales team, and we welcome our customers to stop by and introduce yourselves to the newest member of the sales team as well!

## Modern Manufacturing

Have you checked out Fedtech's podcast? The audio tracks can be listed to via computer or mp3 player. Learn about waterjet cutting, laser cutting, and many other value-added services and how they work! It's like a class on manufacturing!

The latest episodes can be found at [www.modernmanufacturing.mypodcast.com](http://www.modernmanufacturing.mypodcast.com). Check it out to hear from some of our most knowledgeable staff and get the scoop on what goes on behind-the-scenes here at Fedtech!



[www.fedtech.com](http://www.fedtech.com)



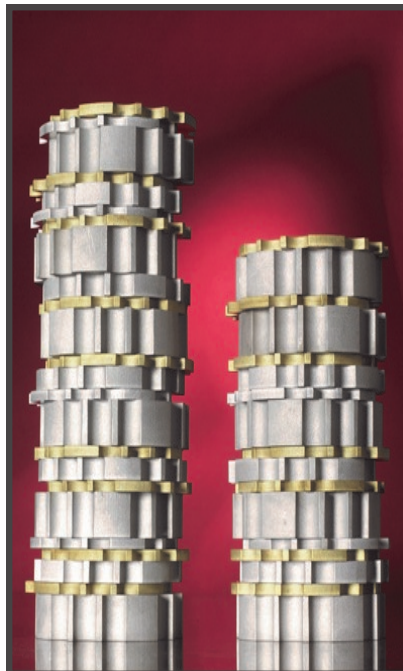
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## About Us

Fedtech is a job shop located just outside the Twin Cities, Minnesota. We specialize in waterjet and laser cutting services along with numerous in-house services as well. We process materials such as stainless steel, aluminum, copper, plastics, rubber, titanium, brass, and many more. For a complete list, visit our website.