

# TAKING BUSINESS TO SCHOOL:

# Hypertherm

**T**ake one high-tech manufacturing company, add double-digit growth and what do you get? At New Hampshire's Hypertherm, an associate-owned company, you get some extremely happy employees when it comes time to share the profits. But what you also get is a series of challenges related to meeting increased demand for production. One of the most important challenges Hypertherm had to overcome was finding, training and hiring Computer Numerical Control (CNC) machinists.

## The Story

The recent recession notwithstanding, Hypertherm, a company that designs and manufactures advanced plasma and fiber laser cutting systems has enjoyed tremendous growth in recent years. Strong demand in core and emerging markets, including North America, Brazil and China, has resulted in double-digit growth.

While no business would ever scoff at healthy growth, it does present some challenges. For Hypertherm, the most important challenge was finding, training and hiring CNC machinists. As Hypertherm's Vice President of Manufacturing Jim Miller puts it, "How well we meet this challenge will be determined by how well we can hire and educate a trained workforce."

Despite consistently being named one of the best employers in the state with a less than five percent voluntary turnover rate, the company simply could not find the operators it needed to run its machines.

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**Cut with confidence®**



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## STUDENT SUCCESS STORY

The machines are used to produce small consumable parts that are inserted into Hypertherm's plasma arc metal cutting torches. These consumables channel plasma, which is several times hotter than the surface of the sun, through the torch and to the work piece being cut. Hypertherm prides itself on making the longest lasting consumables on the market. To do this though, the consumables need to be precision machined to tolerance levels eight times narrower than a human hair.

Though it was always difficult to find machinists skilled enough to hold those extremely tight tolerances, the problem reached a critical point in 2006. Hypertherm projected it would need to add more than 180 new operators to its workforce during the next three years if it were to have any hope of meeting demand for its product. At the time, the company had a total of 120 operators on its team. This meant the company was faced with having to more than double the number of operators in its machine shop; a daunting prospect for any company. But for Hypertherm, which is located in a sparsely populated area of Northern New England, the prospect of finding that many operators was not only daunting, but seemingly impossible.

### How it Works

To address this critical issue, Hypertherm decided to open its own school to train the workers it desperately needed but couldn't find. In 2007—after much work and a large capital investment—Hypertherm opened the Hypertherm Technical Training Institute (HTTI). The company partnered with Vermont HITEC, a nonprofit organization in neighboring Vermont that had successfully run training programs to develop an immersion-style education program. The program was designed to take people who had a good attitude and an aptitude to learn, but not necessarily machining experience, and turn them into the skilled machinists Hypertherm needed in just nine weeks.

The program was unique for a number of reasons. For one, students accepted into the program would be guaranteed jobs at Hypertherm and paid full wages during training. This allowed people, who may not have otherwise been able to go through such a program because they couldn't afford to go nine weeks without a paycheck, to participate. Not only did it meet Hypertherm's need, it provided an opportunity for unemployed and underemployed people to have a brighter future.

The program was further improved in 2009 when Hypertherm formed a partnership with the New Hampshire community college system that enabled students who successfully completed the training program to earn college credit toward an associate degree and a certificate in Machine

### Ivy Skribblez



In 2003, Ivy Skribblez graduated from New Hampshire Community Technical College with an associate degree in graphic design and illustration. While there were a good number of related jobs about an hour south in Boston, Skribblez quickly realized that city living was not for her. Unfortunately,

despite her degree, there was not a high demand for graphic designers or illustrators in rural New Hampshire.

For years Skribblez held a variety of jobs, but was still missing a true career path. Being from New Hampshire and Vermont, she had heard that Hypertherm was an amazing company to work for, but since she had no machining experience, she figured working there was out of the question. That's when she learned about the Hypertherm Technical Training Institute (HTTI).

In early 2012, Skribblez enrolled in HTTI and began her journey. "I was very skeptical about going to HTTI and doing well, but I love to learn new things," she said. "Luckily the program and staff taught me what I needed to know and were there every step of the way to make sure I felt comfortable working on the machines."

While Skribblez certainly did learn the technical skills she needed to succeed, the nine-week program taught her much more. "I learned that safety is the top priority on the floor," she said. "I also learned that I could handle the necessary math, the reading and the homework. And more importantly I learned that Hypertherm is a family that takes you in with open arms."

Skribblez admits the program was not easy and she had to absorb a lot of information in a short amount of time. But the results were worth the effort. She says the program gave her confidence, and most importantly, a job.

Now employed at Hypertherm as machine operator, Skribblez has 28 credits toward a degree and is focused on taking and passing her Level 2 Machine Operator tests.

Tool Technology. The 28 credits earned during Hypertherm's nine-week program mean participants would be more than half way toward earning a degree. They could then choose to continue their education with Hypertherm covering the cost of going back to school through its sponsored degree program.

Five years later, the Hypertherm program is so successful the company has not only met its workforce needs, but has been able to open its training institute to other employers in an effort to improve the competency of CNC Machine Operators regionally.

## The Business Case

Hypertherm explored many options as it tried to figure out how it was going to meet its workforce challenges. It even considered moving operations to a region with a trained workforce; but because the company is committed to manufacturing in the United States, and specifically New Hampshire, it rejected that option. It elected to partner with Vermont HITEC because it believed its methods would yield the highest success rate in the shortest amount of time.

Since opening the doors to the HTTI in 2007, Hypertherm has trained more than 400 people, not only to meet its needs, but the needs of neighboring employers.

In addition to meeting production demand, Hypertherm has observed substantial decreases in scrap rates and re-work, helping the company save money in raw product. In addition, Hypertherm's quality metrics continue to increase as a result of a well-trained and competent workforce.

The partnership with the New Hampshire community college system is an important aspect of the program for Hypertherm. One of the company's core values is to provide for the well-being of its employees. Giving them opportunities to earn certificates and degrees is one way the company lives that value.

### LEARN MORE

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