



THE MACHINE SHOP

CNC TECHNOLOGY

www.HaasCNC.com

800-331-6746

2008

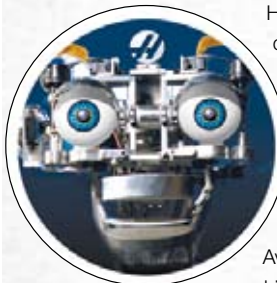
Super Speed	2
Mold Maker	8
5-Axis Trunnion	10
New HMC	25



VMC Poster

Check out the beautiful pull-out poster of the Haas VM-3 on page 18 from the "Anatomy of a Machine Tool" series of educational posters.

Robot Ready



Haas Automation has developed a single-point interface that standardizes communication between the Haas control and a parts-loading robot.

Available on select machines, the pre-engineered, Robot Ready option includes the necessary hardware, I/O modules and software to connect a Haas mill or lathe to any machine-tending robot using DeviceNet™ protocol. This simplifies robot set-up, making it easier for shops to use robotic cells for manufacturing.

Haas machine tools have been used in robot-tended installations for years. But in the past, each cell required its own unique hardware setup for the machine and robot to communicate effectively.

The Haas Robot Ready option is a flexible solution that allows machines to be added to the cell, removed or exchanged as production changes or the machine shop grows.

Parts Made Easier

Isn't that really what it's all about? Making parts easier? . . . and better, and faster and for less money? That's what it takes to stay competitive in today's global economy and increase your bottom line. Keep doing the same old things the same old way and you're likely to find yourself scrambling for work – or out of business altogether.

But there's no *one* right way to do it. There's no single, ready-made solution that works for every shop. There are, however, plenty of options out there to help you boost productivity, reduce labor costs and simplify your manufacturing processes.



The latest economic stimulus package may be a big help. Perhaps it's time to upgrade from manual machines to CNC – or invest in new, faster machines to increase your throughput. If high labor costs are an issue, maybe there's a robotic cell in your future. Need to hire more people and get them dialed-in quickly? Online training just might be your best solution. If reducing setups and increasing accuracy are your issues, a 5-axis machine could be just the ticket. Not only are they more affordable than ever, but they're now easier to program and operate.

What's the right solution – or combination of solutions – for you? Only you can answer that. But you'll find plenty of options in these pages. – ms

Economic Stimulus a no-brainer in '08

There's good news for American businesses in the recently passed stimulus legislation. The Federal Government's economic stimulus package allows businesses generous tax breaks for equipment investments in 2008. The bonus depreciation will allow companies to deduct an additional 50 percent of most new equipment investments made this year.

Additionally, businesses will be able to expense \$250,000 in new and used property in the year it's purchased – that's double the previous amount.

Have a conversation with your tax advisor to be sure how these changes may affect your business, and act accordingly.

When you look at the numbers, it's almost a no-brainer. The smart choice would be to buy American and make those stimulus dollars work even harder by circulating them in the U.S. economy. See our on-line calculator at www.HaasCNC.com

Haas Fantasy Racing 2008



Look inside for information. Be good, or lucky, or both, and you'll drive away with some great prizes.

www.HaasFantasyRacing.com

Web-based training for the shop

The focus is on comprehension and knowledge building

by Brad Branham

Good help is hard to find.

– Every manager's epiphany

Complex + O₂Ed = Simple

Manufacturers often face a frustrating dilemma: Production depends on skilled employees, but fewer applicants have sufficient knowledge of CNC machining to perform well without substantial training. Consequently, many companies hire applicants with little experience, and then trust online instruction courses to train them.

LearnHaas.com – created by Oxygen Education LLC (Oxygen), of Indianapolis, Indiana – is a highly successful web-based training program that teaches CNC operation and programming specific to Haas machines, as well as general manufacturing skills. Joe Kitterman, Oxygen's president, explains their approach: "Our interactive courseware is logically structured to maximize understanding; otherwise, students are just memorizing steps, and have no idea why they're doing what they're doing."

A big advantage of Oxygen's LearnHaas.com course is flexibility. Sending employees to college or tech-ed classes often is impractical for many shops, and the two- or three-day classes offered by industry equipment suppliers may leave some students bored, and others confused or filled with questions.



The interactive features took the form of animation, rather than machine emulation, with faithful representations of the Haas control adjoining accurate depictions of Haas lathe and mill movements. As I expected, the tests started easy, but became increasingly difficult. Navigating the course successfully yields a clear understanding of course concepts, with a strong mental "hook-up" to the overall picture.

"Oxygen provides training at the student's own pace, promoting a high level of understanding," observes Kitterman. "The lesson plans, interactive graphics and tests are all designed to enhance comprehension – from anywhere there is an Internet connection."

Now, I'm no stranger to online education, so when Joe Kitterman invited me to take the LearnHaas.com program for a "test drive," I couldn't resist.

I was impressed from the outset. The high-quality interactive graphics are well reasoned, and the text is appropriate and lucid. The course is logical, and specific to Haas Automation machine tools, with frequent chapter tests. "Structured" may be an understatement – concept builds upon concept with the calculated progress of a bricklayer. The scope of subjects is broad, and includes topics like maintenance, measuring instruments and blueprints. And each chapter test requires a score of 100% before proceeding to the next chapter.

"We require a test score of 100% before continuing, so the student has a good basis for the next subject," explains Kitterman. "If the student only scores 90%, what 10% of the lesson is it okay not to know? It may be safety-related information."

Interactive graphics support nearly every concept. "We go to extreme detail in the graphics, because we believe in visual learning," Kitterman says. "There's about 25% text and about 75% interactive visual activity. It becomes almost a game. We engage the students and get them excited."

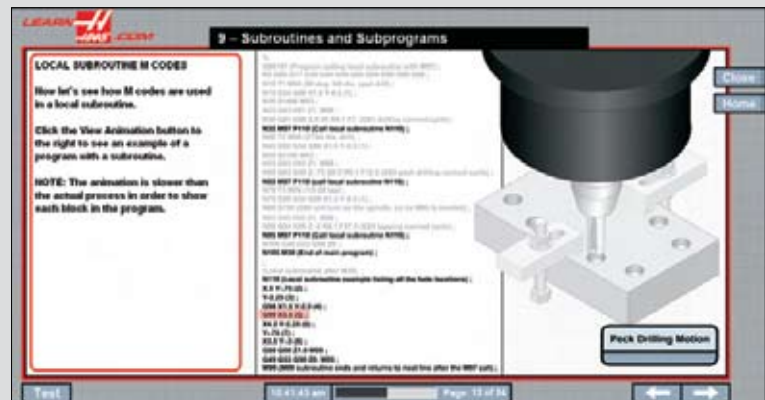
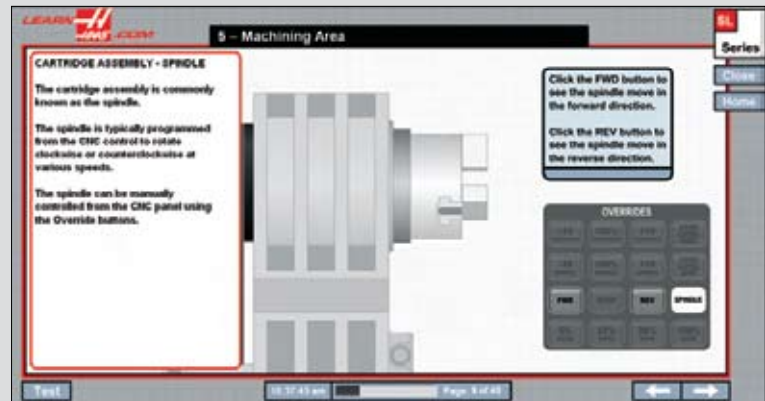
The Oxygen philosophy emphasizes the mastery of skills through a tightly structured program. Each student learns each course according to a proven strategy. Some students finish in less time than others, but each one receives the same training, learns the same skills and becomes equally more valuable to their employer.

Kitterman offers the LearnHaas.com program as a replacement for classroom study, but students also use the course to enhance learning. "Someone with this training has a great advantage," Kitterman explains. "First, you complete the interactive courses at least once. Then, when you receive one-on-one or classroom instruction from an expert, the quality of that time increases exponentially.

"We use our experience, knowledge and expertise to develop solutions, and we can create courseware on any manufacturing process," Kitterman says. "We have mastered the art of simplifying the complex."

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Sample Screens



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