

# Focus On: Haas Automated Systems





IT'S IN OUR NAME

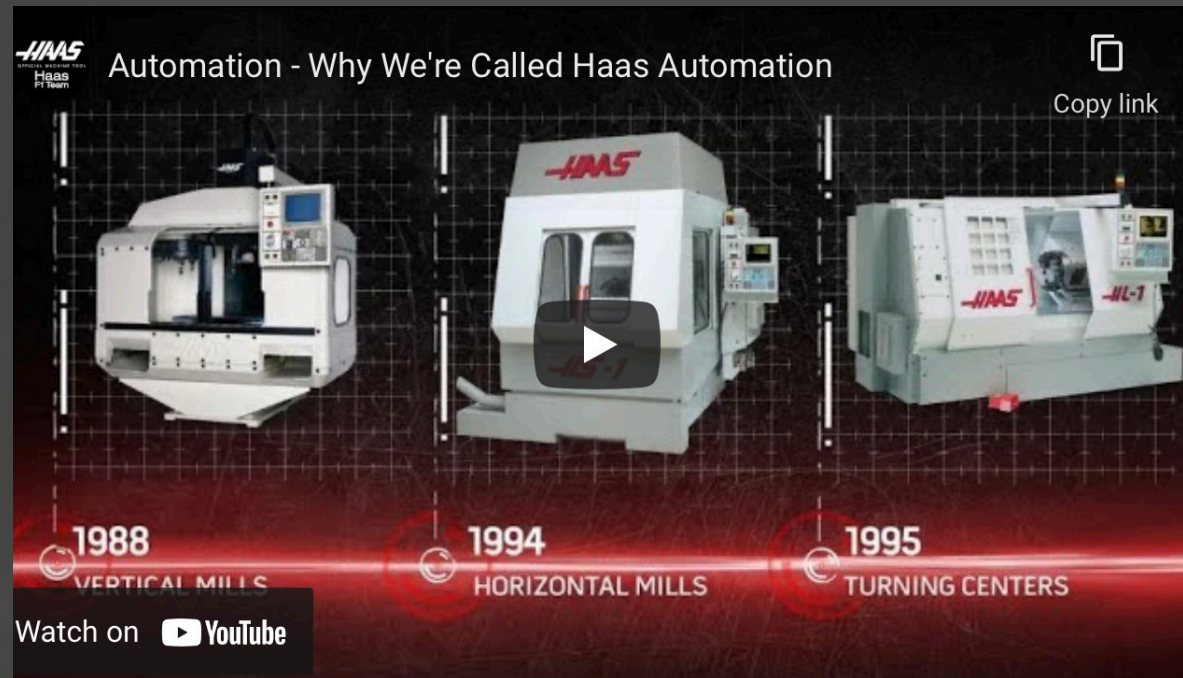




# IT'S IN OUR DNA.

In 1988, recent college graduate Gene Haas owned a job shop in Simi Valley, California, machining parts for the aerospace industry. One day, he noticed one of his two employees running a job that required indexing a part with a manual 5C collet head. Using the dividing head was a real nuisance, because the operator had to let go of the quill handle and use both hands to index the part to the next position. Gene thought to himself, "There has to be a way to automate this," and so began the development of an automatic indexing head.

The first design incorporated a stepper motor, a manual 5C collet head modified to accommodate a worm and gear housing, and the now-famous black box to control movement. Haas Automation was born.

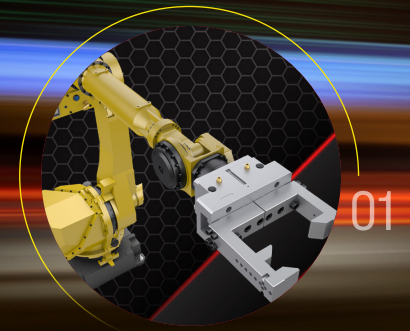


See where the "Automation" in Haas Automation comes from - in this video guide through the years of innovation from Haas.



# FOCUS ON: Haas Automated Systems

CNC – at its core – is automation. Simple lines of code instruct our machines to perform thousands of automated actions every second, making them do exactly what we want them to do. But we've taken automation even further, with engineered solutions that make your job as a machinist even easier – from multi-part fixturing and intuitive software features, to automatic parts loaders and fully integrated robots.



## Robot Systems

### **PACKAGE 1**

Robot System – 7 kg capacity

### **PACKAGE 2**

Robot System – 25 kg capacity

### **PACKAGE 3**

Robot System – 50 kg capacity





02

## Automatic Parts Loaders

- Turning Center APL
- VMC APL
- Small UMC APL



03

## Pallet Pool Systems

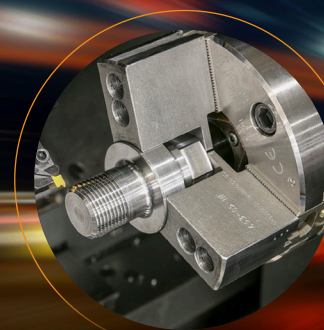
- 6-Station for EC-400
- 6-Station for VC-400/SS
- 8-Station for UMC-750/1000/SS
- 8- or 16-Station for UMC-500/SS



04

## Haas Bar Feeder

All-inclusive design,  
with plug-and-play  
capabilities to Haas lathes



05

## Optional Automation

- Sub-Spindle
- 4th- and 5th-Axis Rotaries
- Parts Catcher System
- Auto Door
- Automatic Coolant Refill



# 01 Robot Systems

Everything you need to start automatic loading and unloading parts, in a couple of hours, not days.

## FULLY INTEGRATED, 6-AXIS ROBOT SYSTEM 7 KG CAPACITY

### Haas Robot Package 1

- FANUC LR Mate 200i D 6-axis robot arm
- Base stand and parts table
- Robot electrical interface box
- CE-compliant safety guard fencing
- End-of-arm parts gripper (single gripper standard; double gripper available)
- Part spring pusher
- All-inclusive design, with plug-and-play capabilities to Haas small vertical machining centers and ST-10 through ST-25 turning centers
- All set up and operation are done through the Haas control and remote jog handle







### Available On These Haas CNC Lathes:

**ST-10**  
12" x 16" max capacity  
1.75" bar capacity / 6.5" chuck

**ST-15**  
12" x 16" max capacity  
2.5" bar capacity / 8.3" chuck

**ST-20**  
13" x 22.5" max capacity  
2.5" bar capacity / 8.3" chuck

**ST-25**  
13" x 22.5" max capacity  
3.0" bar capacity / 10" chuck

**ST-10Y**  
12" x 16" max capacity  
1.75" bar capacity / 6.5" chuck

**ST-15Y**  
12" x 16" max capacity  
2.5" bar capacity / 8.3" chuck

**ST-20Y**  
11.75" x 22.5" max capacity  
2.5" bar capacity / 8.3" chuck

**ST-25Y**  
11.75" x 22.5" max capacity  
3.0" bar capacity / 10" chuck



### Available On These Haas CNC Vertical Mills:

**DT-1 Drill/Tap**  
20" x 16" x 15.5" travels  
30 Taper

**DM-1 Drill/Mill**  
20" x 16" x 15.5" travels  
40 Taper

**VF-1**  
20" x 16" x 20" travels

**VF-2**  
30" x 16" x 20" travels

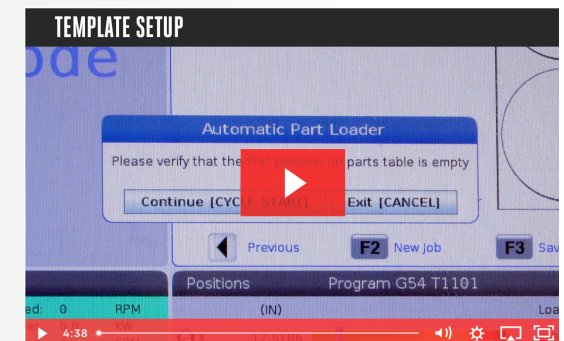
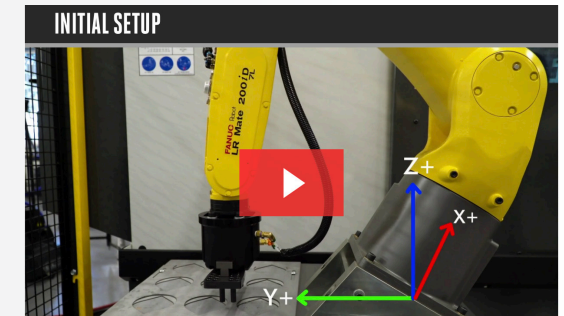
**VF-2SS**  
30" x 16" x 20" travels

**VF-2YT**  
30" x 20" x 20" travels

**VF-2SSYT**  
30" x 20" x 20" travels

**VM-2 Mold Machine**  
30" x 20" x 20" travels

Watch Product Specialist Cory Sullivan demonstrate how easy it is to set up the Haas Robot Package.



## Quick set up & non-complicated automation

### FULLY INTEGRATED, 6-AXIS ROBOT SYSTEM 25 KG CAPACITY

#### Haas Robot Package 2

- FANUC M-20iD/25 6-axis robot arm
- Mounting pedestal
- Robot electrical interface box
- CE-compliant safety guard fencing
- End-of-arm parts gripper (single gripper standard; double gripper available)
- Part spring pusher
- All-inclusive design, with plug-and-play capabilities to Haas medium vertical machining centers and ST-20 through ST-35 turning centers
- All set up and operation are done through the Haas control and remote jog handle







### Available On These Haas CNC Lathes:

- ST-20**  
13" x 22.5" max capacity
- ST-20L Long-Bed**  
13" x 42.5" max capacity
- ST-20Y**  
11.75" x 22.5" max capacity
- ST-20LY Long-Bed**  
11.75" x 42.5" max capacity
- ST-25**  
13" x 22.5" max capacity
- ST-25L Long-Bed**  
13" x 42.5" max capacity
- ST-25Y**  
11.75" x 22.5" max capacity
- ST-25LY Long-Bed**  
11.75" x 42.5" max capacity
- ST-30**  
15" x 32.5" max capacity
- ST-30L Long-Bed**  
15" x 62.5" max capacity
- ST-30Y**  
13.75" x 32.5" max capacity
- ST-30LY Long-Bed**  
13.75" x 62.5" max capacity
- ST-35**  
15" x 32.5" max capacity
- ST-35L Long-Bed**  
15" x 62.5" max capacity
- ST-35Y**  
13.75" x 32.5" max capacity
- ST-35LY Long-Bed**  
13.75" x 62.5" max capacity



### Available On These Haas CNC Vertical Mills:

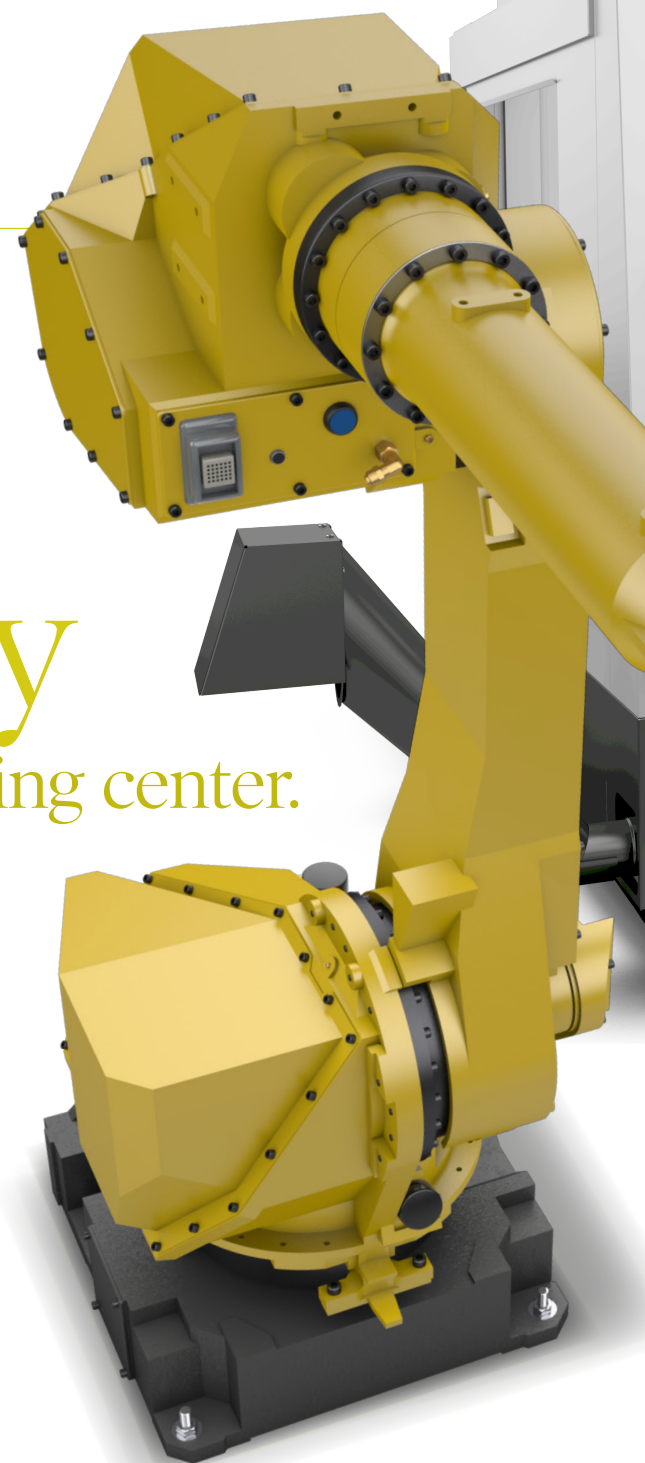
- VF-2YT**  
30" x 20" x 20" travels
- VF-2SSYT**  
30" x 20" x 20" travels
- VF-3**  
40" x 20" x 25" travels
- VF-3SS**  
40" x 20" x 25" travels
- VF-3YT**  
40" x 26" x 25" travels
- VF-3SSYT**  
40" x 26" x 25" travels
- VF-4**  
50" x 20" x 25" travels
- VF-4SS**  
50" x 20" x 25" travels
- VF-5/40**  
50" x 26" x 25" travels
- VF-5/50**  
50" x 26" x 25" travels
- VF-5/40TR**  
50" x 26" x 25" travels
- VF-5/50TR**  
50" x 26" x 25" travels
- VF-5XT**  
60" x 26" x 25" travels
- VF-5/50XT**  
60" x 26" x 25" travels
- VM-2 Mold Machine**  
30" x 20" x 20" travels
- VM-3 Mold Machine**  
40" x 26" x 25" travels

There's never  
been an easier way  
to add a 6-axis robot to a Haas VMC or turning center.

**FULLY INTEGRATED, 6-AXIS ROBOT SYSTEM  
50 KG CAPACITY**

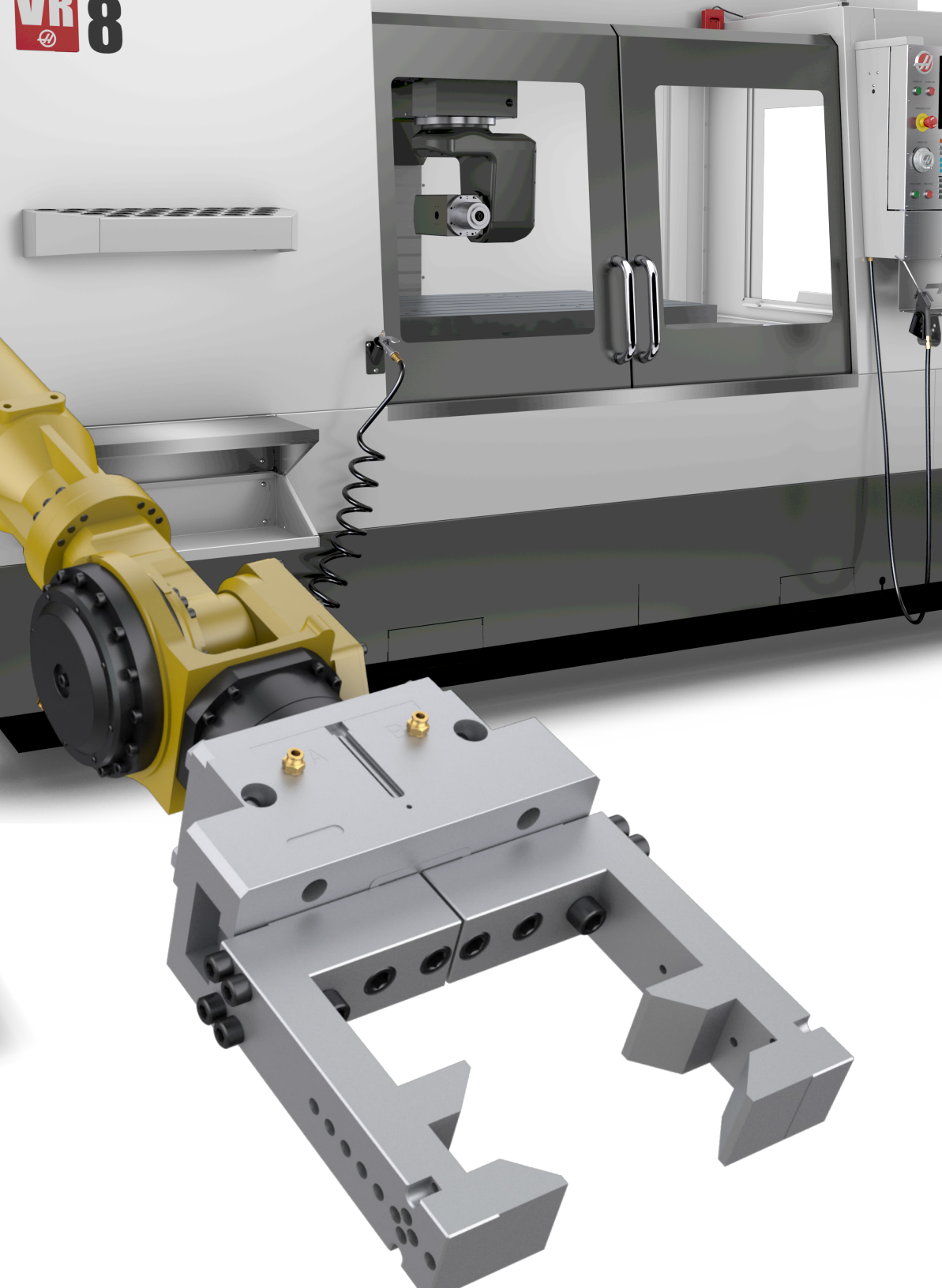
**Haas Robot Package 3**

- FANUC M-710iC/50 6-axis robot arm
- Robot electrical interface box
- CE-compliant safety guard fencing
- End-of-arm parts gripper
- Part spring pusher
- All-inclusive design, with plug-and-play capabilities to Haas vertical machining centers and turning centers
- Single gripper included
- Requires separate 200-230V 3-Phase, 50/60 Hz, 7.5 kVA power supply



NOTE: Part table not included.  
The robot must be bolted to the floor.





## Available On These CNC Vertical Mills:

**VM-6 Mold Machine**  
64" x 32" x 30" travels

**VF-6/40**  
64" x 32" x 30" travels

**VF-6/50**  
64" x 32" x 30" travels

**VF-6/40TR Trunnion**  
64" x 32" x 30" travels

**VF-6/50TR Trunnion**  
64" x 32" x 30" travels

**VF-6SS Super-Speed**  
64" x 32" x 30" travels

**VF-7/40**  
84" x 32" x 30" travels

**VF-7/50**  
84" x 32" x 30" travels

**VF-8/40**  
64" x 40" x 30" travels

**VF-8/50**  
64" x 40" x 30" travels



**VF-9/40**  
84" x 40" x 30" travels

**VF-9/50**  
84" x 40" x 30" travels

**VF-10/40**  
120" x 32" x 30" travels

**VF-10/50**  
120" x 32" x 30" travels

**VF-11/40**  
120" x 40" x 30" travels

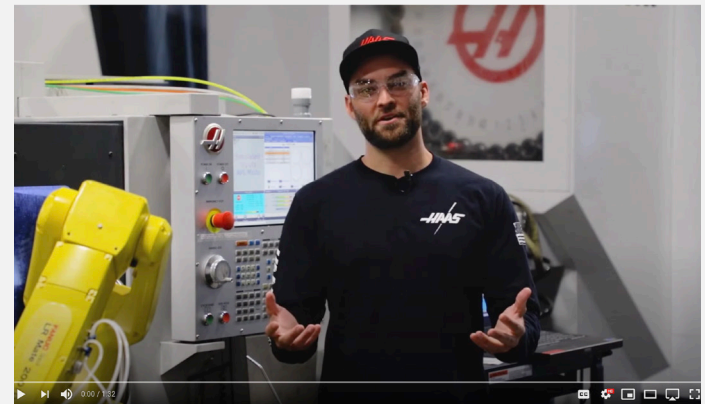
**VF-11/50**  
120" x 40" x 30" travels

**VR-8**  
64" x 40" x 42" travels

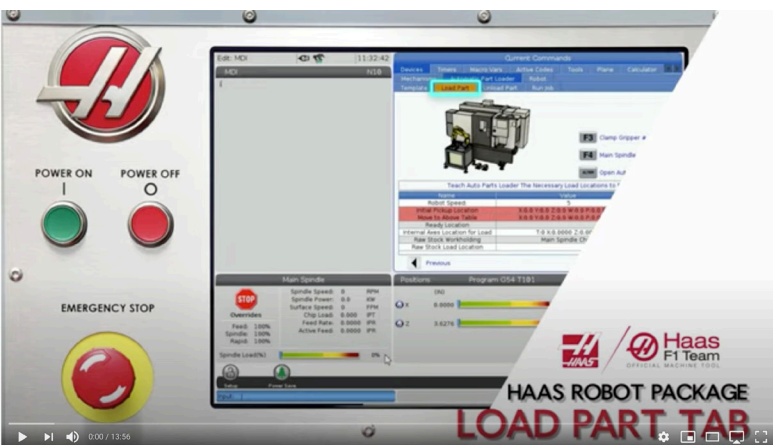
**VR-9**  
84" x 40" x 42" travels

**VR-11**  
120" x 40" x 42" travels

Product Specialist Corey Sullivan does a quick run-through showing Haas' Intuitive Robot Interface being used to connect a 6-axis robot to an ST-10Y.



# 01 Robot Systems



There's never been an easier way to add a 6-axis robot to a Haas VMC or turning center. Watch this how-to video on setting up your Haas robot package.

## EASY-TO-USE ROBOT INTERFACE

Our easy-to-use Haas Robot Interface uses simple, step-by-step instructions to help the operator “teach” a 6-axis robot the correct positions for picking up, loading, and unloading parts.

The robot's motion is operated directly from the Haas Touch Remote Jog Handle, allowing for seamless integration.

Step-by-step instructions and graphics help guide the operator through the setup process:

- Set the part template pattern – number of rows and columns
- Set the first part pick-up position
- Teach the linear path the robot arm will follow to the ready position
- Set the ready position – where the robot will wait until machining is complete
- Set the load and unload positions at the workholding
- Set the drop-off position for the first completed part

## SIMPLE TO OPERATE IN APL MODE

APL Mode seamlessly combines the part program selected in Memory [MEM] with a designated robot setup template to automate part production and boost productivity.

**APL Mode:**

- Simply replace your M30 with an M299 at the end of your part program
- From the Run Job tab, press [INSERT] to select the designated APL setup template (Job) and turn on APL Mode; an "APL Mode" watermark will appear over your program, and you're ready to go
- Press Cycle Start, and the robot will load the first part, and execute the part program in Memory
- While the part is being machined, the robot will drop off the completed part, and then pick up new raw stock and stage it at the designated load position
- The operator can monitor table status, the number of parts completed, which number part is inside the machine, and which part is next – all from Run Job page
- The cycle continues until all parts on the table are completed, or a specified number of parts is reached





# Automatic Parts Loaders

- Lathe APLs
- Mill APLs
- Small UMC APLs





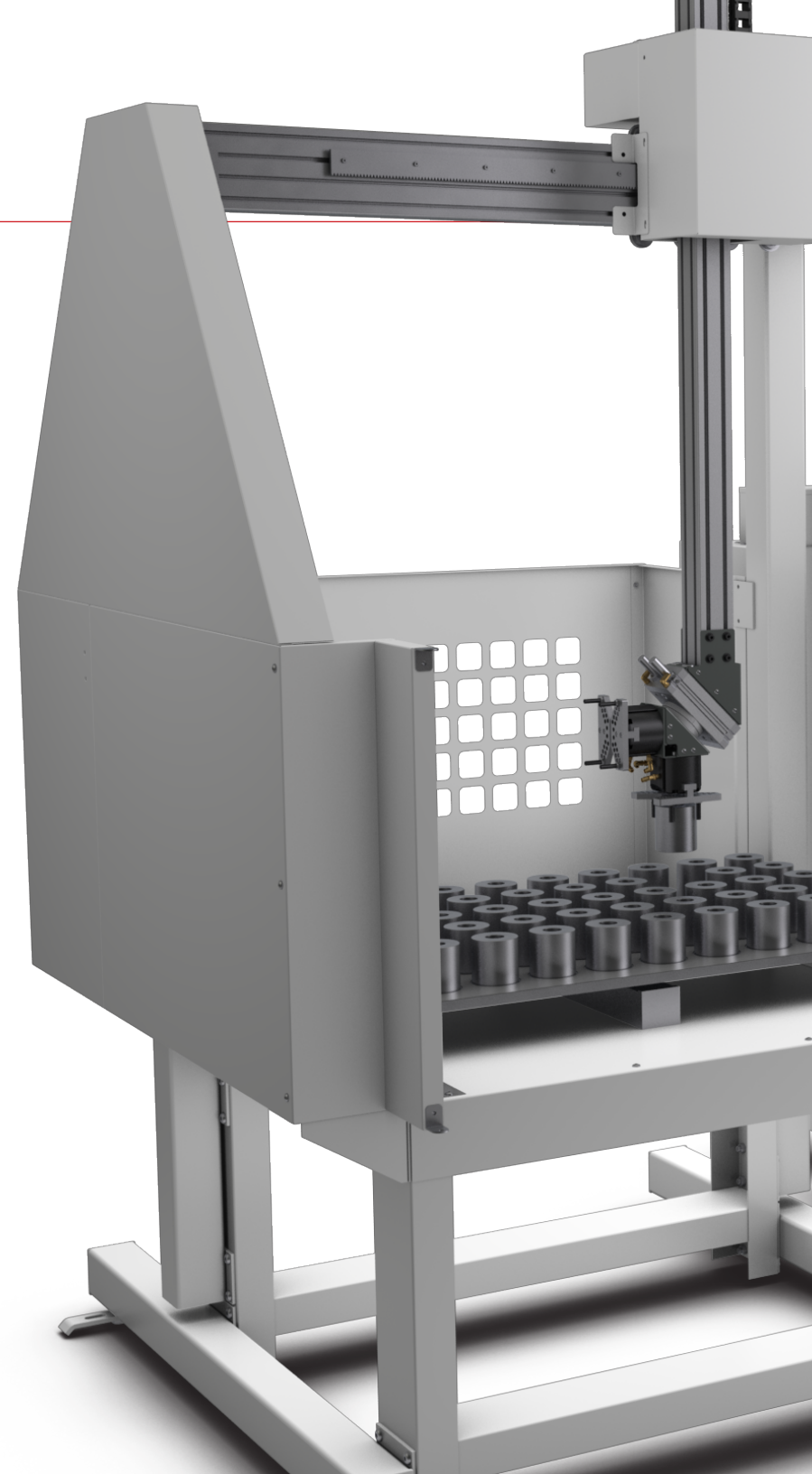
## 02 Automatic Parts Loaders

Just steady,  
uninterrupted  
production.

### HAAS AUTOMATIC PARTS LOADER FOR LATHES

- All-inclusive design, with plug-and-play capabilities
- Interfaces directly with the Haas control
- Accommodates parts up to 5.8" diameter x 5" length x 10 lb
- Includes light curtain for safe operation (non-CE)

*NOTE: CE compliance requires the optional safety guard fencing.*







### Available On These Haas CNC Lathes:



**ST-10Y**  
12" x 16" max capacity  
1.75" bar capacity / 6.5" chuck

**ST-20Y**  
11.75" x 22.5" max capacity  
2.5" bar capacity / 8.3" chuck

**ST-15Y**  
12" x 16" max capacity  
2.5" bar capacity / 8.3" chuck

**ST-25**  
13" x 22.5" max capacity  
3.0" bar capacity / 10" chuck

**ST-20**  
13" x 22.5" max capacity  
2.5" bar capacity / 8.3" chuck

**ST-25Y**  
11.75" x 22.5" max capacity  
3.0" bar capacity / 10" chuck

### It's Really That Simple

We asked Luke, one of our accountants, to take a crack at setting up the Automatic Parts Loader in our Demo Room. Watch how it turned out.

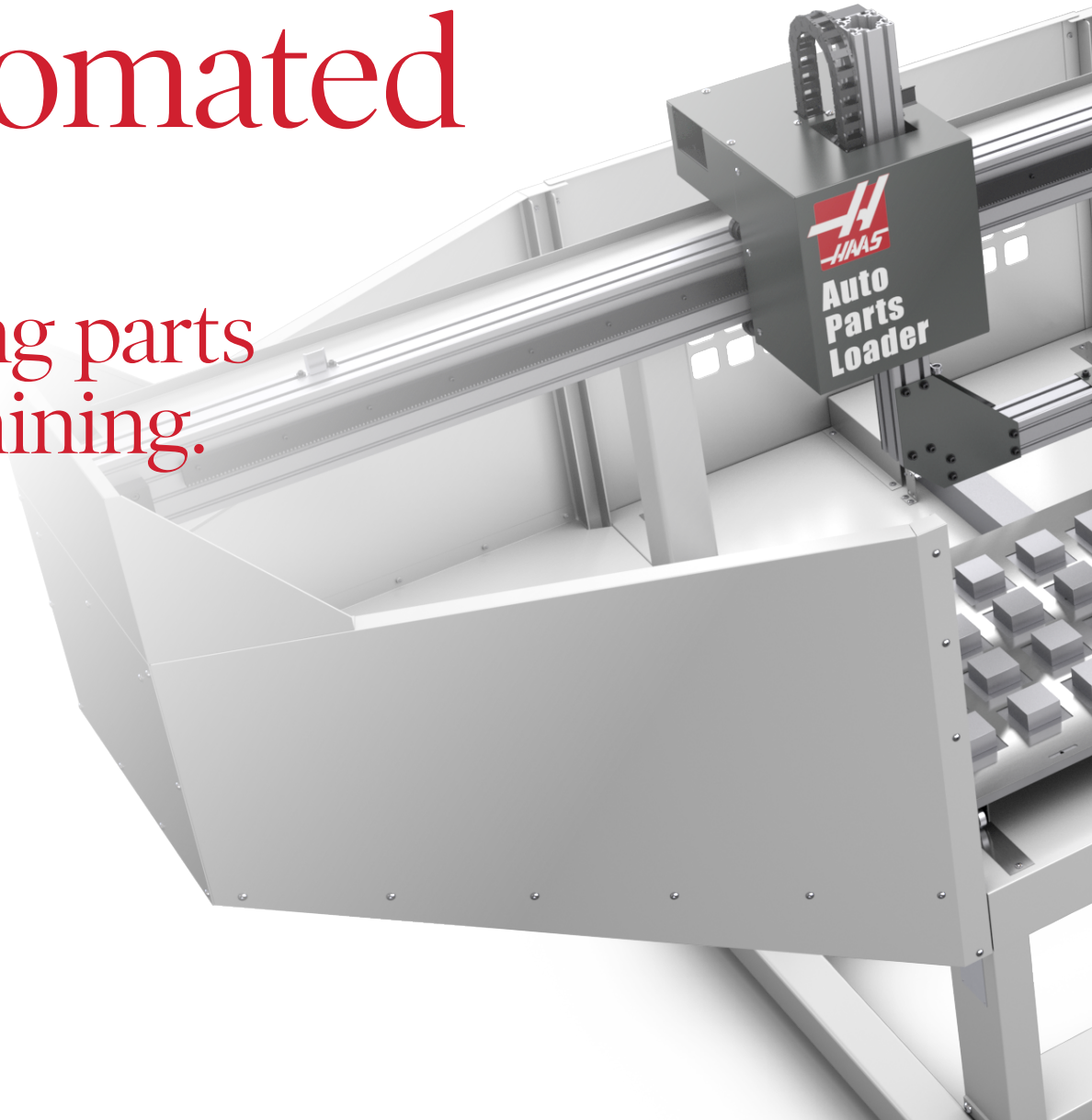


Be fully automated  
in minutes,  
loading and unloading parts  
for unattended machining.

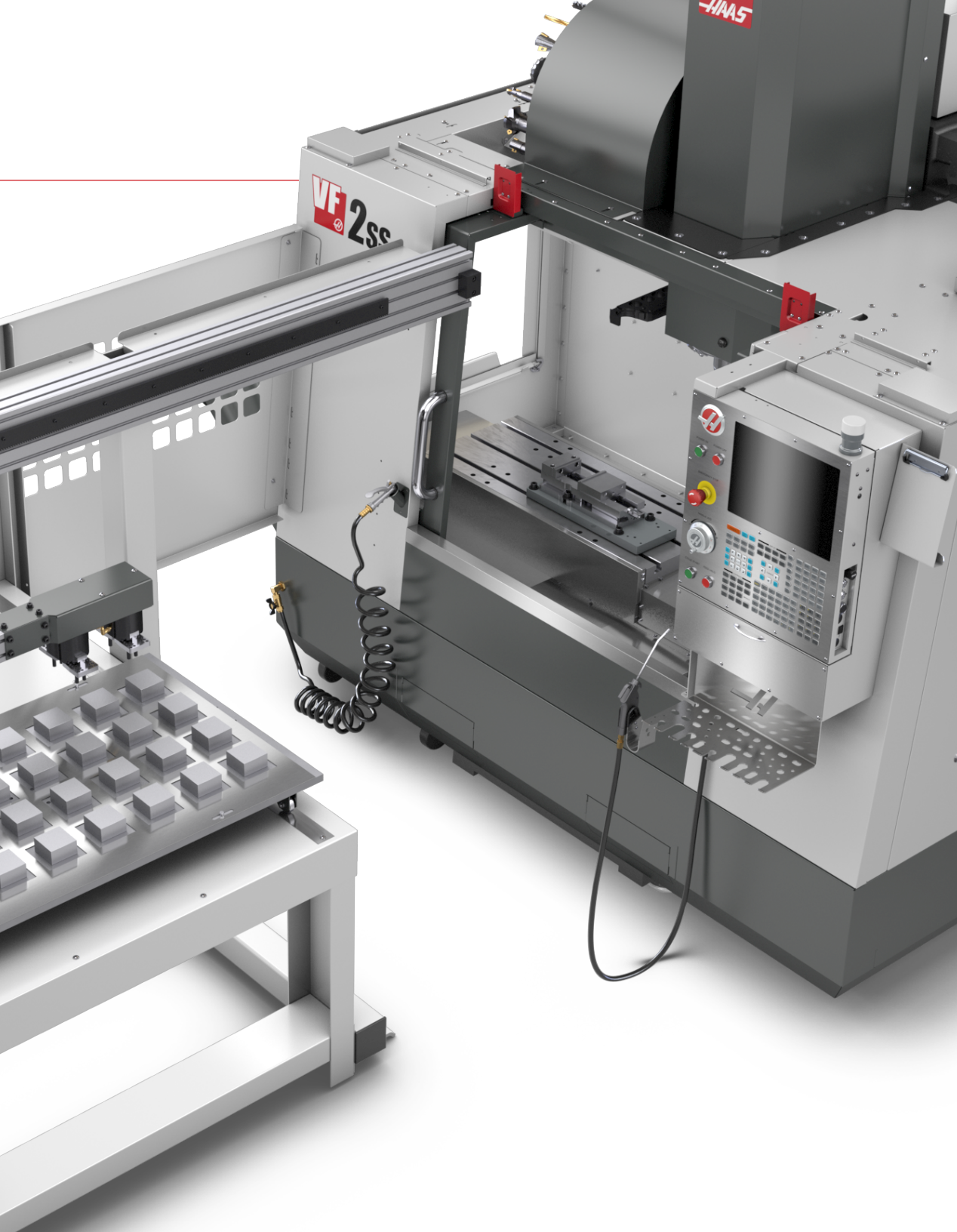
### HAAS AUTOMATIC PARTS LOADER FOR MILLS

- All-inclusive design, with plug-and-play capabilities to Haas small vertical machining centers
- Interfaces directly with the Haas control
- Accommodates parts up to 6" length x 6" width x 10 lb
- Includes light curtain for safe operation (non-CE)

*NOTE: CE compliance requires the optional safety guard fencing.*







Available On These  
**Haas CNC Vertical Mills:**

**VF-1**  
20" x 16" x 20" max travels  
40 taper / 3 axis  
8100 rpm / 20 tools

**VF-2**  
30" x 16" x 20" travels  
40 taper / 3 axis  
8100 rpm / 20 tools

**VF-2SS**  
30" x 16" x 20" travels  
40 taper / 3 axis  
8100 rpm / 30+1 tools

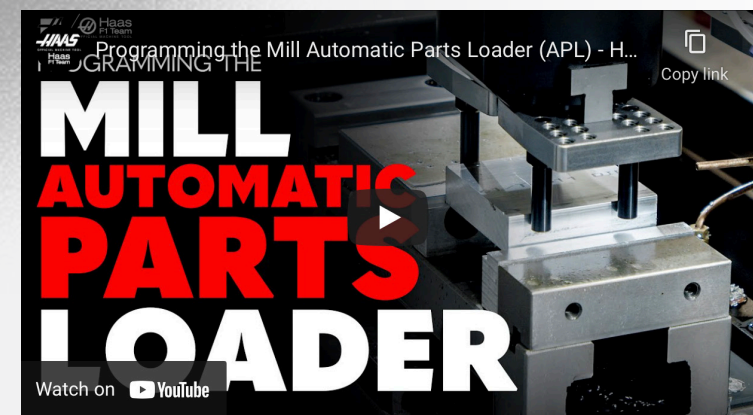


**VF-2YT**  
30" x 20" x 20" travels  
40 taper / 3 axis  
8100 rpm / 20 tools

**VF-2SSYT**  
30" x 20" x 20" travels  
40 taper / 3 axis  
12,000 rpm / 30+1 tools

**VM-2 Mold Machine**  
30" x 20" x 20" travels  
40 taper / 3 axis  
12,000 rpm / 30+1 tools

Watch how the APL integrates seamlessly with the Haas control, and features a simple setup interface that will have you fully automated in minutes, loading and unloading parts for unattended machining.



Available On These  
**Universal Machining Centers:**

**UMC-500**

24" x 16" x 16" travels / 40 taper  
5-axis / 8100 rpm / 30+1 tools

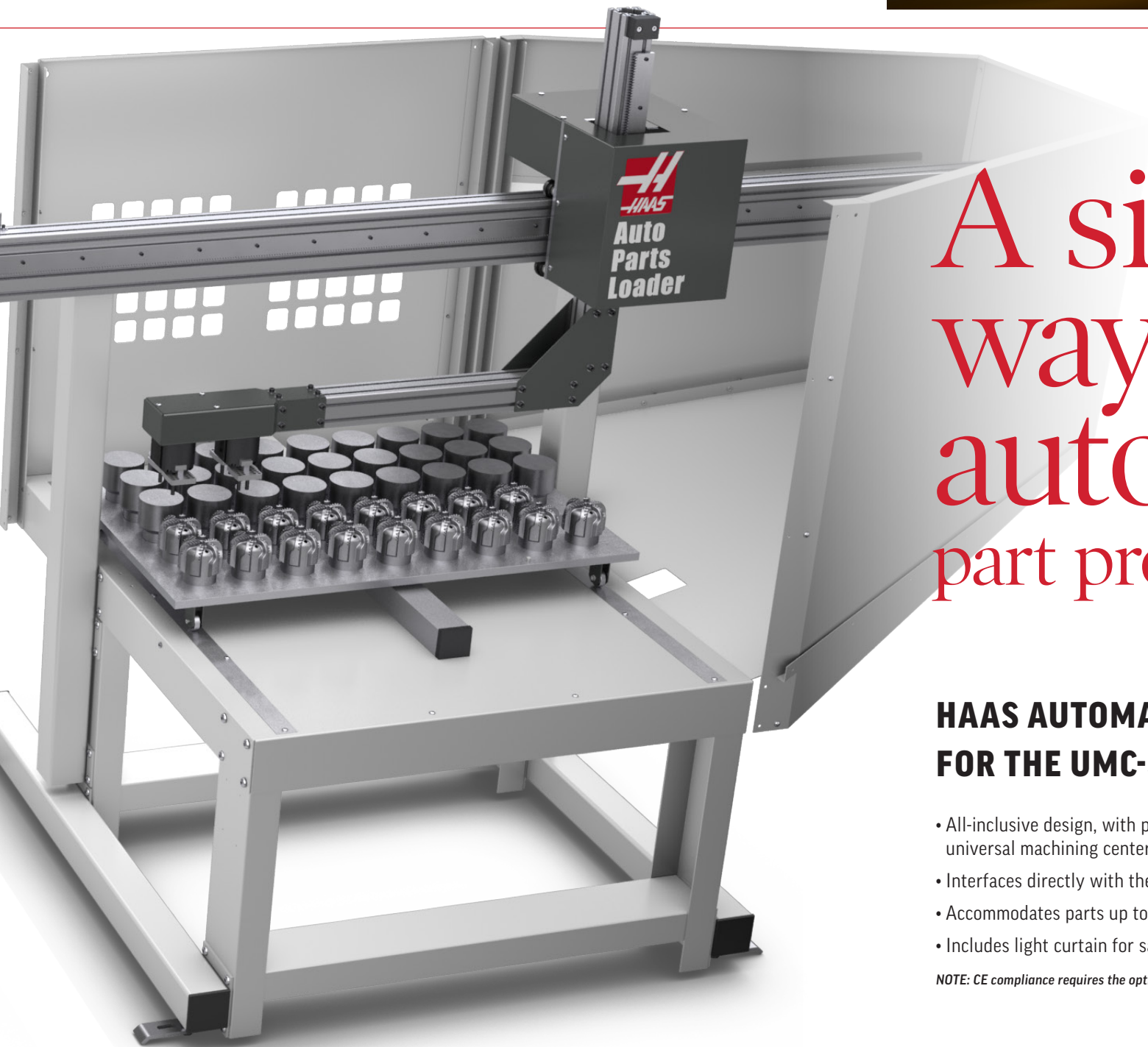


**UMC-500SS**

24" x 16" x 16" travels / 40 taper  
5-axis / 12,000 rpm / 30+1 tools







## A simple way to automate part production

### HAAS AUTOMATIC PARTS LOADER FOR THE UMC-500/SS

- All-inclusive design, with plug-and-play capabilities to Haas small universal machining centers
- Interfaces directly with the Haas control
- Accommodates parts up to 6" length x 6" width x 10 lb
- Includes light curtain for safe operation (non-CE)

*NOTE: CE compliance requires the optional safety guard fencing.*

The easy-to-use interface in the Haas control guides you through a simple, step-by-step setup process that “teaches” the APL arm its positions, and has you fully automated in minutes, loading and unloading parts for unattended machining.



### Setting up the Haas Automatic Parts Loader (APL) on a VF-2YT

Haas Products and Tech Supervisor Andrew Harnett demonstrates how to move the mill APL arm to pick up, load, and unload the part, and shows how to record each of those positions in the control, so the APL can run automatically in conjunction with your milling program.

## EASY-TO-USE APL INTERFACE

Our easy-to-use APL interface uses simple, step-by-step instructions to help the operator “teach” the APL the correct positions for picking up, loading, and unloading parts.

The APL is operated directly from the machine's pendant, allowing seamless integration.

Step-by-step instructions and graphics help guide the operator through the setup process:

- Set part template pattern – number of rows and columns
- Set first part pick-up position
- Set staging position for APL to wait until machining is complete
- Set load and unload positions at the electronic vise
- Set part drop-off position for the first completed part



## SIMPLE TO OPERATE IN APL MODE

APL Mode seamlessly combines the part program selected in Memory [MEM] with a designated APL setup template to automate part production and boost productivity.

### APL Mode:

- Simply replace your M30 with an M299 at the end of your part program
- From the Run Job tab, press [INSERT] to select the designated APL setup template (Job) and turn on APL Mode; an “APL Mode” watermark will appear over your program, and you’re ready to go
- Press Cycle Start, and the APL will load the first part, and execute the part program in Memory
- While the part is being machined, the APL will drop off the completed part, and then pick up new raw stock and stage it at the designated load position
- The operator can monitor table status, the number of parts completed, which number part is inside the machine, and which part is next
- The cycle continues until all parts on the table are completed, or a specified number of parts is reached



# Pallet Pool Systems

# 03

- 6-Station for EC-400
- 8-Station for UMC-750/1000/SS
- 6-Station for VC-400/SS
- 8- or 16-Station for UMC-500/SS







Available On These  
**EC-400 Horizontal Mills:**

**EC-400**  
4-Axis Horizontal Machining Center  
22" x 25" x 22" travels  
40 taper / 4-axis  
8100 rpm / 30+1 tools

NOTE: The Pallet Pool requires the optional  
50+1 or 100+1 side-mount tool changer.





# High-volume production, unattended operation

Watch how we pair the EC-400 with our 6-Station Pallet Pool and get true “lights out” production capabilities.



### 6-STATION PALLET POOL, EC-400

- Fully integrated solution for lights-out production
- 6 storage locations + 1 machining station
- 7 total pallets: 2 machine pallets + 5 additional pallets
- 500 lb max payload per pallet (workpiece + workholding)
- Easy-to-use scheduling interface in the Haas control
- Dedicated load/unload station

# 03 Pallet Pool Systems

Designed with today's job shop in mind, providing  
**simple & affordable  
automation.**

## **6-STATION PALLET POOL, VC-400/SS**

- Fully integrated solution for lights-out production
- Pallet size: 22" x 14.5" with T-slots
- 6 storage locations + 1 machining station
- 7 total pallets: 2 machine pallets + 5 additional pallets
- 500 lb max payload per pallet (workpiece + workholding)
- Easy-to-use scheduling interface in the Haas control
- Dedicated load/unload station







### VC-400 Vertical Mill

22" x 16" x 20" travels / 40 taper / 3-axis / 8100 rpm / 30+1 tools

Note: Pallet Pool requires the optional 50+1 side-mount tool changer.

Whether you're doing high-volume production runs, high-mix/low volume machining, or just want to run lights-out, this fully integrated 6-station pallet pool will boost the productivity of your VC-400.



# Excels at high-mix/low-volume part runs

## 16-STATION PALLET POOL, UMC-500/SS

- Fully integrated solution for lights-out production
- Includes 50+1 Side-Mount Tool Changer
- Includes CNC Control Cabinet Cooler
- 16+1 pallets (16 storage locations + 1 machining station)
- 200 lb max payload per pallet (workpiece + workholding)
- 8" dia. x 16.5" tall work envelope
- Must be ordered with the machine

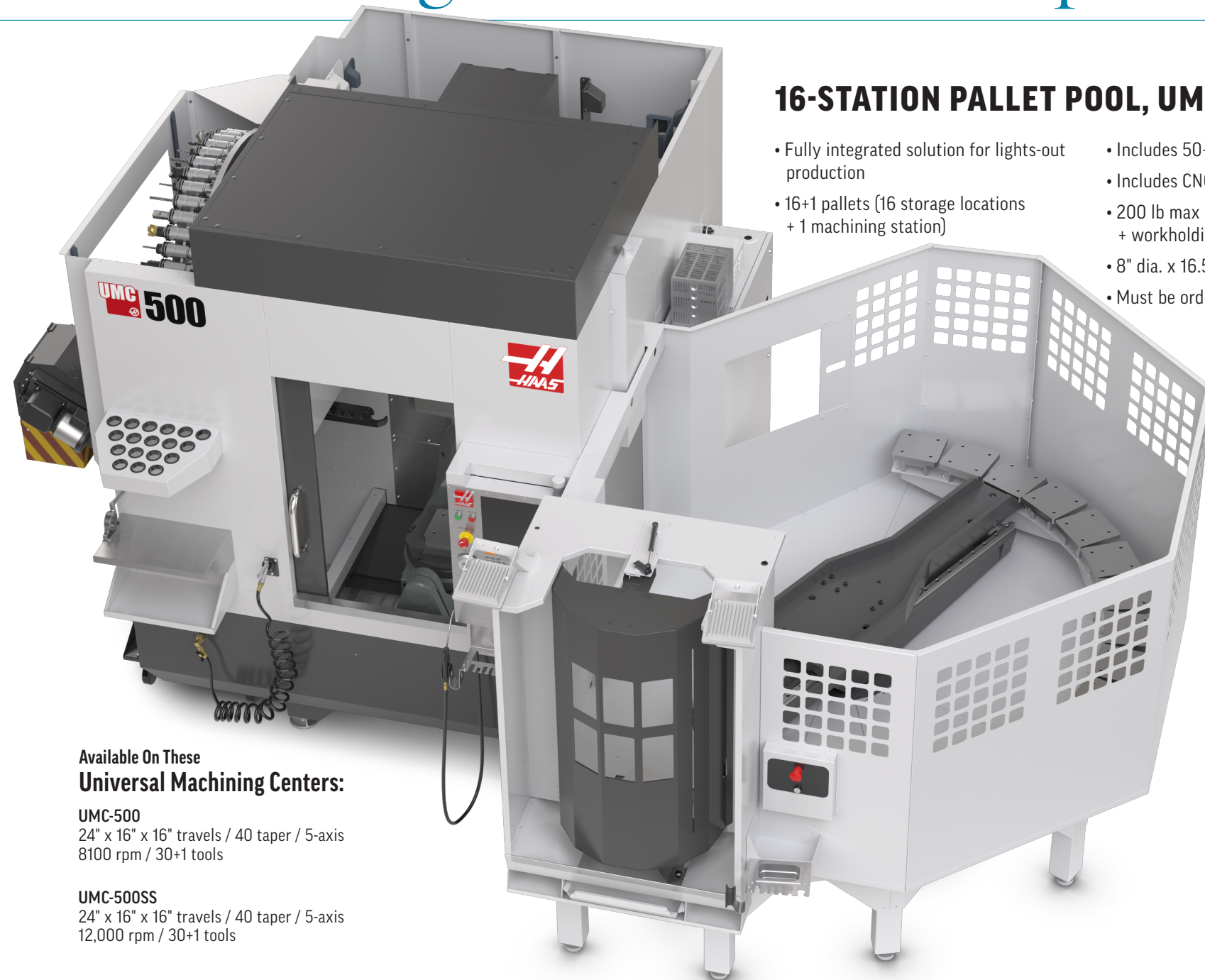
### Available On These Universal Machining Centers:

#### UMC-500

24" x 16" x 16" travels / 40 taper / 5-axis  
8100 rpm / 30+1 tools

#### UMC-500SS

24" x 16" x 16" travels / 40 taper / 5-axis  
12,000 rpm / 30+1 tools





# Pallet Pool Systems

## 8-STATION PALLET POOL, UMC

- Fully integrated solution for lights-out production
- 8+1 pallets (8 storage locations + 1 machining station)
- Includes 50+1 Side-Mount Tool Changer
- 200 lb max payload per pallet (workpiece + workholding)
- 16" dia. x 21" tall work envelope
- Easy-to-use scheduling interface in the Haas control
- Dedicated load/unload station
- Must be ordered with the machine



### Available On These Universal Machining Centers:

**UMC-750**  
30" x 20" x 20" travels  
40 taper / 5-axis / 8100 rpm  
30+1 tools

**UMC-750SS**  
30" x 20" x 20" travels  
40 taper / 5-axis / 12,000 rpm  
30+1 tools

**UMC-1000**  
40" x 25" x 25" travels  
40 taper / 5-axis / 8100 rpm  
30+1 tools

**UMC-1000SS**  
40" x 25" x 25" travels  
40 taper / 5-axis / 12,000 rpm  
30+1 tools



04

## Haas Bar Feeder





The Haas Bar Feeder is a simple and affordable way to automate part production on Haas turning centers to boost productivity. Designed and built for use with Haas ST and DS series CNC turning centers, the Haas Bar Feeder integrates seamlessly with the Haas control.

# Boost Haas turning center productivity with fast set up & quick changeovers

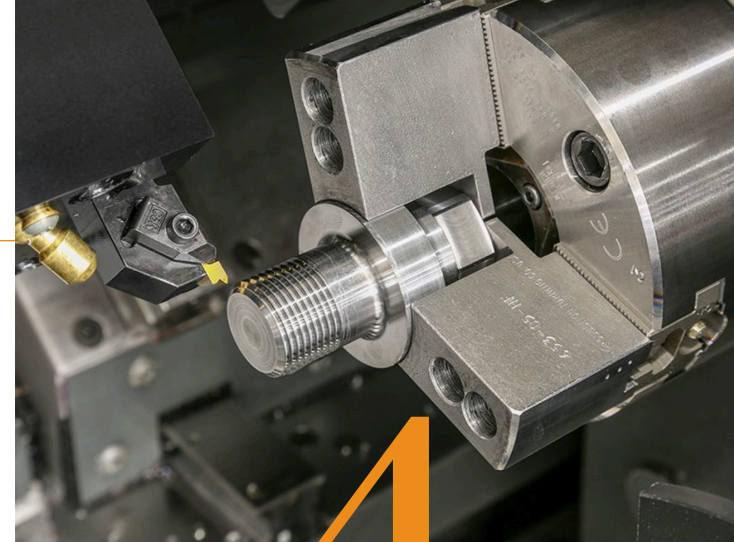
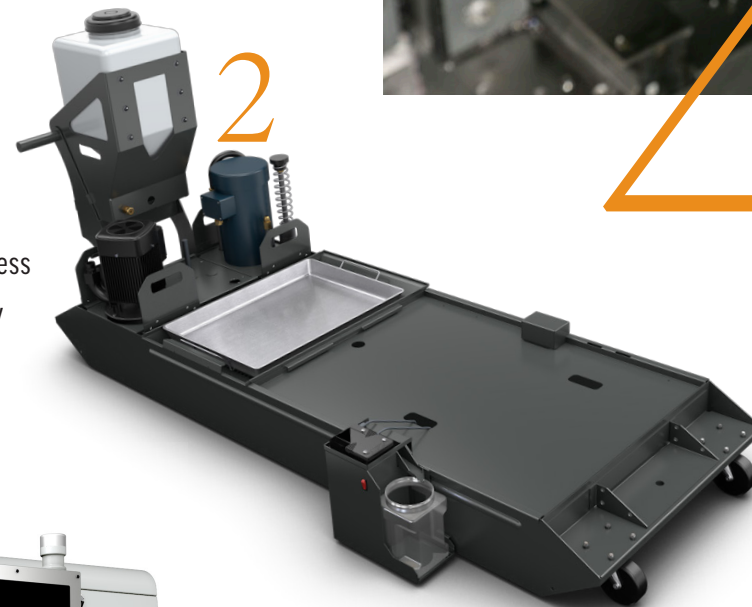
## HAAS BAR FEEDER BENEFITS:

- Rollaway design provides easy access for quick liner changes
- High push-rod speeds for shorter part-to-part cycle times
- Ability to use the pushrod as a stop
- Improved mechanical design for increased reliability and performance
- Easy bar diameter changeover (height adjustment), with better ergonomics
- Quick-change pushrod design, with no tools needed
- Storage for both pushrod diameters, 3/8" (9.5 mm) and 3/4" (20 mm)
- Easily accessible storage for all extruded liners

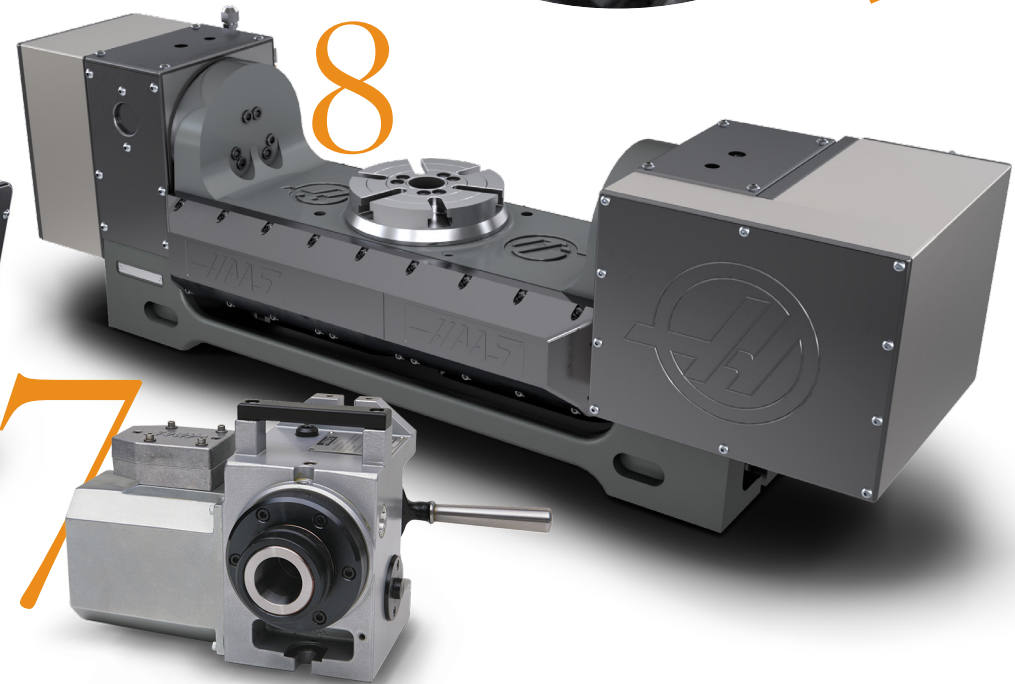


## Simplify your processes & operations

1. **Auto Door** - Reduce fatigue for lathe and mill operators / 2. **Automatic Coolant Refill** - Take the calculation, chemistry, and mixing out of the coolant-making process  
3. **QuikChange** - Rotary accessories and tooling block system allows you to quickly change part groups / 4. **Sub-Spindle** - Finish the 2nd-op in a single machine.







**5. Wireless Intuitive Probing System** - Quickly define work offset coordinates, tool length offsets, and more / **6. TRT Rotaries** - Reduce setups with added 5-axis capabilities / **7. Indexers** - Easy to set up, and ideal for holding small parts with accuracy / **8. TR Series rotary tables** - Designed to handle medium to large parts for multi-side machining with accuracy and repeatability / **9. Dual-Stage Parts Catcher** - Moves in and out of work envelope, without interrupting the machining cycle.

# The center of your Haas experience

Automation touches every part of the Haas CNC experience, but none of it would be possible without our control. The latest generation of the Haas control is crucial to every operation.

1. **MyHaas** - Online machine management app
2. **HaasConnect** - Live machine monitoring
3. **Media Display M-Code** - Communicate with operators and programmers from the Haas control
4. **DWO/TCPC** - Simplifies 5-axis set up and operation, by applying appropriate offsets and centers of rotation
5. **Alarm Videos** - Alarm explanations and troubleshooting videos
6. **Visual Programming System** - Quickly generate G-code for simple and complex parts and processes.



### Machine Details

**EC-1600ZT**  
#0795 EC-1600ZT

Serial #: 2054741  
Group: MyHaas  
Build Date: 9/15/2019  
Warranty Start: 5/15/2019  
Warranty End: 5/15/2020

Status: **ACTIVE**

[Remove This Machine](#)

[Build & Price This Machine](#)

[Product Detail Page](#)

[Learn About Upgrades >](#)

[Order Parts](#)

[Service Info](#)

### LATEST ACTIVITY

Action Date	Time	Machine Event
08/05/19	15:32:47	Program Started
08/05/19	15:28:56	Program Stopped
08/05/19	15:04:53	Program Started
08/05/19	14:51:23	Program Stopped
08/05/19	14:18:59	Program Started
08/05/19	14:10:24	Program Stopped
08/05/19	13:32:21	Program Started
08/05/19	13:27:06	Program Stopped
08/05/19	12:48:53	Program Started
08/05/19	12:39:03	Program Stopped

[Notification Settings](#)









## TOP-QUALITY TOOLS, MADE BY TOP QUALITY MANUFACTURERS FROM AROUND THE WORLD

All Haas Tooling products have been thoroughly tested by Haas machinists on Haas machines, and will be delivered directly to your shop with the click of a button. Sign up for the **HaasTooling.com Buyer's Club** for the best deals online!

### MILL TOOLHOLDING

- End Mill Holders
- Shell Mill Holders
- Shrink Fit Holders
- ER Collet Chucks
- Milling Chucks, Collets & Kits
- Drill Chucks
- Pull Studs
- Mill Toolholding Kits

### MILL WORKHOLDING

- Vises
- Mill Vise Jaws
- Workholding Accessories

### MILLING

- Shell Mill Bodies
- Milling Inserts
- End Mills
- End Mill Kits
- Chamfer Mills & Inserts
- Indexable End Mill Bodies
- Ball End Mills

### HSK TOOLHOLDERS

- HSK ER Collet Chucks
- HSK Shell Mill Holders

### LATHE TOOLING

- Cut-Off Tooling
- Cut-Off Tooling Kits
- Turning Inserts
- Grooving Tools
- Small ID Grooving & Threading Tools
- Threading Inserts
- Threading Toolholders
- ID Toolholding
- OD Toolholding

### LATHE WORKHOLDING

- Live Centers

### ER COLLET

- ER Collets & Accessories
- ER Collet Kits

### HOLEMAKING

- Carbide Drills
- Indexable Drill Bodies
- Indexable Drill Inserts
- Indexable Drilling Kits
- Modular Drill Bodies
- Modular Drill Heads
- Cobalt Drills & Sets
- Center Drills

### THREADING

- Taps
- Threading Inserts
- Thread Mills

### TOOL MANAGEMENT

- Tool Presetting Machines
- Shrink Fit Machines

### TOOLING ACCESSORIES

- Spindle Taper Cleaner
- Spindle Test Bars
- Haas Shop Lift
- Toolholder Fixtures

### TOOL KITS

- End Mill Kits
- Indexable Drilling Kits
- Indexable Milling Kits
- Mill Toolholding Kits

### APPAREL & ACCESSORIES

- Accessories
- Apparel

**BUY DIRECT**  
**FREE SHIPPING**  
For Orders Over \$99  
48 Contiguous United States Only





# Haas is your one-stop resource for all your machining needs.

## **VERTICAL MILLS**

VF Series  
Universal Machines  
VR Series  
Pallet-Changing VMCs  
Mini Mills  
Mold Machines  
Drill/ Tap/ Mill Series  
Toolroom Mills

Compact Mills  
Gantry Series  
Vertical Mill/Turn  
Extra-Large VMC  
Desktop Mill  
Control Simulator  
Mill Auto Parts Loader

## **MULTI-AXIS SOLUTIONS**

5-Axis Mills  
Y-Axis Lathes

## **LATHES**

ST Series  
Dual-Spindle  
Toolroom Lathes  
Chuck Lathe  
Bar Feeder  
Lathe Auto Parts Loader

## **HORIZONTAL MILLS**

50-Taper  
40-Taper

## **ROTARIES & INDEXERS**

Rotary Tables  
Indexers  
5-Axis Rotaries  
Extra-Large Rotaries

## **AUTOMATION SYSTEMS**

Robot Systems  
Automatic Parts Loaders  
Pallet Pool Systems  
Haas Bar Feeder

Haas delivers a complete line of high-performance machines at unbeatable prices to make your buying experience exceptional. From model selection, machine options, and automation systems, to tooling packages and financing plans, we make it easy to find the right solution for your shop.

Visit us at  
[www.HaasCNC.com](http://www.HaasCNC.com)



# Get Automated.



**Haas Automation, Inc. | [www.HaasCNC.com](http://www.HaasCNC.com) | 800-331-6746**

Specifications subject to change without notice. Not responsible for typographical errors. Machines shown with optional equipment.  
Actual product appearance may differ. Pricing subject to change without notice.