

88

THE HAAS JOURNAL

**MORE**  **CNC**





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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.

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# THE HAAS JOURNAL

# DC SERIES



## High-Speed Drill Centers for a Wide Range of Industries

Haas traditional-style drill/tap machines are well suited for both high-mix, low-volume part production with fast turnarounds, and high-volume production runs.

Haas DC Series drill centers combine high-speed capabilities and space-saving footprints to create versatile vertical machining centers suitable for producing high-precision 2D and 3D parts, such as those found in the communications, aerospace, medical, and automotive industries.

**30/40**  
TAPER

**10k - 20k**  
RPM

**3/4/5**  
AXIS

**20-21**  
TOOL CAPACITY

**30 TAPER**



**DC-1**  
23.6" x 17.7" x 13" Travels  
(600 x 450 x 330 mm)  
30 Taper / 3 Axis  
10,000 rpm Standard  
High-Speed Tool Turret  
21 Tool Capacity



**DC-2**  
39.4" x 19.7" x 13" Travels  
(1000 x 500 x 330 mm)  
30 Taper / 3 Axis  
10,000 rpm Standard  
High-Speed Tool Turret  
21 Tool Capacity

**UP TO 20k**  
30T SPINDLE OPTION

**With X-axis travels up to 98" (2.5 m),**  
our family of **HIGH-SPEED DRILL CENTERS** is growing.

**40 TAPER**



**DC-1/40**  
23.6" x 17.7" x 11.8" Travels  
(600 x 450 x 300 mm)  
40 Taper / 3 Axis  
10,000 rpm Standard  
High-Speed Tool Turret  
20 Tool Capacity



**DC-2/40**  
39.4" x 19.7" x 19.7" Travels  
(1000 x 500 x 500 mm)  
40 Taper / 3 Axis  
10,000 rpm Standard  
High-Speed Tool Turret  
20 Tool Capacity



**DC-3/40**  
78.7" x 19.7" x 11.8" Travels  
(2000 x 500 x 300 mm)  
40 Taper / 3 Axis  
10,000 rpm Standard  
High-Speed Tool Turret  
20 Tool Capacity



**DC-4/40**  
98.4" x 19.7" x 11.8" Travels  
(2500 x 500 x 300 mm)  
40 Taper / 3 Axis  
10,000 rpm Standard  
High-Speed Tool Turret  
20 Tool Capacity

**UP TO 15k**  
40T SPINDLE OPTION

### Machine Specifications



	<b>DC-1   DC-1/40</b>	<b>DC-2   DC-2/40</b>	<b>DC-3/40</b>	<b>DC-4/40</b>
<b>TRAVELS</b>				
X Axis	23.6 in (600 mm)	39.4 in (1000 mm)	78.7 in (2000 mm)	98.4 in (2500 mm)
Y Axis	17.7 in (450 mm)	19.7 in (500 mm)	19.7 in (500 mm)	19.7 in (500 mm)
Z Axis	13.0 in (330 mm)   11.8 in (300 mm)	13.0 in (330 mm)   19.7 in (500 mm)	11.8 in (300 mm)	11.8 in (300 mm)
<b>TABLE</b>				
Length	27.6 in (700 mm)	43.3 in (1100 mm)	82.7 in (2100 mm)	102.4 in (2600 mm)
Width	16.5 in (420 mm)	19.7 in (500 mm)	19.7 in (500 mm)	19.7 in (500 mm)
T-Slot Width	0.550 in (14 mm)	0.630 in (16 mm)	0.630 in (16 mm)	0.630 in (16 mm)
T-Slot Center Distance	4.92 in (125 mm)	3.94 in (100 mm)	3.94 in (100 mm)	3.94 in (100 mm)
Number of Std T-Slots	3	5	5	5
Max Weight on Table	550 lb (250 kg)	772 lb (350 kg)	1323 lb (600 kg)	1323 lb (600 kg)
<b>DIMENSIONS+</b>				
Operating Height	100 in (2540 mm)	117 in (2972 mm)	104 in (2642 mm)	108 in (2743 mm)
Operating Depth	106 in (2692 mm)	106 in (2692 mm)	106 in (2692 mm)	103 in (2616 mm)
Operating Width	76 in (1930 mm)	111 in (2819 mm)	140 in (3556 mm)	160 in (4064 mm)
Weight	4630 lb (2100 kg)   5732 lb (2600 kg)	7275 lb (3300 kg)   7385 lb (3350 kg)	13,448 lb (6100 kg)	14,550 lb (6600 kg)

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## GM SERIES

### Large-Platform CNC Gantry Machines for Big Jobs

The Haas gantry mills have the power to cut aluminum and other metals, as well as the speed to cut plastics and other light materials. These machines easily handle large sheets, or can machine small parts by the thousand.



**40**  
TAPER

**3/4/5**  
AXIS

**8.1-15k**  
RPM

**30+1**  
TOOL CAPACITY

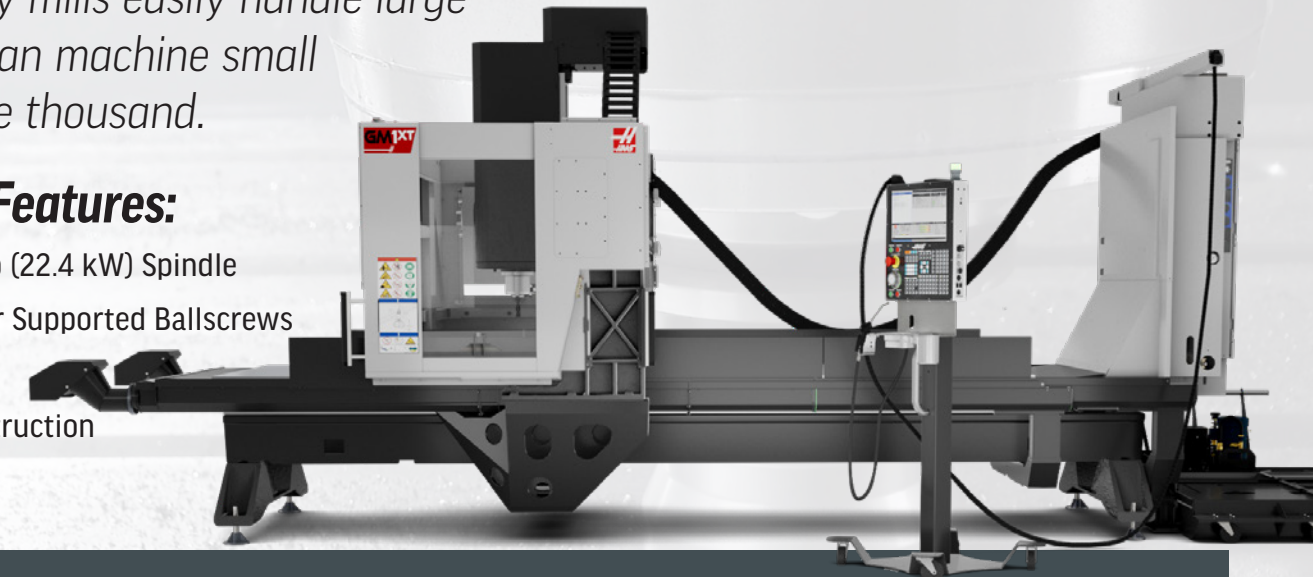


Travels	GM-1	GM-1XT	GM-2
X Axis	121 in / 3073 mm	142 in / 3607 mm	145 in / 3683 mm
Y Axis		61 in / 1549 mm	87.5 in / 2223 mm
Z Axis		16 in / 406 mm	22 in / 559 mm
Table	GM-1	GM-1XT	GM-2
Length	123 in / 3124 mm	144 in / 3658 mm	
Width		53 in / 1346 mm	72 in / 18.29 mm
Thickness		1 in / 25 mm	
Between Columns		62 in / 1575 mm	75 in / 1905 mm
Tool Changer	GM-1	GM-1XT	GM-2
Type		SMTC	
Capacity		30 + 1	
Max Tool Weight		12 lb	
Feedrates	GM-1	GM-1XT	GM-2
Max Cutting		800 ipm / 20.3 m/min	472 ipm / 12.0 m/min
Rapids on X		800 ipm / 20.3 m/min	472 ipm / 12.0 m/min
Rapids on Y		2100 ipm / 53.3 m/min	1889 ipm / 48.0 m/min
Rapids on Z		1100 ipm / 27.9 m/min	1181 ipm / 30.0 m/min

Haas gantry mills easily handle large sheets, or can machine small parts by the thousand.

#### Standard Features:

- Powerful 30 hp (22.4 kW) Spindle
- Large-Diameter Supported Ballscrews
- Cast Iron Construction

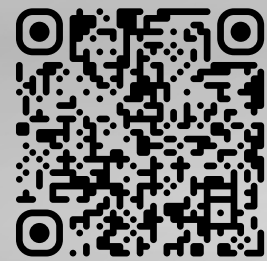


GM Series gantry mills are equipped with a 30+1 side-mount tool changer, giving you the tool-change speed and capacity to get the job done.

## BOX WAY LATHES

*You Asked, We Delivered.*

Haas SB Series lathes offer the high dynamic stiffness, load-bearing capacity, and vibration damping associated with traditional box way machines, combined with the powerful, easy-to-use Haas control, and backed by the industry-leading support of the Haas Factory Outlet network.



### Model Lineup



**SB-28 – 2-Axis**  
**13.5" x 21.25" (345 x 540 mm) max cap**  
 Chuck Size 10 in / 254 mm  
 Spindle Nose A2-8  
 Bar Capacity 2.9 in / 74 mm  
 Max Speed 3200 rpm



**SB-35 – 2-Axis**  
**13.5" x 30" (345 x 760 mm) max cap**  
 Chuck Size 12 in / 305 mm  
 Spindle Nose A2-8  
 Bar Capacity 3.5 in / 90 mm  
 Max Speed 2500 rpm



**SB-35L – 2-Axis**  
**13.5" x 50" (345 x 1260 mm) max cap**  
 Chuck Size 12 in / 305 mm  
 Spindle Nose A2-8  
 Bar Capacity 3.5 in / 90 mm  
 Max Speed 2500 rpm



**SB-28Y – Y-Axis**  
**12" x 18.5" (305 x 470 mm) max cap**  
 Chuck Size 10 in / 254 mm  
 Spindle Nose A2-8  
 Bar Capacity 2.9 in / 74 mm  
 Max Speed 3200 rpm  
 Y-Axis Travel ± 2 in / 50 mm



**SB-35Y – Y-Axis**  
**12" x 27.5" (305 x 700 mm) max cap**  
 Chuck Size 12 in / 305 mm  
 Spindle Nose A2-8  
 Bar Capacity 3.5 in / 90 mm  
 Max Speed 2500 rpm  
 Y-Axis Travel ± 2 in / 50 mm



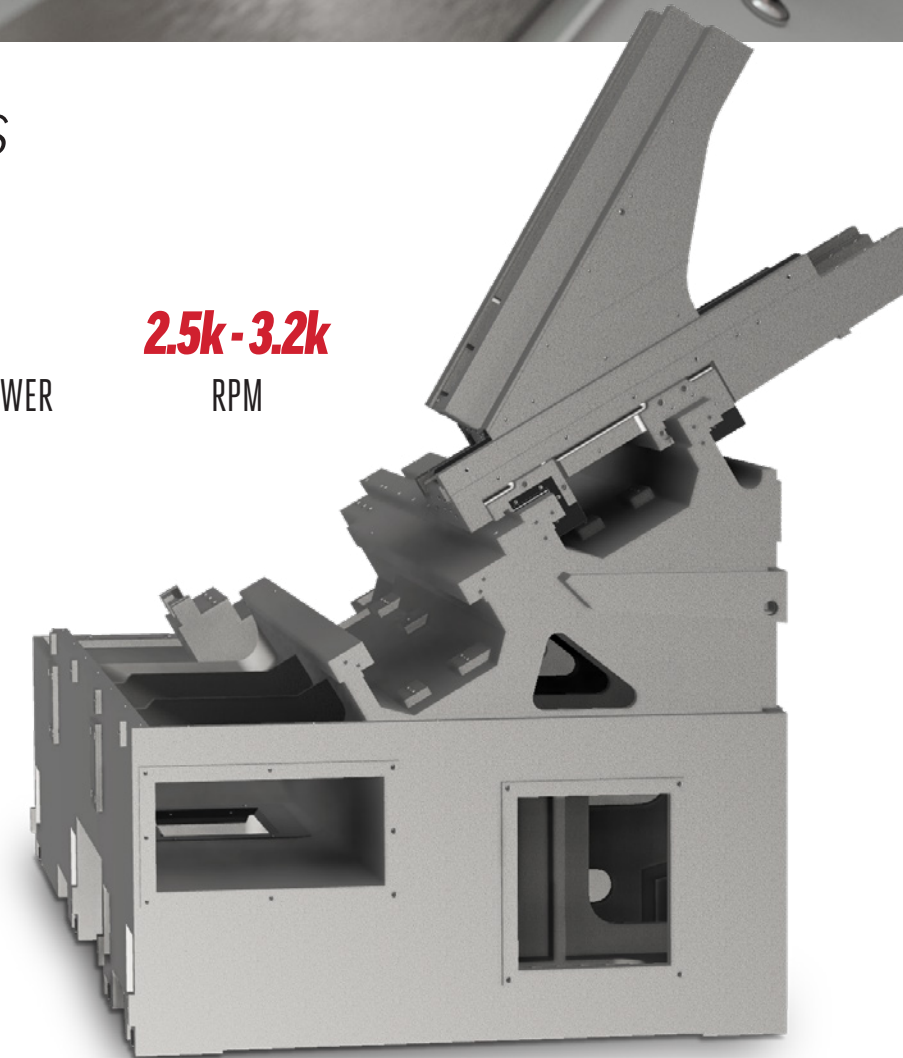
**SB-35LY – Y-Axis**  
**12" x 47.25" (305 x 1200 mm) max cap**  
 Chuck Size 12 in / 305 mm  
 Spindle Nose A2-8  
 Bar Capacity 3.5 in / 90 mm  
 Max Speed 2500 rpm  
 Y-Axis Travel ± 2 in / 50 mm

### CNC Box Way Lathes for Heavy Turning.

**10" - 12"** CHUCK SIZE    **2.95" - 3.58"** BAR CAPACITY    **40** HORSEPOWER    **2.5k - 3.2k** RPM

Haas SB Series box way lathes feature a true slant-bed design that provides excellent rigidity and thermal stability, as well as efficient chip evacuation. The slant bed also allows generous X-axis travel in a smaller footprint, and provides a sturdy base to support the turret along the entire Z-axis.

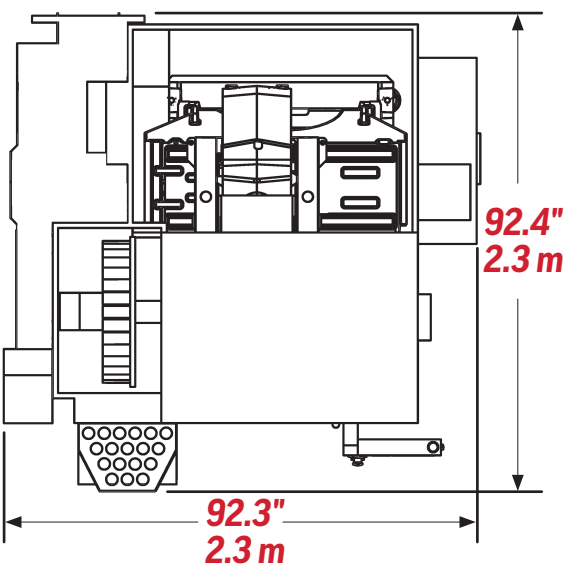
Each SB Series lathe is equipped with a robust 12-station BMT65 turret that accepts industry-standard base-mount tooling. Y-axis models also accept axial and radial driven tools for secondary milling, drilling, and tapping operations.



# UMC-SERIES ADDITIONS

More options for increasing accuracy on multi-sided and complex parts.

The UMC-400 has a compact footprint and generous travels that make it the perfect fit for smaller shops, or shops doing 5-axis small-part machining.



## UMC-400/SS

### Machine Specifications

TRAVELS	UMC-400	UMC-400SS
X Axis	17 in / 432 mm	17 in / 432 mm"
Y Axis	11 in / 279 mm	11 in / 279 mm
Z Axis	13 in / 330 mm	13 in / 330 mm"
SPINDLE	UMC-400	UMC-400SS
Max Rating	15 hp / 11.2 kW	15 hp / 11.2 kW
Max Speed	8100 rpm	12,000 rpm
TRUNNION	UMC-400	UMC-400SS
Platter Diameter	9.10" / 230 mm	9.10" / 230 mm
Max Weight on Platter	100 lb / 45.4 kg	100 lb / 45.4 kg
FEEDRATES	UMC-400	UMC-400SS
Max Cutting	650 ipm / 16.5 m/min	833 ipm / 21.2 m/min
Rapids (X, Y, Z)	900 ipm / 22.9 m/min	1200 ipm / 30.5 m/min
TOOL CHANGER	UMC-400	UMC-400SS
Type	SMTC	HIGH-SPEED SMTC
Capacity	30+1	30+1
Max Tool Weight	12 lb	12 lb
DIMENSIONS	UMC-400	UMC-400SS
Width	92.3 in / 2344 mm	92.3 in / 2344 mm
Depth	92.4 in / 2347 mm	92.4 in / 2347 mm



## UMC-1250/50

### Machine Specifications

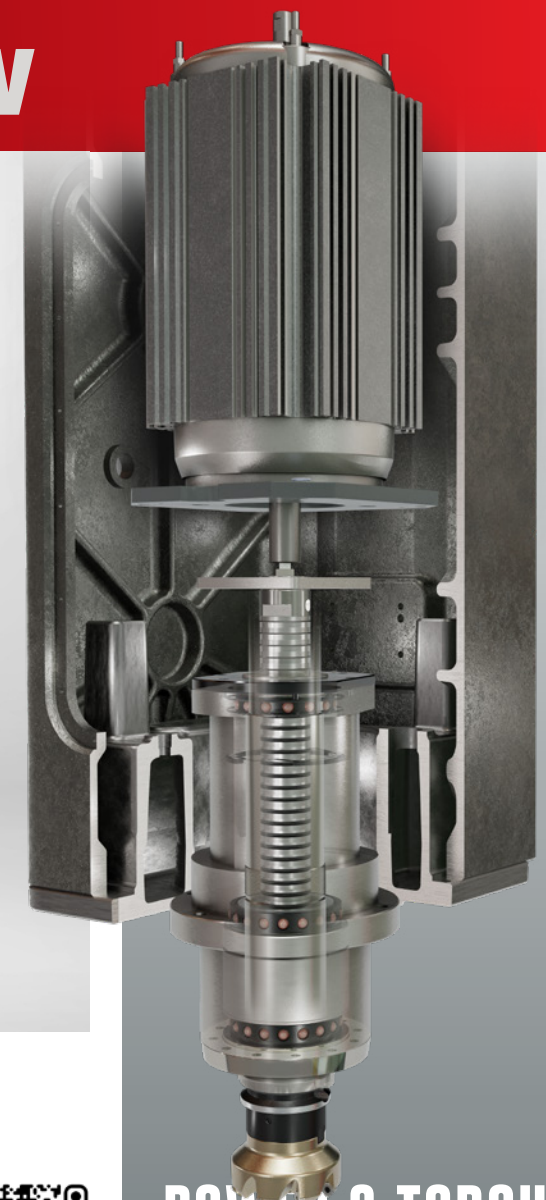


TRAVELS	UMC-1250/50
X Axis	50 in / 1270 mm
Y Axis	30 in / 762 mm
Z Axis	28 in / 711 mm
TRUNNION	UMC-1250/50
Platter Diameter	30 in / 762 mm
Max Weight on Platter	1000 lb / 454 kg
TOOL CHANGER	UMC-1250/50
Type	SMTC
Capacity	30+1
Max Tool Length	16 in / 406 mm
Max Tool Weight	30 lb / 13.6 kg
FEEDRATES	UMC-1250/50
Max Cutting	650 ipm
Rapids on X	900 ipm
Rapids on Y	900 ipm
Rapids on Z	900 ipm

The UMC-1250/50 combines the larger travels and bigger platter of the Haas UMC-1250 Universal Machining Center with the power and torque of our 50-taper inline-spindle to create the perfect solution for heavy-duty 3+2 machining and simultaneous 5-axis machining of larger parts.

#### Feature Highlights:

- 5-axis simultaneous machining
- Powerful 50-taper inline direct-drive spindle
- Large-capacity side-mount tool changer
- Includes Wireless Intuitive Probing System



## POWER & TORQUE OUR 50-TAPER INLINE SPINDLE

This high-performance 10,000-rpm inline 50-taper spindle provides 33% more speed than the standard spindle for higher cutting speeds and surface feedrates. It features a 60 hp (44.7 kW) vector drive system that provides high power and torque throughout the rpm range. The compact design of the inline direct-drive system simplifies service, and provides smooth, quiet operation.

- *Inline direct-drive spindle – designed, manufactured, and built in-house*
- *60 horsepower (44.7 kW) vector drive system*
- *High power and torque for larger diameter tools and tough materials*
- *Larger taper supports longer tools*

## VM-8

Accuracy, Rigidity, and Thermal Stability for the Mold Industry



**40** TAPER    **3/4/5** AXIS    **12k** RPM    **30+1** TOOL CAPACITY

The Haas VM Series machines are high-performance VMCs that provide the accuracy, rigidity, and thermal stability required for mold making, tool & die work, and other high-precision industries.

Each machine features a generous work cube, a multi-fixturing table, and a 12,000-rpm inline direct-drive spindle. Standard features include the Haas high-speed control with full look-ahead, a side-mount tool changer, a programmable coolant nozzle, an automatic air gun, and much more.

### Standard Features:

- Inline direct-drive spindle
- Side-mount tool changer
- Multi-fixturing table
- High-speed machining software

### Machine Specifications

TRAVELS	VM-8
X Axis	64 in / 1626 mm
Y Axis	40 in / 1016 mm
Z Axis	30 in / 762 mm

TABLE	VM-8
Length	64 in / 1626 mm
Width	36 in / 914 mm
Max Weight on Table	4000 lb / 1814 kg

TOOL CHANGER	VM-8
Type	SMTC
Capacity	30+1
Max Tool Weight	12 lb / 5.4 kg

FEEDRATES	VM-8
Max Cutting	500 ipm / 12.7 m/min
Rapids on X	600 ipm / 15.2 m/min
Rapids on Y	600 ipm / 15.2 m/min
Rapids on Z	600 ipm / 15.2 m/min

## VF-7SS & VF-8SS

Bigger Work Envelope, Crazy Super Speed.



### Machine Specifications

TRAVELS	VF-7SS	VF-8SS
X Axis	84 in / 2134 mm	64 in / 1626 mm
Y Axis	32 in / 813 mm	40 in / 1016 mm
Z Axis	30 in / 762 mm	30 in / 762 mm

TABLE	VF-7SS	VF-8SS
Length	84 in / 2134 mm	64 in / 1626 mm
Width	28 in / 711 mm	36 in / 914 mm
Max Weight on Table	2000 lb / 907 kg	2000 lb / 907 kg

TOOL CHANGER	VF-7SS	VF-8SS
Type	SMTC	SMTC
Capacity	30+1	30+1
Max Tool Weight	12 lb / 5.4 kg	12 lb / 5.4 kg

FEEDRATES	VF-7SS	VF-8SS
Max Cutting	833 ipm / 21.2 m/min	833 ipm / 21.2 m/min
Rapids on X	1200 ipm / 30.5 m/min	1200 ipm / 30.5 m/min
Rapids on Y	1200 ipm / 30.5 m/min	1200 ipm / 30.5 m/min
Rapids on Z	1200 ipm / 30.5 m/min	1200 ipm / 30.5 m/min

**40** TAPER    **3/4/5** AXIS    **12k** RPM    **30+1** TOOL CAPACITY

The Haas high-performance Super-Speed vertical machining centers provide the high spindle speeds, fast rapids, and quick tool changes necessary for high-volume production and reduced cycle times. Each SS machine features a 12,000-rpm, inline direct-drive spindle, an ultra-fast side-mount tool changer, and high-speed rapids on all axes.

### Standard Features:

- More X-axis travel
- High-speed spindle
- Fast rapids
- Super-speed side-mount tool changer

# LARGE-CAPACITY TURNING

## Y-AXIS CAPABILITY



# LARGE-FRAME SERIES



<b>ST-40Y Series</b>	<b>15"</b> CHUCK SIZE	<b>2.4k</b> RPM	<b>40 hp</b> POWER
<b>ST-45Y Series</b>	<b>18"</b> CHUCK SIZE	<b>1.4k</b> RPM	<b>40 hp</b> POWER

### Machine Features

12-Station BMT75 Turret • 4000-rpm Live Tooling • ± 3.0" (76 mm) Y-Axis Travel • Fully Interpolated C-Axis

#### Short-Bed

27.5" x 28" (699 x 711 mm) max cap

##### ST-40SY

- 15" (381 mm) chuck
- 2400-rpm spindle, 40 hp (29.8 kW)
- A2-8 spindle nose with 4.0" (102 mm) bar cap

##### ST-45SY

- 18" (457 mm) chuck (optional)
- 1400-rpm spindle, 40 hp (29.8 kW)
- A2-11 spindle nose with 7.0" (178 mm) bore

#### Standard

27.5" x 44" (699 x 1118 mm) max cap

##### ST-40Y

- 15" (381 mm) chuck
- 2400-rpm spindle, 40 hp (29.8 kW)
- A2-8 spindle nose with 4.0" (102 mm) bar cap

##### ST-45Y

- 18" (457 mm) chuck (optional)
- 1400-rpm spindle, 40 hp (29.8 kW)
- A2-11 spindle nose with 7.0" (178 mm) bore

#### Long-Bed

27.5" x 80" (699 x 2032 mm) max cap

##### ST-40LY

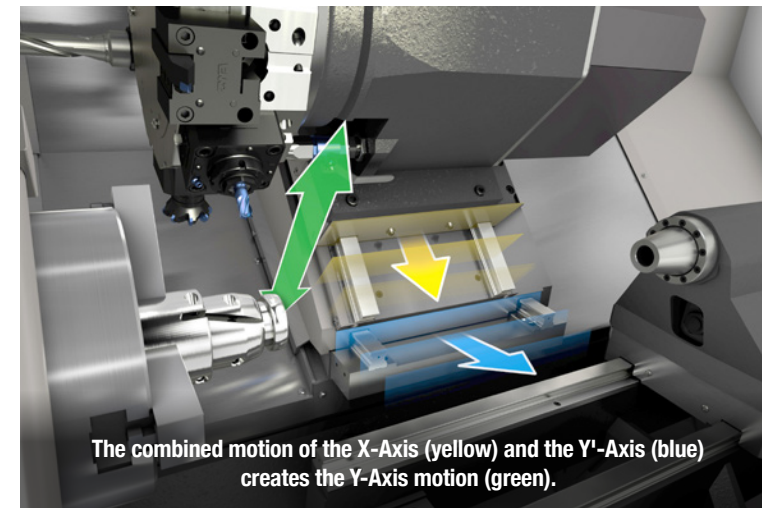
- 15" (381 mm) chuck
- 2400-rpm spindle, 40 hp (29.8 kW)
- A2-8 spindle nose with 4.0" (102 mm) bar cap

##### ST-45LY

- 18" (457 mm) chuck (optional)
- 1400-rpm spindle, 40 hp (29.8 kW)
- A2-11 spindle nose with 7.0" (178 mm) bore

## Y-AXIS MOTION | BMT75 TURRET

Reduce costs and lead times, while boosting productivity.



The combined motion of the X-Axis (yellow) and the Y-Axis (blue) creates the Y-Axis motion (green).



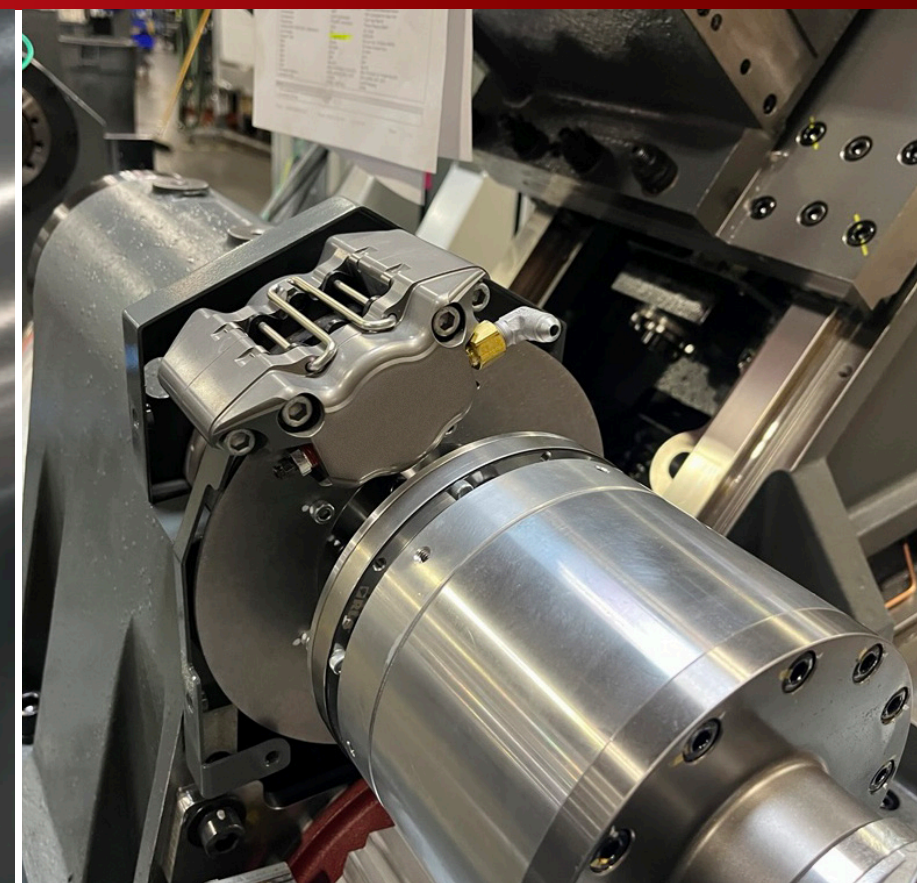
Haas ST Series large-capacity Y-axis turning centers provide ±3" (±76 mm) of Y-axis travel from the centerline for off-center milling, drilling, and tapping, and come equipped with 4000-rpm live tooling and a synchronized C axis for versatile 4-axis capability.

The Haas 12-station BMT75 turret provides extra-rigid mounting for turning and boring tools to improve cutting performance, and offers additional tool clearance when working with a tailstock. It also accepts axial and radial driven tools for secondary milling, drilling, and tapping operations.

# DUAL-SPINDLE

## The Dual-Spindle Family IS GROWING!

The **DS-SERIES** Y-axis turning centers combine dual-spindle turning with Y-axis, C-axis, and live tooling to create powerful *“done-in-one”* machining solutions for any shop.



### DS-20Y

11.75" x 22.5" (298 x 572 mm) max capacity



**MAIN SPINDLE:**  
8.3" (210 mm) Chuck  
4000 rpm  
A2-6 Spindle Nose  
2.5" (64 mm) Bar Capacity



**SECOND SPINDLE:**  
6.5" (165 mm) Chuck  
5000 rpm  
A2-5 Spindle Nose  
1.81" (46 mm) Bore (non-through)

### DS-25Y

11.75" x 22.5" (298 x 572 mm) max capacity



**MAIN SPINDLE:**  
10" (254 mm) Chuck  
3400 rpm  
A2-6 Spindle Nose  
3.0" (76 mm) Bar Capacity



**SECOND SPINDLE:**  
6.5" (165 mm) Chuck  
5000 rpm  
A2-5 Spindle Nose  
1.81" (46 mm) Bore (non-through)

### DS-30Y

13.75" x 32.5" (349 x 826 mm) max capacity



**MAIN SPINDLE:**  
10" (254 mm) Chuck  
4500 rpm  
A2-6 Spindle Nose  
3.0" (76 mm) Bar Capacity



**SECOND SPINDLE:**  
8.3" (210 mm) Chuck  
4000 rpm  
A2-5 Spindle Nose  
1.81" (46 mm) Bore (non-through)

The **MECHANICAL DISC BRAKE** on the C-axis provides 140 ft-lb (190 Nm) of holding torque for off-center milling and drilling.

### DS-SERIES HIGHLIGHTS:

- Fully interpolated sub-spindle C-axis with mechanical brake
- High-resolution encoders
- Full C-axis on main and sub-spindle
- Main/sub-spindle sync
- BMT65 turret
- Dual-spindle design for done-in-one operations
- Y-axis milling, drilling, and tapping
- Ideal for high-volume, high-production environments

# TOOLROOM SERIES



## Machine Specifications

CAPACITIES	TL-1P	TL-2P
Chuck Size	6.5 in / 165 mm	6.5 in / 165 mm
Max Cutting Diameter	8 in / 203 mm	8 in / 203 mm
Max Cutting Length	30 in / 762 mm	48 in / 1219 mm
Between Centers	30 in / 762 mm	48 in / 1219 mm

TRAVELS	TL-1P	TL-2P
X-Axis	8 in / 203 mm	8 in / 203 mm
Z-Axis	30 in / 762 mm	48 in / 1219 mm

FEEDRATES	TL-1P	TL-2P
Rapids on X	450 ipm / 11.4 m/min	450 ipm / 11.4 m/min
Rapids on Z	450 ipm / 11.4 m/min	450 ipm / 11.4 m/min

SPINDLE	
Spindle Nose	A2-5
Drive System	Direct Speed, Belt Drive
Max Speed	3000 rpm
Max Torque	108.0 ft-lbf (146 Nm) @ 355 rpm

**6.5"**  
CHUCK SIZE

**3k**  
RPM

**10 hp**  
POWER

## Production Toolroom Lathes

Bring production capabilities to your toolroom with the Haas TL-P Series Toolroom Lathes. We've taken our shop-proven TL-1 and TL-2, and added a 6.5" (165 mm) power chuck with hydraulic closer, a 4-station automatic tool turret, and a 3000-rpm A2-5 spindle to create a production-ready machine for any shop.

The machine's compact footprint, standard Visual Programming System, and ability to run on single-phase power make the TL-1P perfect for shops needing a last- or second-op machine, toolrooms, schools, and garage machinists.

# TOOL PRESETTERS



The Haas series of Tool Presetters, designed to streamline your workflow, are the ultimate solutions for maximizing efficiency and maintaining precision in your machining operations. By eliminating the need for manual tool measuring, presetters allow tool offsets to be taken prior to each job, ultimately maximizing spindle time and leading to more efficient production runs.

Three presetter options are available, each tailored to meet specific customer needs. The range of X- & Y-axis travels, interchangeable taper sleeves to support numerous machines, and pneumatic capabilities for enhanced precision on the intermediate and advanced models, make these the most cost-effective and versatile solutions on the market.

### HTS400

- Max X-Axis Travel: 12.6" (320 mm)
- Max Z-Axis Travel: 15.7" (400 mm)
- 5000 Tool Memory
- 50 Machine Origin Memory
- 40-Taper Tool Sleeve
- 20" Monitor

### HTS600

- Max X-Axis Travel: 15.7" (400 mm)
- Max Z-Axis Travel: 23.6" (600 mm)
- 10,000 Tool Memory
- 100 Machine Origin Memory
- Pneumatic Axis Clamping
- Pneumatic Tool Interlocking System
- 40-Taper Tool Sleeve
- 22" Monitor

### HPTS600

- Max X-Axis Travel: 15.7" (400 mm)
- Max Z-Axis Travel: 23.6" (600 mm)
- 20,000 Tool Memory
- 200 Machine Origin Memory
- Pneumatic Axis Clamping
- Pneumatic Tool Interlocking System
- Pneumatic Taper Sleeve Brake
- 50-Taper Tool Sleeve
- 24" Monitor

## BROKEN TOOL DETECTION

The Haas Broken Tool Detection system uses a built-in camera to visually compare tools before and after a tool change, to determine if the tool was damaged during machining. If a broken tool is detected, the machine generates an alarm, and prevents the tool from being swapped into the spindle.

### Available on UMCs and Medium VMCs

- Safely stops the machine if a broken tool is detected
- Saves money by preventing damage to tooling, workholding, and possibly the machine



# MAKING THE CUT

Bring outside processes in-house with our new line of BANDSAWS.

Working directly with top-tier manufacturers around the globe, we've sourced a selection of high-quality shop equipment to help job shops, engineering firms, and contract manufacturers round out their capabilities – all at incredible prices only available from Haas. Every product has undergone rigorous testing to ensure it meets our high standards, before becoming available to you. And all equipment is backed by the same industry-leading Haas service and support as our CNC products.



## MITER BANDSAW HMS-3132



### Product Highlights

- Cutting range 90° flat – 12.2" x 9" (310 x 230 mm)
- Cutting range 90° round – 9" (230 mm)
- 0° - 60° mitering range
- Hydraulic clamping
- Blade breakage detection
- LED worklight
- CE standard safety protection



## VERTICAL BANDSAW HVS-1



### Product Highlights

- Blade guide lock
- Table tilt control
- Mist spray system
- Foot pedal switch
- LED worklight



## AUTOMATIC BANDSAW HAB-3232



### Product Highlights

- Max cutting height: – 12.6" (320 mm)
- Max cutting width: – 12.6" (320 mm)
  - Wheel adjustable feedrate
  - Hydraulic blade tension
    - Automatic chip auger
    - Bar stacking capability
- Manual, automatic, and AI modes
- Memory for multiple jobs

The Haas HAB-3232 Bandsaw has a simple user interface – clear, responsive, and easy to navigate.



## MANUAL SERIES

Traditional machines meet Haas service & support.

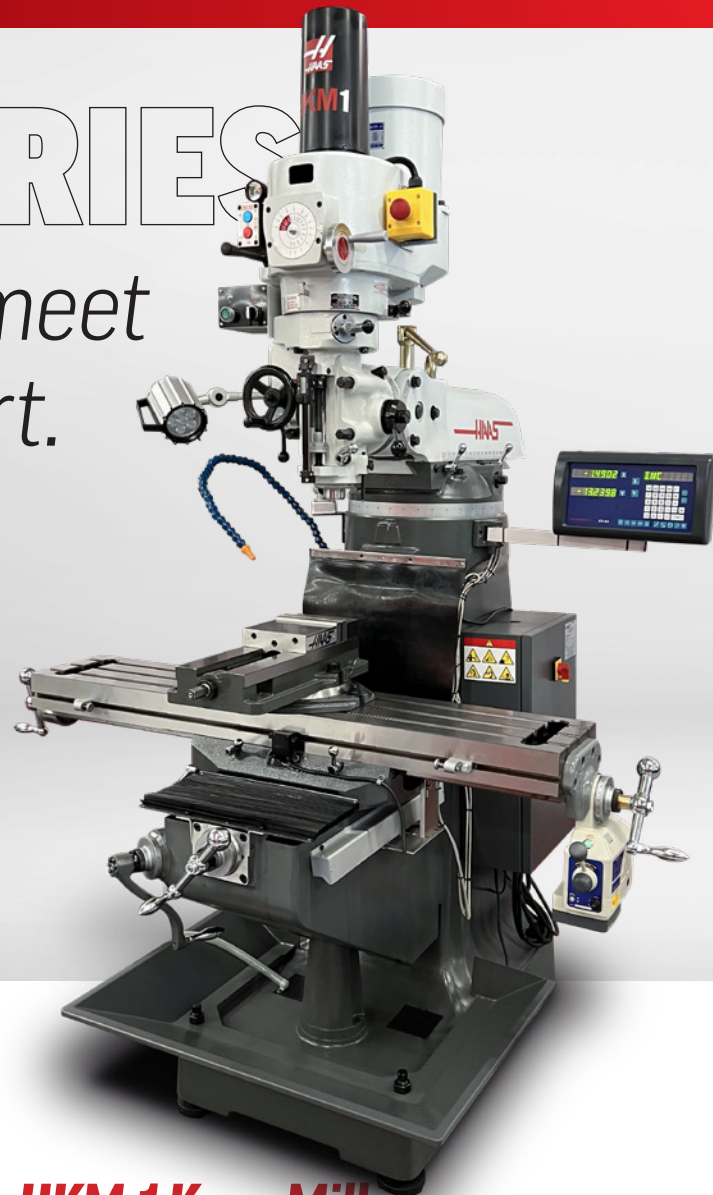


### HML-1 Manual Lathe

The Haas HML-1 is a traditional-style manual engine lathe with a 14" x 39" (360 x 1000 mm) max capacity and 9" (229 mm) manual chuck.

#### Specifications

- D1-6 nose with MT6 internal taper
- 9" (229 mm) manual 3-jaw chuck
- 1800-rpm spindle
- Digital Readout (DRO)
- Manual tailstock with MT4 quill
- 4-way tool post
- Steady rest
- Coolant system
- Includes tool kit and box



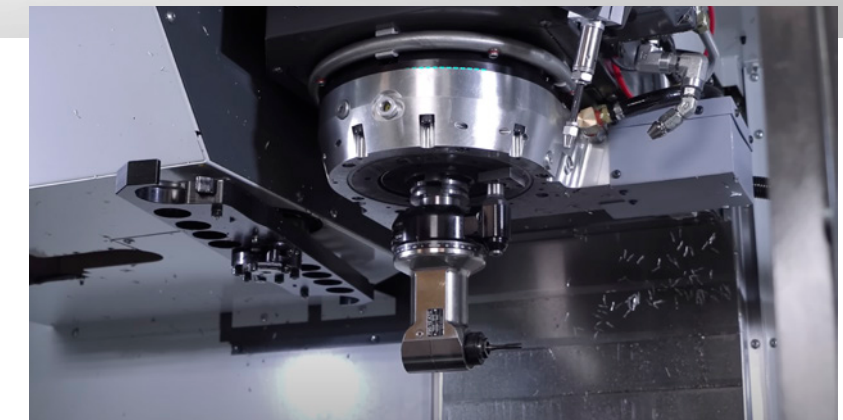
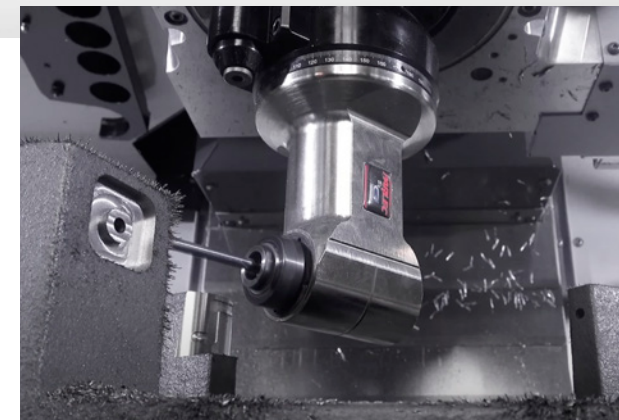
### HKM-1 Knee Mill

The Haas HKM-1 is a traditional-style knee mill with a 9" x 49" (229 x 1245 mm) table and a 4500-rpm R8 spindle.

#### Specifications

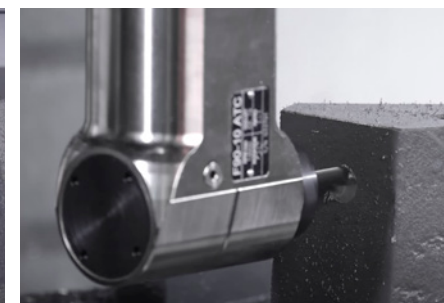
- 32.7" x 12" x 16" (831 x 305 x 406 mm) travels
- Variable-speed 4500-rpm R8 spindle
- Pneumatic power drawbar
- X-axis power feed w/clutch handles
- XY DRO
- Digital quill scale
- Coolant system w/chip tray
- Automatic lubrication system

## MILL SPINDLE C-AXIS DRIVE



Our Mill Spindle C-Axis Drive allows you to accurately position right-angle milling heads to nearly any angle for milling, drilling, and tapping on multiple sides of a part.

This is a FULLY programmable axis that allows simultaneous motion interpolated with the X, Y, Z, and even A axes, making it possible to reach difficult internal features, or perform simple end work on longer parts – operations not possible with traditional 3- or 4-axis set ups.



**NOTE:** Requires a side-mount tool changer. Requires a Haas mill with 4th-axis drive and NGC software version 100.21.000.1130 or later. Machines with a single-axis rotary installed will require both 4th- and 5th-axis drives. Not compatible with 2-axis rotaries.

# SHEET ROUTERS



## SR PRODUCTION MODELS



**SR-3015**  
 118" x 59" x 7.1" Travels  
 (3000 x 1500 x 180 mm)  
 18,000-rpm ER32 spindle  
 Full-function Haas control  
 Built-in dust collection system  
 Built-in tool setting system



**SR-4020**  
 159" x 86" x 6.8" Travels  
 (4029 x 2195 x 172 mm)  
 18,000-rpm ER32 spindle  
 Full-function Haas control  
 Built-in dust collection system  
 Built-in tool setting system



**SR-3015P**  
 118" x 59" x 11.7" Travels & ATC  
 (3000 x 1500 x 297 mm)  
 24,000-rpm ISO30 spindle  
 12-station linear tool changer  
 Full-function Haas control  
 Built-in dust removal system  
 Vacuum table with pump



**SR-4020P**  
 169" x 86" x 13" Travels & ATC  
 (4290 x 2195 x 331 mm)  
 24,000-rpm ISO30 spindle  
 16-station linear tool changer  
 Full-function Haas control  
 Built-in dust removal system  
 Vacuum table with pump



## CNC Sheet Routers for a Wide Range of Industries

Haas SR Series sheet routers are affordable alternatives to gantry-style milling machines for cutting lighter, non-metallic materials, such as wood, plastics, high-density foam, and composites. The large travels of these machines easily accommodate full sheets of material, long extrusions, or multiple setups of smaller parts.



## AUTOMATED LOADING FOR BIG PARTS

### 4+1 Pallet Pool for the EC-1600ZT

Our 4+1 pallet pool for the Haas EC-1600ZT HMC is the perfect solution for automated loading and unattended machining of large, heavy parts. It's also well suited for low-volume repeat jobs, where you want to keep the fixturing intact between runs.

The pallets are 32" x 32" (800 x 800 mm), and can support up to 5000 lb (2268 kg). There are 4 storage locations and 1 machining station, and pallets can be scheduled individually according to priority and sequencing requirements, allowing high-priority parts to be machined first or staged more often. Completed pallets are returned automatically to the holding location, or can be sequenced to a protected operator station for immediate unloading and re-loading. Includes the 4th-Axis Rotary option and CNC Control Cabinet Cooler.



### Specifications

- 32" x 32" (800 x 800 mm pallets)
- 4+1 pallets (4 storage locations + 1 machining station)
- Max part size: 55" diameter x 54" tall (1397 mm dia. x 1372 mm)
- 5000 lb (2268 kg) max payload per pallet (workpiece + workholding)
- Dedicated load station + loading platform
- Multi-zone light curtain for safety
- Camera/monitor system
- Easy-to-use scheduling interface in the Haas control
- Fully integrated solution for lights-out production



No more guessing where the pallets are with the live monitor system included with every 4+1 Pallet Pool for the EC-1600. You'll get a clear, live view of the pallet stations – so you know exactly what's running and what's up next.

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



# PALLET POOLS

*Adding a pallet pool is the best productivity upgrade for the money.*

Have you ever wanted to boost the spindle uptime on your Haas machine? The Haas Pallet Pool family increases spindle run time, and allows for unattended automation, so you can run more parts at the end of the day. Offering up to 20+1 pallets, our pallet pool systems are a must-have for shops looking to boost throughput. Available on a wide range of Haas machining centers.

## VERTICAL MILLS

**3+1 Pallet Pool**

- VF-2YT
- VF-2SSYT
- VM-2



**6+1 Pallet Pool**

- VC-400SS
- VF-2YT
- VF-2SSYT
- VM-2



**5+1 Pallet Pool**

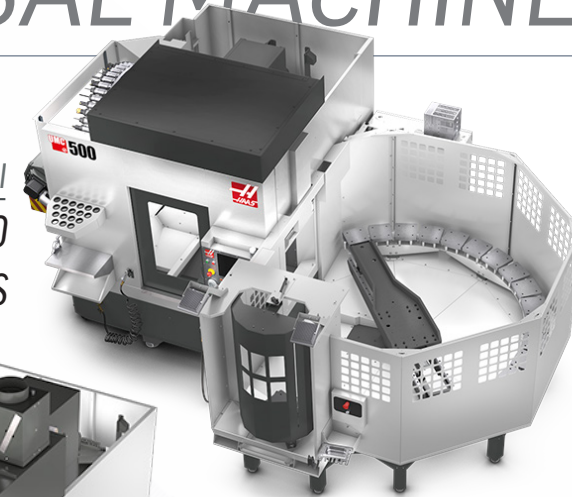
- VF-4
- VF-4SS



## UNIVERSAL MACHINES

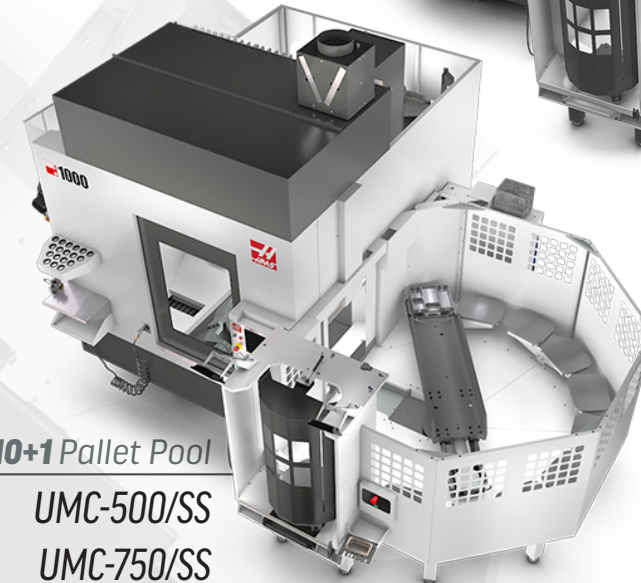
**20+1 Pallet Pool**

- UMC-500
- UMC-500SS



**10+1 Pallet Pool**

- UMC-500/SS
- UMC-750/SS
- UMC-1000/SS



**6+1 Pallet Pool**

- UMC-1250/SS



## HORIZONTAL MILLS

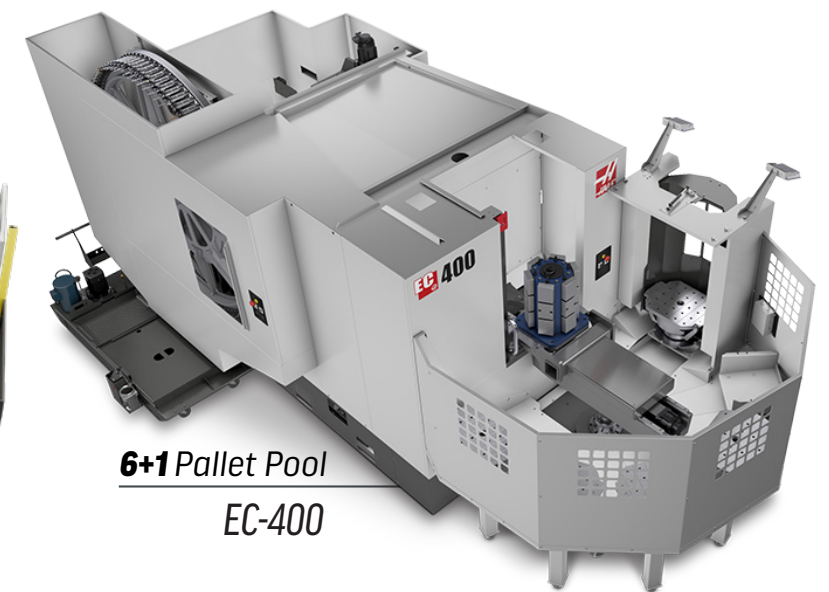
**4+1 Pallet Pool**

- EC-1600ZT



**6+1 Pallet Pool**

- EC-400



# 120+1 SIDE-MOUNT TOOL CHANGER

This Haas-designed – and patent pending – 120+1 side-mount tool changer holds 120 tools, plus one in the spindle, providing plenty of locations for back-up tooling, or setting up tools for multiple jobs. It is the perfect choice for high-volume production, or for unattended, lights-out operation with a pallet pool, cobot, or robot.

A remote load station with automatic lockout function allows tool inspection, loading, and unloading while the machine is cutting, simplifying tool maintenance, and eliminating the need to load tools through the spindle.

*A New High-Speed, High-Production Tool Changer from Haas*

## PRODUCT HIGHLIGHTS:

- Mounts to the machine's bridge and base for stability
- Remote load station with automatic lockout
- Bi-directional servo-driven positioning for fast tool staging
- Fast tool changes reduce non-cutting time



**Currently available on:**  
UMC-500, 500SS, 750, and 750SS models.  
VF-3, 3SS, 4, and 4SS models.



# 160+1 SIDE-MOUNT TOOL CHANGER

*More Tools. Less Downtime.  
Ultimate Efficiency.*

Perfect for high-volume, high-mix machining, the all-new Haas 160+1 side-mount tool changer is designed for speed, flexibility, and lights-out operation. With 160+1 pockets, it has unmatched capacity for backup tooling and staging multiple jobs on select Haas horizontal machining centers.

**Currently available on:**  
EC-400 and EC-500 models.

## DT-3 & DM-3

High-Speed, Lean-Style Machining Centers



Built on proven Haas designs and technology, the Drill/Tap/Mill Series provides the perfect combination of speed and power to reduce cycle times and **maximize shop floor space.**

VF-2

DT/DT-3



8% SHORTER WIDTH THAN THE VF-2

### DRILL TAP vs DRILL MILL

#### DT-3

30 Taper / 3 Axis  
Standard: 10,000 rpm  
Optional: 12k/15k/20k rpm  
Side-Mount Tool Changer,  
20+1 Tool Capacity

#### DM-3

40 Taper / 3 Axis  
Standard: 10,000 rpm  
Optional: 12k/15k rpm  
Side-Mount Tool Changer,  
18+1 Tool Capacity

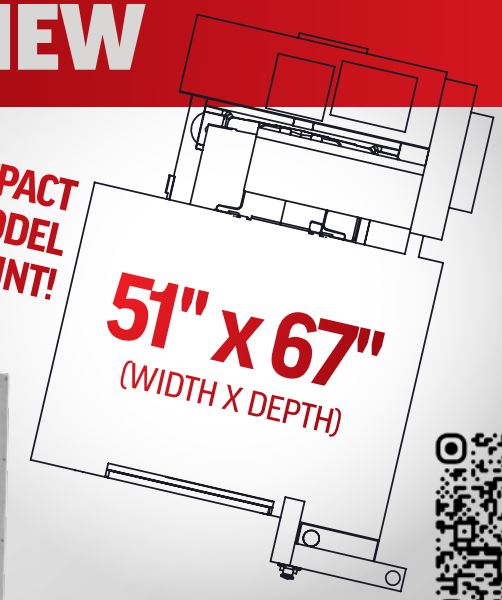
### Machine Specifications

<b>TRAVELS</b>	X Axis	36 in (914 mm)
	Y Axis	16 in (406 mm)
	Z Axis	15.5 in (394 mm)
<b>SPINDLE</b>	Max Rating	15 hp (11.2 kW)
	Max Speed	10,000 rpm
	Drive System	Inline Direct-Drive
	Taper	BT30 (DT-3) CT/BT40 (DM-3)
<b>TABLE</b>	Length	38 in (965 mm)
	Width	15 in (381 mm)
	T-Slot Width	0.626 in to 0.630 in (15.90-16.00 mm)
	T-Slot Center Distance	4.92 in (125 mm)
	Number of Std T-Slots	3
	Max Weight on Table	250 lb (113.4 kg)

20% MORE X-TRAVEL THAN THE VF-2



COMPACT BASE MODEL FOOTPRINT!



## POCKET MILL

### Product Specifications

- Travels: 12" x 12" x 15" (305 x 305 x 381 mm)
- Table Size: 28" x 11.2" (711 x 284 mm)
- 40-Taper Spindle
- Spindle Speed: 4000 rpm (6000 rpm optional)
- Max Rapid: 200 ipm (5.1 m/min)
- Max Cutting: 200 ipm (5.1 m/min)
- Dimensions: 63" x 82" x 90.4" (1600 x 2082 x 2296 mm)

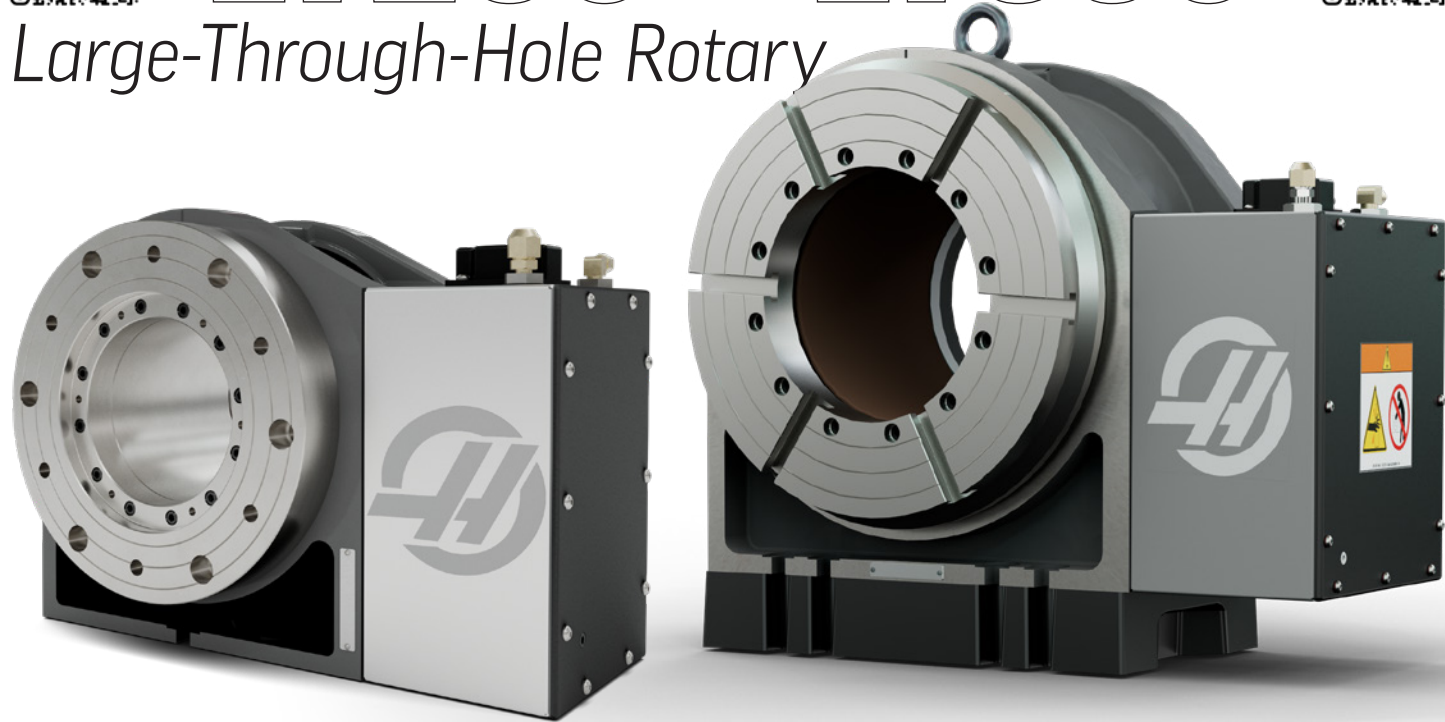
### Product Highlights

- Full-function, easy-to-use Haas control
- Single- or 3-phase power
- Compact enclosure
- Swing-out door design
- **OPTIONAL Coolant Pump Kit w/20-gallon (76 l) tank available**
- **OPTIONAL 10-pocket tool changer available**
- **OPTIONAL 400 ipm (10.2 m/min) rapids available**



## LT260 + LT350

Large-Through-Hole Rotary



**1** SPINDLE | **260 mm** PLATTER SIZE | **243 ft-lb** MAX TORQUE | **196°/sec** MAX SPEED

**1** SPINDLE | **350 mm** PLATTER SIZE | **348 ft-lb** MAX TORQUE | **156°/sec** MAX SPEED

Our LT Series of rotary tables provide the same features and benefits as our standard HRT Series, but offer large through-bores and a variety of platter and chuck options to handle large shafts, drill pipe, and other large-bore work.

## HQDA5



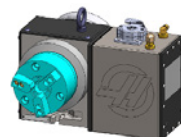
**1** SPINDLES | **A1-5** PLATTER SIZE | **150 ft-lb** MAX TORQUE | **130°/sec** MAX SPEED

The HQDA5 is a single-axis rotary table with an A1-5 spindle nose and a pneumatic "quick draw bar" system for activating a variety of workholding options, including 3-jaw chucks, as well as 5C, 16C, and 3J collet chucks. The rotary comes standard with a manual air clamping provision that allows clamping/unclamping via toggle valve.

### Product Features

- A1-5 spindle nose
- Manual air clamping provision w/toggle valve
- Accepts 3-jaw power chucks, 5C, 16C, and 3J collet chucks
- Easy plug-and-play connection to Haas machines

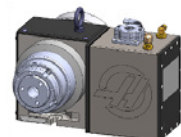
### Available Workholding Options.



3-Jaw Power Chuck

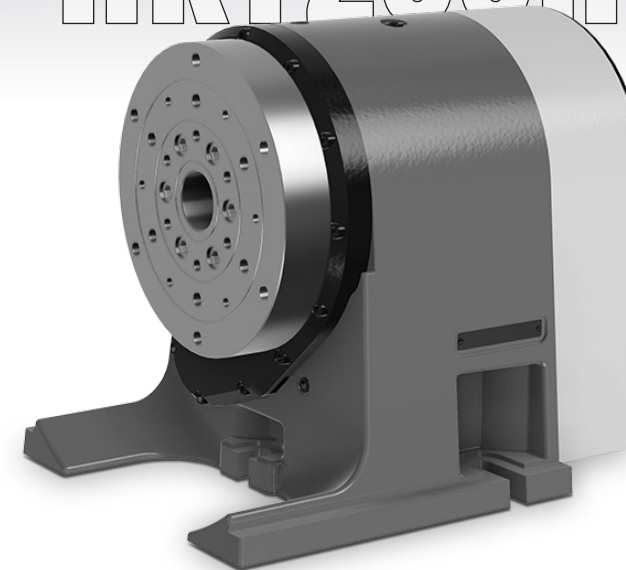


Quick Change Collet



5C, 3J, 16C Collet Chucks

## HRT200HS



**1** SPINDLE | **200 mm** PLATTER SIZE | **105 ft-lb** MAX TORQUE | **1000°/sec** MAX SPEED

The Haas HRT200HS is a high-speed rotary table that provides 1000°/sec indexing, and allows continuous rotation for 4th-axis contouring operations.

### Product Features

- Compact design
- 1000°/sec indexing
- 105 ft-lb (142 Nm) spindle torque
- Allows continuous rotation
- Easy plug-and-play connection to Haas machines

## HRT210VM



**1** SPINDLE | **210 mm** PLATTER SIZE | **300 ft-lb** MAX TORQUE | **80°/sec** MAX SPEED

The HRT210VM is a single-axis tilting rotary table with a built-in vise mount at 90°. The rotary comes pre-assembled and pre-plumbed with a 3" (75 mm) pneumatic vise that can be controlled manually or via the Haas control.

### Product Features

- Compact design
- Built-in vise mount with 3" (75 mm) vise
- 425 ft-lb (576 Nm) brake torque for 3+2 machining
- Cost-effective alternative to full 5th-axis rotary
- Easy plug-and-play connection to Haas machines

Note: All products on this page require a Haas mill with 4th-axis drive and NGC software version 100.21.000.1130 or later for full 4th-axis operation.

Affordable Automation  
Automatic Parts Loader



MINIMUM FOOTPRINT. MAXIMUM PRODUCTIVITY.

## MINI MAX



Paired with a Haas Compact APL, the Mini Mill and Super Mini Mill are a great start for automating your shop. These small-footprint combos are perfect for high-volume, lights-out operation.

**PACKAGED WITH ALL OF THESE AUTOMATION OPTIONS FOR LIGHTS-OUT OPERATION!**



CHIP AUGER SYSTEM



WIRELESS INTUITIVE PROBE SYSTEM



LIGHT CURTAIN



AIR VISE + INTERFACE



### Mini Mill Package

- Mini Mill
- Compact Automatic Parts Loader

#### INCLUDED OPTIONS:

- Wireless Intuitive Probing System
- Chip Auger
- Programmable Air

#### + HAAS TOOLING

- 100 mm (4") Pneumatic Self-Centering Vise Kit for Haas VMC
- Five-Sided Light Curtain Kit, 1720 mm (67") Protective Height



### Super Mini Mill Package

- Super Mini Mill
- Compact Automatic Parts Loader

#### INCLUDED OPTIONS:

- Wireless Intuitive Probing System
- Chip Auger
- Programmable Air
- Through-Spindle Coolant
- High-Speed Machining

#### + HAAS TOOLING

- 100 mm (4") Pneumatic Self-Centering Vise Kit for Haas VMC
- Five-Sided Light Curtain Kit, 1720 mm (67") Protective Height



### PRISMATIC MACHINE

## VP-5

40  
TAPER

4-AXIS  
8100 RPM  
50+1 TOOL CAPACITY

The Haas VP-5 vertical machining center combines the rigid structure of our VF-5 vertical machining center with an articulating spindle head to create a versatile machine for processing multi-sided prismatic parts.

#### Machine Features:

- Mill prismatic parts in a single setup
- 40-taper articulating spindle w/brake
- +106° to -8° B-axis spindle rotation, interpolated or positioning
- Add a rotary table for 5-side machining

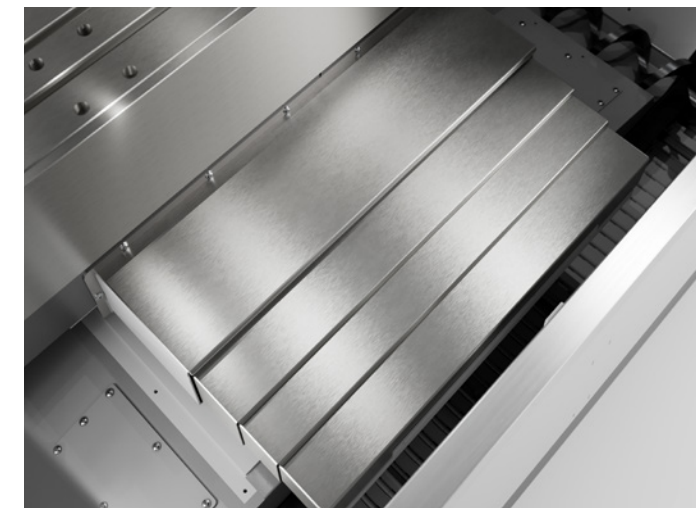
The VP-5's articulating B-axis spindle head provides +106° to -8° of rotation, allowing you to machine prismatic parts in a single setup. Synchronize the B-axis motion with the X, Y, and Z axes for 3D interpolated machining, or engage the powerful B-axis brake for rigid 3+1 machining.

**Two rotary options are available for the VP-5, providing additional flexibility for machining complex, multi-sided parts:**



**High-Speed A-Axis Rotary option** – mounts an HRT310SS rotary table vertically on the VP-5's table, to provide a high-speed A-axis platter for machining smaller prismatic parts.

**High-Speed C-Axis Rotary option** – mounts an HRT310SS rotary table horizontally on the VP-5's table as a C-axis platter, to provide access to 5 sides of longer parts.



## STAINLESS STEEL WAY COVERS

These heavy-gauge 304 stainless steel way covers provide high strength, as well as excellent resistance to chemical corrosion and rust. Now standard on most Haas machines

- Heavy-gauge 304 stainless steel construction
- Excellent corrosion resistance and strength
- Glass-filled HDPE wipers for smooth operation and long life

# 3-IN-ONE AIR COMPRESSORS

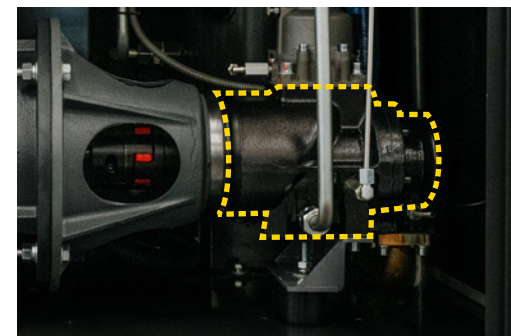
Our 15 hp (11 kW) direct-drive compressors can produce up to 52.8 cfm (1.5 m<sup>3</sup>/min) of air at 145 psi (10 bar). They are the perfect solutions for small- to medium-size shops, providing enough air to run 10 Haas machines, with enough extra capacity for several small pneumatic hand tools.

### Fixed-speed compressors

- Constant motor speed, regardless of demand
- Most efficient when running continuously
- Compressor rating should closely match system load
- Less complex and expensive than variable-speed compressor

### Variable-speed drive

- Variable motor speed based on demand
- Speed varies to maintain constant pressure
- Good choice for fluctuating/intermittent air draw
- Consistent pressure throughout the system
- More energy efficient



**Rotary-Screw Air Compressor**

All Haas air compressors are rotary-screw type, and are designed to run continuously. They are much quieter than typical reciprocating air compressors.



**Refrigerated Air Dryer**

The air dryer utilizes R410A superior reliability and



**Digital Control Panel**

Our user-friendly digital interface makes it easy to adjust settings, and view operational data at a glance.

## COORDINATE MEASURING MACHINE

# HMM430

Haas Automation's first coordinate measuring machine – the HMM430 – brings professional-grade inspection to your shop. This machine is perfect for small- to medium-sized shops looking for their first entry into the world of CMM inspections and ownership. Everything you need to get started is included.

Streamline your quality control by reducing the amount of time spent performing inspections with conventional metrology tools. Compared to similarly sized options from the big names in the CMM world, you'll find the HMM430 offers competitive accuracy at an unbeatable Haas price.



### Product Specifications:

- Linear scale resolution: 0.001mm
- Max volume: 400 x 430 x 350mm (X,Y,Z)
- Probe head: Renishaw MH20i
- Probe body: Renishaw TP20 w/ standard force module
- Max part weight: 120 kg

### Product Highlights

- Open platform
- Linear guide bearings
- Renishaw linear scales
- Includes Windows 11 computer, with peripherals and measuring software
- Manual or CNC programmable inspections

# HL-50E LASER MARKER

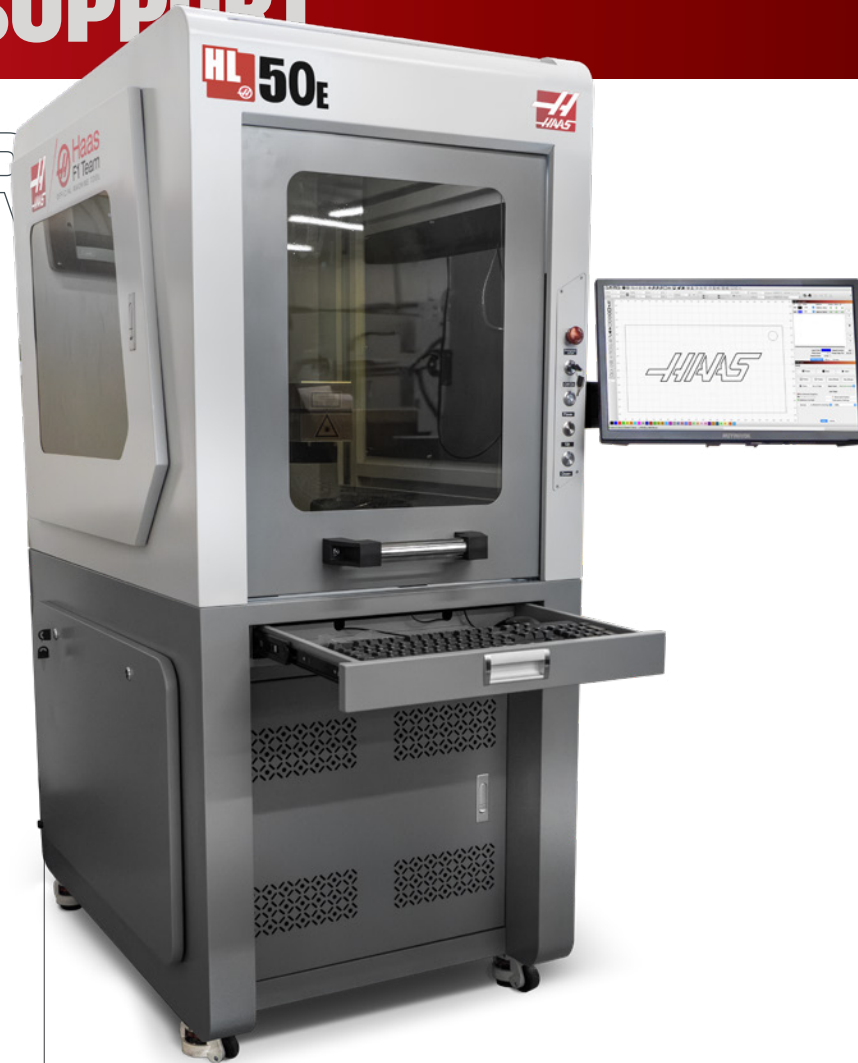
The Haas HL-50e is a fully enclosed, infrared fiber laser marking machine that combines advanced photonics and fiber optic technology to offer precise laser marking capabilities to your production line.

Equipped with an optical fiber cable instead of the typical series of lenses to concentrate and amplify the high-output, diode-generated light through a converging lens, the resulting laser beam is straighter, smaller, and more precise than other types of laser marking machines, with greater electrical efficiency and comparatively low operating costs.

This machine is suitable for most metallic materials and alloys, such as steel, stainless steel, brass, aluminum, silver, and iron, as well as some non-metallic materials, allowing it to be applicable across a wide range of industries– ideal for small and large manufacturing operations alike.

### Product Highlights

- Q-Switched Pump Source – efficiently emits light in rapid bursts/pulses, for better thermal control
- Includes a Lifetime License to LightBurn Software
- Laser Pointers – ensure engraver is in focus once calibrated
- Remote Start Foot Switch
- Power and Manual Laser Height Adjustment
- Laser Light-Safe Windows
- Integrated Fume Extractor
- 4th-Axis Capable
- Runs on Single-Phase Power (specify 120V or 220V)



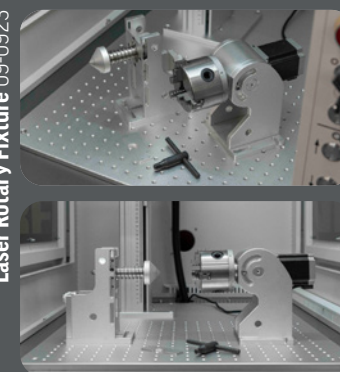
### Product Specifications

- Laser Power: 50W
- F160 Lens: 110x110mm (~4x4") working area, 160mm focal length (default)
- F290 Lens: 200x200mm (~8x8") working area, 290mm focal length
- Wavelength: 1064nm (infrared)
- Repeatability: ±0.003mm (±0.0001")

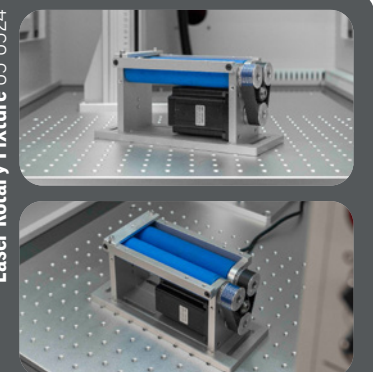
## NOW AVAILABLE LASER ROTARY FIXTURES

These laser rotary fixtures are designed for hassle-free installation on Haas Laser Marking Machines, thanks to the standard 4-pin aviation plug. This connection allows for quick plug-and-play set up, eliminating complex wiring or additional configuration steps. Simply enable the rotary function within Lightburn, connect the plug, and you're ready to start marking!

80mm 3-Jaw Scroll Chuck Laser Rotary Fixture 09-0923



32mm Ø Rubber Roller Laser Rotary Fixture 09-0924



## THE FAMILY IS GROWING

# COBOTS



Haas Cobots are integrated, plug-and-play, collaborative robots for Haas machines. The systems are controlled entirely by the Haas control when connected to the machine's electrical interface box. Includes: Cobot, software interface for direct control through the Haas machine, teach pendant and cobot controller, safety light curtain, and all necessary electrical hardware to interface directly with the Haas control.



COBOT 5kg

COBOT 10kg

COBOT 15kg

COBOT 30kg

**H**as all-in-one cobot kits for your Haas machine! Haas Machine Ready Cobot Kits include everything you need to set up, program, and operate your new Cobot right from the Haas control. Each kit features a Haas Cobot, pneumatic grippers, protective barriers, a parts table, and all necessary hardware and cables. Kit details:

### Part Flip Station:

A part flip station adjacent to the parts table provides a convenient location for the cobot to place parts and then regrip (flip) them for machining the other side, to simplify 2nd-op machining.

### Adjustable Pedestal:

Easily and quickly adjust the height of the cobot for better reach, depending on your application. The kit includes a sturdy telescoping stand capable of extending from 24" to 36" (610 - 914 mm).

### Part Table & Templates:

The heavy-duty parts table provides plenty of space for staging raw material and finished parts.

### Dual Pneumatic Grippers:

The Dual Grippers allow the cobot to pick up raw stock with one gripper and offload a finished part with the other, decreasing machine idle time.

### Additional Safeguarding:

For added safety, this kit features a 2-meter-tall, 3-sided light curtain system, and all necessary mounting hardware and cables for installation.



## SCALABLE AND AFFORDABLE

# ROBOTIC PALLET LOADING SYSTEM

INCLUDES the Haas 25 kg capacity robotic loading system, light curtain, pallet rack, and 3 zero point pallets.

This versatile system is ideal for automatic, unattended machining applications across a variety of milling platforms. Allows for continuous running of a single part, or a variety of parts, with the ability to swap parts and programs using the onboard scheduling system within the Haas control.

### Available Second Pallet Rack

This second pallet rack for the Haas Robotic Pallet Loading System increases capacity to extend lights-out run time, and allows staging of a wider variety of parts. Set up each pallet with a different part for high-mix/low-volume machining, or have the same part on each pallet for high-volume production. Includes 3 zero point pallets and pallet holders. Additional pallets, pallet holders, and pallet kits are available through HaasTooling.com.



CUSTOMIZATION IS STANDARD



ASSIGN PART MASS



PALLET SCHEDULER



TOUCHSCREEN GRID VIEW

### Available for:

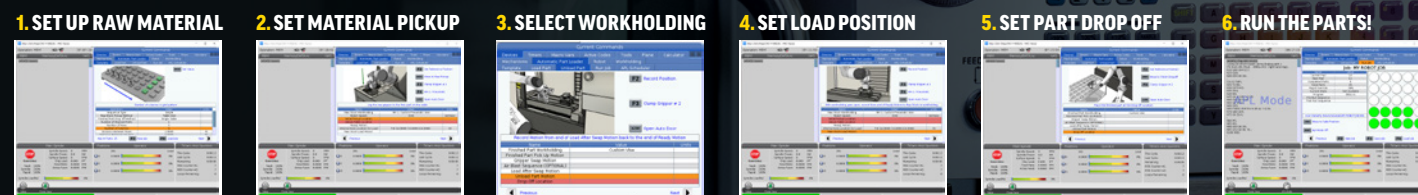
- VF-2 through VF-5 (except TR)
- UMC-500/SS through UMC-1000/SS
- VM-2 and VM-3

### System Highlights:

- High-volume production
- High-mix/low-volume machining
- All set up and operation are done through the Haas control and remote jog handle
- No need for 3rd-party integrators



## PROGRAMMING AND SET UP ARE EASY...



## DON'T FORGET THE TOOLING!

We have thousands of high-quality tooling products at unbeatable low prices . . . and we're adding more every day at [www.HaasTooling.com](http://www.HaasTooling.com)

Haas Automation, Inc. USA  
2800 Sturgis Rd., Oxnard, CA, USA  
[www.HaasCNC.com](http://www.HaasCNC.com) | [www.HaasTooling.com](http://www.HaasTooling.com)

Haas Automation, Inc. EUROPE  
Mercuriusstraat 28 1930, Zaventem Belgium  
[www.HaasCNC.com](http://www.HaasCNC.com)



**Haas Tooling Reviews**  
 ★★★★★  
**A DRILL CHUCK FOR YOU**  
 Having just purchased my first 40 taper machine, I turned to Haas CNC tools online to get my starter set of tool holders together. In this starter set, I made sure I ordered this chuck which has proven itself already. Smooth bearings, 0.0004" runout, and a spanner wrench hole for when things get tight on you. I would recommend this product.  
 - Joke P.

**CT40 NC KEYLESS DRILL CHUCK X 3.54" GAGE**  
 PART # 04-0069

**Haas Tooling Reviews**  
 ★★★★★  
**EXCELLENT HEIGHT GAUGE**  
 12" Dial Height Gauge proving to be accurate and repeatable. Paired with Haas Gauge Blocks has brought our inspection capabilities up significantly.  
 - Tony

**DIAL HEIGHT GAUGE DOUBLE-BEAM, 0-12"**  
 PART # 09-0124

**Haas Tooling Reviews**  
 ★★★★★  
**AMAZING DRILL BIT SET!**  
 Hands down one of the best sets of drill bits around, HAAS pricing sets a new standard.  
 - Eric S.

**111-PIECE, COBALT JOBBER DRILL KIT (FRACTIONAL, LETTER, NUMBER)**  
 PART # 08-1053

**Haas Tooling Reviews**  
 ★★★★★  
**EXCELLENT SMALL TOOL**  
 I needed a small general purpose tool holder and this one fit that role perfectly. The price is unbeatable and the inserts work great, are readily available and very economical. I'll definitely be replacing my aging lathe tooling with more Haas turning tools.  
 - CM

**HEFH, 5/8" Ø INDEXABLE END MILL, 5/8" SHANK X 10" LEAD ANGLE X 5" OVERALL LENGTH, 2 FLUTE, TSC**  
 PART # 01-0277

**Haas Tooling Reviews**  
 ★★★★★  
**GREAT VALUE.**  
 This "Tombstone" allows you to customize to your needs. No better value on the market. I would definitely recommend if you were in the market for a "Tombstone".  
 - Steve K.

**400MM CAST IRON SQUARE PLAIN TOMBSTONE**  
 PART # 05-0179

**Haas Tooling Reviews**  
 ★★★★★  
**40 TAPER TOOL CART**  
 It's built as good, if not better, than ones that cost twice as much. I just ordered a second one!  
 - Jim K.

**Haas Tooling Reviews**  
 ★★★★★  
**GREAT QUALITY PRODUCT**  
 If you have better gauges these are the tool for you! Easily replaced with great price.  
 - Neil B.

**6" DIAL CALIPER, 0.001 IN GRADUATION, SHOCKPROOF**  
 PART # 09-0083

**Haas Tooling Reviews**  
 ★★★★★  
**GREAT TOOL AND VALUE**  
 We use these all the time, and really like the performance. Lacked some top for my personal machine in the garage. Very pleased with the quality in Aluminum and you cannot beat the price.  
 - Joe B.

**3/8" DIA. CARBIDE END MILL, 3 FLUTE, UNCOATED, 3/8" SMOOTH SHANK X 7/8" LOC, SQUARE PROFILE, HSAMT**  
 PART # 03-0085

**Haas Tooling Reviews**  
 ★★★★★  
**EASY TO USE PRECISION LEVEL**  
 This is a great quality machinist level. At a fair price, it includes some top for my personal machine in the garage. Very pleased with the quality in Aluminum and you cannot beat the price.  
 - Terry S.

**200MM CAST IRON PRECISION MACHINIST'S LEVEL WITH 2 VIALS**  
 PART # 08-1081

**Haas Tooling Reviews**  
 ★★★★★  
**TIME SAVER**  
 Awesome product makes set up fast and easy.  
 - Blake F.

**HAIMER 3D SENSOR KIT, 1/2" INCH, CT40**  
 PART # 08-1080

**Haas Tooling Reviews**  
 ★★★★★  
**EXCELLENT END MILL FOR STAINLESS AND OTHER HARD METALS**  
 This tool was fantastic, it cut through 303 with no problem and the harmonics were great with very little sound coming from my machine. I followed the recommended speeds and feeds and got a great surface finish. I would highly recommend this tool.  
 - Luna Manufacturing

**1/2" DIA. CARBIDE END MILL, 5 FLUTE, TiAlN COATED, 1/2" SHANK X 1-1/4" LOC, SQUARE PROFILE, HSPM2**  
 PART # 03-0073

**Haas Tooling Reviews**  
 ★★★★★  
**ACCURATE**  
 Smooth working, quality tool. Another great HAAS tool added to my arsenal!  
 - BOM

**BLADE MICROMETER, 5-6"/0.001"**  
 PART # 09-0326



**Haas Tooling Reviews**  
 ★★★★★  
**GREAT TOOL AT A GREAT PRICE**  
 I bought this to replace standard carbide chamfer inserts when it does eventually wear out. Highly recommended!  
 - John F.

**COMPLETE CHAMFER END MILL KIT, CT40**  
 PART # 08-0171

**Haas Tooling Reviews**  
 ★★★★★  
**9/10 PRICE FOR PERFORMANCE**  
 Really can't beat the price point for an overnighted (with Winner's Circle) tool that can get the job done without taking too much profit out of a job. Cut performance is at least on par with something like Niagara, or Accupro, finish quality is pretty solid, but on a cutting edge this out with a more flat mirror finish coating and geometry isn't a bad comparison (though I was genuinely impressed with the coating), and as always Sandvik reigns supreme. I'm generally picky with my tools, but at the price and fast delivery Haas is providing tooling, that like their machines, are the workhorses of our industry. You can literally buy seven of these for the price of some Sandviks I have, and for 90 percent of the work people do I'm willing to bet seven tools are going to serve you a lot better than one Sandvik.  
 - Jeffrey H.

**3/4" DIA. CARBIDE END MILL, 6 FLUTE, HYB. ALCRN COATED, 0.03" RADIUS, HSPM**  
 PART # 03-2147

**Haas Tooling Reviews**  
 ★★★★★  
**GREAT HOLDER, NO ISSUES!**  
 Holder arrived in perfect condition, super fast shipping! Haas is great!  
 - Rob T.

**BMT45, 3/4" Ø INTERNAL (ID) TWIN STATIC TURNING HOLDER**  
 PART # 04-0976

HAAS SCLCR1212-F09 1212  
 01-0364 CC 01-0364

# ROTARY & INDEXERS

## Manual & Automatic workholding systems for TRT160 and TRT210

### Zero Point Kits

Complete Zero Point workholding systems for the Haas TRT160 and TRT210 dual-axis rotary tables. Allows the use of our Zero Point workholding, for quick part changeovers and fast setups. Replaces the standard bolt-hole pattern table.

- Includes Zero Point Chuck and one Blank Fixture Plate with pull stud
- Includes pneumatic union and all necessary hardware
- Provides accurate, repeatable fixture locating
- Allows quick changeovers
- Reduces setup time
- Max allowed air pressure 250 psi (17.2 bar)

Not compatible with: A1-6 PLATTER or T-SLOT PLATTER-210

#### ZERO POINT KIT-MANUAL Option

Includes the pneumatic union, manual toggle valve, and required air lines for actuating the Zero Point Chuck **manually**.

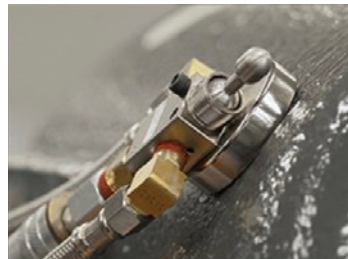
#### ZERO POINT KIT-AUTO Option

Includes the pneumatic union, required air lines, foot pedal, and M-codes (M70, M71) for actuating the Zero Point Chuck **automatically**.



### AIR CLAMP PRO-MANUAL

Includes a toggle valve and required air lines for manual clamping



### AIR CLAMP PRO-AUTO

Includes a foot pedal and M-codes (M70, M71) for actuating the Zero Point Chuck automatically



## Automatic Workholding Made Easy

Different Workpieces Require Different Workholding

### Self-Centering Air Vise Kit

#### 75 MM AIR VISE FOR THE TRT160 OR TRT210

##### Haas Automatic Air Vise

This kit includes everything you need to operate the 75 mm self-centering pneumatic vise automatically: pneumatic rotary union, external hard lines, and all internally routed air lines necessary to provide two auxiliary air ports through the center of the rotary platter. Includes foot pedal and M-codes (M70, M71) for actuating the Haas Air Vise automatically.

##### Haas Manual Air Vise

This kit includes everything you need to operate the 75 mm self-centering pneumatic vise manually: pneumatic rotary union, external hard lines, and all internally routed air lines necessary to provide two auxiliary air ports through the center of the rotary platter. Includes toggle valve and required air lines for actuating the Haas Air Vise manually.



### Hydraulic Vises

Simplify and automate workholding on Haas 5-axis Universal Machining Centers



Our Hydraulic Vises are designed to simplify and automate workholding on Haas 5-axis Universal Machining Centers. We've fitted interchangeable vise jaws to 2-jaw stationary hydraulic chucks to create versatile self-centering vises that can be activated directly from the Haas control.

- Hardened-steel jaws with serrations
- Activated directly from the Haas control, or via foot pedal
- Replacement steel and aluminum jaws available

#### Hydraulic Vise Ready

Provision to accept hydraulic workholding.

Option includes the HPU, rotary union, hydraulic lines, and foot pedal.



#### HAAS AUTOMATIC VISE OPTIONS & CONFIGURATIONS

Machine Model	AIR VISES			HYDRAULIC VISES		
	75 MM	100 MM	150 MM	6.0"	8.0"	10.0"
UMC	4	2	2	3	3	3
DT/DM	1	1	1			
MM/SMM	1	1	1			
VF-1/2	1	1	1			
VF-3/4/5	1	1	1			
VF-6/7/8/9	1	1	1			
TRT160	4					
TRT210	4					
TRT310		4				
MAX CLAMP FORCE	2000 (lbf) 8896 (N)	3300 (lbf) 14,680 (N)	6750 (lbf) 30,030 (N)	4800 (lbf) 21,351 (N)	5750 (lbf) 25,580 (N)	12,500 (lbf) 55,603 (N)

- 1) Programmable Air REQUIRED
- 2) Air Vise Ready REQUIRED
- 3) Hydraulic Vise Ready option REQUIRED
- 4) Air Clamping Provision REQUIRED

Air and hydraulic vises, as well as additional jaws and other vise accessories, are available through HaasTooling.com.

# 40 years of legendary service

Online service/support resources and more!

HaasCNC.com gives you access to the service and support you need to keep your Haas making chips.

The Haas Service web page provides everything from How-To Procedures, Troubleshooting Guides, Service Updates, and Instruction Manuals, to lists of G-Codes, M-Codes, and Settings.

Our Service and Maintenance Videos for your Tool Changer, Spindle, Electronics, and Coolant Systems will give you the confidence to tackle the job yourself.

Plus, with online Haas Service Parts, you can also order OEM Haas replacement parts with prompt same-day shipping.

## ONLINE HFO SERVICE REQUEST

If you need an extra hand to service your machine, your HFO is ready to help. Submit your online HFO Service Request form to expedite the care you deserve.



Be empowered.  
Visit [HaasCNC.com/Service](http://HaasCNC.com/Service)



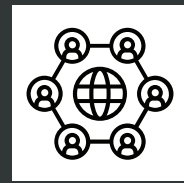
Simply use the search field, topic icons, or service quick links to find what you're looking for and any related topics, FAST.



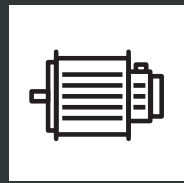
Operator's Manuals



How-To-Procedures



Join Our Team



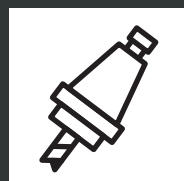
Haas Parts



Troubleshooting Guides



Preventive Maintenance



HaasTooling



Videos

## SERVICE QUICK LINKS

- 1 - AIR / PNEUMATICS
- 2 - APPLICATIONS
- 3 - AUTO DOOR / AUTO WINDOW
- 4 - AUTOMATION SYSTEMS
- 5 - AXIS MOTION
- 6 - CAN BUS SYSTEMS
- 7 - COOLANT
- 8 - CHIP MANAGEMENT
- 9 - DATA TRANSFER
- 10 - ELECTRICAL CONTROL
- 11 - ELECTRICAL CONTROL PENDANT
- 12 - ENCLOSURE
- 13 - GEARBOX
- 14 - GEOMETRY AND ALIGNMENT
- 15 - HYDRAULICS
- 16 - INSTALLATION
- 17 - INTEGRATED - 4TH / 5TH AXIS
- 18 - LIGHTING
- 19 - LUBRICATION
- 20 - MACHINE AND OPTIONS
- 21 - MAINTENANCE
- 22 - PROBING
- 23 - ROTARY
- 24 - SENSORS / SWITCHES
- 25 - SERVICE TRAINING
- 26 - SIMULATOR
- 27 - SOFTWARE





**Haas Motorsports.**  
*In Pursuit of High Performance.*  
*On any given weekend, thousands of parts machined on  
Haas CNCs make a difference in Formula One, NASCAR,  
NHRA, and other top racing organizations.*



**Designed to meet tomorrow's training demands, today.**

## Haas Technical Education Community (HTEC)

As a community of manufacturing technology educators – HTEC spans a global footprint of more than 4500 schools, training centers, colleges, and universities. The aim is to provide the best CNC training possible for generations to come, by leveraging the capabilities and technologies of Haas Automation, the Haas Factory Outlet (HFO) network, and leading industry partners to exploit the power of modern, advanced manufacturing equipment in an educational setting.

### Haas Technical Education Community Resources

Haas has been supporting schools for more than 30 years, and continues to offer discounts, resources, and machine configurations built just for education.

- Deep discounts on Haas machines for education
- Deep discounts on all Haas Tooling for educators; tooling kits specific to education
- Teacher training – beginner through advanced courses; hands-on CNC machine training courses for teachers; multiple locations to serve the education community
- Haas Online Learning Resources: Find manuals, training documents, videos, Tips of the Day for educators – all in one place!
- Regional and National HTEC Conferences for educator networking and instructor peer reviews

### Haas CNC Certification Program

Our online CNC Certification Program provides the basic knowledge necessary to get started as a CNC machine operator or CNC machinist, including basic machine operation, proper machine safety, and fundamental machining processes.

### Networking and Directories

Connect with fellow HTEC members. HTEC is global! Visit [www.HaasCNC.com/HTEC](http://www.HaasCNC.com/HTEC).

### Student Competitions

Technical education students and teams have the opportunity to prove their knowledge and skills at the regional, national, and even world level. When HTEC member schools participate, they routinely place in the top levels at these competitions.

- Haas sponsored Regional, State, and National SkillsUSA CNC Competitions
- Haas sponsored and supported WorldSkills Competitions
- FIRST California Robotics
- Project MFG

**Learn more about the HTEC program. Visit us at [HaasCNC.com/HTEC](http://HaasCNC.com/HTEC)**



**TIM AFSCRIFT**  
CNC MACHINING INSTRUCTOR  
AALTER SECUNDAIRE SCHOOL

*“The Haas Technical Education Community has been central to the success of the CNC program in my school – we attracted more students, raised the quality of our education, and connected better with the industry.”*

**Nobody is better than Haas Automation at designing and building the machine that's right for you.**

# Simplicity by Design



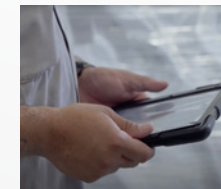
### Centralized engineering and assembly

Haas machine's are designed, engineered, and assembled in our single Southern California factory, and our engineers are literally just feet away from the production floor. When a change needs to happen, they can be on the assembly line instantly, implementing those changes.

This ensures that the building process is constantly monitored, which allows us to maintain a level of quality that other builders can't match. Machine tool builders with multiple factories spread all over the world just can't react as quickly or efficiently as we can.

### How Haas builds machines

The assembly procedures at the Haas factory follow a very strict protocol, with quality checks made continuously throughout the process. Work instructions and specifications are all communicated to the production floor electronically via tablets. This also serves to create a live electronic record. Each machine, of course, has a serial number, and as the machine is built, the hundreds of hand measurements that are taken are entered into this record, allowing us to generate a detailed report for every machine coming off our assembly lines. Indicator readings are taken, adjustments are made, and tests are performed, and the results are entered into the tablet as a permanent record of critical data.



### Quality components

We build so many machines that we have a huge advantage when it comes to buying power.

This means we can use world-class components in every machine tool, while still providing great value. From linear guides and ballscrews, to spindle bearings, servomotors, and vector drives, we don't have to cut corners to provide excellent performance. Great designs and serious volume are how we do it.

Every machine is built to order, so you only pay for the options you want. And with a wide selection of spindles, tool changers, chip- and coolant-management options, you have the choices to customize your machine exactly the way you want it.

More machine for your money . . . and more reasons why your next machine should be a Haas!

# Stay in Control

World-Famous CNC Control



*Simple* is just one of the benefits of the Haas Control user interface

The Haas Control is easy to learn and use, and it is the same across the entire product line. Haas machines are also used extensively in educational institutions around the world, so graduating students are already familiar with the Haas Control, which makes finding new operators and programmers easier, and simplifies training.

## Perform multiple functions with a single button push.

### One-Touch TOOL OFFSET MEASURE Button

When setting tool length offsets, simply jog the tool to the surface of the part, and press the TOOL OFFSET MEASURE button to automatically store the tool's length in the offset register. Use the NEXT TOOL button to repeat the process for each tool (mill only).

### NEXT TOOL Button

The NEXT TOOL button (mill), when pressed immediately after setting a tool length offset, will swap the next tool into the spindle, and put the machine into jog mode, ready to move the new tool into position to set its tool length offset.

### FWD and REV Buttons

The FWD and REV buttons will start the machine spindle at the last commanded speed. The FWD button will start the spindle in the forward (M03) direction, and the REV button will start the spindle in the reverse (M04) direction.

### Clearing all Offsets/Entries with a Single Button

While on the Tool Offset or Work Offset pages, pressing the Origin key opens a pop-up menu that allows you to quickly zero all offsets at once, with one button press.

### G28 HOME Button

The G28 HOME button is very useful (especially if you do not have a second home button) for quickly sending all machine axes to their Home position. On mills, the Z-axis moves Home first, and then all the other axes move. On lathes, the X-axis moves Home first, and then the others. It can also be used to send individual axes Home, by pressing the axis letter key first, and then G28 HOME.

### Advanced Tool Management

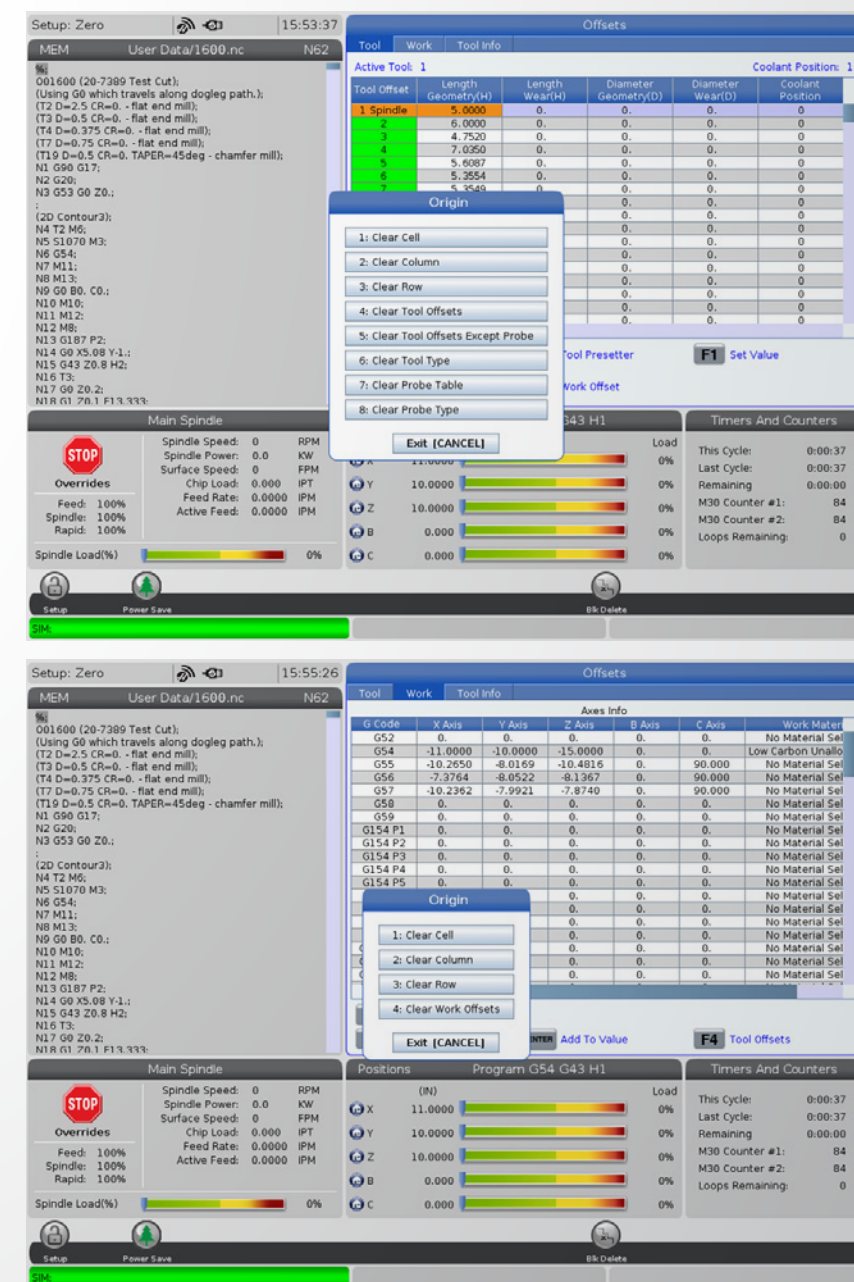
To maximize productivity, the Haas control has an integrated Advanced Tool Manager that allows you to create a group of redundant tools for use within a program. From a single screen, you can view the different tool groups and their parameters. Simply define which tool numbers are part of a group, and what parameter will determine when to change to a redundant tool. This can be based on feed time, the number of tool calls, the number of holes drilled or tapped, or a preset load limit. To use a group of redundant tools in a program, simply enter the group number as your tool call-out. The tool offsets you defined during set up are automatically loaded for each tool as it's called up.

*"We decided to switch over our whole shop to Haas machines so we'd have consistency from a maintenance standpoint, and because they allow us to use a single post-processor. We use a lot of our programs year after year, and having common controls that all work the same makes it easy to just download a program, go to any machine, and run the job."*

*"We're also having a hard time finding seasoned labor in our industry, and the ease of use of the Haas control has allowed me to develop young operators out of college, and easily integrate them into the process of running the Haas machines."*



**TIM GATTO**  
President, Micelli Chocolate Molds



# Designed, Built & Programmed by Haas

**CNC MACHINING IS COMPLEX. YOUR CONTROL SHOULDN'T BE.**

*"The Haas CNC control is so user friendly; students are able to spend less time learning the control layout, and more time making parts. The layout of the Haas control allows students to go from mill to lathe and back again seamlessly."*



**MIKE BERRY**  
INSTRUCTOR, MACHINE TOOL  
TECHNICIAN  
MID-STATE TECHNICAL COLLEGE /  
WISCONSIN RAPIDS CAMPUS

## POWERFUL STANDARD FEATURES:



### Simple Navigation

Navigation is fast and simple, with consistent functionality of the cursor keys, and intuitive icons throughout the user experience.



### Touchscreen

Our Touchscreen interface speeds up programming and simplifies control navigation, by allowing window selection, data entry, and other control functions without using the standard keypad.



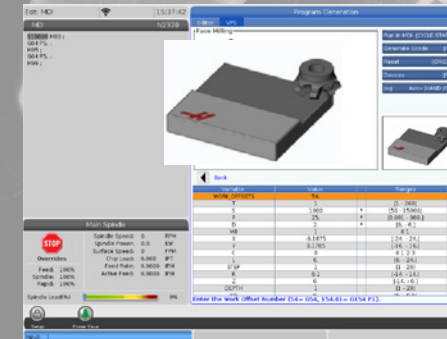
### Accessible Icons

The enhanced operator Help interface features easy-to-understand icons that provide quick access to information about any feature or option within the control.



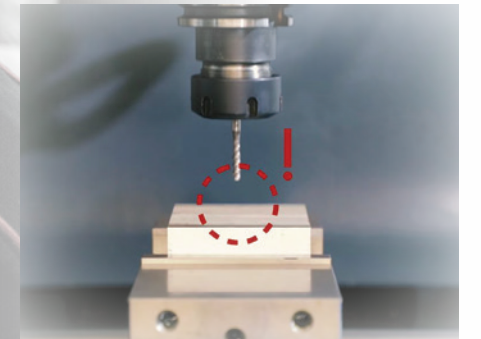
### Rotary Set Up

Set up and configure your rotary table with simple, on-screen dialogue and icons, and quickly designate rotary axes to correspond to the rotary table's orientation.



### Programming

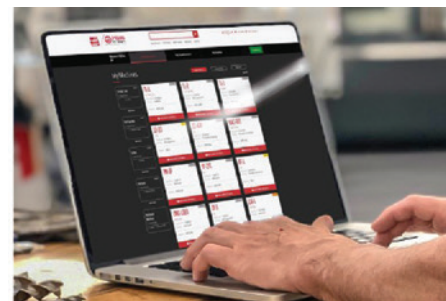
The Haas Visual Programming System (VPS) lets you quickly create G-code programs for both basic and complex part features and operations, using form-like templates to define the features.



### Safe Run

The Safe Run feature in the Haas control can detect unexpected contact, and instantly stop the machine to prevent significant damage.

## MORE POWERFUL STANDARD FEATURES:



### MyHaas

In the shop or on the go, MyHaas puts everything you need to know about your CNC machines in one convenient place. Download the free MyHaas app for Android and iOS devices - so you can:

- Manage your fleet of machines
- Access HaasConnect and HaasDrop
- Save and manage your machine quotes
- Browse and order Haas Tooling



### HaasDrop

HaasDrop Wireless File Transfer is a fast and convenient method for sending images, videos, and even program files from a mobile device directly to the control on a Haas CNC machine. Simply download the free MyHaas app for Android and iOS devices, and start transferring files directly to the Haas control.



### HaasConnect

HaasConnect is a machine monitoring system that provides instant alerts for machine status via email. The Haas control has the ability to send you, and others you designate, email notifications about the operating status of your Haas machine. Set up is fast and easy through the MyHaas Portal at HaasCNC, or the free MyHaas app for Android and iOS devices. HaasConnect is free with every new Haas machine.



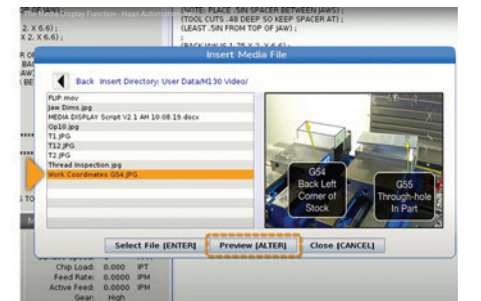
### On-Board Memory

The Haas control has 1 GB of standard program memory built in. This means you'll have the ability to store many programs in the control, eliminating the need for an external device for program backup. Large programs for complex molds, for example, can now be run from memory, doing away with the connectivity issues often experienced when running from DNC or FNC. Expandable to 64 GB.



### WiFi / Ethernet

All Haas machines come standard with built-in Ethernet and WiFi connectivity for fast, wired or wireless communication between the Haas control and a local area network. Use WiFi to easily share and transfer files wirelessly, and monitor your machine remotely via HaasConnect mobile machine monitoring. It is easily set up through the Haas control, and supports Netshare capabilities.



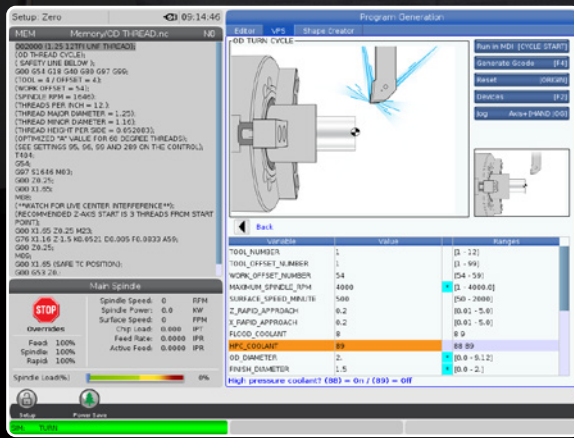
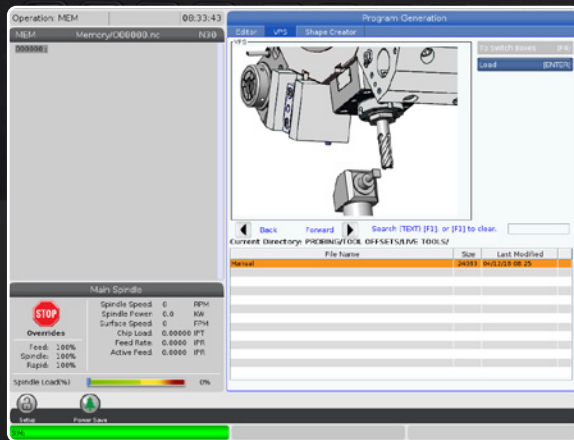
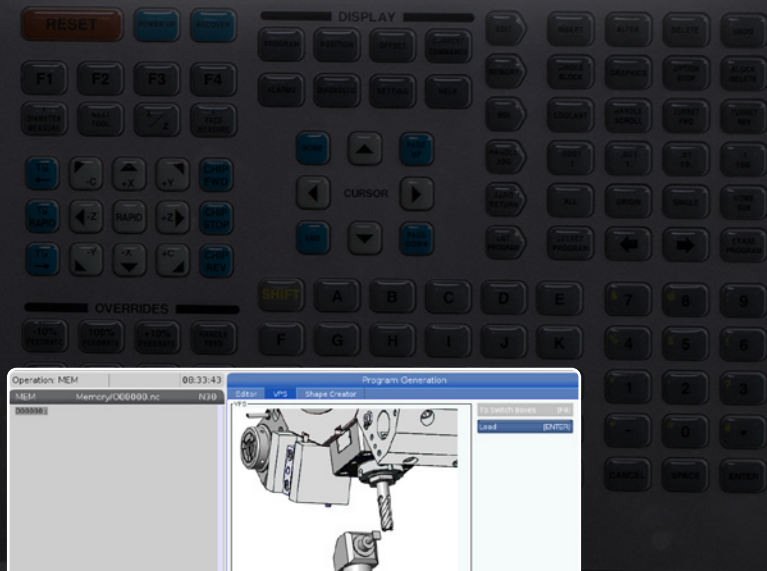
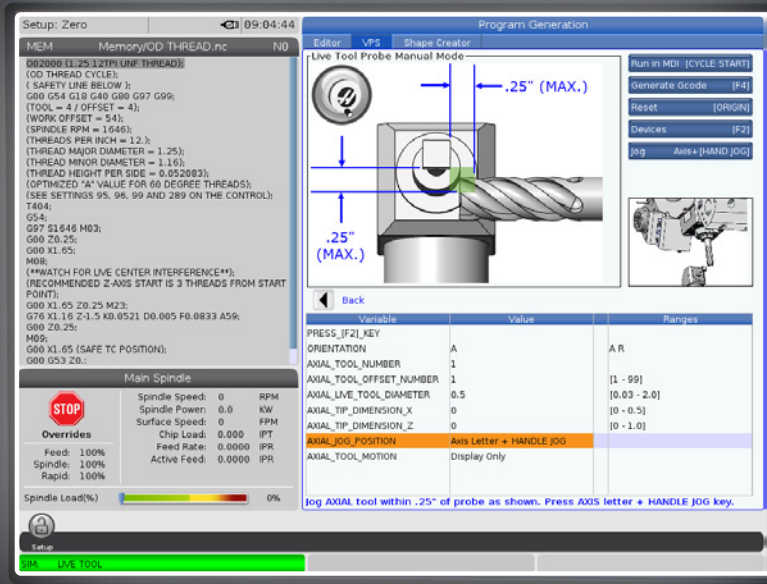
### Media Display Function

Easily place pictures and videos in your program to make sure your operators have all the information they need to run the job correctly. The Haas M130 Media Display M-Code is a powerful tool for communicating with machine operators and programmers directly from the Haas control as an NC program runs.



## haas visual programming system

The Haas Visual Programming System uses graphical templates and a form-like interface to help you quickly create G-code programs for not only basic part features, but also more complex operations - like bolt-pattern drilling cycles that let you incorporate spot drill, drill, tap, bore, counter-bore, and ream operations on the same set of holes, all from the same template.



Our Visual Programming System for lathes gives you an easy way to write programs on the fly at your machine's control, using the geometry and features of your part.

The Haas Visual Programming System (VPS) makes it easy to program on-the-fly, without having to know G-code. Simply follow the on-screen instructions, enter the required values, and the control will generate all the necessary G-code!

# VERTICAL MACHINING CENTERS

## A Versatile Lineup of Vertical Milling Machines

# VF SERIES

## A Wide Range of Sizes and Features to Fit Any Shop's Needs

### VF Series

30/40/50/HSK TAPER  
3/4/5-AXIS  
7500-30,000 RPM  
20-71 TOOL CAPACITY

Most popular VMC sold!



Affordable Automation  
Automatic Parts Loader

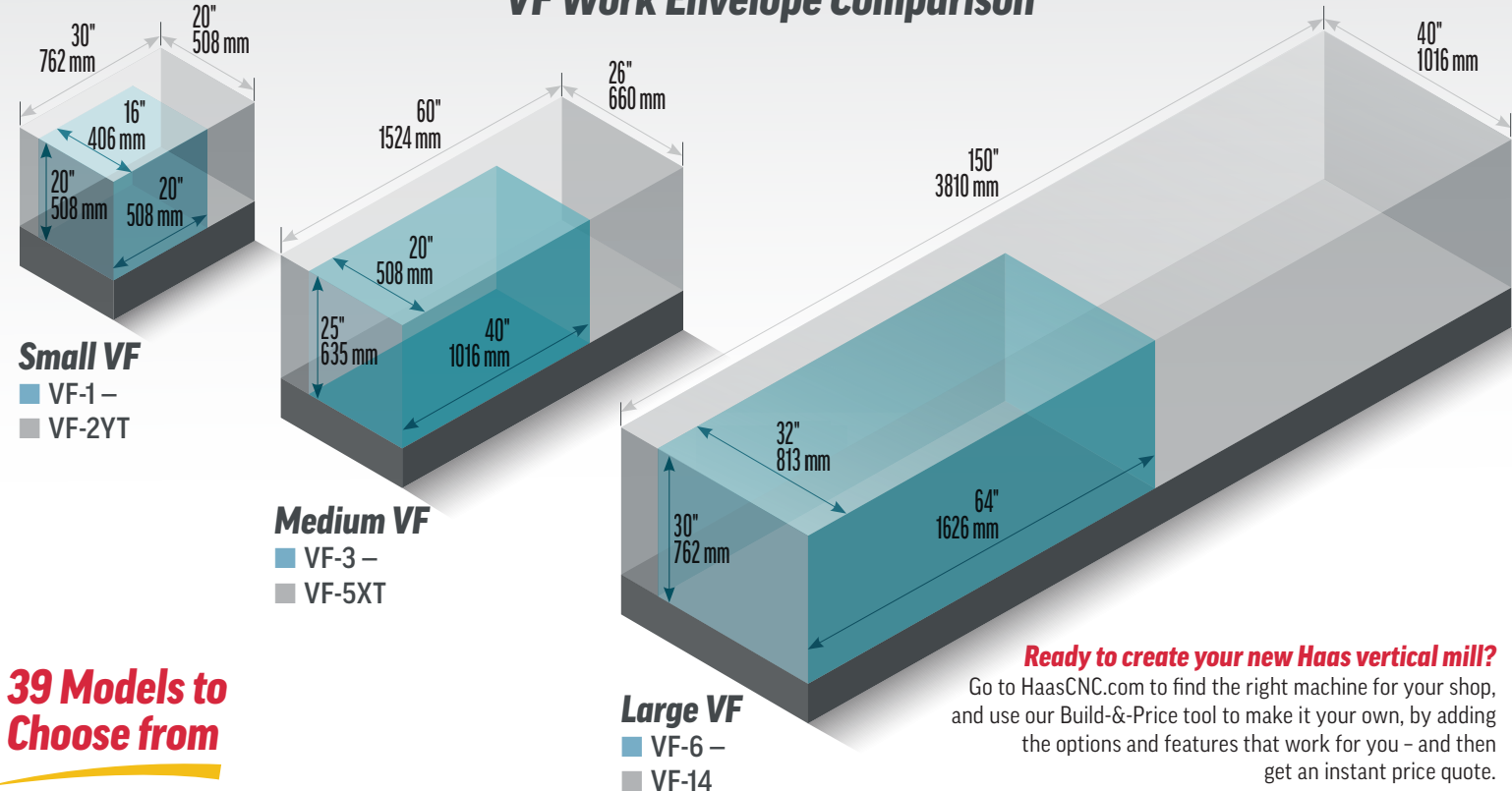


Easy Automation  
Pallet Pool



Versatile Automation  
Robot

### VF Work Envelope Comparison



**Ready to create your new Haas vertical mill?**  
Go to HaasCNC.com to find the right machine for your shop, and use our Build-&-Price tool to make it your own, by adding the options and features that work for you - and then get an instant price quote.

### VF Model Series

#### Small

VF-1	20" x 16" x 20" (xyz) 508 x 406 x 508 mm
VF-2	30" x 16" x 20" (xyz) 762 x 406 x 508 mm
VF-2SS Super Speed	30" x 16" x 20" (xyz) 762 x 406 x 508 mm
VF-2TR 5-Axis	30" x 16" x 20" (xyz) 762 x 406 x 508 mm
VF-2YT	30" x 20" x 20" (xyz) 762 x 508 x 508 mm
VF-2SSYT Super Speed	30" x 20" x 20" (xyz) 762 x 508 x 508 mm

#### Large

VF-6	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-6SS Super Speed	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-6TR 5-Axis	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-6/50	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-6/50TR 5-Axis	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-7	84" x 32" x 30" (xyz) 2134 x 813 x 762 mm
VF-7/50	84" x 32" x 30" (xyz) 2134 x 813 x 762 mm
VF-8	64" x 40" x 30" (xyz) 1626 x 1016 x 762 mm

#### Medium

VF-3	40" x 20" x 25" (xyz) 1016 x 508 x 635 mm
VF-3SS Super Speed	40" x 20" x 25" (xyz) 1016 x 508 x 635 mm
VF-3YT	40" x 26" x 25" (xyz) 1016 x 660 x 635 mm
VF-3SSYT Super Speed	40" x 26" x 25" (xyz) 1016 x 660 x 635 mm
VF-3YT/50 50-Taper	40" x 26" x 25" (xyz) 1016 x 660 x 635 mm
VF-4	50" x 20" x 25" (xyz) 1270 x 508 x 635 mm
VF-4SS Super Speed	50" x 20" x 25" (xyz) 1270 x 508 x 635 mm
VF-5/40	50" x 26" x 25" (xyz) 1270 x 660 x 635 mm
VF-5SS Super Speed	50" x 26" x 25" (xyz) 1270 x 660 x 635 mm
VF-5/40TR 5-Axis	50" x 26" x 25" (xyz) 1270 x 660 x 635 mm
VF-5/40XT	60" x 26" x 25" (xyz) 1524 x 660 x 635 mm
VF-5/50	50" x 26" x 25" (xyz) 1270 x 660 x 635 mm
VF-5/50TR 5-Axis	50" x 26" x 25" (xyz) 1270 x 660 x 635 mm
VF-5/50XT	60" x 26" x 25" (xyz) 1524 x 660 x 635 mm
VF-8/50	64" x 40" x 30" (xyz) 1626 x 1016 x 762 mm
VF-9	84" x 40" x 30" (xyz) 2134 x 1016 x 762 mm
VF-9/50	84" x 40" x 30" (xyz) 2134 x 1016 x 762 mm
VF-10	120" x 32" x 30" (xyz) 3048 x 813 x 762 mm
VF-10/50	120" x 32" x 30" (xyz) 3048 x 813 x 762 mm
VF-11	120" x 40" x 30" (xyz) 3048 x 1016 x 762 mm
VF-11/50	120" x 40" x 30" (xyz) 3048 x 1016 x 762 mm
VF-12/40	150" x 32" x 30" (xyz) 3810 x 813 x 762 mm
VF-12/50	150" x 32" x 30" (xyz) 3810 x 813 x 762 mm
VF-14/40	150" x 40" x 30" (xyz) 3810 x 1016 x 762 mm
VF-14/50	150" x 40" x 30" (xyz) 3810 x 1016 x 762 mm

#### Machine With Available Option(s):

- ▲ Automatic Parts Loader
- Pallet Pool
- Haas Cobot
- Haas Robot

"We have three VF-2SS machines; the high-speed spindles help us produce an excellent finish, while cutting down run times. The ease-of-operation of Haas machines is a big plus. Our operators are familiar and comfortable with the Haas control, and that helps keep the process running smoothly. We truly are a Haas shop."

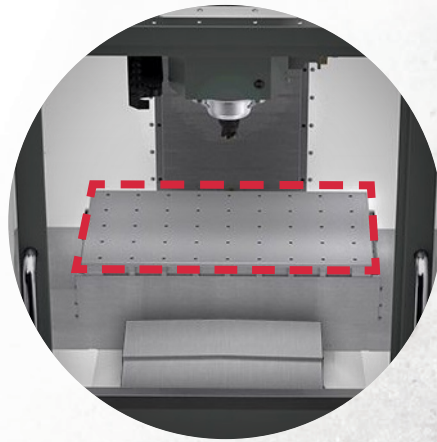


**Nihilo Concepts**  
**JOE BREWSTER**  
OWNER | NIHILO  
CONCEPTS

# EASY AUTOMATION

**Up to 70+1 tools to handle a variety of parts**

Room for backup and redundant tooling



**Large Part Automation**  
**30" x 18"**  
**762 x 457 mm**  
 Work envelope

**Automatic Coolant Refill**

Automatically maintains proper coolant level for unattended operation

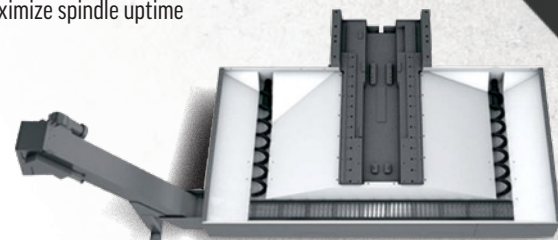


**Haas Wireless Intuitive Probing System - (WIPS)**  
 In-process tool and work probing, broken tool detection



**Dedicated Load/Unload Station**

Maximize spindle uptime



**Dual-Auger with Chip Conveyor -**  
 High-volume chip removal for unattended operation

## **Easy Automation**

Endless possibilities for High-Mix or High-Volume Production and Unattended Operation.



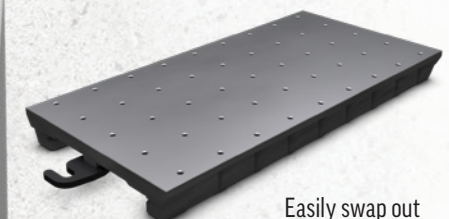
Our Haas Workholding by Kurt fixed-jaw, single-station vise is available in a 3-pack of 6" (150 mm) vises or a 4-pack of 4" (100 mm) vises

Pallet 1

Pallet 2

Pallet 3

Pallet 4



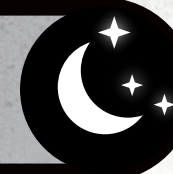
Easily swap out additional pallets for more job runs



**HaasConnect**

- Remote Monitoring
- Machine and Tool Life Management

**Lights-Out Machining**



**WiFi Camera -**  
 Keep an eye on things while away



NOTE: The Pallet Pool requires a side-mount tool changer. The Pallet Pool must be anchored for proper operation. Not available for field installation.

# UMC SERIES

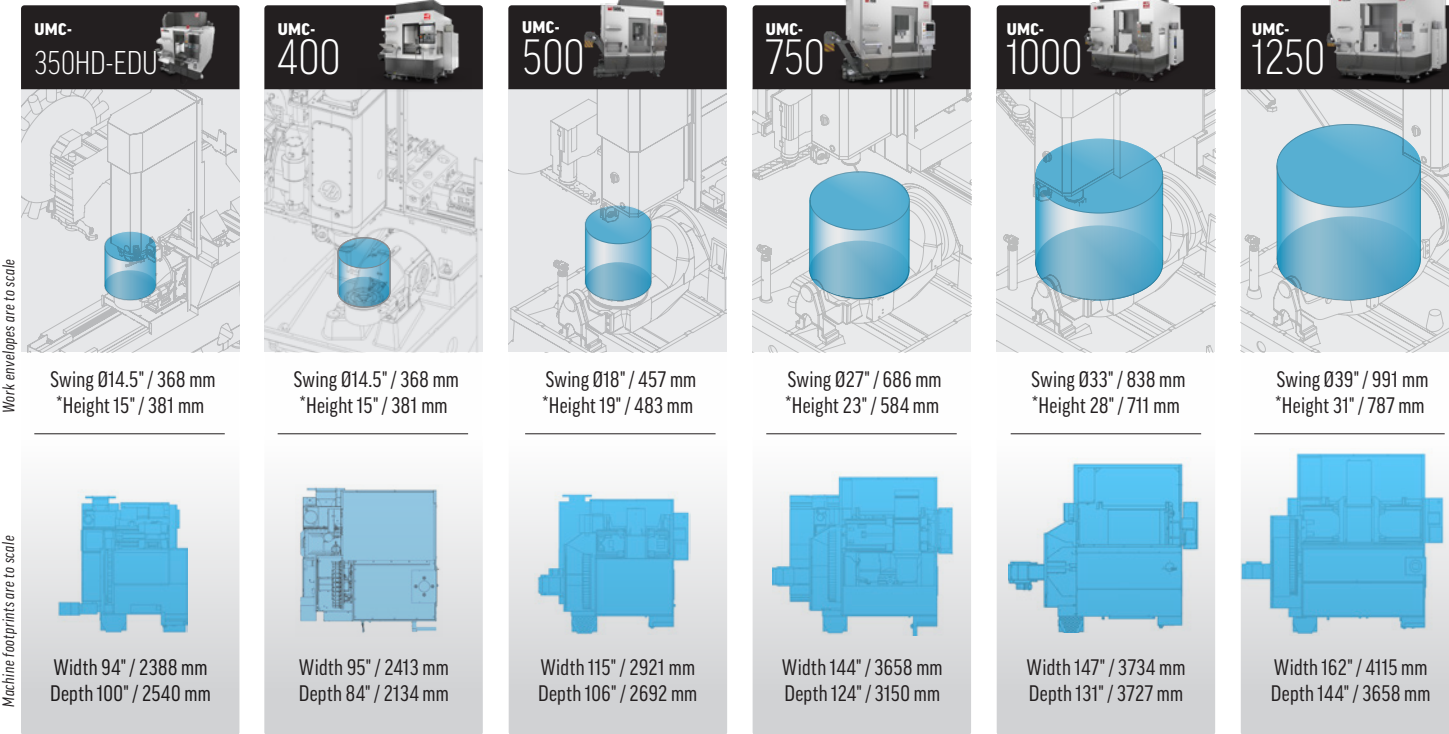
## 5-Axis for Everyone

### UMC Series

40/HSK TAPER  
5-AXIS STANDARD  
8100-20,000 RPM  
19-71 TOOL CAPACITY



### UMC Work Envelope Comparison



WORK ENVELOPE  
Work envelopes are to scale

MACHINE FOOTPRINT  
Machine footprints are to scale

**ATTENTION!** The maximum part weight (part and workholding) should not exceed the maximum platter capacity of the machine, regardless of part size.

**NOTE:** Maximum height and swing apply to B0 orientation only. Large workpieces, including ones within the stated work envelope, may interfere with other machine components as the tilt angle increases. If your tool length + workpiece is close to or larger than the maximum work envelope, it is recommended to review your application's suitability with your local HFO Applications team.

\*Tool Length + Workpiece

### Every Haas UMC comes standard with full 5-axis, and these essential tools for 5-axis machining:

#### DWO/TCPC Standard

Simplify 5-axis machining with dynamic work offsets and tool center point control.

- Simplifies setup operations - part and fixture can be placed anywhere on the table / platter
- Saves money by eliminating costly workholding fixtures, like self-centering fixtures
- Eliminates the need to regenerate programs from the CAM system
- Makes setting up 5-axis jobs as easy as setting up a 3-axis machine

#### Wireless Probing Standard

Wireless Intuitive Probing System (WIPS) - Included as a standard feature on all UMCs to simplify machine setup.

Also performs in-process work probing and tool probing.

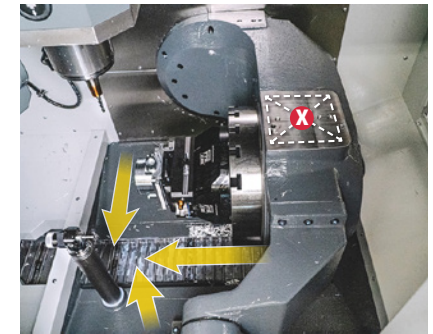
Includes these powerful control options:

- Spindle Orientation
- User-Definable Macros
- Coordinate Rotation and Scaling
- Visual Part Programming System



### Spindle Options

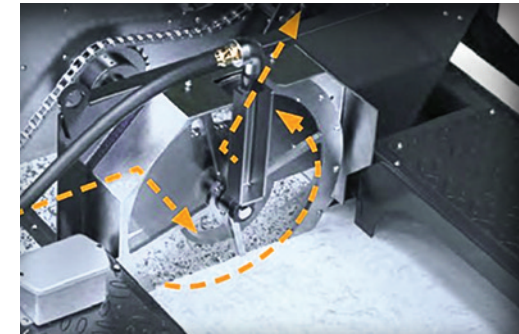
RPM	40 Taper	HSK
	8100	-
10,000	-	-
12,000	12,000	-
15,000	15,000	-



### Central Chip Evacuation Design

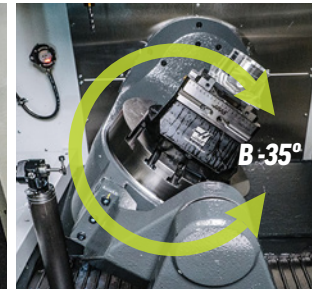
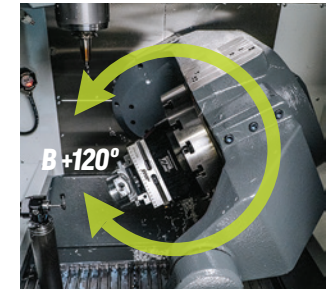
Central chip conveyor is directly below the cutting surface, to allow chips and coolant to be easily discharged from the machine.

**X** Includes additional workholding surface for more throughput and added convenience.

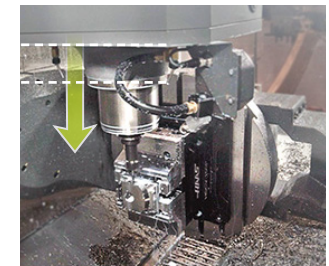


### Chip Disc Filtration Conveyor

This optional conveyor features a built-in disk filtration system to reduce chip fines from entering the coolant tank, while the belt removes larger chips from the machine quickly, and discharges them at standard barrel height. Ideal for trouble-free unattended operation.



### Rotary Swing B-Axis & C-Axis travels, shown with Haas Self-Centering Vise and Riser



### Extended-Reach Spindle Casting

Increases spindle reach to maximize platter/workpiece clearance



Easy Automation  
Pallet Pool



Affordable Automation  
Automatic Parts Loader



Versatile Automation  
Robot & Cobot

### Universal Machines

UMC-350HD 40 Taper	15" x 14" x 12" (xyz) 381 x 355 x 304 mm
UMC-400 40 Taper	17" x 11" x 13" (xyz) 432 x 279 x 330 mm
UMC-400SS 40 Taper	17" x 11" x 13" (xyz) 432 x 279 x 330 mm
UMC-500	24" x 16" x 16" (xyz) 610 x 406 x 406 mm
UMC-500SS Super Speed	24" x 16" x 16" (xyz) 610 x 406 x 406 mm
UMC-750	30" x 20" x 20" (xyz) 762 x 508 x 508 mm
UMC-750SS Super Speed	30" x 20" x 20" (xyz) 762 x 508 x 508 mm
UMC-1000	40" x 25" x 25" (xyz) 1016 x 635 x 635 mm
UMC-1000SS Super Speed	40" x 25" x 25" (xyz) 1016 x 635 x 635 mm
UMC-1000-P Profiling	40" x 25" x 25" (xyz) 1016 x 635 x 635 mm
UMC-1000SS-P Super Speed + Profiling	40" x 25" x 25" (xyz) 1016 x 635 x 635 mm
UMC-1250	50" x 30" x 28" (xyz) 1270 x 762 x 711 mm
UMC-1250SS Super Speed	50" x 30" x 28" (xyz) 1270 x 762 x 711 mm
UMC-1250/50 50 Taper	50" x 30" x 28" (xyz) 1270 x 762 x 711 mm
UMC-1500-DUO Dual Table	60" x 20" x 20" (xyz) 1524 x 508 x 508 mm
UMC-1500SS-DUO Dual Table + Super Speed	60" x 20" x 20" (xyz) 1524 x 508 x 508 mm

### Machine With Available Option(s):

- Haas Cobot
- Haas Robot
- Automatic Parts Loader
- Pallet Pool

# DRILL TAP / DRILL MILL

Designed Specifically for  
Maximum Speed and Minimal Space

## Drill Tap / Drill Mill Series

30/40 TAPER  
3/4/5-AXIS  
10,000-20,000 RPM  
19-21 TOOL CAPACITY



**Affordable Automation**

### Compact Automatic Parts Loader

Available on these models:

- DTs / DMs
- VF-2 / VF-2SS
- VF-2YT / VF-2SSYT
- VM-2
- Mini Mill/Super Mini Mill



### Spindles

High-speed spindles are the standard for the Drill/Tap/Mill machines. These spindles use an inline drive system that keeps accel/decel times to a minimum, while minimizing heat generation, compared to a belt-drive system. For applications demanding very high surface speeds, optional high-performance spindles are available.



Note: The optional high-performance spindles have higher power requirements than the standard spindle. Contact your local HFO for information.

### Available

#### High-Performance Spindles

##### 10,000-RPM

- Standard spindle
- Inline direct-drive
- Great overall performance & value
- **Good** performance for 3D profiling

##### 12,000-RPM

- High-performance option
- Inline direct-drive
- High accel/decel rates
- 5000-rpm rigid tapping
- 20% faster speeds and feeds
- **Better** performance for 3D profiling

##### 15,000-RPM

- High-performance option
- Inline direct-drive
- High accel/decel rates
- 5000-rpm rigid tapping
- 50% faster speeds and feeds
- **Best** performance for 3D profiling

##### 20,000-RPM

- High-performance option (DT only)
- Inline direct-drive
- High accel/decel rates
- 5000-rpm rigid tapping
- 100% faster speeds and feeds
- **Ultimate** performance for 3D profiling

### Drill Tap/Mill Centers

DT-1 30 Taper	20" x 16" x 15.5" (xyz) 508 x 406 x 394 mm
DT-2 30 Taper	28" x 16" x 15.5" (xyz) 711 x 406 x 394 mm
DT-3 30 Taper	36" x 16" x 15.5" (xyz) 914 x 406 x 394 mm
DM-1 40 Taper	20" x 16" x 15.5" (xyz) 508 x 406 x 394 mm
DM-2 40 Taper	28" x 16" x 15.5" (xyz) 711 x 406 x 394 mm
DM-3 40 Taper	36" x 16" x 15.5" (xyz) 914 x 406 x 394 mm

Machine With Available Option(s):

- Haas Cobot
- Haas Robot
- ▲ Automatic Parts Loader

**"My first Haas was a DT-1 Drill/Tap Center. Now that I'm a Haas user, I believe all shops, wherever they are in the world, should use Haas. For what you pay, they are the best production machines in the world!"**



**HARDUS COETZEE**  
OWNER  
TMPC CO., LTD.

### Tool Changers

Haas Drill/Tap/Mill Series machines share an innovative tool changer design that eliminates the need for multiple switches and signals, resulting in ultra-fast tool changes. An equally important benefit is the increase in reliability due to the reduction of parts and switches.



### Multi-Axis Machining

From the venerable HASC indexer to the high-speed TRT100 tilting rotary, Haas has a 4th- or 5th-axis solution to fit your needs. Additional axis drives can also be added to any Drill/Tap/Mill Series machine in the field, along with Haas rotary tables. Features built into the Haas Control, like G107 Cylindrical Engraving, only make the move to multi-axis machining that much easier.



### Probing

Machines aren't making money unless they're making chips. Set up your DT/DM even faster with the addition of a Haas Wireless Intuitive Probing System (WIPS). Fully integrated with the Haas Control, WIPS will simplify everything from initial part set up to advanced probing routines.

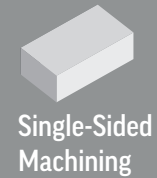




## Choosing the Right Automation for your VF

There are many ways to automate a machining process. Haas has the right choices to ensure that your future productivity is secure. We have pre-engineered a number of automation systems to help you find the one that fits best.

### VF Automation

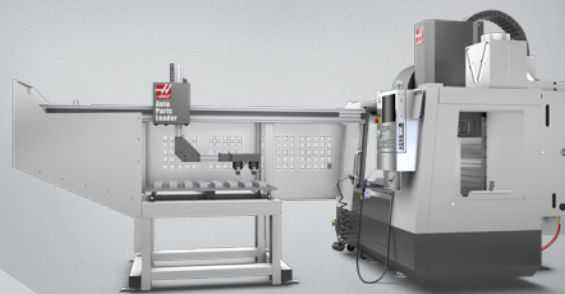


#### Easy Pallet Pool



- Utilizes the same/existing programs
- Run a variety of parts, or multiples of the same part
- Larger size parts
- Up to 750 lb (340 kg) payload per pallet
- Irregular shape parts
- Simple manual clamping
- High-mix/low-volume or high-volume production
- Unattended operation

#### Affordable Automatic Parts Loader (APL)



- Simple load/unload part processing
- Runs multiples of the same part
- Parts up to 6" x 6" x 4" (152 x 152 x 102 mm)
- Parts up to 10 lb (4.5 kg) each
- Automated clamp/unclamp fixturing required
- Mid- to high-volume production
- Unattended operation

#### Versatile Robots & Cobots



- Versatile load/unload part processing
- Runs multiples of the same part
- Automated clamp/unclamp fixturing required
- Mid- to high-volume production
- Unattended operation

VF SERIES



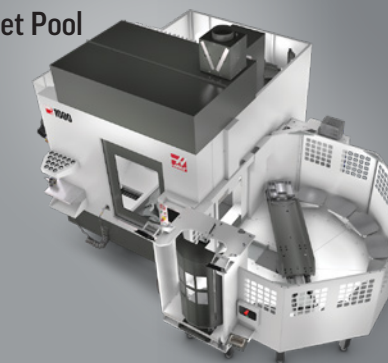
## Choosing the Right UMC Automation

When it comes to automation, there is no one-size-fits-all approach. At Haas Automation, we have a number of pre-engineered systems for you to choose from, to ensure that your investment in the world of automation is sure to pay off.

### 5-Axis UMC Automation



#### Easy Pallet Pool



- Utilizes the same/existing programs
- Run a variety of parts, or multiples of the same part
- Irregular shape parts
- Simple manual clamping
- High-mix/low-volume or high-volume production
- Unattended operation

#### Affordable Automatic Parts Loader (APL)



- Simple load/unload part processing
- Runs multiples of the same part
- Parts up to 6" x 6" x 4" (152 x 152 x 102 mm)
- Parts up to 10 lb (4.5 kg) each
- Automated clamp/unclamp fixturing required
- Mid- to high-volume production
- Unattended operation

UMC SERIES

5 sizes to choose from

#### Versatile Robots & Cobots



- Versatile load/unload part processing
- Run a variety of parts or multiples of the same part
- Automated clamp/unclamp fixturing required
- Mid- to high-volume production
- Unattended operation

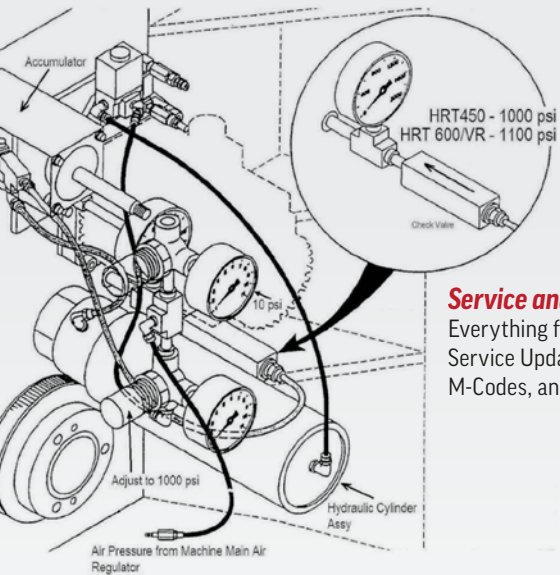


## The Power of Our Online Resources

Access powerful information, so you can focus on what matters.

### How-To Videos/Guides

Access the massive Haas Automation video library for all of our Tip-of-the-Day, Apps Minute, Cutting Demo, and Service & Maintenance videos.



### Service and Support

Everything from How-To Procedures, Troubleshooting Guides, Service Updates, and Instruction Manuals, to lists of G-Codes, M-Codes, and Settings.

In the shop or on the go, **MyHaas** puts everything you need to know about your CNC machines in one convenient place.

### Create your account today, so you can:

- Manage your fleet of machines
- Access HaasConnect
- Save and manage your machine quotes

Use the New MyHaas App for a simplified Haas Tooling shopping experience, and express checkout!

The **MyHaas App** now includes all the functionality of the **HaasConnect App** and the **HaasDrop File Transfer App**.



## Build-&-Price

Take a quick tour through our **Build-&-Price** feature, and discover just how easy it is to find the machine you need for the parts you're making. Simply select a machine from our myriad of choices, and then add the options that are right for you. All pricing and financing information is right there - with no waiting.



### Your source for genuine OEM Haas Parts

- Replacement parts
- Performance upgrades
- Maintenance upgrades



**HaasConnect** provides instant alerts for machine status, alarms, and overrides.

## Pallet-Changing VMC - Maximize spindle uptime

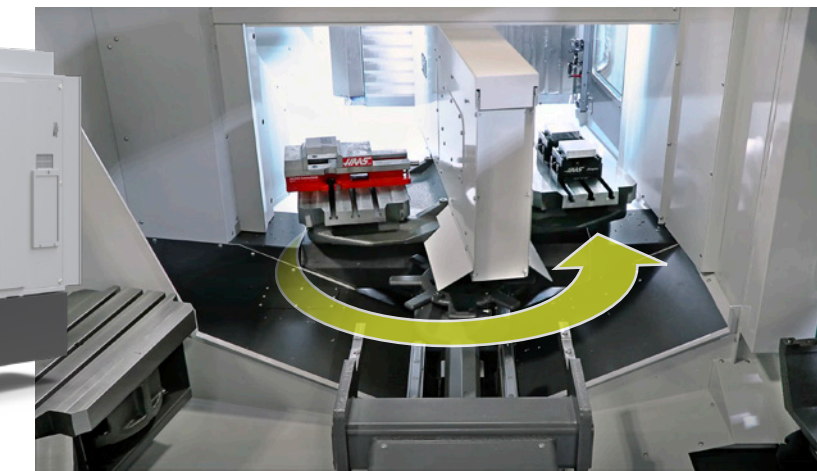
### Dual Pallet

VC-400	22" x 16" x 20" (xyz) 559 x 406 x 508 mm
VC-400SS Super Speed	22" x 16" x 20" (xyz) 559 x 406 x 508 mm



## VC-400 Series

**40** 3-AXIS  
TAPER 8100 RPM  
30+1 TOOLS



### Boost throughput, minimize non-cutting time

- Built-in pallet changer; 22" x 14.5" (559 x 368 mm) T-slot pallets
- Machine parts on one pallet, while setting up the other
- Standard 30+1 tool side-mount tool changer, with 50+1 available
- Available 6+1 pallet pool

The pallet-changing capability of the VC-400/SS allows you to machine parts on one pallet, while loading/unloading parts on another, boosting throughput and minimizing non-cutting time.

### 6+1 Pallet Pool, VC-400/SS

#### High-volume production, unattended operation

Our 6+1 pallet pool for the VC-400/SS is perfect for high-volume production runs, or high-mix/low-volume machining. The pallets can be scheduled individually according to priority and sequencing requirements, allowing high-priority parts to be machined first or staged more often.

- Utilizes the same/existing programs
- Work Envelope: 22" width x 16" depth (559 x 406 mm)
- 6+1 pallets (6 storage locations + 1 machining station)
- 500 lb (227 kg) max per pallet (workpiece + workholding)
- Fully integrated solution for lights-out production
- Easy-to-use scheduling interface in the Haas control
- Dedicated load/unload station
- Must be ordered with the machine



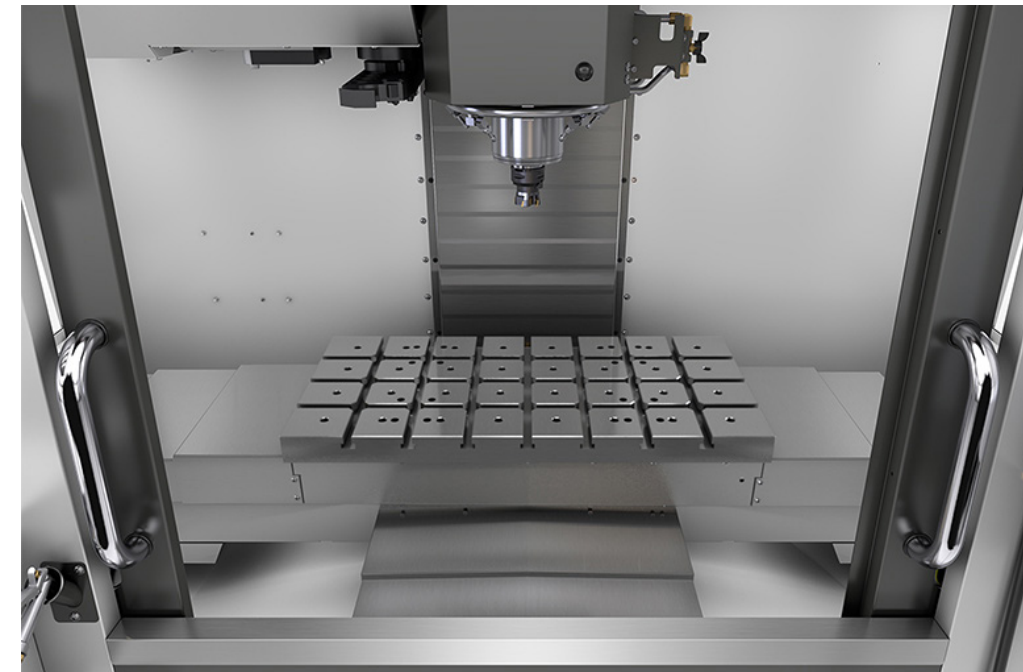
# MOLD MACHINES

## Configured for Mold Making

### VM Series

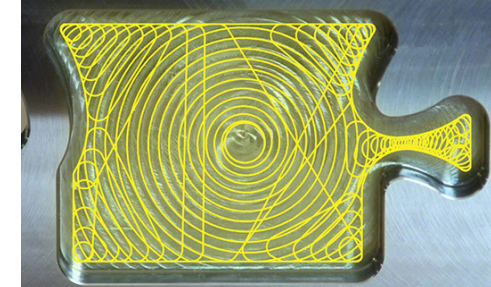
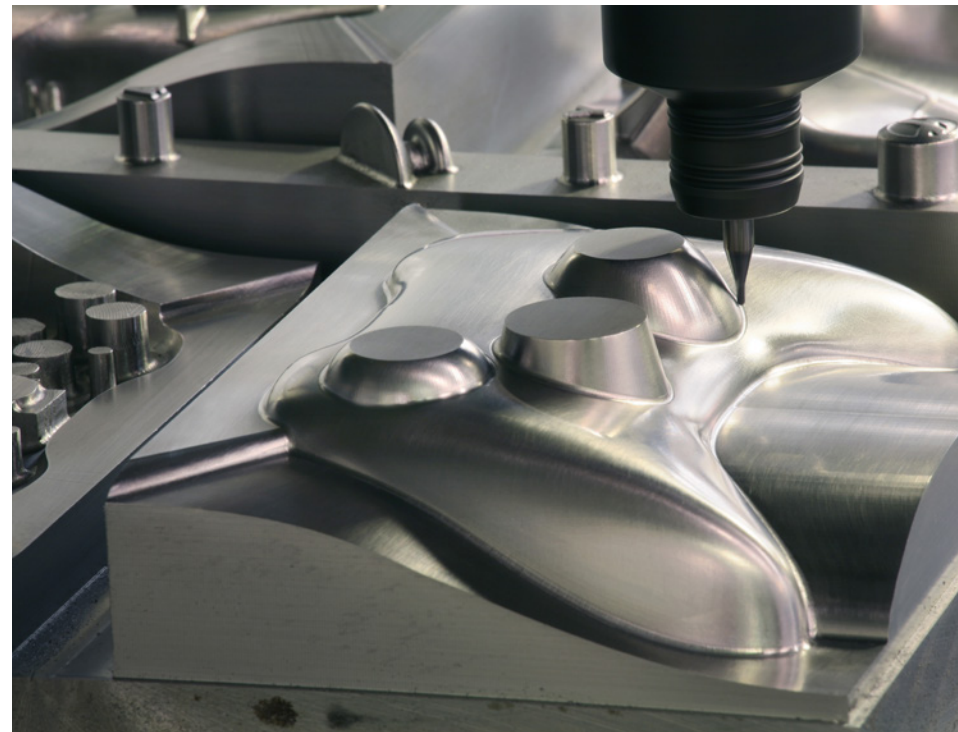
**30/40/HSK TAPER**  
**3/4/5-AXIS**  
**12,000-30,000 RPM**  
**31-71 TOOLS**

Making molds has never been easier than with a Haas Mold Machine. We've taken our industry-leading VF Series and created custom configurations just for mold making, tool & die work, and other high-precision industries. Mold Machines are also ideal for high-performance job shops looking to increase their versatility.



#### VM Multi-Fixturing Table

Our multi-fixturing table features T-slots in the X and Y directions, as well as precision dowel-pin holes, to provide plenty of options for clamping and locating a wide range of parts, fixtures, and workholding.



#### High-Speed Machining

High-Speed Machining allows faster feedrates and more complex toolpaths, without hesitation or starving the machine. Obtain smoother surface finishes and faster, more accurate transitions of axis motion at higher feedrates, without having to modify existing programs.



#### Wireless Probing

Setup reduction is critical to maximizing the productivity of any machine tool. Our Wireless Intuitive Probing System (WIPS) sets the standard for integrated probing systems. Easy, on-screen directions simplify everything from initial part set up to advanced probing routines, including in-process part inspections.



#### Chip & Coolant Management

Different jobs require different approaches to chip clearing: flood coolant, through-spindle coolant, through-spindle air, minimum quantity lubrication, and more. Haas machines offer one of the widest selections of chip and coolant management options in the industry.



#### The Haas Control

Ease of use and simplicity are the founding principles of the Haas Control. Commonality between vertical machining centers, horizontal machining centers, and lathes ensures operators can easily move from one Haas machine to another.

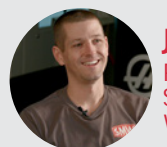
#### Mold Machines

VM-2	30" x 20" x 20" (xyz) 762 x 508 x 508 mm
VM-3	40" x 26" x 25" (xyz) 1016 x 660 x 635 mm
VM-6	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VM-8	64" x 40" x 30" (xyz) 1626 x 1016 x 762 mm

#### Machine With Available Option(s):

- Haas Cobot
- Haas Robot
- ▲ Automatic Parts Loader

*"Our VM-3 has been a tremendous addition to our machine shop. The accuracy and machined surface finishes are superb. Equally important, the machine is easy to operate. We love the modern technology features, including HaasConnect and the advanced probing routines."*



**JOHN SAUNDERS**  
 PRESIDENT  
 SAUNDERS MACHINE  
 WORKS

# GANTRY SERIES

## Large-Platform CNC Gantry Machines for Big Jobs

### Gantry Mill Series

**HSK-63F**  
TAPER

**GM-2-5AX**

**HSK-A63**  
TAPER

**5-AXIS**  
**20,000 RPM**  
**30+1 TOOLS**

**40**  
TAPER

**GM-1 & 2**

**3/4/5-AXIS**  
**8100-15,000 RPM**  
**30+1 TOOLS**



Haas gantry mills are the ideal solution for large workpieces that are difficult to load or access in a traditional vertical milling machine. Large travels at affordable prices, multiple spindle tapers, and a variety of spindle speeds, deliver the best value and performance for large-part machining.

Rigid steel construction provides a very stable cutting platform, and a 1" (25 mm) thick aluminum table is standard. Or, upgrade to a steel table with a drilled and tapped bolt pattern. The traveling guard includes safety edge sensors, and protects the operator from chips and coolant, while keeping the workspace clean.

GM-1 Coming Soon	123" x 61" x 11" (xyz) 3124 x 1549 x 279 mm
GM-2 3-Axis	145" x 87.5" x 22" (xyz) 3683 x 2223 x 559 mm
GM-2-5AX 5-Axis	145" x 87.5" x 39.3" (xyz) 3683 x 2223 x 998 mm



The GM-2-5AX articulating head is able to machine all 5 sides of your part, allowing you to do all your operations in a single setup.

#### 5-Axis Gantry GM-2-5AX

The GM-2-5AX is a 5-axis gantry mill designed for lighter-duty, complex, large-part machining, such as airframe components, layup molds, and composite structures.

- Dual-axis spindle head:  $\pm 245^\circ$  of rotation,  $\pm 120^\circ$  of tilt
- 20,000-rpm HSK-63F spindle (HSK-A63 available)
- 30+1 side-mount tool changer
- Traveling guard for chip and coolant containment
- Safety edge sensors
- 1" (25 mm) thick aluminum table

#### 3-Axis Gantry GM-1 and 2

The GM-1 and 2 are heavy-duty 3-axis gantry mills designed for heavier machining of large parts, such as airframe structures, large plates, and long extrusions.

- 40-taper inline direct-drive spindle
- Available 10,000-rpm and 15,000-rpm spindles
- 30+1 side-mount tool changer
- Traveling guard for chip and coolant containment
- Safety edge sensors
- 1" (25 mm) thick aluminum table



**MORE > CNC**  
Automation • Tooling Shop Support • Service

# TOOLROOM MILLS

## Big Capabilities – Small Prices

### Toolroom Mill Series

**40 TAPER** 3/4/5-AXIS  
4000-10,000 RPM  
1-20 TOOLS



The Toolroom Mill Series is the true definition of value, providing full CNC capabilities, including available 4th- and 5th-axis functionality, at affordable prices.



#### A Versatile Starting Point

Haas Toolroom Mills are found everywhere – from schools to high-end production shops. Their versatility is a result of our commitment to using common components across all Haas machine tools. This results in all machines, including the Toolroom Mills, benefiting from improvements in reliability and performance.

#### Spindles

All spindles used in the Toolroom Mill Series machines are designed and built by Haas at our Southern California manufacturing facility. The 40-taper spindle shafts found in the Toolroom Mills are the same as those used in our VF Series machines. Speeds range from 4000 rpm to 10,000 rpm.



#### Tool Changers

The number of tools you need in your machine can vary by the job or machining process being performed. With Haas, you always have a selection of tool changers that are designed and manufactured in-house, to ensure the utmost quality and long-term reliability. Choose up to 20 tools for your Toolroom Mill.



#### Wireless Probing

Machines aren't making money unless they're making chips. Set up your Toolroom machine even faster with the addition of a Haas Wireless Intuitive Probing system (WIPS). Fully integrated with the Haas Control, WIPS will simplify everything from initial part setup to advanced probing routines.



#### The Haas Control

Designed and built exclusively by Haas since 1988, it is the industry standard for simplicity and ease of use. Commonality between all Haas machines allows for shop standardization. Today's Haas Control includes features like 1 GB of program memory, Ethernet and WiFi connectivity, media display functionality, and HaasConnect remote machine monitoring. All Toolroom Mills come standard with our powerful Visual Programming System, which makes them easy to learn and operate – even without knowing G-code.



### Toolroom Mill Series

#### Standard Toolroom Mills

TM-0	20" x 12" x 16" (xyz) 508 x 305 x 406 mm
TM-1	30" x 16" x 16" (xyz) 762 x 406 x 406 mm
TM-2	40" x 16" x 16" (xyz) 1016 x 406 x 406 mm

#### Production Toolroom Mills

TM-0P	20" x 12" x 16" (xyz) 508 x 305 x 406 mm
TM-1P	30" x 16" x 16" (xyz) 762 x 406 x 406 mm
TM-2P	40" x 16" x 16" (xyz) 1016 x 406 x 406 mm

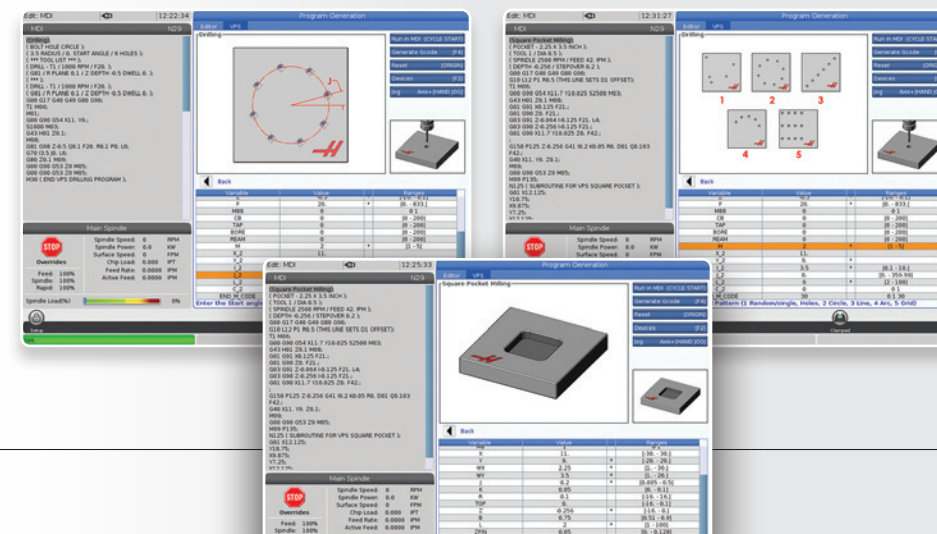


#### HRT160 rotary table

For holding medium to large parts or fixtures, the HRT Series of T-slotted rotary tables is the answer.

Add additional axis capability with an optional Haas 4th axis rotary for greater access to multiple sides of a part or various angles in between.

- Easy plug-and-play connection to Haas machines
- Industry-leading performance and capabilities
- Heavy-duty design



#### Eliminate costly CAM software with VPS

The Haas Visual Programming System uses graphical templates and a form-like interface to help you quickly create G-code programs for not only basic part features, but also more complex operations, like bolt-pattern drilling cycles that let you incorporate spot drill, drill, counterbore, tap, bore, and ream operations on the same set of holes, all from the same template.

# COMPACT MILL

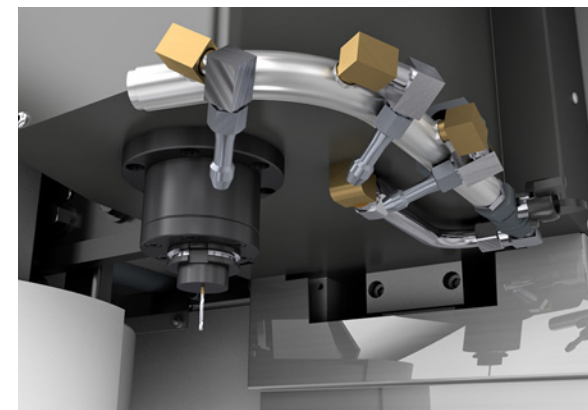
## Small-Footprint, High-Performance Mill for Production and Prototyping



### CM-1 Series

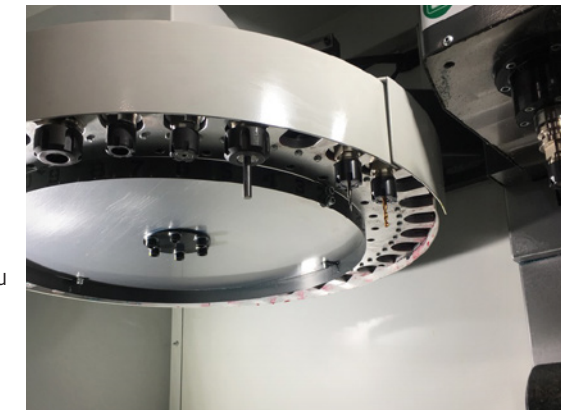
**20** 3/4/5 AXIS  
TAPER 30,000-50,000 RPM  
20-36 TOOLS

The Compact Mill is a small-footprint, high-accuracy solution for prototyping and producing small, high-precision, 2D and 3D parts, such as those found in the communications, aerospace, medical, and dental industries. It's small enough to fit into most freight elevators, and can easily be moved with a pallet jack or equipment dolly. The CM-1 operates on 3-phase power, or single-phase, for those times or locations where 3-phase power is not available.



#### Tool Changers

The CM-1 comes standard with a 20-pocket tool changer, and is available with an optional 36-pocket tool changer, which means you will always have room for all the tools you need, regardless of the job.



#### Spindles

The CM-1 Compact Mill comes standard with a 30,000-rpm ISO 20 taper spindle. For applications that demand high surface speeds and very small tools, an optional 50,000-rpm spindle is available. All Haas spindles are designed and built in-house in our Southern California manufacturing facility.

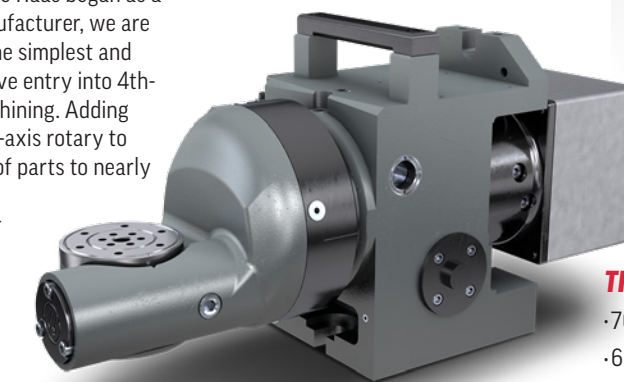
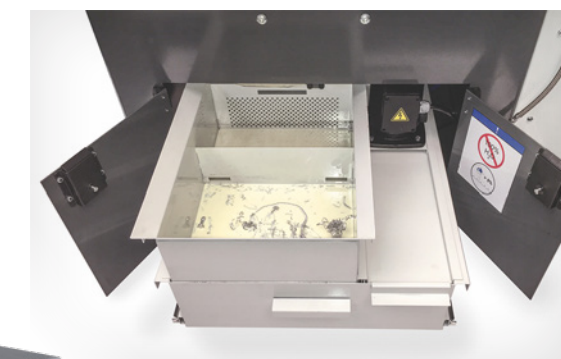
#### Chip & Coolant Management

Chip and coolant management are critical for any machine tool. The CM-1 comes standard with a flood coolant system, and features a 13-gallon (49-liter) pull-out coolant tank integrated into the machine's base.



#### Multi-Axis Machining

Adding a rotary axis to the Compact Mill is the fastest way to boost throughput and increase accuracy. Because Haas began as a rotary table manufacturer, we are able to provide the simplest and most cost-effective entry into 4th- and 5th-axis machining. Adding our smallest dual-axis rotary to the Compact Mill enables quick positioning of parts to nearly any angle for 5-sided (3+2) machining, or provides full simultaneous 5-axis motion for contouring and complex machining.



#### TRT70 dual-axis rotary

-70 mm (2.76") Platter Size  
-60 ft-lb (81 Nm) Max Torque  
-410 °/sec Max Speed

#### Wireless Probing

Setup reduction is critical to maximizing the productivity of any machine tool. With the probing solutions available from Haas, any machine can be set up in minutes, with just a few button pushes. Our industry-leading Wireless Intuitive Probing System (WIPS) sets the standard for integrated probing systems.



#### Compact Mill

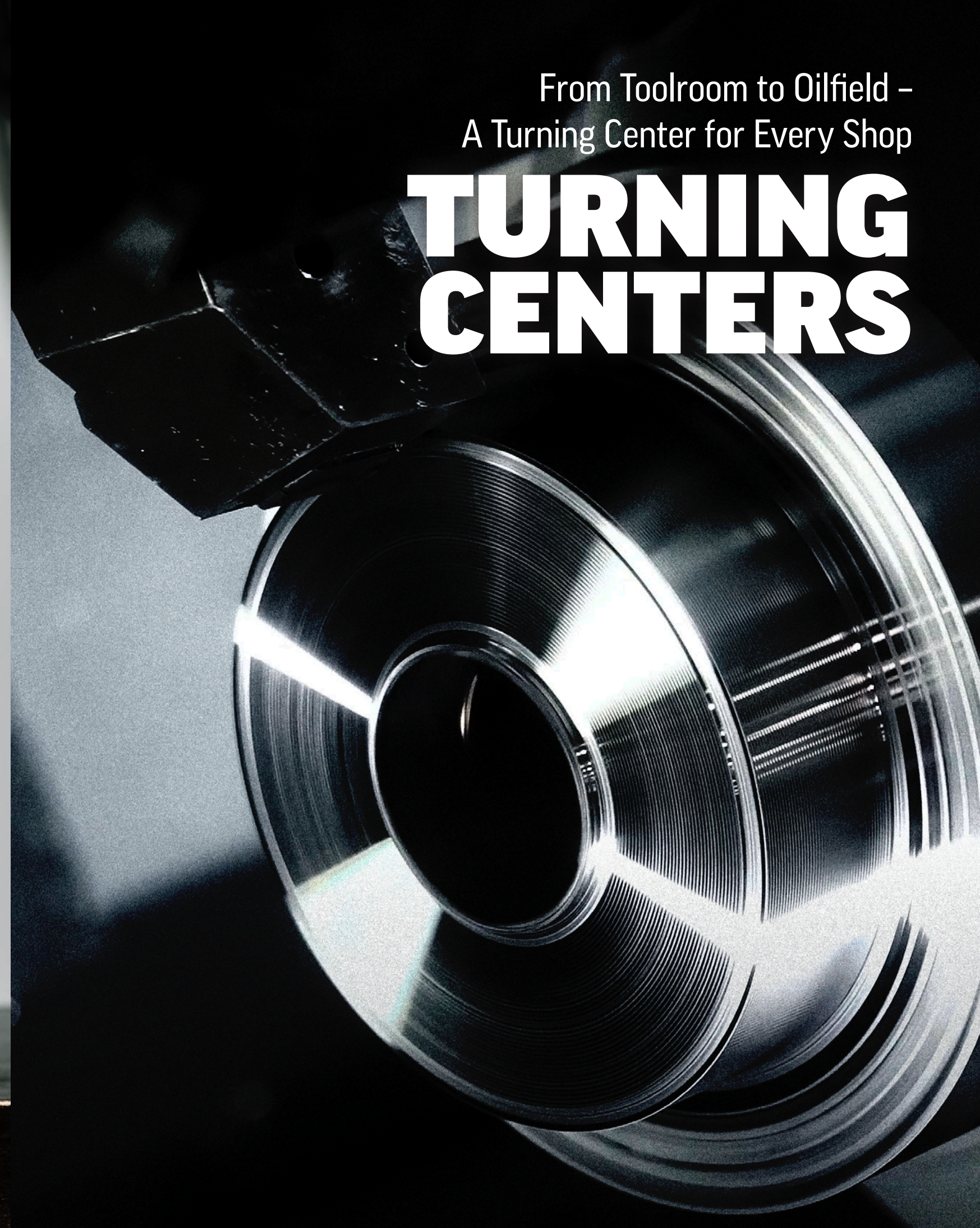
■ CM-1 12" x 10" x 14" (xyz)  
305 x 254 x 356 mm

#### Machine With Available Option(s):

■ Haas Cobot

From Toolroom to Oilfield –  
A Turning Center for Every Shop

# TURNING CENTERS



**MORE**  **CNC**  
Automation • Tooling Shop Support • Service

# STANDARD LATHES

Rigid, high-performance turning centers with a wide selection of available options for every shop

## ST Series

The Haas ST Series, high-performance turning centers, are designed to provide setup flexibility, extreme rigidity, and high thermal stability. With a wide selection of productivity options to choose from, you can customize your lathe to your exact requirements. The ST Series machines offer the best performance for the money – the best value – in their class.



	MODEL	BAR CAPACITY	CHUCK SIZE	TURNING DIAMETER & Z-AXIS											Y-AXIS	APL	SUB-SPDL	ROBOT/COBOT
				0"	10"	20"	30"	40"	50"	60"	70"	80"	0mm	254mm				
A2-5	ST-10	1.75" 44mm	6.5" 165mm	12" x 16" 305 x 406mm														
	ST-15	2.5" 64mm	8.3" 210mm	12" x 16" 305 x 406mm														
	ST-20	2.5" 64mm	8.3" 210mm	13" x 22.5" 330 x 572mm														
A2-6	ST-25	3" 76mm	10" 254mm	13" x 22.5" 305 x 572mm														
	ST-30	3" 76mm	10" 254mm	15" x 32.5" 381 x 826mm														
	DS-30Y	3" 76mm	10" 254mm	13.75" x 32.5" 349 x 826mm														
A2-8	ST-28	4" 102mm	12" 305mm	13" x 22.5" 330 x 572mm														
	ST-35	4" 102mm	12" 305mm	15" x 32.5" 381 x 826mm														
A2-11	ST-40	4" 102mm	15" 381mm	30" x 44" 762 x 1118mm														
	ST-45	7" 178mm	18" 457mm	30" x 44" 762 x 1118mm														

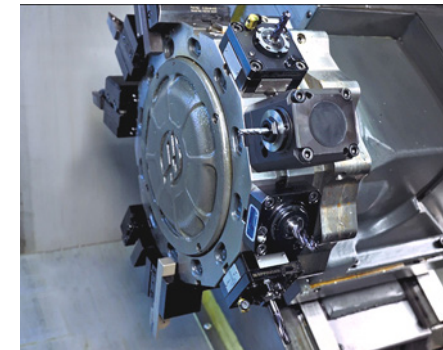
● BAR CAPACITY ● CHUCK ● TURNING DIAMETER & Z-AXIS

For a complete list of work envelopes, including the new short-bed ST-40/45 models, see page 70/71.



**Add a Sub-Spindle to combine operations. Also available on Y-Axis models.**

Our A2-5 finishing sub-spindles will not only make you more productive, but will also provide new opportunities for finishing the 2nd-op side of your parts. Available for ST-10 through ST-35.

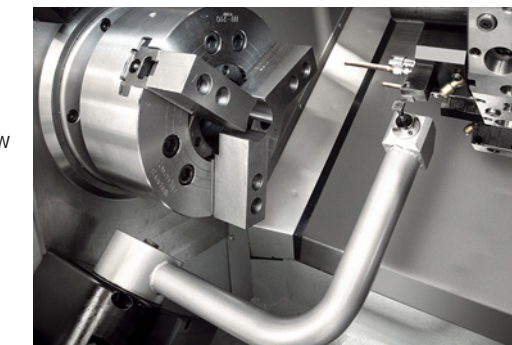


### Turrets & Live Tooling

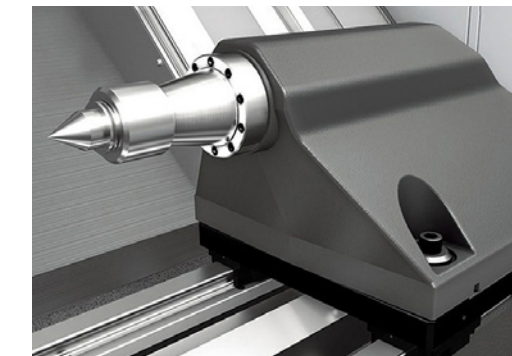
Customize your Haas lathe with a variety of turrets, including our BMT turrets, with live tooling up to 6000 rpm. For additional capacity, our optional half-index BMT turrets provide 24 stations – 12 with live tool capacity.

### Lathe Probing

Setup reduction is critical to maximizing the productivity of any machine tool. With the probing solutions available from Haas, any machine can be set up in minutes, with just a few buttons pushes. Our Automatic Tool Presetter system features easy-to-use automated and manual modes of operation.



**Rigid Tailstock Designs**, with a dedicated Haas control page for quick, intuitive setups. User-adjustable, restricted-travel zones, can be used to reduce the possibility of contact between the turret and tailstock or sub-spindle. M-code or foot-pedal operated.



### Tooling & Fixturing

Reduce your lathe set-up times with a Haas quick-change collet chuck.



### ST Series Standard

ST-10*	12" x 16" (max cap) 305 x 406 mm
ST-15*	12" x 16" (max cap) 305 x 406 mm
ST-20*	13" x 22.5" (max cap) 330 x 572 mm
ST-25*	13" x 22.5" (max cap) 330 x 572 mm
ST-28*	13" x 22.5" (max cap) 330 x 572 mm
ST-30*	15" x 32.5" (max cap) 381 x 826 mm
ST-35*	15" x 32.5" (max cap) 381 x 826 mm
ST-40S	30" x 28" (max cap) 762 x 699 mm
ST-40	30" x 44" (max cap) 762 x 1118 mm
ST-45S	30" x 28" (max cap) 762 x 699 mm
ST-45	30" x 44" (max cap) 762 x 1118 mm

### Machine With Available Option(s):

- Haas Cobot
- Haas Robot
- ▲ Automatic Parts Loader
- ◆ Haas Bar Feeder

\*Finishing sub-spindle available, but not compatible with the APL.

**"We discussed which machines to get for a week or more. We discussed every detail, and Haas helped with that, too. We finally decided on the ST-30 for turning. These are our first CNC machines, and we are very pleased with the machines and the service. The ST-30 does most of our parts, because we make so many round parts."**



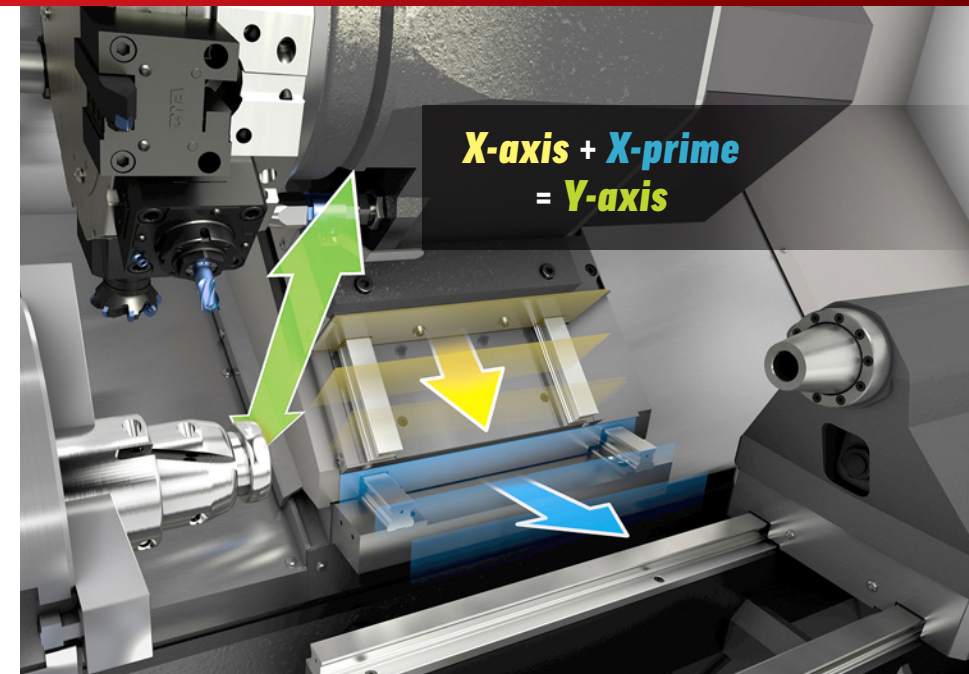
**MICHAEL WEISS**  
PRESIDENT  
WEISTEC  
ENGINEERING

# ST Y-AXIS/DS-30Y

## The Best-Value Y-Axis Lathes in the Industry

### Y-Axis Series

Rigid, high-performance turning centers with a wide selection of available options for every shop.



#### The Power of Y Axis

Haas ST Series Y-axis turning centers provide  $\pm 2"$  ( $\pm 51$  mm)\* of Y-axis travel (from the centerline) for off-center milling, drilling, and tapping, and come equipped with up to 6000-rpm\* live tooling and a synchronized C-axis for versatile 4-axis capability.

\*ST-40Y and ST-45Y provide  $\pm 3"$  ( $\pm 76$  mm) of Y-axis travel, with 4000-rpm live tooling.

#### ST Series Y-Axis

▲ ■ ◆	ST-10Y* 1.75" Bar (44 mm)	12" x 16" (max cap) 279 x 406 mm
▲ ■ ◆	ST-15Y* 2.5" Bar (63.5 mm)	12" x 16" (max cap) 279 x 406 mm
▲ ■ ◆	ST-20Y* 2.5" Bar (63.5 mm)	11.75" x 22.5" (max cap) 298 x 572 mm
▲ ■ ◆	ST-25Y* 3.0" Bar (76 mm)	11.75" x 22.5" (max cap) 298 x 572 mm
▲ ■ ◆	ST-28Y* 4.0" Bar (102 mm)	11.75" x 22.5" (max cap) 298 x 572 mm
■ ◆	ST-30Y* 3.0" Bar (76 mm)	13.75" x 32.5" (max cap) 349 x 826 mm
■ ◆	ST-35Y* 4.0" Bar (102 mm)	13.75" x 32.5" (max cap) 349 x 826 mm
	ST-40Y 4.0" Bar (102 mm)	27.5" x 44" (max cap) 699 x 1118 mm
	ST-40SY 4.0" Bar (102 mm)	28" x 44" (max cap) 711 x 1118 mm
	ST-45Y 7.0" Bore (178 mm)	27.5" x 44" (max cap) 699 x 1118 mm
	ST-45SY 7.0" Bore (178 mm)	28" x 44" (max cap) 711 x 1118 mm

#### Dual-Spindle

■ ◆	DS-30Y 3.0" Bar (76 mm)	13.75" x 32.5" (max cap) 349 x 826 mm
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Machine With Available Automation Option(s):

- ▲ Automatic Parts Loader
- Haas Cobot
- Haas Robot
- ◆ Haas Bar Feeder

\*Finishing sub-spindle available, but not compatible with the APL.

**Affordable Automation**



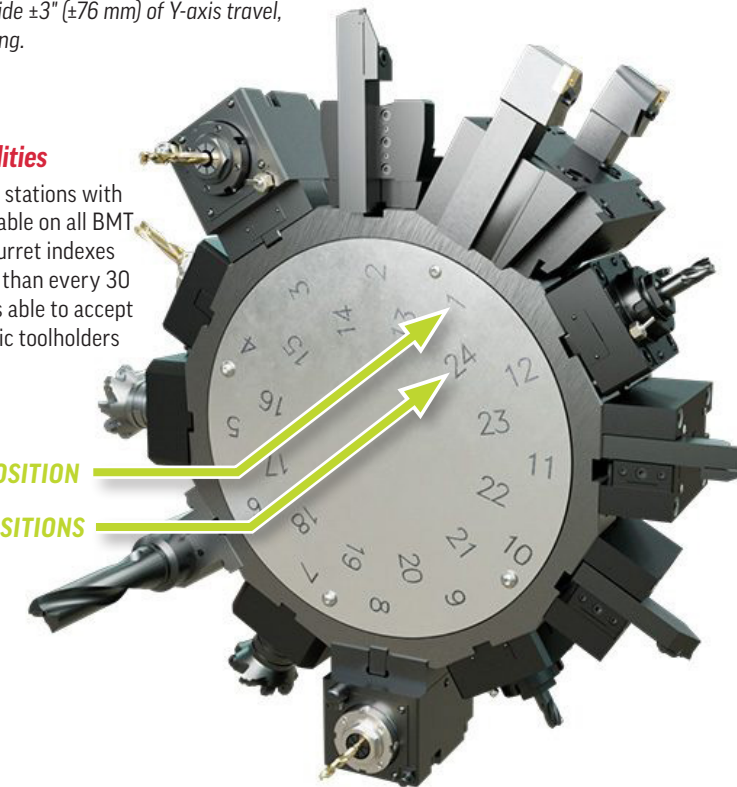
#### The Haas Automatic Parts Loader

is a simple and affordable way to automate part production and boost productivity on Haas turning centers. It is designed and built exclusively for use on ST-10Y, 15Y, 20, 20Y, 25, 25Y, 28, and 28Y turning centers. Interface, set up and programming are accomplished entirely through the Haas control.

#### Expand Your Possibilities

Double the available tool stations with a half-index turret. Available on all BMT turrets. The 24-station turret indexes every 15 degrees, rather than every 30 degrees, with 12 stations able to accept driven tools. Special static toolholders are included.

STANDARD POSITION  
1/2 INDEX FOR 24 POSITIONS



#### BMT45/65/75 - Straight and 90-Degree Driven Toolholders for Haas ST & DS Series lathes

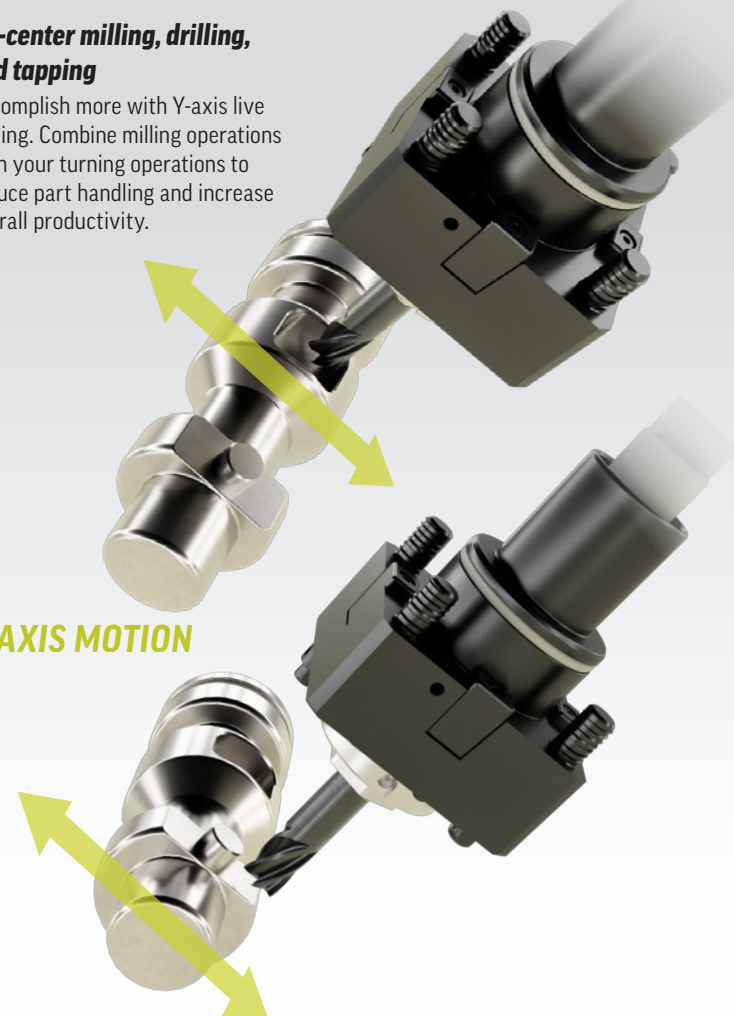
Available on HaasTooling.com



#### Off-center milling, drilling, and tapping

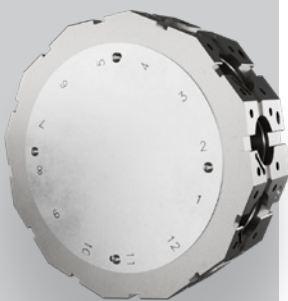
Accomplish more with Y-axis live tooling. Combine milling operations with your turning operations to reduce part handling and increase overall productivity.

Y-AXIS MOTION



**BMT Turrets** provide a more rigid connection of toolholders to turret, delivering better surface finishes and more accurate cuts.

Available in BMT45/65 & 75, depending on lathe model.



#### BMT STANDARD ON Y-AXIS LATHES

**BMT45**  
ST-10Y  
ST-15Y

**BMT65**  
ST-20Y  
ST-25Y  
ST-28Y  
ST-30Y  
ST-35Y




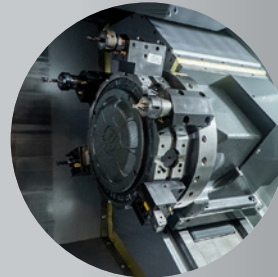

DS-30Y

**BMT75**  
ST-40Y  
ST-40SY  
ST-45Y  
ST-45SY

## Maximize Your Investment

Maximizing your shop's floor space is critical in order to maintain a competitive edge. Effectively managing your existing talent is just as critical. Combining operations into a single machine allows you to get more done in the same amount of floorspace, and multiplies the effectiveness of your existing talent. Adding a half-index turret, Y-axis milling and/or a sub-spindle are all excellent ways to improve the profitability of your shop.

**Do More - Same Footprint**

	Add Productivity	Benefits
<p><b>TURNING</b></p> <p>Typical 2-Axis turning</p>  <p><b>ST Series Lathes</b></p> 	<p><b>HALF-INDEX TURRET</b></p> 	<ul style="list-style-type: none"> <li>• 24-station (half-index) BMT with 12 available driven stations</li> <li>• Turret indexes every 15 degrees, rather than every 30 degrees</li> <li>• Doubles the number of available tools</li> <li>• Combines more machining features</li> </ul>
	<p><b>Y-AXIS MILLING WITH C-AXIS</b></p> 	<ul style="list-style-type: none"> <li>• Combine multiple operations</li> <li>• Done-in-one approach</li> <li>• Less part handling</li> <li>• Greater efficiency</li> <li>• Improved accuracy</li> <li>• Less scrap due to mishandling</li> </ul>
	<p><b>SUB-SPINDLE</b></p> 	<ul style="list-style-type: none"> <li>• Combine 1st and 2nd operations</li> <li>• Less part handling</li> <li>• Greater productivity</li> <li>• Improved accuracy</li> <li>• Less scrap due to mishandling</li> </ul>

## Lathe Automation

There are many ways to automate a machining process. Haas has the right choices to ensure that your future productivity is secure. We have pre-engineered a number of solutions to help you find the one that fits best.

	Add Automation	Benefits
<p><b>TURNING CHOICES</b></p>  <p><b>ST Series Lathes</b></p> 	<p><b>Easy</b></p> <p>Haas Bar Feeder</p> 	<ul style="list-style-type: none"> <li>• Easiest solution for automation</li> <li>• Auto-feed material up to 3" (76 mm) Diameter</li> <li>• Unattended operation</li> <li>• Interfaces directly with the Haas control</li> <li>• Set up &amp; program completely through Haas Control</li> <li>• Mid- to high-volume production</li> </ul>
	<p><b>Affordable</b></p> <p>Automatic Parts Loader (APL)</p> 	<ul style="list-style-type: none"> <li>• Affordable automation, great alternative to robot</li> <li>• Load/unload slugs up to Ø5.8" x 5" x 10 lb (Ø147 mm x 127 mm x 4.5 kg)</li> <li>• Load/unload shafts up to Ø4.0" x 21" x 10 lb (Ø102 mm x 533 mm x 4.5 kg)</li> <li>• Unattended operation</li> <li>• Interfaces directly with the Haas control</li> <li>• Set up &amp; program completely through Haas Control</li> <li>• Mid- to high-volume production</li> </ul>
	<p><b>Versatile</b></p> <p>Robots &amp; Cobots</p> 	<ul style="list-style-type: none"> <li>• Most versatile automation choice</li> <li>• Incorporate part flipping station</li> <li>• Able to pick up/drop off at different locations</li> <li>• Unattended operation</li> <li>• Interfaces directly with the Haas control</li> <li>• Set up &amp; program completely through Haas Control</li> <li>• Mid- to high-volume production</li> </ul>

# LATHE ST/LONGBEDS

Extended Z-axis travels for machining longer parts, while maintaining superior cutting performance



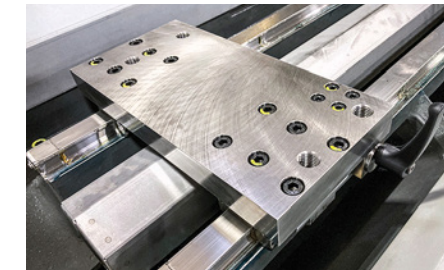
## Long-Bed Series

The ST Long-Beds are engineered for superior rigidity and performance. They offer a wide selection of productivity-enhancing options, and more features and value than ever. The ST long-bed Y-axis series add Y-axis and C-axis capabilities, with high-performance live tooling, allowing high-productivity, done-in-one machining operations.

The ST-40L, ST-45L, and ST-55 are large-frame, long-bed lathes with massive work envelopes, making them ideal for machining heavy pipes and fittings, large couplers, and long rollers.



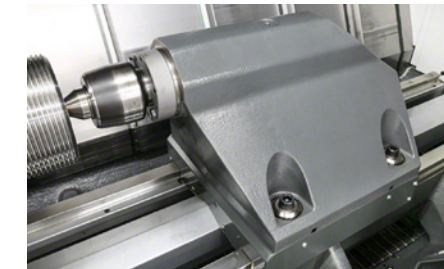
The ST long-bed turning centers further expand the already large range of Haas ST series machines, providing more Z-axis travel, while maintaining superior cutting performance.



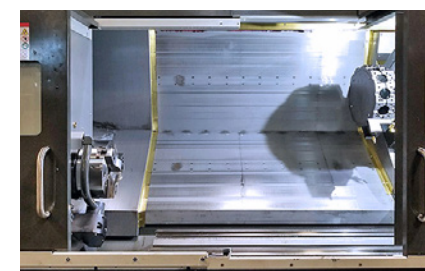
**Steadyrest Provision** for part-face machining or supporting extra-long parts (optional).



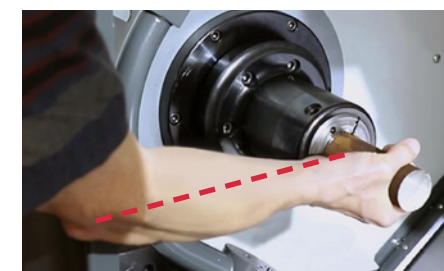
**Extended tool pocket** in the bulkhead provides clearance for long tools in the turret, when the Z axis is at maximum negative travel.



**MT6 Tailstock Quill** This option upgrades the standard Programmable Tailstock from MT5 Morse taper to MT6, allowing the use of larger MT6 live centers. The larger taper provides increased support and weight capacity for demanding tailstock applications.



**Dual Doors** for easier part loading. Improves machine ergonomics, and increases part access. Standard on ST-20L and larger models.



**Improved ergonomics** when loading and unloading parts, or for inspecting and measuring parts. Allows for faster automated (robot) part loading and unloading.

## Long-Bed Models

◆ ST-10L 1.75" Bar (44 mm)	12" x 32.5" (max cap) 305 x 826 mm
◆ ST-10LY 1.75" Bar (44 mm)	12" x 32.5" (max cap) 305 x 826 mm
◆ ST-15L 2.5" Bar (63.5 mm)	12" x 32.5" (max cap) 305 x 826 mm
◆ ST-15LY 2.5" Bar (63.5 mm)	12" x 32.5" (max cap) 305 x 826 mm
◆ ST-20L 2.5" Bar (51 mm)	13" x 42.5" (max cap) 330 x 1080 mm
◆ ST-20LY 2.5" Bar (51 mm)	11.75" x 42.5" (max cap) 298 x 1080 mm
◆ ST-25L 3.0" Bar (76 mm)	13" x 42.5" (max cap) 330 x 1080 mm
◆ ST-25LY 3.0" Bar (76 mm)	11.75" x 42.5" (max cap) 298 x 1080 mm
◆ ST-28L 4.0" Bar (102 mm)	13" x 42.5" (max cap) 330 x 1080 mm
◆ ST-28LY 4.0" Bar (102 mm)	11.75" x 42.5" (max cap) 298 x 1080 mm
◆ ST-30L 3" Bore (76 mm)	15" x 62.5" (max cap) 381 x 1588 mm
◆ ST-30LY 3" Bore (76 mm)	13.75" x 62.5" (max cap) 349 x 1588 mm
◆ ST-35L 4.0" Bar (102 mm)	15" x 62.5" (max cap) 381 x 1588 mm
◆ ST-35LY 4.0" Bar (102 mm)	13.75" x 62.5" (max cap) 349 x 1588 mm

## Large Through-Bore

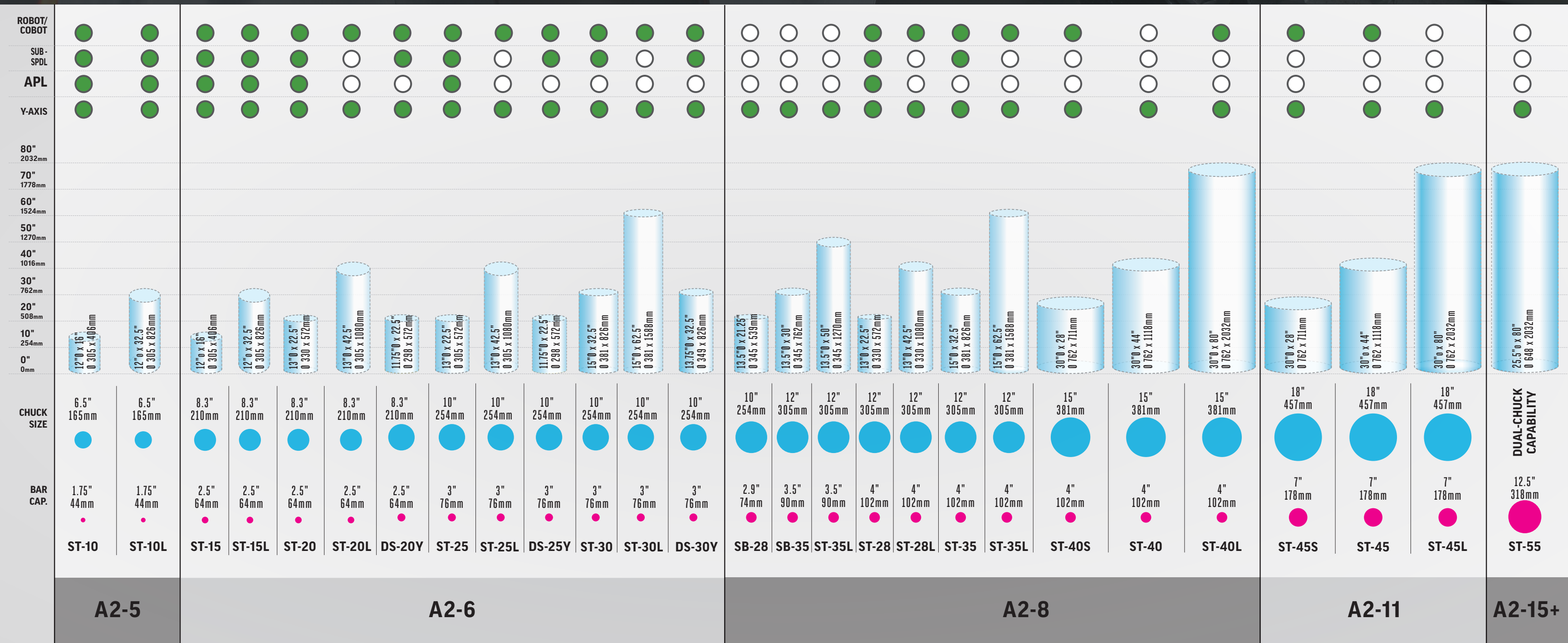
ST-40L 4.0" Bar (102 mm)	30" x 80" (max cap) 762 x 2032 mm
ST-40LY 4.0" Bar (102 mm)	27.5" x 80" (max cap) 699 x 2032 mm
ST-45L 7.0" Bore (178 mm)	30" x 80" (max cap) 762 x 2032 mm
ST-45LY 7.0" Bore (178 mm)	27.5" x 80" (max cap) 699 x 2032 mm
ST-55 12.5" Bore (318 mm)	25.5" x 80" (max cap) 648 x 2032 mm

## Machine With Available Automation Option(s):

- ◆ Haas Cobot
- ◆ Haas Robot
- ◆ Haas Bar Feeder

# LATHE

## Work Envelope Comparison



## Toolroom and beyond

### TL Series

1800-3000 RPM  
A2-5 OR A2-6 SPINDLE NOSE



The Haas Toolroom Lathes are affordable, easy to use, and offer the precision control and flexibility of the Haas CNC system. Because they are very easy to learn and operate – even without knowing G-code – they are the perfect machines for start-up shops, standalone 2nd-op machines, educational instruction and learning, or as a first step into CNC machining.



**The TL Series Toolroom Lathes** are the true definition of value – full CNC capabilities without significant investment.

- Single- or three-phase power
- An affordable alternative to conventional manual lathes
- Includes conversational programming system – no G-code knowledge required
- Ideal for start-up shops, standalone 2nd-ops, or as a first step into CNC machining

**The TL-1-EDU** is a specially priced education-edition machine that is perfect for schools for teaching CNC machining, and for training.

- Available exclusively for educational institutions
- Operates on single- or three-phase power
- Industry-standard G-code CNC control
- Ideal for educational instruction and learning, or as a first step into CNC machining
- Built with the same high-quality components as the standard TL-1



#### Spindles

Haas TL Series lathes come standard with an 1800-rpm A2-5 spindle, and are available with an 8" (200 mm) or 10" (254 mm) manual chuck. An 1800-rpm A2-6 spindle is also available, and both spindles can be upgraded to 3000-rpm.



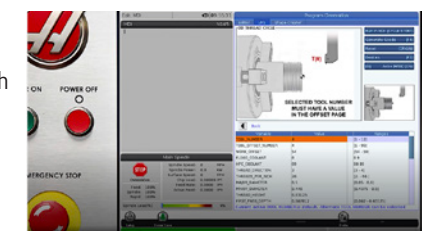
#### Chip & Coolant Management

Managing chips and coolant is critical for any machine tool. Haas TL Series lathes come standard with a flood coolant system and 20-gallon (76-liter) coolant tank. A belt-type chip conveyor is available, for quick, high-volume chip removal.



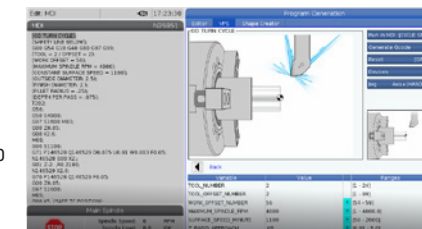
#### The Haas Control

Ease of use and simplicity are the founding principles of the Haas Control. All Toolroom Lathes come standard with our powerful Visual Programming System, which makes them easy to learn and operate – even without knowing G-code. Commonality between VMCs, HMCs, and lathes ensures that operators can easily move from one Haas machine to another.



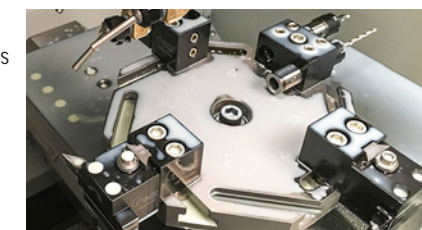
#### Workholding

For additional workpiece support and long shaft work, Haas Toolroom Lathes are available with a manual tailstock, and a manual steadyrest that handles shafts up to 5" (127 mm) diameter.



#### Tool Turrets

TL Series lathes come standard with a tooling-ready cross slide that accommodates a variety of manual toolposts. For automated processes, 4-station and 8-station automatic turrets are available. These tool turrets are designed and manufactured in-house by Haas.



#### Toolroom Lathes

TL-1	16" x 30" (max cap) 406 x 762 mm
TL-1P	8" x 30" (max cap) 203 x 762 mm
TL-2	16" x 48" (max cap) 406 x 1219 mm
TL-2P	8" x 48" (max cap) 203 x 1219 mm
TL-1-EDU For Education	16" x 30" (max cap) 406 x 762 mm

**"My Haas machines work very well. I was very surprised by the accuracy of the TL-1. I consistently hold tolerances of a few tenths."**



**RIC UPTAGRAFFT**

OWNER  
UPTAGRAFFT, LLC

# CHUCKER LATHE

## Compact Chucker for Small, Precision Parts

### CL-1

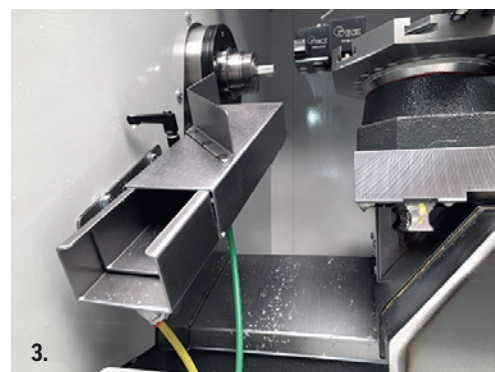
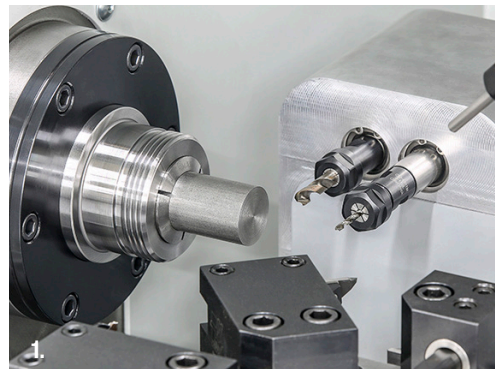
**5C COLLET SPINDLE**  
**6000 RPM**  
**1" (25 mm) BAR**  
**8-STATION TURRET**



The innovative Haas CL-1 is an ultra-compact CNC Chucker lathe that comes standard with an 8-station automatic turret, making it perfect for high-volume production of small, precision parts, such as those found in the communications, aerospace, medical, and dental industries. The CL-1 can be moved easily with a pallet jack or equipment dolly, and is small enough to fit into most freight elevators.

#### Chucker Lathe

CL-1 1" x 8" (max cap)  
1" Bar (25 mm) 25 x 203 mm



#### 1. CL-1 Spindle

6000-rpm 5C collet spindle designed specifically for bar feeding operations. For larger diameter parts, a 4" (102 mm) manual 3-jaw chuck is available. Our 6000-rpm Live Tooling option features dual ER-11 spindles that accept 1/16" - 1/4" (1.6 - 6.5 mm) tools.

#### 2. Tool Turret

The CL-1 comes standard with an 8-station automatic tool turret, which accommodates gang-style tooling with 1/2" (13 mm) centers.

#### 3. Parts Catcher

The CL-1 Parts Catcher extends into position to catch the finished part as it is cut off, and directs it into a remote bin, allowing for unattended machining.

#### 4. Bar Feeder

Boost throughput and automate small-part production on your CL-1 Chucker Lathe with our fully integrated pneumatic bar feeder. Available for 40" (1 meter) and 72" (1.8 meter) bar lengths.

# HORIZONTAL MACHINING CENTERS

Rigid and Powerful Machines for Every Application

# HORIZONTAL MILLS

Discover why the EC-400 is your perfect solution for production machining

## EC-400

**40 TAPER**  
4 AXIS  
8100-15,000 RPM  
31-101 TOOLS



The EC-400 was designed from the ground up with FEA-optimized castings for increased rigidity and better cutting performance in a compact footprint. It features a full 4th-axis rotary system for synchronous motion, and is available with a 100-pocket tool changer for high-volume production. See how Haas engineers have taken our latest HMCs to the next level.

### Pallet-Changing HMC

22" x 25" x 22" (559 x 635 x 559 mm) Travels

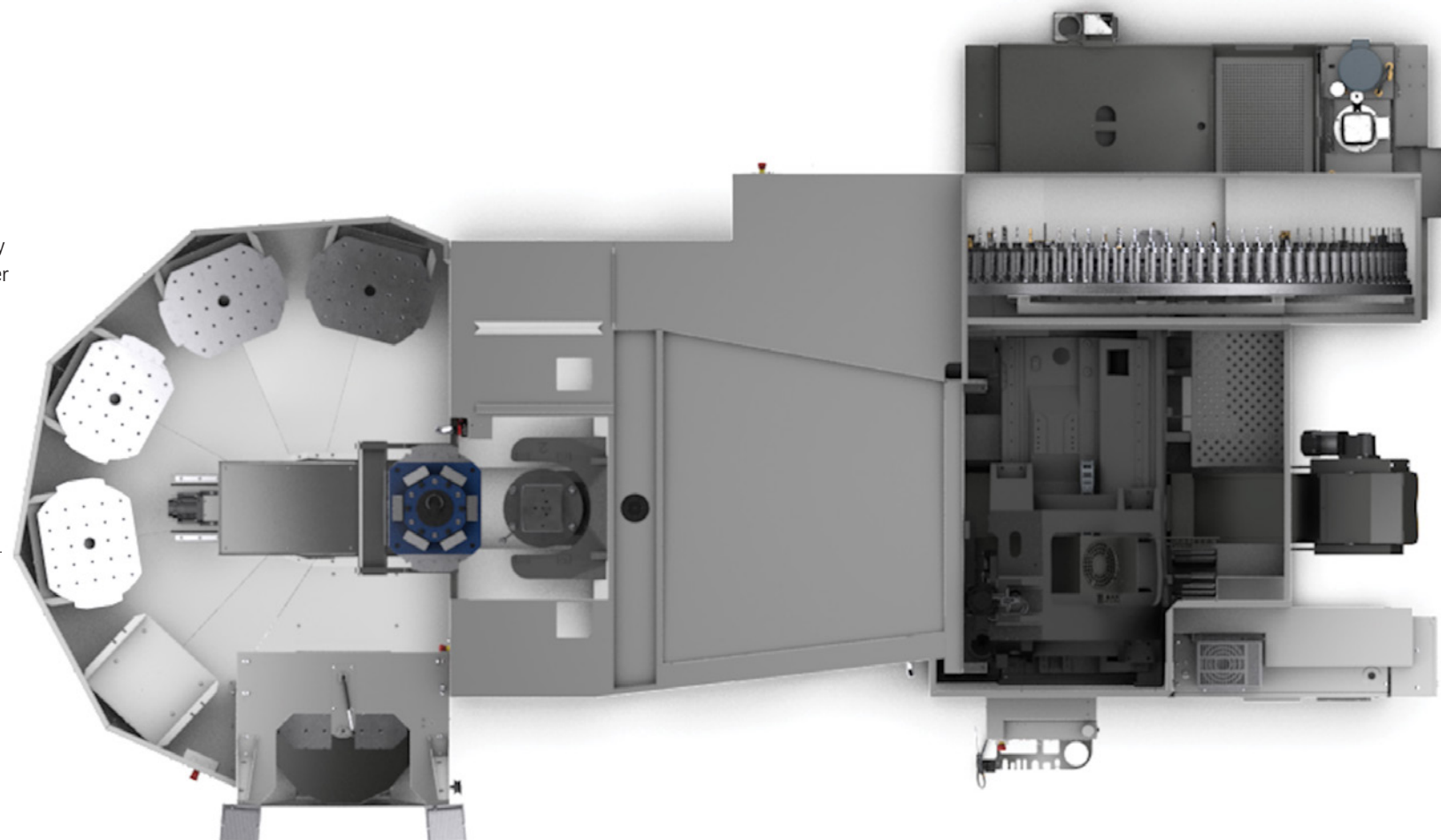
#### Standard Features:

- Built-in 4th Axis - True Interpolation
- Belt-Type Chip Conveyor
- 95-Gallon (360 L) Coolant Tank
- CNC Control Cabinet Cooler
- Control Touchscreen
- Media Display M-Code; M130
- Standard Program Memory, 1 GB (Expandable to 32 or 64 GB)
- HaasConnect: Remote monitoring
- Power-Failure Detection Module
- Advanced Tool Management
- Ethernet and WiFi Connectivity
- HaasDrop Wireless File Transfer
- Rigid Tapping
- Second Home Position
- 4th-Axis Rotary Scales
- Window Air Blast
- Chip Tray Filter Kit
- Lifting Provision
- 1-Year Standard Warranty

### EC-400 With Pallet Pool

#### Recommended Options:

- Through-Spindle Coolant
- Wireless Intuitive Probing System
- 12,000-rpm Spindle
- 100+1 Side-Mount Tool Changer
- CDF Chip Conveyor
- WiFi Camera
- High-Speed Machining
- Auxiliary Coolant Filter

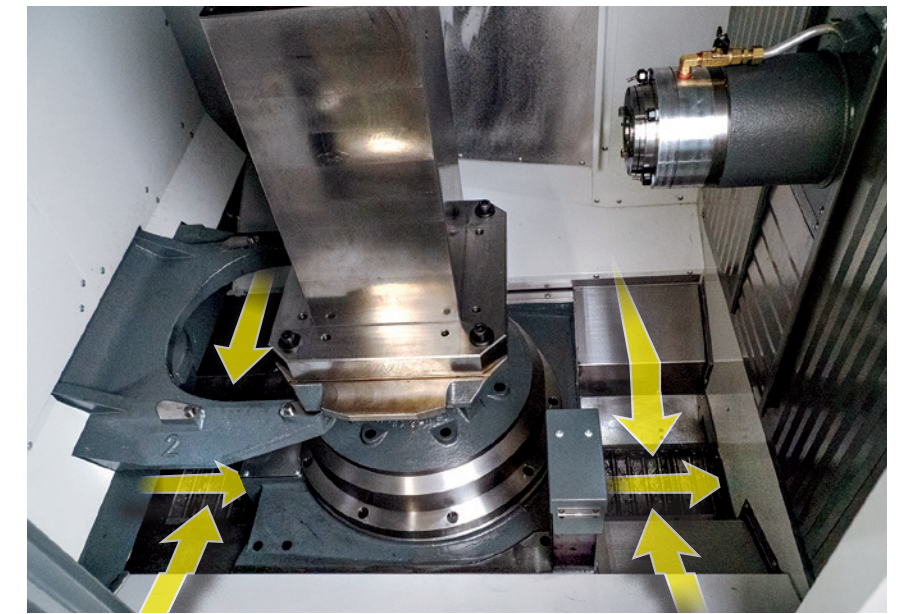
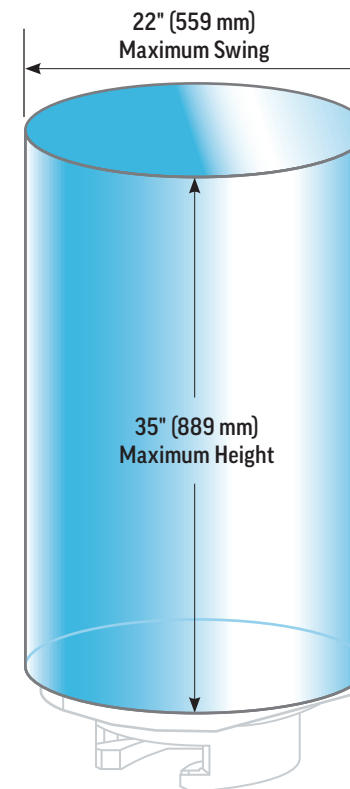


"We are primarily a job shop, but we also have our own product line, which makes us somewhat special. We had a customer that had a high demand for parts, so we purchased an EC-400. I saw the 6+1 Pallet Pool that was available, and it was a no-brainer. The machine ran non-stop, with no hiccups. We had all 7 pallets loaded up at night when our workers would go home for the day, and it would run all night. Our Pallet Pool got us ahead of schedule, and let us take on more work. Our EC-400 has probably saved about 25% on our runtime. We have 15,000-rpm, faster feeds and speeds, much faster tool changes, finishes are great, accuracy is very good, and repeatability is no problem."

**STEVE PHILLIPS**  
PRESIDENT  
PHILLIPS PRECISION



### EC-400 and EC-400 Pallet Pool Maximum Work Envelope



### Designed for high-volume production and unattended operation

The EC-400 features a large work envelope, fast rapids, full 4th-axis interpolation, and excellent chip management. A wide belt-type chip conveyor is positioned in the center of the machine directly under the spindle. The steep walls of the interior enclosure, along with coolant wash down nozzles, direct coolant flow to areas where chips are likely to gather, to funnel them to the central conveyor.

### Easy Automation

50% of all EC-400s are purchased with a Pallet Pool!

Pallet Number	Shelf	Load Order	Pallet Status	Pallet Usage	Program Name	Program Comment
1	G	1	Scheduled	0	00100	
2	B	0	Unscheduled	0	02000	
3	C	3	Scheduled	0	01000	
4	D	2	Scheduled	0	00100	
5	E	0	Unscheduled	0		
6	F	4	Scheduled	0	01000	

Program Path: Memory\000100.nc  
Comment:

- ENTER** To view options.
- ALTER** Load Pallet and Program
- INSERT** Run Loaded Pallet
- F2** Schedule
- F3** Put away Load Station pallet
- F4** Get highlighted pallet

### Available 6+1 pallet pool

Whether you're doing high-volume production runs, high-mix/low-volume machining, or just want to run lights-out, you can boost the productivity of your EC-400 with our fully integrated 6+1 pallet pool. No third-party scheduling software or licensing required. Must be ordered with a new EC-400, not field installable.

# HORIZONTAL MILLS

## Making a Great Machine Tool Even Better

*"TMF Center performs a lot of large cuts. The 50-taper rigidity is what made our Haas machines helpful in our shop. We were thrilled when Haas came out with the EC-500/50. It's very smooth when cutting, quiet, it has lot of options, and the twin pallets are an awesome feature. The EC-500/50 lets us stay productive. While we're changing out parts, we've got the other pallet still producing. Our Haas machines have helped us grow our sales from \$5 million to over \$50 million."*

**LORI VAN METER**  
President / TMF Center



### EC-500 Series

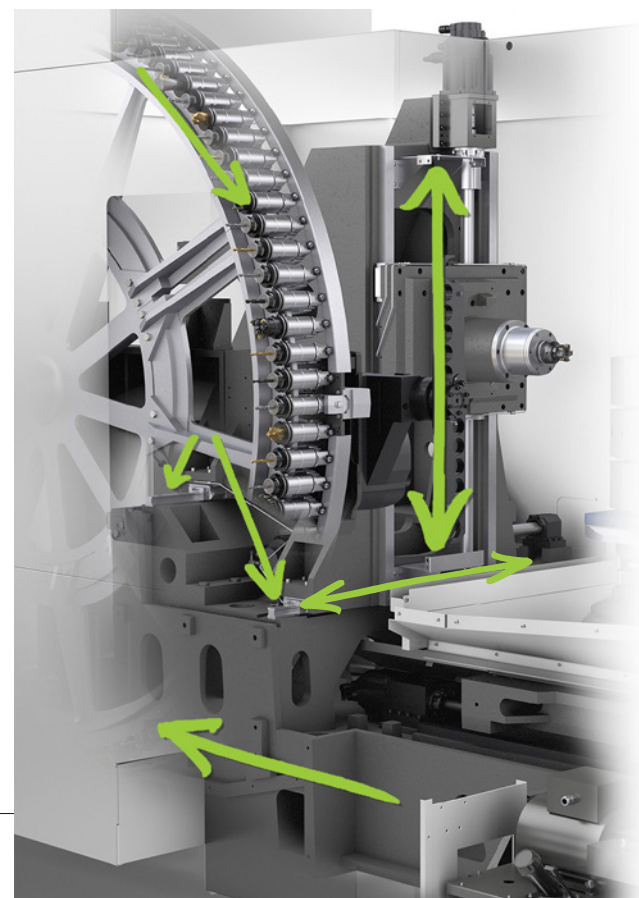
**40 TAPER** 4 AXIS  
8100-15,000 RPM  
31-101 TOOLS

**50 TAPER** 4 AXIS  
7500-10,000 RPM  
50+1 TOOLS

All Haas horizontal machining centers offer superior capabilities at affordable prices. With renowned ruggedness and reliability, you'll find Haas HMCs are the perfect job shop machines for those looking to make more money in less time than ever before.

- Available 100+1 Side-Mount Tool Changer for High-Volume Production (40-taper only)
- 10" (254 mm) More X-Travel than the EC-400
- Increased Y-Axis Travel for More Capacity
- Stepped Casting for Greater Stability
- Rear Chip Discharge Saves Valuable Shop Floor Space

EC-500 40-taper	32" x 25" x 28" (xyz) 813 x 635 x 711 mm	EC-500/50 50-taper	32" x 25" x 28" (xyz) 813 x 635 x 711 mm
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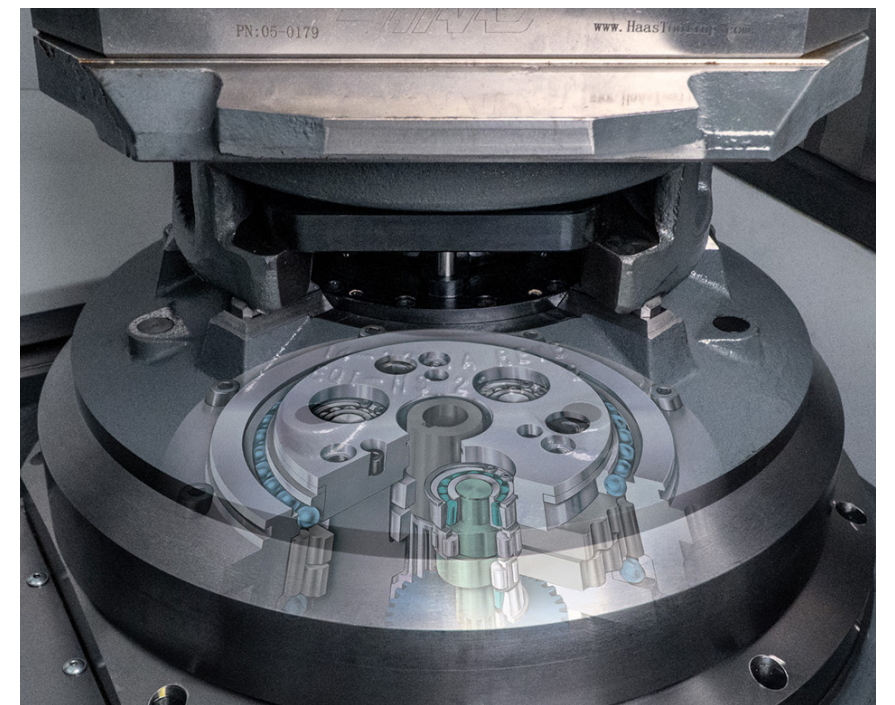


Available in 40- and 50-taper configurations, the Haas EC-500 Series HMCs offer a larger work envelope than the EC-400, while providing excellent rigidity and cutting performance.



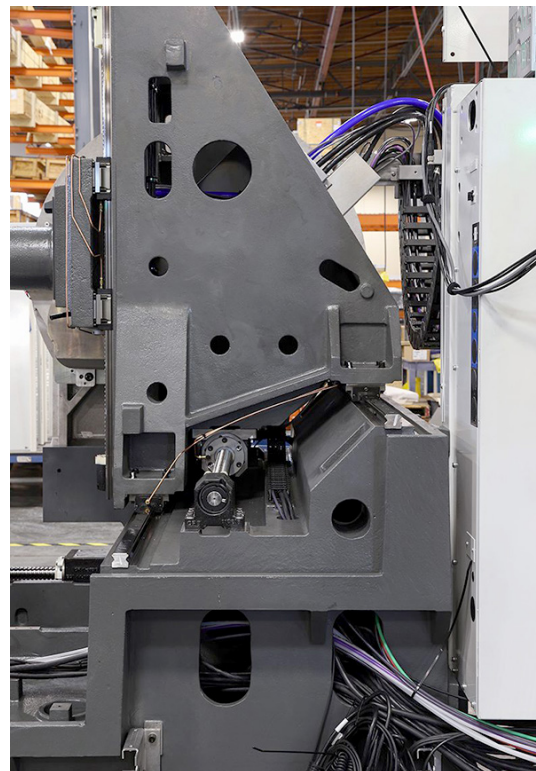
#### Chip Management

The chip conveyor is strategically located down the center of the machine, so that chips fall directly onto the conveyor belt. The conveyor discharges chips at the height of a full-size industrial barrel at the rear of the machine.



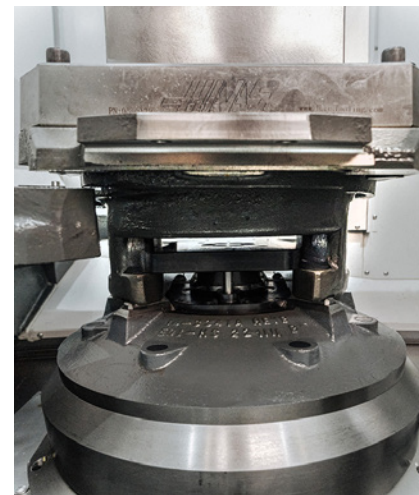
#### Cycloidal Rotary Drive System

Designed for machine tools and robotics – provides a great combination of speed, accuracy, and durability to the B axis. The rugged design provides long service life, with little or no maintenance, and is especially durable in the event of a crash.



#### Stepped Base and Column

Like that of the EC-400 and the EC-630, the stepped base and column design of the EC-500, where one X-axis linear guide rail is on a different horizontal plane than the other, increases the rigidity and stability of the spindle-head column assembly. With hydraulic pallet clamping and the stepped base/column design, the EC-500 is more rigid than ever, all the way to the top!



#### Hydraulic Pallet-Clamping System

The hydraulic power unit produces high pressure clamping forces to ensure that the pallet is held rigid to the pallet receiver, with accurate and repeatable precision, along with being able to raise and lower the pallet-changer mechanism.



Get specially designed tombstones for the Haas EC-400 and EC-500 HMCs at [HaasTooling.com](http://HaasTooling.com)

Designed and built for Haas HMCs Haas tombstones, available in cast iron and aluminum, are engineered specifically for Haas machines, and are FEA-optimized to minimize weight and maximize rigidity. This perfect balance of weight and rigidity allows you to get the most out of your machine's weight capacity, without sacrificing part quality.

# HORIZONTAL MILLS

50-taper power and a large work envelope, with full 4th-axis interpolation

## EC-630

**50** TAPER  
4 AXIS  
7500-10,000 RPM  
51-71 TOOLS



Designed for high-volume production and unattended operation for large parts and tombstone work, the EC-630 offers 50-taper power and a large work envelope, with full 4th-axis interpolation. Equipped with a two-station pallet changer to maximize spindle uptime, and a rear-exit chip conveyor for efficient chip management.

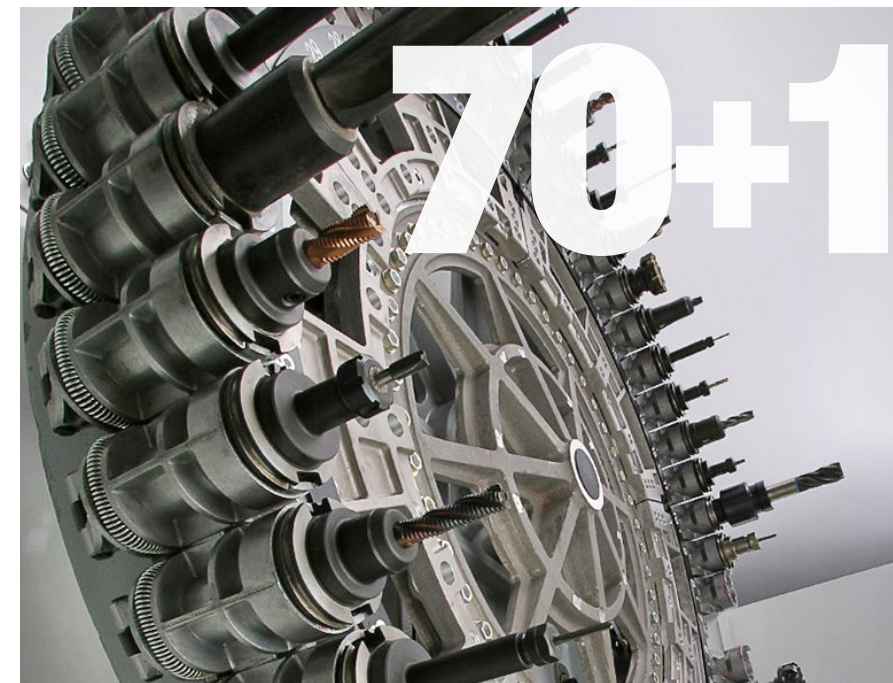
- 40" x 37" x 40" (1016 x 940 x 1016 mm) travels
- Full 4th-axis interpolation
- Standard 50+1 side-mount tool changer
- Built-in pallet changer with 630 mm pallets

Order the EC-630 with the performance options you want.



### High-power, high-speed 7500-rpm and 10,000-rpm spindles

Our high-performance 7500-rpm and 10,000-rpm spindles for 50-taper machines are driven by a 60 hp (44.7 kW) vector drive system that provides higher power throughout the rpm range than the standard spindle. A Haas-built two-speed gearbox provides a wide constant horsepower band, good low-speed torque for heavy cuts, and power throughout the range, above 500 rpm.

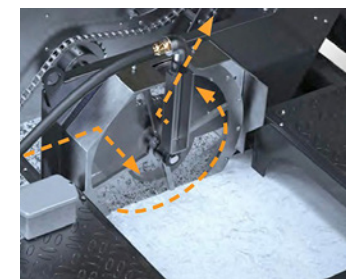


### 70+1 Side-Mount Tool Changer

- Fast tool changes shorten cycle times on every tool change
- Pocket Tool Table in the control allows complete control over the tool changer
- Identify tools as LARGE to leave adjacent pockets empty
- Identify tools as HEAVY to slow tool changer motion

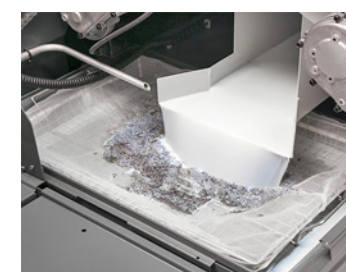
### 4th-Axis Rotary Scales

The EC-630 features high-precision scale feedback on the integrated, full 4th-axis rotary to improve repeatability, by compensating for wear, backlash, or additional forces exerted by excessive loads.



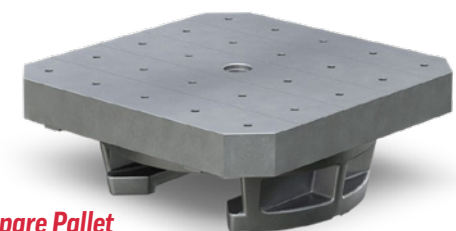
### Chip Disc Filtration Conveyor

This optional conveyor features a built-in disk filtration system to reduce chip fines from entering the coolant tank, while the belt removes larger chips from the machine quickly, and discharges them at standard barrel height. Ideal for trouble-free unattended operation.



### Chip Tray Filter Kit

Our optional Chip Tray Filter Kit keeps chips from entering the coolant system, preventing rust and component malfunctions. The kit includes a 200-micron filter and metal chip tray basket.



### EC-630 Spare Pallet 24.8" x 24.8 (630 x 630 mm)

Use spare pallets to reduce setup times for repeat jobs, and expand your capacity for high-mix, low-volume work. Simply leave job-specific fixtures and workholding in place on the spare pallets, and store them offline until needed. Available with either metric or inch threaded holes.

# HORIZONTAL MILLS

Our updated EC-1600 has received a host of improvements

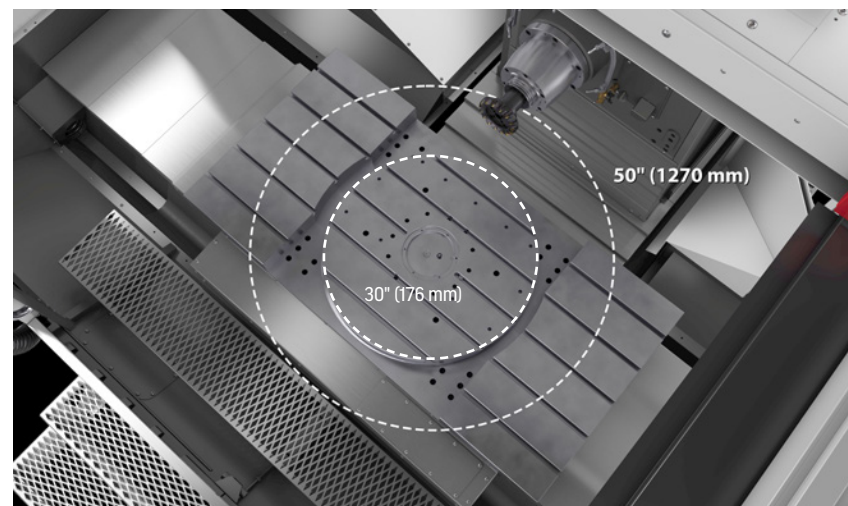


## EC-1600 Series

**50** TAPER  
3/4/5 AXIS  
7500-10,000 RPM  
50+1 TOOLS

The highly popular Haas EC-1600 Series HMCs, offer large work cubes and a maximum part capacity of 10,000 lb (4536 kg), making them perfect for your large-part machining requirements. Models are available with a 4th-axis rotary platter integrated into the T-slot table to provide access to four sides of a part or tombstone, and allow simultaneous 4th-axis machining.

- 64" x 50" x 32" (1626 x 1270 x 813 mm) travels
- Standard 50+1 side-mount tool changer
- 50-taper spindle with a 2-speed gearbox
- Extra-large work envelope
- 50" (1270 mm) max part swing with integrated 4th axis (optional)



### Improvements standard on the EC-1600 include:

- Standard 7500 rpm spindle
- Flood Coolant ring
- Redesigned column with 13% greater casting stiffness and reduced mass
- X and Z ballscrews 25% larger (50 mm)
- X and Z motors 50% larger
- Tool Changer 50% faster
- Enclosure Exhaust system
- Four 50-watt LED lights

**70+1 SMTC Now Available!**

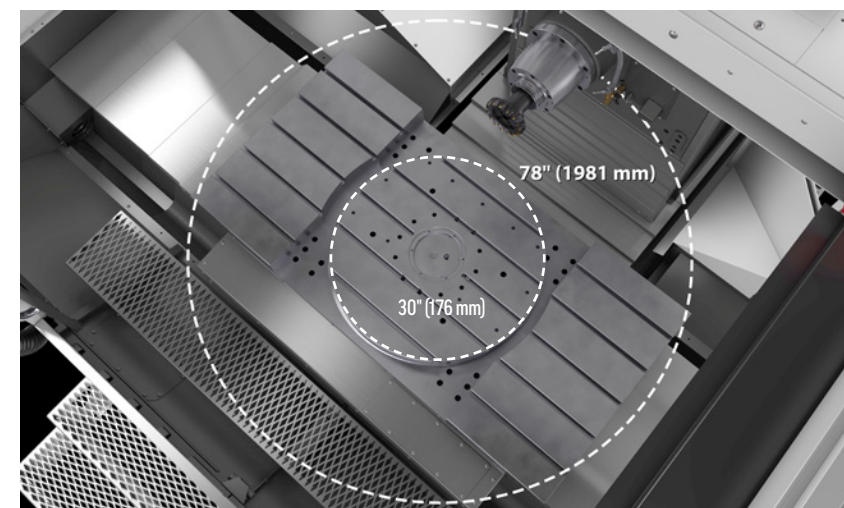


## EC-1600ZT

**50** TAPER  
3/4/5 AXIS  
7500-10,000 RPM  
50+1 TOOLS

The EC-1600ZT offers more Z-axis travel than the standard EC-1600

- Extended Z-axis travel: 64" x 50" x 40" (1626 x 1270 x 1016 mm)
- Standard 50+1 side-mount tool changer
- 50-taper spindle with a 2-speed gearbox
- Extra-large work envelope
- 78" (1981 mm) max part swing with integrated 4th axis (optional)
- Now available with a 70+1 Side-Mount Tool Changer.



### Built-in 4th Axis Rotary Platter, with Massive 10,000 lb (4536 kg) Capacity

This optional 30" (762 mm) diameter platter is integrated into the standard table, and has a 10,000 lb (4536 kg) weight capacity. This powerful 4th axis can be programmed for fully interpolated motion, or precise indexing, with resolution to 0.001 degree. A built-in brake delivers 4000 ft-lb (5423 Nm) of holding torque, to provide superior accuracy and extreme rigidity for off-center milling, drilling, and tapping operations.

Take advantage of the increased Z-axis travel of the EC-1600ZT to gain additional part/fixture swing capacity up to 78" (1981 mm).

Also available with a 5-degree face-gear coupler design. Not field-installable.



### In-Tank Chip Conveyor

This optional belt-type chip conveyor sits in the machine's coolant tank, where it collects chips as they exit the machine, and discharges them at standard industrial barrel height. It is ideal for high-production machining applications, and can be activated via M-code.

# HORIZONTAL MILLS

We added 4th- and 5th-axis capabilities to create an HMC capable of full 5-axis machining on large parts

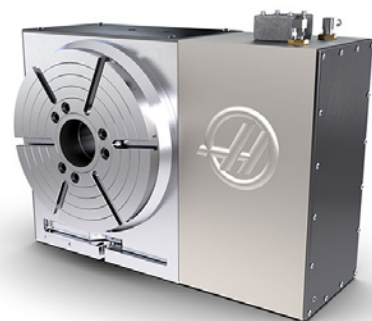


## EC-1600ZT-5AX

**50 TAPER** 5-AXIS  
7500-10,000 RPM  
50+1 TOOLS

The EC-1600ZT-5AX has a 4th-axis rotary platter integrated into the T-slot table that provides ±30 degrees of B-axis rotation. The 5th-axis consists of an HRT310 with an A-frame support mounted on a removable riser block, which can support a part up to 55.875" (1419 mm) long.

- Extended Z-axis travel: 64" x 50" x 40" (1626 x 1270 x 1016 mm)
- 78" (1981 mm) max swing on integrated 4th axis
- 50-taper spindle with a 2-speed gearbox
- Standard side-mount tool changer, 50+1 tools
- Includes DWO/TCPC and Wireless Intuitive Probing System



We make it easy to stay connected with your Haas community

There's a lot to love when you follow and subscribe to Haas social media channels:

- Watch our pro-tip videos on social media
- Mark your calendar exclusive Haas events
- Learn about our newest products and promotions
- See what fellow machinists are making with their Haas machines
- Give feedback to help us serve you better
- Plus, don't forget to sign up for our emails to receive the week's top videos – just for you

Join the fun with interesting makers, like you, who share successes, challenges, and insights you can't find anywhere else.

Join our community today!

# THE COMPLETE MACHINE SHOP

# \$350

\*A MONTH!



## From Schools to Large Toolrooms

The Haas TL-1 is affordable, easy to use, and offers the precision control and flexibility of the Haas CNC system. Because it's so easy to learn and operate – even without knowing G-code – it's perfect for start-up shops, or as a first step into CNC machining.

### **Toolroom Lathe (TL-1) \$35,995**

- 16" x 30" (406 mm x 762 mm) Travels
- Operates on single- or three-phase power
- 1800-rpm spindle, 10 hp (7.5 kW)
- Visual Part Programming System
- Standard program memory, 1 GB
- User-friendly Haas control
- Affordable full CNC capabilities
- 1-year standard warranty

# \$370

\*A MONTH!



## Our Smallest and Most-Affordable Toolroom Mill

The Haas TM-0 Toolroom Mill is affordable, easy to use, and offers the precision control of the Haas CNC system. It uses standard 40-taper tooling, and is very easy to learn and operate – even without knowing G-code. It is the perfect option for schools and companies transitioning to CNC.

### **Toolroom Mill (TM-0) \$37,995**

- 20" x 12" x 16" (508 x 305 x 406 mm) travels
- Operates on single- or three-phase power
- 4000-rpm 40-taper spindle
- Visual Part Programming System
- Standard program memory, 1 GB
- User-friendly Haas control
- Affordable full CNC capabilities
- 1-year standard warranty

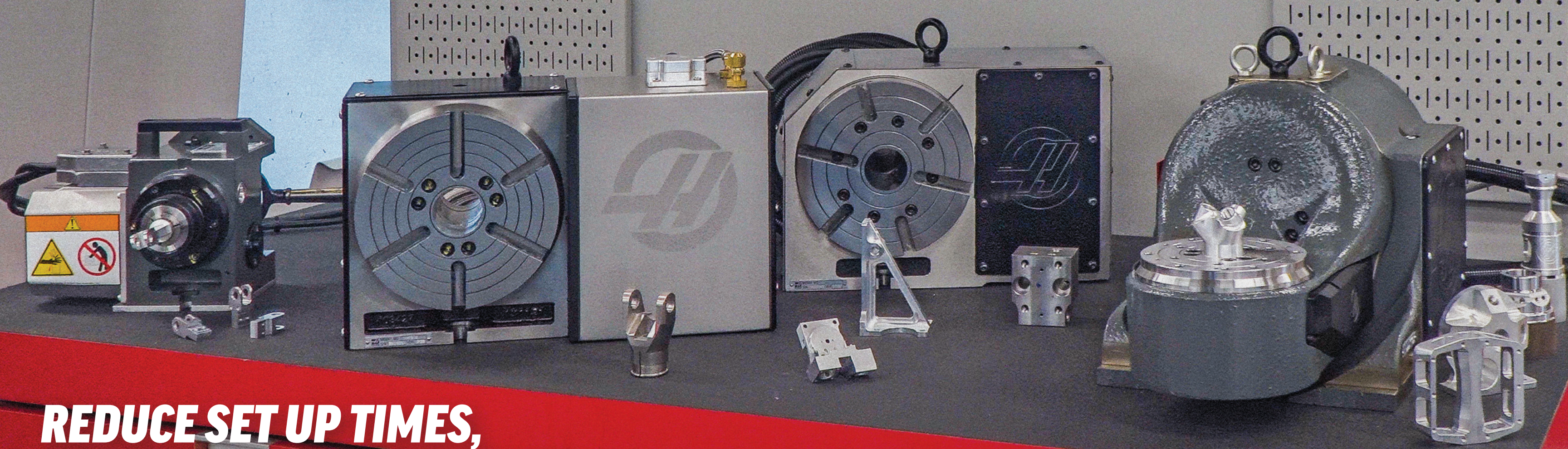
Contact your nearest HFO for complete details.

\*Monthly pricing based on sample products shown above when financed for 84 months with a 30% down payment, at 4.49% OAC. Monthly payment does not include applicable taxes, rigging, or freight charges.

**MORE > CNC**  
Automation • Tooling Shop Support • Service

# ROTARIES & INDEXERS

Designed for Maximum Productivity



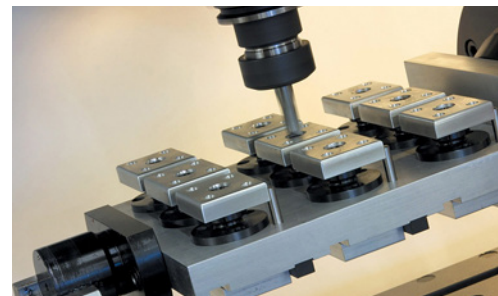
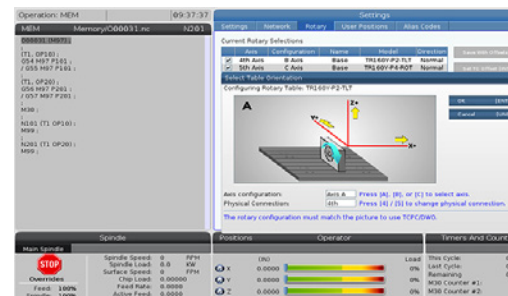
**REDUCE SET UP TIMES,  
INCREASE PART ACCURACY,  
AND SHORTEN CYCLE TIMES.**

### 4th-Axis Success

From workholding and fixturing, to tailstocks and control boxes, we let you configure your rotary table so it works for you. After all, you know what you need better than anyone. Learn more about everything Haas has to offer at [www.HaasCNC.com](http://www.HaasCNC.com).

### Do More Than 3-Axis Machining

By adding a Haas rotary to your machine, you greatly increase your capabilities, and gain plug-and-play compatibility with the Haas Control. Because we not only build the machine, but also build the control and the axis drives, **INTEGRATION IS SEAMLESS.**



#### Plug-and-Play Through the Haas Control

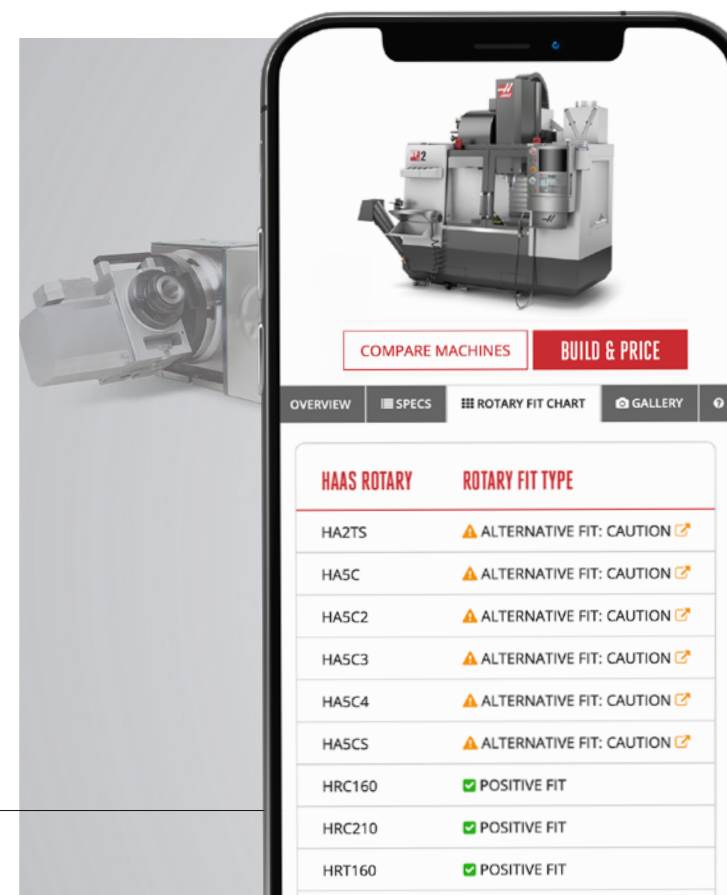
All Haas rotary products are designed to integrate seamlessly with the control on your Haas mill. This means true simultaneous 4- or 5-axis motion, synchronized with the axes of your mill. Rotary set up is a simple plug-and-play process through the Haas Control, with on-screen instructions, and diagrams that are intuitive and easy to use.

#### Multi-Axis Machining Simplicity

Adding a rotary axis to a VMC is the fastest way to boost throughput and increase accuracy. Because Haas began as a rotary table manufacturer, we are able to provide the simplest and most cost-effective entry into 4th- and 5th axis machining available.

#### Rotary Fixturing Choices

Haas offers a wide selection of workholding solutions for your 4th- and 5th-axis applications, from compact air-collet closers, to quick-change fixture plates and manual scroll chucks. Know that you're getting the correct tooling and fixtures for your Haas rotary, with our in-house designs.



### The Haas Rotary Fit Chart

Haas makes it easy to select the right rotary and fixturing, with a Rotary Fit Chart for every VMC.

Each VMC and rotary product page on our website has a designated rotary fit chart. Simply select the Rotary Fit Chart tab to see the recommended Haas rotaries for that specific machine. The chart lists Haas rotaries that fit in a traditional setup, and rotaries requiring alternate fixturing.

# ROTARY TABLES

For round parts to odd-shaped castings, these T-slotted rotary tables allow for very flexible fixturing. Speeds up to 830 deg/sec.

## Rotary Tables

**100-1000 mm PLATTER SIZE**  
**35-830 °/sec MAX SPEED**

When you need to hold medium to large parts for multi-side machining or complex contouring, Haas HRT Series rotary tables are the perfect solutions. These rugged, heavy-duty rotary tables can be mounted vertically or horizontally, and they feature precision T-slots and large through-holes for versatile fixturing.

- Add 4-axis capabilities to your machine
- Easy plug-and-play connection to Haas machines
- Industry-leading performance and capabilities
- Heavy-duty design

### Small Rotaries



**Small Models:**  
HRT100  
HRT160  
HRT160SP  
HRT160-2  
HRTA5

### Medium Rotaries



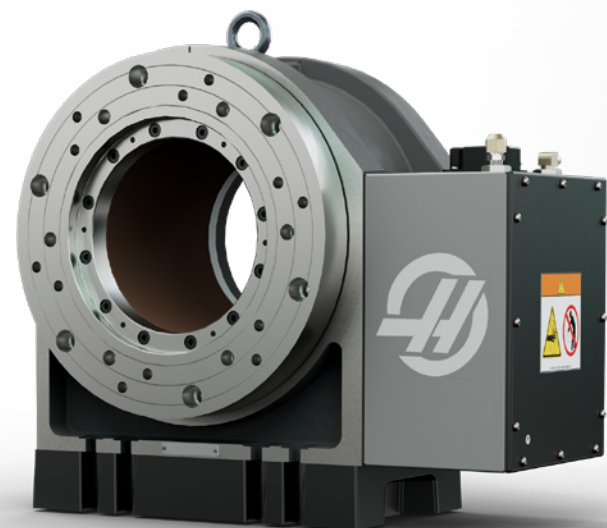
**Medium Models:**  
HRT210  
HRT210HT  
HRT210M  
HRT210SP  
HRT210-2  
HRTA6

### Through-Hole Rotaries

**240-450 mm PLATTER SIZE**  
**75-156 °/sec MAX SPEED**

Our TH and LT through-hole rotary tables provide the same features and benefits as our standard HRT Series, but they feature compact enclosure designs and versatile mounting options that allow you to fit a lot of rotary table into a small work envelope.

**Models:**  
TH240  
TH450  
LT260  
LT350

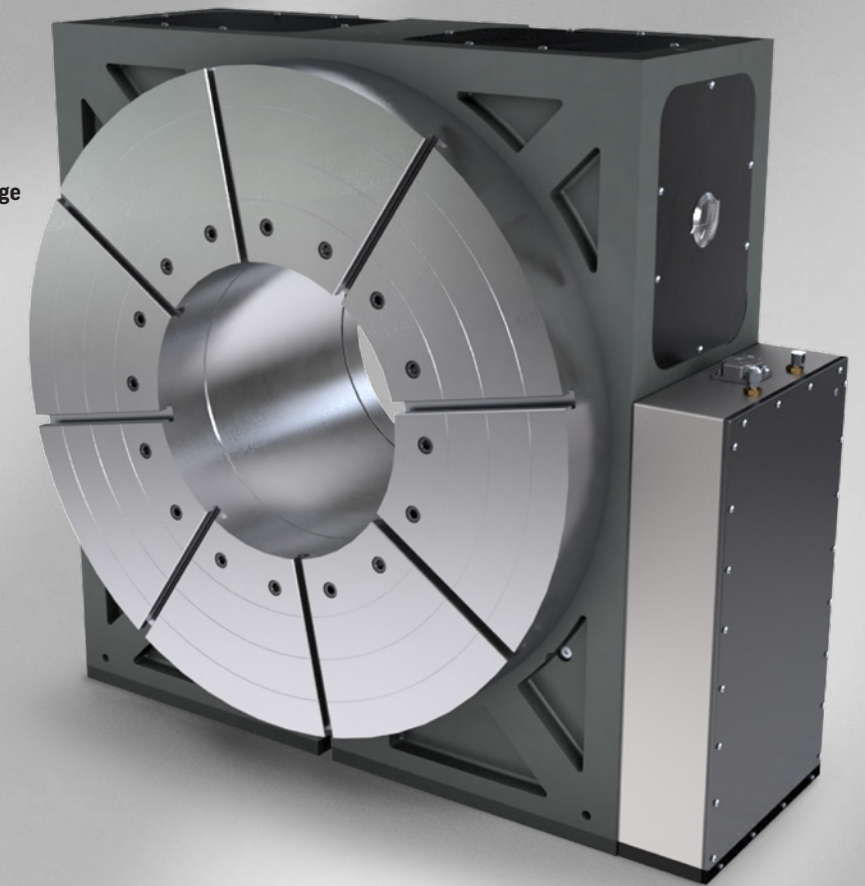
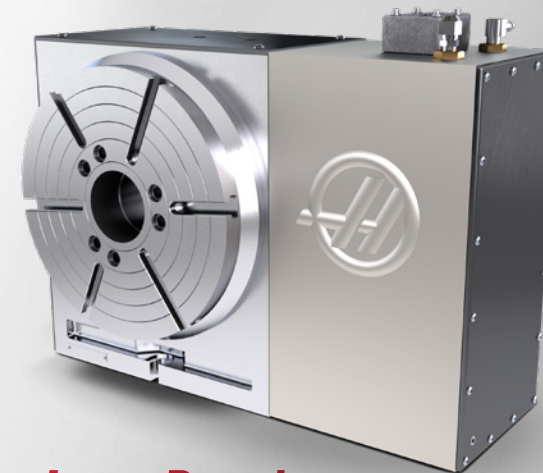


### Extra-Large Rotaries

Haas rotaries just got bigger! Our extra-large rotaries offer platter sizes from 450 mm to 1000 mm. With easy plug-and-play connection, you can quickly add 4th-axis capabilities to handle even your largest parts.

**Extra-Large Models:**  
HRT450  
HRT630  
HRT800  
HRT1000

\* Extra-large rotaries cannot be mounted horizontally



### Large Rotaries

For holding medium to large parts or fixtures, the HRT310 Series is the answer. These rugged, heavy-duty tables can be mounted vertically or horizontally for added versatility.

**Large Models:**  
HRT310  
HRT310SP

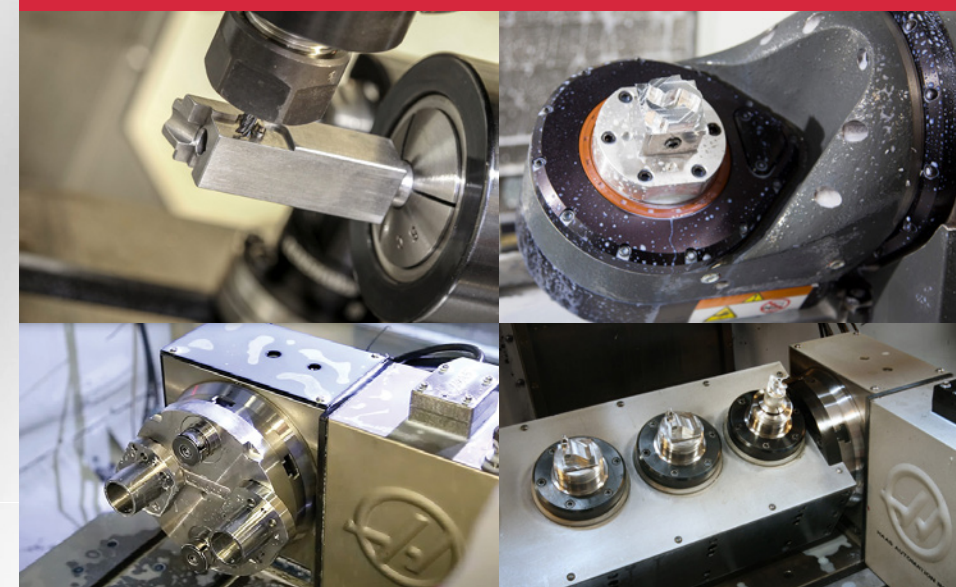


### Super-Speed Rotaries

- Heavy-duty cycloidal drive system
- 3 to 5 times faster indexing speeds
- 75% to 80% greater brake clamping force
- Easy plug-and-play connection to Haas machines
- Industry-leading performance and capabilities

**SS Models:**  
HRT160SS  
HRT210SS  
HRT310SS

**YES!** Most new Haas rotary products can be used on older Haas machines!



All new Haas rotary products are designed to integrate seamlessly with new and late model Haas machines, and are configured with the latest generation servomotors for best performance.

In some cases, new Haas rotary products can be configured with earlier generation servomotors for use on older Haas machines, at additional cost. Please contact your local HFO for details, and to confirm compatibility.

# INDEXERS

Best suited for parts that can be held in a 5C collet. Single- and multiple-head units are available, with various speed options

**Indexers** 1-4 SPINDLES  
5C COLLET SIZE  
200-725 °/sec MAX SPEED

## Single Spindle

The HA5C is a single-axis rotary unit with a 5C collet nose. Clamp your parts using standard 5C collets, or chuck them by threading a 3-jaw chuck to the spindle nose. This unit comes with a manual collet closer. Optional pneumatic collet closers are also available, as well as manual and pneumatic tailstocks for workpiece support.

- Add 4-axis capabilities to your machine
- Great for clamping small parts
- Easy plug-and-play connection to Haas machines
- Industry-leading performance and capabilities



**Models:**  
HA5C  
HA5CS  
HA5C-T

With the optional AC-25 pneumatic collet closer, collets can be clamped and unclamped with the flip of a lever.



Here are just a few of the workholding solutions available on [HaasTooling.com](http://HaasTooling.com)



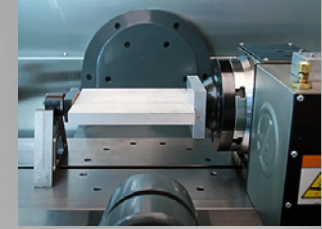
### 5C Collets

- Can be used on both an indexer and a rotary
- Available in different sizes and shapes
- Provide 360-degree support for the workpiece



### Manual 3-Jaw Chuck

- Will mount to both a rotary and an indexer
- Easily clamp and unclamp workpieces
- Reversible jaws for more workholding flexibility



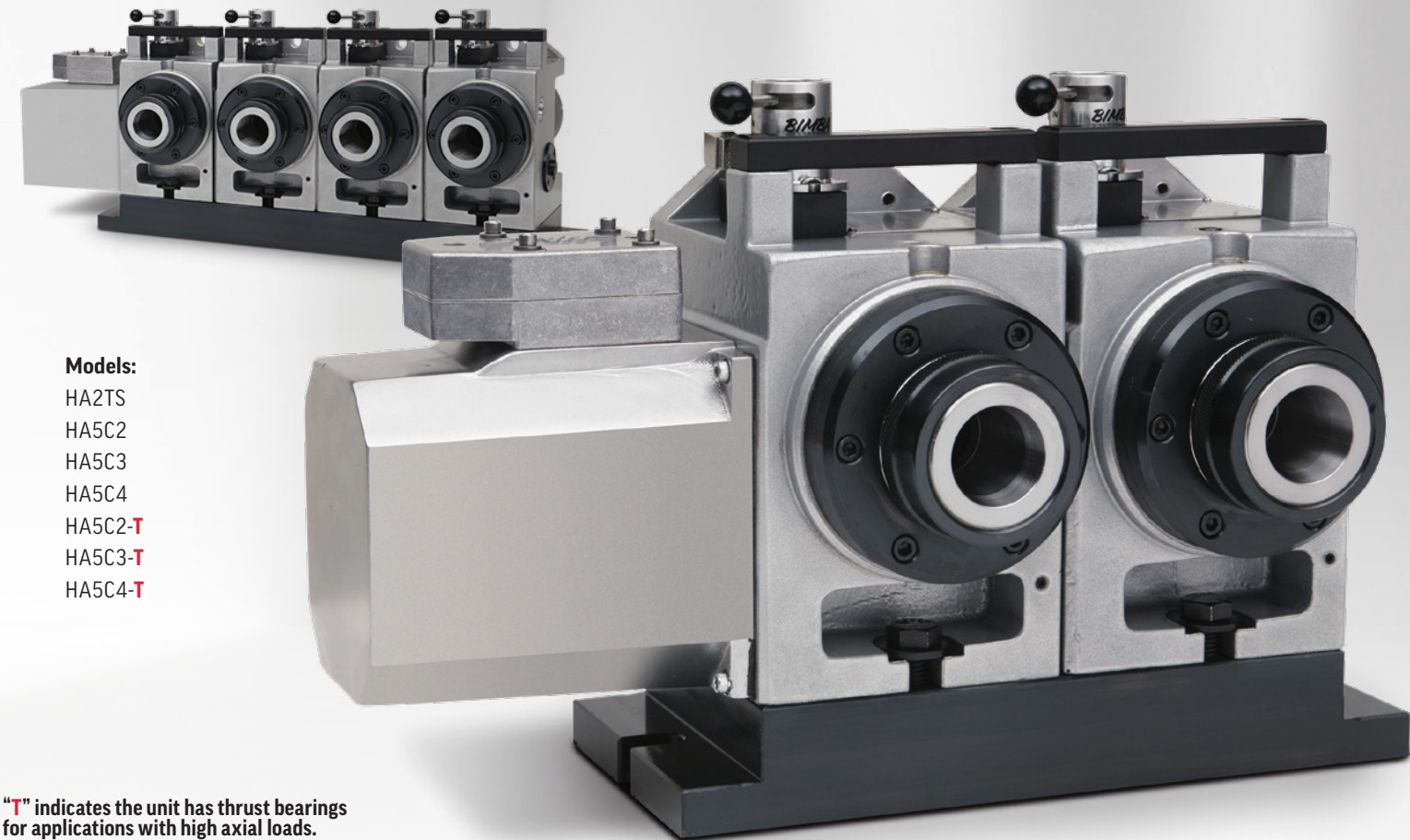
### QuikChange Plate System

Adding a quick-change tooling plate or multi-sided fixture to your rotary allows you to get even more parts off the machine in less time.

## Multiple Spindle

- Add 4-axis capabilities to your machine
- Increased productivity with multiple rotary spindles
- Easy plug-and-play connection to Haas machines
- Industry-leading performance and capabilities

The HA5C2-T is a single-axis rotary unit with two 5C collet noses. The "-T" indicates the unit has thrust bearings to handle higher axial loads. Always select the -T version when planning to use a tailstock to support long workpieces. Tailstock thrust must not exceed 800 lb (3559 N).



**Models:**  
HA2TS  
HA5C2  
HA5C3  
HA5C4  
HA5C2-T  
HA5C3-T  
HA5C4-T

"T" indicates the unit has thrust bearings for applications with high axial loads.

# 5-AXIS ROTARY

For full 5-axis motion or 3+2 positioning, available as indexers or rotary tables, these units increase accuracy and reduce setups.

## 5-Axis Rotary Tables

5C-500 mm PLATTER SIZE  
1-4 SPINDLES  
50-1000 °/sec MAX SPEED

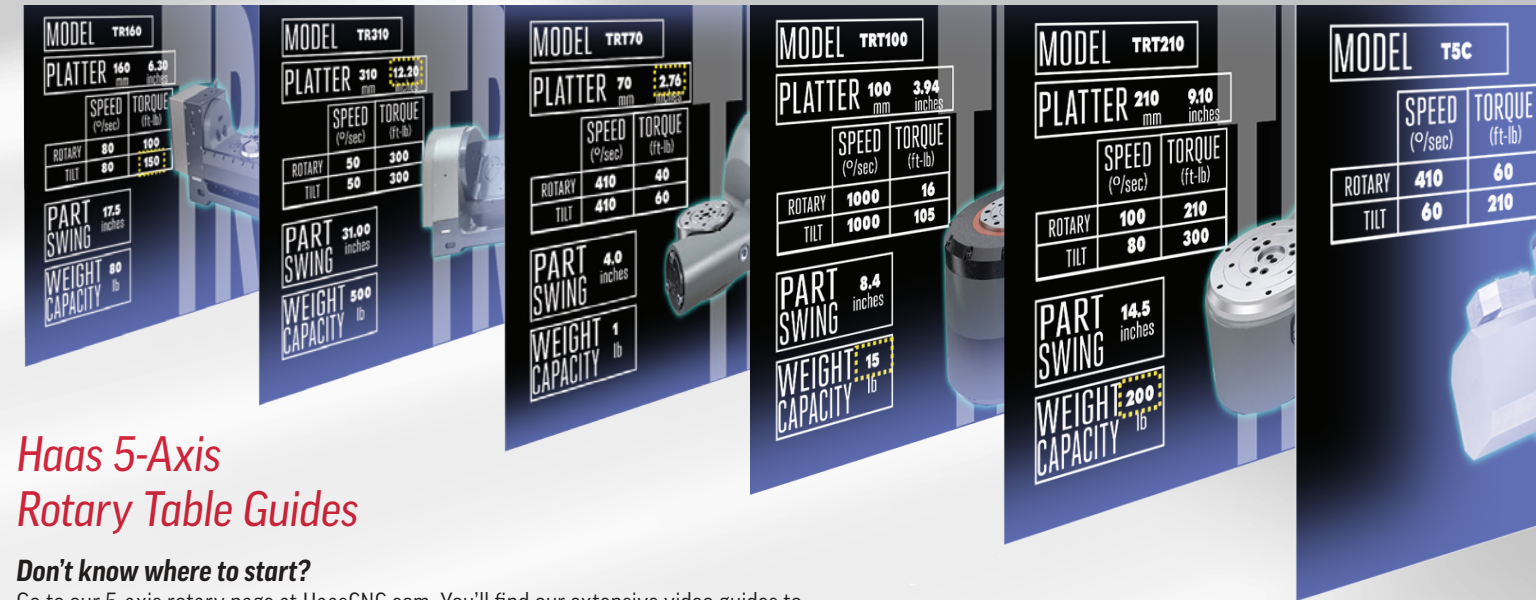
### Trunnions

When you need to add 5-axis capability to your 3-axis mill, Haas dual-axis rotary tables and indexers are the perfect bolt-on solutions for machining complex parts. These dual-axis rotaries bolt directly to the mill's table to provide simultaneous 5-axis motion, or position parts to nearly any angle for 3+2 multi-side machining.



- Add 4- and 5-axis capabilities to your machine
- Easy plug-and-play connection to Haas machines
- Industry-leading performance and capabilities
- Heavy-duty design

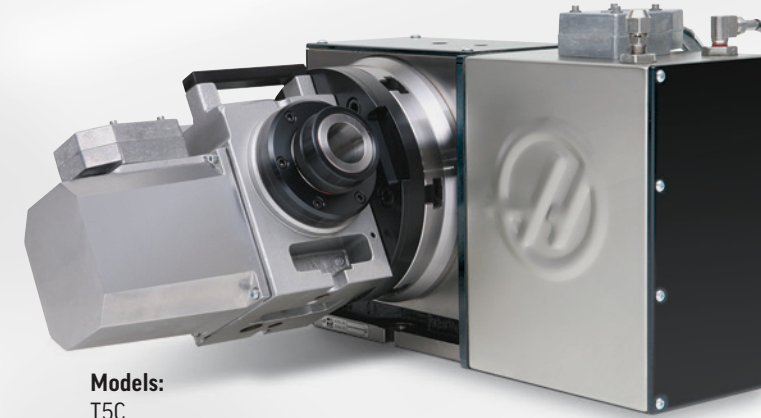
**Models:**  
TR160 TR210  
TR160-2 TR310  
TR200Y TR500SS



### Haas 5-Axis Rotary Table Guides

#### Don't know where to start?

Go to our 5-axis rotary page at HaasCNC.com. You'll find our extensive video guides to help you find the best 5-axis rotary to fit your needs.



**Models:**  
T5C  
T5C2  
T5C3  
T5C4

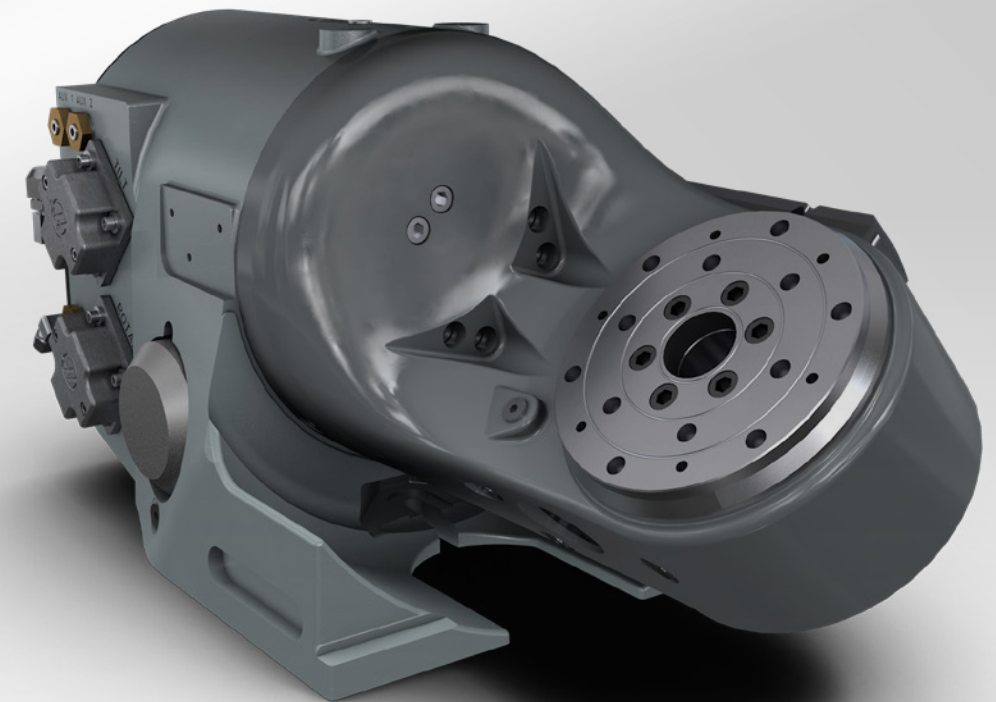
### Tilting Indexers

The T5Cs are dual-axis tilting rotary units with 5C collet noses. Clamp your parts using standard 5C collets, or chuck them by threading a 3-jaw chuck to the spindle nose. Requires optional collet closer or chuck.

### Tilting Rotaries

Five-axis machining is the fastest way to reduce setups, boost throughput, and increase accuracy on complex parts. And Haas plug-in dual-axis rotary tables and indexers make 5-axis machining easier than ever, allowing you to reduce or totally eliminate multiple setups, and easily handle multi-sided parts.

**Models:**  
TR70 TR210  
TR100 TR310  
TR160



# Details that Make a Difference

Nobody knows your machine and your business better than you do. We don't believe in selling you something you don't need.

Explore these rotary accessories to find the ones you need to work as efficiently as possible.

# ROTARY ACCESSORIES



 <b>HA5C</b> >	 AC-25 Compact Collet Closer	 AC-125 High-Torque Collet Closer	 AC-100 High-Torque Collet Closer	 4" Pneumatic Tailstock	 4" Manual Tailstock	 5" Manual 3-Jaw Chuck	 <p>AVAILABLE @ <b>TOOLING.COM</b> HAAS</p> <p>Check out <b>HaasTooling.com</b> for workholding solutions</p>				
 <b>HRT160</b> >	 Tooling Block System 12"	 5" Pneumatic Tailstock	 5" Manual Tailstock	 6" Manual 3-Jaw Chuck	 3" Vise Adapter Plate	 3" Vise					
 <b>HRT210</b> >	 QuikChange Plate System	 QuikChange Cube System	 Tooling Block System 12"	 Tooling Block System 20"	 8" Manual 3-Jaw Chuck	 6" Pneumatic Tailstock	 6" Manual Tailstock	 3" Vise Adapter Plate	 3" Vise	 130 mm Vise Adapter Plate	
 <b>HRTA6</b> >	 QuikChange Plate System	 QuikChange Cube System	 5C Collet Chuck with Closer	 16C Collet Chuck with Closer	 8" Manual 3-Jaw Chuck	 6" Pneumatic Tailstock	 6" Manual Tailstock	 8" Faceplate	 11" Faceplate		
 <b>TRT160</b> >	 A5 Platter	 T-Slot Platter	 Zero Point Kit (Manual/Auto)	 75 mm Air Vise Kit (Manual/Auto)	 Probe Riser Block	 Air Clamp Provision (Manual/Auto)	 6" Manual 3-Jaw Chuck	 3" Vise Adapter Plate	 3" Vise		
 <b>TRT210</b> >	 A1-6 Platter	 T-Slot Platter	 Zero Point Kit (Manual/Auto)	 75 mm Air Vise Kit (Manual/Auto)	 Probe Riser Block	 Air Clamp Provision (Manual/Auto)	 8" Manual 3-Jaw Chuck	 8" Faceplate	 11" Faceplate	 3" Vise Adapter Plate	 130 mm Vise Adapter Plate
 <b>TR210</b> >	 8" Manual 3-Jaw Chuck	 350 mm Platter	 500 mm Platter	 3" Vise Adapter Plate	 3" Vise	 130 mm Vise Adapter Plate					
 <b>TR310</b> >	 10" Manual 3-Jaw Chuck	 500 mm Platter	 650 mm Platter	 Vise Adapter Plate	 5" Vise						

# Adding Tooling To Your CNC – HAAS MAKES TOOLING EASY



Haas tools are top-quality tools, made by top manufacturers around the world.

We aren't your typical tooling supplier. Just like we did with machine tools, we created a way to purchase high-performance, high-value tooling, while providing a better buying experience.



## INTRODUCING OUR NEW LOYALTY REWARDS PROGRAM

STANDARD

BRONZE TIER  
SPEND \$10,000+

SILVER TIER  
SPEND \$25,000+

GOLD TIER  
SPEND \$50,000+

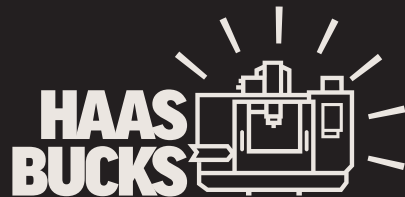
5%  
SAVINGS

6%  
SAVINGS

7%  
SAVINGS

8%  
SAVINGS

SAVINGS BASED ON ANNUAL HAAS TOOLING SPENDING.



TURN YOUR TOOLING SAVINGS  
INTO A NEW MACHINE!

As you increase your annual tooling spend, you'll unlock greater discounts and earn more Haas Bucks to put towards a new Haas Machine.



SCAN FOR DETAILS!

## HaasTooling BENEFITS

We have created a direct and easy channel for buying high-quality cutting tools and workholding at great prices. Buy directly online at HaasTooling.com, order with your new Haas machine, or purchase through your local Haas Factory Outlet. Pay by invoice terms available.



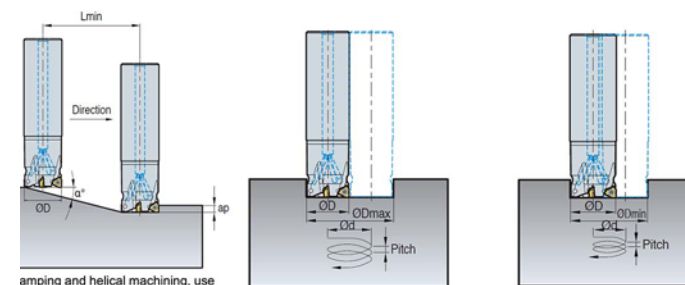
### ENGINEERED FOR QUALITY

All Haas tooling is engineered to run efficiently and reliably on Haas machines. Plus, you'll have unlimited access to our extensive online resources – from troubleshooting guides to how-to procedures to applications tips – to keep your Haas tooling in tip-top shape, and running smoothly.



### TESTED AND PROVEN

These are the same high-quality tools we use in our own state-of-the-art machine shop every day to produce high-precision machined castings and components. We developed the Haas tooling line so that our customers can enjoy the same quality, precision, and value in their shop.

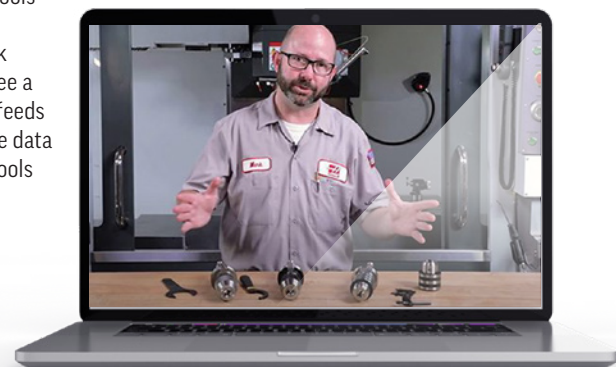


Ramping and helical machining, use coolant and air.  $L_{min} = ap/\tan(\alpha^*)$

#	Tool Diameter OD	ap	1. Ramping		2. Helical Cutting for Blind Holes			3. Helical Cutting for Through Holes		
			Max. Rake Angle $\alpha^*$	Lmin	Min Machining Dia. $\phi_{Dmin}$	Maximum Pitch	Max Machining Dia. $\phi_{Dmax}$	Maximum Pitch	Min Machining Dia.	Maximum Pitch
56	0.75	0.217	17.5	0.708	1.4	0.217	1.44	0.217	1.212	0.22
57	1	0.217	9.5	1.294	1.9	0.217	1.94	0.217	1.712	0.22
58	1.25	0.217	6.5	1.901	2.4	0.217	2.44	0.217	2.212	0.22

### DATA-BACKED TOOLING

We've cut tested every one of the tools we sell, and we have the video and cutting data to prove it. Simply click on the tool you're interested in to see a video of the tool cutting, including feeds and speeds, depth of cut, and all the data you need to start using new Haas tools right away.

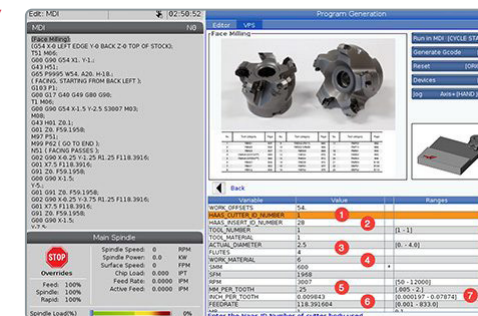


### INSIGHTFUL VIDEOS

Access Tip-of-the-Day videos, machining demos, and more, through the Haas YouTube channel. Mark Terryberry and the rest of the Haas video team will keep you entertained, as they provide useful information to help you have the best shop possible.

### NEW TECHNOLOGY

We've created powerful new control technology to simplify your part programming and speed up your setup process. All the cutting data from our extensive tool testing is in the Haas control. Simply enter the requested information into our easy-to-use VPS templates to automatically populate the recommended speeds and feeds for your program, based on material type.



BUY DIRECT • \*FREE SHIPPING ON ALL ORDERS OVER \$99

\*48 Contiguous United States Only



**Shop now @ HaasTooling.com**  
Download the New **MyHaas App** for a simplified Haas HaasTooling.com shopping experience, and express checkout!

Every week, there are new savings and products added to make HaasTooling.com your one-stop shopping resource.



**MANUAL CHUCKS**  
3-Jaw Chucks & Mounts for Mills



**BROACHING**  
Broaching Toolholders, Broaching Inserts



**MEASURING & INSPECTION**  
Haas Precision Measuring Tool Kit, 3D Sensor Kits, Test Bar for ISO40 Taper Spindles, Coolant Refractometer, Clamp Force Gauge, Haas Probe Tips, Precision Machinist's Level



**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**  
Fixed-Jaw & Self-Centering Vises, Vise Jaws, Adapter Plates, Clamp Kits, Accessories, and more. Haas Workholding by Kurt



**MILLING**  
Shell Mill Bodies, Milling Inserts, End Mill Kits, Chamfer Mills & Inserts, Indexable End Mill Bodies, Ball End Mills, Chamfer End Mills, Roughing End Mills, Indexable Ball End Mills & Inserts



**CUTTING TOOL KITS**  
Complete Indexable End Mill Kits, Chip Fan Kits, Cut-Off Tooling Kits, Drill/Tap Kits, Indexable Drilling Kits, Indexable Milling Kits, Chamfer Mill Kits



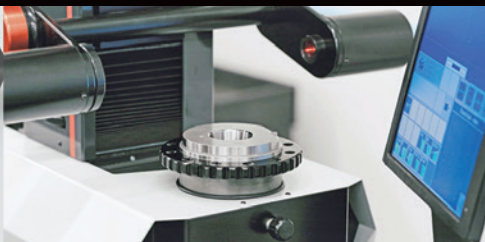
**TOOLHOLDING KITS**  
20-Piece CT40 Toolholder Kits, ER Collet Master Packs, ER16/25/32 CT40 6-Packs, Pull Stud Refresh Kits, ER16/25/32 BT40 6-Packs, ER25/32 HSK 6-Packs, BT40 Toolholder Kits



**WORKHOLDING KITS**  
6" Haas Vise by Kurt Mill Workholding Kit, Self-Centering Vise and Riser Kit



**HSK TOOLHOLDERS**  
HSK Style End Mill Holders, Shell Mill Holders, Shrink Fit Holders, ER Collet Chucks, Toolholding Kits



**TOOL MANAGEMENT**  
Tool Presetters & Shrink Fit Machines



**THREADING/TAPPING**  
Threading Toolholders, Thread Mills, Threading inserts, Taps, Pipe Taps, Drill/Tap Kits



**LATHE COLLET CHUCKS**  
Haas Collet Chucks for A2-5 and A2-6 spindle noses, Manual Collet Changing Tools



**QUICK-CHANGE COLLETS**  
Smooth, Round-Bore, Quick-Change Collets



**HAAS INSERTS**  
Cermets, CBNs, Notch Groove, Threading, and Grooving Inserts



**LATHE TOOLING**  
OD Toolholders, Boring Bars, Cut-Off Tools, Grooving Tools, Threading Toolholders, Turning Inserts, Threading Inserts, Tooling Kits



**ER COLLETS & ACCESSORIES**  
ER Collet Kits, ER Collet Chucks, and Straight Shank ER Collet Chucks



**HOLEMAKING**  
Carbide Drills, Indexable Drill Bodies, Indexable Drill Inserts, Indexable Drilling Kits, Modular Drill Bodies, Modular Drill Heads, Cobalt Drills & Sets, Center Drills, Reamers, Spot Drills



**PULL STUDS**  
Haas BT40, CT40, and CT50 Solid Pull Stud packs, Through-Spindle Coolant Pull Stud packs, and individual units



**MODULAR DRILL HEADS**  
Many sizes to choose from



**INDEXABLE DRILLING KITS**  
Indexable Drilling Kits for Cast Iron, Stainless Steels, Non-Ferrous, and Steel



**LATHE TOOLHOLDING**  
BOT/BMT/VDI Toolholders - ID & OD, Live Tooling - Straight & 90 Degree, Reduction Sleeves, Toolholding Kits



**TOOL KITS**  
End Mill Kits, Indexable Drilling Kits, Indexable Milling Kits, Mill Toolholding Kits



**TOOLING ACCESSORIES**  
Chip Clearing Fans, Spindle Taper Cleaners, Spindle Test Bars, Haas Shop Lift, Toolholder Fixtures



**TAPS**  
Straight Flute, Spiral Flute, Spiral Point, Through-Spindle Coolant Taps, and every coating type



**STORAGE & HANDLING**  
Haas 30/40/50 & HSK63A-Taper Tool Carts



**APPAREL & ACCESSORIES**  
Haas-Branded Pocket Scale, Wall Clock, Tumblers, Water Bottles, T-Shirts, and Caps

Customize your Haas lathe with a variety of turrets, or add live tooling to substantially increase your productivity.

## Haas Turrets



AVAILABLE @ **Lathe Toolholding**

			LIVE TOOLS		HALF-INDEX	
	ID	OD	STRAIGHT	90 DEGREES	ID	OD
<b>BOT</b>			---	---	---	---
<b>BMT</b>						
<b>VDI</b>			---	---	---	---



*It's in our name. It's in our DNA.*

# INTEGRATED AUTOMATION



## MILL AUTOMATION

## LATHE AUTOMATION

### MILL PALLET POOLS



### MILL AUTOMATIC PARTS LOADERS



### MILL ROBOTS



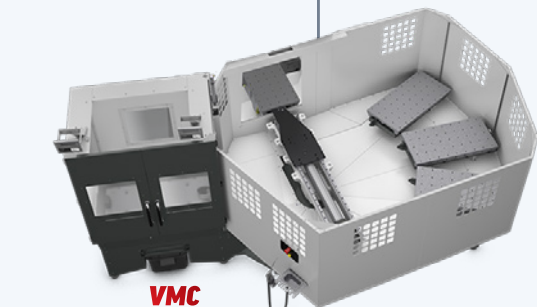
### LATHE AUTOMATIC PARTS LOADERS



### LATHE ROBOTS



### HAAS BAR FEEDER

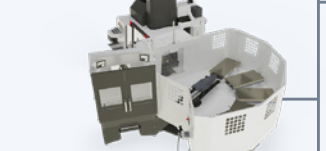


VMC

**3+1 Pallet Pool**  
VF-2YT VM-2  
VF-2SSYT



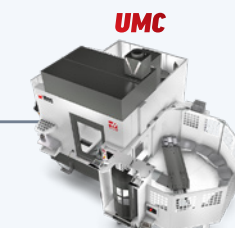
**5+1 Pallet Pool**  
VF-4  
VF-4SS



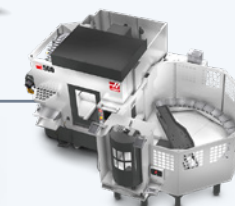
**6+1 Pallet Pool**  
VF-2YT VM-2  
VF-2SSYT



**6+1 Pallet Pool**  
EC-400



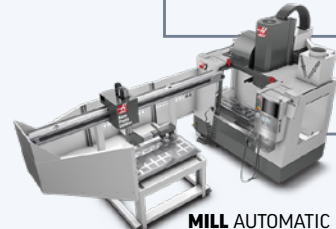
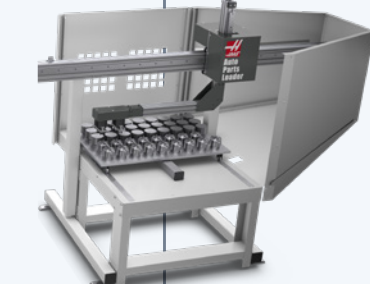
**10+1 Pallet Pool**  
UMC-500 UMC-500SS  
UMC-750 UMC-750SS  
UMC-1000 UMC-1000SS



**20+1 Pallet Pool**  
UMC-500  
UMC-500SS



**6+1 Pallet Pool**  
UMC-1250  
UMC-1250SS



**MILL AUTOMATIC PARTS LOADER**  
VF-1 VM-2  
VF-2 VF-2YT  
VF-2SS VF-2SSYT



**UMC AUTOMATIC PARTS LOADER**  
UMC-500  
UMC-500SS



**COMPACT AUTOMATIC PARTS LOADER**  
Mini Mill Super Mini Mill  
DTs DMs  
VF-2 VF-2SS  
VF-2YT VF-2SSYT



**COBOT 5kg**  
DT/DM Models  
CM-1  
MM, SMM  
UMC-400/SS



**COBOT 10kg**  
MM, SMM  
DT/DM Models  
VF-1 to VF-2  
UMC-400/SS -  
UMC-750/SS  
DC-1, DC-2



**COBOT 15kg**  
VF-1 - VF-5  
UMC-400/SS -  
UMC-750/SS  
DC-1, DC-2



**COBOT 30kg**  
VF-3 - VF-11  
UMC-750/SS -  
UMC-1250/SS



**7kg CAPACITY ROBOT SYSTEM**

DT/DM Models  
VF-1 to VF-2  
UMC-500/SS  
UMC-750/SS  
UMC-1000/SS  
DC-1, DC-2  
MM, SMM



**25kg CAPACITY ROBOT SYSTEM**

VF-1 to VF-5  
UMC-500/SS  
UMC-750/SS  
UMC-1000/SS  
DC-1, DC-2



**50kg CAPACITY ROBOT SYSTEM**

VF-6 to VF-11  
UMC-1000/SS  
UMC-1250/SS



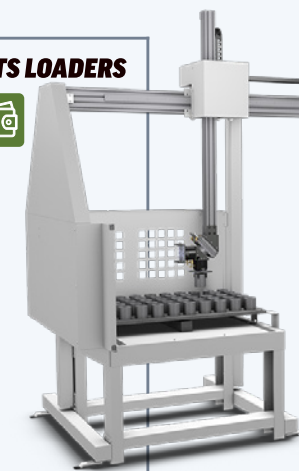
**ROBOTIC PALLET LOADER**

UMC-500/SS - UMC-1000/SS  
VF-2 to VF-5  
VM-2, VM-3



**HAAS BAR FEEDER**

ST-10 to ST-35



**LATHE AUTOMATIC PARTS LOADER**

ST-10Y ST-20 ST-25 ST-28  
ST-15Y ST-20Y ST-25Y ST-28Y

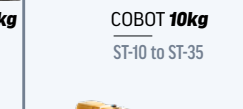


**COBOT 5kg**  
CL-1



**COBOT 10kg**

ST-10 to ST-35



**COBOT 15kg**

ST-20 - ST-35,  
ALL VARIANTS,  
DS-30Y



**7kg CAPACITY ROBOT SYSTEM**

ST-10 to ST-28



**25kg CAPACITY ROBOT SYSTEM**

ST-20 to ST-35  
DS-30Y



**50kg CAPACITY ROBOT SYSTEM**

ST-30 to ST-35

## AUTOMATION STARTS WITH ASKING THE RIGHT QUESTIONS.

### WHAT?

Free up existing talent to work on more meaningful tasks, and allow a machine to deal with the repetitive loading and unloading of parts. Automation is the best, most logical progression for growing your business.

### WHY?

Because your competition is already doing it. Automation is essential to control your costs, maximize your efficiency, and maintain a competitive edge - to ensure your future. Automation has become an absolute necessity.

### HOW?

**There is no one size fits all solution.** We offer a number of automation systems designed to fit your specific needs. Choose from a wide selection of pre-engineered solutions, with an emphasis on **Ease, Affordability, and Versatility.**

### Easy Mill Automation

STEP-AND-REPEAT PROCESS  
UTILIZE THE SAME PROGRAMS  
HIGH-VOLUME/LOW-MIX & LOW-VOLUME/HIGH-MIX  
PRELOAD ALL PARTS

### Affordable Mill Automation

LOW INVESTMENT  
RUNS MULTIPLES OF THE SAME PART  
SIMPLE LOAD/UNLOAD PART PROCESSING  
AUTOMATED CLAMP/UNCLAMP FIXTURING

### Versatile Mill Automation

ABLE TO PICK-UP/DROP-OFF AT DIFFERENT LOCATIONS  
INCORPORATE PART-FLIPPING STATION  
RUNS MULTIPLES OF THE SAME PART  
AUTOMATED CLAMP/UNCLAMP FIXTURING

### Easy Lathe Automation

EASY FIRST-OP AUTOMATION  
RUNS MULTIPLES OF THE SAME PART  
INTERFACES DIRECTLY WITH THE HAAS CONTROL  
AUTO-FEED MATERIAL UP TO 3" (76 MM) DIA.

### Affordable Lathe Automation

LOW INVESTMENT  
SIMPLE LOAD/UNLOAD PART PROCESSING  
RUNS MULTIPLES OF THE SAME PART  
SET UP AND PROGRAM THROUGH HAAS CONTROL

### Versatile Lathe Automation

MOST VERSATILE AUTOMATION CHOICE  
ABLE TO PICK-UP/DROP-OFF AT DIFFERENT LOCATIONS  
INCORPORATE PART FLIPPING STATION  
SET UP AND PROGRAM THROUGH HAAS CONTROL

# Haas Robot Packages

**Versatile Automation**

No complex connections  
No third-party integration  
No additional costs  
Direct Haas control

**Includes:**  
6-axis robot, software interface for direct control through the Haas machine, electrical interface box, safety guarding, and all necessary solenoids, hardware, and cables.

Easily adapt the Haas robot systems to meet your needs

The APL sequence in the Haas Control has been expanded to accommodate additional capabilities for the robot that our standard APLs don't have. Expanded robot capabilities include:

- Part flipping
- Pick up and drop off from multiple locations (allowing for conveyor feeds, etc.)
- Load and unload from multiple locations (main or sub-spindle, multiple vises)

## HRP-1/7KG

7 kg | 911 mm  
Load Cap. Reach



## HRP-2/25KG

25 kg | 1831 mm  
Load Cap. Reach



## HRP-3/50KG

50 kg | 2050 mm  
Load Cap. Reach



### VMC HRP-1

DC-1	23.6" x 17.7" x 13" (xyz) 600 x 450 x 330 mm
DC-1/40	23.6" x 17.7" x 11.8" (xyz) 600 x 450 x 300 mm
DC-2	39.4" x 19.7" x 13" (xyz) 1000 x 450 x 330 mm
DC-2/40	39.4" x 19.7" x 19.7" (xyz) 1000 x 500 x 500 mm
DT-1	20" x 16" x 15.5" (xyz) 508 x 406 x 394 mm
DT-2	28" x 16" x 15.5" (xyz) 711 x 406 x 394 mm
DM-1	20" x 16" x 15.5" (xyz) 508 x 406 x 394 mm
DM-2	28" x 16" x 15.5" (xyz) 711 x 406 x 394 mm
VF-1	20" x 16" x 20" (xyz) 508 x 406 x 508 mm
VF-2	30" x 16" x 20" (xyz) 762 x 406 x 508 mm
VF-2SS Super Speed	30" x 16" x 20" (xyz) 762 x 406 x 508 mm
VF-2TR 5-Axis Trunnion	30" x 16" x 20" (xyz) 762 x 406 x 508 mm
UMC-400	17" x 11" x 13" (xyz) 432 x 279 x 330 mm
UMC-400SS	17" x 11" x 13" (xyz) 432 x 279 x 330 mm
UMC-500	24" x 16" x 16" (xyz) 610 x 406 x 406 mm
UMC-500SS Super Speed	24" x 16" x 16" (xyz) 610 x 406 x 406 mm

### VMC HRP-2

VF-2YT	30" x 20" x 20" (xyz) 762 x 508 x 508 mm
VF-2SSYT Super Speed	30" x 20" x 20" (xyz) 762 x 508 x 508 mm
VF-3	40" x 20" x 25" (xyz) 1016 x 508 x 635 mm
VF-3YT	40" x 26" x 25" (xyz) 1016 x 660 x 635 mm
VF-3SS Super Speed	40" x 20" x 25" (xyz) 1016 x 805 x 635 mm
VF-3SSYT Super Speed	40" x 26" x 25" (xyz) 1016 x 660 x 635 mm
VF-3YT/50	40" x 26" x 25" (xyz) 1016 x 660 x 635 mm
VF-4	50" x 20" x 25" (xyz) 1270 x 508 x 635 mm
VF-4SS Super Speed	50" x 20" x 25" (xyz) 1270 x 805 x 635 mm
VF-5/40	50" x 26" x 25" (xyz) 1270 x 660 x 635 mm
VF-5/40XT	60" x 26" x 25" (xyz) 1524 x 660 x 635 mm
VF-5SS Super Speed	50" x 26" x 25" (xyz) 1270 x 660 x 635 mm
VF-5/50XT	60" x 26" x 25" (xyz) 1524 x 660 x 635 mm
VM-2	30" x 20" x 20" (xyz) 762 x 805 x 805 mm
VM-3	40" x 26" x 25" (xyz) 1016 x 660 x 635 mm
UMC-500	24" x 16" x 16" (xyz) 610 x 406 x 406 mm
UMC-500SS Super Speed	24" x 16" x 16" (xyz) 610 x 406 x 406 mm
UMC-750	30" x 20" x 20" (xyz) 762 x 805 x 805 mm
UMC-750SS Super Speed	30" x 20" x 20" (xyz) 762 x 805 x 805 mm
UMC-1000	40" x 25" x 25" (xyz) 1016 x 635 x 635 mm
UMC-1000SS Super Speed	40" x 25" x 25" (xyz) 1016 x 635 x 635 mm

### LATHE HRP-2

ST-20 2.5" Bar (63.5 mm)	13" x 22.5" (maxcap) 330 x 572 mm
ST-20L 2.5" Bar (63.5 mm)	13" x 42.5" (maxcap) 330 x 1080 mm
ST-20Y 2.5" Bar (63.5 mm)	11.75" x 22.5" (max cap) 298 x 572 mm
ST-20LY 2.5" Bar (63.5 mm)	11.75" x 42.5" (max cap) 298 x 1080 mm
ST-25 3.0" Bar (76 mm)	13" x 22.5" (maxcap) 330 x 572 mm
ST-25L 3.0" Bar (76 mm)	13" x 42.5" (maxcap) 330 x 1080 mm
ST-25Y 3.0" Bar (76 mm)	11.75" x 22.5" (max cap) 298 x 572 mm
ST-25LY 3.0" Bar (76 mm)	11.75" x 42.5" (max cap) 298 x 1080 mm
ST-28 4.0" Bar (102 mm)	13" x 22.5" (maxcap) 330 x 572 mm
ST-28L 4.0" Bar (102 mm)	13" x 42.5" (maxcap) 330 x 1080 mm
ST-28Y 4.0" Bar (102 mm)	11.75" x 22.5" (max cap) 298 x 572 mm
ST-28LY 4.0" Bar (102 mm)	11.75" x 42.5" (max cap) 298 x 1080 mm
ST-30 3.0" Bar (76 mm)	15" x 32.5" (maxcap) 381 x 826 mm
ST-30L 3.0" Bar (76 mm)	15" x 62.5" (maxcap) 381 x 1588 mm
ST-30Y 3.0" Bar (76 mm)	13.75" x 32.5" (max cap) 349 x 826 mm
ST-30LY 3.0" Bar (76 mm)	13.75" x 62.5" (maxcap) 349 x 1588 mm
ST-35 4.0" Bar (102 mm)	15" x 62.5" (maxcap) 381 x 1588 mm
ST-35L 4.0" Bar (102 mm)	15" x 62.5" (maxcap) 381 x 1588 mm
ST-35Y 4.0" Bar (102 mm)	13.75" x 32.5" (max cap) 349 x 826 mm
ST-35LY 4.0" Bar (102 mm)	13.75" x 62.5" (max cap) 349 x 1588 mm
DS-30Y 3.0" Bar (76 mm)	13.75" x 32.5" (max cap) 349 x 826 mm

### VMC HRP-3

VF-6/40	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-6/40TR 5-Axis Trunnion	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-6/50	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-6/50TR 5-Axis Trunnion	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-6SS Super Speed	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VF-7/40	84" x 32" x 30" (xyz) 2134 x 813 x 762 mm
VF-7/50	84" x 32" x 30" (xyz) 2134 x 813 x 762 mm
VF-8/40	64" x 40" x 30" (xyz) 1626 x 1016 x 762 mm
VF-8/50	64" x 40" x 30" (xyz) 1626 x 1016 x 762 mm
VF-9/40	84" x 40" x 30" (xyz) 2134 x 1016 x 762 mm
VF-9/50	84" x 40" x 30" (xyz) 2134 x 1016 x 762 mm
VF-10/40	120" x 32" x 30" (xyz) 3048 x 813 x 762 mm
VF-10/50	120" x 32" x 30" (xyz) 3048 x 813 x 762 mm
VF-11/40	120" x 40" x 30" (xyz) 3048 x 1016 x 762 mm
VF-11/50	120" x 40" x 30" (xyz) 3048 x 1016 x 762 mm
VF-12/40	150" x 32" x 30" (xyz) 3810 x 813 x 762 mm
VF-12/50	150" x 32" x 30" (xyz) 3810 x 813 x 762 mm
VF-14/40	150" x 40" x 30" (xyz) 3810 x 1016 x 762 mm
VF-14/50	150" x 40" x 30" (xyz) 3810 x 1016 x 762 mm
VM-6	64" x 32" x 30" (xyz) 1626 x 813 x 762 mm
VR-8	84" x 40" x 42" (xyz) 2134 x 1016 x 1067 mm
VR-9	84" x 40" x 42" (xyz) 2134 x 1016 x 1067 mm
VR-11	120" x 40" x 42" (xyz) 3048 x 1016 x 1067 mm

### LATHE HRP-1



ST-10 1.75" Bar (44 mm)	12" x 16" (max cap) 305 x 406 mm
ST-10Y 1.75" Bar (44 mm)	11" x 16" (max cap) 279 x 406 mm
ST-15 2.5" Bar (63.5 mm)	12" x 16" (max cap) 305 x 406 mm
ST-15Y 2.5" Bar (63.5 mm)	11" x 32.5" (max cap) 305 x 406 mm

Recommended Haas robot fitment for each machine. Other Haas robot packages may fit, depending on application.



Part Flipping



Expanded Parts Table



Magazine Loader

# How to automate

A guide to selecting the right automation for your shop

## Where to Start :

Consider which parts are most suitable for automation. Start by processing simple, high-volume parts for steady, uninterrupted production.

## Part Types Perfect for Haas Robot Packages

PART CAPACITY	HRP-1		HRP-2		HRP-3	
<b>SINGLE GRIPPER</b>						
Max Part Size	6"	152 mm	8"	203 mm	12"	305 mm
Max Part Weight	8 lb	3.6 kg	*37 lb	*17 kg	40 lb	18 kg
<b>DOUBLE GRIPPER</b>						
Max Part Size	6"	152 mm	8"	203 mm	N/A	N/A
Max Part Weight	2.5 lb	1.1 kg	*18 lb	*8 kg	N/A	N/A

## Versatile Automation

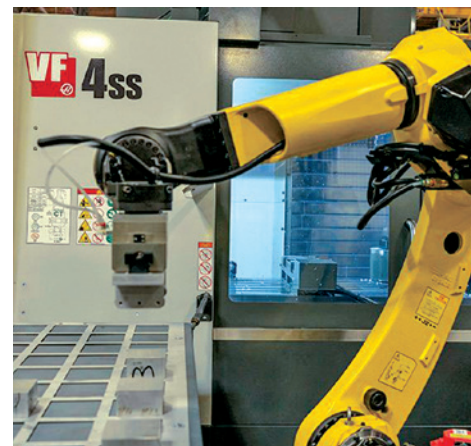
- All-inclusive design, with plug-and-play capabilities
- Interfaces directly with the Haas control
- All set up and operation are done through the Haas control and remote jog handle
- Includes CE-compliant safety guard fencing
- No need for 3rd-party integrators
- Single gripper included

\*May require modified gripper



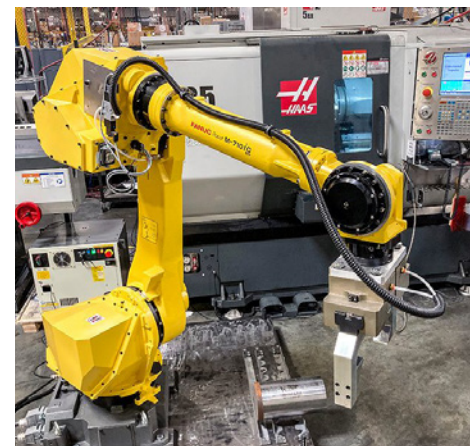
### Haas Robot Package 1 / 7KG

- 7 kg capacity at wrist (parts + gripper)
- One parts table included
- Double gripper available
- Haas VMCs: VF-1/2, DT/DM, UMC-500
- Haas Lathes: ST-10 through ST-28



### Haas Robot Package 2 / 25KG

- 25 kg capacity at wrist (parts + gripper)
- One parts table included; additional parts table available
- Double gripper available
- Requires a separate 200-230V 3-Phase, 50/60 Hz, 3.0 kVA power supply
- Haas VMCs: VF-1 through VF-5, UMCs
- Haas Lathes: ST-20 through ST-35



### Haas Robot Package 3 / 50KG

- 50 kg capacity at wrist (parts + gripper)
- Requires a separate 200-230V 3-Phase, 50/60 Hz, 7.5 kVA power supply
- Larger Haas vertical machining centers and turning centers

## Part Types Perfect for Processing on Pallet Pool Systems

### Easy Automation

Haas Pallet Pools are the easiest of all automation solutions to choose from, as they are literally a step-and-repeat process. Fully integrated to the Haas control for lights-out production, with a built-in easy-to-use pallet scheduling interface. A dedicated load/unload station maximizes spindle uptime to ensure increased production.

Manually clamping the parts to the pallets simplifies loading and unloading of the machine for trouble-free, unattended operation.

Flexibility – Dedicate each pallet to a specific job, or run full production on multiple pallets. Load a single part per pallet, or nest dozens. Run one part program or multiples – completely unattended.

- Step-and-repeat process
- Fully integrated to Haas control
- Easy-to-use pallet scheduling
- Dedicated load/unload station
- Maximize spindle uptime

### Haas Pallet Pools for Verticals

Part Type:

Ideal for small, medium, and larger size parts, or irregular-shaped parts that require specialized clamping. Load a single part on each pallet, or multiple vises or fixtures for high-volume production.



#### 3+1 or 6+1 Pallet Pool VF-2YT / VF-2SSYT 5+1 Pallet Pool VF-4, VF-4SS

- 3+1 or 6+1 pallets (3/6 storage + 1 machining station)
- Work Envelope: 30" x 18" (762 x 457 mm)
- 5+1 pallets (5 storage + 1 machining station)
- Work Envelope: 47.75" x 20.35" (1213 x 517 mm)
- 750 lb (340 kg) max payload per pallet (workpiece + workholding)



#### 6+1 Pallet Pool VC-400:

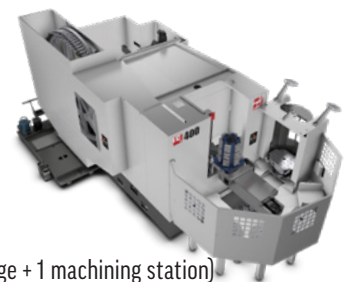
- 6+1 pallets (6 storage + 1 machining station)
- Work Envelope: 22" x 16" (558 x 406 mm)
- 500 lb (227 kg) max payload per pallet (workpiece + workholding)

### Horizontal Pallet Pool

Part Type:

Ideal for larger production runs. Load a single part, or nest dozens on a tombstone to gain access to multiple sides of a part, and reduce the number of operations

Great for small- to mid-size parts, or irregular-shaped parts that require specialized clamping. Utilize 400 mm tombstones for multiple parts, or load individual parts for full 360 degree access to the workpiece.



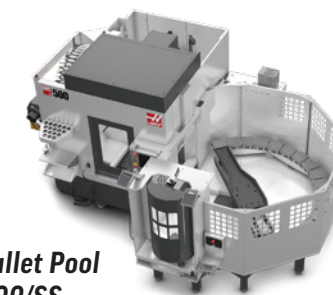
#### 6+1 Pallet Pool EC-400

- 6+1 pallets (6 storage + 1 machining station)
- Work Envelope: 22" dia. x 25" tall (558 x 635 mm)
- 500 lb (227 kg) max payload per pallet (workpiece + workholding)

### Haas Pallet Pools for UMC 5-Axis

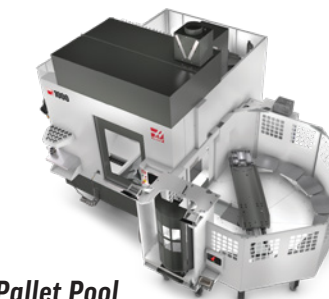
Part Type:

Ideal for gaining access to multiple sides of a part (3+2), or for true interpolated 5-axis machining of a workpiece.



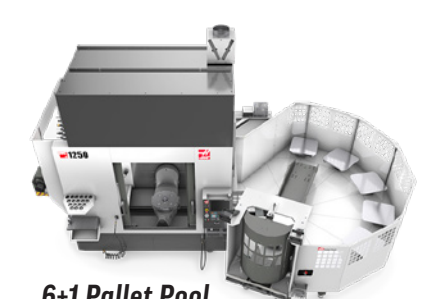
#### 20+1 Pallet Pool UMC-500/SS

- 20+1 pallets (20 storage + 1 machining station)
- Work Envelope: 8" dia. x 16.5" tall (203 x 420 mm)
- 200 lb (90 kg) max payload per pallet (workpiece + workholding)



#### 10+1 Pallet Pool UMC-500/SS | 750/SS | 1000/SS

- 10+1 pallets: 10 storage + 1 machining station
- Work Envelope: 16" dia. x 16" - 21" tall\* (406 x 406 - 533 mm)
- 200 lb (90 kg) max payload per pallet (workpiece + workholding)



#### 6+1 Pallet Pool UMC-1250/SS

- 6+1 pallets (6 storage + 1 machining station)
- Work Envelope: 30" dia. x 24" tall (762 x 610 mm)
- 500 lb (227 kg) max payload per pallet (workpiece + workholding)

NOTE: Pallet Pool systems must be ordered with the machine.

\*Max part height varies by machine model.

## Part Types Perfect for Automatic Parts Loaders (APLs)

### Haas Automatic Parts Loader (APL)

Affordable Automation



#### Haas APL for Lathes

- Slugs from Ø 1.0" - 5.8" x 5" (25 - 147 x 127 mm)
- Shafts from Ø 0.86" - 4" x 21" (22 - 100 x 533 mm)
- Individual part weight up to 10 lb (4.5 kg) each
- Haas Lathes: ST-10Y, ST-15Y, ST-20/Y through ST-28/Y

#### Haas APL for Mills

- Part size up to 6" x 6" x 4" (150 x 150 x 100 mm)
- Individual part weight up to 10 lb (4.5 kg) each
- Haas VMCs: VF-1, VF-2/SS, VF-2YT/SS, VM-2

#### Haas APL for UMC-500/SS - 5-Axis (5-Sided)

- Part size up to 6" x 6" x 4" (150 x 150 x 100 mm)
- Individual part weight up to 10 lb (4.5 kg) each
- Access 5 sides of a part
- Haas UMCs: UMC-500/SS

#### Haas Compact APL for Mills

- Part size up to 2" x 2" x 2" (51 x 51 x 51 mm)
- Individual part weight up to 3 lb (1.4 kg) each
- Haas VMCs: VF-2/SS, VF-2YT/SS, VM-2, DTs, DMs, UMC-350HD

- Fully integrated to Haas control
- All set up and operation are done through the Haas control and remote jog handle
- Double gripper Included
- Includes light curtain for safe operation (non-CE)
- CE compliance requires the optional safety guard fencing

## Part Types Perfect for the Haas Bar Feeder

### Haas Bar Feeder

Easy Automation  
 Affordable Automation

#### Type of Parts:

Ideal for unattended bar work ranging from 3/8" to 3" (10 mm - 76 mm) diameter, depending on the size of machine. Automatic parts catcher is able to catch parts up to 3" (76 mm) dia. by 4" (102 mm) length.



#### Haas Bar Feeder

Roll-away 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
- Easy bar diameter changeover (height adjustment)
- Quick-change pushrod design, with no tools needed
- Storage for both pushrods, 3/8" (9.5 mm) and 3/4" (20 mm)
- Easily accessible storage for all extruded liners
- Interfaces directly with the Haas control
- All set up and operation are done through the Haas control
- Includes patented Haas spindle liners

### Which automation system is right for you?

Haas offers many different options for automating your shop, from Automatic Part Loaders and Pallet Pools, to fully integrated Robot Systems. Depending on your shop's needs, there's an automation system that's right for you.

To learn more visit [HaasCNC.com/automation](https://HaasCNC.com/automation)

## It's never been easier, or made more sense, to get automated



### Labor Shortages

Labor shortages are everywhere, and the job market is more competitive than ever. Need a night shift, but can't find a person to work it? Add a Haas Robot, APL, or Pallet Pool for lights-out operation.

### ROI on Automation

All Haas automation systems come with everything you need, at affordable prices. We made the barrier to entry for automation low, so it would make sense for all shops, big or small.

### Easy Integration

There's no need for a third-party integrator with any of our automation systems - from the APL to the Robot Packages. Everything can be set up by the HFO/customer, and is controlled directly through the Haas control.

### Increase Productivity

Adding automation to your shop will increase your productivity, and free up time for you and your operators to work on other projects.

## Automation Options and Configurations

MACHINE MODEL	Robot Solutions			Compact AUTOMATIC PARTS LOADER	Automatic Parts Loader	Pallet Pool	Bar Feeder
	Package 1 7 KG Capacity	Package 2 25 KG Capacity	Package 3 50 KG Capacity				
DT/DM	✓			✓			
VF-1/VF-2	✓	✓		✓††	✓	✓††	
VF-3 - VF-5		✓	✓				
VF-6+			✓				
VC-400						✓	
UMC-350HD-EDU	✓			✓			
UMC-500/SS	✓	✓			✓	✓	
UMC-750/SS		✓				✓	
UMC-1000/SS		✓				✓	
UMC-1250/SS						✓	
ST-10 - ST-15	✓*				✓†		✓
ST-20 - ST-28	✓*	✓*			✓		✓
ST-30 - ST-35		✓*	✓*				✓
DS-30Y		✓					✓
EC-400						✓	

Configurations subject to change without notice. Availability may vary by region. \*Including long-bed models. †Y-axis models only. ††VF-2YT models only.

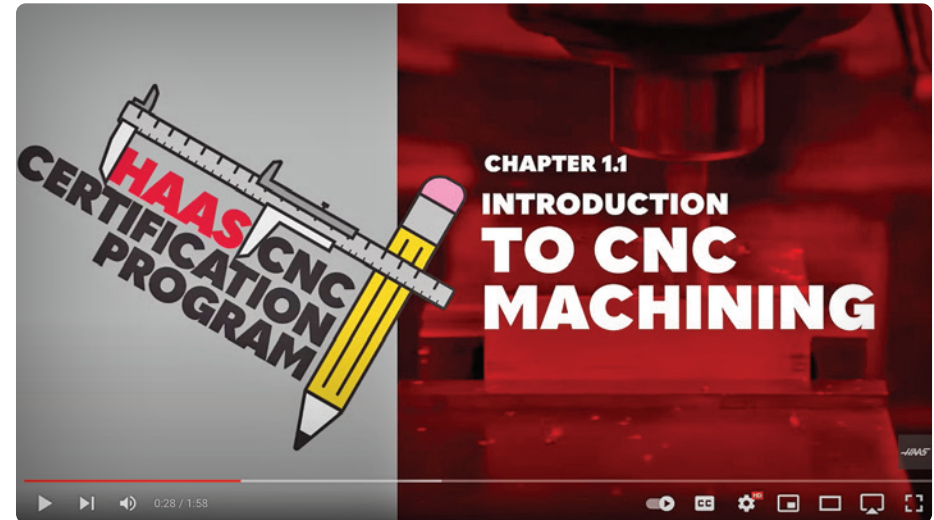


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Mill & Lathe Operator

Stand out in the industry as a qualified CNC operator, or ensure your team has the skills they need to properly and safely operate a CNC machine - by becoming Haas Certified. Our online CNC Certification Program provides you - or your employees - with the knowledge and skills necessary for basic CNC machine operation.

**Haas Certification in Four Easy Steps**

- 1. Create an account**  
Visit <https://learn.haascnc.com> to create a free MyHaas account.
- 2. Watch chapter lessons**  
Log in to your account and watch the videos that accompany the chapters.
- 3. Pass online quizzes**  
Take the quizzes that are associated with each video to show you understand the concepts.
- 4. In-person, hands-on final exam at your local HFO**  
When you've completed all the lessons, and spent some time in front of an actual CNC machine, you're ready to set up your "Hands-on Test" at your local HFO. Pass this straightforward test and you'll receive a certificate showing that you successfully completed the Certification program.



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- Prove Your CNC Knowledge
- Professional Credibility
- Easily Accessible
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- Up-To-Date Information

"Since the beginning of the pandemic, educators across the United States have scrambled to deliver quality, up-to-date machining classes online. For my program, the Haas Certification material has proved to be an essential tool that can integrate into curriculums at any level."



**MIKE BERRY**  
INSTRUCTOR, MACHINE TOOL  
TECHNICIAN  
MID-STATE TECHNICAL COLLEGE  
WISCONSIN RAPIDS CAMPUS

**Haas CNC Certification Coursework**

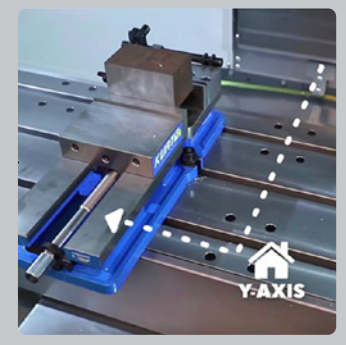
Mill certification available in multiple languages - English, French, German, Italian, and Spanish.



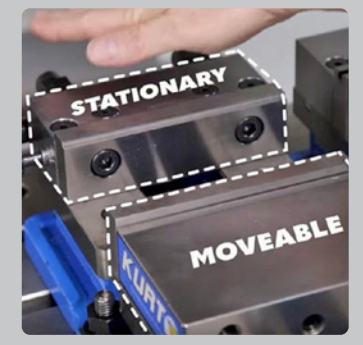
Introduction to CNC



Basic Machine Safety



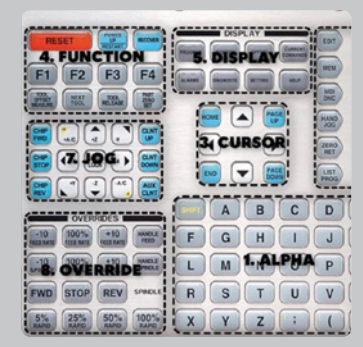
Basic Machine Start Up



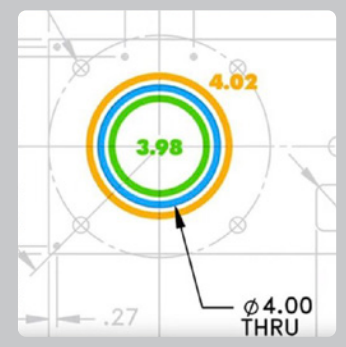
Load and Unload a Part



Run a Program



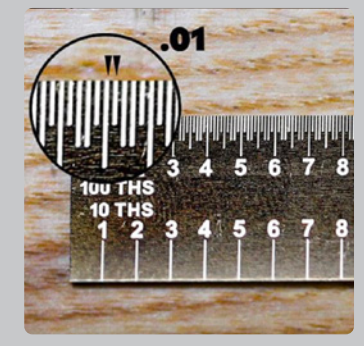
Haas Control Functions



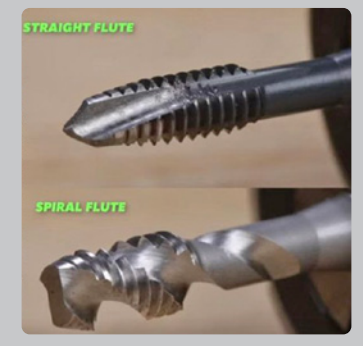
Basic Print Reading



Measuring Tools



Basic Shop Math



Intro to Cutting Tools and Workpiece Materials



Basic Machine Maintenance



Hands-On Test

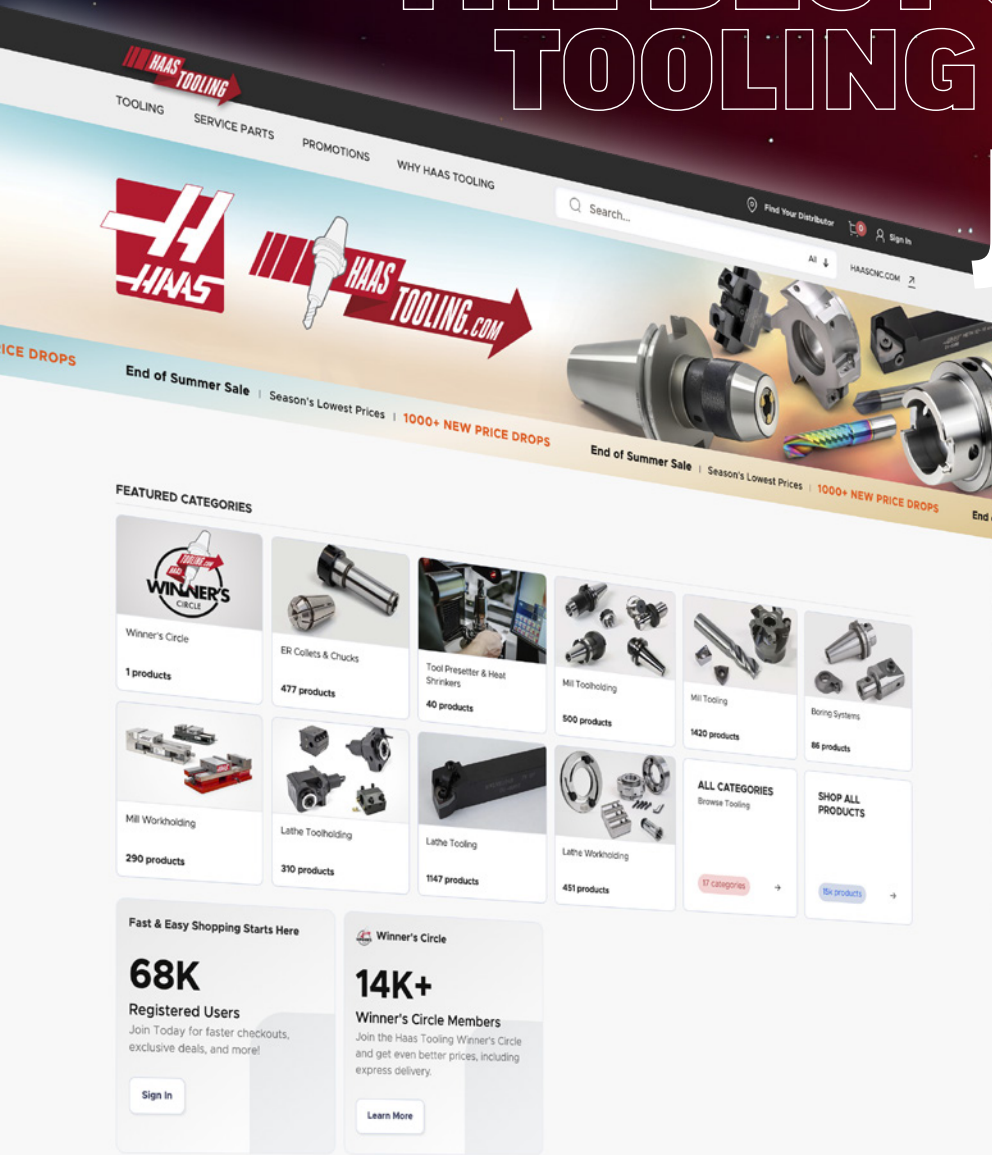


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