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### **VF-SERIES VERTICAL MACHINING CENTRES** HIGH-PERFORMANCE CNC MILLS

Haas Automation offers a wide range of CNC Vertical Machining Centres - one just right to meet the demands of your machine shop. Haas CNC machines offer an abundant menu of options, accessories and rotary products that allows you to fully tailor your machine.

Long before you start looking at options, you'll be impressed with the extensive standard features and capabilities packed into every machine. A Haas VMC is designed to provide the features and performance you need, making it the soundest investment you considered; providing more utility, flexibility and productivity than you've ever imagined.



NEXT GEN CONTROL • Visual Programming System Improved Connectivity • Dynamic Work Offsets

Tool Centre Point Control



VF-1 • Travels 508 x 406 x 508 mm • 8,100 rpm • 40-Taper • 30 hp • 20 Tool Carousel Changer

• (SMTC optional)



VF-2 • Travels 762 x 406 x 508 mm • 8,100 rpm • 40-Taper • 30 hp • 20 Tool Carousel Changer • (SMTC optional)





VF-3YT EXTENDED Y-AXIS 40/50 TAPER VF-4 • Travels 1,016 x 660 x 635 mm • Travels 1,270 x 508 x 635 mm • 8,100 rpm 40-Taper • 30 hp • 8,100 rpm • 40-Taper • 30 hp • 7,500 rpm 50-Taper • 30 hp • 20 Tool Carousel Changer • 20 Tool Carousel (SMTC option) • (SMTC optional)



• Travels 1,626 x 813 x 762 mm

• 8,100 rpm 40-Taper • 30 hp

• 7,500 rpm 50-Taper • 30 hp

• Side-Mount Tool Changer

VF-6 40/50 TAPER



VF-7 40/50 TAPER

- Travels 2,134 x 813 x 762 mm
- 8,100 rpm 40-Taper 30 hp
- 7,500 rpm 50-Taper 30 hp • Side-Mount Tool Changer

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• Side-Mount Tool Changer

- VF-11 40/50 TAPER • Travels 3,048 x 1,016 x 762 mm • 8,100 rpm 40-Taper • 30 hp
- 7,500 rpm 50-Taper 30 hp • Side-Mount Tool Changer



### VF-2YT EXTENDED Y-AXIS

- Travels 762 x 508 x 508 mm
- 8,100 rpm 40-Taper 30 hp
- 20 Tool Carousel Changer
- (SMTC optional)



#### VF-5 40/50 TAPER

- Travels 1,270 x 660 x 635 mm
- 8,100 rpm 40-Taper 30 hp
- 7,500 rpm 50-Taper 30 hp
- 20 Tool Carousel (SMTC option)



VERTICALS



- Travels 1,016 x 508 x 635 mm
- 8,100 rpm 40-Taper 30 hp
- 20 Tool Carousel Changer
- (SMTC optional)



VF-5XT EXTENDED X-AXIS 40/50 TAPE

- Travels 1,524 x 660 x 635 mm
- 8,100 rpm 40-Taper 30 hp
- 7,500 rpm 50-Taper 30 hp
- 20 Tool Carousel (SMTC option)



#### VF-8 40/50 TAPER

- Travels 1,626 x 1,016 x 762 mm
- 8,100 rpm 40-Taper 30 hp
- 7,500 rpm 50-Taper 30 hp
- Side-Mount Tool Changer



#### VF-9 40/50 TAPER

- Travels 2,134 x 1,016 x 762 mm
- 8,100 rpm 40-Taper 30 hp
- 7,500 rpm 50-Taper 30 hp
- Side-Mount Tool Changer



### VF-12 40/50 TAPER

- Travels 3,810 x 813 x 762 mm
- 8,100 rpm 40-Taper 30 hp
- 7,500 rpm 50-Taper 30 hp
- Side-Mount Tool Changer

#### VF-14 40/50 TAPER

- Travels 3,810 x 1016 x 762 mm
- 8,100 rpm 40-Taper 30 hp
- 7,500 rpm 50-Taper 30 hp
- Side-Mount Tool Changer

### **SUPER SPEED VMCs** NEXT GENERATION HIGH-SPEED MILLS

The Haas high-performance Super Speed vertical machining centres provide the high spindle speeds, fast rapids, and quick tool changes necessary for high-volume production and reduced cycle times.

The machines feature a 30+1 side-mount tool changer, with tool-to-tool changes of 1.6 seconds.



SUPER SPEED VMC

SMM-1 SUPER MINI MILL • 406 x 305 x 254 mm • 10,000 rpm (15K opt.) • 40-Taper • 15 hp • 30.5 m/min Rapids



SMM-2 SUPER MINI MILL • 508 x 406 x 356 mm • 10,000 rpm (15K opt.) • 40-Taper • 15 hp • 30.5 m/min Rapids



VF-3SSYT SUPER SPEED EXTENDED Y-AXIS • 1.016 x 660 x 635 mm • 12,000 rpm Spindle (15k opt.) • 30+1 Side Mount Tool Changer • Tool-to-Tool 1.6 seconds • 35.6 m/min Rapids



The Super Speed direct-drive 12,000 rpm spindle system couples the drive directly to the spindle, which results in better surface finishes, extreme thermal stability and very quiet operation.



VF-2SS SUPER SPEED • 762 x 406 x 508 mm • 12,000 rpm Spindle (15k opt.) • 30+1 Side Mount Tool Changer • 35.6 m/min Rapids



VF-4SS SUPER SPEED • 1.270 x 508 x 635 mm • 12,000 rpm Spindle (15k opt.) • 30+1 Side Mount Tool Changer • Tool-to-Tool 1.6 seconds • 35.6 m/min Rapids



VF-2SSYT SUPER SPEED EXTENDED Y-AXIS • 762 x 508 x 508 mm

• 12,000 rpm Spindle (15k opt.) • 30+1 Side Mount Tool Changer • 35.6 m/min Rapids



VF-5SS SUPER SPEED • 1,270 x 660 x 635 mm • 12,000 rpm Spindle (15k opt.) • 30+1 Side Mount Tool Changer • Tool-to-Tool 1.6 seconds

• 30.5 m/min Rapids



VF-3SS SUPER SPEED • 1,016 x 508 x 635 mm • 12,000 rpm Spindle (15k opt.) • 30+1 Side Mount Tool Changer • 35.6 m/min Rapids



VF-6SS SUPER SPEED • 1.626 x 813 x 762 mm • 12,000 rpm Spindle (15k opt.) • 30+1 Side Mount Tool Changer • Tool-to-Tool 2.3 seconds



### **HIGH SPEED DRILL MILL/TAP** COMPACT HIGH-SPEED MACHINING CENTRES

The DM and DT series compact, high-speed machining centres are built from proven Haas components and designs.

With their standard 10,000 rpm spindles (12K, 15K & 20K options) 61 m/min rapids, high axis accelerations (1G) and 1.8 second tool change times, they can reduce cycle times by more than 20% compared to the already fast Haas Super Speed VF-2SS.





]T-1 DRILL AND TAP • 508 x 406 x 394 mm • 10,000 rpm Spindle • 30-Taper • 20+1 Side Mount Tool Changer • Rigid Tapping up to 5,000 rpm • 61.0 m/min Rapids

DT-2 DRILL AND TAP • 711 x 406 x 394mm • 10,000 rpm Spindle • 30-Taper • 20+1 Side Mount Tool Changer • Rigid Tapping up to 5,000 rpm • 61.0 m/min Rapids

### **MOULD MAKING MACHINES** VM-SERIES MOULD MAKERS

We've taken our industry-leading VF-Series machines and created custom configurations to boost productivity for mould making, tool & die work, and other high-precision industries.

With our optional 15,000 rpm spindle, and our 30,000 rpm 30-taper spindle -Haas has the speed

you need.



### VM-2 MOULD MAKER

- 762 x 508 x 508 mm • 12,000 rpm Spindle (15k & 30k opt.)
- 30+1 Side Mount Tool Changer
- 18.0 m/min Rapids







- DM-1 DRILL AND MILL
- 508 x 406 x 394mm
- 10,000 rpm Spindle 40-Taper
- 18+1 Side Mount Tool Changer
- Rigid Tapping up to 5,000 rpm
- 61.0 m/min Rapids



- DM-2 DRILL AND MILL
- 711 x 406 x 394mm
- 10,000 rpm Spindle 40-Taper
- 18+1 Side Mount Tool Changer
- Rigid Tapping up to 5,000 rpm
- 61.0 m/min Rapids





VM-3 MOULD MAKER

- 1.016 x 660 x 635 mm
- 12,000 rpm Spindle (15k & 30k opt.)
- 30+1 Side Mount Tool Changer
- 18.0 m/min Rapids



### VM-6 MOULD MAKER

- 1,626 x 813 x 762 mm
- 12,000 rpm Spindle (15k & 30k opt.)
- 30+1 Side Mount Tool Changer
- 15.2 m/min Rapids



### **MODULAR MINI MILL**

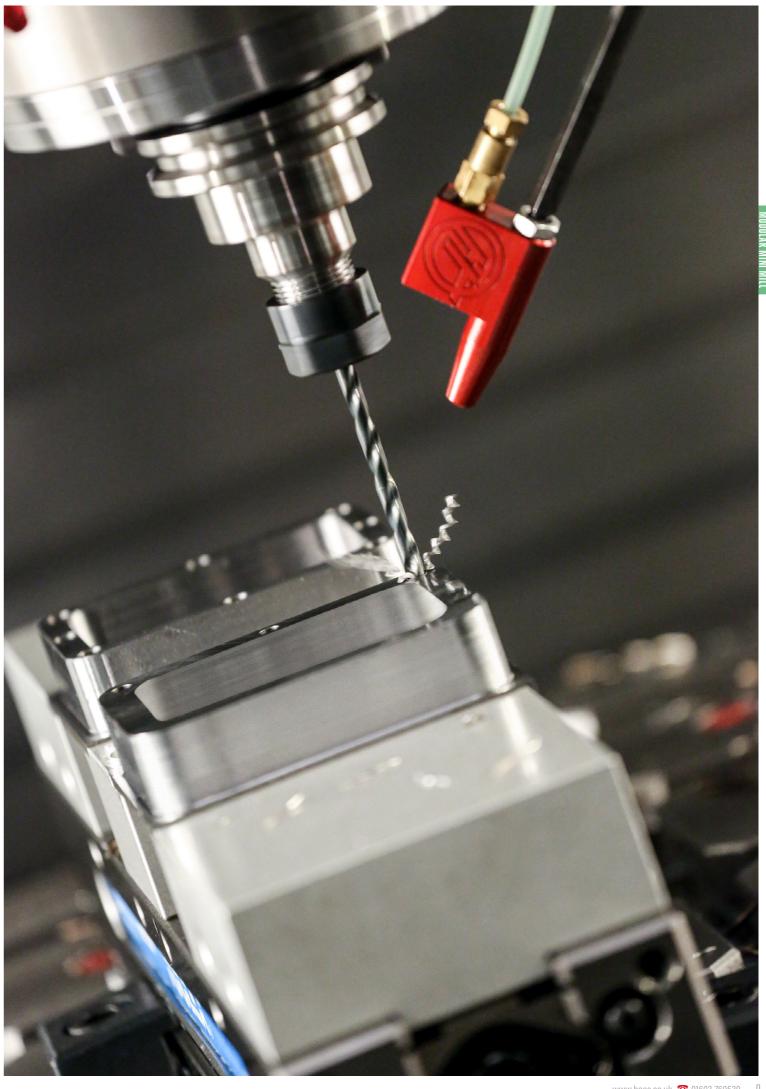




The USA-made Modular Mini Mill is based on the shop-proven Haas Mini Mill. It's perfect as a first step into CNC machining and a great choice for workshops needing a "second-op" machine or an additional spindle where space is limited.

Add a **convenience module**, a **faster spindle**, **increased rapids**, or a **4-axis drive** to run a rotary table, perhaps go 'all-in' and add all available modular options.

1	START UP	If you're starting-up a new precision machining business the Modular Mini Mill is the perfect choice.	
✓	FREE UP	Free-up existing, more expensive machinery to improve efficiency and boost your productivity.	
✓	BUILD UP	Increase your production capacity and support your business expansion.	
✓	SECOND OP	When you need a second-op machine, or an extra spindle, where space is limited.	
1	BOLT ON	Low-cost, bolt-on options can be added, or even retro-fitted, when required.	MADE IN USA



# Definition of the second secon

COMPACT HIGH-PERFORMANCE MACHINING CENTRES

Machine performance once was paired with size and cost. The Mini Mill Series changed everything, by packing 40-taper performance into small packages at unheard of prices.

Haas Automation's Mini Mills are the industry standard for compact machining centres, they take up little shop floor space, yet provide a generous work envelope.

Handling small-parts manufacturing - they're ideal for finishing work and cutting aluminium, yet also provide enough low-end torque to cut steel.





MMM-1 MODULAR MINI MILL • 406 x 305 x 254 mm • 4,000 rpm Spindle • 40-Taper • 7.5 hp • 7.6 m/min Rapids



MM-2 MINI MILL • 508 x 406 x 356 mm • 6,000 rpm Spindle • 40-Taper • 7.5 hp

• 15.2 m/min Rapids



**SMM-1 SUPER MINI MILL** • 406 x 305 x 254 mm • 10,000 rpm (15K opt.) • 30.5 m/min Rapids



**SMM-2 SUPER MINI MILL** • 508 x 406 x 356 mm • 10,000 rpm (15K opt.) • 40-Taper • 15 hp • 30.5 m/min Rapids



**CM-1 COMPACT MILL** • 305 x 254 x 305 mm • 30,000 rpm Spindle • 50,000 rpm Option • 20-Taper • 5 hp

• 19.2 m/min Rapids



TAKE YOUR PRODUCTION TO THE NEXT LEVEL

The Automatic Parts Loader (APL) is a simple way to automate part production on Haas VF-1 through VF-2 size vertical machining centres, including SS, VM and YT models and the UMC-500 and UMC-500SS.

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



- All-inclusive design, with plug-and-play capabilities
   Haas VF-1 through VF-2 size VMCs & UMC-500/SS
   Interfaces directly with the Haas control
   Accommodates parts up to 152 x 152 mm and 4.5 kg
- Includes light curtain for safe operation



### FINANCE

### **FUNDYOUR NEXT STEP** TODAY

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### **ASSET FINANCING TO HELP YOUR BUSINESS**

Asset finance can be used by your business to purchase the equipment it needs to grow without overstretching its finances. The benefits of asset finance allow you to expand your business and fulfil new orders, whilst protecting working capital and any existing credit lines.

Depending on the nature of your business, the assets concerned could be upgrades to equipment, machinery and company vehicles.

### **FUNDING OPTIONS**

HIRE PURCHASE We can offer hire purchase contracts, which give you immediate access to assets that you will own outright after completing a series of payments. This method involves you paying a deposit as well as fixed monthly instalments for the agreed term.

EQUIPMENT LEASING This makes for a straightforward leasing agreement in which you rent the assets you need, but do not own them at the end of the term.

ASSET REFINANCING These agreements are aimed at businesses that have already invested in equipment and which now need to release some of the capital tied up in those assets.

### **TAKE THE NEXT STEP**

Navigating your way through the different forms of lending banks and companies have to offer can be overbearing. Get in touch and we'll be able to help you find the perfect option to finance your business and let you take the next step.

### INSURANCE

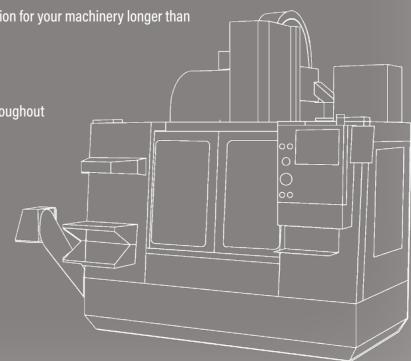
## **PROTECT** YOUR **BUSINESS WITH** MACHINERY COVER

Developed in conjunction with a leading insurer, the Haas Financial Services insurance policy is designed for manufacturers using industrial machinery.

It helps you plan for unforeseen mechanical breakdowns and production interruptions.

### **PROTECT YOUR MACHINERY**

- Offers full repair costs (parts & labour) in the event of mechanical or electrical breakdown to the original manufacturers specification.
- Cover is provided for sudden unforeseen damage including Operator Error.
- Flexible cover for up to 7 years, allowing protection for your machinery longer than conventional insurance policies.
- Fixed cost regardless of the incidence of claims, the premium is guaranteed never to increase throughout the lifetime of the policy.\*
- Covers new and used machinery both Haas and most other manufacturers.



Excluding insurance premium tax increases
 Full details and exceptions on application.

### Tor FINANCE call 01603 227838 or email finance@haas.co.uk

Tor INSURANCE call 01603 227838 or email insurance@haas.co.uk

# FUND: PROTECT

Haas Financial Services is a trading name of Asset Financial Services Ltd and Asset Financial Engineering Ltd.

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Haas Automation Ltd is an introducer Appointed Representative of Asset Financial Services Ltd.



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Asset Financial Engineering Ltd trading as Haas Financial Services Registered No. 12379851

### **TOOLROOM MILLS** TM SERIES CNC TOOLROOM VERTICALS

The TM Series Toolroom Mills are the true definition of value, providing full CNC capabilities, including available 4thand 5th-axis functionality, at affordable prices. They combine the precision control of the Haas CNC system with the convenience of a manual machine, and are easy to learn and operate even without knowledge of G-code.

The TM-P models include a 10-pocket automatic tool changer, a faster spindle, and higher rapids.





- 6,000 rpm Spindle • 40-Taper • 7.5 hp
- 10 Tool Carousel Changer



TM-2P TOOL CHANGER

• 1.016 x 406 x 406 mm

• 10 Tool Carousel Changer

• 6,000 rpm Spindle

• 40-Taper • 7.5 hp



TM-O • 508 x 305 x 406 mm • Table 975 x 267 mm • 4,000 rpm Spindle

• 40-Taper • 7.5 hp





### TM-1

- 762 x 406 x 406 mm
- Table 1,213 x 267 mm
- 4,000 rpm Spindle
- 40-Taper 7.5 hp



### TM-2

- 1,016 x 406 x 406 mm
- Table 1,466 x 267 mm
- 4,000 rpm Spindle
- 40-Taper 7.5 hp



### **5-AXIS TRUNNION VMCs** AFFORDABLE 5-AXIS FLEXIBILITY

The Haas Trunnion Series machines are versatile 5-axis machining centres that provide full simultaneous 5-axis motion for machining complex parts, or can position a workpiece to almost any angle for multi-side machining. The VF-TR models have a removable dual-axis trunnion mounted to the standard T-slot table, which provides the flexibility to run the machine with or without the trunnion table installed.



VF-2TR 5-AXIS

• Travels 762 x 406 x 508 mm

Dual-Axis Trunnion Table

• ± 120° Tilt, 360° Rotation

• Side-Mount Tool Changer

• 8,100 rpm • 40-Taper

• 30 hp



VF-5TR 5-AXIS 40/50 TAPER • Travels 1,270 x 660 x 635 mm • Dual-Axis Trunnion Table • ± 120° Tilt, 360° Rotation • 8,100 rpm 40-Taper • 30 hp • 7,500 rpm 50-Taper • 30 hp • Side-Mount Tool Changer

platter (350 mm option also available), and the VF-6TR features a TR-310 with a 310 mm platter. The VF-5TR and VF-6TR models are available in both 40-taper 8,100 rpm and 50-taper 7,500 rpm configurations. Super Speed spindle options are also available.







VF-GTR 5-AXIS 40/50 TAPER • Travels 1,626 x 813 x 762 mm Dual-Axis Trunnion Table

- ± 120° Tilt, 360° Rotation
- 8,100 rpm 40-Taper 30 hp
- 7,500 rpm 50-Taper 30 hp
- Side-Mount Tool Changer



### **UMC-SERIES UNIVERSAL MACHINING CENTRES** THE BEST SELLING 5-AXIS MACHINES

The Haas UMC-Series 5-axis machines are versatile, cost-effective solutions for 3+2 machining and full simultaneous IN 5-axis machining.

The machines are packed with innovative features such as Tool Centre Point Control (TCPC) and Dynamic Work Offsets (DWO) to improve workflow and boost your productivity.

The Super Speed models increase performance further with a faster spindle, a high-speed tool changer, and a faster trunnion table.



### UMC-500

- Travels 610 x 406 x 406 mm • Dual-Axis Trunnion • 50°/Sec Tilt
- 400 mm Platter 40-Taper
- 8,100 rpm Spindle (10K & 15K opt)
- 30+1 SMTC (50+1 opt.)



UMC-1000 • Travels 1,016 x 635 x 635 mm • Dual-Axis Trunnion • 50°/Sec Tilt • 8,100 rpm Spindle (10K & 15K opt)

• 635 mm Platter • 40-Taper • 50+1 Side-Mount Tool Changer





UMC-500SS SUPER SPEED

• Travels 610 x 406 x 406 mm

• 400 mm Platter • 40-Taper

• 30+1 SMTC (50+1 opt.)

• Dual-Axis Trunnion • 179°/Sec Tilt

• 12,000 rpm (15K & 15K HSK opt.)

### UMC-1000SS SUPER SPEED

• Travels 1,016 x 635 x 635 mm • Dual-Axis Trunnion 170°/Sec Tilt • 12,000 rpm (15K & 15K HSK opt.) • 635 mm Platter • 40-Taper • 50+1 Side-Mount Tool Changer



#### UMC-750 • 762 x 508 x 508 mm

- Dual-Axis Trunnion 50°/Sec Tilt • 8,100 rpm Spindle (10K & 15K opt) • 500 mm Platter • 40-Taper
- 30+1 SMTC (50+1 opt)



UMC-750SS SUPER SPEED • 762 x 508 x 508 mm

- Dual-Axis Trunnion 170°/Sec Tilt
- 12,000 rpm Spindle (15K opt)
- 500 mm Platter 40-Taper
- 30+1 SMTC (50+1 opt)



### 8+1 or 16+1 PALLET POOLS

Add a pallet-pool to your UMC-Series machine to take your production to the next level. With 8 or 16 additional pallets, you can be sure your machine will be running "lights out".



### UMC-1500-DUO • Travels 1.524 x 508 x 508 mm

• Dual-Axis Trunnion • 50°/Sec Tilt • 813 mm x 457 mm T-slot table • 8,100 rpm Spindle (10K & 15K opt) • 500 mm Platter • 40-Taper • 30+1 SMTC (50+1 opt)

### UMC-1500SS-DUO SUPER SPEED

• Travels 1.524 x 508 x 508 mm • Dual-Axis Trunnion • 170°/Sec Tilt • 813 mm x 457 mm T-slot table • 12.000 rpm Spindle (15K opt) • 500 mm Platter • 40-Taper • 30+1 SMTC (50+1 opt)



The Haas UMC-1500-DUO is like having two machines in one: a powerful 5-axis universal machining centre, and a versatile 3-axis vertical machining centre. We've taken our industry-leading UMC-750 universal machining centre, expanded its X-axis travel, and added a stationary 813 mm x 457 mm T-slot table next to the dual-axis trunnion.

Use the stationary table to set up workholding for first operations - like cutting dovetails on your 5-axis material - or to machine the 6th side of your completed 5-axis parts. Also, because the stationary table and trunnion platter (at B0) are at the same height, you can fixture parts across both, and use the machine's full X-axis travel to machine long parts. Super Speed UMC-1500SS-DUO version is also available.









# TRUNNION & TILTING TABLES 2-AXIS TRUNNION & TILTING ROTARY TABLES

If you need a 5-axis solution for your 3-axis mill, look to the Haas trunnion and tilting rotary tables for a simple bolt-on solution for machining complex parts. The Haas dual-axis trunnion tables bolt directly to the mill's table to provide 5-axis simultaneous motion, or position parts to nearly any angle for multi-sided machining.



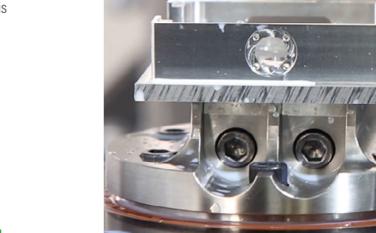


HIGH SPEED TRTTO TLTING 5-AXIS - 70 mm Platter - Tilt ±120° Rotation 360° - 410°/Sec (Tilt) - 410°/Sec (Rotary) - Resolution 0.001°



TRTIOO 100 mm Platter • Tilt ±120° Rotation 360° • 1,000°/Sec (Tilt) • 1,000°/Sec (Rotary)

• Resolution 0.001°



MAKING 5-AXIS EASIER Dynamic work offsets + tool centre point control

Dynamic Work Offsets (DWO) and Tool Centre Point Control (TCPC) are software features in the Next Generation Control that greatly simplify multi-axis machining when using 4- and 5-axis rotary tables. DWO/TCPC eliminates the need to locate the workholding in precisely the same place, or repost the part program every time a job is set up. With DWO/TCPC the Haas control recognises the part position and creates the correct toolpath, regardless of the workholding position, greatly reducing set-up time or reposting time.





TRT160 TILTING 5-AXIS • 160 mm Platter

- Tilt ±120° Rotation 360°
- 104°/Sec (Tilt)
- 104°/Sec (Rotary)
- Resolution 0.001°



TRT210 TILTING 5-AXIS - 210 mm Platter - Tilt ±120° Rotation 360° - 80°/Sec (Tilt) - 100°/Sec (Rotary) - Resolution 0.001°



TRT310 TILTINE 5-AXIS - 310 mm Platter - Tilt ±120° Rotation 360° - 50°/Sec (Tilt) - 75°/Sec (Rotary) - Resolution 0.001°



 TR160
 TRUNNION
 5-AXIS

 - 160 mm Platter (250 mm opt.)

 - Tilt ±120° Rotation 360°

 - 80°/Sec (Tilt)

TR160-2 with twin platter available



TR200YTRUNNION5-AXIS200 mm PlatterTilt ±120° Rotation 360°100°/Sec (Tilt)130°/Sec (Rotary)Resolution 0.001°



TR210 TRUNNION 5-AXIS - 210 mm Platter (350 mm opt.) - Tilt ±120° Rotation 360° - 60°/Sec (Tilt) - 60°/Sec (Rotary) - Resolution 0.001°



 TR310
 TRUNNION
 5-AXIS

 - 310 mm Platter
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• 500 mm Platter

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• 179°/Sec (Rotary)
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ROTARY TABLES

### WITH DWO/TCPC THERE'S NO NEED TO:

X Place the part in the exact same location every time
X Repost the program when the fixture changes
X Repost the program if the job moves to another Haas machine

### DWO/TCPC CHANGES EVERYTHING:

- ✓ Save time on programming and setup
- ✓ Reduce fixturing costs
- $\checkmark$  Increase your number of multi-axis operators
- $\checkmark$  Increase your productivity and profits

### **ROTARY TABLES 5C COLLET INDEXERS**

The Haas HA5C series is the ideal choice for holding smaller parts. Clamp your parts using standard 5C collets, or chuck them by threading a 3-jaw chuck to the spindle nose. Collets can be closed with your choice of a manual handle or an optional air collet closer. The HA5C series is easy to program, interface, and set up. With over three decades of refinement, the Haas HA5C is the industry benchmark for quality, accuracy, and dependability.

### PLATTER-STYLE ROTARY TABLES

For holding medium to large parts or fixtures, the HRT series of T-slotted rotary tables is the answer. Available with platter sizes from 100 mm to 1,000 mm, these rugged, heavy-duty tables can be mounted vertically or horizontally for added versatility. Chucks and fixtures can easily be bolted to the table using the six precision T-slots, and large through-holes allow for bar feeding and special fixture-locating requirements.





HASC 4-AXIS • Torque 81 Nm • 410°/sec

**ROTARY TABL** 

• Resolution 0.001°



- T5C TILTING 5-AXIS • Tilt ±120° Rotation 360° • 410°/sec (Rotary)
- 60°/sec (Tilt)
- Resolution 0.001°



HA2TS 4-AXIS TWIN TAILSTOCK

- Dual Spindle • Twin Pneumatic Tailstocks
- Precision T-Slot Baseplate



HA5C2 4-AXIS • Torque 34 Nm • 200°/sec Resolution 0.001°

T5C2 TILTING 5-AXIS

• 200°/sec (Rotary)

• Resolution 0.001°

• 60°/sec (Tilt)

• Torque 27 Nm

Resolution 0.001°

• 725°/sec

• Tilt ±120° Rotation 360°

HA5CS 4-AXIS SUPER HIGH SPEED



HA5C3 4-AXIS • Torque 34 Nm • 200°/sec Resolution 0.001°



T5C3 TILTING 5-AXIS • Tilt ±120° Rotation 360° • 200°/sec (Rotary) 60°/sec (Tilt)



4-AXIS A1 SPINDLE NOSE • A1-5 Spindle Nose

• 130°/sec • Repeatability 10 arc-sec



HA5C4 4-AXIS • Torque 34 Nm • 200°/sec • Resolution 0.001°



T5C4 TILTING 5-AXIS • Tilt ±120° Rotation 360° • 200°/sec (Rotary) • 60°/sec (Tilt) • Resolution 0.001°



HRTAG 4-AXIS A1 SPINDLE NOSE • A1-6 Spindle Nose

• 100°/sec



HRT100 4-AXIS





HRT160 4-AXIS • 160 mm Platter • 130°/sec • Compact SP version available



HRT210 4-AXIS • 210 mm Platter • 100°/sec

• Resolution 0.001°



HRT310 4-AXIS • 310 mm Platter • 75°/sec • Compact SP version available



HRT210SS 4-AXIS HIGH SPEED • 210 mm Platter • 830°/sec • Resolution 0.001°



HRT450 4-AXIS • 450 mm Platter • 50°/sec Resolution 0.001°

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• Resolution 0.001°





#### HRT160SS 4-AXIS HIGH SPEED

- 160 mm Platter
- 500°/sec
- Resolution 0.001°



### HRT210SP 4-AXIS COMPACT

- 210 mm Platter
- 100°/sec
- Resolution 0.001°



### HRT630 4-AXIS

- 630 mm Platter
- 50°/sec
- Max Torque 1,390 Nm



### HRT1602 4-AXIS

- 160 mm Platters
- 80°/sec
- Resolution 0.001°

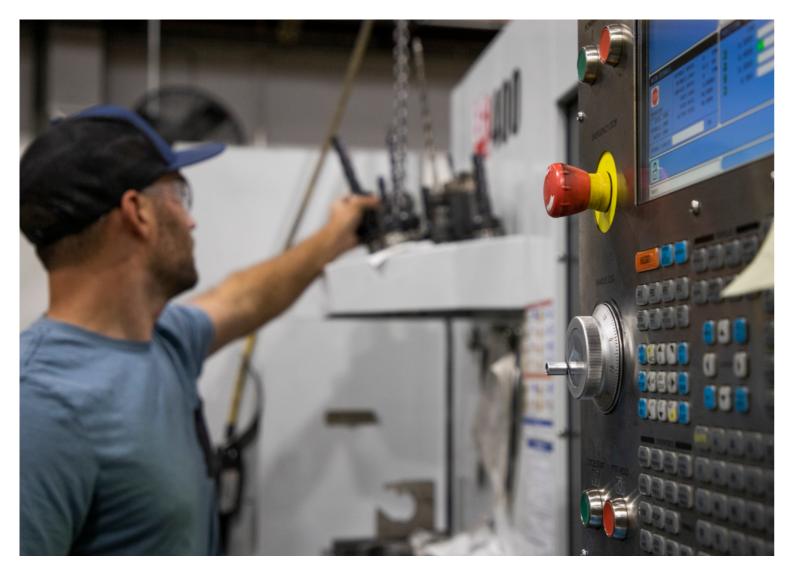


#### TH240 4-AXIS THROUGH HOLE

• 240 mm Platter • 100°/sec • 50.8 mm Through-hole



HRT1000 4-AXIS • 1,000 mm Platter • 35°/sec HRT800 also available



# **HAAS NEXT GENERATION CONTROL**

DESIGNED, BUILT & PROGRAMMED BY HAAS

The Haas control - hardware and software - is designed and built in-house and optimised specifically for Haas machine tools. It's easy to learn and use, and it is the same across the entire product line. Haas machines are also used extensively in educational institutions worldwide, so graduating students are already familiar with the Haas control, which makes finding new operators and programmers easier, and simplifies training.

### STANDARD FEATURES

- ✓ Ethernet Interface
- ✓ One-Button Features
- ✓ M130 Media Player
- ✓ 1 GB Memory

- ✓ Advanced Tool Management
- ✓ HaasConnect Mobile Monitoring
- ✓ Power-Failure Detection
- ✓ Multi-Function Jog Handle



### **UNLOCK ALL YOUR HAAS MACHINE'S POTENTIAL** VISUAL PROGRAMMING SYSTEM

The Haas Visual Programming System lets you quickly create G-code programs for basic part features using graphical templates and a form-like interface. Simply define the feature in the template, and VPS then outputs working G-code at the touch of a button. VPS also includes a custom template generator, so you can create templates for your own part features or frequently used programs.



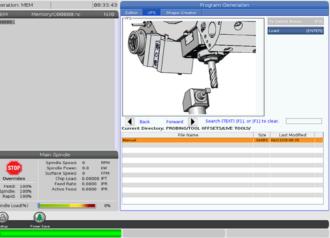
# M130 MEDIA DISPLAY

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

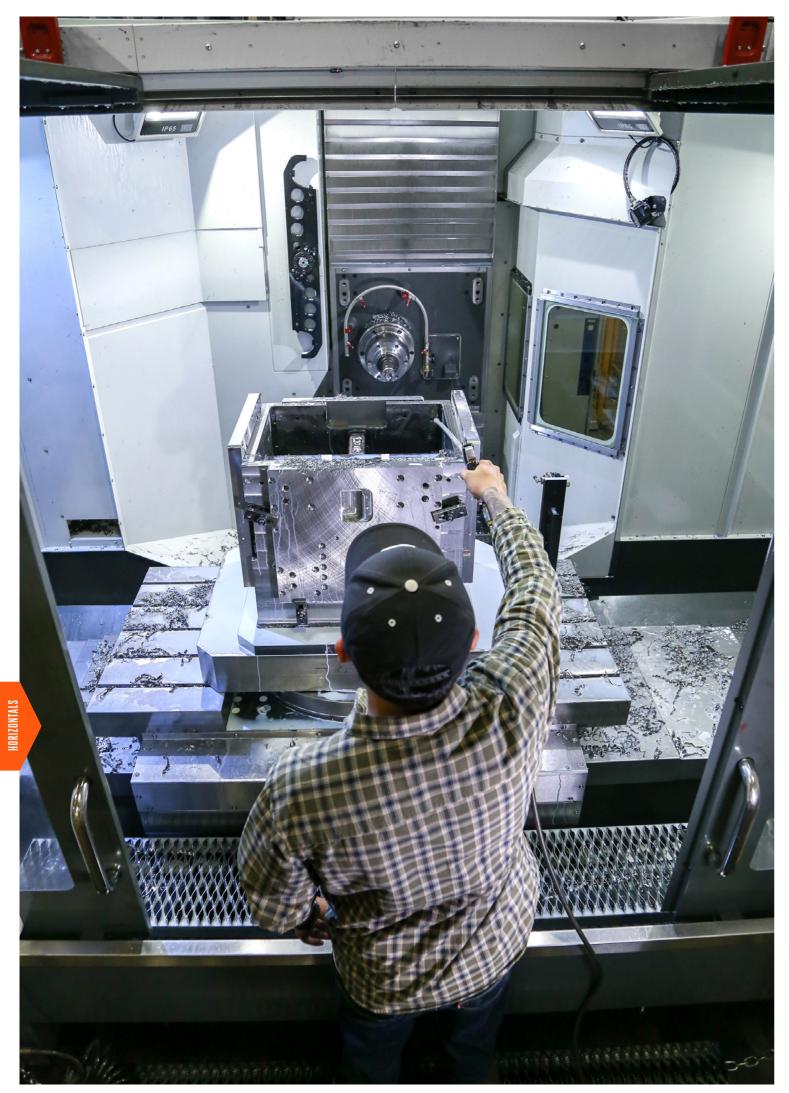
The Haas M130 Media Display M-Code is a powerful tool for communicating with operators and programmers directly from the Haas control as a program runs. Use M130 to call up setup instructions, tool lists, CAD images, manufacturing information, and more. When the program reaches an M130, the specified media (image, video, or PDF) will be displayed in the upper right corner of the control screen.

### **ON-SCREEN COMMUNICATION**

- ✓ Easily explain secondary operations on the control
- ✓ Avoid miscommunications with your colleagues
- ✓ Describe step-by-step part inspection processes
- ✓ Share important setup information with colleagues







### **HORIZONTAL MACHINING CENTRES** GET THE HORIZONTAL ADVANTAGE

The EC-1600 Series HMCs are rugged 50-taper horizontal machining centres with large work cubes and a maximum part capacity of 4,500 kg. The machines are available with a full 4-axis rotary platter integrated into the T-slot table to provide access to four sides of a part or tombstone, a 5-axis model is also available. The UMC-1600-H features a 630 mm rotary table mounted on its integrated 4th-axis platter to provide 3+2 positioning and full 5-axis motion for machining large parts.

For extended production and true "lights out" capability, a 6-station pallet pool and high-capacity tool changer are available.







EC-500 4-AXIS • 813 x 635 x 711 mm • 8,100 rpm (10K, 12K, 15K opt.) • 40-Taper • 30 hp (50-Taper opt.) • 50+1 SMTC (100+1 opt.) • Dual pallet changer

EC-1600 • 1,626 x 1,270 x 813 mm • 7,500 rpm (10K opt.) • 50-Taper • 30 hp • 50+1 SMTC



### EC-1600ZT

- 1,626 x 1,270 x 1,016 mm
- 7,500 rpm (10K opt.)
- 50-Taper 30 hp
- 50+1 SMTC



### UMC-1600-H 5-AXIS

- 1,626 x 1,270 x 1,016 mm
- 7,500 rpm (10K opt.)
- 630 mm rotary platter
- 257 mm through bore
- 50+1 SMTC





### **HAAS ST-SERIES LATHES** HIGH-PERFORMANCE TURNING CENTRES

Built using heavily ribbed, American-made iron castings for superior vibration damping, these rugged machines use Haas' exclusive torque-tube base design - with more than double the mass of competitors' models - for superior rigidity. The result is high accuracy, consistent repeatability and superb surface finishes, while maintaining dependability and value-based pricing.

The Haas ST-Series turning centres offer the best combination of performance and value in their class and are available with a wide selection of high-productivity options.



ST-10 • Max Cut Ø 305 x L 406 mm • Bar Capacity 44 mm • A2-5 • 6,000 rpm • 15 hp • Chuck 165 mm



ST-10L LONG BED • Max Cut Ø 305 x L 826 mm • Bar Capacity 44 mm • A2-5 • 6,000 rpm • 15 hp • Chuck 165 mm



ST-20



ST-20L LONG BED • Max Cut Ø 330 x 1,080 mm • Max Cut Ø 330 x L 572 mm • Bar Capacity 64 mm • Bar Capacity 64 mm • A2-6 • 4,000 rpm • 20 hp • A2-6 • 4,000 rpm • 20 hp • Chuck 210 mm • Chuck 210 mm



ST-28 • Max Cut Ø 330 x L 572 mm • Bar Capacity 102 mm • A2-8 • 3,200 rpm • 40 hp • Chuck 305 mm





• A2-8 • 3,200 rpm • 40 hp





ST-35 BIG BORE

• Chuck 305 mm





ST-35L BIG BORE LONG BED • Max Cut Ø 381 x L 1,588 mm Bar Capacity 102 mm • A2-8 • 3,200 rpm • 40 hp • Chuck 305 mm



### ST-15 BIG BORE

- Max Cut Ø 305 x L 406 mm
- Bar Capacity 64 mm
- A2-6 4,000 rpm 20 hp
- Chuck 210 mm



### ST-15L BIG BORE LONG BED

- Max Cut Ø 305 x L 826 mm
- Bar Capacity 64 mm
- A2-6 4,000 rpm 20 hp
- Chuck 210 mm



### ST-25 BIG BORE

- Max Cut Ø 330 x L 572 mm
- Bar Capacity 76 mm
- A2-6 3,400 rpm 30 hp
- Chuck 254 mm



#### ST-25L BIG BORE LONG BED

- Max Cut Ø 330 x L 1,080 mm
- Bar Capacity 76 mm
- A2-6 3,400 rpm 30 hp
- Chuck 254 mm



### ST-30

- Max Cut Ø 381 x L 826 mm
- Bar Capacity 76 mm
- A2-6 3,400 rpm 30 hp
- Chuck 254 mm



### ST-30L LONG BED

- Max Cut Ø 381 x L 1,588 mm
- Bar Capacity 76 mm
- A2-6 3,400 rpm 30 hp
- Chuck 254 mm



### ST-40

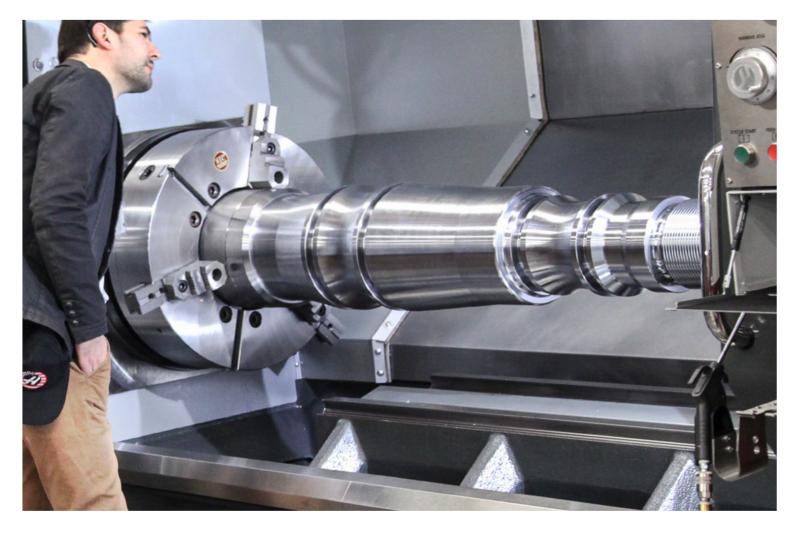
- Max Cut Ø 648 x L 1,118 mm
- Bar Capacity 102 mm
- A2-8 2,400 rpm 1,400 rpm
- 40 hp (55 hp opt.) Chuck 381 mm

### ST-40L LONG BED

- Max Cut Ø 648 x L 2,032 mm
- Bar Capacity 102 mm
- A2-8 2,400 rpm 1,400 rpm
- 40 hp (55 hp opt.) Chuck 381 mm

TURNING CENTRES





### **LARGE-THROUGH-BORE LATHES** HIGH-PERFORMANCE BIG-BORE TURNING CENTRES

The high-torque spindles and large through-bores of these machines make them ideal for machining heavy pipes and fittings, large couplers, and long rollers. Their versatile design allows easy loading and unloading of large parts. The large-capacity Haas lathes offer the best combination of performance and value in their class.



- ST-45 BIG BORE • Max Cut Ø 648 x L 1,118 mm • Spindle Bore 178 mm • A2-11 • 40 hp (55 hp opt.)
- 1,400 rpm



ST-45L BIG BORE LONG BED • Max Cut Ø 648 x L 2,032 mm • Spindle Bore 178 mm • A2-11 • 40 hp (55 hp opt.) • 1,400 rpm

### **HAAS CL-1 CHUCKER LATHE** ULTRA-COMPACT CNC TURNING CENTRE

The innovative CL-1 is an ultra-compact CNC chucker lathe that comes standard with an 8-station automatic turret, making it ideal for dedicated small-part production, second-op parts, or short runs. It's perfect for prototyping small parts, such as those found in the communications, aerospace, medical, and dental industries.

The CL-1 can be moved easily with a pallet jack and is small enough to fit into most freight lifts.

### **TOOLROOM LATHES** THE NEW GENERATION TL-SERIES

The TL-1 and TL-2 Toolroom Lathes have undergone a complete redesign, with new enclosures and better overall performance.

Both machines have an A2-5 spindle nose with a 58 mm bore and come with a 254 mm 3-jaw manual chuck.



The spindles are powered by a 10 hp vector drive system, and spin to 1,800 rpm, with a 3,000-rpm option. Rapids have increased to 11.4 m/min on both X and Z axes, and an optional manual tailstock is available for additional part support.





• 8-Station Automatic Tool Turret

### - TOOLROOM

- Max Cut 0 406 x L 762 mm
- Spindle Bore 58 mm
- 10 hp A2-5
- 1,800 rpm (3k opt.)

#### TL-2 TOOLROOM

- Max Cut Ø 406 x L 1,219 mm
- Spindle Bore 58 mm
- 10 hp A2-5
- 1,800 rpm (3k opt.)

TOOLROOM LATHES



### **BMT65 TURRET WITH LIVE-TOOLING**

The Haas 12-station BMT65 turret with live tooling lets you perform secondary operations - milling, drilling, slotting, and tapping - on the face of the part and around the perimeter. The BMT65 system provides superior cutting performance, longer tool life, and better tool clearance.

### **DOUBLE YOUR TOOL CAPACITY TO 24 TOOLS**

The BMT65 turret offers a half-station indexing option that increases your available tool stations to 24, with 12 stations able to accept driven tools.

**HAAS Y-AXIS TURNING CENTRES** MULTIPLE OPERATIONS ON A SINGLE MACHINE

The Haas Y-axis lathes provide the ability to turn and mill complex parts and perform multiple operations on a single machine - increasing throughput, reducing handling, and improving part accuracy. The lathes have  $\pm$  51 mm Y-axis and a full C-axis that provides interpolated bidirectional motion at precise speeds and feeds for part positioning and repeatability.



ST-10Y Y-AXIS • Max Cut Ø 305 x L 406 mm • Bar Capacity 44 mm • VDI • 165 mm Chuck • 6,000 rpm • 6,000 rpm Live Tooling w/C axis



ST-10LY LONG BED Y-AXIS • 6,000 rpm Live Tooling w/C axis



ST-25Y Y-AXIS • Max Cut Ø 298 x L 572 mm • Bar Capacity 64 mm • BMT65 • 254 mm Chuck • 3,400 rpm • 30 hp

• 6,000 rpm Live Tooling w/C axis

ST-30Y BIG BORE Y-AXIS

• Max Cut Ø 349 x L 826 mm

• A2-6 • 3,400 rpm • 30 hp

• Bar Capacity 76 mm • BMT65

• 6,000 rpm Live Tooling w/C axis



- ST-25LY BIG BORE LONG BED Y-AXIS • Max Cut 0 298 x L 1,080 mm • Bar Capacity 64 mm • BMT65 • 254 mm Chuck • 3,400 rpm • 30 hp • 6,000 rpm Live Tooling w/C axis

ST-30LY LONG BED Y-AXIS • Max Cut Ø 349 x L 1.588 mm • Bar Capacity 76 mm • BMT65 • A2-6 • 3,400 rpm • 30 hp • 6,000 rpm Live Tooling w/C axis



• Max Cut Ø 305 x L 826 mm • Bar Capacity 44 mm • VDI • 165 mm Chuck • 6,000 rpm



ST-20LY LONG BED Y-AXIS • ±51.0 mm Y-Axis • BMT65 • 6,000 rpm Live Tooling w/C axis



ST-15LY BIG BORE LONG BED Y-AXIS • Max Cut Ø 305 x L 826 mm • Bar Capacity 64 mm • VDI • 210 mm Chuck • 4,000 rpm • 6,000 rpm Live Tooling w/C axis





ST-20Y Y-AXIS • Max Cut Ø 298 x L 572 mm • Bar Capacity 64 mm • BMT65 • 210 mm Chuck • 4,000 rpm • 6,000 rpm Live Tooling w/C axis



• Max Cut Ø 298 x L 1.080 mm • 210 mm Chuck • 4,000 rpm

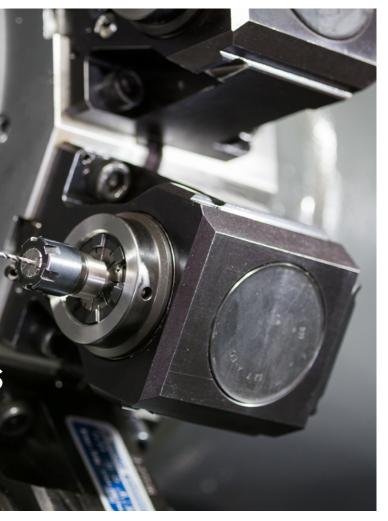
ST-15Y BIG BORE Y-AXIS

• Max Cut Ø 305 x L 406mm

• Bar Capacity 64 mm • VDI

• 210 mm Chuck • 4,000 rpm

• 6,000 rpm Live Tooling w/C axis





#### ST-28Y Y-AXIS

- Max Cut Ø 298 x L 572 mm
- Bar Capacity 102 mm BMT65
- 254 mm Chuck 3,200 rpm 40hp
- 6,000 rpm Live Tooling w/C axis



#### ST-28LY LONG BED Y-AXIS

- Max Cut Ø 298 x L 1,080 mm
- Bar Capacity 102 mm BMT65
- 254 mm Chuck 3,200 rpm 40hp
- 6,000 rpm Live Tooling w/C axis



### ST-35Y BIG BORE Y-AXIS

- Max Cut Ø 349 x L 826 mm
- Bar Capacity 102 mm BMT65
- 305 mm Chuck 3,200 rpm 40hp
- 46,000 rpm Live Tooling w/C axis



### ST-35LY BIG BORE LONG BED Y-AXIS

- Max Cut Ø 349 x L 1.588 mm
- Bar Capacity 102 mm BMT65
- 305 mm Chuck 3,200 rpm 40hp
- 6,000 rpm Live Tooling w/C axis

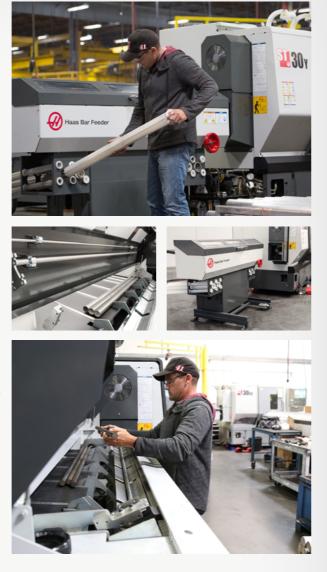
**Y-AXIS LATHES** 

### HAAS BAR FEEDER Automate part production

The Haas Bar Feeder is a simple and affordable way to automate part production on Haas ST and DS series turning centres to boost productivity. It is designed and built exclusively for use on Haas turning centres and connects directly to the Haas control.

Our rollaway design lets you swap out the patented Haas extruded spindle liners in minutes, and our quick-change pushrods snap in place without tools. Bar height adjustments are fast and easy using a single handwheel, and our belt-driven bar-shuttle system provides lightning-fast retract speeds to reduce cycle times.

- ✓ All-inclusive design, with plug-and-play capabilities
- ✓ Interfaces directly with the Haas control
- ✓ Includes patented Haas spindle liners







### AUTO PARTS LOADER TAKE YOUR PRODUCTION TO THE NEXT LEVEL

The Haas Automatic Parts Loader is a simple and affordable way to automate part production and boost productivity on Haas turning centres.

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

- ✓ All-inclusive design, with plug-and-play capabilities
- ✓ Haas ST-10 through ST-28 turning centres
- Interfaces directly with the Haas control
- ✓ Accommodates parts up to Ø 147 mm x L 27 mm and 4.5 kg
- ✓ Includes light curtain for safe operation

/ to

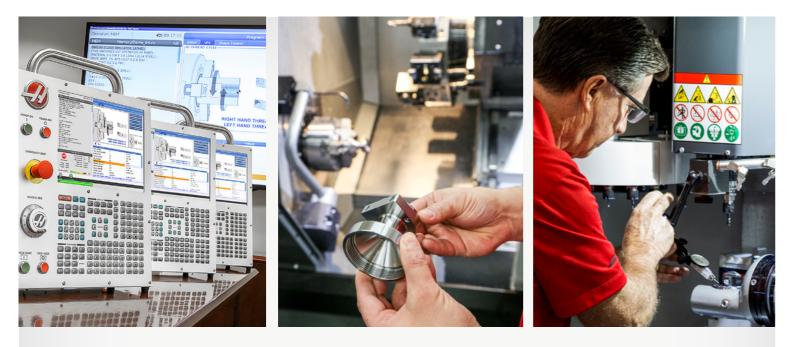
- SLUG LOADING -











# **HAAS ENGINEERING**

### AT HAAS, OUR GOAL IS TO KEEP MACHINISTS MACHINING

We offer a complete range of cost-effective support, including commissioning, training, technical support, service agreements, and applications advice.

We measure every aspect of our support systems so we can maintain our service to industry-leading standards. Whether it's installing new equipment, training your machining staff, solving a technical problem, or helping to maintain the health and performance of your investment, you can count on our experienced team.



Our dedicated engineering support team is on hand to give you answers to the widest range of technical queries, including applications, maintenance, programming and the latest products.

### **COMMON PARTS** MAXIMISING PARTS AVAILABILITY

Haas Automation's efficient design uses common parts across multiple machines and model ranges. For example, a control processor board can fit any current machine from a Mini Mill to multi-pallet horizontal, a coolant pump from a mill will fit a lathe and vice versa.

Every Haas machine, including the control, is entirely designed and built by us, this means we can ensure there are always parts available. In fact, we can supply spares for any Haas built since 1990. It's reassuring to know no matter how old your investment is we've got it covered.

### **SUPPORT & SUPPLY CHAIN** THE INDUSTRY'S LARGEST UK STOCK OF SPARES

Haas Automation's UK facilities stock service and maintenance parts worth in excess of £4,600,000 enabling the fastest access and delivery. If necessary, parts can be shipped same day from our European or USA inventories.

### **EXPERTISE WHERE IT'S NEEDED**

In addition, all our service engineers' training and expertise is formalised within a skills matrix, which works hand-in-hand with van location tracking and a live connection to the Haas Management System for our engineers in the field. This ensures the most appropriate individual can be quickly despatched to a customer.

### THE BEST FIRST CALL FIX RATE

Our engineers can access and update customer and machine history remotely and check out the appropriate bar-coded spares. Having the right spares where and when they're needed means more than 95% of issues are resolved on the first visit.

### IT'S NO WONDER HAAS MACHINES HAVE THE HIGHEST RESIDUAL VALUES IN THE INDUSTRY





### **HAAS AUTOMATION - MADE IN USA** THE WORLD'S BIGGEST CNC MACHINE TOOL MANUFACTURER

Haas Automation is the largest machine tool manufacturer in the western world, producing over 18,000 machines every year. The full range of metal-cutting machine tools, including CNC machining centres, lathes and rotary tables, is designed and built in its 1.6 million ft<sup>2</sup> factory in California.

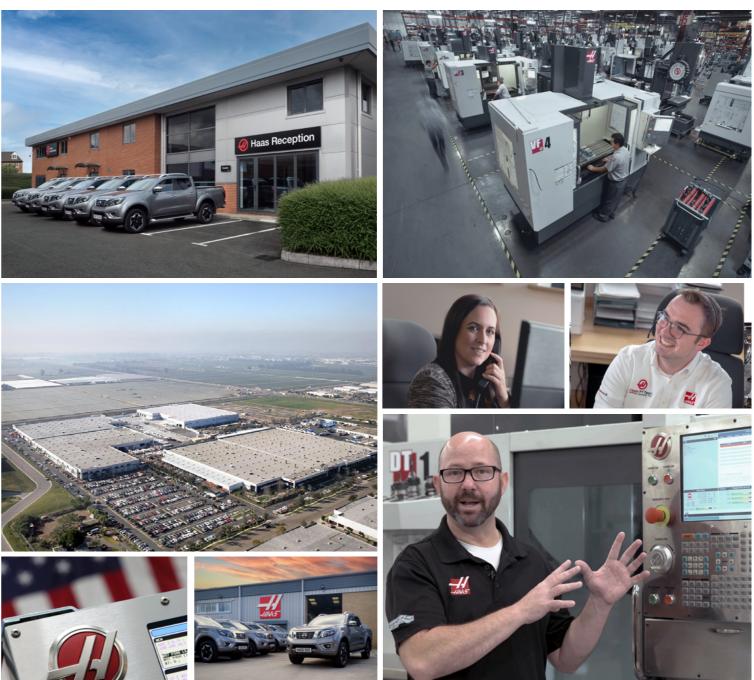
Haas machine tools and rotary products are built to exacting specifications to deliver better accuracy, repeatability, and durability than any other machine tools on the market.

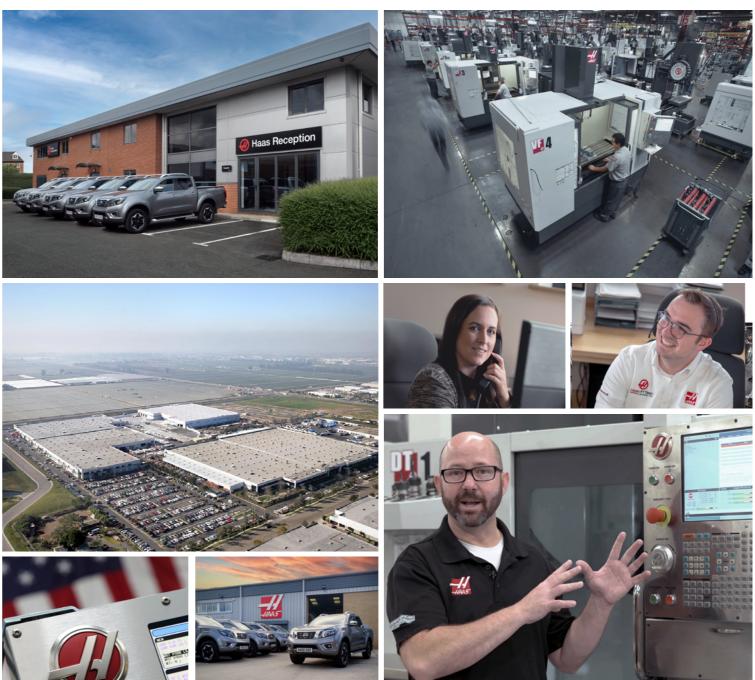
Haas makes extensive use of the latest lean manufacturing methods and just-in-time production practices to streamline its capabilities and reduce costs. This, combined with highly trained teams for electronics and mechanical assembly, allows Haas to control quality, cost, reliability, and availability.

The resulting savings and increased quality are passed on to the customer in the form of lower prices and better products.



See a selection of Haas CNC machines in action at one of our Haas Technical Centres. Call 01603 760539 to book your appointment.





### THE INDUSTRY'S BEST SERVICE AND SUPPORT HAAS ENGINEERING - WHAT MAKES US DIFFERENT?

- ✓ 32 full-time Haas engineers strategically placed across the UK
- ✓ Less than 1.5 hours travel time to 98% of our customers
- Each is USA-factory-certified and tested monthly
- Every engineer has a fully-stocked 4x4 service vehicle
- ✓ £38,000 of parts on board each 4x4 service vehicle
- ✓ £4,600,000 of parts in our UK warehouses
- ✓ Over 10,000 UK machine installations
- 🏆 Winners of multiple industry awards



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www.haas.co.uk









### TM-O TOOLROOM MILL

- Travels 508 x 305 x 406 mm
- Table 1,213 x 267 mm
- 4,000 rpm Spindle
- 40-Taper 7.5 hp

#### TM-OP TOOLROOM MILL

- Travels 508 x 305 x 406 mm
- Table 1,213 x 267 mm
- 6,000 rpm Spindle
- 40-Taper 7.5 hp
- 10 Tool Carousel Changer



The **TM-O** is the smallest and most affordable of the Haas TM Series Toolroom Mills. These compact mills are affordable, easy to use, and offer the precision control of the Haas CNC system. The machines use standard 40-taper tooling and are very easy to learn and operate – even without knowing G-code. They are the perfect option for companies transitioning to CNC, or for anyone looking for a large-travel machine on a budget.

The **TM-OP** includes a 10-pocket automatic tool changer, a faster spindle, and higher rapids. Achieve faster set-ups, tool monitoring and part inspection with the optional WIPS wireless probing. Boost production and increase flexibility by adding a 4-axis rotary table or 5-axis trunnion.

- Single or three-phase power
- Conversational programming system
- User-friendly Haas control
- Affordable full CNC capabilities
- HaasConnect remote monitoring
- Made in the USA







