



Haas
F1 Team
OFFICIAL MACHINE TOOL

AUTOMATION GUIDE



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ROBOTS & COBOTS**

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PARTS LOADERS**

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Adding Robot Automation –

THE OLD WAY

- 1 BUY A MACHINE**
- 2 HIRE AN INTEGRATOR**
- 3 GO SOMEWHERE ELSE AND BUY A ROBOT**
- 4 LEARN THE MACHINE CONTROL**
- 5 LEARN THE ROBOT CONTROL**
- 6 LEARN THE CELL CONTROL**
- 7 AND IF THERE'S A PROBLEM, WHO DO YOU CALL?**

Adding Robot Automation –

THE HAAS WAY

**ROBOT PACKAGE =
PLUG & PLAY +
AFFORDABLE +
SINGLE CONTROL +
USER FRIENDLY +
HAAS SUPPORT**





VF 4SS



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INTEGRATED ROBOT & COBOT SYSTEMS

Plug & Play integration
No complex connections

Haas Robots and Cobots are affordable, user-friendly automation solutions that integrate directly with the Haas control, requiring no third-party systems. They work seamlessly with Haas turning centres, vertical machining centres, and universal machining centres (UMCs) to streamline part handling and boost productivity.

By automating repetitive tasks, Haas Robots and Cobots free up existing staff to focus on higher-value work. Their versatile design accommodates a wide range of part sizes and shapes, reducing manual labour and downtime, making them a cost-effective solution for improving efficiency and embracing automation.



HRP1 6-AXIS ROBOT

- 7 kg capacity • 911 mm reach
- Plug-and-play capabilities to:
- VF-1 through VF-2/YT/SSYT
- UMC-400 through UMC-1000/SS
- DT-1/2 & DM-1/2 • MM & SMM
- ST-10 through ST-28 lathes (inc. Y-axis and longbed)



HRP2 6-AXIS ROBOT

- 25 kg capacity • 1,831 mm reach
- Plug-and-play capabilities to:
- VF-2YT through VF-5/50XT
- UMC-400 through UMC-1000/SS
- DT-1/2 & DM-1/2 • MM & SMM
- ST-20 through ST-35 lathes (inc. Y-axis and longbed)



HRP3 6-AXIS ROBOT

- 50 kg capacity • 2,050 mm reach
- Plug-and-play capabilities to:
- VF-5/40 through VF-12/50
- UMC-400 through UMC-1000/SS
- DT-1/2 & DM-1/2
- ST-20 through ST-35 lathes (inc. Y-axis and longbed)



HC5 6-AXIS COBOT

- 5 kg capacity • 800 mm reach
- Plug-and-play capabilities to:
- VF-1 through VF-2/YT/SSYT
- UMC-400 through UMC-750/SS
- DT-1/2 & DM-1/2 • MM & SMM
- ST-10 through ST-28 lathes (inc. Y-axis and longbed)



HC10 6-AXIS COBOT

- 10 kg capacity • 1,000 mm reach
- Plug-and-play capabilities to:
- VF-1 through VF-2/YT/SSYT
- UMC-400 through UMC-750/SS
- DT-1/2 & DM-1/2 • MM & SMM
- ST-10 through ST-28 lathes (inc. Y-axis and longbed)



HC15 6-AXIS COBOT

- 15 kg capacity • 1,300 mm reach
- Plug-and-play capabilities to:
- VF-1 through VF-5
- UMC-400 through UMC-1000/SS
- DT-1/2 & DM-1/2 • MM & SMM
- ST-10 through ST-28 lathes (inc. Y-axis and longbed)

PALLET POOL SYSTEMS

High-volume production
Unattended operation

The Haas Pallet Pool System is the simplest automation platform, expanding your mill table setup across multiple pallets.

Allocate pallets to various jobs and prioritise each using the onboard, user-friendly Haas scheduler. This system enables flexible job management, allowing you to skip, pause, or fit in rush jobs, and features a dedicated load/unload station maximising spindle uptime and overall productivity.

Ideal for larger and heavier parts, the pallet pool simplifies clamping and unclamping, handling parts too large for typical loaders like APLs or robots. This ensures efficient automation for a broader range of parts, leveraging the full 24 hours each day.



3 & 6-STATION PALLET POOL

VF-2YT/VF-2SSYT & VM-2

- 3+1 pallet and 6+1 pallet versions
- Pallet size: 914 x 457 mm
- 340 kg max payload per pallet

5-STATION PALLET POOL

VF-4 & VF-4SS

- 5+1 pallets
- Pallet size: 1,321 x 517 mm
- 453.6 kg max payload per pallet

6-STATION PALLET POOL

EC-400

- 6+1 pallets
- Pallet size: 400 x 400 mm
- 227 kg max payload per pallet





6-STATION PALLET POOL
UMC-1250/SS

- 6+1 pallets
- Includes 360 litre coolant tank
- 227 kg max payload per pallet
- 762 x 610 mm work envelope

20-STATION PALLET POOL
UMC-500/SS

- 20+1 pallets
- Includes 360 litre coolant tank
- 91 kg max payload per pallet
- 203 x 419 mm tall work envelope

10-STATION PALLET POOL
UMC-500/SS/750/SS/1000/SS

- 10+1 pallets
- Includes 360 litre coolant tank
- 91 kg max payload per pallet
- UMC-500: 406 x 406 mm work envelope
- UMC-750/UMC-1000: 406 x 533 mm work envelope



MILL AUTOMATION



MILL PALLET POOLS



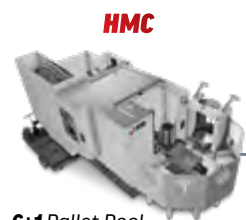
VMC



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



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



6+1 Pallet Pool
EC-400

UMC



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

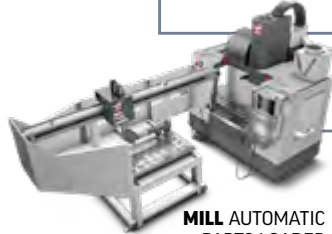


20+1 Pallet Pool
UMC-500
UMC-500SS



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

MILL AUTOMATIC PARTS LOADERS



MILL AUTOMATIC PARTS LOADER

VF-1 VM-2
VF-2 VF-2YT
VF-2SS VF-2SSYT



UMC AUTOMATIC PARTS LOADER

UMC-400
UMC-400SS
UMC-500
UMC-500SS



COMPACT AUTOMATIC PARTS LOADER

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

MILL ROBOTS



COBOT 5kg
MM SMM
DT/DM Models
VF-1 to VF-2
UMC-400 to 750



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



COBOT 15kg
MM SMM
DT/DM Models
VF-1 to VF-5
UMC-400 to 1000

7kg CAPACITY ROBOT SYSTEM

MM SMM
DT/DM Models
VF-1 to VF-2
UMC-400 to 750



25kg CAPACITY ROBOT SYSTEM

VF-1 to VF-5
UMC-400 to UMC-1000SS



50kg CAPACITY ROBOT SYSTEM

VF-6 to VF-11
UMC-400 to UMC-1000SS



ROBOT PALLET LOADER

All UMCs
VF-1 to VF-5
VM-2, VM-3

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

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

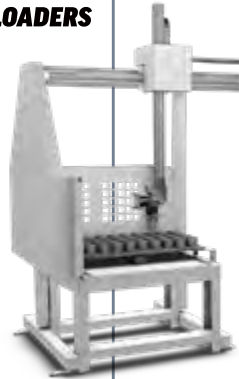
LATHE AUTOMATION

LATHE AUTOMATIC PARTS LOADERS

HAAS BAR FEEDER



HAAS **BAR FEEDER**
ST-10 to ST-35



LATHE AUTOMATIC
PARTS LOADER

ST10Y ST-20 ST-25 ST-28
ST-15Y ST-20Y ST-25Y ST-28Y

LATHE ROBOTS



COBOT **5kg**
ST-10 to ST-28



COBOT **10kg**
ST-10 to ST-28



COBOT **15kg**
ST-10 to ST-28



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, maximise 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 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
CAN PICK-UP/DROP-OFF AT DIFFERENT LOCATIONS
INCORPORATE PART FLIPPING STATION
SET UP AND PROGRAM THROUGH HAAS CONTROL

ROBOT PALLET LOADER

Scaleable and affordable

The Haas Robot Pallet Loader System offers total flexibility and easy customisation for Haas UMCs and small to medium VMCs. Its all-inclusive, plug-and-play design lets you start simple and expand as needed, customising the pallet rack layout to fit your projects. You can adjust the system effortlessly to match your changing requirements, ensuring optimal performance for every job. Its seamless integration with Haas machines ensures smooth operation and minimal setup time, making it an excellent investment for shops of all sizes.

The RPL's advanced features make it easy to automate repetitive tasks, maximising machine uptime and freeing up existing staff to focus on higher-value tasks. With its user-friendly design and customisable capabilities, the Haas RPL is the perfect tool to future-proof your business and stay competitive in an ever-evolving industry.



ROBOT PALLET LOADER

- Plug-and-play capabilities to Haas UMCs and VMCs
- Set up and operation uses Haas control and remote jog handle
- Includes interface for optional area scanners and safety systems
- Includes load station, pallet rack, and 3 zero point pallets
- Additional pallets available, expandable to 15 pallets
- For UMC-500 to UMC-1000 and VF1 to VF-5

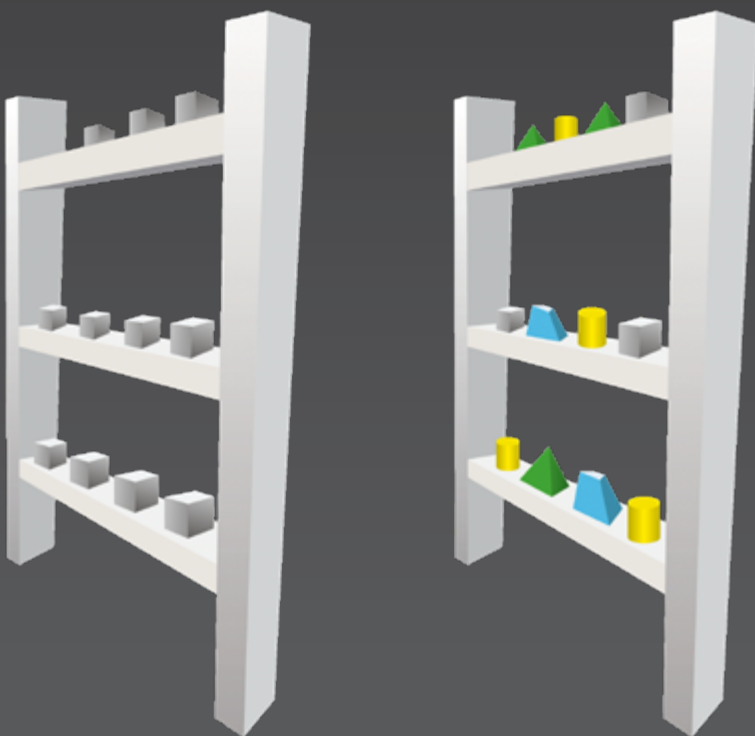


TOTAL FLEXIBILITY

High volume or high mix

The Haas Robot Pallet Loader System offers total flexibility and easy customisation for Haas UMCs and small to medium VMCs. Its all-inclusive, plug-and-play design lets you start simple and expand as needed, customising the pallet rack layout to fit your projects. You can adjust the system effortlessly to match your changing requirements, ensuring optimal performance for every job.

HIGH VOLUME **OR** **HIGH MIX**

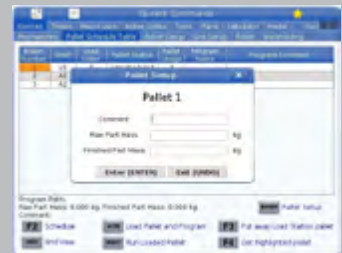


Specifications are subject to change without notice.



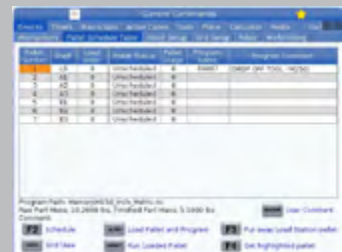
EASY CUSTOMISATION

Customise the layout of the pallet station grid to optimise your project. If your needs change, so can the pallet station.



ASSIGN PART MASS

The only set up needed from part to part is entering the raw/finished part mass per pallet.



PALLET SCHEDULER

The Pallet Schedule Table allows you to prioritise pallet frequency and priority for loading and unloading the pallets.



TOUCHSCREEN GRID VIEW

The grid view is fully touch capable, making it easier to select a pallet that corresponds to what the user sees on the shelf.

AUTOMATIC PARTS LOADER SYSTEMS

Lights-out automation. Uninterrupted production

The Haas Automatic Parts Loader (APL) is an affordable, easy-to-use automation solution for Haas CNC machines. It integrates seamlessly with turning centres, VMCs and UMCs, with a compact version for Mini Mills, simplifying part loading and unloading to boost productivity.

With its programmable arm and versatile design, the APL handles a wide range of part sizes and shapes. It reduces manual labour and downtime, making it a cost-effective option for manufacturers aiming to improve production efficiency.



HAAS APL FOR MILLS

- Plug-&-play capabilities VF-1, VF-2 series, DT & DM
- Interfaces directly with the Haas control
- Parts up to 146 x 146 x 102mm
- Max weight 4.5 kg

COMPACT APL MINI MILL

- Parts up to 51 x 51 x 51 mm
- Max weight 1.4 kg

HAAS APL FOR UMC-500/SS

- Plug-&-play capabilities to UMC-500 and UMC-500SS
- Interfaces directly with the Haas control
- Parts up to 152 x 152 x 102 mm
- Max weight 4.5 kg

HAAS APL FOR LATHES

- Plug-&-play capabilities ST-10Y, 15Y, 20/Y, 25/Y, 28/Y lathes
- Interfaces directly with the Haas control
- Slug parts up to 147 x 127 mm (dia x height)
- ST-10 to ST-15: Bar parts up to 102 x 406 mm (dia x length)
- ST-20 to ST-28: Bar parts up to 102 x 533 mm (dia x length)

N.B. Includes CE/UKCA compliant safety guard fencing

AUTOMATIC BAR FEEDER

Purpose built for Haas lathes

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



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THE HAAS CONTROL

CNC machining is complex. Your control shouldn't be.

Simple Navigation

Navigation around the control 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.



My Haas

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



Haas Drop

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 Next-Generation Control on a Haas CNC machine. Simply download the free 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 Next Generation Control has the ability to send you, and others you designate, email notifications about the operating status of your Haas machine. Set up is simple and easy through the MyHaas Portal at HaasCNC.com. HaasConnect is free with every new Haas machine.

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.



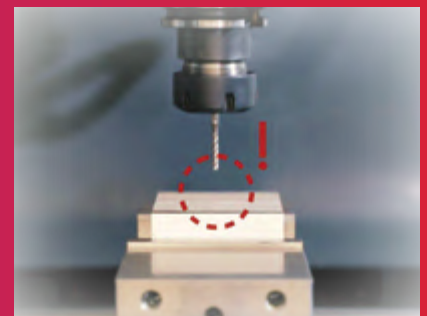
Programming

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



Safe Run

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



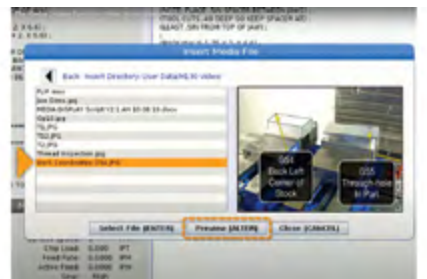
On-Board Memory

The NGC has 1 GB of standard program memory. 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.





INDUSTRY'S BEST SERVICE & 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 machine installations in the UK
- ✓ Winners of multiple industry awards



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