



Haas  
F1 Team  
OFFICIAL MACHINE TOOL

001616

The Perfect Solution  
**Large-Part  
Machining**



# YOUR NEXT WORK HORSE

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 solutions for your large-part machining requirements. Models are available with an integrated 4th-axis rotary platter.

## SEAMLESS INTEGRATION 4th-axis Rotary Platter

This full 4th-axis platter integrated into the table provides fully interpolated motion for contouring and positioning of large parts. Platter diameter is 30", with a 10,000 lb weight capacity. This option is not field-installable.

**Ø78"**  
(1981 mm)  
**PART SWING**



The **EC-1600** is better than ever, with a faster spindle and tool changer, more rigid castings, and extensive operator-convenience features.

Travels: 64" x 50" x 32" (1626 x 1270 x 813 mm)

50" (1270 mm) max part swing with integrated 4th Axis (optional)

Available with a 4th-axis rotary platter integrated into the T-slot table to provide access to four sides of a part or tombstone, or simultaneous 4th-axis machining.



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)

78" (1981 mm) max part swing with integrated 4th Axis (optional)

Available with a 4th-axis rotary platter integrated into the T-slot table to provide access to four sides of a part or tombstone, or simultaneous 4th-axis machining.



The **EC-1600ZT-5AX** includes the integrated 4th-axis platter, and adds a 5th-axis rotary and A-frame support for full 5-axis machining of large parts.

Extended Z-axis travel: 64" x 50" x 40" (1626 x 1270 x 1016 mm)

78" (1981 mm) max part swing

5th-Axis Drive and Wiring, Built-In 4th-Axis Rotary Platter

HRT310 Rotary Table and A-Frame Support

Includes DWO/TCPC and Wireless Intuitive Probing System

### Integrated 4th Axis (B Axis)

Table	64" x 32" (1626 x 813 mm)
Platter Diameter	30.0" (762 mm)
Max Part Swing	50" (1270 mm) (Std) 78" (1981 mm) (ZT)

Max Weight on Platter	10,000 lb (4536.0 kg)
Max Rating	5.0 hp (3.7 kW)
Rotational Torque (continuous)	2000 ft-lbf 2712 Nm

Backlash	30 arc-sec
Gear Ratio	500:1
Brake Torque	4000 ft-lbf 5423 Nm

Min Resolution	0.001°
Indexing Accuracy	± 30 arc-sec
Repeatability	15 arc-sec

### EC-1600 Series Standard Features:

- 7500-rpm Spindle
- Extra-Large Work Envelope
- Chip Auger
- Enclosure Exhaust System
- HaasConnect: Remote monitoring
- M130 Media Display M-Code
- Power-Failure Detection Module
- Ethernet and WiFi Connectivity

- Remote Jog Handle with Touchscreen Display
- 1 GB Standard Program Memory
- Rigid Tapping
- 1-Year Standard Warranty

### EC-1600 Series Specifications:

#### TABLE

Length x Width	64" x 36" (1626 x 914 mm)
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#### SPINDLE

Max Rating	30 hp (22.4 kW)
Max Speed	7500 rpm
Max Torque	340 ft-lb @ 700 rpm (460.0 Nm @ 700 rpm)
Drive System	2-Speed Gearbox
Taper	CT or BT 50

#### TOOL CHANGER

Type	30+1 SMTC
Max Tool Diameter (full)	4.0" (102 mm)
Max Tool Dia (adjacent empty)	10.0" (254 mm)
Max Tool Length (from gage line)	20 in (508 mm)
Max Tool Weight	30 lb (13.6 kg)
Tool-to-Tool (avg)	8.2 s
Chip-to-Chip (avg)	12.6 s

#### FEEDRATES

Max Cutting	500 ipm (12.7 m/min)
Rapids on X / Y / Z	600 ipm (15.2 m/min)

#### GENERAL

Coolant Capacity	95 gal (360 L)
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#### AIR REQUIREMENTS

Air Required	9 scfm @ 100 psi (255 L/min @ 6.9 bar)
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### SPINDLE OPTIONS

Reliable, high-performance spindles – designed and manufactured by Haas.

#### STANDARD

- 7500-rpm, 30.0 hp (22.4 kW) Gearbox

#### OPTIONAL

- 7500-rpm, 60 hp (44.7 kW), Gearbox
- 10,000-rpm, 60 hp (44.7 kW), Gearbox

### CHIP & COOLANT CONTROL

Features and options to help your machine do what it does best – make chips efficiently.

- In-Tank Belt-Type Chip Conveyor\*
- Through-Spindle Coolant\*
- Automatic Coolant Refill System\*
- Auxiliary Coolant Filter System\*



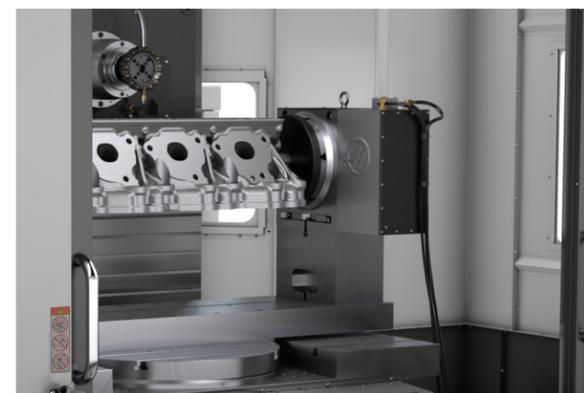
### LARGE-PART 5-AXIS MACHINING... BRING IT ON

The EC-1600ZT-5AX is a rugged 5-axis solution for machining large parts.

The **integrated 4th-axis platter** provides ±30 degrees of B-axis motion, while the 5th axis consists of an **HRT310 with an A-frame support** mounted on a removable riser block that can support parts up to 55.875" (1419.2 mm) long. The HRT310 provides 360 degrees of A-axis rotation for excellent tool clearance and large part capacity. This unique configuration of axes can position large parts to nearly any angle for 3+2 machining, or provide full simultaneous 5-axis motion for contouring and complex machining.

#### 5th Axis (HRT310) A Axis

Travel ±	30° to 30°
Platter Diameter	12.20 in (310 mm)
Number of Std T-Slots	6 ea @ 60°
Max Speed	75 °/sec
Max Torque	300 ft-lbf (407 Nm)
Brake Torque	500 ft-lbf (678 Nm)
Center Height	9.000" (228.60 mm)



\*Optional

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

www.HaasCNC.com

# IT'S EASIER – WITH PICTURES, VIDEOS, & GRAPHICS.

## THE HAAS CONTROL– Designed, built, and programmed by Haas.

The Haas control – hardware and software – is designed and built in-house, and optimized specifically for Haas machine tools. If there is a problem – Haas Automation takes full responsibility for the entire machine. 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.

### STANDARD CONTROL FEATURES:

- Dedicated Keypad
- One-Button Features
- Multi-Function Jog Handle
- 15" (381 mm) Color LCD Screen
- Ethernet Interface
- Control Touchscreen
- Advanced Tool Management
- HaasDrop Wireless File Transfer
- USB Port
- 1 GB Memory
- Power-Failure Detection Module
- M130 Media Player
- HaasConnect Mobile Monitoring
- WiFi Connectivity



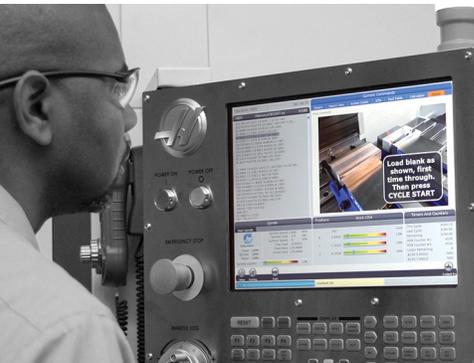
## VISUAL PROGRAMMING SYSTEM

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 Y-axis milling/drilling, probing, and more. 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

The Haas M130 Media Display M-Code is a powerful tool for communicating with machine operators and programmers directly from the Haas control. Use M130 to call up setup instructions, tool lists, part 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.



- Explain difficult-to-understand secondary operations, using pictures and videos
- Avoid miscommunications with your shop peers
- Describe step-by-step part inspection processes
- Share important setup information with shop personnel



## ALARM VIDEOS

When your machine alarms out, the first thing you want to know is: Why? The Haas control not only includes fully descriptive alarm text explaining the problem, but for many common alarms, it also includes short videos explaining the alarm, and providing valuable troubleshooting tips to resolve the issue.

## MAKE THE CONNECTION WITH HAASCONNECT

Get your machine status notifications anywhere, on any device! 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 and HaasCNC.com.

