air turbine spindles® for Haas

25,000 – 90,000 rpm – power to 1.60 hp (1.19 kW)
Constant Governed High Speed and Torque - No Duty Cycle

Speeds that don't drop when you start cutting – saving you time and money

625(X)
0.40 - 0.78 hp

Fully Automated Loading from your magazine using side or center airfeed options.

650(X)
0.80 - 1.40 hp

NEW - 660 Series
50,000 rpm
Power to 1.60 hp
Quadruple ceramic bearings standard

With patented governed high speed and torque Air Turbine Spindles®, your Haas Machine will mill at 50,000 and 65,000 rpm!

Fully Automated Loading:

1. With our patented Toolchanger Mounting Assembly (TMA) or
2. Through Spindle Air Option using Haas Through Tool Air Blast*

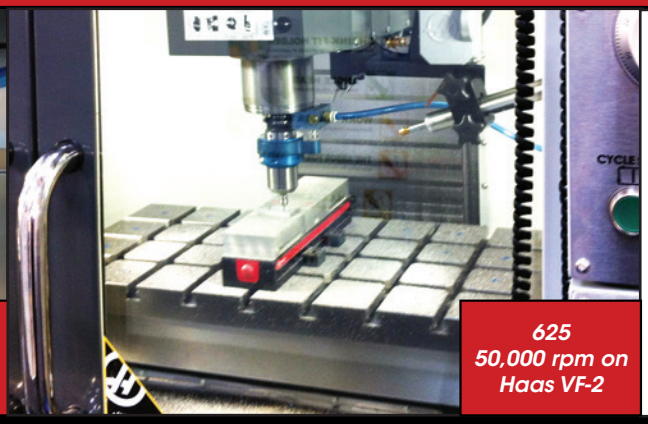
Manual Connection also possible

X Versions for Extra Power

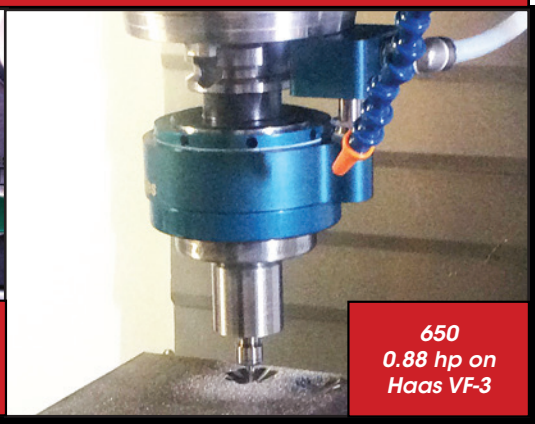
Call for a Demonstration!

Join 1,000's of Haas users who have Increased Productivity from their Haas VMC's

Ask about the 602 Series available to 90,000 rpm



625 50,000 rpm on Haas VF-2



650 0.88 hp on Haas VF-3

Tel: +1.561.994.0500 • ***Fax: +1.561.994.8097*** • 1225 Broken Sound Parkway NW, Suite D • Boca Raton, Fl 33487 USA

air turbine spindles®

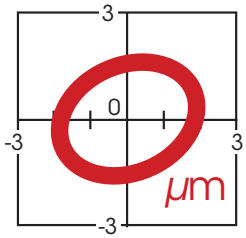
25,000 - 90,000 rpm < 1.60 hp (1.19 kW)
Dramatically reduce your cycle times, optimize cutting tool performance and life.

Keep continuous tool path engagement on your existing CNC at high speed even in angles and hard material. Ideal for micro machining.

Accuracy - 2µ Certified

Most of the problems that occur in micro machining come from a lack of RPM and poor dynamic runout. *Air Turbine Spindles®* use the highest quality runout and balancing systems on the market today. This creates the best dynamic runout accuracy and governed high speed precision.

Runout measured at the nose of spindle. (reference value)



600 SERIES

- Improved Machining Cycle Times
- Better Surface Finish
- Longer Tool Life
- Automatic Loading

Super Low Vibration Direct Drive

Powerful, totally oil-free low friction turbines produces extremely low vibration and heat for continuous 24/7 operation. No thermal expansion, great reliability.

Ultra Precision 2µ ER 8 or ER 11 collets standard.

650 - 40,000 rpm

Environmentally Clean

No oil required, and maintenance free.

Air Pressure: Dry, Clean Air @ 90 psi (6.2 bar)

Air Consumption (Working) • **(X) = Double Turbine Version**
625(X): 11 - 30 cfm (5.20 - 14.16 L/s)
650(X): 14 - 40 cfm (6.60 - 18.89 L/s)
660(X): 14 - 40 cfm (6.60 - 18.89 L/s)

Low Noise Design: Under 67 dBA (cutting noise of endmills can be heard).

Standard Equipment: 0.3µm High Flow Filter/Extractor

Automatic Toolchange Options

No need for operator downtime. Automatically load *Air Turbine Spindles®* with our wrap around **Toolchanger Mounting Assembly.**

Alternatively, use **Through Spindle Air Option** if your Haas Machine has Through Tool Air Blast.*


Through Spindle Air

Superior Technology

- Unique patented direct drive with no vanes, gears or brushes to wear, burn or break.
- Cooled by turbine air for 24/7 operation. No oil or control system required. No Duty Cycle.
- Governor keeps Constant High Speed + Torque on tool path in angles and corners.

Spindle Selection

√ = Optimum
∞ = Acceptable
! = Dependent upon cutting conditions
× = Not recommended for use

		625(X)	650(X)	660(X)
Drill	Ø 0.1 - 0.3mm	√	√	√
	Ø 0.3 - 0.5mm	√	√	√
	Ø 0.5 - 1.0mm	√	√	√
	Ø 1.0 - 1.5mm	∞	√	√
	Ø 1.5 - 2.0mm	!	√	√
Endmill	Ø 0.1 - 1.0mm	√	√	√
	Ø 1.0 - 2.0mm	√	√	√
	Ø 2.0 - 3.5mm	√	√	√
	Ø 3.5 - 5.0mm	∞	√	√
	Ø 5.0 - 6.0mm	!	∞	∞
Jig Grinding		!	√	√

Specifications	625(X)	650(X)	660(X)
Speed (rpm)	30,000 40,000 50,000 65,000	25,000 30,000 40,000	50,000
Power (hp)	0.40 - 0.78	0.80 - 1.40	0.94 - 1.60
T.I.R. at Nose	Less than 2µm		
Collet Range	0.5mm - 7mm		
Air Pressure	Less than 6.2 Bar (0.62 MPa)		
Air Flow	11 - 40 CFM (5.20 - 18.89 L/s) [ANR]		

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**The 625 (Single Turbine) is compatible with through air spindle option using Haas Through Air Blast.*

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