



air turbine spindles® for **HURCO®**

25,000 – 90,000 rpm – power to 1.60 hp
Constant Governed High Speed and Torque

Now your Hurco VM/VMX CNC delivers faster production 24/7



625(X)CAT40
0.40 - 0.78 hp



650(X)CAT40
0.80 - 1.40 hp



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

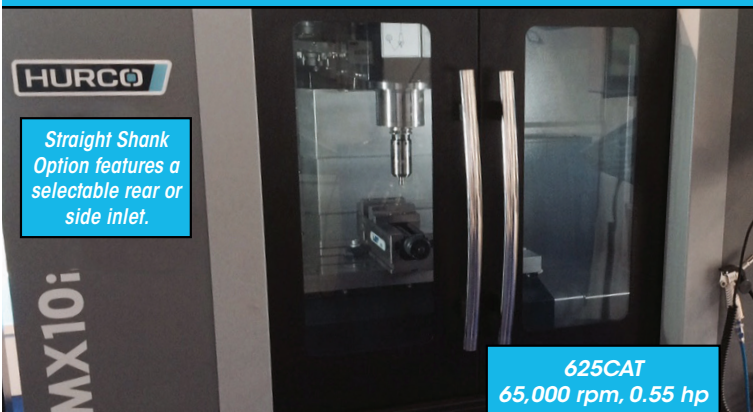
With patented governed high speed and torque Air Turbine Spindles®, your Hurco VM/VMX Machine is a high speed machine!

*No Duty Cycle
Call for a Demonstration*

*Fully automated loading:
With our patent pending
Toolchanger Mounting
Assembly (TMA)*

*CAT, BT, DIN, HSK available
Manual Connection also Possible*

Manual or Automatic Loading to Save Time and Money



*Straight Shank
Option features a
selectable rear or
side inlet.*

625CAT
65,000 rpm, 0.55 hp



*Air Block and Collar -
"TMA"*

650CAT on Hurco VM10i
40,000 rpm, 0.88 hp



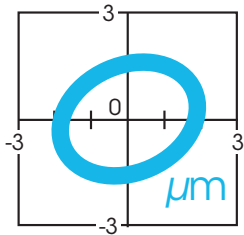
*Dramatically reduce your cycle times,
optimize cutting tool performance and life.*

*Keep continuous tool path engagement on your
existing CNC at high speed even in angles and
hard material. Ideal for micro machining.
25,000 - 90,000 rpm < 1.60 hp*

Accuracy

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

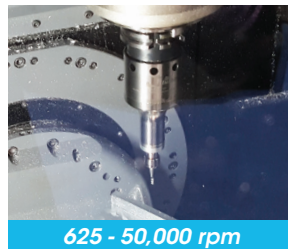
Longer Tool Life

Automatic Loading

Super Low Vibration Design

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

**Ultra Precision ER 8 or ER 11
collets standard.**



625 - 50,000 rpm

Environmentally Clean

No oil required, and maintenance free.

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

Air Consumption (Working):

625(X): 11 - 30 cfm (5.20 - 14.16 L/s)

650(X): 14 - 40 cfm (6.60 - 18.89 L/s)

660: 14 - 40 cfm (6.60 - 18.89 L/s)

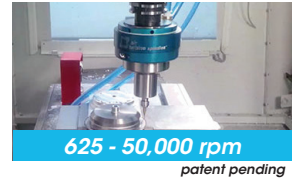
Low Noise Design: Under 67 dBA (cutting noise of endmills can be heard).

Standard Equipment: 0.3µm High Flow Filter/Extractor

Automatic Toolchanger

No need for operator downtime.

Automatically load **Air Turbine Spindles®** with our wrap around Toolchanger Mounting Assembly.



625 - 50,000 rpm

patent pending

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

x = Not recommended for use

		625(X)	650(X)	660
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	
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]			

