



air turbine spindles®

for

DMG MORI

**25,000 – 90,000 rpm – power to 1.04 kW (1.4 hp)
Constant Governed High Speed and Torque**

Now your DMG MORI CNC delivers faster production 24/7



602(X)CAT40
0.11 - 0.34 kW
0.15 - 0.45 hp



625(X)CAT40
0.30 - 0.67 kW
0.40 - 0.90 hp



650(X)CAT40
0.57 - 1.04 kW
0.76 - 1.40 hp



With patented governed high speed and torque Air Turbine Spindles®, your DMG MORI Machine is a high speed machine!

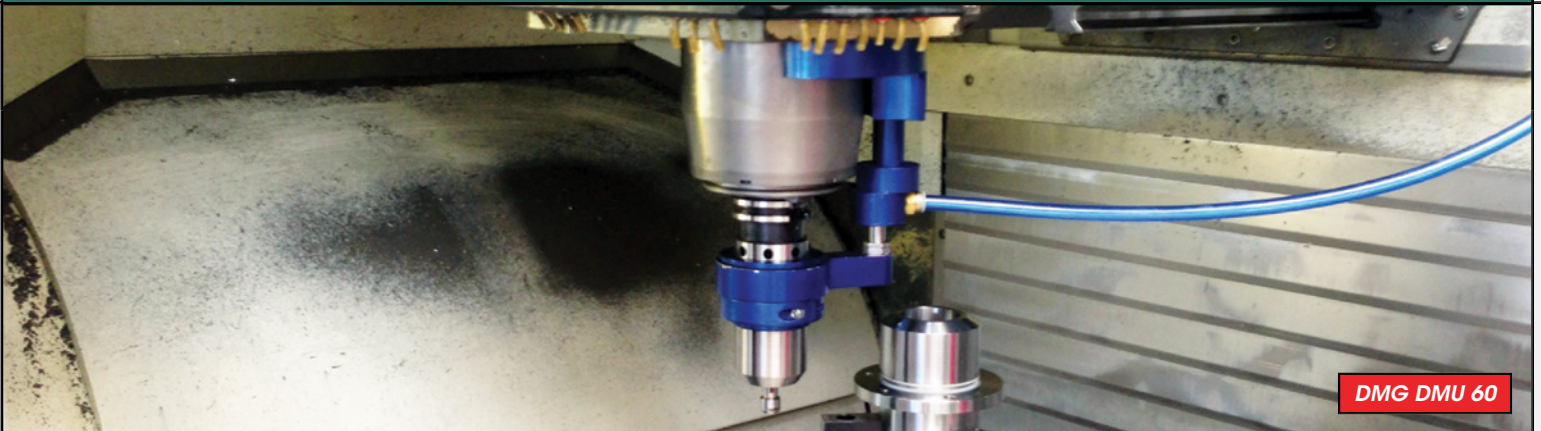
No Duty Cycle

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.



DMG DMU 60

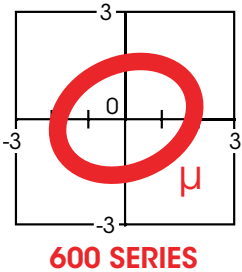
Dramatically reduce your cycle times, optimize cutting tool performance and life.

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 kW (1.4 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)



Improved Machining Cycle Times

Longer Tool Life

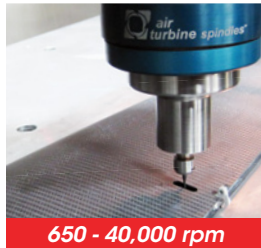
Better Surface Finish

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.

Standard ER 8 or ER 11 collets. Ultra precision option available.



Environmentally Clean

No oil required, and maintenance free.

Air Pressure: Dry, Clean Air @ 90 psi / 6.2 bar

Air Consumption (Idle): 602: 5 cfm / 2.4 L/s
625: 11 cfm / 5.2 L/s
650: 14 cfm / 6.6 L/s

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

Standard Equipment: Filter Extractor

Automatic Toolchanger

No need for operator downtime.

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



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

! = Dependent upon cutting conditions

∞ = Acceptable

x = Not recommended for use

		602(X)	625(X)	650(X)
Drill	Ø 0.1 - 0.3mm	√	√	√
	Ø 0.3 - 0.5mm	∞	√	√
	Ø 0.5 - 1.0mm	!	√	√
	Ø 1.0 - 1.5mm	x	∞	√
	Ø 1.5 - 2.0mm	x	!	√
Endmill	Ø 0.1 - 1.0mm	√	√	√
	Ø 1.0 - 2.0mm	√	√	√
	Ø 2.0 - 3.5mm	!	√	√
	Ø 3.5 - 5.0mm	x	∞	√
	Ø 5.0 - 6.0mm	x	!	∞
Jig Grinding		x	!	√
Specifications	602(X)	625(X)	650(X)	
Speed (rpm)	40,000		25,000	
	50,000	30,000	30,000	
	65,000	40,000	40,000	
	90,000*	50,000		
Power (kW)	0.11 - 0.34	0.30 - 0.67	0.57 - 1.04	
T.I.R. at Nose	Less than 1µm			
Collet Range	1mm - 6mm			
Air Pressure	Less than 0.62 MPa (6.2 Bar)			
Air Flow	126 - 1133 L/min [ANR] (6 - 40 cfm)			

*Due to its governed high speed and power the 602 90,000 rpm is for use only with micro end mills in special applications.