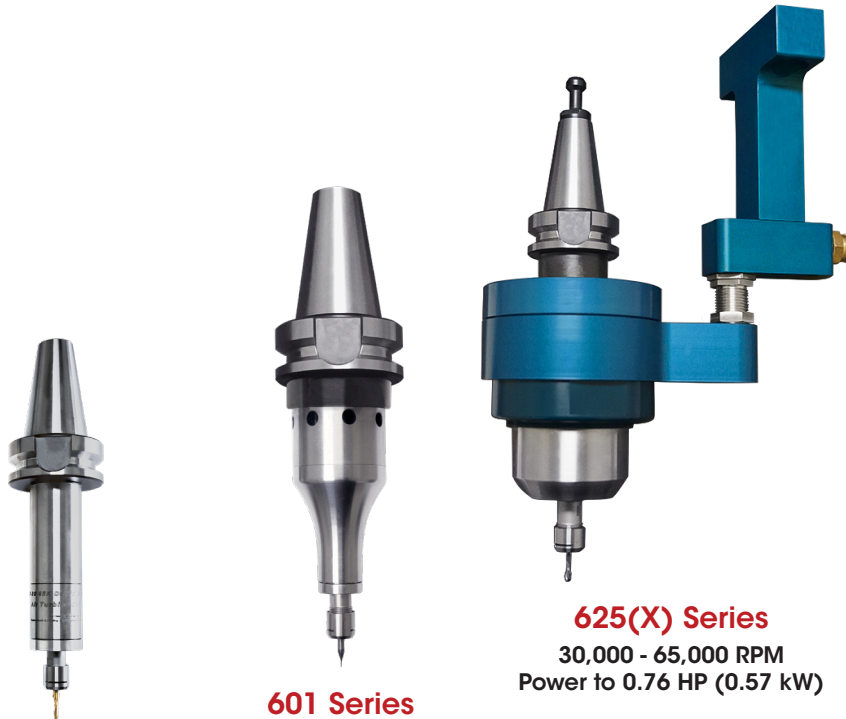


**25,000 – 90,000 RPM – Power To 0.76 HP (1.57 kW)**  
**Constant Governed High Speed and Torque**

*The New High Speed Option With Air Turbine Spindles®*



**600X Series**  
65,000 - 80,000 RPM  
Power to 0.15 HP (0.11 kW)

**601 Series**  
40,000 - 90,000 RPM  
Power to 0.2 HP (0.15 kW)

**625(X) Series**  
30,000 - 65,000 RPM  
Power to 0.76 HP (0.57 kW)

*With patented governed high speed and torque Air Turbine Spindles®, your FANUC Robodrill is a high speed machine!*

*Fully automated loading:*

1. With air through the spindle or
2. With our patented Toolchanger Mounting Assembly (TMA)

*HSK, BT, DIN available for any CNC.  
Manual connection also possible.*

***Call for a demonstration!***

**+1 561-994-0500**

**Manual Or Automatic Loading To Save Time And Money**



**TMA Assembly**



**Air Through Spindle**



**ATC From Magazine**



## Dramatically Reduce Your Cycle Times While Optimizing 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.

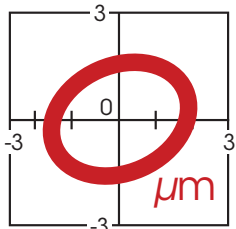
25,000 - 65,000 RPM < 0.76 HP (0.57 kW)

### 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 motor produces extremely low vibration and heat in continuous 24/7 operation. No thermal expansion, great reliability.



600X - 80,000 RPM

Ultra Precision ER 8 or ER 11 collets standard.

### Environmentally Clean

No oil required, and maintenance free.

Air Pressure:

Dry, clean air at 90 psi (6.2 bar).

Air Consumption (Working):

600X: 5 CFM (2.36 L/s)

601: 5 - 6 CFM (2.36 - 3.3 L/s)

625(X): 11 - 30 CFM (5.2 - 14.16 L/s)

Low Noise Design:

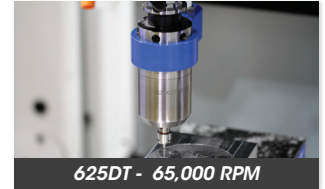
Under 78 dBA (cutting noise of endmills can be heard).

Standard Equipment:

0.3μm high flow filter/extractor

### Automatic Toolchange Options

No need for operator downtime. Automatically load Air Turbine Spindles® using center airfeed or with our wrap around Toolchanger Mounting Assembly (TMA).



625DT - 65,000 RPM

### Superior Technology

- ▶ Unique patented direct drive with no vanes, gears or brushes to wear or burn.
- ▶ No heat and no duty cycle- 24/7 operation.
- ▶ Governor keeps constant high speed + torque on tool path in angles and corners.

### Spindle Selection Guide

✓ = Optimum ! = Dependent upon cutting conditions  
∞ = Acceptable x = Not recommended for use

Cutting Tool		600X	601	625(X)
Drill	Ø 0.1 - 0.3 mm	✓	✓	✓
	Ø 0.3 - 0.5 mm	✓	∞	✓
	Ø 0.5 - 1.0 mm	✓	!	✓
	Ø 1.0 - 1.5 mm	✓	x	∞
	Ø 1.5 - 2.0 mm	x	x	!
Endmill	Ø 0.1 - 1.0 mm	x	✓	✓
	Ø 1.0 - 2.0 mm	x	✓	✓
	Ø 2.0 - 3.5 mm	x	!	✓
	Ø 3.5 - 5.0 mm	x	x	∞
	Ø 5.0 - 6.0 mm	x	x	!
Jig Grinding		x	x	!
Specifications		600X	601	625(X)
Speed (RPM)		65,000 80,000	40,000 50,000 65,000 90,000*	30,000 40,000 50,000
Power (HP)		0.15	0.15 - 0.2	0.4 - 0.76
T.I.R. at Nose		Less than 2μm		
Collet Range		0.5 mm - 7 mm		
Air Pressure		90 psi/6.2 bar (0.62 MPa)		
Air Flow		7 - 30 CFM (3.3 - 14.16 L/s) [ANR]		



\*Due to its governed high speed and power the 601 90,000 RPM is for use only with micro end mills in special applications.