



**air turbine spindles® for**

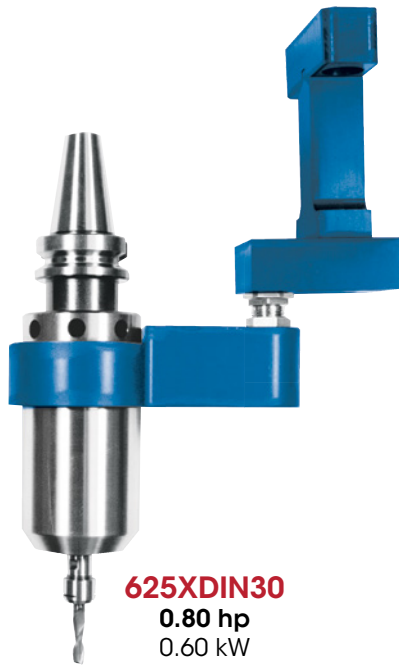
**FANUC ROBODRILL**

**30,000 – 65,000 rpm – power to 0.80 hp (0.60 kW)  
Constant Governed High Speed and Torque**

***New High Speed Option with Air Turbine Spindles®***



**602XBT30**  
0.30 - 0.47 hp  
0.22 - 0.34 kW



**625XDIN30**  
0.80 hp  
0.60 kW

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

*No Duty Cycle*

*Call for a Demonstration*

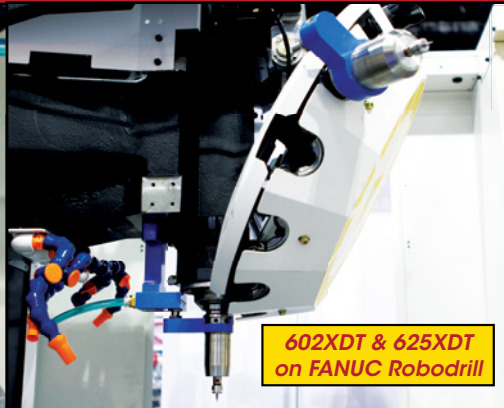
*Fully automated loading:  
With our patent pending  
Toolchanger Mounting  
Assembly (TMA)*

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

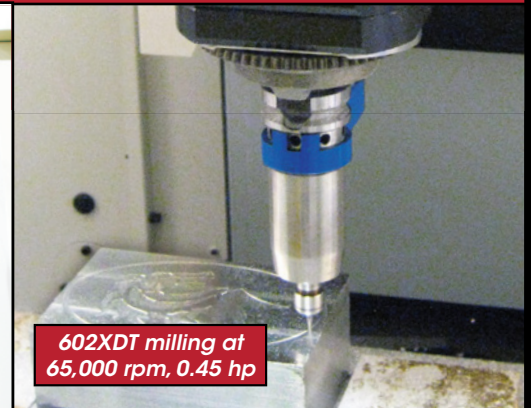
***Manual or Automatic Loading to Save Time and Money.***



**FANUC ROBODRILL**



**602XDT & 625XDT  
on FANUC Robodrig**



**602XDT milling at  
65,000 rpm, 0.45 hp**

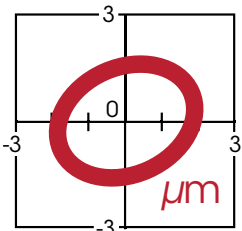
*Dramatically reduce your cycle times, optimize cutting tool performance and life.*

*Keep continuous tool path engagement on your existing CNC at high speed even in angles and hard material. Ideal for micro machining. 30,000 - 65,000 rpm < 0.80 hp (0.60 kW)*

## 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

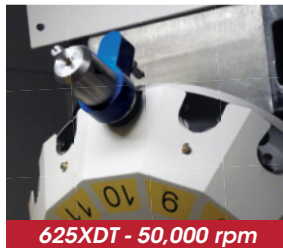
Longer Tool Life

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.



**625XDT - 50,000 rpm**

**Ultra Precision ER 11 collets standard.**

## Environmentally Clean

No oil required and maintenance free.

### Air Pressure:

Dry, Clean Air @ 90 psi (6.2 bar)

### Air Consumption (Working):

**602X:** 7 - 10 cfm (3.30 - 4.27 L/s)

**625X:** 22 - 30 cfm (10.38 - 14.16 L/s)



**602XDT & 625XDT**

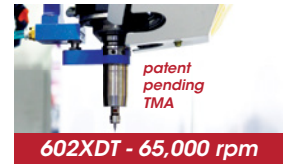
**Low Noise Design:** Under 67 dBA

**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.



**602XDT - 65,000 rpm**

## 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

		602(X)	625(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	602X	625X	
Governed Speed (rpm)	40,000 50,000 65,000	30,000 40,000 50,000	
Power (hp)	0.30 - 0.47	0.80	
T.I.R. at Nose	Less than 2µm		
Collet Range	0.5mm - 6mm		
Air Pressure	Less than 6.2 Bar (0.62 MPa)		
Air Flow	7 - 30 CFM (3.30 - 14.16 L/s) [ANR]		