



# Revolutionary Air Turbine Live Tools®

Constant Governed High Speed in 24/7 Operations

Accelerate feed rates at 40,000 to 80,000 rpm

**30+ YEARS OF PROVEN PATENTED INNOVATION.**  
**AIR TURBINE TOOLS® ARE BUILT TO LAST.**

#### High Precision:

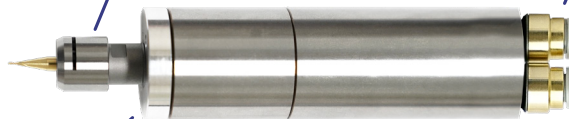
- No heat and low vibration improves precision.
- 2 micron precision collets and h7 tolerance.
- Make off-center cuts with high speed and precision. Perfect for medical, aviation, electronics and metalworking industries.

#### Direct Drive Motor:

- Reliable with only 2 moving parts.
- No gears, no high frequency brushes, and no vanes to heat up or burn out.
- Long service life.

#### Simple Setup:

- Just connect dry, clean 90 psi / 6.2 bar compressed air.
- No control system and no wiring.
- No complex programming.



#### Adaptable for your Application:

- Completely sealed for wet environments.
- Multiple outside diameters available to fit into your existing swiss automatic.
- Improve finish quality.

#### Constant High Speed in Cut:

- Patented governed turbine increases airflow to maintain constant high speed in cut.
- Accelerate production rates.
- Optimize cutting tool performance and life.

#### Reliable:

- Only two moving parts (turbine and bearings).
- No maintenance or lubrication.
- No duty cycle in 24/7 operation.



[www.airturbinetools.com](http://www.airturbinetools.com) | [ask@airturbinetools.com](mailto:ask@airturbinetools.com) | +1 561-994-0500

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All specifications approximate.

# 40,000 RPM - 80,000 RPM

## Constant High Speed in Cut.

### Operate With Governed High Speed and No Duty Cycle

Maintain constant high speed in cut and SFM required to optimize your micro tools. At 80,000 RPM Air Turbine Live Tools® increase feed rates 6 – 10x. Speed up your off-center cuts and exponentially increase production from your lathes. You can machine titanium and steel – our patented governor increases air flow on demand keeping you at high speed on the toolpath.

### No Heat, No Thermal Effects on Accuracy

2 Micron precision delivers finer finished surfaces with no feed lines. Our technology is very different from nominal high-speed spindles that drop on tool engagement.

### Easy Installation

We eliminate the control box, wiring, high frequency brushes and programming complexity. There's no oil lubrication either. Quicker and simpler than traditional live tool spindles. Just drop Air Turbine Live Tools® into any boring bar holder and connect 90 psi/6.2 bar dry compressed air.



### 822CX and 825CX

ER8 UP - 1/8" / 3 mm collet capacity | 60,000 RPM - 80,000 RPM, 0.15 HP (0.11 kW)

Medical, aviation and metalworking industries increase productivity dropping the 800CX into automatic lathes. These sliding headstock lathes operate 7 days a week under enormous cost and time pressure. Economic production depends on the speed and reliability of motor drive but prior outdated motor technology has restricted productivity and resulting in high costs. The 800CX series operates 24/7 at 60,000/80,000 RPM accelerating production.

General Specifications		822CX and 825CX	
Speed		60,000 RPM	80,000 RPM
Power Rating		0.15 HP (0.11 kW)	
Inlet Air Pressure		90 psi (6.2 bar)	
Air Consumption Idle		3.5 CFM (1.65 L/s)	
Air Consumption Working Flow		5 CFM (2.36 L/s)	
Sound Level		Less Than 78 dBA	
Max Shank Capacity		ER8 UP - 1/8" (3 mm)	
Live Tool Weight		5.6 oz (0.158 kg)	
Mountable Area	822CX	Ø 0.86" (22 mm) OD by 2.89" (73.53 mm)	
	825CX	Ø 0.98" (25 mm) OD by 2.89" (73.53 mm)	

### 820MX and 822MX

ER8 UP - 1/8" / 3 mm collet capacity | 50,000 RPM - 65,000 RPM, 0.2 HP (0.15 kW)

At governed 65,000 RPM the 820MX and 822MX keeps high speed under load. This compact low vibration motor operates 24/7 with no heat and has just 2 moving parts and no gears, vanes, or high-frequency brushes to burn up. Drop in the 820MX and 822MX to accelerate your production. Ideal for lathes, Swiss Automatics, and finishing with micro tools. No control system or maintenance. Completely sealed with hose exhausts.

General Specifications		820MX and 822MX	
Speed		50,000 RPM	65,000 RPM
Power Rating		0.2 HP (0.15 kW)	
Inlet Air Pressure		90 psi (6.2 bar)	
Air Consumption Idle		4 CFM (1.88 L/s)	
Air Consumption Working Flow		6 CFM (2.83 L/s) - 9 CFM (4.24 L/s)	
Sound Level		Less Than 78 dBA	
Max Shank Capacity		ER8 - 1/8" (3 mm)	
Live Tool Weight		13 oz (0.37 kg)	
Mountable Area	820MX	Ø 0.79" (20.0 mm) OD by 1.99" (50.55 mm)	
	822MX	Ø 0.85" (21.6 mm) OD by 1.99" (50.55 mm)	

### 800LT

ER8 UP - 1/8" / 3 mm collet capacity | 60,000 RPM - 80,000 RPM, 0.1 HP (0.07 kW)

Accelerate your feed rate with 24/7 operation at 60,000/80,000 RPM with the 800LT. This compact patented spindle has a governor which maintains rated speed in the cut. Air Turbine Live Tools® are low friction direct drives with only 2 moving parts resulting in no heat and great reliability at high speed. Just connect 90 psi, 6.2 bar dry clean air supply and mill on your Swiss Automatic. Ø 19.05, 20, 22, 25 mm OD 800LT units available.

General Specifications		800LT	
Speed		60,000 RPM	80,000 RPM
Power Rating		0.1 HP (0.07 kW)	
Inlet Air Pressure		90 psi (6.2 bar)	
Air Consumption Idle		3.5 CFM (1.65 L/s)	
Air Consumption Working Flow		5 CFM (2.36 L/s)	
Sound Level		Less Than 78 dBA	
Max Shank Capacity		ER8 UP - 1/8" (3 mm)	
Live Tool Weight		5.6 oz (0.158 kg)	
Mountable Area	19.05 mm	Ø 0.75" (19.05 mm) OD by 2.89" (73.53 mm)	
	20 mm	Ø 0.79" (20 mm) OD by 2.89" (73.53 mm)	
	22 mm	Ø 0.87" (22 mm) OD by 2.89" (73.53 mm)	
	25 mm	Ø 0.98" (25 mm) OD by 2.89" (73.53 mm)	

### 825MX

ER11 UP - 1/4" / 6 mm collet capacity | 40,000 RPM - 50,000 RPM, 0.4 HP (0.3 kW)

Despite its 25 mm outside diameter, the 825MX has up to 0.4 HP to maintain your cutting tool's high rotational speed at 40,000 or 50,000 RPM. The higher production rates you achieve with the 825MX will surprise you. The patented direct drive in the 825MX does not get hot or vibrate. Turbine air cools the sealed grease-packed bearings. The result is great durability in 24/7 operation with no maintenance and no control system or wiring.

General Specifications		825MX	
Speed		40,000 RPM	50,000 RPM
Power Rating		0.3 HP (0.22 kW)	0.4 HP (0.3 kW)
Inlet Air Pressure		90 psi (6.2 bar)	
Air Consumption Idle		5 CFM (2.36 L/s)	6 CFM (2.83 L/s)
Air Consumption Working Flow		7 CFM (3.30 L/s) - 10 CFM (4.72 L/s)	
Sound Level		Less Than 78 dBA	
Max Shank Capacity		ER11 UP - 1/4" (6 mm)	
Live Tool Weight		22 oz (0.62 kg)	
Mountable Area		Ø 1.0" (25.4 mm) OD by 0.5" (12.7 mm)	

