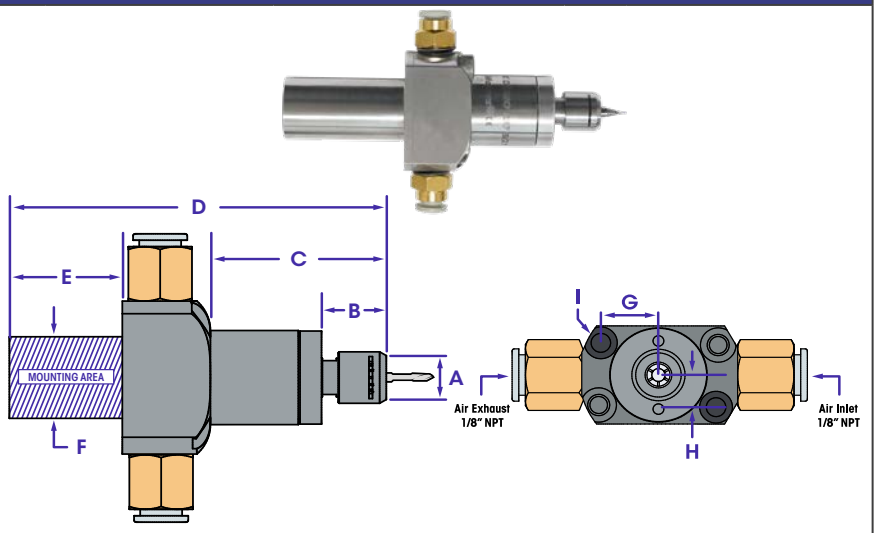
# 800LT
## *Miniature Live Tools for Swiss Automatics*

air turbine live tools®

Medical, aviation, and metalworking industries increase productivity dropping the **800LT** into Automatic Lathes. These sliding headstock lathes operate 7 days a week under enormous cost and time pressure. Economic production success depends on the speed and reliability of motor drive but the outdated motor technology has restricted productivity and resulted in high costs. **The 800LT series operates 24/7 at 60,000/80,000 RPM accelerating your production rate.** This powerful patented spindle has a governor which maintains your 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 automatic.

## 800LT Ø 19.05 mm OD Dimensions




All fittings, couplings, and hoses must have a minimum of 4 mm internal diameter.

| | | | | | |
|---|---|---|---|---|---|
| A | Ø 0.47" (12 mm) | E | 1.0" (25.4 mm) | I | Ø 0.17" (4.32 mm) THRU<br>Ø 0.29" (7.36 mm)<br>↧ 0.16" (4.06 mm) TYP (2) |
| B | 0.57" (14.47 mm) | F | Ø 0.75" (19.05 mm) | | |
| C | 1.56" (39.62 mm) | G | 0.51" (12.95 mm) TYP (2) | | |
| D | 3.34" (84.84 mm) | H | 0.3" (7.62 mm) TYP (2) | | |

## 800LT Specifications

| | | |
|---|---|---|
| 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) | |
| Air Hoses and Fittings Minimum Size | 4 mm internal diameter | |
| Sound Level | Less Than 78 dBA | |
| Max Shank Capacity | ER8 UP - 1/8" (3 mm) | |
| Live Tool Weight | 5.6 oz (0.158 kg) | |

## 800LT Series Part Numbers

| ER8 UP - 1/8" | | ER8 UP - 3 mm | |
|---|---|---|---|
| Speed | Part Number | Speed | Part Number |
| 60,000 RPM | 80002 | 60,000 RPM | 80003 |
| 80,000 RPM | 80006 | 80,000 RPM | 80007 |

Ø 19.05, 20, 22, 25 mm outside diameter models available. Specify outside diameter when ordering.

## Accessories

| Model | Part Number |
|---|---|
| Low Flow Filter Regulator / Extractor | 30006 |
| Tube 6 mm O.D. - 4 mm I.D. (order by foot) | 16520 |
| Hose & Fitting - 6 mm O.D. - 4 mm I.D. - 12' | 30048 |

## Equipment Included

- 800LT Air Turbine Live Tool®
- ER8 UP Collet System (1/8" or 3 mm standard)
- Collet Wrenches
- Low Flow Filter Regulator / Extractor
- Air Hose
- Fittings
- Carrying Case

## Standard Equipment

**ER8 UP collet system. 1/8" or 3 mm standard, other sizes are available.**

Oil-free 90 psi / 6.2 bar clean, dry air supply required.

**WARNING**
**Connection to air supply starts motor rotation. Do not connect air to your tool until installation is complete.**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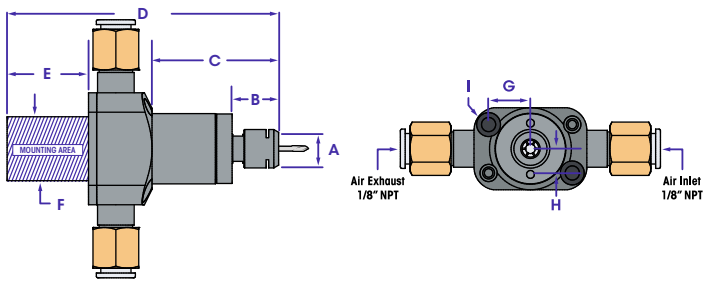
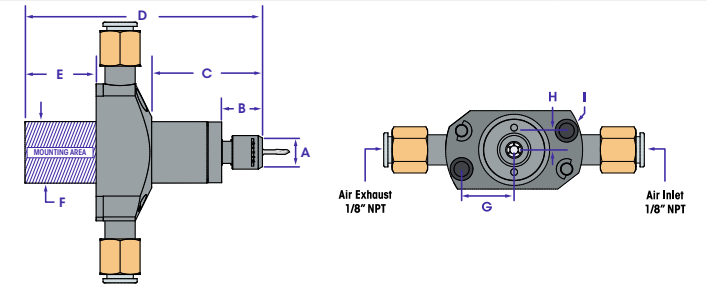
### 800LT Ø 20 mm OD Dimensions



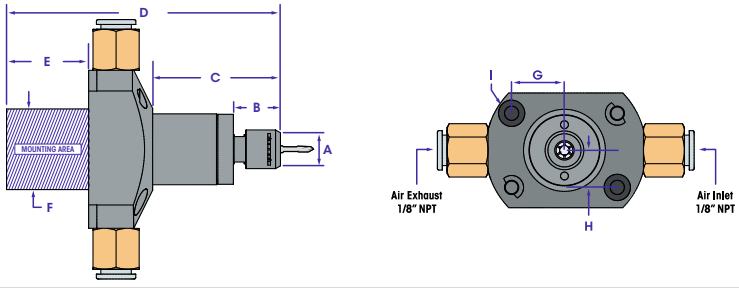

| | | | | | |
|---|---|---|---|---|---|
| A | Ø 0.47" (12 mm) | E | 1.0" (25.4 mm) | I | Ø 0.17" (4.32 mm) THRU<br>Ø 0.29" (7.36 mm)<br>⌶ 0.16" (4.06 mm) TYP (2) |
| B | 0.57" (14.47 mm) | F | Ø 0.79" (20 mm) | | |
| C | 1.56" (39.62 mm) | G | 0.51" (12.95 mm) TYP (2) | | |
| D | 3.34" (84.84 mm) | H | 0.3" (7.62 mm) TYP (2) | | |

### 800LT Ø 22 mm OD Dimensions




| | | | | | |
|---|---|---|---|---|---|
| A | Ø 0.47" (12 mm) | E | 1.0" (25.4 mm) | I | Ø 0.22" (5.58 mm) THRU<br>Ø 0.32" (8.13 mm)<br>⌶ 0.3" (7.62 mm) TYP (2) |
| B | 0.57" (14.47 mm) | F | Ø 0.87" (22 mm) | | |
| C | 1.56" (39.62 mm) | G | 0.74" (18.8 mm) TYP (2) | | |
| D | 3.34" (84.84 mm) | H | 0.27" (6.86 mm) TYP (2) | | |

### 800LT Ø 25 mm OD Dimensions




| | | | | | |
|---|---|---|---|---|---|
| A | Ø 0.47" (12 mm) | E | 1.0" (25.4 mm) | I | Ø 0.17" (4.32 mm) THRU<br>Ø 0.32" (8.13 mm)<br>⌶ 0.46" (11.68 mm) TYP (2) |
| B | 0.57" (14.47 mm) | F | Ø 0.98" (24.89 mm) | | |
| C | 1.56" (39.62 mm) | G | 0.65" (16.51 mm) TYP (2) | | |
| D | 3.34" (84.84 mm) | H | 0.45" (11.43 mm) TYP (2) | | |

### *Initial Installation*

Install a new dedicated clean air line from the included filter/regulator to your Air Turbine Live Tool®. **Ensure all air lines, couplings and fittings meet the minimum internal diameter of 4 mm.** If working in a wet environment be sure to install exhaust hoses as shown below. Internal diameters of exhaust hoses must be no smaller than 4 mm internal diameter.

Any connections smaller than 4 mm will restrict air flow and reduce power to your 800LT.

Air flow restrictions (such as air leaks and obstructions) will cause underpower performance and drag your tool through the material, damaging the bearings. **Some fittings with nominal internal dimensions may have an internal diameter passage that is smaller than stated and restrict air flow and power.** It only takes one fitting with an internal diameter that is too small to reduce air flow and power of your Air Turbine Live Tool®.

### *Air Requirements*

**Do not oil or lubricate. Use dry, clean, oil free 90 psi (6.2 bar) air supply only.**

Ensure there is sufficient volume of compressed air flow at 90 psi/6.2 bar with **5 CFM ( 2.36 L/s)** to maintain working air consumption. Depending on application, consider peak or stall capacity consumption.

Air flow volume increases on demand to keep rotation at the high speed when your tool starts to cut. Air pressure and flow volume must therefore be available on demand and remain constant with no drop over time or when cutting. Avoid pressure below 90 psi/6.2 bar, which causes the tool to be dragged through the material, causing rapid bearing wear and underpowered performance. Do not use more than 100 psi/6.9 bar pressure which will burst the turbine power producer. Air pressure and flow must remain constant with no drops under cutting load. Insufficient flow will cause the rotation of your tool to slow or stop suddenly, damaging the bearings. If a drop in psi (bar) occurs below 90 psi (6.2 bar), your compressor may not have enough CFM (L/s) to power the Air Turbine Live Tool® or there is a flow restriction in the air line.

### *Mounting your Air Turbine Live Tool®*

It is very important your fixture is not clamped over the bearings. Incorrect positioning or over tightening of the clamp on your Air Turbine Live Tools® steel barrel results in pressure on the bearings causing premature failure. To avoid this error in installation refer to the dimensional drawing for your model on this sheet.

### *Maintenance*

**Your Air Turbine Live Tool® must be run at least 10 minutes every 30 days from manufacture date to maintain optimal performance. Run at least 10 minutes before initial use.** The airline must be impeccably clean with no coupling or hose smaller than 4 mm internal diameter. The included 0.3 micron filter extractor regulator combination is a necessary accessory for Air Turbine Live Tools® to eliminate impurities in your air supply. Contamination will damage your turbine components and require repair. **Filter elements need to be changed periodically and extractor drained in regular maintenance cycles.** Replacement elements and a repair service are available on our website.

*Scan to consult full user instructions.*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