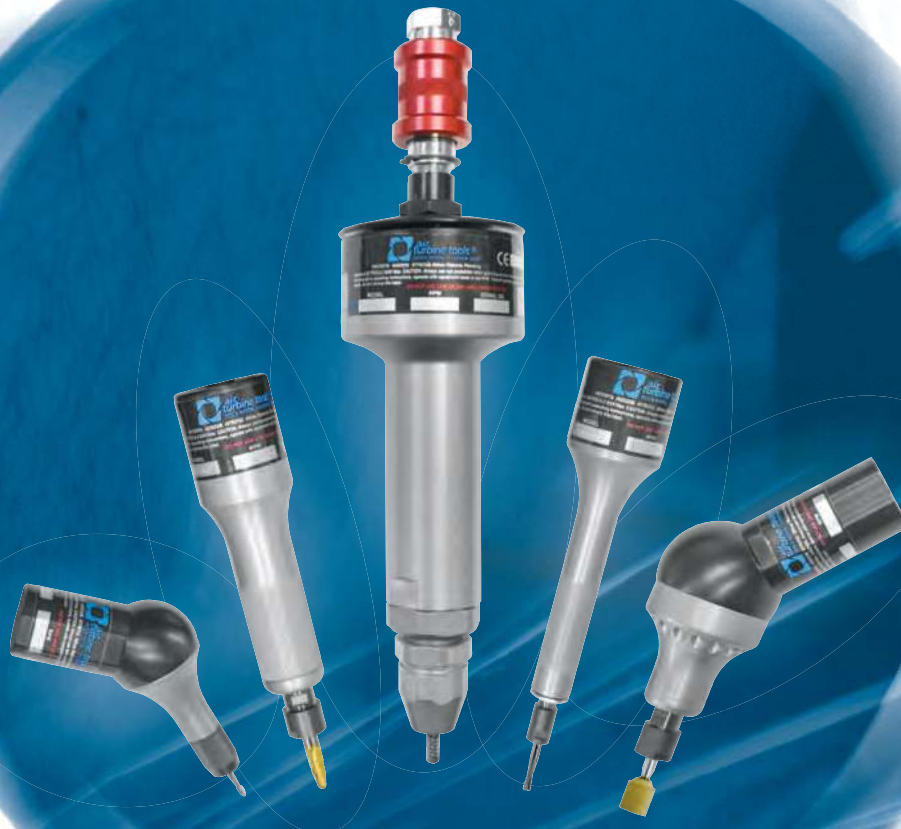


# Revolutionary High Speed Hand Tools

*Ergonomically Safer • Maintenance Free • Reliable*

*Light & Powerful: 25,000 - 90,000 rpm to 1.4 hp*



# Are Your Power Tools Causing Hand Arm Stress?

Noise and Vibration while you work?

Oil mist spraying in your face and over your parts?



Time limits on working with your tools?

Suffering with finger heat or cold?

What's the answer?

Revolutionary *Air Turbine Tools*<sup>®</sup> solve problems in hand operations.

Reduce injury risk and repetitive stress on your hands and arm.

From just 6 oz (0.17 kg) *Air Turbine Tools*<sup>®</sup> are also light weight.

Limitations on working time in operations are eliminated.

Sound level at less than 67 dBA protects your hearing.

No oil mist sprays in your face with oil-free *Air Turbine Tools*<sup>®</sup>.

## Comfort and safety need not sacrifice performance!

Our governed turbine prevents your tool from slowing down in corners or hard material. You keep the high speed on your cut.

Power to 1.40 hp (1.04 kW) maintains the high speed of rotation for optimized cutting action. Just connect 90 psi / 6,2 bar air.

Governed high speed does the cutting effortlessly and precisely.

### At 25,000 to 65,000 rpm *Air Turbine Tools*<sup>®</sup> improve:

- Surface Quality
- Cutting Tool Life
- Production Rates
- Cutting Action

*Always use eye protection and follow safety instructions.*




# Much Lower Vibration & Weight: View Statistics Below

These tools will improve safety in compliance with ISO 2631 and directive 2002 .44/EC

EAV = Time to reach Exposure Action Value.

ELV = Exposure Limit Value.



Hand Tools Working Time Specifications					
Model	Time to reach EAV 2.5 m/s <sup>2</sup> A(8)	Time to reach ELV 5 m/s <sup>2</sup> A(8)	Vibration magni- tude m/s <sup>2</sup> r.m.s	Weight	Power
 200SV	17 hours, 58 minutes	71 hours, 50 minutes	1.67	5.4 oz 0.15 kg	0.20 hp 0.15 kW
 201	128 hours, 15 minutes	513 hours	0.62	6 oz 0.17 kg	0.20 hp 0.15 kW
 202	34 hours, 44 minutes	138 hours, 55 minutes	1.20	6 oz 0.17 kg	0.55 hp 0.41 kW
 206X	24 hours, 28 minutes	97 hours, 51 minutes	1.43	8.2 oz 0.23 kg	0.40 hp 0.30 kW
 525	23 hours, 32 minutes	94 hours, 6 minutes	1.46	14.5 oz 0.41 kg	0.45 hp 0.34 kW
 525X	23 hours, 32 minutes	94 hours, 6 minutes	1.46	15.5 oz 0.44 kg	0.80 hp 0.60 kW
 525XSVE	12 hours, 32 minutes	50 hours, 8 minutes	2.00	27.9 oz 0.79 kg	0.80 hp 0.60 kW
 230DM	345 hours, 40 minutes	1382 hours, 37 minutes	0.38	39.7 oz 1.12 kg	0.88 hp 0.66 kW
 310R	345 hours, 40 minutes	1382 hours, 37 minutes	0.38	39.7 oz 1.12 kg	0.88 hp 0.66 kW
 310RX	345 hours, 40 minutes	1382 hours, 37 minutes	0.38	41.4 oz 1.17 kg	1.40 hp 1.04 kW
 0145	30 hours, 44 minutes	122 hours, 53 minutes	1.28	6 oz 0.17 kg	0.20 hp 0.15 kW
 2545 2590	64 hours, 11 minutes	256 hours, 41 minutes	0.88	18 oz 0.50 kg	0.45 hp 0.34 kW

# End Maintenance and Frequent Repairs

Traditional hand tools require maintenance, frequent repairs, expensive part replacement and lubrication.

*Air Turbine Tools*® don't.

Why?

There are only two moving parts in *Air Turbine Tools*®:

1. Proprietary governed turbines
2. Air cooled steel grease packed bearings.



Our patented tools have low friction and great reliability.

**Governor Control**

1. Delivers Power on Demand
2. Minimizes Air Consumption



Patented Double Turbine Power to 1.4 hp (1 kW)

## What are the Differences from Vane, Electric Tools and Ungoverned Turbines?

- **No vanes to vibrate and cause hand arm stress.**  
Vanes vibrate and need frequent replacement. Vane tools are also heavy and get hot, giving rise to burns.
- **Most vane tools require lubrication.**  
Oil mist sprays on your work and in your face. No need to lubricate *Air Turbine Tools*®, eliminating oil.
- **Using electric tools?**  
Electric tools are heavy and vibrate. High Frequency brushes create heat and burn up necessitating repair. Most do not reach higher speeds and a control system is required. No need for an expensive electrical box.
- **Ungoverned turbines quickly slow down when you are cutting and have lower power.**  
Lower speed and weak performance result. Ungoverned turbines don't have the high torque necessary to be effective in application.
- ***Air Turbine Tools*® patented automatic brake option stops your tool in seconds.**



High speed optimizes cutting performance of your mounted points or burs and improves surface finish quality.

## Key Advantages at a Glance



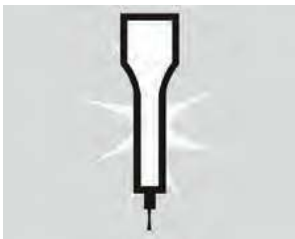
**Governor Control for Constant High Torque.**  
**Maintains High Speed + Power under Load.**



**Direct Drive Reliability.**  
**Only 2 Moving Parts.**  
**No Maintenance.**



**Great Reliability.**  
**Low Heat.**  
**No Hand Burns.**



**Powerful Light Weight Range.**  
**Reduced Stress and Carpel Tunnel Injury Risk.**



**Constant High Cutting Speed Enables Work to be Done with a Light Hand.**



**Faster Production.**  
**Longer Tool Life.**



**Low Vibration.**  
**No Limit on Work Time.**  
**Quiet - Under 67 dBA.**



**No Oil or Lubrication.**  
**Just Supply 90 psi / 6.2 bar air.**  
**No part or Shop Air Contamination.**



**Improved Surface Quality.**  
**Improved Accuracy.**

# Your High Speed Solution The Tools of a New Generation™

## Constant High Speed and Power:

- Patented governed turbine maintains constant high speed under load.
- Accelerate production and optimize cutting tool performance and life.
- Improve finish quality.



## High Precision:

- Low Vibration and Weight improves precision.
- Design facilitates close proximity work.

## Reliable:

- Only two moving parts (Turbine and Bearings).
- Air cooled grease packed bearings.
- No maintenance or lubrication.



**Shown: 525SV**  
0.45 hp - Governed 40,000 rpm.

#### Multiple Options:

- Slide Valve SV or DM Trigger Switch Control
- Patented automatic brake option available.
- 40 Tools available.

#### Simple Setup:

- Just connect dry, clean 90 psi / 6.2 bar compressed air.

#### Direct Drive Motor:

- Low friction and heat.
- No gears, high frequency brushes, or vanes to heat up or burn out.
- Long Service Life.

## 200SV Series

If you like an inkpot shape the super ergonomic **200SV Series** is the tool for you. The **200SV** delivers power at 0.20 hp (0.15 kW) at governed 50,000 rpm.

That's the difference. Governed high speed stays high when you cut. You will increase your productivity and improve finish quality - remember coated cutting tools only work well at high speed

Compact and easy to grip the **200SV** weighs only 5.4 oz (0.15 kg). Low vibration magnitude of 1.67 m/s<sup>2</sup> r.m.s makes non-stop work easy - with reduced hand-arm stress.

Only a light hand is needed to guide this 50,000 rpm tool as "speed does the cutting".

Our patented automatic brake option stops the **200SV** in seconds.



5.4 oz (0.15 kg)

Time to reach EAV 2.5 m/s<sup>2</sup> A(8)  
17 hours, 58 minutes

Time to reach ELV 5 m/s<sup>2</sup> A(8)  
71 hours, 50 minutes

Vibration magnitude m/s<sup>2</sup> r.m.s  
1.67

Part Numbers	50,000 rpm
Model	P/N
200SV 1/8"	32060
200SV 1/8" w/brake	32062
200SV 3mm	32061
200SV 3mm w/brake	32063

*\*For Hand Applications Only. Not suitable for mounting.  
Check suitability of cutting tool with manufacturer.*

General Specifications	200SV Series
Governed Speed rpm	50,000
Power Rating hp (kW)	0.2 (0.15)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	4 (1.88)
Air Consumption Working Flow cfm (l/s)	6 (2.83) - 9 (4.24)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/8" (3mm)



**Standard Equipment:** 1/8" or optional 3mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 1/4" air supply fitting. **DM:** Trigger switch and 1/4" air supply fitting. Optional Collets and accessory filters are available.



# 201 Series

You will immediately feel the 201's ultra low vibration and weight and hear the < 67 dBA sound level. The light 201 is powerful - designed to work reliably in industrial applications.

The **201SV** is rated for nonstop work: 128 hours 15 minutes before reaching EAV 2.5 m/s<sup>2</sup> A(8) or 513 hours before reaching EAV 5 m/s<sup>2</sup> A(8). Now you can work safer and longer and there's no maintenance required.

Only a light hand guiding the **201SV** is needed to get our signature benefits - improved precision, faster cutting action and finer finished surface quality.

For heavier applications step up to the **202SV** with more power and lower vibration.

SV Version



6 oz (0.17 kg)

**Time to reach EAV 2.5 m/s<sup>2</sup> A(8)**  
128 hours, 15 minutes

**Time to reach ELV 5 m/s<sup>2</sup> A(8)**  
513 hours

**Vibration magnitude m/s<sup>2</sup> r.m.s**  
0.62

Part Numbers	40,000 rpm	50,000 rpm	65,000 rpm	90,000 rpm
Model	P/N	P/N	P/N	P/N
201SV 1/8"	32140	32150	32160	32170
201SV 1/8" w/brake	32144	32154	32164	32172
201SV 3mm	32141	32151	32161	32171
201SV 3mm w/brake	32145	32155	32165	32173
201DM 1/8"	32142	32152	32162	
201DM 1/8" w/brake	32146	32156	32166	
201DM 3mm	32143	32153	32163	
201DM 3mm w/brake	32147	32157	32167	



DM Version

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*

General Specifications	201 Series
Governed Speed rpm	40,000 / 50,000 / 65,000 / 90,000
Power Rating hp (kW)	.15 (.11) / .2 (.15) / .2 (.15) / .2 (.15)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	3 (1.51) / 4 (1.88) / 4 (1.88) / 5 (2.36)
Air Consumption Working Flow cfm (l/s)	4.8 (2.22) - 7 (3.30)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/8" (3mm)



**Standard Equipment:** 1/8" or optional 3mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 1/4" air supply fitting. **DM:** Trigger switch and 1/4" air supply fitting. Optional Collets and accessory filters are available.

# 202 Series

Reduce hand arm stress and injury risk while increasing productivity – Impossible? Not at all.

Combining safety in its low vibration and high power the 6 oz (0.17 kg) **202SV** can't be matched for its power to weight ratio – just try it!

At 0.55 hp (0.41 kW) the **202SV** Series has awesome power output from its large diameter turbine. The narrow shaft gives you exact control of that power for precision work.

The vibration on the **202SV** is so low it's rated for nonstop work: 34 hours 44 minutes before reaching EAV 2.5 mm/s<sup>2</sup> (A8), or 138 hours 55 minutes before reaching ELV 5 m/s<sup>2</sup> (A8).

SV Version



6 oz (0.17 kg)

**Time to reach EAV 2.5 m/s<sup>2</sup> A(8)**  
34 hours, 44 minutes

**Time to reach ELV 5 m/s<sup>2</sup> A(8)**  
138 hours, 55 minutes

**Vibration magnitude m/s<sup>2</sup> r.m.s**  
1.20

Part Numbers	30,000 rpm	40,000 rpm	50,000 rpm	65,000 rpm
Model	P/N	P/N	P/N	P/N
202SV 1/8"	32230	32240	32250	32260
202SV 1/8" w/brake	32234	32244	32254	32264
202SV 3mm	32231	32241	32251	32261
202SV 3mm w/brake	32235	32245	32255	32265
202DM 1/8"	32232	32242	32252	32262
202DM 1/8" w/brake	32236	32246	32256	32266
202DM 3mm	32233	32243	32253	32263
202DM 3mm w/brake	32237	32247	32257	32267

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*



DM Version

General Specifications	202 Series
Governed Speed rpm	30,000 / 40,000 / 50,000 / 65,000
Power Rating hp (kW)	.40 (.30) / .45 (.34) / .50 (.37) / .55 (.41)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	10 (4.72) / 13 (6.14) / 14 (6.61) / 14 (6.61)
Air Consumption Working Flow cfm (l/s)	11 (5.19) - 20 (9.44)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/8" (3mm)



**Standard Equipment:** 1/8" or optional 3mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 1/4" air supply fitting. **DM:** Trigger switch and 1/4" air supply fitting. Optional Collets and accessory filters are available.

# 206X Series

Light and Quiet with ultra low vibration magnitude at 1.43 m/s<sup>2</sup> r.m.s. Now you can replace your heavy noisy vibrating tools requiring lubrication and maintenance.

At 0.4 hp (0.30 kW) our patented double turbine **206X** punches way above its 8.2 oz (0.23 kg) weight.

The vibration on the **206X** is so low it's rated for nonstop work: 24 hours 28 minutes before reaching EAV 2.5 m/s<sup>2</sup> (A8) or 97 hours 51 minutes before reaching ELV 5 m/s<sup>2</sup> (A8).

Work with governed high speed which stays near rated speed under load at constant 50,000 rpm. You will get superb surface quality and virtually no stress or noise. Try this tool – it transforms the operator's experience.



SV Version

8.2 oz (0.23 kg)

Time to reach EAV 2.5 m/s<sup>2</sup> A(8)  
24 hours, 28 minutes

Time to reach ELV 5 m/s<sup>2</sup> A(8)  
97 hours, 51 minutes

Vibration magnitude m/s<sup>2</sup> r.m.s.  
1.43

Part Numbers	40,000 rpm	50,000 rpm
Model	P/N	P/N
206XSV 1/4"	42988	42989
206XSV 1/4" w/brake	42991	42992
206XSV 6mm	42994	42995
206XSV 6mm w/brake	42997	42998
206XDM 1/4"	42976	42977
206XDM 1/4" w/brake	42979	42980
206XDM 6mm	42982	42983
206XDM 6mm w/brake	42985	42986



DM Version

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*

General Specifications	206XSV Series
Governed Speed rpm	40,000 / 50,000
Power Rating hp (kW)	.3 (.22) / .3 (.22) / .4 (.30)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	5 (2.36) / 6 (2.83) / 6 (2.83)
Air Consumption Working Flow cfm (l/s)	7 (3.30) - 10 (4.27)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/4" / (6mm)



**Standard Equipment:** 1/4" or optional 6mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 1/4" air supply fitting. **DM:** Trigger switch and 1/4" air supply fitting. Optional Collets and accessory filters are available.

# 525 Series

Revolutionary comfort and superior surface quality with high speed. Plenty of power for deburring, part cleaning, deflashing or weld removal.

Constant governed high speed does the cutting, not operator pressure. Eliminate heat, stress and injury risk and end daily maintenance costs. Just guide the **525** with its low vibration and weight.

Patented automatic brake option stops this tool in a few seconds.

Double turbine X version available with extra power.

For routing see **310R** Series.

SV Version



14.5 oz (0.41 kg)

Time to reach EAV 2.5 m/s<sup>2</sup> A(8)  
23 hours, 32 minutes

Time to reach ELV 5 m/s<sup>2</sup> A(8)  
94 hours, 6 minutes

Vibration magnitude m/s<sup>2</sup> r.m.s  
1.46

Part Numbers	30,000 rpm	40,000 rpm
Model	P/N	P/N
525SV 1/4"	32530	32540
525SV 1/4" w/brake	32534	32544
525SV 6mm	32531	32541
525SV 6mm w/brake	32535	32545
525DM 1/4"	32532	32542
525DM 1/4" w/brake	32536	32546
525DM 6mm	32533	32543
525DM 6mm w/brake	32537	32547



DM Version

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*

General Specifications	525 Series
Governed Speed rpm	30,000 / 40,000
Power Rating hp (kW)	.4 (30) / .45 (.34)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	10 (4.72) / 13 (6.14)
Air Consumption Working Flow cfm (l/s)	11 (5.19) - 20 (9.27)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/4" / (6mm)



**Standard Equipment:** 1/4" or optional 6mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 1/4" air supply fitting. **DM:** Trigger switch and 1/4" air supply fitting.

# 525X Series - Extra Power

Exceptionally powerful and comfortable! The **525X** delivers high torque at lower speeds. Double turbine power combines with lightweight, low vibration, low noise and provides greater accuracy and a finer high quality finish.

The constant high speed **525X** enables you to work on hard-to-reach applications for fast removal or finishing - comfortably with a light touch directing the tool. At up to 0.80 hp (0.60 kW) high speed cutting action on your work piece is assured.

Patented automatic brake option stops this tool in mere seconds.

Extended version for cavities available, see page 13.

SV Version



15.5 oz (0.44 kg)

Time to reach EAV 2.5 m/s<sup>2</sup> A(8)  
23 hours, 32 minutes

Time to reach ELV 5 m/s<sup>2</sup> A(8)  
94 hours, 6 minutes

Vibration magnitude m/s<sup>2</sup> r.m.s  
1.46

Part Numbers	30,000 rpm	40,000 rpm
Model	P/N	P/N
525XSV 1/4"	42530	42540
525XSV 1/4" w/brake	42534	42544
525XSV 6mm	42531	42541
525XSV 6mm w/brake	42535	42545
525XDM 1/4"	42532	42542
525XDM 1/4" w/brake	42536	42546
525XDM 6mm	42533	42543
525XDM 6mm w/brake	42537	42547

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*



DM Version

General Specifications	525X Series
Governed Speed rpm	30,000 / 40,000
Power Rating hp (kW)	.8 (.60) / .8 (.60)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	19 (8.97) / 20 (9.44)
Air Consumption Working Flow cfm (l/s)	22 (10.38) - 30 (14.16)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/4" / (6mm)



**Standard Equipment:** 1/4" or optional 6mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 3/8" air supply fitting. **DM:** Trigger switch and 3/8" air supply fitting. Optional Collets and accessory filters are available.

# 525XSVE Series

Reach deep cavities! The **525XSVE** delivers double turbine power combined with lightweight, low vibration, low noise for operator comfort. The **525XSVE** also provides greater accuracy and a finer high quality finish.

The constant high speed **525XSVE** enables you to work on hard-to-reach applications for fast removal or finishing - comfortably with a light touch directing the tool. At up to 0.80 hp (0.60 kW) high speed cutting action on your work piece is assured.

Patented automatic brake option stops this tool in seconds.



27.9 oz (0.79 kg)

Time to reach EAV 2.5 m/s<sup>2</sup> A(8)  
12 hours, 32 minutes

Time to reach ELV 5 m/s<sup>2</sup> A(8)  
50 hours, 8 minutes

Vibration magnitude m/s<sup>2</sup> r.m.s  
2.00

Part Numbers	30,000 rpm
Model	P/N
525XSVE 1/4"	42562
525XSVE 6mm	42563

*\*For Hand Applications Only. Not suitable for mounting.  
Check suitability of cutting tool with manufacturer.*

General Specifications	525XSVE Series
Governed Speed rpm	30,000
Power Rating hp (kW)	.8 (.60)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	19 (8.97)
Air Consumption Working Flow cfm (l/s)	22 (10.38) - 30 (14.16)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/4" / (6mm)



**Standard Equipment:** 1/4" or optional 6mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 3/8" air supply fitting.

## 230DM Series

Almost silent, this light tool shows the power and superiority of the governed turbine. The **230DM** incorporates heavy duty bearings and has collet capacities of 1/4" or 6mm. For use in heavy-duty applications where hard use is expected for graphite finishing or Kevlar cutting, die polishing, removing welds or foundry work.

The **230DM** will perform heavy material removal tasks reliably, faster, cleaner. Reduced fatigue, hand arm stress and carpal tunnel injury risk.

The **230DM** has a trigger switch for quick, easy shut-off.

Available with and without brake option.



**39.7 oz (1.12 kg)**

**Time to reach EAV 2.5 m/s<sup>2</sup> A(8)**  
345 hours, 40 minutes

**Time to reach ELV 5 m/s<sup>2</sup> A(8)**  
1382 hours, 37 minutes

**Vibration magnitude m/s<sup>2</sup> r.m.s**  
0.38

Part Numbers	25,000 rpm	30,000 rpm	40,000 rpm
Model	P/N	P/N	P/N
230DM 1/4"	32722	32732	32742
230DM 1/4" w/brake	32728	32738	32748
230DM 6mm	32723	32733	32743
230DM 6mm w/brake	32729	32739	32749

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*

General Specifications	230 Series
Governed Speed rpm	25,000 / 30,000 / 40,000
Power Rating hp (kW)	.76 (.57) / .83 (.62) / .88 (.66)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	13 (6.14) / 14 (6.61) / 14 (6.61)
Air Consumption Working Flow cfm (l/s)	15 (7.08) - 35 (16.52)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/4" (6mm)



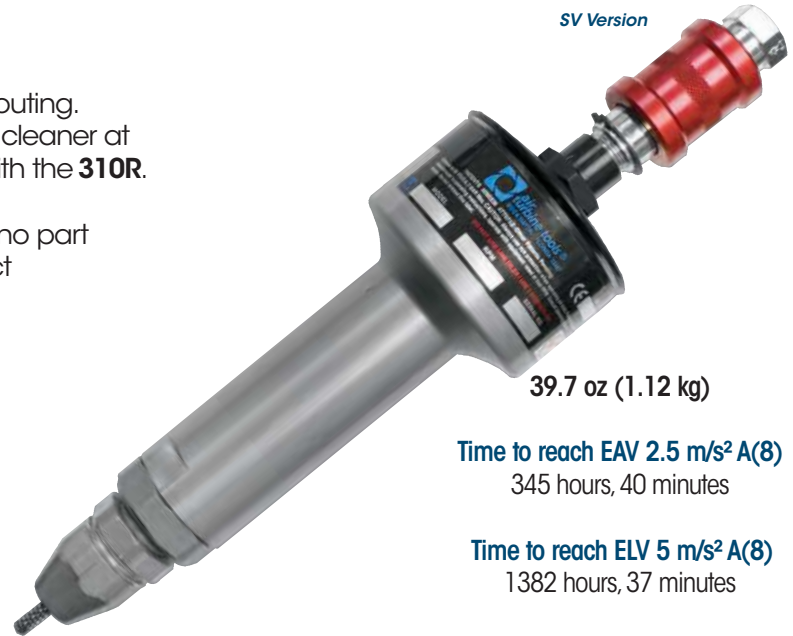
**Standard Equipment:** 1/4" or optional 6mm collet, collet wrenches, rear exhaust. **DM:** Trigger switch and 3/8" air supply fitting.

# 310R Router Series

Control and Power - to 0.88 hp. For high speed routing. Wood, plastics and fiberglass are cut faster and cleaner at governed 40,000 rpm with less fiber break-out with the **310R**.

Oil-free mechanism results in no oil misting and no part contamination. The **310R** is a light powerful direct drive turbine with only 2 moving parts - resulting in great reliability. A further advantage of the **310R** is the tool's low vibration magnitude (just 0.38 mm/s<sup>2</sup>) and low heat - both improving operator comfort and reducing RSI risk.

Slide Valve **SV** or **DM** Trigger Switch Control. Accessory Guides available.



SV Version

39.7 oz (1.12 kg)

Time to reach EAV 2.5 m/s<sup>2</sup> A(8)  
345 hours, 40 minutes

Time to reach ELV 5 m/s<sup>2</sup> A(8)  
1382 hours, 37 minutes

Vibration magnitude m/s<sup>2</sup> r.m.s  
0.38

Part Numbers	25,000 rpm	30,000 rpm	40,000 rpm
Model	P/N	P/N	P/N
310RSV 1/4"	33420	33430	33440
310RSV 1/4" w/brake	33424	33434	33444
310RSV 6mm	33421	33431	33441
310RSV 6mm w/brake	33425	33435	33445
310RDM 1/4"	33422	33432	33442
310RDM 1/4" w/brake	33426	33436	33446
310RDM 6mm	33423	33433	33443
310RDM 6mm w/brake	33427	33437	33447



DM Version

\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.

General Specifications	310R Series
Governed Speed rpm	25,000 / 30,000 / 40,000
Power Rating hp (kW)	.76 (.57) / .83 (.62) / .88 (.66)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	13 (6.14) / 14 (6.61) / 14 (6.61)
Air Consumption Working Flow cfm (l/s)	14 (6.61) - 35 (16.52)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/4" (6mm)



**Standard Equipment:** 1/4" or optional 6mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 3/8" air supply fitting. **DM:** Trigger switch and 3/8" air supply fitting.



# 310RX Router Series - Extra Power

SV Version

Incredible Double Turbine Power - to 1.40 hp (1.04 kW). Composites, plastics and alloys can be routed faster and cleaner at 40,000 rpm with a finer surface quality and less fiber break-out with the **310RX**.

The oil-free patented mechanism results in no oil misting and no part contamination. The **310RX** is a powerful direct drive turbine with only 2 moving parts: the result is low vibration, low heat and great durability.

Slide Valve **SV** or **DM** Trigger Switch Control. Accessory Guides available.



41.4 oz (1.17 kg)

**Time to reach EAV 2.5 m/s<sup>2</sup> A(8)**  
345 hours, 40 minutes

**Time to reach ELV 5 m/s<sup>2</sup> A(8)**  
1382 hours, 37 minutes

**Vibration magnitude m/s<sup>2</sup> r.m.s**  
0.38

Part Numbers	25,000 rpm	30,000 rpm	40,000 rpm
Model	P/N	P/N	P/N
310RXSV 1/4"	43420	43430	43440
310RXSV 1/4" w/brake	43424	43434	43444
310RXSV 6mm	43421	43431	43441
310RXSV 6mm w/brake	43425	43435	43445
310RXDM 1/4"	43422	43432	43442
310RXDM 1/4" w/brake	43426	43436	43446
310RXDM 6mm	43423	43433	43443
310RXDM 6mm w/brake	43427	43437	43447



DM Version

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*

General Specifications	310RX Series
Governed Speed rpm	25,000 / 30,000 / 40,000
Power Rating hp (kW)	1.2 (0.90) / 1.3 (0.98) / 1.4 (1.04)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	16 (7.55) / 17 (8.02) / 18 (8.50)
Air Consumption Working Flow cfm (l/s)	19 (8.97) - 40 (18.89)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/4" (6mm)



**Standard Equipment:** 1/4" or optional 6mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 3/8" air supply fitting. **DM:** Trigger switch and 3/8" air supply fitting. Optional Collets and accessory filters are available.

# 0145 Series

Put the **0145SSV** in your fingers or palm and experience exceptionally fine control necessary for close proximity work. Feather-light at 6 oz (0.17 kg) the **0145SSV** has lots of torque.

The **0145** is so naturally balanced that it feels like an extension of your hand.

This tool is effective for precision work, marking or deburring but its so light you hardly notice you are working.

Our patented 45° design conforms to the natural position of your hand for hand- eye coordination. Because the motor is in the 45° head there are no gears, vanes or brushes to vibrate or heat up.

As a result the **0145** delivers direct drive reliability with only 2 moving parts combined with lower vibration and weight than a gear head.



SSV Short Version

6 oz (0.17 kg)

**Time to reach EAV 2.5 m/s<sup>2</sup> A(8)**  
30 hours, 44 minutes

**Time to reach ELV 5 m/s<sup>2</sup> A(8)**  
122 hours, 53 minutes

**Vibration magnitude m/s<sup>2</sup> r.m.s**  
1.28

Part Numbers	40,000 rpm	50,000 rpm	65,000 rpm
Model	P/N	P/N	P/N
0145SSV 1/8" short	35042	35052	35062
0145SSV 3mm short	35043	35053	35063
0145SV 1/8" long	35040	35050	35060
0145SV 3mm long	35041	35051	35061



Long Version

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*

General Specifications	0145 Series
Governed Speed rpm	40,000 / 50,000 / 65,000
Power Rating hp (kW)	.15 (.11) / .2 (.15) / .2 (.15)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	3.2 (1.51) / 4 (1.89) / 4 (1.89)
Air Consumption Working Flow cfm (l/s)	4.7 (2.22) - 7 (3.30)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/8" (3mm)



**Standard Equipment:** 1/8" or optional 3mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 1/4" air supply fitting. Optional Collets and accessory filters are available.

# 2545 Series

Differences you will feel immediately:  
 Speed does the cutting with low stress.  
 The patented 45° **2545** angle tool is designed with the turbine in its angle head and no gears.  
 Light weight with low vibration provides superior comfort.

Just 2 moving parts for superior reliability with our totally oil-free and maintenance-free mechanism.

Select governed 30,000 or 40,000 rpm for deburring and weld removal. Front and Rear Exhaust options.

**Select:**

Slide Valve **SV** or **DM** Trigger Switch Control.  
 Short **SSV** or Long Handle **SV** Version.  
 Front **F** or **R** Rear Exhaust.



SSV Short Version

18 oz (0.50 kg)

Time to reach EAV 2.5 m/s<sup>2</sup> A(8)  
 64 hours, 11 minutes

Time to reach ELV 5 m/s<sup>2</sup> A(8)  
 256 hours, 41 minutes

Vibration magnitude m/s<sup>2</sup> r.m.s  
 0.88

Part Numbers	30,000 rpm	40,000 rpm
Model	P/N	P/N
2545SSVF 1/4"	35546	35548
2545SSVF 6mm	35547	35549
2545SVF 1/4"	35532	35542
2545SVF 6mm	35533	35543
2545SVR 1/4"	35530	35540
2545SVR 6mm	35531	35541
2545DM 1/4"	35534	35544
2545DM 6mm	35535	35545



SV Long Version

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*

General Specifications	2545 Series
Governed Speed rpm	30,000 / 40,000
Power Rating hp (kW)	.4 (0.30) / .45 (0.34)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	10 (4.72) / 13 (6.14)
Air Consumption Working Flow cfm (l/s)	11 (5.19) - 20 (9.44)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/4" (6mm)



Front Exhaust Version

**Standard Equipment:** 1/4" or optional 6mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 1/4" air supply fitting. **DM:** Trigger switch and 1/4" air supply fitting.

# 2590 Series

The patented 90° **2590** angle tool is designed with the turbine in its angle head and no gears. This design results in light weight with low heat and low vibration.

Excellent for deburring and finishing. High rotational speed is maintained by our patented governed turbines so you simply guide the **2590** letting speed do the work with just a light hand.

Just 2 moving parts in this tool for super reliability and the **2590** is both maintenance-free and totally oil free. Select governed 30,000 or 40,000 rpm.

**Select:**

Slide Valve **SV** or **DM** Trigger Switch Control.  
Short **SSV** or Long Handle **SV** Version.  
Front **F** or **R** Rear Exhaust.



**18 oz (0.50 kg)**

**Time to reach EAV 2.5 m/s<sup>2</sup> A(8)**  
64 hours, 11 minutes

**Time to reach ELV 5 m/s<sup>2</sup> A(8)**  
256 hours, 41 minutes

**Vibration magnitude m/s<sup>2</sup> r.m.s**  
0.88

Part Numbers	30,000 rpm	40,000 rpm
Model	P/N	P/N
2590SSV 1/4"	35846	35848
2590SSV 6mm	35847	35849
2590SVF 1/4"	35832	35842
2590SVF 6mm	35833	35843
2590SVR 1/4"	35830	35840
2590SVR 6mm	35831	35841
2590DM 1/4"	35834	35844
2590DM 6mm	35835	35845



DM Version

*\*For Hand Applications Only. Not suitable for mounting. Check suitability of cutting tool with manufacturer.*

General Specifications	2590 Series
Governed Speed rpm	30,000 / 40,000
Power Rating hp (kW)	.4 (0.30) / .45 (0.34)
Inlet Air Pressure (clean dry air only)	90 psi (6.2 bar)
Air Consumption Idle cfm (l/s)	10 (4.72) / 13 (6.14)
Air Consumption Working Flow cfm (l/s)	11 (5.19) - 20 (9.44)
Sound Level	Less Than 67 dBA
Max Shank Capacity	1/4" (6mm)



Rear Exhaust Version

**Standard Equipment:** 1/4" or optional 6mm collet, collet wrenches, rear exhaust. **SV:** 5' air supply assembly with slide valve and 1/4" air supply fitting. **DM:** Trigger switch and 1/4" air supply fitting. Optional Collets and accessory filters are available.

## Parts & Accessories

Filters / Extractors	
Model	P/N
<b>High Flow Filter Regulator Extractor with 1/2" NPT</b> (use for 310RX models) 0.3 µm	30084
<b>High Flow Filter Regulator Extractor</b> (use for all models except 310RX) 0.3 µm	30008
<b>High Flow Filter Regulator</b> (use for all models except 310RX) 5 µm	30003
<b>High Flow Filter</b> (use for all models except 310RX) 5 µm	30004
<b>Low Flow Filter</b> (use for 0145, 200, 201, and 0190 models) 5 µm	30002
<b>Low Flow Filter Regulator</b> (use for 0145, 200, 201, and 0190 models) 5 µm	30001
<b>Low Flow Element</b>	11191
<b>High Flow Element</b>	11192
<b>Coalescing Element</b>	11193
<b>High Flow Element</b> (use for P/N 30084)	11214
<b>Coalescing Element</b> (use for P/N 30084)	11215
<b>High Flow Bowl</b>	11194

Ceramic Bearing Set Optional Add On - Factory Installation Only	
Model	P/N
<b>202</b>	31101
<b>206, 525, 2545, 2590</b>	31102

Angular Bearing Set Optional Add On - Factory Installation Only	
Model	P/N
<b>310 Series</b>	32702

Air Supply Assembly w/Fittings for SV Models	
Model	P/N
<b>5' AIR SUPPLY ASSY W/FITTING</b> Models 0145, 0190, 200, 201	32107
<b>5' AIR SUPPLY ASSY W/FITTING</b> Models 202, 525	32207
<b>5' AIR SUPPLY ASSY W/FITTING</b> Model 206X	32607
<b>5' AIR SUPPLY ASSY W/FITTING</b> Model 2545, 2590	34207
<b>5' AIR SUPPLY ASSY W/FITTING</b> Model 2545SSVR, 2545SSVF	34208

Air Supply Assembly w/Fittings for DM Models	
Model	P/N
<b>201-202-206X-525-2545-2590</b>	
<b>5' AIR SUPPLY ASSY W/FITTING</b>	30010
<b>8' AIR SUPPLY ASSY W/FITTING</b>	30011
<b>310R</b>	
<b>6' AIR SUPPLY ASSY W/FITTING</b>	30012
<b>12' AIR SUPPLY ASSY W/FITTING</b>	30013
<b>525X</b>	
<b>5' AIR SUPPLY ASSY W/FITTING</b>	30020
<b>8' AIR SUPPLY ASSY W/FITTING</b>	30021

Foot Pedal Accessories	
Model	P/N
<b>FOOT CTRL VALVE</b> (use for 201, 202, 525, 0190, 0145, 2590, 2545)	30030
<b>FOOT CTRL VALVE W/8' HOSE ASSY</b> (use for 201, 0190, 0145)	30031
<b>FOOT CTRL VALVE W/8' HOSE ASSY</b> (use for 206X)	30032
<b>FOOT CTRL VALVE W/8' HOSE ASSY</b> (use for 202, 525)	30033
<b>FOOT PED ASSY W/AIR SUPPLY</b> (use for 2590, 2545)	30034
<b>FOOT CONTROL VALVE SAFETY GUARD</b>	30039

90 psi / 6.2 bar dry, clean air supply required at the specified cfm / l/s flow rate.

## Parts & Accessories

Collets for Models 200, 201, 0190, 0145	
Model	P/N
COLLET LONG 1/8"	12141
COLLET LONG 3mm	12142
COLLET LONG 1/16"	12143
COLLET LONG 3/32"	12144
COLLET NUT LONG	12149
WRENCH COMBO (1/4" + 9/32")	12173

Collets for Models 202	
Model	P/N
COLLET LONG 1/8"	12291
COLLET LONG 3mm	12292
COLLET LONG 5/32"	12293
COLLET LONG 4mm	12294
COLLET LONG 1/16"	12295
COLLET LONG 3/32"	12296
COLLET NUT LONG	12298
WRENCH (9/32")	12172
WRENCH (5/16")	12677

Collets for Models 206, 525, 310R, 2590, 2545, 310	
Model	P/N
COLLET LONG STYLE 3mm	12442
COLLET LONG STYLE 1/8"	12443
COLLET LONG STYLE 3/16"	12444
COLLET LONG STYLE 6mm	12445
COLLET LONG STYLE 1/4"	12446
COLLET LONG STYLE 8mm	12447
COLLET NUT LONG STYLE	12438
WRENCH (7/16")	12473
WRENCH (9/16")	12479

## Quick User Notes

*Air Turbine Tools®* are proprietary governed turbine motors using variable air consumption to maintain high speed and torque under load. Therefore, your tool or spindle will run at less than stall flow unless at full load. Optimal cutting action occurs with a small depth of cut with the motor operating at constant high speed and speed will stay in a range close to rated speed up to 80% of rated maximum rated power. It is essential the air supply not be restricted by hoses, pipes, fittings or couplings less than recommended diameters.

Avoid obstructions to airflow causing loss of power. Use only concentric speed rated cutting tools matching the capacity of your collet and do not allow the cutting tool to protrude excessively from the collet. (< 3x collet internal diameter).

Hand Tool Slide valves must be fully opened or closed. Red indicates 'Off' position and green 'On' position.

Insert speed rated cutting tool in accordance with instructions when control is in 'off' position and tighten fully with wrenches provided. Optional collet sizes are available up to 1/4" / 6mm max shank capacity.

*Air Turbine Tools®* should be run for at least 30 minutes every month to maintain optimum performance of bearing lubrication.

Always operate in compliance with:

1. Safety code for portable air tools - ANSI 186.1, etc.  
Always use eye + face protection.
2. General Industry Safety & Health Regulations, Part 1910 and 2206 OSHA, etc.
3. Federal, State and local regulations and laws in your country.
4. Cutting tool manufacturers operating instructions. Do not use cutting tools unless they are rpm rated equal to or more than the air tool / motor / spindle rpm.
5. Air pressure exceeding 100 psi / 7 bar must not be used. Avoid air restrictions from couplings or hoses less than stated internal diameter or leaks which reduce power.

Always Check 6.2 bar / 90 psi max clean air pressure is unrestricted and supplies flow rate. CFM / L/S stated in specifications. Use flow meter to check air flow. Restrictions due to couplings, hose, or filters result in under-powered performance.

# Warranty

## Repair Information

**For Repairs Contact:** +1-561-994-0500 or info@airturbinetools.com.

**Ship To:** Air Turbine Tools, Inc. • 1225 Broken Sound Parkway, NW, Suite D • Boca Raton, FL 33487, USA.

Be sure to include your name and contact information. Air Turbine Tools® will send you a diagnostic report and quote for your repair after disassembly and inspection. Unclaimed tools may be scrapped at Air Turbine Tools, Inc.'s discretion.

Contact us for details on our European Repair Facility.



## One Year Limited Warranty - Precision Tool Products

Air Turbine Tools, Inc. (ATT) warrants to the end user that ATT tool products (other than accessories) are free from manufacturing defects in material or workmanship for a period of 367 days from the date of original purchase when used in compliance with directions in the manufacturer's instructions. ATT tool products must only be operated using 90 psi / 6.2 bar, clean, dry, oil-free air, free of debris or other contaminants at the specified flow rate without restrictions on air flow.

In case of manufacturing defects in material or workmanship, ATT will repair (remedy) a defective tool without charge. In no event shall ATT be obligated to compensate end user beyond cost of repair or replacement of the tool. It is the customer's responsibility to ensure the tool is operated in a safe manner and in accordance with applicable instructions and using only appropriate speed rated cutting tools.

**User Note:** Always use eye protection. Ensure your air supply is turned off before installing your ATT product.

To be covered under this warranty, the tool must be inspected at the ATT plant and found not to have been abused, crashed, dropped or stopped suddenly or affected by contamination, air flow restriction or abuse. Any repairs attempted must be made only by ATT or its current trained Authorized International Distributor using ATT parts. Proof of date and source of purchase must be provided and a warranty registration card must be returned to ATT within 30 days of purchase by end user for this warranty to take effect. End user assumes all costs incurred in shipping tool(s) to and from ATT or its Authorized Distributor. This warranty does not apply in case of use of inappropriate applications or cutting tools (See ATT User Notes) unsuited to the tool or which generate excess wear due to the process or material involved.

ATT is not responsible for incidental or consequential damage; nor damage due to misuse, abuse or any non-factory repairs, inappropriate cutting tools, attachments or mounting of tools.

This Warranty is void if the tool product is opened or serviced by anyone other than ATT or its current Authorized International Distributors using only ATT parts, repair tools and manuals. This warranty is also void if the tool has been abused, dropped or subjected to impact, has exceptionally heavy wear or contains oil, water, dirt or other contaminants. Bearing wear out is not warranted. The cause and damage will be evaluated, documented and determined at ATT's discretion and an inspection report will be provided.

This warranty is governed and construed in accordance with the laws of the State of Florida, USA and all disputes shall be submitted to the exclusive jurisdiction of, and heard by, the courts of the State of Florida.

Air Turbine Tools, Inc. provides a one year limited warranty on the precision tool products it manufactures. (Accessories are warranted by their respective manufacturers.) To validate your warranty, return your warranty registration card promptly and please avoid actions which could invalidate your warranty.





**Motor Mount Series**  
Constant High Speed and Torque • 25,000 - 65,000 rpm, <math>\pm 3.4 \text{ hp} / 1.04 \text{ kW}</math>

- Proven 90° gearhead design allows work in gear • up to 1.4 hp / 1.04 kW
- Faster feed rates and increased productivity at constant 25,000 - 65,000 rpm
- Parallel mounted high speed and torque governed motor ports maintain better and cleaner
- 24/7 Operation, No Duty Cycle, Silent Drive for low vibration and heat
- Totally oil free, No gears or seals, No lubrication, maintenance or coolant cost
- Only two moving parts: carbide • Savings for less repairs

Motor Mounts Series




**High Tech: High Speed - Air Turbine Superiority**  
Constant High Speed and Torque • 25,000 - 90,000 rpm, 1.4 hp / 1.04 kW

- Significantly reduced cycle times: Compatible in-machines instead of Presses
- Save time and money: Air Turbine Spindles' design • speed gives you more finished (V.F.F.)
- Cost effective milling, deburring and polishing of parts on your CNC eliminating secondary processes
- Speed times with 1000 rpm milling speeds: No stress, gears or seals to wear, burn up or normally require the maintenance required
- No water on CNC machine spindle system
- CNC Autolchange option for full integration on any CNC

Spindle Series



Distributor



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Use 90 psi / 6.2 Bar clean, dry, oil-free air only. Use eye protection and follow safety instructions. Supply is subject to Air Turbine Tools, Inc., terms and conditions of sale and distributor policies in effect for the time being. Subject to availability, change of specifications, price and terms without notice. All specifications approximate. Air Turbine Tools® is the registered trade name of Air Turbine Tools, Inc. © 2018 Air Turbine Tools, Inc. All rights reserved.