

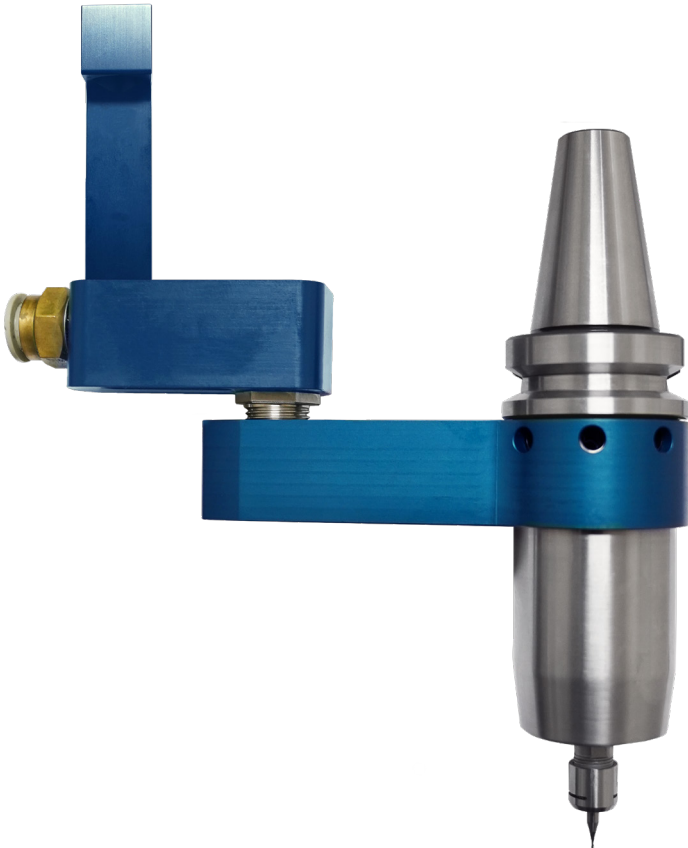
602DT

Drill-Tap CNC Spindle Series



Retrofit your Drill-Tap machine with the **602DT** for governed constant high speeds. Select **40,000, 50,000, 65,000, or 90,000 RPM**. Ideal for milling, drilling, engraving, marking, slotting, and finishing with small tools. Patented Air Turbine Spindles® maintains high speed and torque while cutting with no gears, vanes, or brushes to burn up. The **602DT** requires no lubrication and emits no oil mist.

For automatic loading from the Drill-Tap magazine, install the spindle-mounted manifold block and align the nozzle to the block connector, to supply the spindle with a clean, dry 90 psi (6.2 bar) air supply.



Accessories	
Model	Part Number
High Flow Filter / Regulator / Extractor	30008
Tube 10 mm O.D. - 6.5 mm I.D. (order by foot)	16508
Hose & Fitting - 10 mm O.D. - 6.5 mm I.D. - 12'	30043

602DT Equipment Included
<ul style="list-style-type: none"> • 602BT30 Spindle • TMA Block • TMA Collar • Combo Filter Extractor • ER8 UP Collet System (1/8" or 3 mm standard) • Collet Wrenches • Air Hose • Fittings • Plug (For alternate air inlet not in use.) • Coolant Guard • Carrying Case

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

602DT Specifications				
Speed	40,000 RPM	50,000 RPM	65,000 RPM	90,000 RPM
Power Rating	0.15 HP (0.11 kW)	0.2 HP (0.15 kW)		
Inlet Air Pressure	90 psi (6.2 bar)			
Air Consumption Idle	4.5 CFM (2.1 L/s)			5 CFM (2.36 L/s)
Air Consumption Working Flow	5 CFM - 6 CFM (2.36 L/s - 2.83 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)			
Spindle & TMA Collar Weight	35.3 oz (1 kg)			

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.



Scan to consult
full user instructions.

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Supply is subject to Air Turbine Technology Inc. (ATT) distributor policies and upon terms and conditions contained in the ATT distributor agreement. Subject to availability, change of specifications, price and terms without notice. Always use a 0.3 micron filter/extractor and check specified air flow. 6.2 bar / 90 psi clean, dry, oil-free air only. Use eye protection and follow safety instructions. All specifications approximate. All tools are tested and rated to be within 10% of designated speed. © 2025 Air Turbine Technology, Inc. All rights reserved.

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602DT Series Part Numbers

Model	Collet System	Part Number			
		40,000 RPM	50,000 RPM	65,000 RPM	90,000 RPM
602DTBT30 Robodrill	ER8 UP 1/8"	65330	65332	65334	65328
	ER8 UP 3 mm	65331	65333	65335	65329
602DTBT30 Brother TC	ER8 UP 1/8"	65336	65337	65340	
	ER8 UP 3 mm	65337	65339	65341	
602DTBT30 Haas DT-1	ER8 UP 1/8"	64616	64618	64620	
	ER8 UP 3 mm	64617	64619	64621	

Spindle Only Part Numbers

Model	Collet System	Part Number			
		40,000 RPM	50,000 RPM	65,000 RPM	90,000 RPM
602DTBT30	ER8 UP 1/8"	64290	64292	64294	64296
	ER8 UP 3 mm	64291	64293	64295	64297

TMA (Block + Collar) Part Numbers

Model	Part Number
602DT - Robodrill	36300
602DT - Brother TC	36301
602DT - Haas DT-1	36304

Block Assembly Only Part Numbers

Model	Part Number
602DT - Robodrill	36314
602DT - Brother TC	36315
602DT - Haas DT-1	36316

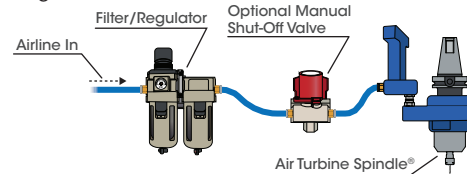
Collar Assembly Only Part Numbers

Model	Part Number
602DT - Robodrill	36317
602DT - Brother TC	36319
602DT - Haas DT-1	36323

Mounting blocks for other CNC machines are available.

Initial Installation

Install a new dedicated clean air line from the included filter/regulator to your Air Turbine Spindle® as shown below. **Ensure all air lines, couplings and fittings meet the minimum internal diameter (ID) of 4 mm.** Any connections smaller than 6 mm will restrict air flow and reduce power to your Air Turbine Spindle®. Additionally, place a plug in any air inlet that is not being used.



Air flow restrictions (such as air leaks) 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 Spindle®.

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 clean compressed air flow at 90 psi (6.2 bar) with **5 CFM - 6 CFM (2.36 L/s - 2.83 L/s)** to maintain working air consumption. Depending on application, consider peak or stall capacity consumption.

Our patented governor increases air flow volume on demand to keep rotation at the high speed when your tool starts to cut. **Air pressure and flow volume must 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 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 Spindle® or there is a flow restriction in the air line.

Maintenance

Your Air Turbine Spindle® 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 6 mm internal diameter. The included 0.3 micron filter extractor regulator combination is a necessary accessory for Air Turbine Spindles® 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.

Operation

Purge the line of contamination and run at least 10 minutes before initial use to ensure the bearing lubrication does not solidify.

Monitor the air pressure gauge during operation of your Air Turbine Spindle®. The key to successful high-speed machining and optimized tool performance is to program light passes at very high feed rates. Start with a light pass observing surface finish quality and gradually step down or increase your rate of advance for optimal cutting conditions. Do not try to cut too aggressively. You will overload your turbine causing your cutting tool to stall or drag in the material. Dragging your tool on the work or a sudden stop will cause stress to the bearings and force the grease out, causing premature failure.



WARNING

Connection to air supply starts motor rotation. Do not connect air to your tool until installation is complete.

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