

# HENRY TOOLS

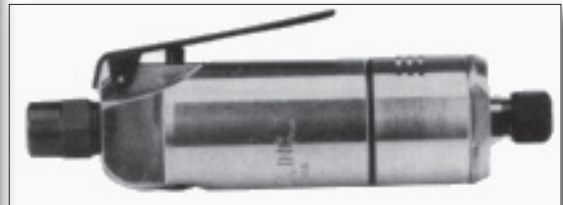
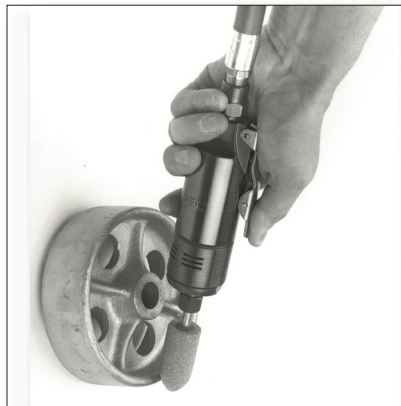
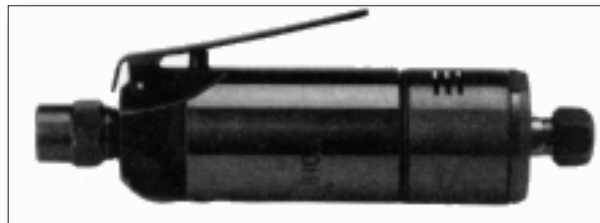
Industrial Airtools at Work

Models  
40G  
40AGK  
40AGK+3  
40AGK+6  
40AGS



## General Safety and Maintenance Manual

**New Style for 2010**



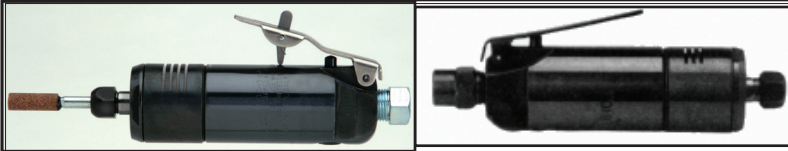
Model Number	Exhaust Direction	Throttle Type	Speed	Power Output	Case Material	Weight		Length	Diameter	Air Consumption	Collet Size
						Aluminum	Steel				
40G	Front or Side (Side is Standard)	(L) Lever or (K) Safety Lever	15000 to 22000 R.P.M	0.9 H.P. 675 W	Steel or Aluminum	1.5 lb/0.7 Kg	1.9 lb/0.9 Kg	5.8 inch	1.6 inches 41 mm	25cfm 11.8 L/S	1/4 inch
40G+3						1.6 lb/0.7 Kg	2.0 lb/0.9 Kg	8.8 inch			
40G+6						1.7 lb/0.8 Kg	2.1 lb/1.0 Kg	11.9 inch			
40AG						1.5 lb/0.7 Kg	1.9 lb/0.9 Kg	5.8 inch			
40AGK+3						1.6 lb/0.7 Kg	2.0 lb/0.9 Kg	8.8 inch			
40AGK+6						1.7 lb/0.8 Kg	2.1 lb/1.0 Kg	11.9 inch			

**THE HENRY TOOL CO., MANUFACTURED BY HENRY TOOLS**

498 So. Belvoir Blvd., South Euclid, OH 44121 U.S.A.

Ph: (216) 291-1011 or (800) 826-5257 • Fax: (216) 291-5949 or (800) 303-2800

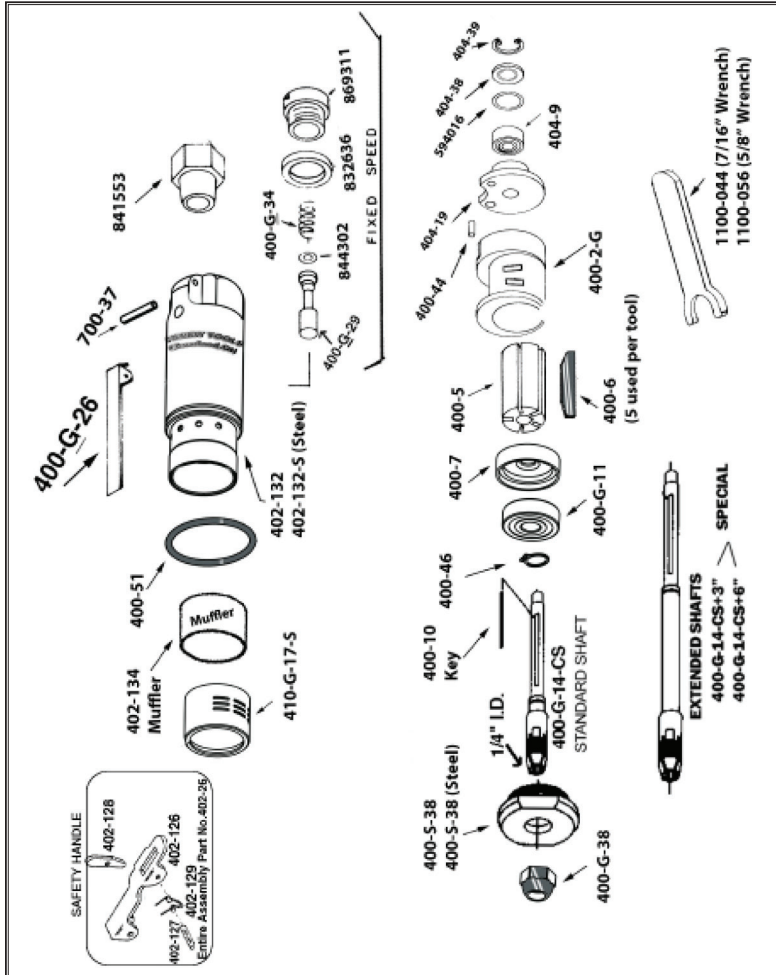
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- RETURN THE TOOL TO THE TOOL CRIB FOR SERVICE IMMEDIATELY.
- Make certain no one is in front of or in line with the wheel or other abrasive accessory. Be aware that it may fail at this time if it is defective, improperly mounted or the wrong size and speed. Stop immediately if considerable vibration or other defects are detected. Shut off the air supply and determine the cause.
  - OPERATOR PROTECTIVE EQUIPMENT - Wear goggles or face shield at all times tool is in operation. Other protective clothing shall be worn, if necessary. SEE REGULATIONS.
  - Keep hands, loose clothing and long hair away from rotating end of tool.
  - Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.
  - Keep body stance balanced and firm. Do not overreach when operating this tool. High reaction torques can occur at or below the recommended air pressure.
  - Tool accessories may continue to rotate briefly after throttle is released.
  - Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
  - This tool is not designed for working in explosive atmospheres. Do not use this tool on materials whose dust or fumes can cause a potentially explosive environment.
  - This tool is not insulated against electric shock.
  - Product Safety information - When Posing the Tool in Service
    - NEVER MODIFY ANY PART OF THIS TOOL!!! Always install, operate, inspect and maintain this product in accordance with all applicable standards and regulations (local, state, country, federal, etc.).
    - Always use clean, dry air at 90 psig (6.2 bar/620 kPa) maximum air pressure at the inlet. Higher pressure may result in hazardous situations including excessive speed, rupture, or incorrect output torque or force.
    - Be sure all hoses and fittings are the correct size and are tightly secured.
    - Install a properly sized Safety Air Fuse upstream of hose

**GRINDER SAFETY**

ALWAYS COMPLY WITH:

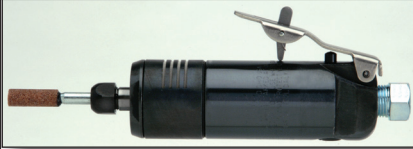
- General Industry Safety & Health Regulations, Part 1910, OSHA 2206, available from: Sup't of Documents; Government Printing Office; Washington DC 20402
  - Safety Code for Portable Air Tools, ANSI B186.1 available from: American National Standards Institute, Inc.; 1430 Broadway; New York, NY 10018
  - State and Local regulations.
  - Portions of the above codes and regulations are listed below for quick reference.
- THESE EXCERPTS ARE NOT INTENDED TO BE ALL INCLUSIVE - STUDY AND COMPLY WITH ALL REGULATIONS!
- Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.
  - After mounting a wheel or other abrasive accessory, the Grinder shall be run in a protected enclosure, at gradually increasing speed, for at least 60 seconds. When starting work with a cold wheel, apply it gradually to the workpiece until it becomes warm. Do not continue to use a grinder if:
    - The speed rating of the accessory is less than the speed of the grinder
    - If tool vibrates repair immediately.
    - You sense changes in tool speed or an unusual increase in noise that would indicate tool is running at excessive speed.
    - You notice excessive end play in spindle
    - You hear any unusual sound from grinder

FAULT	CAUSE	SOLUTION
Insufficient Power	Air pressure too low	Minimum air pressure <i>should</i> be 90 PSI for maximum performance
	Restriction in air hose	Remove bends or other restrictions
	Hose I.D. is too small	Use required hose I.D.
	Worn vanes	Exchange vanes
Machine does not start	No air, shut-off valve is closed.	Open shut-off valve
	Worn vanes due to lack of oil or vanes are jammed	Exchange vanes . (cylinder might also be worn out)
Grinder does not want to stop	Worn O-Ring	Replace o-ring in handle (844302) for example.
Spindle wobbles or vibrates.	Bearings worn out	Disconnect tool from the air supply. <i>Immediate</i> servicing is required.

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**SERVICE INSTRUCTIONS**

**DISASSEMBLY**

1. Model 40AGL with collet spindle remove collet nut (400-G-38) with 5/8" wrench and 7/16" wrench.
2. Clamp the flats of case (420-132) in a vise. Remove nut (400-S-38). Remove exhaust sleeve (410-G-17-S) and O-ring (400-51). Pull out entire motor assembly. Remove everything from vise.
3. Remove snap ring (404-39) with type 01 pliers. Remove (592016) snap ring. Lift out wafer (404-38) and o-ring (594016).
4. With brass or aluminum jawed vise, grasp the O.D. of the cylinder (400-2-G) and end plate (404-19) lightly. Using a 3/16" punch, tap lightly on rear of (400-G-14-CS) spindle to release it from bearing (404-19), being careful not to drop spindle assembly when it is free.
5. Remove the rotor (400-5), blades (400-6), key (400-10) and front thrust plate (400-7).
6. Remove snap ring (400-46) with type 02 pliers. Place bearing and spindle assembly (threaded end down) on suitable drill block. Press spindle through the bearing (400-G-11) with an arbor press.
7. To check throttle valve. unscrew plug (869311) and lift out valve spring (400-G-34) and plunger (400-G-29). Remove o-ring (400-G-31) and replace if cracked or worn.

**REASSEMBLY**

1. Support front bearing (400-G-11) on suitable drill block. Press spindle [400-G-14-CS] through bearing (400-G-11) until it bottoms on shoulder.
2. With type 02 pliers place the snap ring (400-46) into the groove. Slide on front thrust (400-7) over the arbor and onto the front bearing.
3. Place the key (400-10) into the slot in the spindle. Slide rotor (400-5) over spindle, aligning the key-way in the rotor with the key in spindle.
4. Place five blades (400-6) in slots of rotor. Slip cylinder [400-2(G)] over rotor. Install rear thrust [404-19]. (Carefully locate cylinder in the smaller hole of the rear thrust.)
5. Place bearing (404-9) in rear thrust and tap bearing in with suitable bearing driver.
6. Place o-ring (594016) into rear end plate. Then install snap ring (592016) into spindle groove. Place bearing cover (404-38) into rear thrust plate. Place snap ring (404-39) into groove of rear end plate.
7. Slip motor assembly in case (402-132-S). Secure motor housing (402-132) in vise vertically with spindle of tool toward upward direction. Clamp onto the flats toward the rear of the motor housing.
8. Place o-ring (400-51), exhaust screen (402-134) and exhaust deflector (410-G-17-S) onto motor

housing.

9. Install motor retainer (410-S-38-S) and tighten firmly.
- CAUTION: CHECK TOOL FOR SPEED WITH TACHOMETER. THE SPEED STAMPED ON TOOL MUST BE AT OR ABOVE THE ACTUAL SPEED OF THE TOOL.**

Additional information on safety is available in the "American National Safety Code for Portable Air Tools" (ANSI B186.1). This bulletin is available from the American Standards Institute, Inc., 1430 Broadway, New York, N.Y. 10018.

**40AGL SERVICE INSTRUCTIONS**

This tool is designed to operate on 90 psi (6.2 bar) maximum air pressure with 1/4 (8 mm) hose.

Do not use a grinder without recommended wheel guard. Do not use any wheel or carbide burr for which the operating speed listed is lower than the actual free speed labeled on the grinder.

**SAFETY**

1. Before operation check spindle speed with a tachometer. If the RPM's exceed the rated speed stamped on tool, servicing is required.
2. The 40GL die grinders are intended for use with mounted wheels, points and carbide burrs. They are not guarded for type 1 wheels. If you have a type 1 wheel application, please purchase a wheel guard or another tool if that tool won't accommodate a guard.
6. At least one-half of the mandrel length (i.e. mounted wheel, burr, etc.) must be inserted into the collet. Secure collet chuck tightly.
7. Safety levers are available from the manufacturer (402-26).
8. Before mounting or removing a wheel disconnect grinder from air supply. The wheel should fit properly on arbor; do not use bushings or wheel flanges to adapt a wheel to any arbor unless recommended by manufacturer. (Wheel flanges should be at least 1/3 the diameter of the grinding wheel.)
- Wear safety goggles and other protective clothing. (See regulations.)
10. Properly maintained air tools are less likely to fail or cause accidents. If tool vibrates or produces an unusual sound, repair immediately.

**LUBRICATION**

1. An air line filter-regulator-lubricator should be located as closely as possible to the tool.
2. Clean out dirt and moisture from air hoses daily. Keep screen handle bushing in tool.
3. OIL TOOLS DAILY. Exxon's Spinesstic 10, Atlantic Richfield's Duro 55, Gulf's Gulfspin 10 or an equivalent is recommended. Pour about 1 tablespoon in air inlet and run tool to allow oil to be carried to the interior.