

BENCHMARK™

PNEUMATIC 1/4" DIE GRINDER



5 Year Limited Warranty

**READ ALL INSTRUCTIONS BEFORE FIRST USE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.
KEEP AWAY FROM CHILDREN.**



**WEAR CSA
APPROVED EYE
PROTECTION**



**WEAR EAR
PROTECTION**



**WEAR A
FACE MASK**

PRODUCT SPECIFICATIONS

PNEUMATIC 1/4" DIE GRINDER	
Max speed	20,000 RPM
Max PSI	90PSI
Average Air Consumption	4 CFM @ 90PSI
Working pressure	90 PSI
Air inlet	1/4" NPT
Collets	1/4" (installed in tool) and 1/8"
Recommended Hose	3/8" (9.5mm)
Weight	1.3lbs. (0.6kg)

•Please note (where the 1/4" NPT connector is not already installed on the tool) your tool may be shipped with a black plastic cap installed in the air inlet. Pry the cap out prior to installing the 1/4" NPT connector.

NEED ASSISTANCE?

Call us on our toll-free customer support line:
1-866-349-8665 (Monday through Friday 9am – 5pm Eastern Standard Time)

- Technical questions
- Replacement parts
- Parts missing from package


 **NOTE** these instructions pertain to the tool only. Please refer to your compressors operator's manual and follow the manufactures instructions.

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SAFETY GUIDELINES

WARNING:

This manual contains information that relates to PROTECTING PERSONAL SAFETY and PREVENTING EQUIPMENT PROBLEMS. It is very important to read this manual carefully and understand it thoroughly before using the product. The symbols listed below are used to indicate this information.



DANGER!

Potential hazard that will result in serious injury or loss of life.



WARNING!

Potential hazard that could result in serious injury or loss of life.




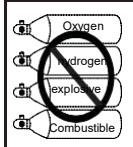






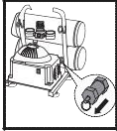
CAUTION!

Potential hazard that may result in moderate injury or damage to equipment.

NOTE: - The word " Note " is used to inform the reader of something he / she needs to know about the tool.

PERSONAL SAFETY

These precautions are intended for the personal safety of the user and others working with the user. Please take time to read and understand them.

SYMBOL	MEANING
	<p>Do not use oxygen or any other combustible or bottled gas to power air-powered tools. Failure to observe this warning can cause explosion and serious personal injury or death. Use only the compressed air to power the air-powered tools. Use a minimum of 25' (7.6 m) of hose to connect the tool to the compressor. Failure to comply will result in serious injury or loss of life.</p> 
	<p>Risk of electric shock: Do not expose a compressor to rain. Store it indoors. Disconnect the compressor from power source before servicing. Compressor must be grounded. Do not use grounding adaptors.</p>
	<p>Risk of personal injury: Do not direct compressed air from the air hose towards the user or other personnel.</p>
	<p>Risk for inhalation: Never directly inhale the air produced by the compressor.</p>
	<p>Risk of bursting: Do not adjust the pressure switch or safety valve for any reason. They have been preset at the factory for this compressor's maximum pressure. Tampering with the pressure switch or the safety valve may cause personal injury or property damage.</p>
	<p>Risk of burns. The pump and the manifold generate high temperatures. In order to avoid burns or other injuries, do not touch the pump, the manifold, or the transfer tube while the compressor is running. Allow the parts to cool down before handling or servicing. Keep children away from the compressor at all times.</p>
	<p>Risk of bursting: Make sure the regulator is adjusted so that the compressor outlet pressure is set lower than the maximum operating pressure of the tool. Before starting the compressor, pull the ring on the safety valve to make sure the valve moves freely. Drain water from tank after each use. Do not weld or repair tank. Relieve all pressure in the hose before removing or attaching accessories.</p> 

DANGER!



- Keep children away from the work area. Do not allow children to handle power tools.
- Do not use this tool in the presence of flammable liquids or gases.
- Sparks that are created during use may ignite gases.
- Keep air hose away from heat, oil, and sharp edges. Check air hose for wear before each use and ensure that all connections are proper.
- Always ensure that the workpiece is firmly secured leaving both hands free to control the tool.
- Always ensure that the tool has stopped before putting it down after use, for safety purposes and to prevent possible damage to the tool/user. Keep proper footing at all times in order to ensure correct balance.

WARNING!



- Do not allow unskilled or untrained individuals to operate the tool.
- Do not use the tool for any task other than that it is designed to perform.
- Locate the compressor in a well-ventilated area for cooling, and a minimum of 12" (31 cm) away from the nearest wall.
- Protect the air hose and the power cord from damage and puncture. Inspect them for weak or worn spots every week and replace them if necessary.
- Always wear hearing protection when using the air compressor. Failure to do so may result in hearing loss.
- Do not carry the compressor while it is running.
- Do not operate the compressor if it is not in a stable position.
- Do not operate the compressor on a rooftop or an elevated position that could allow the unit to fall or be tipped over.
- Do not connect the tool to a compressed air source with a pressure output that is higher than 90 PSI.
- Always replace a damaged gauge before operating the unit again.

CAUTION!

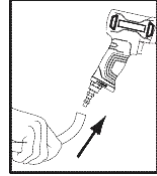


- Always ensure that the tool has stopped before connecting to the air supply.
- Do not wear watches, rings, bracelets, or loose clothing when using any air-powered tool.
- Do not overload the tool. Allow the tool to operate at its optimum speed for maximum efficiency.
- Do not use a tool that is leaking air, that has missing or damaged parts, or that requires repairs. Verify that all screws are securely tightened.
- For optimal safety and tool performance, inspect the tool daily in order to ensure free movement of the trigger, safety mechanisms, and springs.
- Always keep your air tool clean and lubricated. Daily lubrication is essential to avoid internal corrosion and possible failures.
- Ensure the floor is not slippery and wear non-slip shoes. Floors should be kept clean and clear.
- Always follow all workshop safety rules, regulations, and conditions when using the tool.
- Carry the tool by the handle only, keeping fingers away from the trigger. Do not carry the tool by the hose, magazine, or any other parts.
- Do not use the tool near or below freezing point, as doing so may cause tool failure. Do not store the tool in a freezing environment to prevent ice formation on the tools operating valves, as doing so may cause tool failure.
- Handling and storage of oil: Use with adequate ventilation. Avoid contact of oil with eyes, skin, and clothing. Avoid breathing spray or mist. Store in a tightly closed container in a cool, dry, well-ventilated area free from incompatible substances.
- Tripping hazard: The air hose may become a tripping hazard when it is placed in the work area. Use care when walking in the work area.

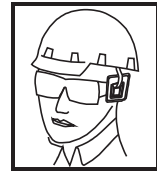
CAUTION!



- **Disconnect tool from the air supply and turn off the compressor** before performing any maintenance or changing accessories, when clearing a jammed fastener, when the tool is not in use, when it is being handed to another person, and when it is left unattended. Failure to comply may result in moderate injury or damage to equipment.



- **Use safety goggles and ear protection:** Wear safety glasses with side shields when operating the tool/compressor and verify that others in the work area are also wearing safety glasses. Safety glasses must conform to American National Standards Institute (ANSI Z87. 1) requirements and must provide protection from flying particles from the front and the sides. Air-powered tools are loud, and the sound can cause hearing damage. Always wear ear protection to prevent hearing damage and loss. Failure to comply may result in moderate injury.



NOTE: Recycle unwanted materials rather than disposing of them as waste. Sort the tools, hoses, and packaging in specific categories and take to the local recycling center or dispose of in an environmentally safe way.

SYMBOLS

⚠ WARNING: Some of the following symbols may appear on the tool. Study these symbols and learn their meaning. Proper interpretation of these symbols will allow for more efficient and safer operation of this tool.

SYMBOLS



Read operator s manual: To reduce the risk of injury , user must read and understand operators manual before using this product.



Risk to hearing Always wear ear protection when using this tool ,failure to do so may result in hearing loss.



Eye protection: Always wear safety goggles, safety glasses with side shields, or a full-face shield when operating this product.

TOOL SPECIFIC WARNINGS

- Always ensure that the workpiece is firmly secured leaving both hands free to control the tool.
- Always ensure that the tool has stopped before connecting it to the air supply.
- Verify that grinding accessories that are used with this tool are rated at or above the tool's speed rating (20,000 RPM). Failure to properly match the accessory to the tool could result in serious personal injury.
- Always ensure that the accessories are rated/designed for use with the tool.
- Ensure that the accessories are correctly and securely fastened before connecting the tool to the air supply.
- Do not overload the tool. Allow the tool to operate at its optimum speed for maximum efficiency.
Excessive overload can cause the tool casing to split and may also lead to excessive wear on moving parts and possible failure.



DANGER!

Potential hazard that will result in serious injury or loss of life.

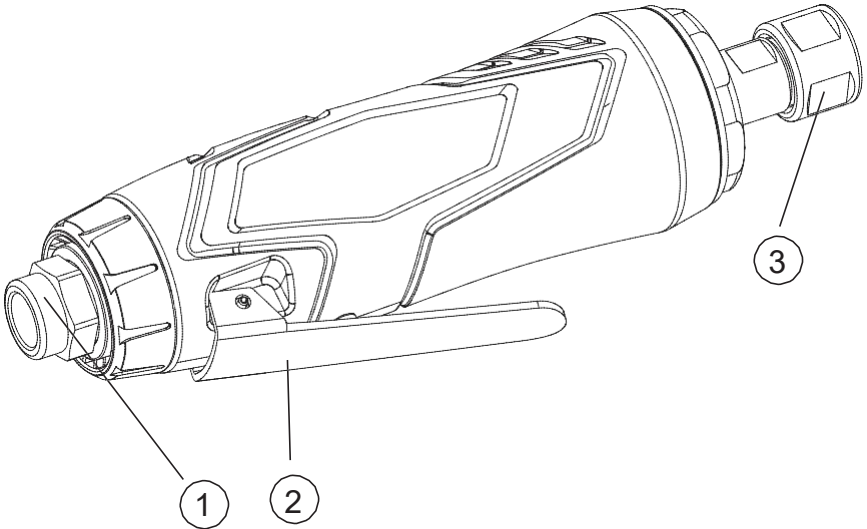
Carefully read all instructions provided in this manual and understand them thoroughly before using the tool. Do not use grinding accessories other than those that are specifically designed for use with an air powered die grinder.

Failure to comply will result in serious injury or loss of life

Hold the tool firmly with both hands. Always point abrasive material away from you while operating the tool.

Do not apply additional or excessive force to the tool when grinding.

KNOW YOUR PNEUMATIC 1/4" DIE GRINDER



No.	Description	No.	Description
1	Air inlet	3	Grinding collet/Chuck
2	Trigger		

ASSEMBLY AND OPERATING

The Air-powered Die Grinder features a durable, lightweight composite housing designed to reduce vibration. Exhaust is discharged through the rear of the grinder. The tool is ideal for light weld breaking, grinding, porting, polishing applications, and for smoothing sharp edges.

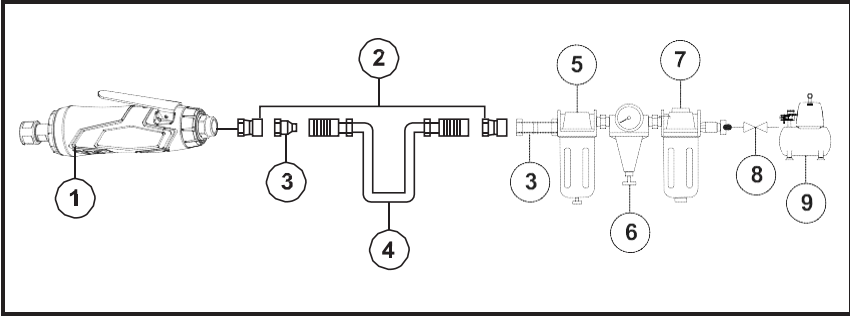
COMPATIBLE COMPRESSORS GUIDELINES FOR PROPER USE AND OPERATION

Be sure to use a proper air compressor with air-powered tools. The compressor should be able to supply a minimal air delivery of 4 CFM @ 90 PSI to ensure the compressor can run continuously with the tool.

Air Compressor Size and Power	1 1/2-2 HP	2 1/2 HP	3+ HP
4-5 Gallons	Light-duty and Intermittent use	Light-duty and Intermittent use	Light-duty and Intermittent use
6-11 Gallons	Light-duty and Intermittent use	Medium-duty and Intermittent use	Medium-duty and Intermittent use
15+ Gallons	Medium-duty and Intermittent use	Heavy-duty and Continuous use	Heavy-duty and Continuous use

AIR SYSTEM

Always use clean, dry, regulated, compressed air at 4 to 6.2 bar (60 to 90 PSI)
Do not exceed the maximum or minimum pressures. Operating the tool at the wrong pressure (too low or too high) will cause excessive noise or rapid wear of tool.



No.	Description	No.	Description
1	Die Grinder	6	Regulator 0-90 PSI (0-6.2 bar)
2	Quick connector	7	Filter
3	Quick coupler	8	Cut-off valve
4	Air hose	9	Air compressor
5	Lubricator		

WARNING

It is recommended that a filter-regulator-lubricator is used and located as close to the tool as possible.

If a filter-regulator-lubricator is not installed, place up to 6 drops of compressor oil into the NPT inlet plug before each use.

If a filter-regulator-lubricator is installed, keep the air filter clean. A dirty filter will reduce the air pressure to the tool, which will cause reduction in power, efficiency, and general performance.

For optimal performance, install a quick coupler in the hose, if applicable.

Verify that all of the connections in the air supply system are sealed in order to prevent air from leaking.

Air tools

Read this Instruction Manual carefully before using the tool

Read and follow all the safety instructions at the beginning of this manual. Inspect the air-powered tool prior to each use in order to:

-Ensure that the proper power source is being used.

-Verify that the tool is in proper working order.

-Verify that the air pressure level (s) are properly set on the air compressor. Do not use the tool if it is not in proper working order.

Do not use oxygen, CO₂ (carbon dioxide) or any other combustible, or bottled gas to power this tool.

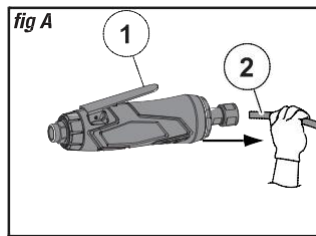
Do not use this tool in the presence of any flammable liquids or gases.

Do not point the tool towards the operator or other people.

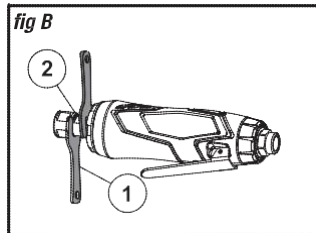
Operation

- Do not allow the tool to run free for an extended period of time. Doing so will shorten the life of the tool.
- Verify that the air supply is clean and air pressure does not exceed 90 PSI (6.3 bar) while operating the tool. If the air pressure is too high or unclean, it will shorten the life of the tool. Failure to comply could result in serious injury or loss of life.

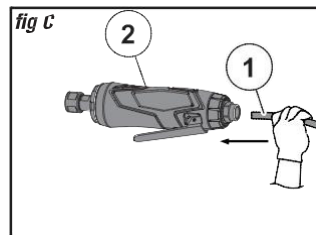
1. Ensure the tool (1) is disconnected from the air hose (compressor) (2) (fig. A).



2. Insert the desired grinding accessory into the correct collet and then insert into the chuck of the tool. Firmly re tighten the chuck to lock the grinding accessory in place using the wrenches. NOTE all accessories must be inserted into a collet before being inserted into the chuck of the tool.



3. Plug in compressor, turn it on set the pressure regulator to 90 PSI, attach one end of the air hose to the compressor and the other end of the air hose (1) to the tool (2). Use plumber's tape to avoid air leak (see section "Technical specifications") (fig C).



Storage

- If it is necessary to store the tool for an extended period of time, apply a generous amount of lubrication before storing.
- This tool should be allowed to run for approximately 30 seconds after lubricating, in order to ensure that the lubrication is uniformly distributed throughout the tool.

Maintenance

NOTE: Do not store the tool anywhere the temperature will fall below freezing.



DANGER!

- Disconnect the tool from the air compressor before maintenance/service, adjusting and when not in use.
- Repairs must be performed by a qualified technician only.
- Failure to comply will lead to serious injury or loss of life.

MAINTENANCE REQUIRED	DESCRIPTION	TOOLS OR MATERIALS REQUIRED	MAXIMUM SERVICE INTERVAL		
			Each use or every 2 hrs.	Monthly	As needed
General inspection - free movement	Trigger, spring,	None	X		
In-depth inspection	Worn or broken parts			X	X
Replace worn or broken parts					X
Lubrication	See below	Pneumatic tool oil	X		

- Lubrication: If the tool and the compressor are not equipped with an in-line lubrication system, place up to 6 drops of pneumatic tool oil into the air inlet before each use or after every 2 hours of continuous use, depending on the characteristics of workpiece.
- Air-operated tools must be inspected periodically, and worn or broken parts must be replaced in order to keep tools operating safely and efficiently.
- Inspect and replace worn or damaged O-rings, seals, etc. Tighten all screws and caps frequently in order to help prevent personal injury.

Loss of power or erratic action may be due to the following

- Excessive drain in the air line.
- Moisture or restriction in the air pipe.
- Incorrect size or type of hose connector. Check the air supply and follow instructions.
- Grit or gum deposits in the Die Grinder may also reduce performance.

- Inspect the trigger, the spring, and the safety mechanism for free movement on a regular basis in order to ensure that the safety system is fully functional.
- Verify that no part is loose or missing and that no part is stuck or jammed.
- Disconnect the tool from the air supply, clean, and store it in a safe, dry, and childproof location, when tool is not in use.
- When temperatures are below freezing, keep tools as warm as possible using any safe, convenient method.
- Check the air supply for correct size and type of hose connectors. To avoid loss of power or erratic action, ensure that there is no additional drain on the air line and no moisture or restriction in the air pipe.

Troubleshooting



DANGER

If any of the following symptoms appear while the tool is in use, turn it off and disconnect it from the air supply immediately.

Failure to comply will lead to serious injury or loss of life.

Disconnect the tool from the air supply before making any adjustments.

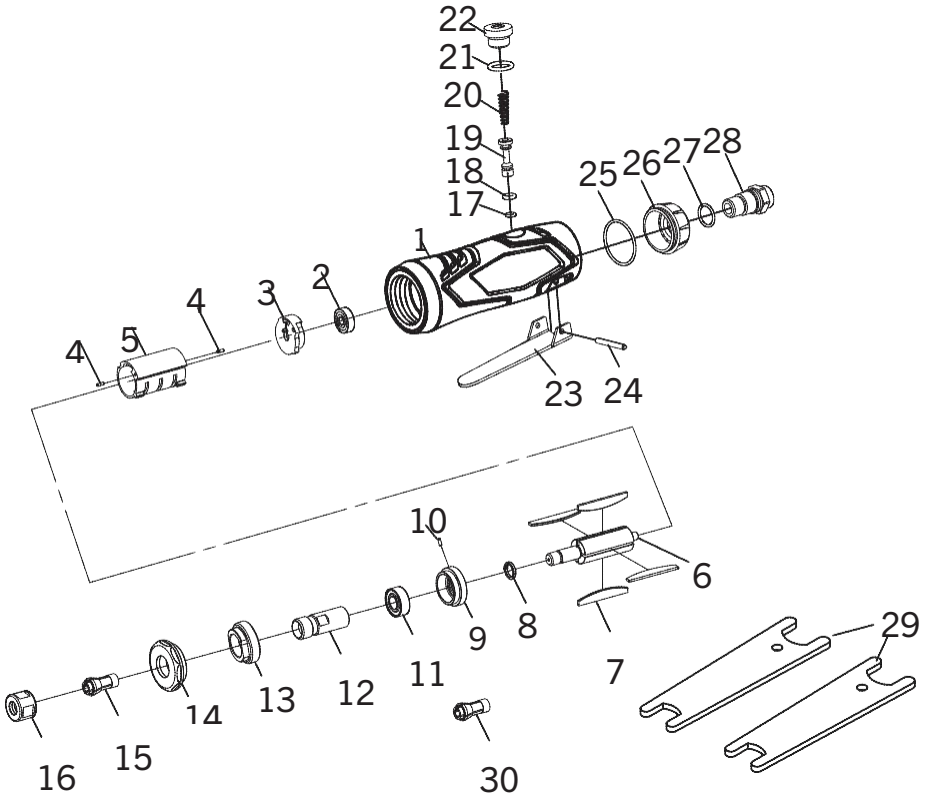
Repairs must be performed by a qualified service technician only.

The following chart lists common issues and solutions. Please read it carefully and follow all instructions closely.

Problem	Possible causes	Solutions
Tool runs at normal speed but loses power under load.	<ol style="list-style-type: none"> 1. Worn or damaged motor parts. 2. Cam clutch is worn or stuck due to insufficient lubrication 	<ol style="list-style-type: none"> 1. Lubricate clutch housing. 2. Check for excess clutch oil as the clutch requires only fifty percent of oil fill. Over-filling can cause dragging of high-speed parts. A typical oiled/lubricated die grinder requires 1/2 oz (15 mL) of oil. Grease Lubrication: Heat usually indicates insufficient amount of grease. Severe operating conditions may require frequent lubrication.

Problem	Possible causes	Solutions
<p>Tool runs slowly and air flows slightly from exhaust</p>	<ol style="list-style-type: none"> 1. Motor parts are jammed. 2. Power regulator is in closed position. 3. Air flow is blocked due to dirt. 	<ol style="list-style-type: none"> 1. Check filter and air inlet for blockage. 2. Pour pneumatic tool oil into air inlet as per instructions. 3. Operate the tool in forward and/or reverse rotations within a short duration. <p>Repeat the above steps as per requirements. If this fails, return the tool to the service center.</p>
<p>Tool is not running. Air flows freely from exhaust.</p>	<p>Motor vanes are stuck due to material build up.</p>	<ol style="list-style-type: none"> 1. Pour pneumatic tool oil into air inlet. 2. Operate the tool in forward and/or reverse rotation within a short duration. 3. Tap motor housing gently with plastic mallet. 4. Disconnect the tool from the air supply. Operate the motor manually by rotating drive shank (wherever applicable). 5. If tool remains jammed, return to service center.
<p>Tool does not shut off.</p>	<p>O-rings or throttle valve are dislodged from seat valve.</p>	<p>Replace O-rings or return to service Centre.</p>

EXPLODED VIEW



PARTS LIST

⚠ WARNING: When servicing, use only original equipment replacement parts. The use of any other parts may create a safety hazard or cause damage to the tool.

Any attempt to repair or replace electrical parts on this tool may create a safety hazard unless repairs are performed by a qualified technician. For more information, call the Toll-free Helpline, at 1-866-349-8665.

Always order by PART NUMBER, not by key number.

Key#	Part #	Part Name	Qty
1	1282-943-001	HOUSING	1
2	1282-943-002	BEARING	1
3	1282-943-003	BACK CYLINDER HEAD	1
4	1282-943-004	JSPRING PIN	2
5	1282-943-005	CYLINDER	1
6	1282-943-006	ROTOR	1
7	1282-943-007	BLADE	4
8	1282-943-008	WASHER	1
9	1282-943-009	FRONT CYLINDER HEAD	1
10	1282-943-010	PIN	1
11	1282-943-011	BEARING	1
12	1282-943-012	COLLET HOLDER	1
13	1282-943-013	LOCKING RING	1
14	1282-943-014	LOCK FRONT PLATE	1
15	1282-943-015	1/4"COLLET	1
16	1282-943-016	COLLET NUT	1
17	1282-943-017	O-RING	1
18	1282-943-018	O-RING	1
19	1282-943-019	PIN	1
20	1282-943-020	TAPER SPRING	1
21	1282-943-021	O-RING	1
22	1282-943-022	NUT	1
23	1282-943-023	LEVER	1
24	1282-943-024	SPRING PIN	1
25	1282-943-025	O-RING	1
26	1282-943-026	MUFFLE COVER	1
27	1282-943-027	O-RING	1
28	1282-943-028	AIR INLET PONNECTOR	1
29	1282-943-029	WRENCHES	2
30	1282-943-030	1/8" COLLET	1

WARRANTY

BENCHMARK WARRANTY

If this Benchmark tool fails due to a defect in material or workmanship within five years from the date of purchase, return it to any Home Hardware store with the original bill of sale for exchange. 3-year warranty for the battery and charger. This warranty does not include expendable parts including but not limited to blades, brushes, belts, light bulbs. This warranty covers defects in material or workmanship only. It does not cover normal wear and tear, failure due to abuse/misuse, or defects caused by careless or accidental mishandling. If this Benchmark product is used for commercial or rental purposes, this warranty does not apply.

PNEUMATIC 1/4" DIE GRINDER



5 Year Limited Warranty

BENCHMARK™
MC

BENCHMARK TOOLS CANADA
ST. JACOBS, ONTARIO N0B 2N0
© 2021 Home Hardware Stores Limited

CUSTOMER SERVICE/TECH SUPPORT
1-866-349-8665

1282-943

Made in China



* This Benchmark™ product carries a five (5) year LIMITED warranty against defects in workmanship and materials. See Owner's Manual for full details.

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KEEP AWAY FROM CHILDREN.**



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EYE PROTECTION**



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