



1/4 in. AIR ANGLE DIE GRINDER Operator's Manual



Product Model # 6385-00
Manual # 80018893



Read and understand this instruction manual thoroughly before using the product. It contains important information for your safety as well as operating and maintenance advice.

BRIGGS & STRATTON CORPORATION
MILWAUKEE, WISCONSIN, U.S.A.

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Thank you for purchasing this quality-built **Briggs & Stratton™** air tool. We are pleased that you've placed your confidence in the **Briggs & Stratton** brand. When operated and maintained according to the instructions in this manual, your Briggs & Stratton air tool will provide reliable service.

Where to Find Us

You can contact Briggs & Stratton Customer Service by phone at **(800) 743-4115**, or on the Internet at **BRIGGSandSTRATTON.COM**.

Date Purchased

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▲ WARNING Some dust created by using power tools contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. This product contains one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

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General Safety Information

The safety alert symbol ▲ is used to identify safety information about hazards that can result in personal injury.

A signal word **DANGER**, **WARNING** or **CAUTION** is used with the alert symbol to indicate the likelihood and the potential severity of injury.

▲ **DANGER** Indicates a hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

▲ **WARNING** Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

▲ **CAUTION** Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE Indicates information considered important, but not hazard-related.

▲ **WARNING** Read manufacturer's instructions.

▲ **WARNING**

- Improper operation or maintenance of this tool could result in personal injury. Read and understand all warnings and operation instructions before using this tool.
- When using this tool, these basic safety precautions should always be followed to reduce the risk of personal injury.

Workplace conditions

1. Always work in a clean, dry, well-ventilated area free of combustible materials. Never operate the tool near flammable substances such as gasoline, naphtha, cleaning solvent, etc.
2. Dress properly. Do not wear loose clothing. Tie up or cover long hair, remove any jewelry, necklaces, etc., which might become caught by the tool.
3. Keep the work area well lit and free of clutter. Slips, trips and falls are major causes of workplace injury. Be aware of the total length of the hose as it may lay on the ground in your walking path, or on the working surface in use.
4. Ensure that there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by use of the tool.
5. Keep visitors a safe distance from the work area. Keep children away.

Use of air tools

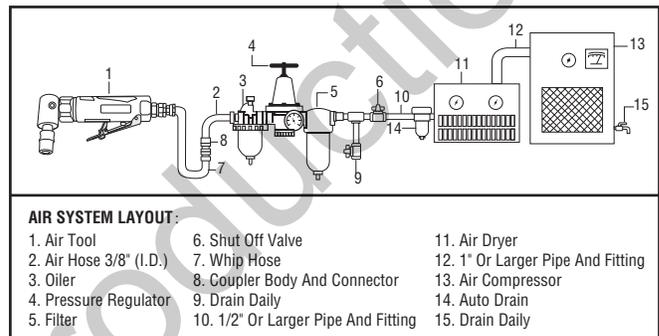
1. Stay alert and use common sense when operating the tool. Watch what you are doing. Do not operate the tool when you are tired or under the influence of alcohol, drugs or medication.
2. Do not overreach. Keep proper footing and balance at all times.

3. Always use protective eyewear which provides protection from flying particles from the front and side when using the tool. Ear protectors should also be worn.
4. Never use oxygen, carbon dioxide, combustible gases or any other type of bottled gases as a power source for this tool.
5. Do not connect the air supply hose to the tool with your finger on the trigger.
6. Do not exceed the maximum working pressure 90 PSI/6.3 bar for the tool. Never connect to an air source that is capable of exceeding 200 PSI/13.7 bar. Excessive pressure will reduce the tool life and/or might cause a hazardous situation.
7. Never leave the operating tool unattended. Disconnect the air hose when the tool is not in use.
8. Keep the air supply hose away from heat, oil and sharp edges.
9. Check the air supply hose for wear and/or leaks before each use. Make sure that all connections are tight and secure.
10. Do not use the tool for anything other than die grinding operations.
11. Do not carry out any alterations and/or modifications to the tool.
12. Always disconnect the tool from air supply before replacing any accessories, performing any repair and maintenance, moving to another work area, or passing the tool to another person.
13. Never use the tool if it is defective, damaged, or operating abnormally.
14. Check for misalignment or binding of moving parts, breakage of parts and any other condition that affects the tool operation. If damaged, have the tool serviced before using.
15. Keep working parts of the tool away from hands and body.
16. Do not carry the tool by the air hose.
17. Do not apply excessive force of any kind to the tool. Let the tool perform the work at the rate at which was designed.
18. Do not remove any labels on the tool. Replace if they become obscured or damaged.
19. Always maintain the tool with care. Keep it clean for the best and safest performance.
20. This tool vibrates with use. Quick change couplings should not be located directly at the air inlet, as they add weight and could fail due to vibration.
21. Continuous operation of this tool might be harmful to your hands or arms. Stop using the tool if discomfort, a tingling feeling or pain occurs. Resume work after recovery. Seek medical advice if a serious symptom occurs.

Air die grinder safety instructions

1. Always use the die grinder in the manner and for the functions described in this manual.
2. Always ensure the grinder is not moving and disconnected from the air supply when changing grinding stones, etc.
3. Only use qualified grinding stones. Never use chipped or cracked grinding stones.
4. Always ensure that the grinding stone is correctly installed onto the tool before starting the tool.
5. Avoid direct contact with the grinding stone during and after use, as it can be hot and sharp. Wear suitable gloves to protect your hands.
6. Always use protection when working with certain materials that create dust and fumes.
7. If necessary, use clamps or proper devices to securely fix the workpiece.
8. Never carry the grinder by the air supply hose.
9. Always disconnect the tool from the air supply when the grinder is not required for immediate use in order to avoid accidental start.
10. Always ensure that the grinder has come to a complete stop before putting it down after use.
11. Do not discard the Operator's Manual. It contains safety instructions.
12. Always store this product in a dry and safe place out of reach of children or untrained operators.

8. A long air hose (usually over 26 ft/8 m) may cause up to 15 PSI/1.1 bar drop in pressure, so you need to set the output pressure of the air compressor higher to maintain the required working pressure at the tool.
9. Use proper hoses and fittings. It is not recommended to use quick change couplings directly on the tool. Tool vibration may cause damage or tool failure. Instead, use a lead hose that can connect directly to the tool, and a connect coupling between the air supply and hose.
10. Check the hoses for wear or defects before each use. Make certain that all connections are secure.
11. An individual air tool has its specification of air consumption (CFM). Check the specifications of your compressor to be sure that it can support both the minimum CFM and PSI required.



Air Supply

NOTE Working pressure refers to the air line pressure set to the tool when the tool is under working conditions. Terms used throughout this manual are Cubic Feet per Minute (CFM) and Pounds per Square Inch (PSI).

Please refer to the typical air system layout recommended below.

⚠ WARNING Read and understand the air compressor instruction manual thoroughly before using the tool. It contains important safety information pertaining to the use of the air compressor and air hoses.

1. Use only clean, dry, regulated compressed air as the power source.
2. Make sure that the air compressor being used for the tool operation supplies the correct output (CFM).
3. Have the tool in the "off" position when connecting the tool to the air supply.
4. Use 90 PSI/6.3 bar working pressure for the tool. High pressure and unclean air will shorten the life of the tool due to faster wear of the tool.
5. Drain water from the air compressor tank daily, as well as any condensation in the air lines. Water in the air line may enter the tool and cause damage to the tool mechanisms during operation.
6. Clean the tool air inlet screen filter for blockage weekly. Clean if necessary.
7. A 3/8" (inner diameter) air hose is recommended for air supply and airflow to get the optimum performance of tool.

Product Description



PART	DESCRIPTION	QUANTITY
A	1/4 in. Air Angle Die Grinder	1
B	Air Inlet	1
C	Trigger	1
D	Lever	1
E	Collet Holder	1
F	Collet Jacket	1
G	1/4 in. Collet	1
H	Grease Cap	1
I	Large Wrench	1
J	Small Wrench	1
K	Warning Label	1

Technical Specifications

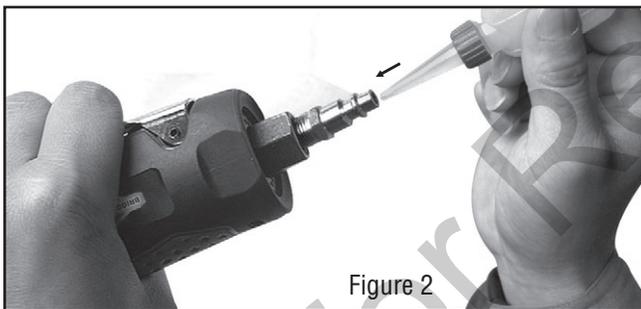
COMPONENT	SPECIFICATIONS
Free speed	20,000 RPM
Collet size	1/4 in. (6.35 mm)
Avg. air consumption	3.5 CFM
Working pressure	90 PSI
Air inlet	1/4 in. (6.35 mm) NPT (F)
Air hose	3/8 in. (9.53 mm) (inner diameter)

Assembly Instructions

1. Remove the air inlet protective cap from the air inlet (B). (See Figure 1)



2. Place 2-3 drops of air tool oil (not included) into the male plug before each use. (See Figure 2)

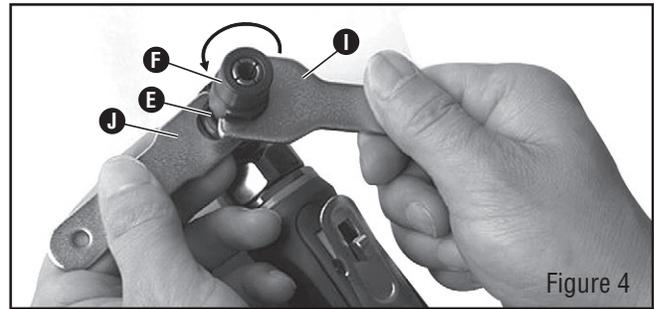


3. Mount a leader hose (not included) by hand into the air inlet (C). (See Figure 3)

NOTE Use thread sealant tape (not included) on the male plug and tighten it with a wrench for airtight connection. Do not overtighten.



4. Loosen the collet jacket (F) counterclockwise by hand or with the large wrench (I) while holding the small wrench (J) on the flats of the collet holder (E). (See Figure 4)

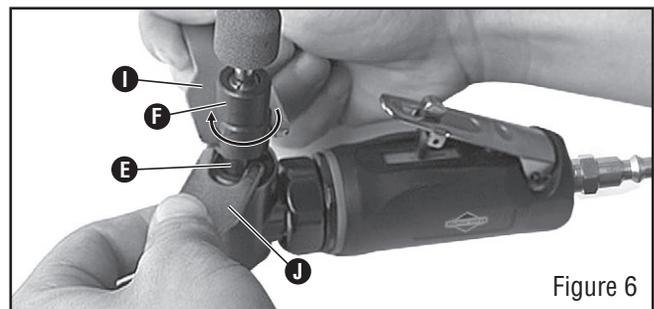


5. Insert a grinding accessory like a grinding stone into the collet (G). (See Figure 5)



6. Tighten the collet jacket (F) clockwise with the large wrench (I) while holding the small wrench (J) on the flats of the collet holder (E). Make sure that the grinding stone is installed securely and tightly. (See Figure 6)

▲ WARNING Only use grinding accessories that have a RPM rating equal to or greater than the tool itself.



7. Connect air supply hose to the leader hose.
8. Set the working pressure at 90 PSI/6.3 bar for best tool performance.

Operation Instructions

Push the lever (D) forward and press down on the trigger (C) to start the tool (A). (See Figure 7)

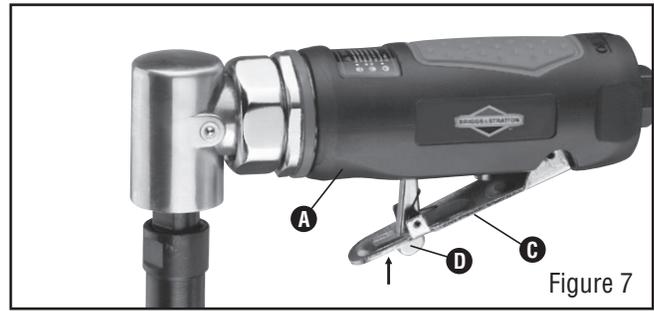


Figure 7

NOTE This tool features a grease cap (H) on the L-type connector. Use a grease gun (not included) and insert the gun nozzle into the grease cap. Several drops of grease are recommended for lubrication of the gears of the motor assembly. This will help the motor assembly to work in good condition and extend tool life. Lubricate the motor assembly once every working day. (See Figure 8)

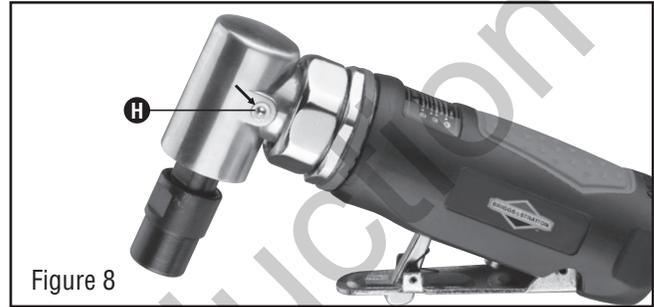


Figure 8

Troubleshooting

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Tool runs slowly or will not operate.	<ol style="list-style-type: none"> 1. Grit or gum in the tool. 2. No oil in the tool. 3. Low air pressure. 4. Air hose leaks. 5. Pressure drops. 6. Worn rotor blade. 7. Moisture blowing out of the tool exhaust. 	<ol style="list-style-type: none"> 1. Flush the tool with air tool oil or gum solvent. 2. Lubricate the tool. 3. a. Adjust the regulator on the tool to the maximum setting if available. b. Adjust the compressor regulator to the tool maximum of 90 PSI/6.3 bar. 4. Tighten and seal hose fittings if leaks are found. Use sealing tape. 5. a. Be sure the hose is the proper size. Long hose or tools using large volumes of air may require a hose with an I.D. of 1/2 in. or larger depending on the total length of the hoses. b. Do not use a multiple number of hoses connected together with quick-connect fittings. This causes additional pressure drops and reduces the tool power. Directly connect the hoses together. 6. Have qualified technician replace the rotor blade. 7. Drain water from tank. (See the air compressor manual). Oil the tool and continue running it until no water is evident. Oil the tool again and run for 1-2 seconds.

Care and Maintenance

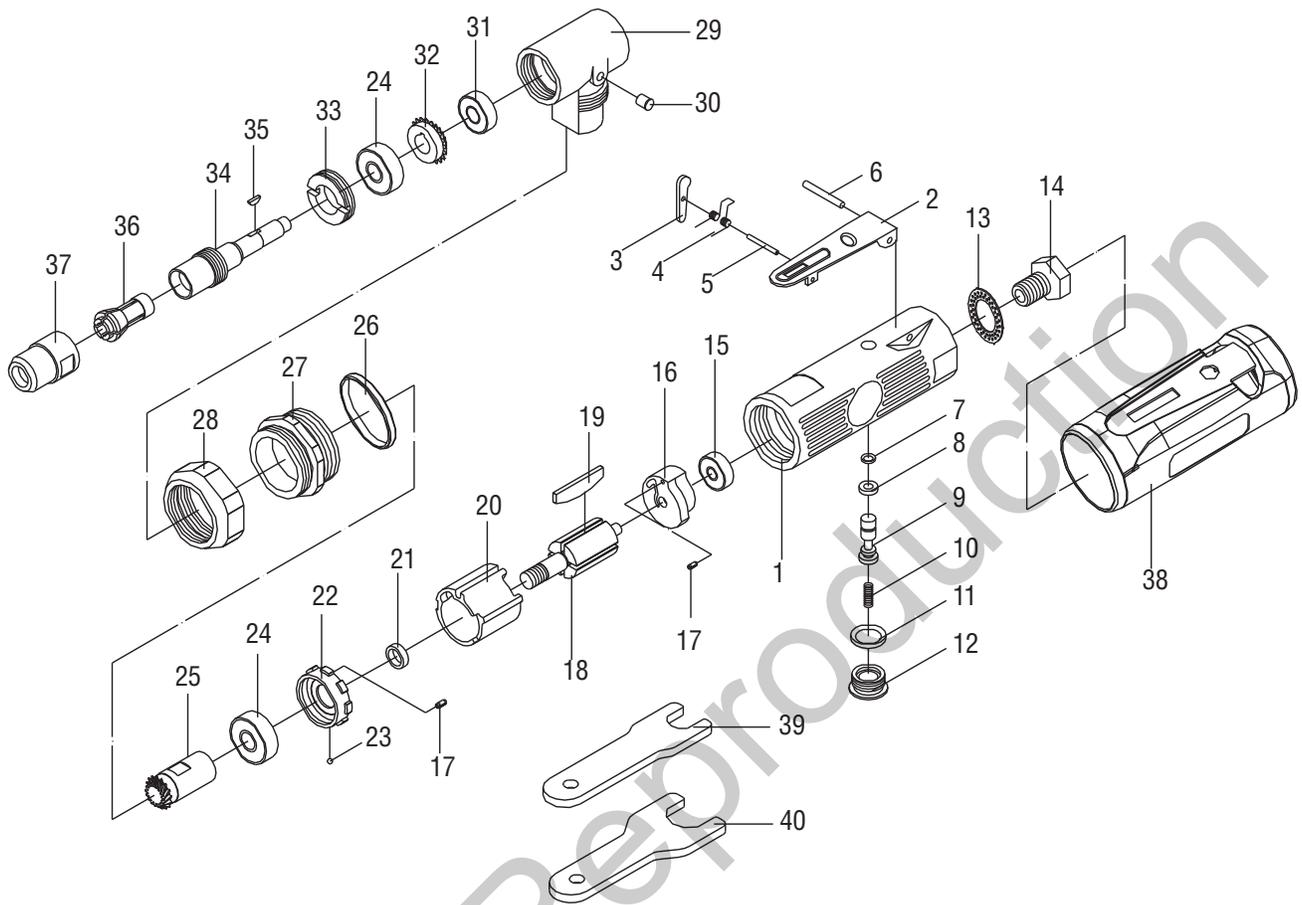
An in-line oiler is recommended to be installed on air supply line as it increases tool life and keeps the tool in sustained operation. The in-line oiler should be regularly checked and filled with air-tool oil. Proper adjustment of the in-line oiler is performed by placing a sheet of paper next to the tool's exhaust ports and holding the throttle open approximately 30 seconds. The in-line oiler is properly set when a light stain of oil collects on the paper. Excessive amounts of oil should be avoided.

In the event that it becomes necessary to store the tool for an extended period of time, it should receive a generous amount of lubrication at that time. The tool should be run for approximately 30 seconds to ensure oil has been evenly distributed throughout the tool. The tool should be stored in a clean and dry environment.

Recommended lubricants: use air-tool oil or any other high-grade turbine oil containing moisture absorbent, rust inhibitors, metal wetting agents and an EP (extreme pressure) additive.

Clean the tool all over with a cotton rag after each use. Keep the tool in a dry and safe place out of reach of children.

Exploded Diagram and Parts List



Part No.	Description	Qty.
1	Main housing	1
2	Lever trigger	1
3	Lever block	1
4	Spring	1
5	Bolt	1
6	Bolt	1
7	O-ring	1
8	O-ring	1
9	Valve stem	1
10	Spring	1
11	O-ring	1
12	Screw nut	1
13	Muffler	1
14	Air inlet	1
15	Bearing	1
16	Rear plate	1
17	Bolt	2
18	Rotor	1
19	Rotor blade	4
20	Cylinder	1

Part No.	Description	Qty.
21	Bushing	1
22	Front plate	1
23	Steel ball	1
24	Bearing	2
25	Major gear	1
26	Decorating ring	1
27	Fixing ring	1
28	Nut	1
29	L-type connector	1
30	Lubricating valve	1
31	Bearing	1
32	Minor gear	1
33	Bushing	1
34	Rotating axle	1
35	Semi-round key	1
36	Collet	1
37	Collet fixing cap	1
38	Soft grip	1
39	Small wrench	1
40	Large wrench	1

Briggs & Stratton™ Air Tool Warranty Policy

January, 2016

LIMITED WARRANTY

Briggs & Stratton™ is a trademark of BRIGGS & STRATTON CORPORATION and is used under license to Alton Industry Co. Ltd© Alton Industry Co. Ltd warrants this Briggs & Stratton brand product for a period of one year from the date of original retail purchase against defects in materials and workmanship. Subject to the conditions and limitations described below, if Alton Industry Co. Ltd determines this product is covered under this warranty, it will be replaced with the same model or one of equal value or specification, at Alton Industry Co. Ltd's option. Alton Industry Co. Ltd will bear the cost of replacement. The purchaser must contact Alton Industry Co. Ltd© for all warranty authorizations.

There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year, or to the extent permitted by law. Liability for incidental or consequential damages are excluded to the extent exclusion is permitted by law. Some states or countries do not allow limitations on how long an implied warrant lasts, and some states or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state or country to country.

Save your proof of purchase receipt. If you do not provide proof of the initial purchase date at the time warranty service is requested, the manufacturing date of the product will be used to determine the warranty period. Product registration is not required to obtain warranty service on Briggs & Stratton products.

These are our standard warranty terms, but occasionally there may be additional warranty coverage that was not determined at time of publication. For a listing of current warranty terms for your air tool, go to BRIGGSandSTRATTON.COM

This Limited warranty does not include the following:

- A. Parts that are worn or broken or which have become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or product that has been used for industrial, professional, commercial or rental purposes;
- B. Normal wear and tear or expendable parts or accessories that may be supplied with the product which are expected to become inoperative or unusable after a reasonable period of use;
- C. Routine maintenance and consumable items such as, but not limited to fuel, lubricants, valves, belts, knobs, nuts, uids, tune-ups, or adjustments;
- D. Damage caused by repairs made or attempted by persons not authorized by the manufacturer;
- E. Product that was sold to the original purchaser as reconditioned or refurbished product (unless otherwise specified in writing);
- F. Product or parts thereof if any part from another manufacturer has been installed or any repairs or alterations have been made or attempted by unauthorized persons;
- G. Normal deterioration of the exterior nish such as, but not limited to, scratches, dents, paint chips, nor any corrosion or discoloring by heat, abrasive and chemical cleaners;
- H. Component parts sold by and identified as the product of another company, which shall be covered under the other product manufacturer's warranty, if any.

For questions about our warranty on this product, contact us at:

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