

See Warranty on page 4 for important information about commercial use of this product.

Operating Instructions

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.



Air Die Grinders

Description

Air powered die grinders are designed for grinding, polishing, deburring and smoothing sharp edges. This tool may be used with carbide burs. Different collets are available which serve as adapters for virtually all standard grinding accessories. In addition, this tool may also be used for gasket removal and weld grinding. Angled heads allow access to tight or difficult to reach areas. Front exhaust models direct air away from user's face.

Safety Guidelines

CALIFORNIA PROPOSITION 65

WARNING You can create dust when you cut, sand, drill or grind materials such as wood, paint, metal, concrete, cement, or other masonry. This dust often contains chemicals known to cause cancer, birth defects, or other reproductive harm. Wear protective gear.



This manual contains information that is very important to know and understand. This information is provided for SAFETY AND TO PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

DANGER Danger alerts you to a hazard that WILL result in death or serious injury

WARNING Warning alerts you to a hazard that COULD result in death or serious injury.

CAUTION Caution alerts you to a hazard that MAY result in minor injury.

NOTICE Notice alerts you to important information that will help you prevent damage to equipment.

General Safety Information

Unpacking

When unpacking this product, carefully inspect for any damage that may have occurred during transit.

This product is part of a high pressure system and the following safety precautions must be followed at all times along with any other existing safety rules.

1. Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
2. Only persons well acquainted with these rules of safe operation should be allowed to use the air tool.



CAUTION Do not exceed the maximum operating pressure of the air tool (90 psi). This can reduce the life of the tool.

3. Do not exceed any pressure rating of any component in the system. Maximum operating pressure of 90 psi is measured at the tool inlet while the tool is running. The pressure drop between the compressor and tool needs to be compensated for at the compressor.
4. Disconnect the air tool from air supply before changing tools or attachments, servicing and during non-operation.

WARNING Safety glasses and ear protection must be worn during operation.



5. Do not wear loose fitting clothing, scarves, neck ties or jewelry when operating any tool. Loose clothing or jewelry may become caught in moving parts and result in serious personal injury.

6. Do not depress trigger when connecting the air supply hose.
7. Always use attachments designed for use with air powered tools. Do not use damaged or worn attachments.
8. Never trigger the tool when not applied to a work object. Attachments must be securely attached. Loose attachments can cause serious injury.
9. Protect air lines from damage or puncture.
10. Never point an air tool at oneself or any other person. Serious injury could occur.
11. Check air hoses for weak or worn condition before each use. Make sure all connections are secure.

WARNING

Release all pressure from the system before attempting to install, service, relocate or perform any maintenance.



12. Keep all nuts, bolts and screws tight and ensure equipment is in safe working condition.
13. Do not put hands near or under moving parts.
14. Always secure workpiece in a vise or clamp. Do not place hands on the back cylinder when operating the tool.
15. Do not use a cut-off disc mandrel on this tool unless a safety guard is in place.

WARNING Do not misuse this product. Excessive exposure to vibration, work in awkward positions, and repetitive work motions can cause injury to hands and arms. Stop using any tool if discomfort, numbness, tingling, or pain occur, and consult a physician.

REMINDER: Keep your dated proof of purchase for warranty purposes! Attach it to this manual or file it for safekeeping.

Assembly

SYSTEM SETUP

PLEASE REFER TO AIR TOOL AND SPRAY GUN SET-UP (IN170102AV) FOR AIR SYSTEM HOOK-UP INSTRUCTIONS.

WARNING Use of a whip hose prevents accidental triggering of tool when pressurized air is connected to system.

Using fittings or air hoses which are too small can create a pressure drop which will result in a loss of power in tool.

NOTE: Do not install a quick coupler set between tool and whip hose.

AIR TOOL SETUP

ALL MODELS

Ensure tool is not connected to air supply then place tool upside down on workbench.

WARNING Never carry a tool by the hose or pull hose to move tool or a compressor. Keep hoses away from heat, oil and sharp edges. Replace any hose that is damaged, weak or worn.

Pre-Operation

LUBRICATION

Air tools require lubrication throughout the life of the tool. Proper lubrication is the owner's responsibility. Use Campbell Hausfeld airtool oil (Part No. ST127000AV) to lubricate, clean and inhibit rust in one step. Failure to lubricate and maintain air tool properly will dramatically shorten the life of the tool and will void the warranty.

CAUTION This air tool requires lubrication before initial use and before and after each additional use.

1. Disconnect tool from air supply.
2. Turn die grinder upside down.
3. While pulling trigger, pour a teaspoon of Campbell Hausfeld oil in the air inlet.

WARNING Cover exhaust port with a towel before applying air pressure. Oil will discharge through exhaust port during first few seconds of operation after an airtool has been lubricated. Failure to cover exhaust port can result in serious injury.

4. Release trigger and connect air tool to air supply. Cover exhaust port

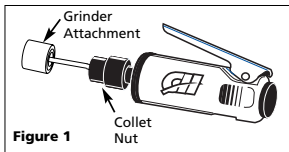
with a towel then run air tool for 20 to 30 seconds. Oil will discharge from exhaust port when air pressure is applied. Continue to run die grinder until no oil is discharged. Wipe all residual oil off of tool before use.

Operation

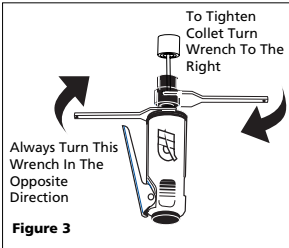
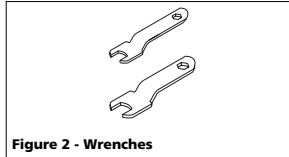
ATTACHMENTS

WARNING Disconnect air tool from air supply before changing attachments or serious injury could occur.

1. Insert stem of grinder attachment into collet opening (See Figure 1). Make sure stem is fully inserted.



2. Securely tighten collet with wrenches (supplied with some models) (See Figures 2 & 3).



Apply one wrench to the collet nut and the other to the spindle. Turn the wrench on the collet nut to the right, simultaneously turning the other wrench in the opposite direction. Make sure stem does not slip out of position.

3. Do the opposite of Step 2 to loosen and change the grinder attachment.

WARNING Make sure attachment stem is fully inserted into collet opening and collet is securely tightened. Loose attachments could fly off during operation and cause serious injury. Only use attachments rated for a minimum of 25,000 RPM.

Storage

The air tool must be lubricated before storing. An air motor cannot be oiled too often.

WARNING Disconnect air tool from air supply before lubricating.

1. Turn grinder upside down.
2. While pulling trigger pour a teaspoon of Campbell Hausfeld oil in air inlet.

WARNING Cover exhaust port with a towel before applying air pressure. Oil will discharge through exhaust port during first few seconds of operation after an airtool has been lubricated. Failure to cover exhaust port can result in serious injury.

3. Connect die grinder to air supply and cover exhaust port with a towel. Run die grinder for only 2 to 3 seconds because more oil needs to remain in the air tool when storing.

Technical Service

For information regarding the operation or repair of this product, please call 1-800-543-6400.

Replacement Parts Information

For information regarding where to order replacement parts, call toll free 1-800-543-8622. Please provide the following information:

- Model number
- Stamped-in code
- Part number and description

Address parts correspondence to:

Campbell Hausfeld
Attn: Parts Department
100 Production Drive
Harrison, Ohio 45030 U.S.A.

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Tool runs slowly or will not operate	1. Grit or gum in tool	1. Flush the tool with Campbell Hausfeld air tool oil, gum solvent, or an equal mixture of SAE 10 motor oil and kerosene. If Campbell Hausfeld oil is not used, lubricate the tool after cleaning
	2. No oil in tool	2. Lubricate the tool according to lubrication instructions in Pre-Operation section
	3. Low air pressure	3. Adjust the compressor regulator to tool maximum while the tool is running free
	4. Air hose leaks	4. Tighten and seal hose fittings if leaks are found
	5. Pressure drops	5. Be sure hose is properly sized. Long hoses or tools using large volumes of air may require a hose with an I.D. of 1/2" or larger depending on total hose length
	6. Regulator adjusted wrong	6. Adjust regulator with slotted screwdriver to maximum speed
	7. Worn ball bearing in motor or in angle head	7. Remove and inspect bearing for rust, dirt, grit or worn race. Clean and regrease bearing with bearing grease or replace bearing
	8. Worn gears (PL1541 only)	8. Replace gears (PL1541 only)
Moisture blowing out of tool	1. Water in tank	1. Drain tank (See air compressor manual). Oil tool and run until no water is evident. Oil tool again and run 1-2 seconds
	2. Water in the air lines/hoses	2a. Install a water separator/filter (PA2121). NOTE: Separators work properly only when air steam is cool Locate separator/filter as far as possible from compressor
		2b. Install an air dryer
2c. Anytime water enters the tool, the tool should be oiled immediately		
Excessive vibration	1. Damaged stone or burr	1. Replace with new stone or burr
	2. Collet shaft bent	2. Replace shaft or collet (See parts list for Models PL2521, PL1541 and PL1520 only)

Limited Warranty

1. **DURATION:** From the date of purchase by the original purchaser as follows: Standard Duty Products - One Year, Serious Duty Products - Two Years, Extreme Duty Products - Three Years.
2. **WHO GIVES THIS WARRANTY (WARRANTOR):** Campbell Hausfeld / Scott Fetzer Company, 100 Production Drive, Harrison, Ohio, 45030, Telephone: (800) 543-6400
3. **WHO RECEIVES THIS WARRANTY (PURCHASER):** The original purchaser (other than for purposes of resale) of the Campbell Hausfeld product.
4. **WHAT PRODUCTS ARE COVERED BY THIS WARRANTY:** Any Campbell Hausfeld nailer, stapler, air tool, spray gun, inflator or air accessory supplied or manufactured by Warrantor.
5. **WHAT IS COVERED UNDER THIS WARRANTY:** Substantial defects in material and workmanship which occur within the duration of the warranty period.
6. **WHAT IS NOT COVERED UNDER THIS WARRANTY:**
 - A. Implied warranties, including those of merchantability and FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED FROM THE DATE OF ORIGINAL PURCHASE AS STATED IN THE DURATION. If this product is used for commercial, industrial or rental purposes, the warranty will apply for ninety (90) days from the date of purchase. Some States do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you.
 - B. ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF THE CAMPBELL HAUSFELD PRODUCT. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
 - C. Any failure that results from an accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) supplied with product. Accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions shall also include the removal or alteration of any safety devices. If such safety devices are removed or altered, this warranty is void.
 - D. Normal adjustments which are explained in the owner's manual(s) provided with the product.
 - E. Items or service that are normally required to maintain the product, i.e. o-rings, springs, bumpers, debris shields, driver blades, fuses, batteries, gaskets, packings or seals, fluid nozzles, needles, sandblast nozzles, lubricants, material hoses, filter elements, motor vanes, abrasives, blades, cut-off wheels, chisels, chisel retainers, cutters, collets, chucks, rivet jaws, screw driver bits, sanding pads, back-up pads, impact mechanism, or any other expendable part not specifically listed. These items will only be covered for ninety (90) days from date of original purchase. Underlined items are warranted for defects in material and workmanship only.
7. **RESPONSIBILITIES OF WARRANTOR UNDER THIS WARRANTY:** Repair or replace, at Warrantor's option, products or components which are defective, have malfunctioned and/or failed to conform within duration of the warranty period.
8. **RESPONSIBILITIES OF PURCHASER UNDER THIS WARRANTY:**
 - A. Provide dated proof of purchase and maintenance records.
 - B. Deliver or ship the Campbell Hausfeld product or component to the nearest Campbell Hausfeld Authorized Service Center. Freight costs, if any, must be borne by the purchaser.
 - C. Use reasonable care in the operation and maintenance of the products as described in the owner's manual(s).
9. **WHEN WARRANTOR WILL PERFORM REPAIR OR REPLACEMENT UNDER THIS WARRANTY:** Repair or replacement will be scheduled and serviced according to the normal work flow at the servicing location, and depending on the availability of replacement parts.

This Limited Warranty applies in the United States, Canada and Mexico only and gives you specific legal rights. You may also have other rights which vary from state to state or country to country.