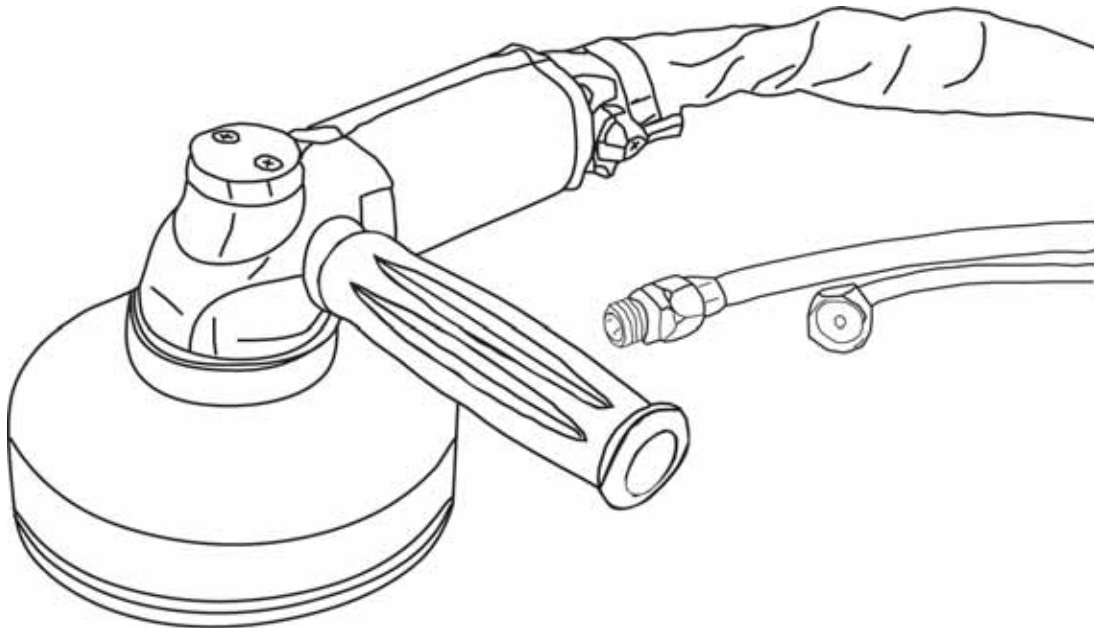

Alpha[®] Pneumatic Air Polisher Instruction Manual



Part No: AIR-658

For repair information call:

Headquarters, Oakland, NJ — (800) 648-7229

Factory Service and Training Center, Las Vegas, NV — (888) 292-5742

Due to specially designed components this machine must be serviced only with genuine ALPHA[®] parts.

 **Alpha Professional Tools[®]**

103 Bauer Drive, Oakland, NJ 07436 • 800-648-7229 • Fax: 800-286-0114
www.alpha-tools.com

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► INTRODUCTION


Thank you for purchasing an Alpha® Air Polisher. This polisher is the workhorse of a complete polishing system. A wide range of accessories help you perform many different tasks. This tool lets you grind, shape, bevel, contour and polish all kinds of granite and marble. You can easily change from one type of disc to another in just a matter of seconds. The tool is used with water to help you get the best possible finish, to reduce the health risks of dust, and to give the most savings in time and money from modern accessories. For your safety, please read this manual thoroughly before you start operating this polisher.

► ABOUT THE SYMBOLS

According to the hazard level, all safety notes in this manual are classified into “**DANGER**”, “**WARNING**”, and “**CAUTION**”.

 **DANGER!** Death or serious personal injury is imminent when handling this polisher incorrectly.

 **WARNING!** There is a possibility of death or serious personal injury when handling this polisher incorrectly.


 **CAUTION!** There is a possibility of personal injury or property damage when handling this polisher incorrectly.

Note: In some situations, failing to observe WARNING notes could result in death or serious personal injury. Be sure to read and observe the safety notes to ensure safety and correct use of the polisher.

ELECTRICAL SYMBOLS

The following show the symbols used for tool.

| | |
|-----------|---------|
| V | Volts |
| A | Amperes |
| Hz | Hertz |

| | |
|---|--|
| ~ or a.c. | Alternating Current |
| n0 | No load speed |
| .../min | Revolution or reciprocation per minute |
| kg | Kilograms |
|  | Protective Earth |

► **SAFETY INSTRUCTIONS FOR POWER TOOLS**

1. **KNOW YOUR POWER TOOL.** Read owner's manual carefully. Learn its applications and limitations as well as specific potential hazards particular to this tool.
2. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
3. **AVOID DANGEROUS ENVIRONMENTS.** Keep work areas as dry as possible. Do not use tool in presence of flammable liquids or gases. Keep the area well lit.
4. **KEEP CHILDREN AND VISITORS AWAY.** All visitors should be kept a safe distance from the work area. Keep out of reach of children.
5. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
6. **WEAR PROPER APPAREL.** Do not wear loose clothing or jewelry as it can get caught in moving parts. Rubber gloves and insulated non-skid footwear are recommended. Wear protective covering to contain long hair.
7. **WEAR PROPER EYE PROTECTION.** Use safety glasses at all times. Also, use a face mask if work area is dusty.
8. **WEAR PROPER EAR PROTECTION.** Wear ear protectors when using for extended periods.
9. **DON'T ABUSE WATER SUPPLY HOSE.** Don't carry tool by supply hose or expose to traffic areas where it can be crushed.

10. **ALWAYS SECURE WORK PIECE.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
11. **DON'T OVERREACH.** Keep proper footing and balance at all times.
12. **DISCONNECT TOOLS WHEN NOT IN USE.** Always disconnect tool before servicing; when changing accessories such as grinding wheels, backer pads, etc.
13. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
14. **MAINTAIN TOOLS WITH CARE.** Keep tools clean at all times for best and safest performance. Follow instructions for lubricating and changing accessories. Keep handles dry, clean and free of oil or grease. Inspect moving parts for alignment and binding as well as for breakage and improper mounting.
15. **AVOID ACCIDENTAL STARTING.** Don't carry a "connected" tool, or make adjustments, or change discs without making sure the air valve is in the off position to prevent the flow of air.
16. **USE ONLY RECOMMENDED ACCESSORIES.** The use of any accessories other than what is listed or recommended for this particular tool may be hazardous.
17. **KEEP HANDS AWAY FROM ALL MOVING PARTS.**
18. **USE SIDE HANDLES.** Supplied with tool for control and safety.
19. **USE RECOMMENDED GRINDING WHEELS ONLY.** Do not use conventional abrasive grinding wheels with this tool. Only use diamond grinding wheels which are rated for wet usage.
20. **STAY ALERT.** Watch what you are doing and use common sense. Do not operate tool when you are tired, or under the influence of medication or alcohol.

► **RECOMMENDED ALPHA® ACCESSORIES**

Ceramica EX flexible diamond polishing discs, waterproof Sandpaper discs, Hook and Loop Backed Felt Wheels, Core Drill Bits, Twistouch Turbo and Profilers.

► **SPECIAL FEATURE**

The Alpha® Air Polisher was designed with human engineering for operator comfort. It comes equipped with a silencer which reduces the level of noise as well as guiding the cold exhaust air away from an operator during the polishing process. This feature also eliminates excess lubricant dripping on the work piece. Portions of the body design are made with synthetic materials and covered with rubber to prevent fatigue and coldness to hands.

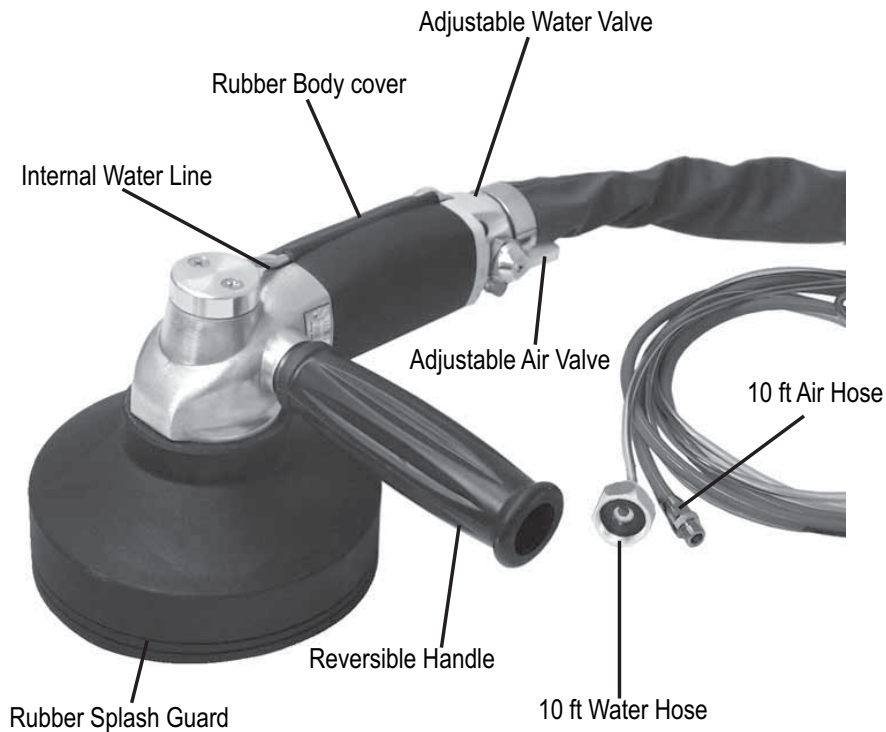
► **SPECIFICATIONS**

| | RPM | Weight | Air Consumption | Air Pressure | Air Inlet | Water Inlet | Spindle |
|---------------|---------------|---------|-----------------|----------------|-----------|-------------|---------|
| U.S. | No Load 3,500 | 2.64 lb | 15 CFM | 87 PSI | 1/4" BSPP | 1/8" BSPP | 5/8"-11 |
| METRIC | | 1.2 kg | 420 ℓ/ Min | 0.6Mpa (6 bar) | | | |

► **ACCESSORIES**

- Splash / Safety guard..... 1pc
- Water hose (10 ft / 3m)..... 1pc
- Air hose (10 ft / 3m)..... 1pc
- Wrench (22mm) 1pc
- Side handle 1pc
- Silencer / Muffler 1pc
- Lubrication Oil (1oz / 30 cc *sample bottle*)..... 1pc
- C-Shape Handle..... 1pc

► **MODEL AIR-658 PART NAMES**

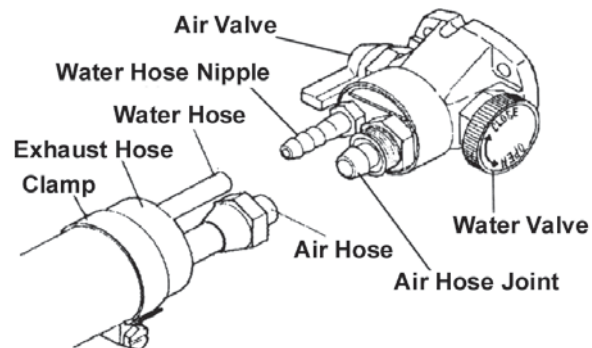


► **TOOL SET-UP INFORMATION**

Unpack the tool carefully and study the helpful hints and warnings contained in this manual. Please take time to familiarize yourself with the features of the tool. Be sure to fill out the registration card enclosed, and mail it back to the distribution center today.

► **AIR FITTINGS AND PRESSURE**

Your new Alpha[®] polisher is designed for continuous duty polishing. When selecting your compressor, buy a system which can handle a constant flow of air. We recommend that you purchase a heavy duty two stage cast iron type unit. The system should include a regulator and a moisture trap.



- Each tool requires: 87 PSI (0.6Mpa / 6 bars); however the range of 85-90 PSI is acceptable.
(6 kg / cm²) of air pressure and 15 CFM (420 l / min.) of air flow.
- We suggest a minimum of 5 HP air compressor with a holding tank of 50 cubic feet (1,400 l) capacity for one tool.
- Air hose fitting is 1/4" BSPP
- The use of heavy duty 3/8" (10mm) hose is suggested for all lines.

► **LUBRICATION** (*Lube Oil is used to protect the tool from rusting when not in use*)

PROPER CARE AND LUBRICATION ARE IMPORTANT FACTORS IN THE USEFUL LIFE OF THIS TOOL.

At the end of each workday, 2-3 drops of lubricant oil, solvent free oil (*included with each polisher*) should be placed in the air inlet at the base of the tool. Rotate the spindle counter clockwise, by hand 3-4 revolutions. Reinstall the air hose and run the tool for a minute or two. (*Replacement containers of oil may be purchased from Alpha Professional Tools® Part # AIR-008.*)

Maintenance and Usage Tip

Automatic oilers are not recommended: the volume, grade, and composition of oil used may cause premature failure. In-line air dryers are recommended to extend the life of the tool. Old or worn compressors, which emit oil through the air lines, can dramatically shorten the life of the tool.

► **SPINDLE SIZE**

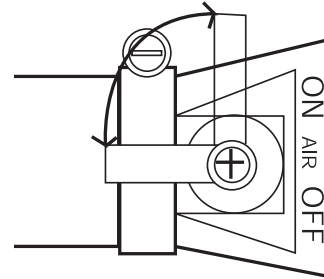
The Alpha® AIR-658 air polisher features a 5/8"-11 size spindle. This tool has been designed for portable/shop production and uses all modern accessories. It is very important that you do not run anything heavier than the recommended accessories on this machine. A drop of oil should be applied to the outside threads whenever attachments are changed to facilitate removal and prevent rust. A 22mm Spindle Wrench is provided to assist in changing accessories.

Maintenance and Usage Tip

- Do not leave the tool submersed in water. This could expose the inner moving parts to moisture, which will shorten the life of the tool.
- Do not leave threaded accessories (*backer pads, core drill bits, profilers*) on the spindle of tool for extended periods of time; this may result in making it difficult to remove these accessories.
- Excessive force or impact to the spindle may result in premature failure of gears and/or bearings, which may not be immediately evident.

► **AIR VALVE LEVER**

The valve lever controls the flow of air through the tool. It has two positions- ON or OFF. Run the tool at the recommended range of 85-90 PSI, with the lever pointing to the ON position. This will produce 3,500 RPM. Do not try to vary the speed. The tool works best at full throttle only. Do not attempt to exceed the recommended speed by excess pressure.



► **WATER CONTROL VALVE**

This valve lets you adjust the flow of water through the spindle. It may be used to shut off the water entirely when changing discs. When storing the tool overnight, open the valve and drain all water from the supply hose and tool.

► **SILENCER / MUFFLER**

To comply with OSHA Occupational Noise Exposure Standard Number 1926.52, this polisher is equipped with a Silencer. When the polisher is operated correctly at 87 PSI, the sound level emitted should be 80 dBA. The Silencer is also used to maintain a constant back pressure inside the tool; this helps to prevent it from exceeding the recommended 3,500 RPM.

The exhaust hose for this tool also helps to reduce the noise level by venting the exhaust air and residual air-line, thus eliminating the risk of excess lubricant dripping on the work piece.

Silencers should be replaced when dirty or clogged to provide optimum performance. A spare silencer is included with the purchase of a new polisher.

Maintenance and Usage Tip:

- Operating the tool at a pressure that exceeds the recommended operating specifications or without the silencer may result in premature failure of the tool.
- The silencer, Part # 658-52, should be replaced when it no longer allows air to flow freely. This is indicated by a dark, shiny appearance.

WARNING!

Tools sent in for repair, where the silencer is removed or blown out, are not covered under our Limited Warranty!

► **SPLASH / SAFETY GUARD**

For operator comfort and safety, a splash guard has been provided. The guard should remain in place for all grinding and polishing operations.

► **C-SHAPE HANDLE / REVERSIBLE SIDE HANDLE**

The C-Shape handle: During use with Alpha® Core Bits and Alpha® Profilers, use of the “C-Shape” handle is recommended. C-Shape handle will allow operator to have more control and ease of operation during these applications.

Reversible Side Handle: Attach the handle into the threaded socket on either the left or right side of the tool. A locknut is slipped onto the threads to keep the handle safely in position.

Maintenance and Usage Tips:

Do not apply more force or pressure than the force created by the weight of the polisher itself. The polishing discs are designed to work properly under lightweight pressure. Applying excessive force or pressure may damage the disc and could shorten the life of the tool.

► **WATER SUPPLY HOSE**

This hose may be connected to any garden hose using a clamp. The hose is composed of a special material to avoid kinks. Replacements are available should the hose become damaged, Part # 133229.

► **ACCESSORIES AND FACTORY SERVICE**

All the accessories can be purchased at a local distributor in your area. For more information concerning Alpha® Air Polisher and factory service, please contact the Alpha® distribution centers listed below.

COMPANY HEADQUARTERS: Alpha Professional Tools®
103 Bauer Drive
Oakland, NJ 07436

Hours of Operation: 8:30 a.m. – 5:00 p.m. EST

Telephone Number: 201-337-3343

Toll-Free Number: 800-648-7229

FACTORY SERVICE AND

TRAINING CENTER: 3625 W. Teco Ave.,
Suite #5
Las Vegas, NV 89118

Hours of Operation: 7:30 a.m. – 4:00 p.m. PST

Telephone Number: 702-837-9515

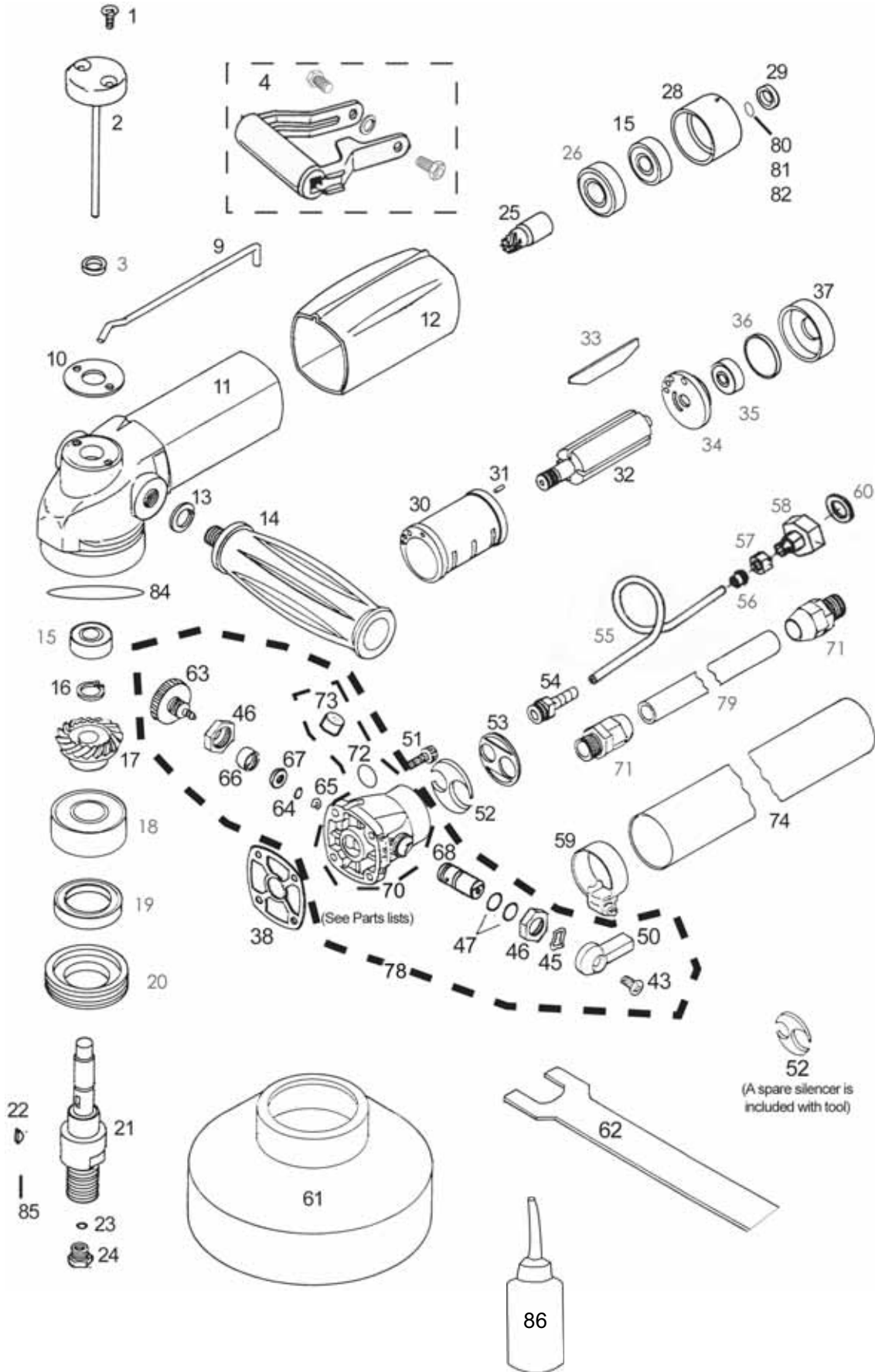
Toll-Free Number: 888-292-5742

Limited Warranty of Alpha® Air Polisher (AIR-658)

Alpha Professional Tools® warrants this product against defects in material and workmanship for a period of 90 days from the date of original retail purchase (proof of purchase required). If Alpha Professional Tools® receives notice of such defects during the warranty period, our obligation assumed under this warranty is limited to the repair or replacement of parts, without charge. This warranty does not apply to tool accessories.

For Warranty Claims: Send complete tool with all your information and details of the problem to the Alpha Professional Tools®, transportation prepaid. Do not send tool accessories.

► ALPHA® PNEUMATIC AIR POLISHER SCHEMATIC



► **ALPHA® PNEUMATIC AIR POLISHER PARTS LIST**

| DRAWING NO. | PART NO. | DESCRIPTION | QUANTITY |
|-------------|----------|-------------------------------------|----------|
| 1 | 658-01 | Screw M4x10 | 2 |
| 2 | 658-02 | Pipe-joint Assembly | 1 |
| 3 | 516-44 | Oil Seal | 1 |
| 4 | AWP-21A | C-shape Handle, 2 Bolts, 2 Washers | 1 |
| 9 | 658-09 | W-pipe | 1 |
| 10 | 658-10 | Head Packing | 1 |
| 11 | 658-11 | Body | 1 |
| 12 | 658-12 | Body Cover | 1 |
| 13 | 658-13 | Spring Washer M10 | 1 |
| 14 | 658-14 | Grip | 1 |
| 15 | 516-20 | Bearing 608 ZZ | 1 |
| 16 | 658-16 | Snap Ring | 1 |
| 17 | 658-17 | Spiral Bevel Gear | 1 |
| 18 | 516-48 | Bearing 6302 ZZ | 1 |
| 19 | 516-49 | Oil Seal | 1 |
| 20 | 516-50 | 44 Nut | 1 |
| 21 | 658-21 | Gear Shaft 5/8"-11 Thread | 1 |
| 22 | 658-22 | Half Moon Key | 1 |
| 23 | 658-23 | O-ring | 1 |
| 24 | 658-24 | 5/8 Nozzle | 1 |
| 25 | 658-25 | Spiral Bevel Pinion | 1 |
| 26 | 516-18 | Bearing 6001 ZZ | 1 |
| 28 | 658-28 | F-bearing Case | 1 |
| 29 | 658-29 | Rotor Spacer | 1 |
| 30 | 658-30 | Cylinder (Includes Part No. 658-31) | 1 |
| 31 | 658-31 | Spring Pin | 1 |
| 32 | 658-32 | Rotor | 1 |
| 33 | 516-25 | Vane (4 Piece Set) | 1 |
| 34 | 516-26 | R-bearing Case | 1 |
| 35 | 516-27 | Bearing 626 ZZ | 1 |
| 36 | 516-28 | Bearing Cap | 1 |
| 37 | 658-37 | Air Inlet Case | 1 |
| 38 | 658-38 | Body Packing | 1 |
| 43 | 658-43 | Screw M4x10 | 1 |
| 45 | 658-45 | Wave Washer | 1 |
| 46 | 658-46 | M-14-nut | 1 |

► **ALPHA® PNEUMATIC AIR POLISHER PARTS LIST**

| DRAWING NO. | PART NO. | DESCRIPTION | QUANTITY |
|-------------|----------------------|--|----------|
| 47 | 658-47 | O-Ring | 2 |
| 50 | 658-50 | Valve Lever | 1 |
| 51 | 658-51 | Hex Socket Head Screw | 4 |
| 52 | 658-52 | Silencer | 1 |
| 53 | 516-53 | Liner | 1 |
| 54 | 658-54 | Nipple | 1 |
| 55 | 133229 | Water Hose 8mm OD x10ft (3m) | 1 |
| 56 | AWP-56 | Compression Ring | 1 |
| 57 | AWP-57 | Compression Nut | 1 |
| 58 | AWP-74 | Hose Coupling | 1 |
| 59 | 658-59 | Clamp | 1 |
| 60 | AWP-75 | Gasket 24x14x3 | 1 |
| 61 | 658-61 | Splash Guard | 1 |
| 62 | 658-62 | Wrench 22mm | 1 |
| 63 | 658-63 | Needle Valve | 1 |
| 64 | 658-64 | O-ring | 1 |
| 65 | 658-65 | R-ring | 1 |
| 66 | 658-66 | M8 Nut | 1 |
| 67 | 658-67 | 05 Washer | 1 |
| 68 | 658-68 | A-valve (Includes Part No. 658-69) | 1 |
| 69 | 658-69 | Needle Pin | 1 |
| 70 | 658-70 | Endcase w/O-ring and Bushing Only (Includes Part No. 658-72 & 658-73) | 1 |
| 71 | 516-79-2 | Air-hose Joint 1/4" BSPP | 1 |
| 72 | 658-72 | O-ring | 1 |
| 73 | 658-73 | 07 Bushing | 1 |
| 74 | 658-74 | Exhaust Hose (Leather) | 1 |
| 78 | 658-78 | Complete Endcase Assembly | 1 |
| 79 | 516-79-1 | Air-hose | 1 |
| 80 | 658-80 | Shim.01mm | 1 |
| 81 | 658-81 | Shim.03mm | 1 |
| 82 | 658-82 | Shim.05mm | 1 |
| 84 | 658-84 | Shim.01mm | 1 |
| 85 | 658-85 | Oval Key | 1 |
| 86 | <i>Sample bottle</i> | Lubrication Oil (1oz / 30 cc) | 1 |
| — | AIR-008 | Air Polisher Lube Oil (8 oz) | 1 |

PRODUCT REGISTRATION CARD

Model No.

Serial No.

Company Name: _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Purchase Date: _____

Dealer's Name: _____

Note: Serial & Model Number must be included for proper registration.



Alpha Professional Tools®

(800) 648-7229



Mail or Fax to:
Alpha Professional Tools®
103 Bauer Drive, Oakland, NJ 07436
Fax: 800-286-0114

Photocopy of product registration form will be accepted.



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