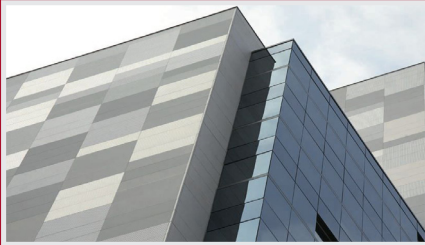


KDM110

**KEEP-NUT<sup>™</sup>**

**DRILLING  
MACHINE  
MANUAL**

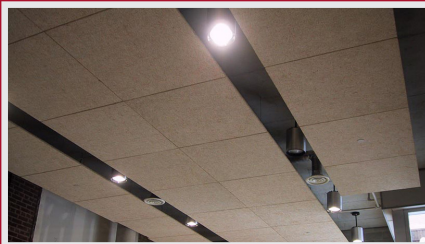
**SKU NUMBER  
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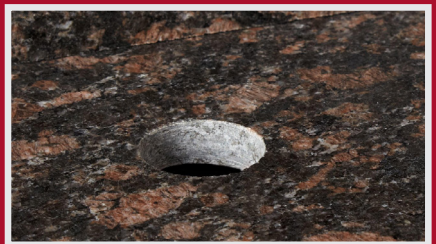
**Ventilated Facades**



**Under-mount Sink Anchor**



**Panel and Ceiling Hanging**



**Faucet Hole Drilling**



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## PRODUCT INFORMATION:

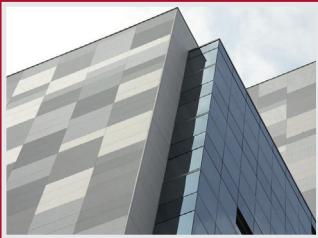
The **KDM110 KEEP-NUT™ DRILLING MACHINE** from **Chemical Concepts™**, is a lightweight, precision tool for drilling panels and countertops. This machine will enable any operator to repeatedly and efficiently drill holes with the correct dimensions for use with the Keep-nut anchoring system. This machine can also be used to as a general-purpose, portable drill press for many other applications.

Using an array of compatible bits, the machine can prepare holes in a variety of hard surfaces including granite, marble, engineered stone, UHPC, ceramics, glass, and composites. The vacuum-foot allows secure attachment to rough surfaces including unpolished granite and textured materials. This water-cooled, pneumatic machine requires only a single airline and a water feed to operate.

Use with thin-wall core bits to drill faucet holes in record time without a CNC.

- Fast, efficient drilling of anchor holes for **KEEP-NUT™** Anchoring System
- Vacuum-foot for secure attachment to rough or even vertical surfaces
- Lightweight and easy to operate
- Built in depth stop for precise, repeatable results
- Water cooled and air-operated

## **KEEP-NUT™ DRILLING MACHINE** works on:



**Ventilated Facades**



**Under-mount Sink Anchor**



**KEEP-NUT™ DRILLING MACHINE** works on:



**Panel and Ceiling Hanging**



**Faucet Hole Drilling**

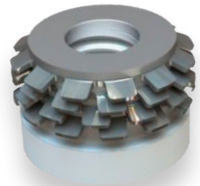
**PRODUCT USED WITH:**

**KEEP-NUT™** is a press-in self-anchoring insert that provides a permanent threaded fixing in panels or countertops made of marble, granite, composites, carbon, Corian®, HPL, glass and others hard surface materials.

The **KEEP-NUT™** insert is specifically developed to fasten ventilated façades, wall-coverings, décor, furniture, under-mount sinks, as well as a variety of other applications. The Keep-Nut is made of stainless steel



**Two Crown**



**Four Crown**

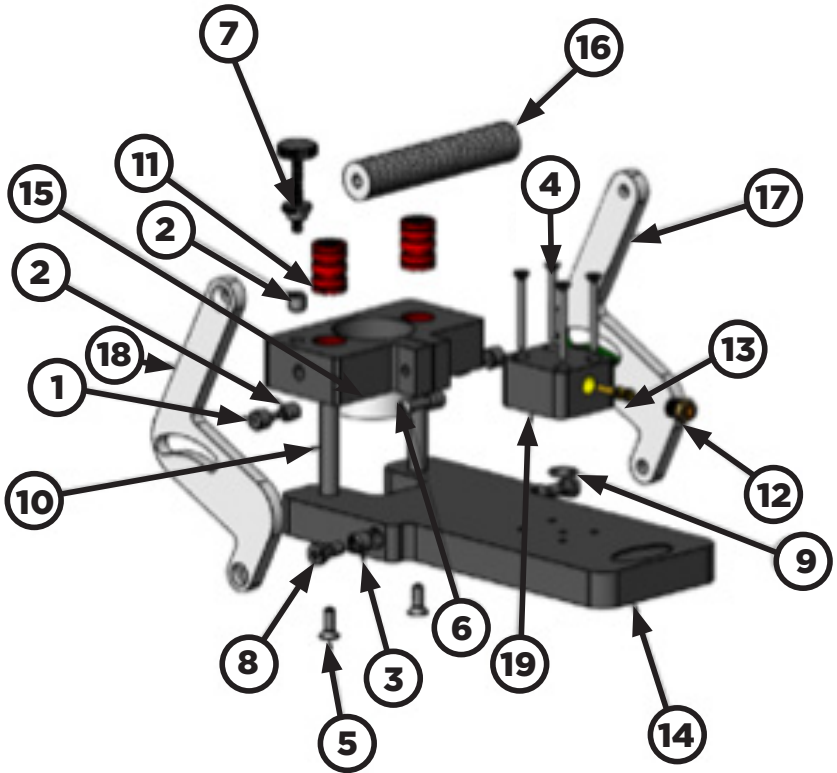
for durability and performance in exterior applications.

Available in different lengths to fit several different panel thicknesses, **KEEP-NUT™** can be installed quickly by drilling the material to the correct hole diameter and pressing in the insert. **KEEP-NUT™** inserts have several advantages. The preparation needed is just a cylindrical hole drilled by CNC or the KDM series manual tools. In addition, assembly by pressure is quick and easy and does not require use of adhesives.



## PART DRAWING

Use only with  
11.8mm 5/8" X 11  
diamond bit



(See chart on page 6)

## INDIVIDUAL PART PHOTOS

Keep-Nut-Alpha-Air-Polisher



Base with bottom view



KEEP-NUT™ Machine  
with accessories



ITEM NO.	DESCRIPTION	QTY.
1	Cam Follower	2
2	Thread Insert 1/4" - 20 to 7/16" - 14	4
3	Thread Insert 5/16" - 18 to 1/2" - 13	3
4	FHCS #10-24 x 2"	4
5	FCHS 1/4" - 20 x 3/4"	2
6	BHCS 1/4" - 20 x 1 1/4"	1
7	Adjustment Screw	1
8	SHSS 5/16" - 18 x 3/8"	2
9	O Ring	1
10	Ceramic Shaft	2
11	Linear Bushing	2
12	Hex Union 1/4" to 1/4" NPT	1
13	Venturi Valve	1
14	Fixture Base	1
15	Clamping Block	1
16	Handle	1
17	Arm	1
18	Arm	1
19	Venturi Block	1

## INDIVIDUAL PART PHOTOS





## OVERVIEW:

---

### Specifications

Air Pressure.....	85 PSI
Air Consumption.....	16 CFM
Weight.....	4.84 lbs

---

### Equipment Included

Alpha Air680C.....	1 pc
Non-coring Drill Bit ( 11.8mm) (CCH-KNBITGRI-11.8MM).....	1 pc
Split Stop Collar (½”).....	1 pc

---

### Special Features

The **KDM110** has a number of special features. The unit is designed to power both the pneumatic drill/polisher and the vacuum base using a single airline. The Venturi vacuum base was designed to deliver powerful suction to hold the unit securely in place even on rough and textured materials such as the underside of granite and ceramic surfaces in wet or dry conditions. The vacuum base allows the unit to be operated in a vertical or horizontal positions, provided sufficient air pressure and volume is available. The vacuum base also has a convenient quick release system to allow the user to quickly reposition the unit without shutting off the air line. Simply cover the small circular opening located on the front of the Venturi block (19) with your finger and the suction will be temporarily disengaged. The front of the unit has a slot to accept a wrench allowing the user to change drill bits without removing the polisher from the base. Simply slide the included wrench into the slide and engage the spindle on the **Alpha Air-680C**. This will prevent the spindle from rotating. You can then use the appropriate wrench to attach/remove your drill bit. Lastly the **KDM110** has an integrated depth stop that allows a predetermined depth to be set for repeatable, accurate drilling.





## **OVERVIEW:** *(cont)*

### **Air Pressure & Volume**

The recommended air pressure for this tool is 85 PSI. The most important factor in running this tool is the volume of air being supplied to the tool. The volume is the air consumption needed to run this tool at a constant speed under light downward hand pressure. The volume is measured in CFM (cubic foot per minute (ft<sup>3</sup>/min)). You need a minimum of **16 CFM** per tool to power both the tool and the vacuum base effectively.

When choosing a compressor to run an KDM110 we recommend a rotary screw type with a minimum of a **5 hp motor/15-20 CFM** and a 60-gallon tank, per tool. (I.E. if you want to run four tools, you will need a compressor with a **20 hp motor capability** of **80+ CFM** and an 80 to 100-gallon storage tank.) It is also very important to keep your air cool, dry, and clean, so look for a compressor with a refrigerated dryer and high-efficiency filter built in or purchase a separate air dryer and filter unit rated for your compressors CFM. Also ensure that the hose feeding the **KDM110** is of sufficient diameter to provide the required volume.  $\frac{1}{2}$ " Hose is recommended.

### **Tool Set-up Information**

Unpack the tool carefully and study the manual. Set the tool on a level surface and inspect for damage.

Before use, ensure that the **Alpha AIR-680C** is securely clamped into the clamping block (15), using a  $\frac{5}{32}$ " Allen wrench. If the drill is not clamped securely in the clamping block the drill may come loose during use. Excessive force and/or insufficient air pressure/volume may also force the polisher from the clamping block.





## OVERVIEW: (cont)

### Drill Bits

This machine is compatible with a variety of 5/8" x 11 threaded drill bits. Specially designed drill compatible with the Keep-nut anchoring system are available for this unit. The standard bit included in the box is recommended for marble, granite, quartzite and other natural stone surfaces. We recommend specialized bits for drilling ceramic/porcelain and specialized drill bits for glass. A variety of core bits are available for this machine as well for drilling faucet holes and other applications where core-bits are used. The max drilling depth on this unit is approximately 1 1/4" (3CM).

See below for a chart showing average drilling time to drill a 1/4" depth hole using the included drill bit.

For optimum drilling of porcelain, sintered and ceramic materials, a higher RPM tool is recommended. The **KDM110** can be used to drill accurate holes in these surfaces when using a bit designed for these materials, but drilling times will be considerably longer compared to granite and marble.

Stone	Average Drilling Time; 1/4" Depth (seconds)
<b>Marble</b> ( <i>Carrara</i> )	<b>4.70</b>
<b>Soft Granite</b> ( <i>Terra Bianc</i> )	<b>3.67</b>
<b>Hard Granite</b> ( <i>Blue Pearl</i> )	<b>12.25</b>
<b>Quartzite</b> ( <i>Taj Mahal</i> )	<b>13.00</b>
<b>Engineered Stone</b>	<b>5.67</b>
<b>Sintered/Porcelain</b> ( <i>Neolith</i> )	<b>53.50</b>



# Q&A

## TROUBLE SHOOTING

### LOSS OF SUCTION:

If the unit loses suction and the vacuum is unable to securely adhere to the surface the most likely cause is a blockage in the venturi. Debris can become lodged in the venturi which prevents the unit from creating enough suction. To correct this, the venturi needs to be disassembled and the blockage removed. Once the obstruction is removed the unit should return to full functionality.

#### Follow the steps below:

1. Using a hex key loosen the screws (4) that secure the venturi block (19), and remove the venturi block from the base.
2. Using the appropriately sized wrench remove the  $\frac{1}{4}$ " NPT fitting (12) on the venturi block.
3. Remove the valve (13) inside the Venturi block.
4. Visually inspect for any debris trapped in the Venturi block; Use a blow gun to clear out any debris lodged in the cavity.
5. Reassemble parts as shown in the parts diagram on page 5 & 6; Check for proper suction.

Use only with  
11.8mm  $\frac{5}{8}$ " X 11  
diamond bit

SKU NUMBER  
CCH-KN-KDM110





## Q&A

## TROUBLE SHOOTING

### INSUFFICIENT SUCTION:

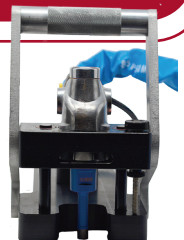
If the vacuum is unable to securely adhere to the surface while drilling it is likely that the Venturi has insufficient air pressure/volume. With proper air flow the vacuum base should have plenty of suction to stay in position during use even while applying moderate force to the handle while drilling. Check your air supply for pressure and volume and make sure your airlines are of sufficient diameter to supply the machine. If proper air pressure is being supplied make sure that the bit is properly dressed and cutting freely. Do not apply excess pressure to the handle during use. Excess pressure can damage the **Alpha Air-680C** polisher and cause the vacuum base to lose suction.

### HOLE DIAMETER:

If the **KDM110** is drilling holes that are too large for the keep-nut anchors, ensure the correct bit is being used. If the correct bit is in use, you may need to add a 5/8" washer between the drill bit and the polisher to insure that the bit is seated exactly 90° from the polisher. If the bit has insufficient thread depth this can cause a misalignment which will affect the final diameter of the hole produced.

Use only with  
11.8mm 5/8" X 11  
diamond bit

SKU NUMBER  
**CCH-KN-KDM110**



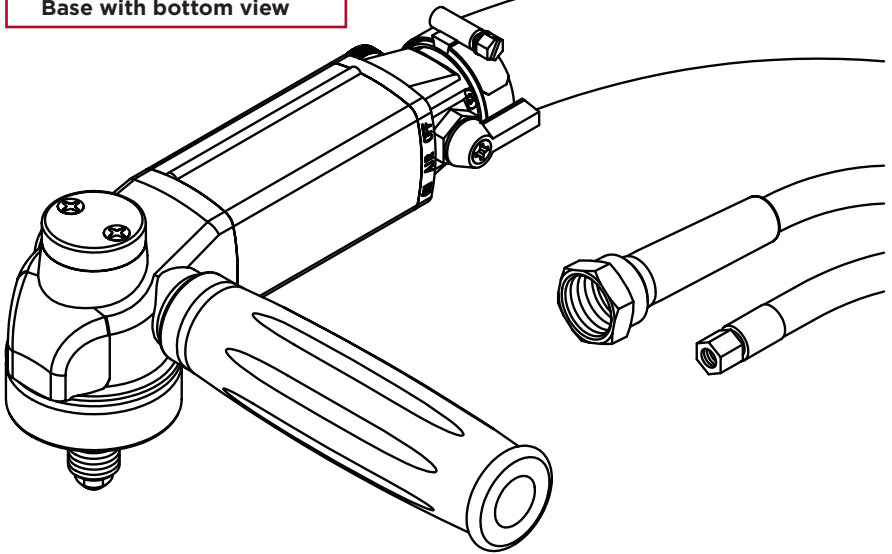


# Alpha® Pneumatic Air Polisher Instruction Manual

Keep-Nut-Alpha-Air-Polisher



Base with bottom view



**Part No: AIR-680C**  
**Version 1**





## ► INTRODUCTION


Thank you for purchasing an Alpha® Air Polisher. Please read this instruction manual thoroughly to ensure safe and correct use of the pneumatic polisher. Keep this manual in a place where operators can access it easily whenever necessary.

## ► 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.

## ► 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.

**For repair information call:**

Headquarters, Oakland, NJ — (800) 648-7229 ext.505

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



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.** All users and bystanders must always wear proper personal eye protection which conform with ANSI/ISEA Z87.1 (CAN/CSA Z94.3). Also use a face or dust mask if operation is dusty. Always wear certified safety equipment.
8. **WEAR PROPER EAR PROTECTION.** All users and bystanders must wear proper personal ear protection which conforms with ANSI S12.6 (S3.19) hearing protection.
9. **WEAR PROPER RESPIRATORY PROTECTION.** All users and bystanders must wear proper personal respiratory protection. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure.

**Warning:** Some dust created by power sanding, sawing, grinding, drilling, polishing and other construction activities contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

**Some examples of these chemicals are:**

- Lead from lead-based paints
- Crystalline silica from bricks, cement and other masonry products, and
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure, work in a well ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

To familiarize with the risks associated with a material, consult with your employer, manufacturer/supplier and government agencies regarding the hazards of the materials and their recommendations to protect yourself.

10. **DON'T ABUSE WATER SUPPLY HOSE.** Don't carry tool by supply hose or expose to traffic areas where it can be crushed.



11. **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.
12. **DON'T OVERREACH.** Keep proper footing and balance at all times.
13. **DISCONNECT TOOLS WHEN NOT IN USE.** Always disconnect tool before servicing; when changing accessories such as grinding wheels, backer pads, etc.
14. **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.
15. **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.
16. **AVOID ACCIDENTAL STARTING.** Do not carry a "connected" tool, or make adjustments, or change discs without making sure the tool is disconnected from the air supply.
17. **USE ONLY RECOMMENDED ACCESSORIES.** The use of any accessories other than what is listed or recommended for this particular tool may be hazardous.
18. **KEEP HANDS AWAY FROM ALL MOVING PARTS.**
19. **USE SIDE HANDLES.** Supplied with tool for control and safety.
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.





## DECLARATION

DECLARED DUAL-NUMBER NOISE EMISSION VALUES IN ACCORDANCE WITH ISO 4871

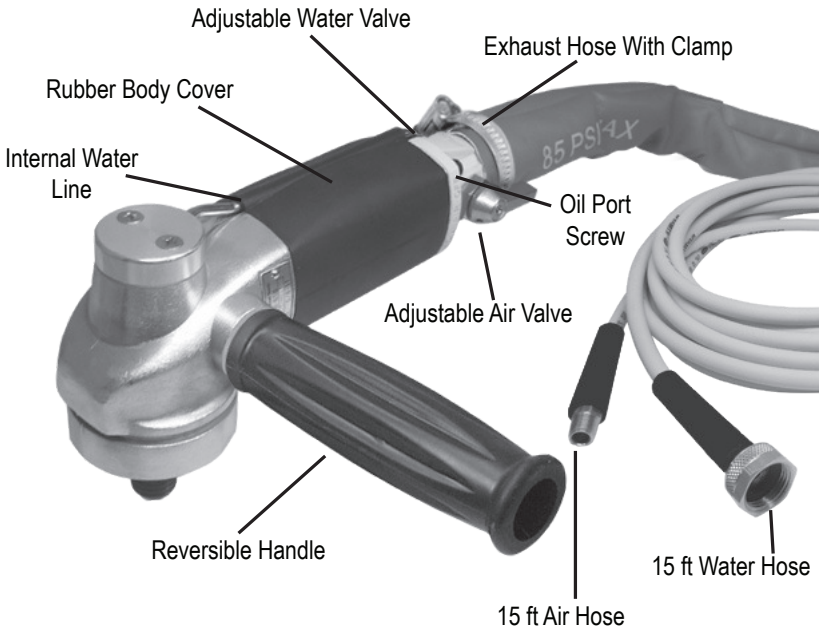
Measured A-weighted sound power level, $L_{WA}$ , in decibels	96.9
Uncertainty, $K_{WA}$ , in decibels	0.73
Measured A-weighted emission sound pressure level $L_{pA}$ at the operator's position, in decibels	85.9
Uncertainty, $K_{pA}$ , in decibels	0.73
Values determined to noise test code given in ISO 15744.	
Note - The sum of a measured noise emission value and its associated uncertainty represents an upper boundary of the range of values which is likely to occur in measurements	

DECLARED VIBRATION EMISSION VALUE IN ACCORDANCE WITH EN 12096

Measured vibration emission total value a	1.48m/s <sup>2</sup>
Uncertainty K	0.32m/s <sup>2</sup>
Values determined according to ISO 8662-8.	



## AIR-680C OVERVIEW



### ►SPECIFICATIONS

Air Pressure.....	85 PSI
Air Consumption.....	15 CFM
No Load RPM.....	4,000
Weight.....	2.64lbs/1.2kg
Air Inlet.....	1/4" BSPP
Water Inlet.....	1/8" BSPP
Spindle.....	5/8"-11



► **EQUIPMENT INCLUDED**

Air hose (15 ft / 4.5m).....	1pc
Water hose (15 ft / 4.5m) .....	1pc
Side Handle (reversible).....	1pc
Double End Wrench (19mm/22mm).....	1pc
Rust Inhibitor Oil (8oz / 237ml) (AIR-008).....	1pc
Screw (w/ O-Ring Seal for Oil Port) .....	1pc
Exhaust Hose With Clamp .....	1pc

► **OPTIONAL ACCESSORIES**

Splash Guard (AWP-01) .....	1pc
C-Shaped Handle (AWP-21A) .....	1pc

**SPECIAL FEATURES**

The Alpha® AIR-680C polisher was designed with user comfort in mind, for a full day of use. The silencer system will reduce the noise volume below 80 dBA and the rubber body cover will insulate the user from the cold and fatigue. The blue exhaust hose is designed to guide the cold exhaust air and rust inhibitor oil away from the user and the work area.

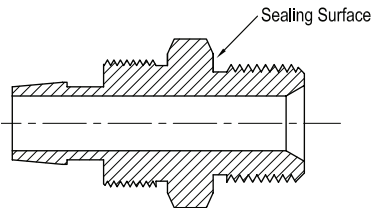
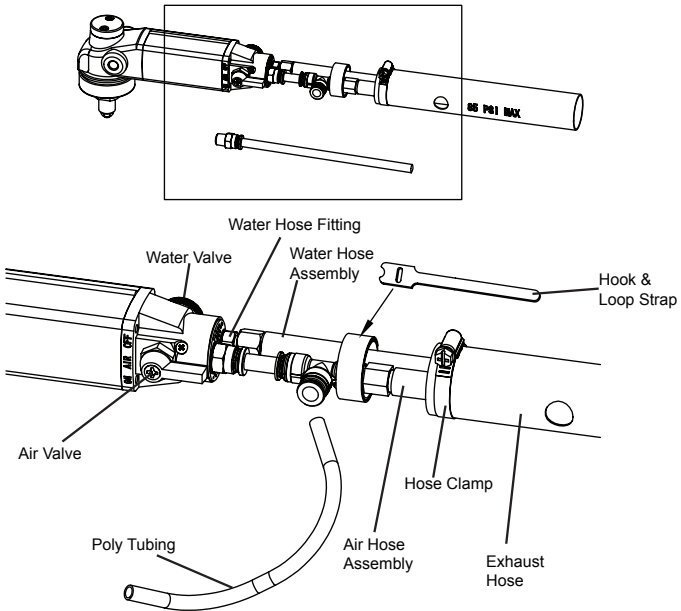
**TOOL SET-UP INFORMATION**

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.

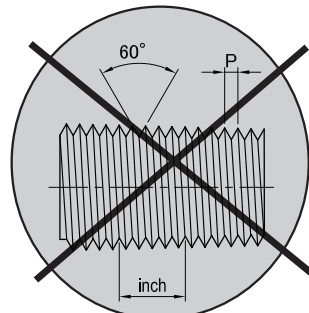


► **CONNECTION FITTINGS**

The air and water hose fittings on the back of this tool are BSPP (British standard parallel pipe or “G” thread). These fittings have parallel threads and seal off on the flat surface on the bottom of the thread. This type of fitting is usually supplied with an “O” ring or sealing ring which we replaced with the silencer.



Parallel Thread



Tapered Thread NPT



### ► AIR PRESSURE AND VOLUME

The recommended air pressure for this tool is 85 PSI. The most important factor in running this tool is the volume of air being supplied to the tool. The volume is the air consumption needed to run this tool at a constant speed under light downward hand pressure. The volume is measured in CFM (cubic foot per minute (ft<sup>3</sup>/min)). You need a minimum of 15 CFM per tool.

When choosing a compressor to run an AIR-680C polisher, we recommend a rotary screw type with a minimum of a 5hp motor/15-20 CFM and a 60 gallon tank, per tool. *(I.E. if you want to run four tools, you will need a compressor with a 20hp motor capability of 80+ CFM and an 80 to 100 gallon storage tank.)*

It is also very important to keep your air cool, dry, and clean, so look for a compressor with a refrigerated dryer and high-efficiency filter built in or purchase a separate air dryer and filter unit rated for your compressors CFM.

### ► RUST PROTECTION (A rust inhibitor oil is used to protect the tool from rusting when not in use)

### PROPER CARE AND MAINTENANCE ARE IMPORTANT FACTORS IN PREVENTING THIS TOOL FROM RUSTING ON THE INSIDE WHEN NOT IN USE.

At the end of each workday, place 2-3 drops of rust inhibitor oil (included with each polisher) directly into the OIL PORT of the pneumatic tool. After applying the rust inhibitor oil, turn the air valve slightly so that the oil atomizes into a mist and coats the internal components of the polisher. If the process is executed correctly, you should see a mist coming out of the end of the polisher. The Exhaust Hose (Part No. 658-95C) and Hose Clamp (Part No. 1030-1104) need to be removed to see the mist effect. See the detailed steps on the next page for adding the oil to the pneumatic polisher.



**⚠ WARNING!**

When you remove the screw (658-91) without disconnecting the air supply, compressed air will start leaking out and push the screw while removing. When installing the oil port screw, install until the O-ring and screw head make contact with the Endcase.

**Warning: Over tightening of the oil port screw can strip the screw and/or internal thread of the Endcase.**

► **HOW TO ADD THE RUST INHIBITOR OIL**

1. Disconnect the tool from your air supply.
2. Remove the screw (Part No. 658-91) using a #1 phillips head miniature screw driver. (See Fig. 1)

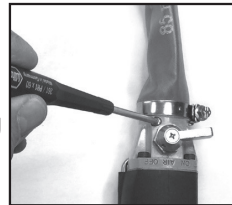


Figure-1

3. Add 2 -3 drops of the rust inhibitor oil into the oil port. (See Fig. 2)
4. Reinstall the screw (Part No. 658-91).
5. Reconnect the tool to your air supply.

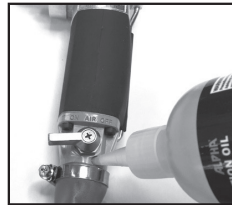


Figure-2

6. Turn the valve lever (Part No. 658-50) slightly so the air is leaking through the tool. (Spindle of tool should not spin during this process). (See Fig. 3)
7. Replacement Rust Inhibitor Oil can be purchased from Alpha® Professional Tools (Part No. AIR-008).



Figure-3

Lubricating the tool before and during work is not needed. Excessive oil will turn to a tar-like substance inside the tool, causing the vanes to stick in the rotor and slow the tool down. This is the reason we do not recommend automatic oilers be used with this tool. Old or worn compressors, which emit oil through the air lines, can significantly shorten the life of the tool.



### ► SPINDLE SIZE

The Alpha® AIR-680C air polisher features a 5/8"-11 spindle.

**⚠ CAUTION!**

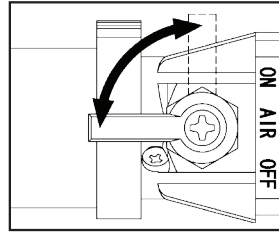
### Maintenance and Usage Tip:

- 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 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, keyways and 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 pressure of 85 PSI, with the lever pointing to the ON position. This will produce 4,000 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. This will significantly shorten the life of the tool.

When storing the tool overnight, disconnect from the air supply and open the valve.

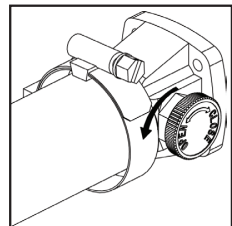


### HELPFUL HINT:

- Air valve lever should be opened and closed slowly to allow the tool to accelerate and decelerate. Rapid acceleration and deceleration can wear out the ball bearings prematurely.

### ► WATER CONTROL VALVE

This valve lets you adjust the flow of water through the spindle. 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 an internal Silencer System. When the polisher is operated correctly at 85 PSI, the sound level emitted should be less than 80 dBA. The internal Silencer System is also used to maintain a constant back pressure inside the tool, to prevent the rotor assembly from exceeding the max speed of the bearings; this helps prevent the polisher from exceeding the recommended 4,000 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 rust inhibitor oil dripping on the work piece.

Tools sent in for repair, where the body gasket or silencer is removed or modified, are not covered under our Limited Warranty.

### ► 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.

### ► AIR SUPPLY HOSE ASSEMBLY

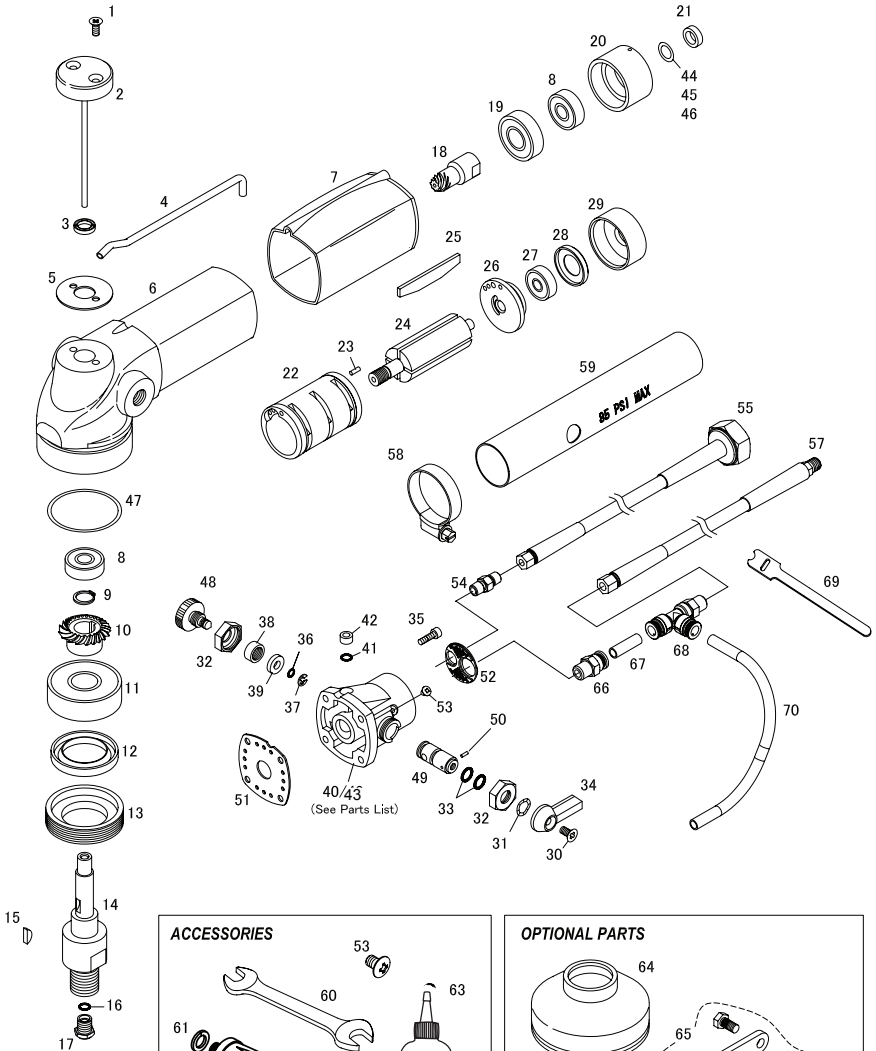
This hose has 1/4" NPT threads and is composed of a special material to avoid kinks and remain flexible down to -40°F. Replacements are available should the hose become damaged (Part No. 1030-0002).

### ► WATER SUPPLY HOSE ASSEMBLY

This hose may be connected to any garden hose. It is composed of a special material to avoid kinks and remain flexible down to -40°F. Replacements are available should the hose become damaged (Part No. 1030-0003).



**ALPHA® AIR-680C SCHEMATIC (VER. 1)**



**ACCESSORIES**

60, 62, 63

**OPTIONAL PARTS**

64, 65



## ALPHA<sup>®</sup> AIR-680C PARTS LIST (VER. 1)

DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY
1	658-01	Screw	2
2	658-92	Pipe-Joint Assembly	1
3	516-44	Oil Seal	1
4	658-09	W-Pipe	1
5	658-10	Head Packing	1
6	658-11	Body	1
7	658-12	Body Cover	1
8	516-20	Ball Bearing (608ZZ)	1
9	658-16	Snap Ring	1
10	658-17	Spiral Bevel Gear	1
11	516-48	Ball Bearing (6302ZZ)	1
12	516-49	Oil Seal	1
13	516-50	44 Nut	1
14	658-93	Spindle 5/8"-11 Thread	1
15	658-22	Woodruff Key	1
16	658-23	O-Ring (1.7mm x 2.75mm)	1
17	658-24	Spray Nozzle 5/16	1
18	658-25	Spiral Bevel Pinion	1
19	516-18	Ball Bearing (6001ZZ)	1
20	658-28	F-Bearing Case	1
21	658-29	Rotor Spacer	1
22	658-30	Cylinder (Inc. Spring Pin Part No.658-31)	1
23	658-31	Spring Pin	1
24	658-32	Rotor	1
25	516-25	Vanes (4pc set)	1
26	516-26	R-Bearing Case	1
27	516-27	Ball Bearing (626ZZ)	1
28	516-28	Bearing Cap	1
29	658-37	Air Inlet Case	1
30	658-43	Screw	1
31	658-45	Wave Washer	1
32	658-46	Nut M14	2



## ALPHA® AIR-680C PARTS LIST (VER. 1)

DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY
33	658-47	O-Ring (1.7mm x 6.75mm)	2
34	658-50	Valve Lever	1
35	658-51	Hex. Socket Head Screw	4
36	658-64	O-Ring (1.0mm x 3.0mm)	1
37	658-65	Retaining Ring E-Style	1
38	658-66	Nut M8	1
39	658-67	Washer 05	1
40	658-94	Endcase Assembly (Inc. Part No. 658-72 & 658-73)	1
41	658-72	O-Ring (1.9mm x 3.8mm)	1
42	658-73	Bushing 07	1
43	658-96	Complete Endcase Assembly	1
44	658-80	Shim (0.10mm)	1
45	658-81	Shim (0.03mm)	1
46	658-82	Shim (0.05mm)	1
47	658-84	Shim (0.20mm)	1
48	658-86	Water Valve	1
49	658-87	A-Valve (Inc. Needle Pin Part No. 658-88)	1
50	658-88	Needle Pin	1
51	658-89	Body Gasket (Requires Part No. 658-90)	1
52	658-90	Silencer (Requires Part No. 658-89)	1
53	658-91	Screw (with O-Ring Seal (1 pcs in tool + 1 spare))	2
54	1030-1020	Male Union for Water Hose Fitting	1
55	1030-0003	Water Hose Assembly	1
57	1030-0002	Air Hose Assembly	1
58	1030-1104	Hose Clamp	1
59	658-95C	Exhaust Hose w /8mm Hole	1
60	1030-1103	Double Open End Wrench (19mm/22mm)	1
61	658-13	Spring Lock Washer	1
62	658-14	Side Handle	1
63	AIR-008	Rust Inhibitor Oil 8 oz. (237ml)	1
64	AWP-01	Splash Guard	Optional part
65	AWP-21A	C-Shaped Handle	Optional part



## ALPHA<sup>®</sup> AIR-680C PARTS LIST (VER. 1)

DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY
66	1030-1220	PTC Fitting x 8mm Tube x 1/4" BSPP	1
67	1030-1222	Poly Tubing 8mm x 2"	1
68	1030-1221	PTC T 8mm Tube x 8mm Tube x 1/4" NPT	1
69	1030-1121	Hook & Loop Strap 8" L	1
70	1030-1223	Poly Tubing 8mm x 10"	1

### ► ACCESSORIES AND FACTORY SERVICE

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

#### COMPANY HEADQUARTERS & REPAIR CENTER:

Alpha Professional Tools<sup>®</sup>

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

### ► WARRANTY

#### Limited Warranty of Alpha<sup>®</sup> Air Polisher (AIR-680C) for USA and Canada ONLY!

Alpha Professional Tools<sup>®</sup> warrants this product against defects in material and workmanship for a period of one year from the date of original retail purchase (proof of purchase required). If Alpha Professional Tools<sup>®</sup> 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 Alpha<sup>®</sup> accessories. Returns within the warranty period should be sent in freight prepaid to an Authorized Warranty Service Center.

#### The warranty does not apply in situations where:

- The tool has been misused, abused or improperly maintained
- Alterations or repairs were made by others
- Repairs due to normal wear and tear

Some States do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

**For Warranty Claims:** Send complete tool with all your information and details of the problem to an Authorized Warranty Repair Center, transportation prepaid. Do not send tool accessories.

**NOTE:** Any tools purchased through an unauthorized distributor are not covered under warranty.



KDM110  
**KEEP-NUT<sup>™</sup>**

# **DRILLING MACHINE MANUAL**



Chemical Concepts |

410 Pike Road, Huntingdon Valley, PA 19006 |

Made in USA

[www.chemical-concepts.com](http://www.chemical-concepts.com) | 800.220.1966 |

267.684.1038 | [sales@chemical-concepts.com](mailto:sales@chemical-concepts.com) |