

### LIMITED WARRANTY

PERFORMANCE TOOL® extends only the following warranties, and only to original retail purchasers. These warranties give specific legal rights. Except where prohibited by local law, the law of the State of Washington governs all warranties and all exclusions and limitations of warranties and remedies. There may be other rights which vary from state to state.

PERFORMANCE TOOL® warrants the product to be free from defects in materials and workmanship under normal use and service. A defective product may be returned for a free replacement within 90 days from the date of purchase, provided that product is returned to place of purchase immediately after discovery of defect. After 90 days and up to one year from date of purchase, PERFORMANCE TOOL® will replace at no charge any parts which our examination shall disclose to be defective and under warranty.

These warranties exclude blades, bits, punches, dies, bulbs, fuses, hoses, and other consumables which must be replaced under normal use and service. These warranties shall not apply to any product or part which is used for a purpose for which it is not designed, or which has been repaired or altered in any way so as to affect adversely its performance or reliability, nor shall these warranties apply to any product or part which has been subject to misuse, neglect, accident or wear and tear incident to normal use and service.

PERFORMANCE TOOL® does not authorize any other person to make any warranty or to assume any liability in connection with its products.

Except for warranties of title and the limited express warranties set forth above, PERFORMANCE TOOL® makes no express or implied warranties of any kind with respect to its products. In particular, PERFORMANCE TOOL® makes no implied warranty of merchantability and no implied warranty of fitness for any particular purpose, except that for goods purchased primarily for personal, family or household use and not for commercial or business use, PERFORMANCE TOOL® makes an implied warranty of merchantability (and, if otherwise applicable, an implied warranty of fitness for a particular purpose), but only for the particular qualities or characteristics, and for the duration, expressly warranted above.

The laws on limitation of implied warranties may differ from state to state, so the above limitations may not apply in all cases.

PERFORMANCE TOOL® shall not be liable for consequential, incidental or special damages resulting from or in any manner related to any product, or to the design, use, or any inability to use the product. The sole and exclusive remedy for a defective product or part shall be the repair, or replacement thereof as provided above. The laws on limitation of remedies or on consequential, incidental or special damages may vary from state to state, so the above limitations may not apply in all cases.

# PUNCH/FLANGE TOOL

Stock Number M661

## OWNER'S MANUAL

### SPECIFICATIONS:

Max capacity (GA) . . . . .	14
Punch diameter (IN) . . . . .	3/16
Flange depth (IN) . . . . .	1/2
Air pressure (P.S.I.) . . . . .	90
Average air consumption (C.F.M.) . . . . .	4
Air inlet (N.P.T.) . . . . .	1/4
Hose size (I.D.) . . . . .	3/8 in.
Length (IN.) . . . . .	9.7
Weight (LBS.) . . . . .	3

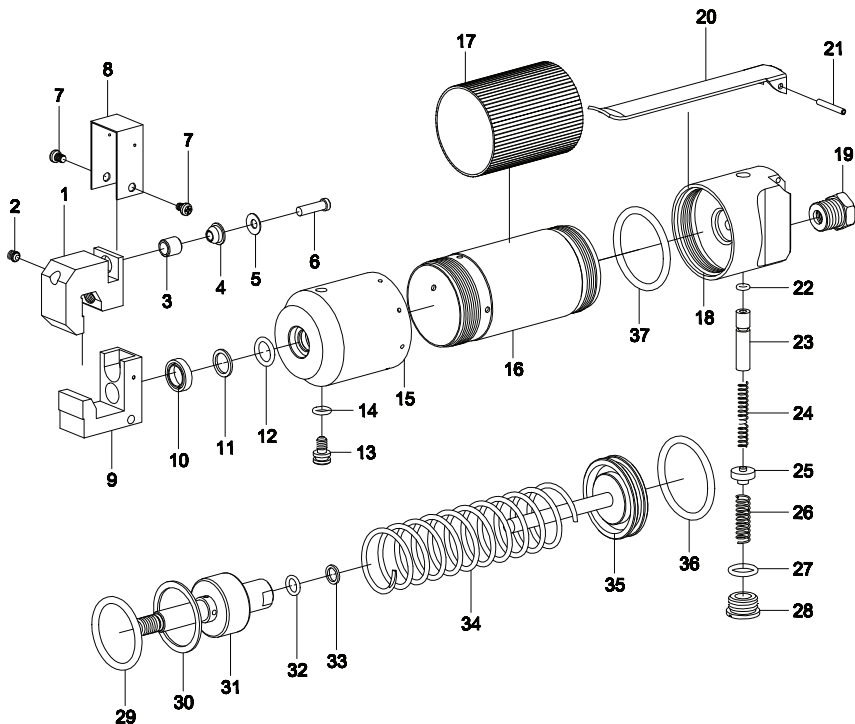
Specifications are subject to change without notice.



### WARNING!

READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE OPERATING THIS TOOL. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID WARRANTY.

# PARTS LIST



INDEX	DESCRIPTION	QTY	INDEX	DESCRIPTION	QTY
1	Clamp	1	20	Throttle Lever	3
2	Set Screw	1	21	Spring Pin	3
3	Punch Die	1	22	O-Ring	1
4	Guide Bushing	1	23	Push Rod	1
5	Cup Spring	1	24	Spring	1
6	Punch	1	25	Valve	2
7	Screw	1	26	Spring	1
8	Cover Plate	1	27	O-Ring	1
9	Anvil	1	28	Screw	1
10	Oil Seal	1	29	O-Ring	1
11	Support Ring	1	30	Supporting Ring	1
12	O-Ring	4	31	Hydraulic Piston	1
13	Oil Plug	1	32	O-Ring	1
14	O-Ring	2	33	Support Ring	1
15	Hydraulic Cylinder	1	34	Spring	1
16	Air Cylinder	1	35	Piston	1
17	Rubber Grip	1	36	O-Ring	1
18	Valve Body	1	37	O-Ring	1
19	Air Inlet	1			

## OPERATION

### FLANGING

1. Measure and cut the workpiece to the correct dimensions.
2. Connect the Air Punch/Flange Tool to your air supply. Do not exceed 90 PSI.
3. Secure the workpiece in a vise or use another appropriate clamping method.
4. Insert the workpiece into the flanging jaw between the Anvil (9) and the Clamp (1). Make sure the workpiece is all the way flush against the back of both the Anvil (9) and the Clamp (1). Squeeze the Throttle Lever (20) and the Anvil (9) will be driven against the Clamp (1) forming a flange.
5. Release the Throttle Lever (20). Slide the tool along the edge of the workpiece to where the Anvil (9) and the Clamp (1) overlap part of the workpiece you just flanged.
6. Repeat steps 4 and 5 until the entire length you wanted to flange is finished.
7. Disconnect the air supply.

**WARNING:** Always wear heavy-duty leather gloves when handling sheet metal. Sharp edges can cause severe injury. Always wear ANSI-approved safety goggles.

**WARNING:** After disconnecting the Air Punch/Flange Tool from the air supply there could still be enough air pressure to fire the Punch/Flange. After making sure the air supply is disconnected, ALWAYS fire the Punch/Flange repeatedly to make sure all air is bled from the tool.

## TROUBLESHOOTING

### INSUFFICIENT POWER:

Probable Cause	Solution
Dirty or clogged air passages.....	Flush and lubricate tool, drain air tank and supply line
Insufficient air supply.....	Increase line pressure, Make sure compressor matches tool's air pressure and consumption needs
Air leakage.....	Use PTFE tape at all fittings and joints. Check tool for worn or damaged O-rings & seals.
Worn/damaged wear & tear parts...	Replace as necessary.
Tool matching .....	Be sure you are using a tool suited for the torque requirements of the job at hand.

## IMPORTANT SAFETY INFORMATION

1. Be sure air is in "OFF" position when connecting tool to air supply.
2. Always wear approved eye protection when using air tools. If raising dust, wear a suitable mask.

**WARNING:** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

1. Lead from lead-based paints;
2. Crystalline silica from bricks and cement or other masonry products;
3. 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 to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

3. Do not remove the Plate Guard (8).
4. Use only those accessories that are designed for use with air tools. For example, with impact wrenches do not use ordinary sockets. Use impact sockets for all- air tools.
5. Wear heavy-duty gloves and keep hands away from moving parts.
6. Be sure to disconnect tool from air supply before changing accessories, performing service on tool and when not in use.
7. As with any tool, use common sense when operating. Do not wear loose clothing or jewelry that could become caught by moving parts, causing injury. Operate tool a safe distance from yourself and others in the work area.
8. To ensure long life of the air tool be sure to oil the tool daily before using. See below for instructions.
9. Use compressed air only. Clean, dry, regulated compressed air at no more than 90 PSI. Never use oxygen, carbon dioxide, combustible gasses, or any other bottled gas as a power source for this tool. Do not exceed 90 PSI.
10. Follow air source manufacturers directions for connection of regulators, filters, and other accessories to air source. Do not install quick couplers directly on tool as they put unnecessary strain on the air inlet threads possibly causing them to wear out prematurely. Instead, install them on a short length of air hose attached to the tool.
11. Maintain labels and nameplates on the tool. These carry important information.
12. Maintain a safe working environment with adequate surrounding workspace.
13. Avoid unintentional starting. Make sure you are prepared to begin work before attaching the air supply and pressing the Throttle Lever.
14. Never leave the tool unattended when it is plugged into an air supply. Unplug it from its air supply before leaving.
15. Be sure to read and follow all safety warnings and instructions in the manual provided by the manufacturer of the air compressor you are using with this Air Punch/Flange Tool.
16. Be aware of material thickness. Never try to punch or flange material thicker than 16 gauge. Doing so may damage the tool and/or cause personal injury.
17. Material guide and support may be needed. When working with large materials, you may need the help of an assistant, or support stands (not included) in order to maintain a straight flange or punch consistent holes.

**WARNING:** The brass components of this product contain lead, a chemical known to the State of California to cause birth defects (or other reproductive harm).

## AIR SOURCE

Clean air of correct air pressure is recommended for the power supply for this tool. A maximum of 90 PSI at the tool is recommended for most air tools of this class. Check specifications section for recommended pressure. (Depending on length of air hose and other circumstances, air pressure at compressor may need to be increased to 100 PSI to ensure 90 PSI at the tool.)

Water in the air hose and compressor tank contributes to reduced performance and damage of the air tool. Drain the air tank and filters before each use and as necessary to keep the air supply dry.

Hose length over 25' causes loss in line pressure. Increase hose I.D. or increase compressor pressure to compensate for the pressure loss. Use an in-line pressure regulator with gauge if air inlet pressure is critical.

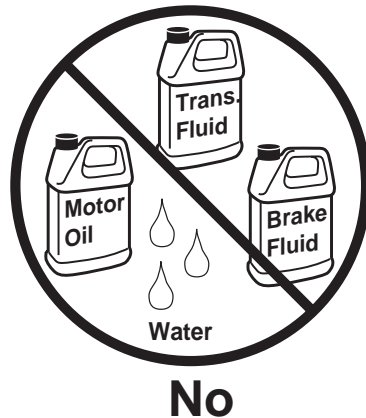
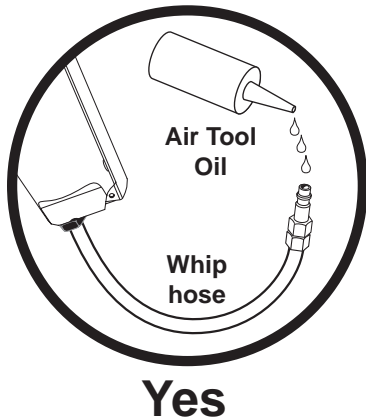
## INSPECTION, MAINTENANCE & CLEANING

1. BEFORE EACH USE, inspect the general condition of the tool. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. Do not use damaged equipment.
2. WHEN NECESSARY, fill the hydraulic system with a high quality hydraulic oil. Remove the Oil Plug (13), refill and then replace the Oil Plug (13).
3. To adjust the Punch, loosen the Set Screw (2) and rotate the tool head. After making needed adjustment, tighten the Set Screw (2).
4. After each use wipe off with clean, moist cloth.

## LUBRICATION

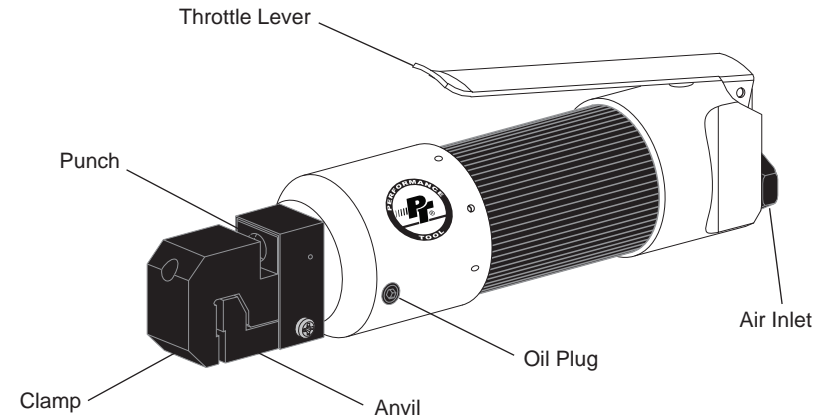
**Oil tool before each use.** 4 to 5 drops of a good grade Air Tool Oil placed in the air inlet is sufficient. Use proper air pressure and CFM rating listed for this tool.

**Drain water from hoses and compressor tank.** Water in the air supply line will cause gumming and loss of power. Clean the air filter on the supply line and flush the tool with gum solvent or a 50/50 mix of air tool oil and kerosene. It may be necessary to disassemble the tool to properly clean and re-lubricate.



## OPERATION

1. Use clamps (not included) or other ways to secure the work piece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.
2. Do not force the tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
3. Do not use the tool if the Throttle Lever (20) does not turn it on or off.
4. Disconnect the air supply before making any adjustments, or storing the Air Punch/Flange Tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
5. Store idle tools out of reach of children and other untrained persons. This Air Punch/Flange Tool is dangerous in the hands of untrained users. Never allow children to come in contact with this product.
6. Maintain tools with care. Keep the Air Punch/Flange Tool clean. Properly maintained tools are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
7. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced by a qualified technician before using. Many accidents are caused by poorly maintained tools.



## PUNCHING

1. Pre-mark the desired location of each hole you wish to punch on the workpiece.  
*NOTE: If the workpiece is to be both punched and flanged, flange it first, then measure for the hole placement. Flanging will change the dimensions of the workpiece.*
2. Connect the Air Punch/Flange Tool to your air supply. Do not exceed 90 PSI.
3. Insert the edge of the workpiece between the Punch Die (3) and the Punch (6). Make sure your marks are aligned with the Punch Die (3).
4. Squeeze the Throttle Lever (20) and the Punch (6) will pierce the workpiece.
5. Align the tool with the next mark on the workpiece and repeat step 4 until the job is finished.
6. Disconnect the air supply.