



Universal Tool

UT9930
Recoilless Air Saw

Description

The Universal Tool model UT9930 Recoilless Air Saw features an advanced vibration-dampened mechanism which allows reciprocating saw action without the traditional associated vibrations being transferred to the operator. This tool is designed to cut a variety of materials including sheet metal, auto body panels, ductwork, aluminum, fiberglass, plastics and wood. This tool features a heavy duty steel housing and guide, front exhaust, and a lock-off throttle. Throttle rotates 360° and locks into desired position for operation.



PLEASE READ AND FOLLOW ALL WARNINGS



Read Operating Instructions

Always become familiar with all the instructions and warnings before operating any power tool.

Always Wear Approved Eye Protection

Impact resistant eye protection should meet or exceed the standards as set forth in the United States ANSI Z87.1, Occupational and Educational Eye and Face Protection. Look for the marking Z87.1 on your eye protection to insure that it is an approved style. For further information, ANSI Z87.1, Occupational and Educational Eye and Face Protection, is available from the American National Standards Institute, Inc., 11 West 42nd Street, New York, NY 10036.

Hearing Protection is Recommended

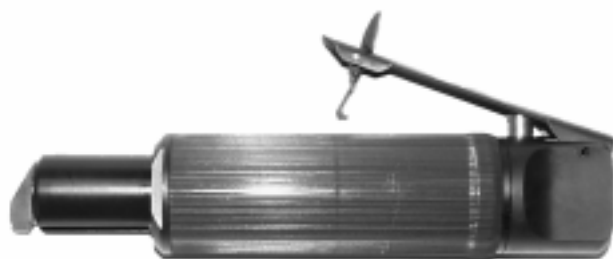
Hearing protection should be used when the noise level exposure equals or exceeds an 8 hour time-weighted average sound level of 85 dBA. Process noise, reflective surfaces, other tools being operated nearby, all add to the noise level present in your work area. If you are unable to determine your noise level exposure, we recommend the use of hearing protection.

Avoid Prolonged Exposure to Vibration

Tools can vibrate during use. Prolonged exposure to vibration or very repetitive hand and arm movements, can cause injury. Stop using any tool if discomfort, tingling feeling or pain occurs. You should consult your physician before resuming use of the tool.

90 PSIG Maximum

This tool is designed to operate at an air pressure of 90 pounds per square inch gauge pressure (90 PSIG) maximum, at the tool. Use of higher air pressure can, and may cause injury. Also, the use of higher air pressure places the internal components under loads and stresses they were not designed for, causing premature tool failure. The air supply should be clean and dry, preferably lubricated. For best results, drain the moisture from your compressor daily.



Specifications

Blade size	3-4"
Stroke length	5/16"
Speed	9,600 S.P.M.
Overall length	8 1/4"
Weight	2 1/4 lbs.
Air inlet	1/4" NPT
Minimum hose size	1/4" I.D.
Average air consumption	3 CFM
Maximum operating pressure	90 PSI
Vibration level	2m/s ²



Installation

The UT9930 Recoilless Air Saw is designed to operate with 90 PSIG. Lower pressure (below 90 PSIG) will reduce performance of the tool while higher air pressure (over 90 PSIG) raises the performance of the tool beyond its rated capacity and could cause serious damage to tool and operator.

Always use clean dry air. Excessive moisture and dirt will greatly reduce the life of any air tool. We recommend the installation of an in-line filter-regulator-lubricator as close to the tool as possible.

A 1/4" air hose is required up to a length of 8 ft. If more length is required, a 3/8" air hose should be connected to the 1/4" hose to ensure the tool has the necessary air supply. Be sure all hoses and fitting are the correct size and tightly secured.

Installing & Changing Saw Blades

Before the tool is connected to the air supply, clear the air hose of accumulated dust and moisture. Before removing a tool for service or changing accessories, make sure the air line is shut-off and drained of air. This will prevent the tool from operating if the throttle is accidentally engaged.

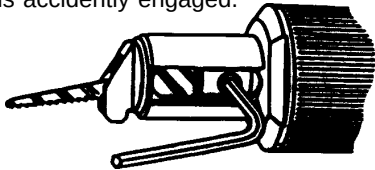


Figure 1

1. Twist front cover (Ref. No. 5) to expose the front left side of tool (See Fig. 1) and loosen blade lock screw (Ref. No. 4) with a standard 1/8" hex wrench.
2. Slide the new saw blade through the front and into the piston extension (Ref. No. 7). Tilt blade down and retighten the blade lock screw. **DO NOT OVERTIGHTEN.**

NOTE: Lock screw has special threads matched with piston extension assembly. If screw is lost, replace only with original parts to ensure safety and proper performance.

3. Ensure that the blade teeth are pointed down. Twist front cover down to protect opening.
4. Lubricate tool through inlet with air tool oil and run in a protected area to check operation. Use only new, straight, and properly sized blades.

NOTE: DO NOT LOOSEN OR REMOVE PHILLIPS HEAD SCREW ON OTHER SIDE OF TOOL! (See Figure 2) Use strong Loctite (No. 270) to reset this screw if loosened.

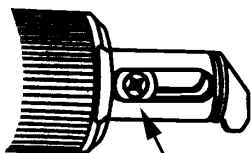


Figure 2

DO NOT Loosen this Screw

Warning - Beware of materials after cutting.

They may be hot and/or sharp when handled.

Operation

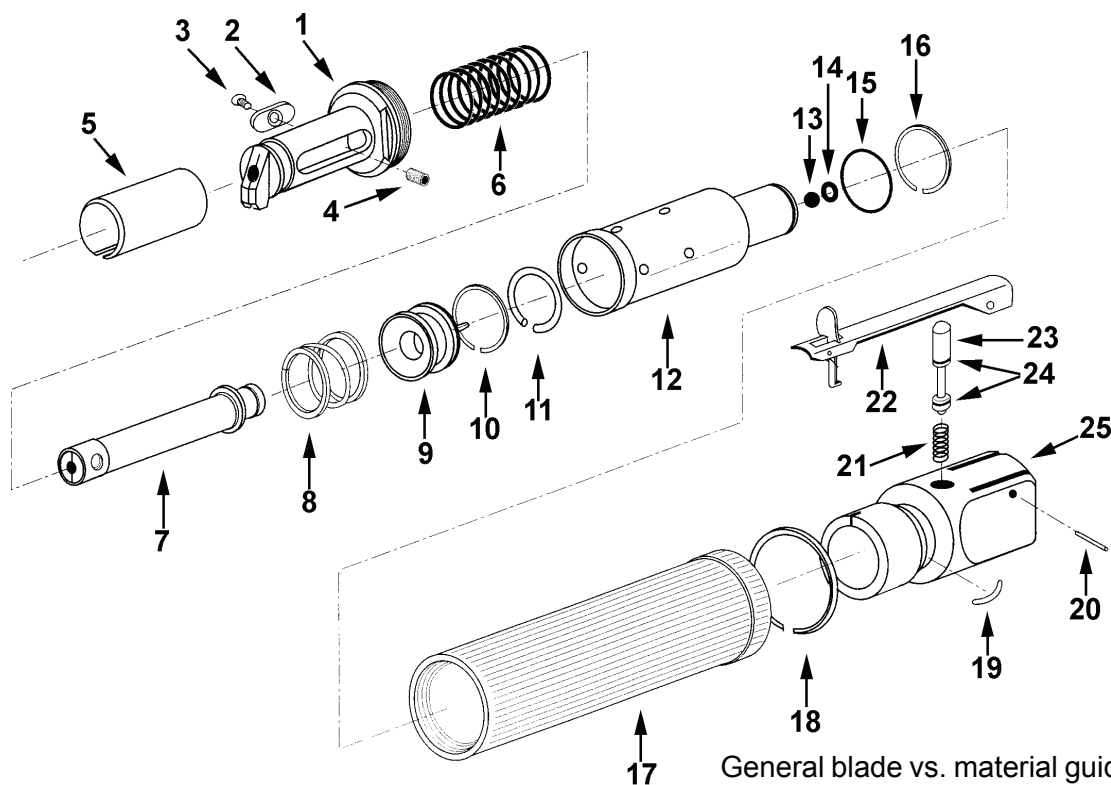
This saw operates slightly different than traditional pneumatic saws. Metal thickness should be 16 gauge or thinner, although this saw will cut up to 3/8" threaded rod. Secure material to be cut with a vise or other suitable clamps. High alloy steel may need lubrication while cutting to improve performance. Keep front of tool against work while cutting and guide tool through work. There are no benefits gained by using excessive force while cutting. The 360° lever handle will lock in place once throttle is depressed.

Use care during use

Refer to blade manufacturer's specifications on "teeth per inch" configuration. If not available, please refer to general blade matching chart in this manual. Check that blade is secure, lubricated, and does not have bent or missing teeth. Guide tool through cut. Do not use excessive force while cutting. Operators may have to acquaint themselves with the unique operating characteristics of this tool.

Lubrication

1. An automatic in-line filter-regulator-lubricator is recommended to increase tool life and keeps the tool operating properly. The in-line lubricator should be regularly checked and filled with Marvel air tool oil or equivalent. Proper adjustment of the in-line lubricator is performed by placing a sheet of paper next to the tool exhaust ports and holding the throttle open approximately 30 seconds. (The lubricator is properly set when a light stain of oil collects on the paper). Excessive amounts of oil should be avoided as it will decrease tool performance.
2. In the event that it becomes necessary to store the tool for an extended period of time (overnight, weekend, etc.), 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.
3. Recommended lubricants:
Use Marvel Air Tool Oil or any other high grade turbine oil containing moisture absorbents, rust inhibitors, metal wetting agents and an EP (extreme pressure) additive.



General blade vs. material guidelines

32 T.P.I. for very thin gauge metals (less than 1 mm)
 24 T.P.I. for medium thickness metals (1 to 2 mm)
 18 T.P.I. for heavy metals, pipe & thin fiberglass
 14 T.P.I. for thick metal, rubber, masonite & fiberglass

Replacement Parts List for UT9930 Recoilless Air Saw

Ref.	Description	Part #	Qty.	Ref.	Description	Part #	Qty.
1	Front	6S-100-01	1	19	Curved cylinder	6S-100-23	1
2	Guide	6S-100-02	1	20	Pin	6S-100-27	1
3	Screw	6S-100-03	1	21	Valve spring	6F-110-26	1
4	Blade lock screw	6S-100-04	1	22	Throttle	6S-100-15	1
5	Front cover	6S-100-05	1	23	Valve stem	6F-110-21	1
6	Spring	6S-100-08	1	24	O-Ring	6S-100-25	2
7	Piston extension	6S-100-07	1	25	Rear body	6F-110-16	1
8	Spring	6S-100-09	1	) •	Assorted H.S.S. blades	5650	10
9	Piston	6S-100-12	1	) •	18 TPI scroll blades	5651	10
10	Piston ring	6S-100-13	1	) •	24 TPI scroll blades	5652	10
11	Limit ring	6S-100-14	1	) •	32 TPI scroll blades	5653	10
12	Cylinder	6S-100-18	1	) •	18 TPI all-purpose blades	5654	10
13	Ball	6S-100-17	1	) •	32 TPI all-purpose blades	5655	10
14	Retainer ring	6S-100-19	1	)	1/8" Hex wrench		1
15	O-Ring	6S-100-20	1	()	Not shown		
16	Piston ring	6S-100-22	1	(•)	These items not included with tool		
17	Housing	6S-100-10	1		Blades are available through your UT distributor		
18	Lock ring	6S-100-24	1				



Limited Warranty

Universal Tool warrants its tools to be free from defects in material and workmanship for one year from the date of purchase. This warranty does not apply to tools which have been abused, misused, modified or repaired by someone other than Universal Tool or its authorized service centers. If a Universal Tool proves defective in material or workmanship within one year after purchase, return it to any authorized service center or to Universal Tool, freight prepaid. Please enclose your name, address and adequate proof of purchase date with a brief description of the defect. Universal Tool will, at its option, repair or replace defective tools, free of charge. Repairs or replacements are warranted as described above for the remainder of the warranty period. Universal Tool's sole liability and your exclusive remedy under this warranty is limited to repair or replacement of the defective tool. There are no other warranties expressed or implied and Universal Tool shall not be liable for incidental, consequential or special damages, or any other damages, costs or expense of repair or replacement as described above.

Trouble Shooting

Tool failure, loss of power or erratic action may be caused by factors outside the tool. Make the following checks:

1. Check air pressure. For rated performance, 90 PSIG air pressure is required AT THE TOOL with tool operating. A drop in air pressure may be caused by lowered compressor output, excessive drain on the air line or use of hose or connections of improper size (or in poor condition).
2. Check for wet or dirty air in system. Wet air tends to wash lubricant away from tool and may rust and corrode the components. Dirt and foreign matter in the air supply will impede action of the tool and cause damage to the internal mechanisms. If dirt or water has entered the tool, flush with Marvel air tool oil or equivalent.

Recommended Air Line Set-Up

