



Universal Tool

UT9935

Recoilless Air Scribe

Description

The Universal Tool model UT9935 Recoilless Air Scribe features an advanced vibration-dampened mechanism which reduces noise levels and significantly reduces vibrations being transferred to the operator. This scribe is designed to mark a variety of materials including steel, aluminum, fiberglass, ceramics, plastics and glass. This tool features a durable steel housing, carbide tip, contoured grip, and a twist throttle which allows precise power control to match the application.



Specifications

Bit size.....	2 mm tapered to 0 mm
Stroke length	1 mm
Speed.....	21,000 B.P.M.
Tool length.....	5 1/2"
Integral hose supplied.....	5 ft. x 1/8" I.D.
Weight	6 oz.
Air inlet.....	1/4" Male
Minimum hose size.....	1/4" I.D.
Average air consumption.....	1 CFM
Maximum operating pressure	90 PSI
Vibration level.....	1.4 m/s ²
Noise level	79 d(B)A



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.





Installation

The UT9935 Recoilless Air Scribe 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 and regulator 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.

Operation

This tool operates slightly different than traditional pneumatic scribes. There are no benefits gained by using excessive force. Let the tool do the work. The black grip also serves as the throttle. Rotating the grip clockwise so it moves higher up on the housing (see figure 1) will start the tool. The scribe will reach full power before the grip comes to a stop. DO NOT over rotate! Rotating the opposite direction will decrease the power until the engraver stops. Hold the engraver at a slight angle to the work surface, the same as you would an ink pen.

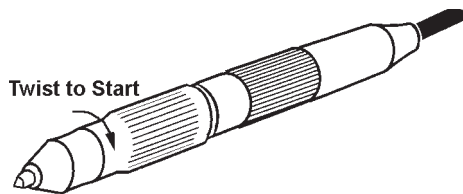


Figure 1

Use care during use

Guide tool over surface. Do not use excessive force while engraving. Operators may have to acquaint themselves with the unique operating characteristics of this tool.

Lubrication

This tool does not require lubrication for normal use. However, if the operating environment and conditions warrant, small amounts of oil may be necessary to clean the tool of deposits and foreign objects from a dirty air supply. 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.

Replacement of Tip

Refer to the parts list exploded view and the figures below while replacing the tip.

1. Separate the grip (Ref. No. 5) from the housing (Ref. No. 12) by unscrewing it counter-clockwise.
2. Turn the grip (Ref. No. 5) upside down and tap it gently against a workbench to remove the actuator (Ref. No. 7).
3. Push the bit firmly against some wood to slide the internal parts a few millimeters up into the grip. See figure 2.
4. A wire tool is included (1.5 mm diam.) with your replacement bit. Using figure 3 for reference, use wire to grab rubber sleeve (Ref. No. 6) and gently pull out of grip.
5. Now the entire bit assembly (Ref. Nos. 1, 2, 3, & 4) may be removed easily.
6. Pull out old bit and replace it. Check that bit is flush with spring (Ref. No. 2) and with the bit guide (Ref. No. 4). Place assembly into grip.
7. Slide sleeve (Ref. No. 6) back into grip and push down until it rests on the lip inside the grip.
8. Slide the actuator (Ref. No. 7) into the grip and twist back onto housing (Ref. No. 12).

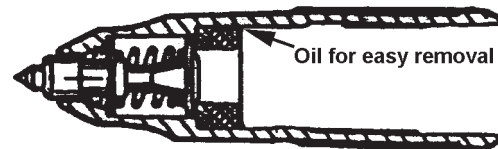


Figure 2

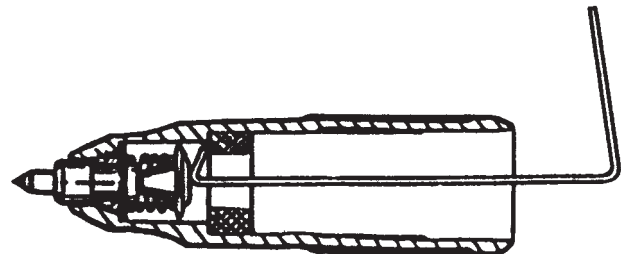
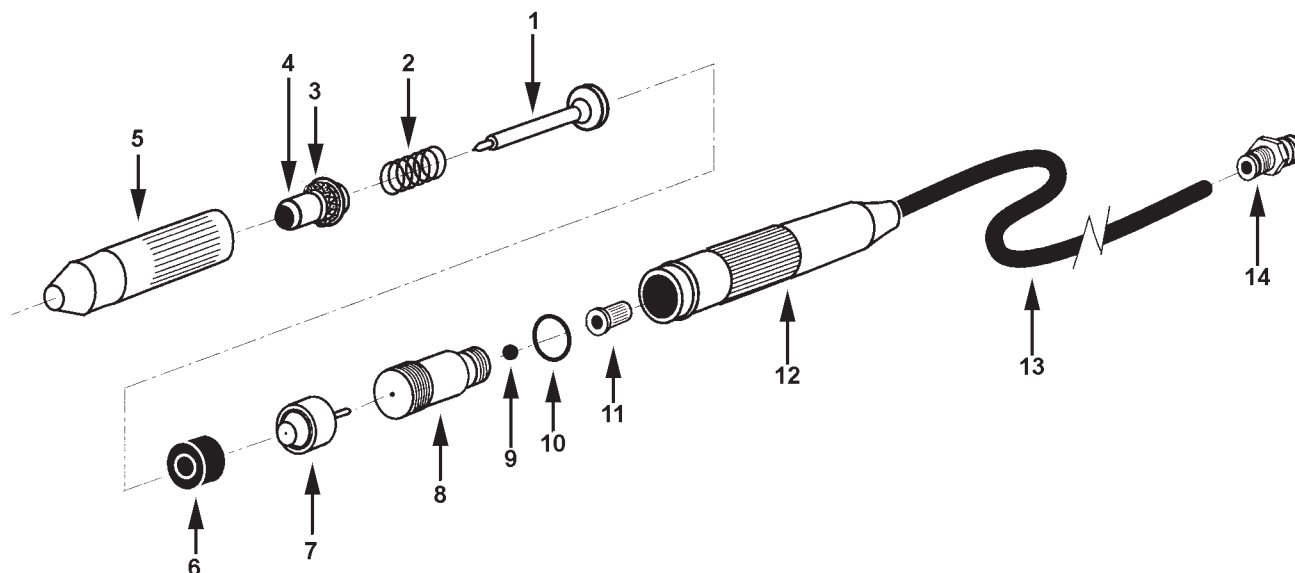


Figure 3



Replacement Parts List for UT9935 Recoilless Air Scribe

Ref.	Description	Part #	Qty.	Ref.	Description	Part #	Qty.
1	Bit	6G-400-01	1	8	Valve seat	6G-400-08	1
2	Spring	6G-400-04	1	9	Ball	6G-400-07	1
3	Muffler	6G-400-03	1	10	O-Ring	6G-400-09	1
4	Bit guide	6G-400-02	1	11	Nipple	6G-400-11	1
5	Grip	6G-400-10	1	12	Housing	6G-400-12	1
6	Sleeve	6G-400-05	1	13	Tubing	6G-400-13	1
7	Actuator	6G-400-06	1	14	Inlet	6G-400-14	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.

Troubleshooting

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

