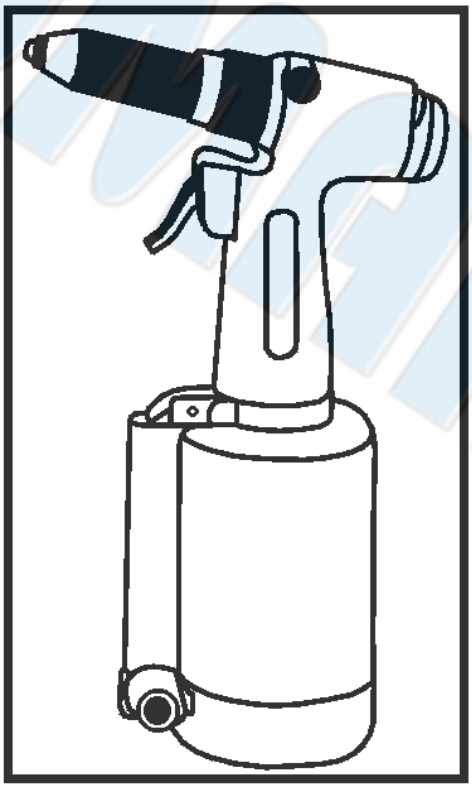
SUMAKE *PNEUMATIC TOOLS*



9/32"(7.0mm) Air Hydraulic Riveter
ST-6618

Specification:

Blind Rivet Setting Capacity	5/32”, 3/16”, 1/4”, 9/32” (4.0mm, 4.8mm, 6.4mm, 7.0mm)
Tractin Power	5500 lbs (2500kg)
Stroke Length	7/8” (23 mm)
Overall Length	15-3/4” (400 mm)
Air Inlet (PT)	1/4” (6.35 mm)
Air Hose (I.D.)	3/8” (10 mm)
Air Pressure	90 psi (6.3 bar)
Net Weight	8.0 lbs (3.6 kg)

Noise and Vibration:

Vibration EN ISO 20643	**Noise** EN ISO 15744	**Remark**
Load: < 2.5 m/s²	Sound Pressure Level No load: 69 dB(A)	Please always wear ear protector at environment noise level > 80 dB(A) due to risk of impaired hearing!
	Sound power level No load: 80 dB(A)	
Uncertainty K= 1.5 m/s²	Uncertainty K= 3dB	

SUMAKE INDUSTRIAL CO., LTD

4F,NO.351,Yangguang St.,Neihu District TAIPEI, TAIWAN, ZIP:114-91

EC DECLARATION OF CONFORMITY

We: **SUMAKE INDUSTRIAL CO., LTD.**

4F, No. 351, Yangguang St., Neihu District, Taipei City, Taiwan

declare in sole responsibility that the equipment

Equipment：9/32"(7.0MM) AIR HYDRAULIC RIVETER

Model/ Serial No.：ST-6618

to which this declaration applies, complies with these normative documents:

- **Machinery Directive: 2006/42/EC**

and conforms to the following EN standard,

- **EN ISO 12100: 2010**
- **EN ISO 11148-1:2011**

Name and Signature/Position

Mike Su – Managing Director

Date and Place

2024/9/16

Taipei, Taiwan

ST-6618-D-2411D-FPF

INSTRUCTION MANUAL

OPERATION

1. When the **Lever/Trigger** is depressed, the **Throttle Valve** is moved down off its seat by the **Valve Tube**. Air enters the bottom of the **Air Cylinder**, forcing the **Piston Assembly**. As the **Piston Assembly** rises, the **Plunger Rod** forces hydraulic fluid into the upper part of the **Hydraulic Section** , retracting the **Hydraulic Plunger**. Meanwhile, the **Jaws** grip the mandrel of the rivet, pulling until the rivet is set and breaking the mandrel in the process.

2. When the **Lever/Trigger** is released, the **Throttle Valve** resets and shuts off the air supply. The **Valve Tube Spring** then lifts the **Valve Tube** and exhausts the air through the hollow of the **Valve Tube**. The **Return Spring** returns the **Hydraulic Plunger** to its original position. This open the **Jaws**, releases the mandrel, and retracts the **Piston Assembly** back to its original static site.

SERVICING PROCEDURES

1.CHANGING NOSEPIECES

Hook up the tool to the air line and depress the **Lever/Trigger**. While continuing to the **Lever/Trigger** down, use the **Multi-Wrench** to remove the unwanted **Nosepiece** and tighten the new **Nosepiece** in place again. When the **Lever/Trigger** is released and the tool is at rest, a circular opening should be visible when looking through the **Hydraulic Section** from the **Rear Gland** to the **Nosepiece**.

2.CLEANING AND CHANGING OF THE JAWS

Disconnect the tool from the air line and then remove the **Head** with the **Multi-Wrench**. Hold the **Jaw Housing Coupler** firmly and remove the **Jaw Housing**. Clean the **Jaws** with either a steel brush or solvent. If excessive wear is apparent, replace them with new **Jaws**. Before reassembling, apply a thin coat of oil to the sliding surface of the **Jaws**. Reassemble the tool in the reverse order while making sure that the chamfered end of the **Jaw Pusher** is in contact with the Jaws properly.

3.JAW OPENING ADJUSTMENT

To obtain the maximum stroke of the tool, proper distance-setting between the **Jaw Housing** and the Head is very important. First loosen the **Lock Nut**. A rivet is then inserted into the **Nosepiece** which should be selected to match the rivet size to be set. While screwing or unscrewing the **Head** to achieve the minimum opening of the **Jaws**, check if the rivet mandrel can be removed and inserted freely. Fasten the **Lock Nut** after the adjustment.

DAILY CARE

1.Check the tightness of the connections between the **Jaw Housing Coupler**, **Nut**, **Jaw Housing** and the **Hydraulic Plunger**, the **Nosepiece**, the **Head** and the **Lock Nut**.

2.If the jaws show excessive wear and / or are dirty, follow the steps provided in the **SERVICING PROCEDURES** section.

MALFUNCTION & REPAIR

A. Rivet mandrel is gripped by the jaws but the rivet can not be set and mandrel can not be broken

CAUSE : Low air pressure or loss of hydraulic fluid.

REMEDY : Increase air pressure to 7 bar (100 PSI) maximum at tool. Make sure all fitting including **Rear Gland** and **Head** are tightened. If malfunction persists, add hydraulic fluid as follows:

Loosening the **Lock Nut** slightly and turn the tool upside down. Disassemble **Air Cylinder Body** from the **Hydraulic Section** and remove the **Head**. Next, make sure that the **Hydraulic Plunger** is at the bottom of its stroke. If it must be pulled to the bottom of its stroke, replace the **Return Spring**.

Before adding hydraulic fluid, also check to see if any leaks appear in the **Air Cylinder Body**, **Head** or **Rear Gland**, If fluid is found in any of these areas , replace the appropriate **O-Rings** . Pour hydraulic fluid slowly into the **Hydraulic Section** until the fluid level reaches the top of the **Hydraulic Rod Guide**. Wait a few seconds to allow any air bubbles to escape.

Reassemble the tool in reverse order. Use extreme care to avoid damage to **O-Rings**. A good rubber lubricant must be applied on the bearing surfaces of **Plungers** and cylinder bores before re-assembly . A slow rotational movement coupled with gentle pressure will aid in reinserting the **Plungers**.

NOTE: To achieve proper fluid level, **Head** must be removed when refilling. Use proper **hydraulic fluid** for the best performance of the tool.

B. Mandrel dose not fit completely into Nosepiece or fails to eject

CAUSE : A. **Jaw Housing** distance incorrect.
B. **Jaws** are dirty or damaged.
C. Fatigued **Jaw Pusher Spring**.
D. Fatigued **Return Spring**.
E. Air leakage in **vacuum system**.

REMEDY : A. Loosen the **Head** and check the rated stroke length. If shorter, search for worn or damaged **O- Rings** and replace it.
B. Clean or replace the **Jaws**.
C. Replace the **Jaw Pusher Spring**.
D. Replace the **Return Spring**.
E. Search for worn or damaged seals in the **vacuum system** and replace it.

C. Tool take more than one stroke under ideal conditions to set rivet and break mandrel

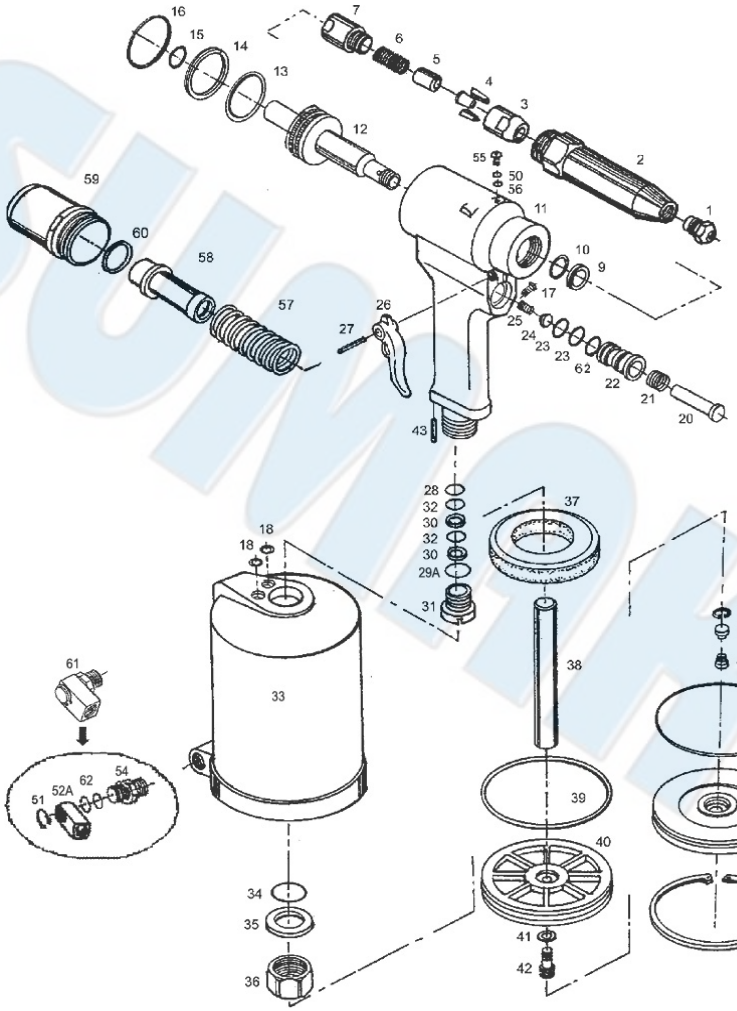
CAUSE : A. Insufficient hydraulic fluid.
B. Low air pressure.
C. Loose **Nosepiece** or improper size of **Nosepiece**.
D. Rivet Body too long for the thickness of the joint.

REMEDY : A. See **Remedy** under **MALFUNCTION & REPAIR A.**
B. Increase air pressure but **do not exceed** 7 bar (100 PSI) at tool.
C. Tighten **Nosepiece** or use right size of **Nosepiece**.
D. The Rivet Body should be 3-6 mm longer than the thickness of the joint.

SAFETY RULES

* Use only dry filtered air regulated to **6.3bar(90 PSI)** on the tool inlet. **Do not exceed maximum 7bar(100PSI).**
* Disconnect the tool from the air supply before any assembly or disassembly
* Do not face the end of the **Rear Gland** (8) while operating the tool.
* Inspect the **Hydraulic Section** prior to use. **Do not use if cracked**. Contact the distributor for repair or replacement.
* **Do not pound** on the **Nosepiece** or the end of the **Head** or force the rivet into the hole of the **Nosepiece** as this will damage the tool.
* Use only genuine replacement parts and proper hydraulic fluid for the maintenance of tools.
* Make sure all parts are correctly and securely fastened.

ST-6618 9/32" (7.0MM) AIR HYDRAULIC RIVETER



PARTS LIST

No.	Parts No.	Description	Q'ty
1	6618-01	1/4" Nosepiece	1
	6618-01A	3/16" Nosepiece	1
	6618-01B	9/32" Nosepiece	1
	6618-01C	5/32" Nosepiece	1
	6618-01E	3/16" Nosepiece for *Monobolt (Opt.)	1
	6618-01F	1/4" Nosepiece for *Monobolt (Opt.)	1
	6618-01G	3/16" Nosepiece for *Magna-Lok (Opt.)	1
	6618-01H	1/4" Nosepiece for *Magna-Lok (Opt.)	1
2	6618-02	Head	1
3	6618-03	Jaw Housing	1
4	6618-04	Jaws	3
5	6618-05	Jaw Pusher	1
6	6618-06	Spring	1
7	6618-07	Jaw Housing Coupler	1
9	6618-09	Back Up Ring Seal	2
10	6618-10	O-Ring Seal	2
11	6618-11	Hydraulic Section	1
12	6618-12	Hydraulic Piston	1
13	6618-13	O-Ring Seal	2
14	6618-14	Back Up Ring Seal	2
15	6618-15	O-Ring Seal	1
16	6618-16	O-Ring Seal	1
17	6618-17	Screw Plug	1
18	6618-18	O-Ring Seal	2
20	6618-20	Spring	1
21	6618-21	O-Ring Seal	1
22	6618-22	Valve Seat	1
23	6618-23	O-Ring Seal	2
24	6618-24	Valve Plate	1
25	6618-25	Spring	1
26	6618-26	Trigger	1
27	6618-27	Roll Pin	1
28	6618-28	O-Ring Seal	1
29A	6618-29A	O-Ring Seal	1
30	6618-30	Back Up Ring Seal	2
31	6618-31	Hydraulic Plug	1

No.	Parts No.	Description	Q'ty
32	6618-32	O-Ring Seal	2
33	6618-33	Air Cylinder	1
34	6618-34	O-Ring	1
35	6618-35	Washer	1
36	6618-36	Lock Nut	1
37	6618-37	Damping Ring	1
38	6618-38	Piston Rod	1
39	6618-39	O-Ring Seal	1
40	6618-40	Piston Disc	1
41	6618-41	Washer	1
42	6618-42	Screw	1
43	6618-43	Pin	1
44	6618-44	Retainer Ring	1
45	6618-45	Rubber Plate	1
46	6618-46	Spring	1
47	6618-47	O-Ring Seal	1
48	6618-48	Cylinder Base	1
49	6618-49	Retainer Ring	1
50	6618-50	Washer	1
51	6618-51	Washer	1
52A	6618-52A	1/4" Air Inlet Fitting	1
54	6618-54	Air Inlet Plug	1
55	6618-55	Screw	1
56	6618-56	O-Ring Seal	1
57	6618-57	Spring	1
58	6618-58	Guide Tube	1
59	6618-59	Rear Gland	1
60	6618-60	O-Ring Seal	1
61	6618-61	Universal Joint Kit [Incl. 51,52A,54,62(2)]	1
62	6618-62	O-Ring Seal	3
		** Accessories **	
63	6618-63	Handing Ring	1
64	6618-64	17/19 mm Spanner	2
65	6618-65	14 mm Wrench	1
66	6618-66	Hex. Wrench	1

SUMAKE®

MAKE JOBS BETTER THAN EVER

RIVETER

Original instructions

SUMAKE Industrial Co. Ltd.

Professional & Industrial

Read all these safety instructions before operating this product and save these instructions.

The tool has been manufactured in conformity with the instruction of EU machine directive. The EU mark will be considered void in the event of inexpert repairs, the use of non-original parts and in case of non-observance of the safety instructions in the user's manual.

Possible direct or indirect consequential damages are not the responsibility of SUMAKE Industrial co., Ltd.

General safety rules:

1. Watch the tool at all times when in use.
2. People under the influence of alcohol or drugs are not allowed to use, repair or maintain the tool.
3. Keep unqualified persons, children, etc. away from the tool.
4. Keep work area clean and with sufficient daylight or artificial lighting. The work area on which the machine is used must be cleaned up. Disorder is a potential cause of accidents.
5. Danger of explosion. Never use oxygen and combustible gas as an air supply for the tool which many be ignited by spark and cause fire or explosion.
6. Never use gasoline or other flammable liquids to clean the tool.
7. Do not use air tools in potentially explosive atmospheres such as in the presence of flammable liquids, cleaning solvents, fluid energy or stored gases.
8. Do not expose air tools to rain. Do not use air tools in damp or wet locations.
9. When a fault or failure is detected, the tool must immediately be disconnected from the air supply and returned for repair.
10. It is not permitted to modify the tool in any way.
11. When not in use, keep tools in a dry place, either locked up or in a high place, out of the reach of children.
12. Do not force small air tools to do the job of a heavy –duty task. Do not use air tool for purpose of which was not intended.
13. Wear suitable ear protection at environment noise level >80dB(A) and safety spectacles when using the tool. Always wear approved safety goggles if work in dusty. This also applies to other persons in the nearby vicinity.
14. Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid foot wear are recommended when working outdoors. Wear protective hair covering to contain long hair.
15. Keep proper footing and balance at all times.
16. Use clamps or a vice to hold work-piece. It is safer than using your hand and free both hands to operate the air tool.
17. When not use, before performing service or changing accessories, please disconnect tool from air compressor.
18. Do not carry plugged in air tool with your finger on the switch trigger. Be sure switch is in the "OFF" position when connecting to air supply.
19. Watch what you are doing. Use common sense, even unsafe situation or unbalanced positions, particularly when you are tired.
20. Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands or arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
21. Multiple hazards. Read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the power tool. Failure to do so can result in serious bodily injury.
22. Only qualified and trained operators should install, adjust or use the power tool.
23. Do not modify this power tool. Modifications may reduce the effectiveness of safety measures and increase the risks to the operator.
24. Do not discard the safety instructions – give them to the operator.
25. Do not use the power tool if it has been damaged.
26. Tools shall be inspected periodically to verify the ratings and markings required by this document are legibly marked on the tool. The employer/user shall contact the manufacturer to obtain replacement marking labels when necessary.

Safety precautions for projectile hazards

1. Disconnect the power tool from the energy source when changing inserted tool or accessories.
2. Failure of the work piece, or accessories, or even of the inserted tool itself may generate high velocity projectiles.
3. Always wear impact-resistant eye protection during operation of the tool. The grade of protection required should be assessed for each use.
4. The risks to others should also be assessed at this time.
5. Ensure that the work piece is securely fixed.
6. Check that the protection against ejection of fastener and/or stem is in place and is operative.
7. Warn against the possible forcible ejection of installation mandrels from the front of the power tool.

Safety precautions for operating hazards

1. Use of the tool may expose the operator's hands to hazards including crushing, impacts, cuts and abrasions and heat. Wear suitable gloves to protect hands.
2. Operators and maintenance personnel must be physically able to handle the bulk, weight and power of the tool.
3. Hold the tool correctly: be ready to counteract normal or sudden movements – have both hands available.
4. Maintain a balanced body position and secure footing.
5. Release the start and stop device in the case of an interruption of the energy supply.
6. Use only lubricants recommended by the manufacturer.
7. That unsuitable postures may not allow counteracting of normal or unexpected movement of the tool.
8. If the power tool is fixed to suspension device make sure that the fixation is secure.
9. Risk of crushing if nose equipment is not fitted.

Safety precautions for repetitive motions hazards

1. When using a power tool, the operator may experience discomfort in the hands, arms, shoulders, neck, or other parts of the body.
2. While using a power tool, the operator should adopt a comfortable posture. Maintain secure footing and avoid awkward or off-balanced postures. The operator should change the posture during extended tasks which may help avoid discomfort and fatigue.
3. If the operator experience symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensation or stiffness, these warning signs should not be ignored. The operator should tell the employer and consult a qualified health professional.

Safety precautions for accessory hazards

1. Disconnect power tool from energy supply before changing the inserted tool or accessory.
2. Only use sizes and types of accessories and consumables that are recommended by the power tool manufacturer.

Safety precautions for workplace hazards

1. Slips, trips and falls are major causes of workplace injury. Be aware of slippery surfaces caused by use of the tool and also of trip hazards caused by the air line or hydraulic hose.
2. Proceed with care in unfamiliar surroundings. Hidden hazards may exist, such as electricity or other utility lines.
3. This power tool is not intended for use in potentially explosive atmospheres and is not insulated from coming into contact with electric power.
4. Make sure there are no electrical cables, gas pipes etc. that could cause a hazard if damaged by use of the tool.

Safety precautions for dust and fume hazards

1. Dusts and fumes generated when using power tools can cause ill health (for example: cancer, birth defects, asthma and/or dermatitis); risk assessment of these hazards and implementation of appropriate controls of is essential.
2. Risk assessment should include dust created by the use of the tool and the potential for disturbing existing dust.
3. Operate and maintain the power tool as recommended in these instructions, to minimise dust or fume emissions.
4. Direct the exhaust so as to minimise disturbance of dust in a dust filled environment
5. Where dusts or fumes are created, the priority shall be to control them at the point of emission.
6. All integral features or accessories for the collection, extraction or suppression of airborne dust or fumes should be correctly used and maintained in accordance with the manufacturer's instructions.
7. Use respiratory protection as instructed by your employer or as required by occupational health and safety regulations.

Safety precautions for noise hazards

1. Unprotected exposure to high noise levels can cause permanent, disabling, hearing loss and other problems such as tinnitus (ringing, buzzing, whistling or humming in the ears).
2. Risk assessment of these hazards and implementation of appropriate controls of is essential.
3. Appropriate controls to reduce the risk may include actions such as damping materials to prevent work pieces from 'ringing'.
4. Use hearing protection as instructed by your employer or as required by occupational health and safety regulations.
5. Operate and maintain the power tool as recommended in these instructions, to prevent an unnecessary increase in noise.
6. If the tool has a silencer, always ensure it is in place and in good working order when the tool is operating.
7. Select, maintain and replace the consumable/inserted tool as recommended in these instructions, to prevent an unnecessary increase in noise.

Safety precautions for vibration hazards

1. Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
2. Wear warm clothing when working in cold conditions and keep your hands warm and dry.
3. If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the assembly power tool for non-threaded mechanical fasteners, tell your employer and consult a physician.
4. Support the weight of the tool in a stand, tensioner or balancer, because the operator can then use a lighter grip to support the tool.

Additional safety instructions for pneumatic power tools

1. Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs.
2. Never direct air at yourself or anyone else.
3. Whipping hoses can cause severe injury. Always check for damaged or loose hoses and fittings.
4. Cold air shall be directed away from the hands.
5. Whenever universal twist couplings (claw couplings) are used, lock pins shall be installed and whipcheck safety cables shall be used to safeguard against possible hose-to-tool and hose-and-hose connection failure.
6. Do not exceed the maximum air pressure stated on the tool.
7. Never carry an air tool by the hose.

Specific safety instructions

Warnings shall be given about any specific or unusual hazards associated with the use of the power tool. Such warnings shall indicate the nature of the hazard, the risk of injury and the avoidance action to take.

General preparation and connection:

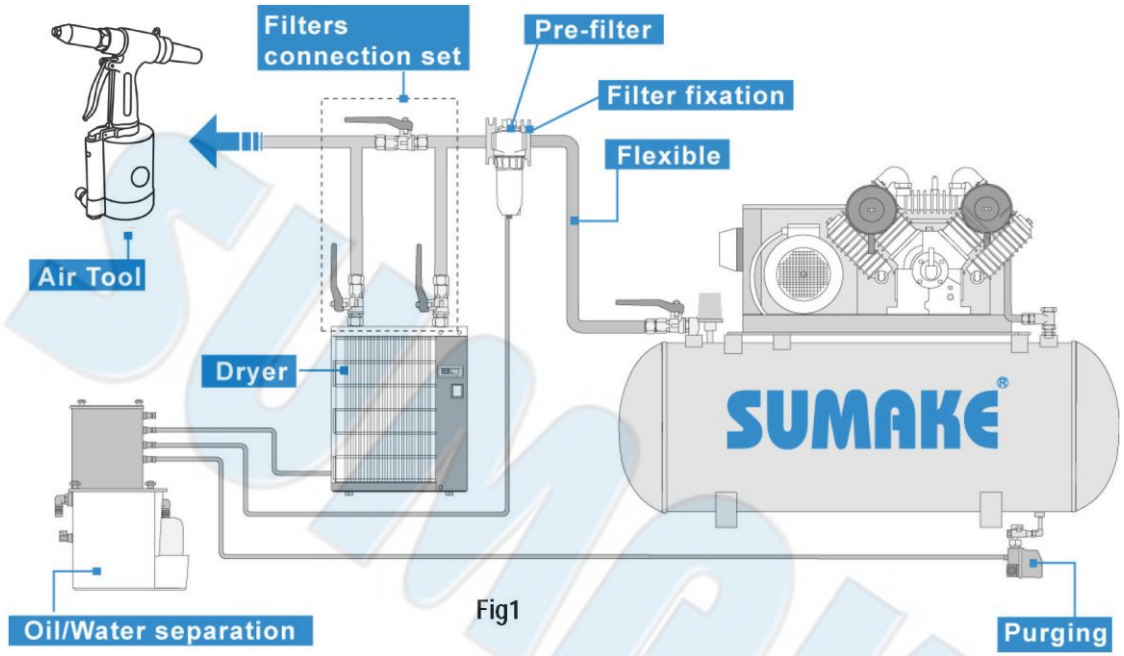


Fig1

1. Before connecting the air hose, apply 4 to 5 drops of SAE 10W-20 (ISO Viscosity Grade 46/32) Hydraulic Oil at the air inlet. Also, every 3 to 4 hours of operation, oiling is necessary. Twist Teflon thread tape to ensure a proper seal air inlet. Then tighten the air coupler into air tool.
2. The supplied compressed air must be clean and dry, with the appropriate oil mist. Use an air treatment unit; filter, regulator and lubricator.
3. Please refer Fig.1 illustration shows the correct mode of connection to the air supply system which will increase the efficiency and useful life of the tool.
4. The quick connect coupling and hose must have sufficient air flow capacity. We recommend an air hose with a diameter of 10mm (3/8").
5. To ensure a good performance. The operation pressure at the compressed air inlet should not exceed 6.3bar (90psi) (unless indicated otherwise). Higher operating pressures may cause damaged or excessive wear. Operating pressures below 5.3bar may cause pressure or power loss.

Risk of injury

1. Compressed air can inflict serious injuries. Therefore never point the air hose at another person or yourself.
2. Shut – off the air supply and disconnect the tool in case:
   - You want to change or replace accessories.
   - You want to clean, repair or maintain the tool.
   - The tool is not going to use for some times.
3. Check compressed air hose before use. If it is damaged, broken, torn, or deformed, the hose is not to be connected to the tool.
4. Always check the pneumatic couplings before using the tool. If they show signs of damage, fracture, cracking or excessive corrosion, the respective tool or the air hose is not to be used.
5. Use only qualified adapters and connectors, In case of wear they are to be replaced immediately.
6. Only use air pipes that are fit for the use at maximum pressure.

Maintenance instruction:

1. Dry the filter (fig1) and the air inlet of the tool.
2. Lubricate the quick connect coupling to prevent blocking.
3. Air tool require lubrication throughout the life of the tool. The air motor and bearing uses compressed air to start the tool. The moisture in compressed air will rust the air motor; you must lubricate the motor daily.
4. Avoid storing the tool in a location subject to high humidity. If the tool is left as it is used, the residual moisture inside the tool can cause rust.
5. Before storage, lubricate tool and run it for a few seconds.
6. Regular inspection of spindles, threads, and clamping devices in respect of wear and tolerances for location of abrasive products.
7. If the tool is too seriously damage to be used anymore, recycle raw material instead of disposing as waste. The machine, accessories and packaging should be sorted for environmental-friendly recycling. Check with your local authority or retailer for recycling advice.
8. Keep Safety Cap free of spent mandrels.
9. Insure that jaws are clean and free of metal shavings, dirt and oil.
10. Keep oil at optimum level. With use of tool there may be a gradual loss of oil. When you notice a reduction in the stroke, you need to add a small amount of oil.