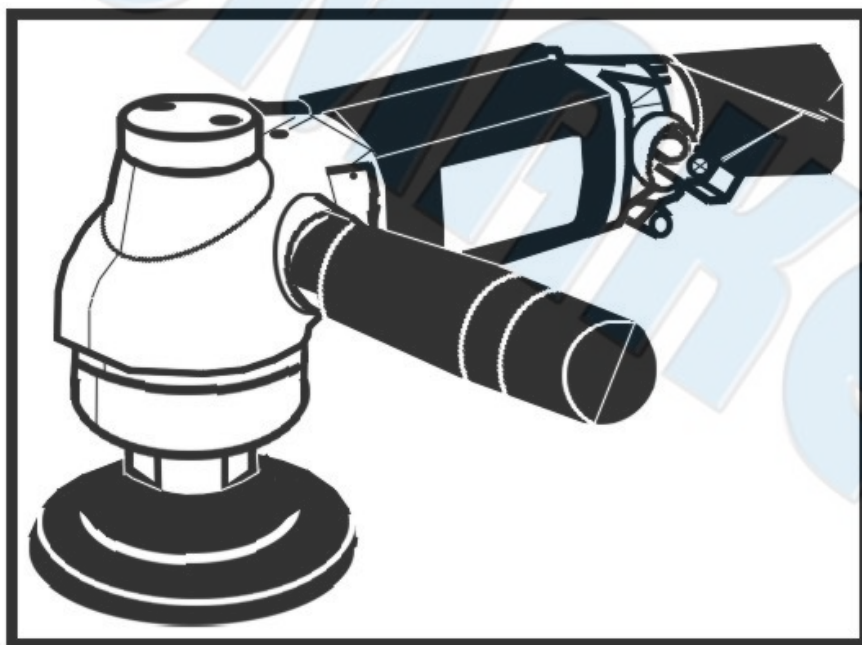




SUMAKE PNEUMATIC TOOLS



Air Water Air Sander With 3" Pad (Rear Exhaust) ST-77775

Specification:

Free Speed	5,000 r/min
Sanding Pad	3" (75 mm)
Air Consumption	16 CFM (450 L/min)
Overall Length	9.2" (234 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	2.7 lbs (1.23 kg)

Noise and Vibration:

Vibration EN ISO 28927-3	Noise EN ISO 15744	Remark
No Load: 2.5 m/s ²	Sound Pressure Level No load: 84 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: 95 dB(A)	
Uncertainty K= 1.5 m/s ²	Uncertainty K= 3dB	

SUMAKE INDUSTRIAL CO., LTD

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

ST-77775-S-1401C-GIF



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 : **AIR WATER AIR SANDER WITH 3" PAD (REAR EXHAUST)**

Model/ Serial No. : **ST-77775**

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 11148-8:2011

Name and Signature/Position

Mike Su – Managing Director

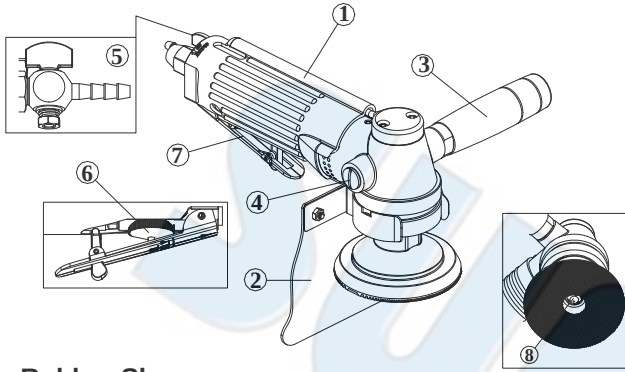
Date and Place

2013/6/28

Taipei, Taiwan

ST-77775-D-1401D-GIF

Feature



① Rubber Sleeve

Excellent material of rubber sleeve prevents slippery when operate the tool. The rubber sleeve will not oxidize when continuous operation and keep hands away from getting cold.

② Water Shroud



Water guard Water Shroud
Water Shroud or Water guard for keeping off water prevent users wet their hands and effect occupational hazards. Fabricators can use water shroud or water guard depend on their needs. (Additional accessory)

③ Handles



R-handle L-Handle
Assemble it in right or left side of tool.

④ Filling Oil from side handle

Take off side handle and grease gear lubricating oil directly from the hole. Fabricators can maintain the machine themselves, save maintenance cost and extend duration of gear.

⑤ Copper Water Regulator

Copper water regulator is different from plastic one, and it will not be broken due to continuous operation or falling.

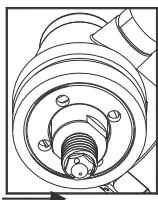
⑥ Air Regulator

Air Regulator enables users to adjust frequency of air to proper speed according to various needs of profiling.

⑦ Safety Lever Throttle

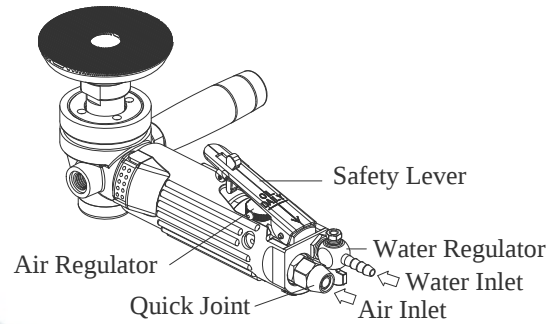
Avoid users to press the trigger and start the tool carelessly. Just release the safety lever and the tool will stop performing immediately. Lever throttle with safety trigger ensures safety while stop operating, positive speed control.

⑧ Central Waterfeeding



There is a water exit with 3 holes on the spindle. A large amount of water will spurt from the holes when profiling slab. It creates high performance and reduce dust. Operators can disassemble the water exit and clean it if it is choked up.

Starting Tool



1. Connect tool to air supply.
2. Connect Water Valve to water hose.
3. Press the Safety Lever and adjust the Air Regulator to proper free speed.
4. Adjust the Water Regulator to proper water flow.
5. Read "Operating Manual" on next page before performing the tool.

Operating Manual

Check the following items prior to operation.

1. Make sure that the work site is in order prior to polishing operations.
2. Select and install a compressor with sufficient capacity for the recommended air consumption. Use of compressed air with water and oil may cause rusting and other problems. Before operating the compressor, drain out the water and oil completely through the drain port provided at the bottom of the compressor tank.
3. Check the operating air pressure. This polisher is designed for operation in the optimum air pressure at 90 PSI/6 BARS (Max. air pressure at 8.0 kgf/cm²). Excessive air pressure levels can cause the polisher to run at excessively high r.p.m. which may cause damage to the polisher. Only operate this polisher within the specified air pressure ranges.

Preparation Before Operation :

WARNING

Make the following preparations prior to commencement of operation. Complete items 1-5 before connecting the air hose to the compressor.

1. Attach the grip handle to the body.
2. The polisher body, air hose, water hose and exhaust hose are shipped disconnected. Connect them according to the instructions below.
 - (1) Connect the water hose first. Warm up the joints first by running hot water through the hose to facilitate the connection. (Take care to prevent accidental burns when using hot water.)
 - (2) Guide the air hose through the air hose nut and advance the end of the air hose onto the air hose joint. Tighten the nut onto the air hose joint securely. After the nut is tightened, make sure that the air hose can not be disconnected.
 - (3) Attach the exhaust hose onto the end case and clamp it with the high grip provided.
3. Consider Environment, Health and Safety codes before use. Take necessary measures to comply with local ordinances when operating this polisher.
 - (1) The normal operating noise level of this polisher is below 84db.

- (2) The normal vibration level of this polisher is <2.5 m/s².

4. Disc Set-Up

WARNING

Prior to setting up the disc, turn off the air valve to prevent accidental start up. Disconnect the air hose from the compressor as a safety precaution.

Disc setting sequence :

- (1) Attach the backer pad or adapter to the spindle. Hand tighten using the spanner wrench provided.
 - (2) Attach the disc or polishing accessory.
 - (3) To remove, follow the reverse sequence.
5. Check the switch function
Grip the body while holding the switch lock forward. Then push the switch lever down to turn the tool "on". The switch will shut off automatically when the lever is released. Turn the air regulator valve for air flow control from zero to max.
6. Check the switch "off".
Make sure that the switch is off prior to connecting the air hose. If the switch is on, this may cause accidental start up. Make sure that the switch is off whenever this tool is on a work bench or resting on other surfaces.
7. Connection of the air hose from the compressor to the tool.
- (1) Check the air hose connection plug for small stone particles and dust. Foreign Object Damage (FOD) can be caused by these small stone particles if they get into the tool
 - (2) Prior to connecting the air hose, make sure that it is not damaged and the connecting joint is tightly clamped. Connect the air hose to the compressor and the tool and make sure they air secure.

8. Test Run

CAUTION

- Prior to switching on, make sure that the tool is not in contact with the work piece. This may damage the work piece or cause personal injury.
- When switching on, the operator should be positioned away from the exposed portion of the disc.

Before polishing, perform a test run with the polisher. Take care to ensure that no one is in the immediate area during the test run. During the test run, make sure that the polisher is running normally and that the disc is properly set.

Test Run Times

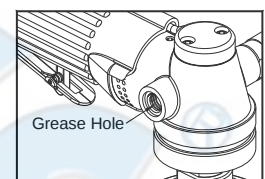
- Disc Changes.....More than 3 Minutes
- Start of Operations.....1-2 minutes

WARNING

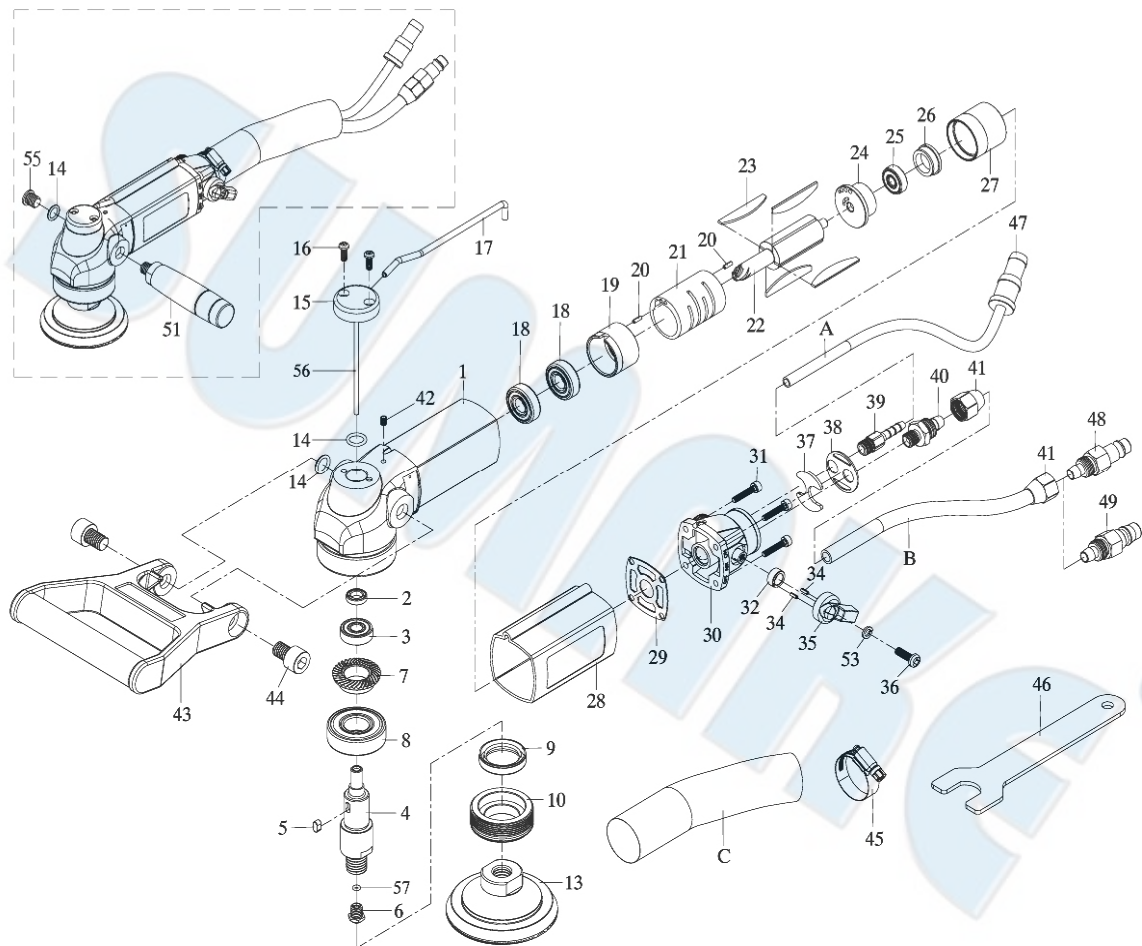
- Turn the switch off whenever polishing operations are interrupted, discs are changed, after completion of polishing, and when the air hose is to be disconnected.
- Use protective glasses while polishing.
- Handle your polisher with care. Improper contact with other materials may cause damage to the disc or to the polisher. Continuing polishing operations with cracked or damaged discs is hazardous and could result in physical injury. If the polisher is dropped, perform a test run before resuming operation. Make sure that the tool is working properly before continuing.

Safety Rules

- Read all instructions before using this machine. All operated must be fully trained in its use and aware of these safety rules.
- Also lubricate the tool after performance.
- Before operating the tool, pour 20cc suitable motor lubricating oil into Air Inlet. Run the tool for few seconds to allow air to circulate the oil and well lubricate the cylinder. This will ensure top performance and maximum durability of tool.
- When starting the sander without pad, it exhausts air too soon to cool the internal parts and generates hear. Always install pad when performing the sander. The sander can be performed without pad when lubricating the cylinder.
- Supply tool with 90psi (6.3kg/cm²) of clean and dry air. Higher pressure raises performance beyond the rated capacity of the tool will shorten the tool's life because of faster wear and could cause injury.
- Unscrew **L-handle Screw** and grease every week for extending durability of gear.
- If the machine appears to malfunction remove from use immediately and arrange for service and repair.



ST-77775 AIR WATER AIR SANDER (REAR EXHAUST)



PARTS LIST

No.	Parts No.	Description	Q'ty
1	77775-01	Body	1
2	77775-02	Oil Seal	1
3	77775-03	Bearing	1
4	77775-04A	Main Shaft (5/8")	1
	77775-04B	Main Shaft (M14)	1
5	77775-05	Locking Key	1
6	77775-06	Water Exit	1
7	77775-07	Spiral Gear	1
8	77775-08	Bearing	1
9	77775-09	Oil Seal	1
10	77775-10	Locking Screw Cap	1
13	77775-13	Sanding Pad	1
14	77775-14	O-Ring	2
15	77775-15	Water Inlet Transfer Pos	1
16	77775-16	Screw	2
17	77775-17	Water Inlet Tube	1
18	77775-18	Bearing	2
19	77775-19	Cylinder Cap	1
20	77775-20	Spring Pin	2
21	77775-21	Cylinder	1
22	77775-22	Rotor	1
23	77775-23	Blade	4
24	77775-24	Rear Cylinder Cap	1
25	77775-25	Bearing	1
26	77775-26	Dust-Proof Plug	1
27	77775-27	Cylinder Bushing	1
28	77775-28	Rubber Sleeve	1
29	77775-29	Gasket	1

No.	Parts No.	Description	Q'ty
30	77775-30	Exhaust Plate Set	1
31	77775-31	Cap Screw	4
32	77775-32	Bushing	1
34	77775-34	Spring Pin	2
35	77775-35	Shifting Knob	1
36	77775-36	Cap Screw	1
37	77775-37	Muffler Gasket	1
38	77775-38	Fixed Plate	1
39	77775-39	Water Valve	1
40	77775-40	Air Inlet Nozzle	1
41	77775-41	Hose Adaptor	2
42	77775-42	Set Screw	1
43	77775-43	C Handle	1
44	77775-44	Screw	2
45	77775-45	Retainer Ring	1
46	77775-46	Stop Spanner	1
47	77775-47	Water Valve	1
48	77775-48	1/4" Plug, Orion Type	1
49	77775-49	1/4" Plug, Nitto Type	1
51	77775-51	Side Handle	1
53	77775-53	Spring Washer	1
55	77775-55	Cap Screw	1
56	77775-56	Pipe	1
57	77775-57	O-Ring	1
A	77775-A	Water Hose	1
B	77775-B	Air Inlet Tube	1
C	77775-C	Air Exhaust Tube	1



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 may 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. For multiple hazards, read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the sander. Failure to do so can result in serious bodily injury.
22. Only qualified and trained operators should install, adjust or use the sander.
23. Do not modify this sander. Modifications can 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 a sander if the tool has been damaged.
26. Tools shall be inspected periodically to verify that the ratings and markings required by this part of ISO 11148 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. Be aware that failure of the workpiece or accessories, or even of the inserted tool itself can generate high-velocity projectiles.
2. Always wear impact-resistant eye protection during operation of the sander. The grade of protection required should be assessed for each use.
3. For overhead work, wear a safety helmet.
4. The risks to others should also be assessed at this time.
5. Ensure that the workpiece is securely fixed.

Safety precautions for entanglement hazards

1. Choking, scalping and/or lacerations can occur if loose clothing, personal jewellery, neck wear, hair or gloves are not kept away from the tool and accessories.

Safety precautions for operating hazards

1. Use of the tool can expose the operator's hands to hazards, including cuts and abrasions and heat. Wear suitable gloves to protect hands.
2. Operators and maintenance personnel shall 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 and 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. Personal protective safety glasses shall be used; suitable gloves and protective clothing are recommended.
8. Inspect the backing pad before each use. Do not use if cracked or broken or if it has been dropped.
9. Avoid direct contact with the moving sanding pad in order to prevent pinching or cutting of hands or other body parts. Wear suitable gloves to protect hands.
10. Never run the tool unless abrasive is applied to the workpiece.
11. There is a risk of electrostatic discharge if used on plastic and other non-conductive materials.
12. Potentially explosive atmospheres can be caused by dust and fumes resulting from sanding.

13. Always use dust extraction or suppression systems which are suitable for the material being processed.

Safety precautions for repetitive motions hazards

1. When using a sander to perform work-related activities, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
2. While using a sander, the operator should adopt a comfortable posture whilst maintaining secure footing and avoiding awkward or off-balance postures. The operator should change posture during extended tasks; this can help avoid discomfort and fatigue.
3. If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensations 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 the sander from the energy supply before fitting or changing the inserted tool or accessory.
2. Avoid direct contact with the inserted tool during and after use, as it can be hot or sharp.
3. Use only sizes and types of accessories and consumables that are recommended by the manufacturer of sanders; do not use other types or sizes of accessories or consumables.
4. Grinding wheels and cutting-off tools shall not be used.
5. Check that the maximum operating speed of the inserted tool (flap wheels, abrasive belts, fibre discs, backing pads, etc.), is higher than the rated speed of the sander.
6. Self-fixing sander discs shall be placed concentrically on the supporting pad.

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. The sander is not intended for use in potentially explosive atmospheres and is not insulated against contact with electric power.
3. Ensure that there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by use of the tool.

Safety precautions for dust and fume hazards

1. Dust and fumes generated when using sanders can cause ill health (for example cancer, birth defects, asthma and/or dermatitis); risk assessment and implementation of appropriate controls for these hazards are 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 sander as recommended in these instructions, to minimize dust or fume emissions.
4. Direct the exhaust so as to minimize disturbance of dust in a dust-filled environment.
5. Where dust 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. Select, maintain and replace the consumable/inserted tool as recommended in the instruction handbook, to prevent an unnecessary increase in dust or fumes.
8. Use respiratory protection in accordance with employer's instructions and as required by occupational health and safety regulations.

Safety precautions for noise hazards

1. 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). Therefore, risk assessment and implementation of appropriate controls for these hazards are essential.
2. Appropriate controls to reduce the risk can include actions such as damping materials to prevent workpieces from "ringing".
3. Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.
4. Operate and maintain the sander as recommended in the instruction handbook, to prevent an unnecessary increase in the noise level.
5. Select, maintain and replace the consumable/inserted tool as recommended in the instruction handbook, to prevent an unnecessary increase in noise.
6. If the sander has a silencer, always ensure it is in place and in good working order when the tool is being operated.

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 sander, tell your employer and consult a physician.
4. Operate and maintain the sander as recommended in the instruction handbook, to prevent an unnecessary increase in vibration levels.
5. Hold the tool with a light but safe grip, taking account of the required hand reaction forces, because the risk from vibration is generally greater when the grip force is higher.

Additional safety instructions for pneumatic power tools

1. Air under pressure can cause severe injury.
2. 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.
3. Never direct air at yourself or anyone else.
4. Whipping hoses can cause severe injury. Always check for damaged or loose hoses and fittings.
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 sander. Such warnings shall indicate the nature of the hazard, the risk of injury and the avoidance action to be taken.

General preparation and connection:

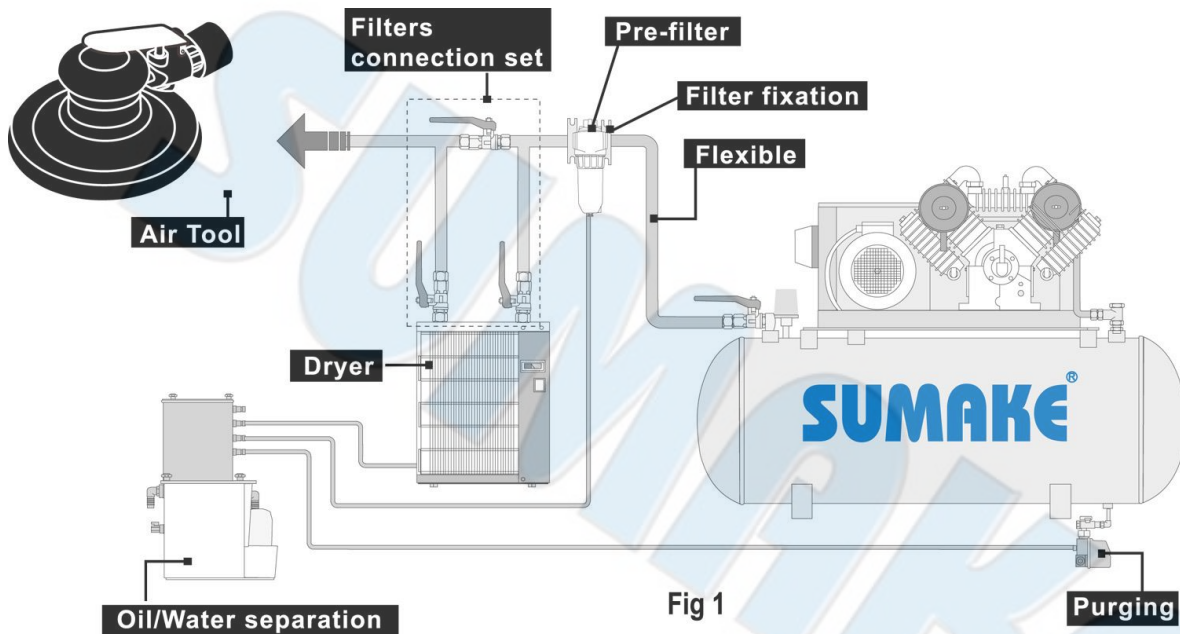


Fig 1

1. Before connecting the air hose, apply 4 to 5 drops of SAE#10-20 spindle 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.

