

SS-1150 AIR SPRAY GUN

Your new spray gun is exceptionally rugged in construction. And is built to stand up under hard. Continuous use. However, like any other fine precision instrument. Its most efficient operation depends on a knowledge of its construction. Operation and maintenance. Properly handled and cared for it will produce beautiful. Uniform finishing results long after other spray guns have worn out.

Siphon Feed Cup Hookup

Air pressure for atomization is regulated at extractor. Amount of fluid is adjusted by fluid control screw on Gun. Viscosity of paint. And air pressure

Pressure Feed Cup Hookup

For fine finishing with limited spraying. Air pressure for atomization is regulated at extractor, Fluid pressure at cup regulator. For heavy fluids and Internal mix nozzle spraying. Fluid adjusted by control screw on gun. Pressure cup also available less regulator.

Pressure Feed Tank Hookup

For medium production spraying (single regulator) Air pressure for atomization in regulated at extractor. Fluid pressure at tank regulator.

Pressure Feed Tank Hookup

For portable painting operations (double regulator) Air pressure for atomization and fluid supply is regulated by two individual air regulators on tank

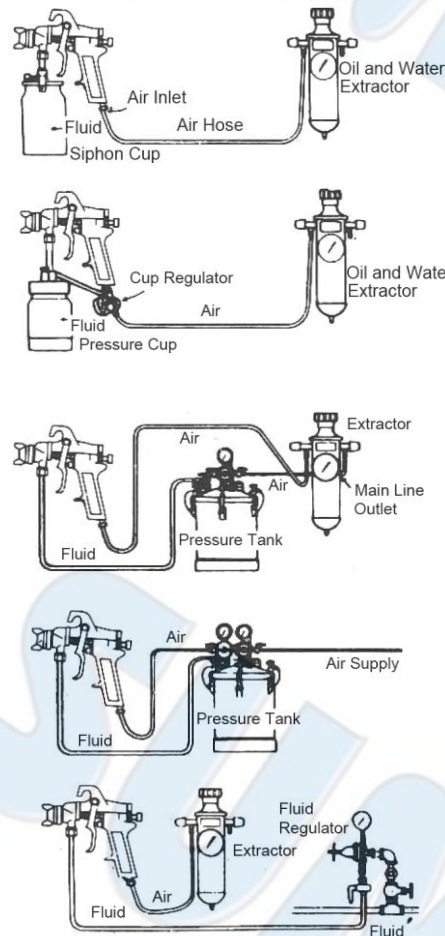
Pressure feed circulating hookup

For heavy production spraying. Air pressure atomization regulated at extractor. Fluid pressure regulated at fluid regulator.

Gun Handling

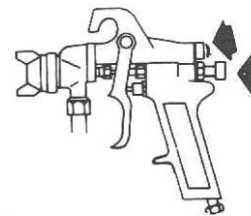
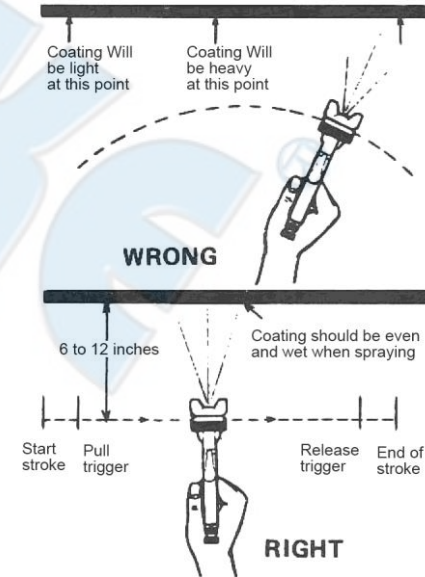
The first requirement for a good resultant finish is the proper handing of the gun. The gun should be held perpendicular to the surface being covered, and moved parallel with it. The strike should be started before the trigger is pulled and the trigger should be released before the strike is ended. This gives accurate control of the gun and material.

Types of installation



The distance between gun and surface should be 6 to 12 inches depending on material and atomizing pressure. The material deposited should always be even and wet. Lap each stroke over the preceding stroke to obtain a uniform finish.

Note: to reduce overspray and obtain maximum efficiency. Always spray with the lowest possible atomizing air pressure



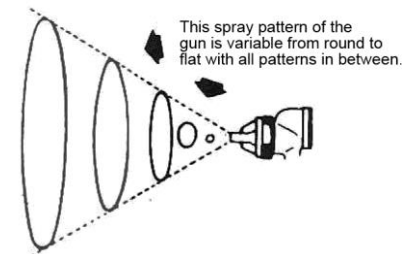
Spray width adjustment, turn right for round, left for fan

Fluid control screw, turn to right to decrease flow, left to increase.

As width of spray is increased, more material must be allowed to pass through the gun to obtain the same coverage on the increased area.

Siphon spraying

Set atomization pressure at approximately 50psi for lacquer and 60 psi for enamel. Test spray. If the spray is too fine. Reduce the air pressure or open fluid control screw. If the spray is too coarse, close the fluid control screw. Adjust the pattern width and repeat adjustment of spray necessary.



Pressure Spraying

After selecting correct size fluid orifice, set fluid pressure for desired flow.

Open atomization air and test spray.

If spray is too fine reduce air pressure.






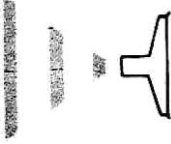

If Spray is too coarse, raise air pressure. Adjust pattern width and repeat adjustment of spray.

Keep fluid control screw in open position will reduce fluid needle wear.

Note: To reduce overspray and obtain maximum efficiency. Always spray with the lowest possible atomization air pressure



Faulty Patterns And How To Correct Them

Pattern	Cause	Correction
	Dried material in side-port "A" restricts passage of air. Greater flow of air from cleaner side-port "B" forces fan pattern in, direction of clogged side. 	Dissolve material in side-port with thinner, then blow gun clean. Do not poke into openings with metal instruments.
	Dried material around the outside of the fluid nozzle tip at position "C" restricts the passage of atomizing air at one point through the center opening of air nozzle and results in pattern shown. This pattern can also be caused by loose air nozzle. 	Remove air nozzle and wipe off fluid tip. Using rag wet with thinner tighten air nozzle.
	A spit spray or one that is heavy on each end of a fan pattern and weak in the middle is usually caused by (1) too high an atomization air pressure, or (2) by attempting to get too wide a spray with thin material.	Reducing air pressure will correct cause (1). To correct cause (2), open material control to full position by turning to left. At the same time, turn spray width adjustment to right. This will reduce width of spray but will correct split spray pattern.
	(1) Dried out packing around material needle valve permits air to get into fluid passageway. This results in spitting (2) Dirt between fluid nozzle seat and body or loosely installed fluid nozzle will make gun spit (3) A loose or defective swivel nut on siphon cup or material hose can cause spitting.	Too correct cause (1) back up knurled nut (E). please two drips of machine oil in packing. Replace nut and tighten with fingers only. In aggravated cases, replace packing. To correct cause (2). Remove fluid nozzle (F). clean back of nozzle and nozzle seat in gun body using rag wet with thinner. Replace nozzle and draw up tightly against body. To correct cause (3). Tighten or replace swivel nut. 

General Maintenance

Spray gun

1. Immerse only the front end of the gun until solvent just covers fluid connection.
2. Use b bristle brush and solvent to wash off accumulated paint
3. Do not submerge the entire spray gun in solvent because.
 - a. The lubricant in the leather packings will dissolve and the packings will dry out.
 - b. The lubricant at wear surfaces will dissolve causing
 - c. Residue from dirty solvent may clog the narrow air passages in gun.
4. Wipe down the outside of the gun with solvent dampened rag.
5. Lubricate gun daily. Use a light machine oil on:
 - a. Fluid needle packing
 - b. Air valve packing.
 - c. Side port control packing
 - d. Trigger pivot point.
6. Caution: never sue lubricants containing silicone. This material may cause finish defects.

Precautionary not

All parts on a spry gun should be screwed in hand tight at first, this will avoid the possibility of cross threading the parts. If the parts can not be turned by hand easily, make sure you have the correct parts, unscrew, realign, and try again. Never use undue force in mating parts.

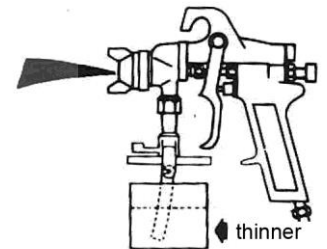
Air nozzle, fluid nozzle, needle assembly

1. All nozzles and needles are precision made. They should be handled with care.
2. Except as described in 5, do not make any alterations in the gun. To do so could cause finishing difficulties.
3. To clean nozzles, soak them in solvent to dissolve any dried material, then blow them clean with air.
4. Do not probe any of the holes in the nozzles with metal in truments. If probing is necessary, use only a tool that is softer than brass.
5. Adjust the fluid needle valve so that when gun is triggered, air flow occurs before fluid-flow.

Pointers On Cleaning

When used with siphon cup

A compatible thinner or solvent should be siphoned through gun by inserting tube in open container of that liquid. Trigger gun repeatedly to flush passageway thoroughly and to clean tip of needle.



When used with pressure tank

Shout off air supply to tank and release pressure on tank.

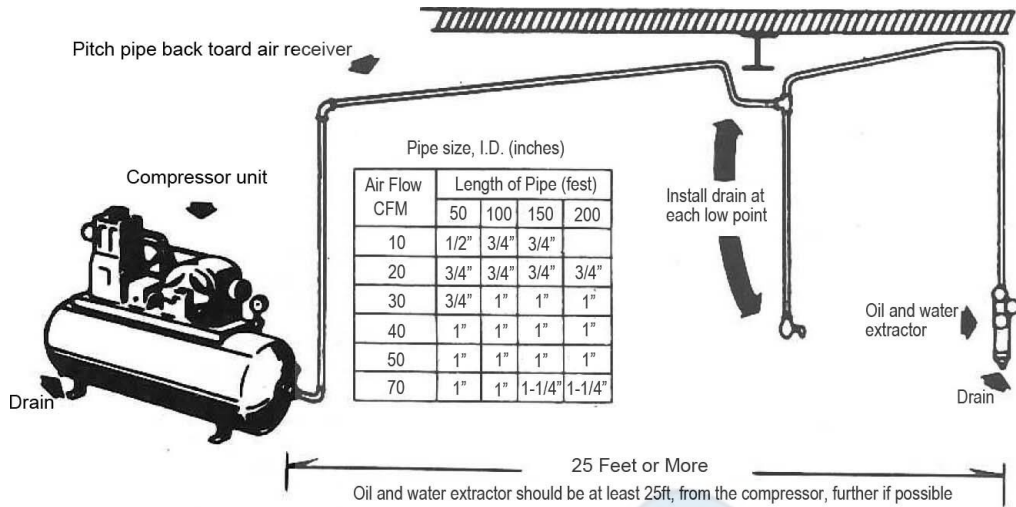
Open vent and loosen air nozzle, hold a piece of cloth over the air nozzle and squeeze trigger.

Air will back up through fluid nozzle, and force fluid out of hose into tank.



Next, put enough thinner into tank to wash hose and gun thoroughly.
 Spray thinner through the gun until it is clean.
 Attach fluid hose to air line and blow it out thoroughly to remove all traces of materials and to dry it.

Air supply



The oil and water extractor should not be mounted on or near the air compressor.

The temperature of air is greatly increased during compression.

As the air cools down to room temperature, in the air line, on its way to the spray gun, the moisture contained in it condenses.

Thus, for maximum effectiveness, the oil and water extractor should be mounted at some point in the air supply system where the temperature of the compressed air in the line is likely to be lowest.

Air lines must be properly drained

Pitch all air lines back towards the compressor so that condensed moisture will flow back into air receiver where it can be drained off.

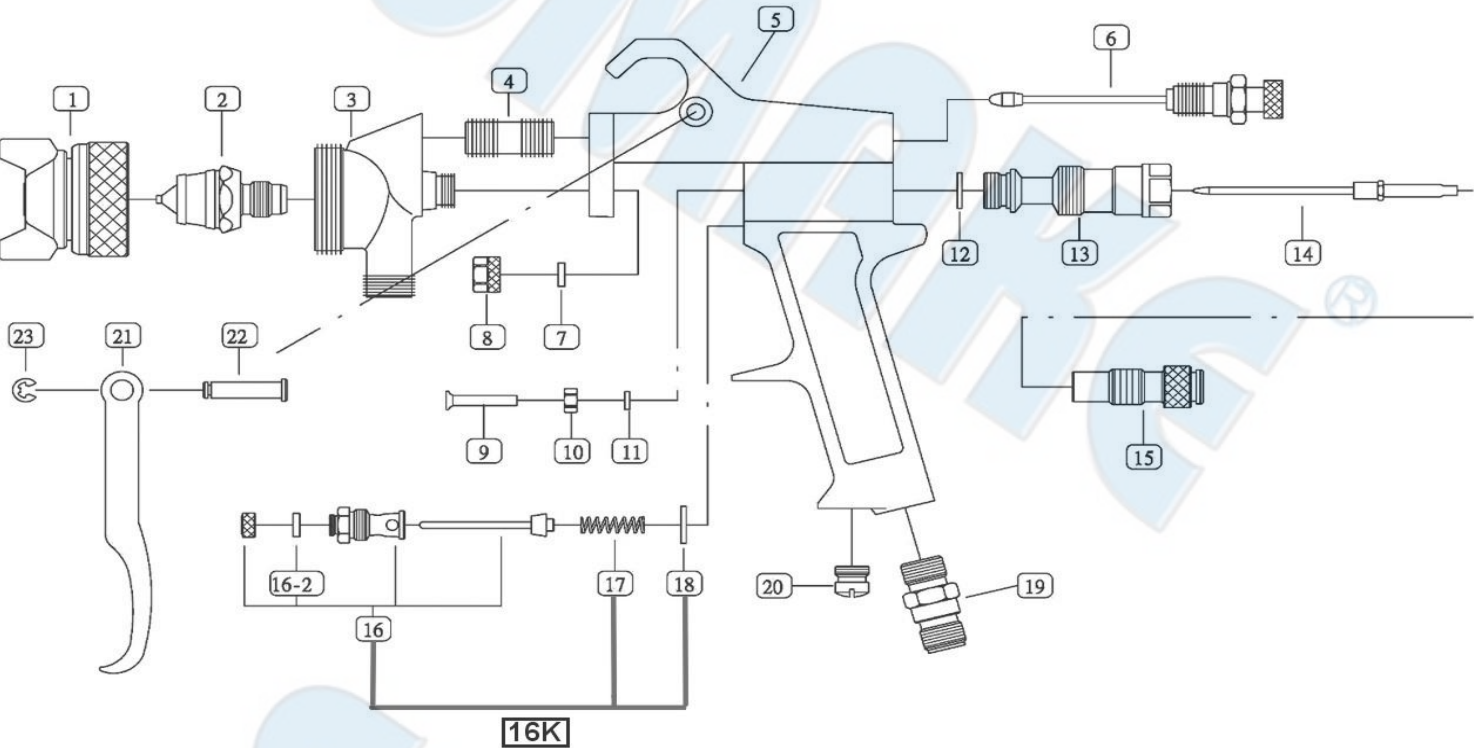
Each low point in an air line acts as a water trap. Such point should be fitted with an easily accessible drain.

See diagram above.



SS-1150-I-2004B-GW

SS-1150S AIR SPRAY GUN (W/O CUP)



PARTS LIST

No.	Parts No.	Description	Q'ty
1	1150B-01A	Air Cap - 1.8, 2.0	1
	1150B-01B	Air Cap - 2.5	1
2	1150B-02A	Fluid Nozzle - 1.8	1
	1150B-02B	Fluid Nozzle - 2.0	1
	1150B-02C	Fluid Nozzle - 2.5	1
3	1150B-03	Head	1
4	1150B-04	Screw	1
5	1150B-05	Body	1
6	1150B-06	Adjusting Valve Set	1
7	1150B-07	Cowhide Washer	1
8	1150B-08	Nut	1
9	1150B-09	Sleeve [Incl. 10, 11]	1
12	1150B-12	Gasket	1

No.	Parts No.	Description	Q'ty
13	1150B-13	Bushing	1
14	1150B-14A	Needle -1.8 , 2.0	1
	1150B-14B	Needle -2.5	1
15	1150B-15	Fluid Control Assembly	1
16-2	1150B-16-2	Cowhide Washer	1
16K	1150B-16K	Air Assembly Kit [Incl.: 16, 17, 18]	1
18	1150B-18	Gasket	1
19	1150B-19	Air Inlet Bushing	1
20	1150B-20	Screw	1
21	1150B-21	Trigger	1
22	1150B-22	Trigger Stud	1
23	1150B-23	E-Ring	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. Multiple hazards. Read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the tool. Failure to do so can result in serious bodily injury.
22. Only qualified and trained operators should install, adjust or use the tool.
23. Do not modify the 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 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 tool from the energy source when changing inserted tool or accessories.
2. Failure of the accessories 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.

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 tool is fixed to suspension device make sure that the fixation is secure.

Safety precautions for repetitive motions hazards

1. When using the tool, the operator may experience discomfort in the hands, arms, shoulders, neck, or other parts of the body.
2. While using the 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 accessory.
2. Only use sizes and types of accessories and consumables that are recommended by the 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.
2. Proceed with care in unfamiliar surroundings. Hidden hazards may exist, such as electricity or other utility lines.
3. The 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 the tool 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.

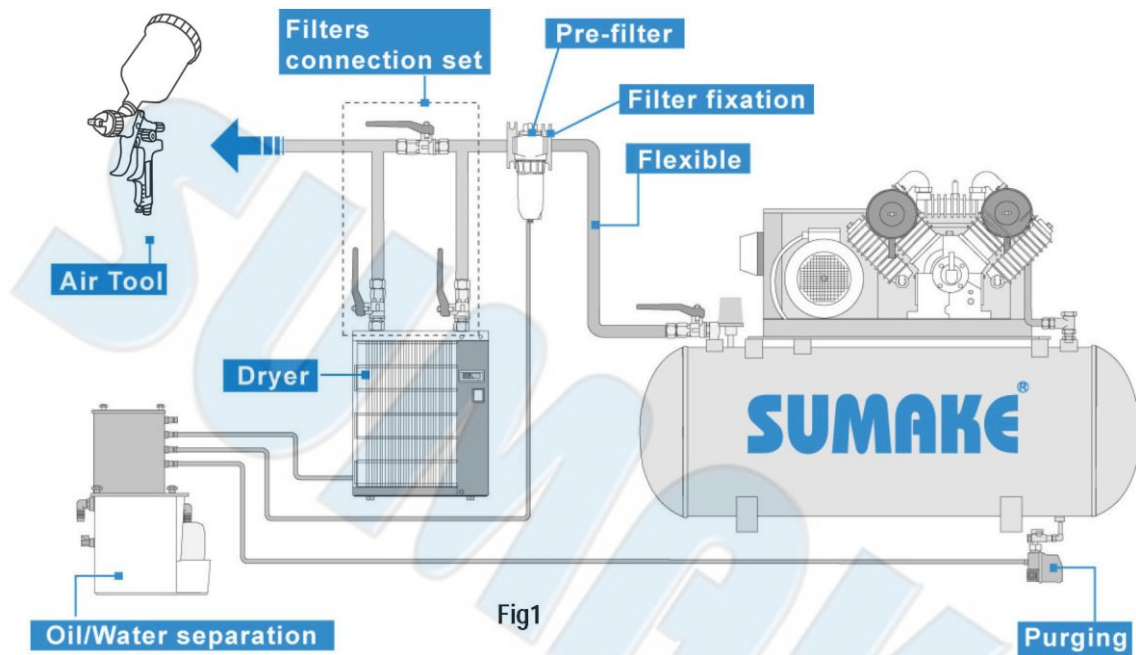
Additional safety instructions for pneumatic power tools

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 spraying air or liquid 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:



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 please refer specification indication. 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.

