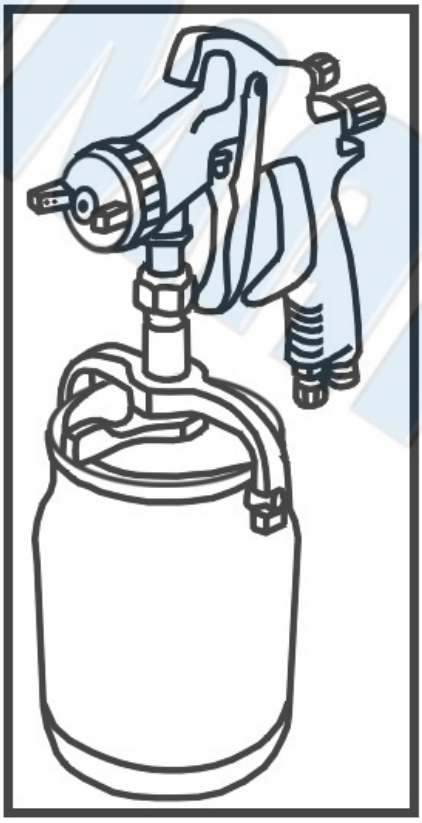
SUMAKE *PNEUMATIC TOOLS*



Suction Type High Pressure Air Spray Gun
SS-1231

Specification:

Free Type	Suction
Standard Nozzle	1.8 mm
Optional Nozzle	1.5, 2.0 & 2.5mm
Capacity Of Cup	1 L
Air Consumption	11.7 CFM (331 L/min)
Air Inlet (NPS)	1/4” (6.35 mm)
Air Hose (NPS)	3/8” (10 mm)
Air Pressure	60 psi (4.2 kg/cm²) (4.2Bar)
Net Weight	2.53 lbs (1.15 kg)

Noise and Vibration:

Vibration	Noise	Remark
0.2 m/s²	Sound Pressure Level : 86 dB(A)	Please always wear ear protector at environment noise level > 80 dB(A) due to risk of impaired hearing!
	Sound power level : 97 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

SS-1231 Gravity Feed Spray Gun & Cup

1.Non-Drip Paint Cup

2.Nozzle set

3.Air Nozzle W/Brass Cap

4.Stepless Regulation For Round and Flat Spray

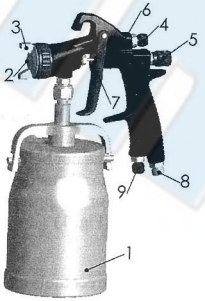
5.Fluid Adjustment

6.Stuffing Box For Air Piston

7.Trigger

8.Air Connection R 1/4"Outside

9.Air Adjusting Valve Ass'y



MODEL NO. **SS-1231**

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:
*PART NUMBER

*PART DESCRIPTION

*NAME OF ITEM

*MODEL NUMBER
SS-1231

SAVE THIS MANUAL FOR FUTURE REFERENCE

Function

Strong Recommended

Replaceable Spray Gun

1. A handy tool in the age of multi purpose.
2. This gun helps you save more money.
3. Attraction and economy in one minute.
4. With the following nozzles and needles, you have multi-layered painting effects.
5. Patented air circulation system for optimal atomization.
6. Instant replacement with nozzles in different specifications.

Sequence of removing the nozzle: Remove the ① paint adjuster ② spring ③ needle and ④ the nut before removing the ⑤ nozzle using the provided wrench or an appropriate sleeve correctly. (Fig. 1)

Fig.1

Note: Using incorrect tools may cause damage in the nozzle with impacts on the tool. (Fig. 2)

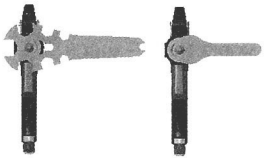


Fig.2

Sequence of mounting the nozzle: Mount the ⑤ nozzle using the provided wrench or an appropriate sleeve correctly before mounting ④ the nut ③ the needle ② the spring and ① the paint adjuster. (Fig. 1)

Then connect the HOSE before dripping solvents in paint joints and push the trigger (to release gas rather than paint in the first stage). Check if the paint joint is free of blister, if yes, repeat the mounting sequence, if not, it would suggest that the mount is al right and you can use the gun. (Fig. 3)

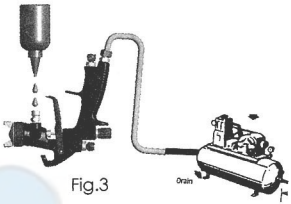


Fig.3

Description of painting nozzle

Specification

Inlet pressure	60 PSI
Paint cup capacity	1000 CC
Air consumption	11.7 CFM
Cup adapter	3/8"-NPS
Inlet connector	1/4"-NPS

CLEANING & MAINTENANCE

1. Submerge the front end of the gun in solvent just until the fluid connection is covered.
2. Paint that has built up on the gun should be removed using a bristle brush and solvent.
3. Never submerge all of the spray gun in solvent because:
   This will dissolve the lubricant in the leather packing and on wear surfaces, causing them to dry out and resulting in difficult operation and faster wear.
   Air passages in the gun will become clogged with dirty solvent.
4. Using a rag moistened with solvent, wipe down the outside of the gun.
5. Oil gun daily. Use a drop of lightweight machine oil on:
   A. fluid needle packing
   B. air valve packing
   C. trigger pivot point
   See fig. 1 for Location of Above Points.
6. Do not use hard objects to clean the ventilation hole.

WARNING-FOLLOW THESE RULES FOR SAFE OPERATION !

During cleaning and flushing, sovents can be forcefully expelled from fluid and air passages. Some sovents can cause eye injury.
Be sure all others in the area are wearing impactresistant eye and face protection.
Even small projectiles can injure eyes and cause blindness.

Air under pressure can cause severe injury. 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. Never direct air at yourself or anyone else. Whipping hoses can cause serious injury. Always check for damaged or loose hoses and fittings. Never use quick change couplings at tool. They add weight and could fail due to vibration. Instead, add a hose whip and connect coupling between air supply, and hose whip, or between hose whip and leader hose, Do not exceed maximum air pressure of 60 PSI.
Always use tool a safe distance from other people in work area. Maintain tools with care. Keep tools clean and oiled for best and safest performance, Follow instructions for lubricating and changing accessories. Wiping or cleaning rags and other flammable waste materials must e placed in a tightly closed metal container and disposed of later in the proper fashion.

Do not wear loose orill-fitting clothing, remove watches and rings. Do not over reach. Keep proper footing and balance at all times. Slipping, tripping and falling can be a major cause of serious injury or death. Be aware of excess hose left on the walking or work surface. Do not abuse hoses or connectors. Never carry tool by the hose or yank it to disconnect from power supply. Keep hoses from heat, oil and sharp edges. Check hoses for weak or worn condition before each use, making certain that all connections are secure.

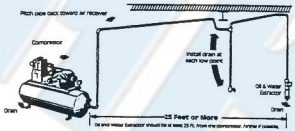
High sound levels can cause permanent hearing loss. Protect yourself from noise. Noise levels vary with work surface. Wear ear protectors.
When possible secure work with clamps or vise so both hands are free to operate tool.
Repetitive work motions, awkward positions and exposure to vibration can be harmful to hands and arms.Avoid inhaling dust or handling debris from work processes which can be harmful to your health.Operators and maintenance personnel must be physically able to handle the bulk, weight and power of the tool.This tool is not intended for using in explosive atmospheres and is not insulated for contact with eletric power sources.Solvent and coatings can be highly flammable or combustible especially when sprayed. Adequate exhaust must be provided to keep air free of accumulations of flammable vapors.Smoking must never be allowed in the spray area.Fire extinguishing equipment must be present in the spray area.
Never spray near sources ofignition such as pilot lights. welders, etc.

Halogenated hydrocarbon solvents-for example; methylene chloride,are not chemically compatible with the aluminum that might be used in many system components. The chemical reaction caused by these solvents reacting with aluminum can become violent and lead to an equipment explosion, Guns with stainless steel fluid passages may be used with these solvents. However aluminum is widely used in other spray application equipment such as material pumps, cups and make sure they can also be used safely with these solvents. Read the label or data sheet for the material you intend to spray , If in doubt as to whether or not a coating or cleaning material is compatible, contact your material supplier.

Spray materials may be harmful if inhaled, or if there is contact with the skin. Adequate exhaust must be provided to keep the air free of accumulations oftoxic materials. Use a mask or respirator whenever there is a chance of inhaling sprayed materials. The mask must be compatible with the material being spryed and its concentration.

AIR SUPPLY

Air Flow	Length of pipe (ft.)			
CFM	50	100	150	200
10	1/2"	3/4"	3/4"	
20	3/4"	3/4"	3/4"	3/4"
30	3/4"	3/4"	1"	1"
40	1"	1"	1"	1"
50	1"	1"	1"	1"
70	1"	1"	1-1/4"	1-1/4"



Never mount oil and water extractor on or near the air compressor. During compression, air temperature is greatly increased. As the air cools down to room temperature, moisture condenses in the air line, on its way to the spray gun. Therefore, always mount the oil and water extractor at a point in the air supply system where the compressed air temperature is lowest.

Drainair lines properly.
Pitch all air lines back towards the compressor so that condensed moisture will flow back into the air receiver where it can be drained off. Each low point in an air line acts as a water trap. Such points should be fitted with an easily accessible drain. See diagram above.

INSTALLATION
This spray gun is rugged in construction, and is built to yield exceptional value. The life of this product and the efficiency of its operation depend upon a knowledge of its construction, use and maintenance.

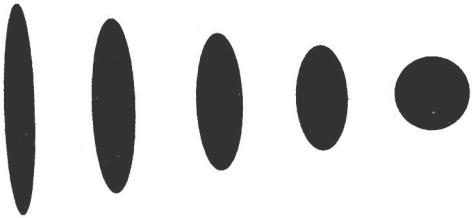
GRAVITY FEED CUP HOOKUP
Air pressure for atomization is regulated at extractor. Amount of fluid is adjusted by fluid control screw on gun, viscosity of paint, and air pressure.

Before using the tool, be sure of the following:

1. Before use, be sure that the spraying gun has been properly cleaned.
2. Be sure to adjust the pressure when using the gun. Do not apply excessive pressure, or poor atomization would be created.
3. To avoid undesirable consequences, do not point the gun to yourself or others.
4. Before using the gun, be sure to keep both the atomization and volume adjuster at appropriate position.

Spraying

When in use, the air cap (as shown) runs back and forth in a parallel manner, this manner provides a vertical fan-shaped pattern as the maximum range.



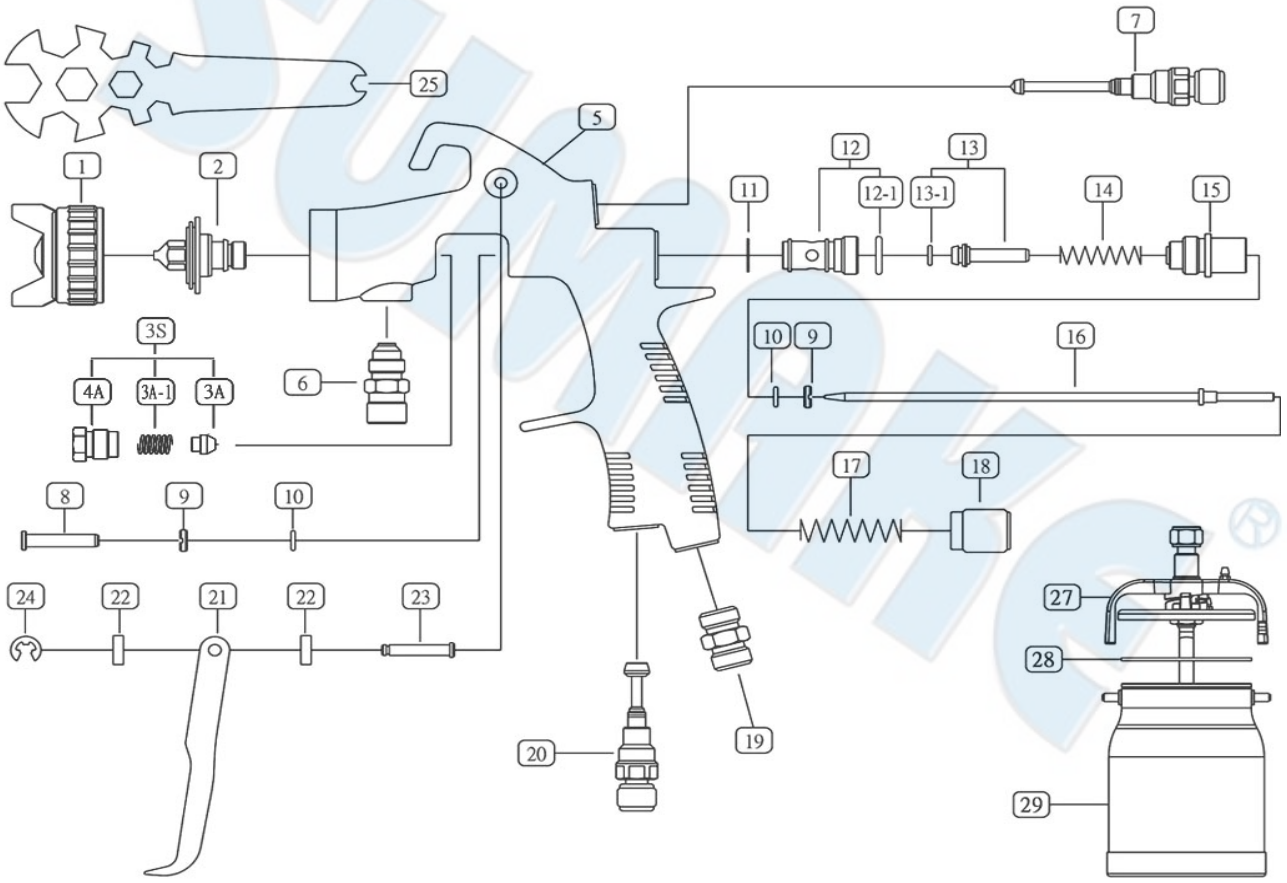
Painting pattern:

1. The range shall cover the use of round-shaped and flat atomization adjuster.
2. The painting distance varies between 15~20cm or 6~9 inches. The recommended pressure shall be 60PSI.

TROUBLESHOOTING

SPRAYPATTERN/CONDITION	PROBLEM	SOLUTION
	One side of nozzle wing is clogged.	Soak nozzle in solvent to loosen clog, then blow air through until clean. To clean orifices use a broom straw or toothpick. Never try and detach dried material with sharp tool.
	a) Loose air nozzle b) Material around outside of air nozzle has dried.	a) Trigger air nozzle. b) Take off air nozzle and wipe off fluid tip. Using rag moistened with thinner.
	a) Atomization air pressure is set too high. b) Trying to spray a thin material in too wide a pattern.	a) Reduce air pressure. b) Increase material control by turning fluid. Control screw to left, while reducing spray width by turning spray width adjustment screw to right.
	a) Packing around needle valve is dried out. b) Fluid nozzle loosely installed, or dirt between nozzle and body. c) Needle sealing damaged.	a) Back up knurled nut, put a few drops of machine oil on packing, retighten nut. b) Take off fluid nozzle, clean rear of nozzle and seat in gun body. Replace nozzle and bring in tight to body. c) Replace 1706 sealing.
Improper spray pattern.	a) Gun improperly adjusted b) Dirty air cap c) Fluid tip obstructed d) Sluggish needle	a) Readjust gun. Follow instructions carefully. b) Clean air cap c) Clean d) Lubricate
Unable to get round spray.	Fan adjustment screw not seating properly.	Clean or replace.
Will not spray.	a) No air pressure at gun b) Fluid pressure too low with internal mix cap and pressure tank. c) Fluid control screw not open enough. d) Fluid too heavy for suction feed.	a) Check air supply and air lines. b) Increase fluid pressure at tank. c) Open fluid control screw. d) Thin material or change to pressure feed.
Fluid leakage from packing nut.	a) Packing nut loose. b) Packing worn or dry.	a) Tighten, but not so tight as to grip needle. b) Replace packing or lubricate
Dripping from fluid tip.	a) Dry packing. b) Sluggish needle. c) Tight packing nut. d) Worn fluid nozzle or needle.	a) Lubricate b) Lubricate c) Adjust d) For pressure feed, replace with new fluid nozzle and needle.
Thin, sandy coarse finish.	a) Gun held too far from surface. b) Atomization pressure set too high.	a) Move gun closer to surface. b) Adjust atomization pressure.
Thick, dimpled finish resembling orange peel	Gun held too close to surface.	Move gun further from surface.

SS-1231(A)
SUCTION TYPE HIGH PRESSURE AIR SPARY GUN



PARTS LIST

No.	Part No.	Description	Q'ty
1	1231-01	Air Cap	1
2	1231-02C	Fluid Nozzle 1.5	1
	1231-02D	Fluid Nozzle 1.8	1
	1231-02E	Fluid Nozzle 2.0	1
	1231-02F	Fluid Nozzle 2.5	1
3S	1231-03S	Needle Packing Set [Incl. 3A, 3A-1, 4]	1
5	1231-05	Body Set	1
6	1231-06	Fluid Nipple	1
7	1231-07	Pattern Adj. Set	1
8	1231-08	Air Valve Shaft	1
9	1231-09	Packing Holder	1
10	1231-10	O-Ring	1
11	1231-11	Gasket	1
12	1231-12	Air Valve Seat Set	1
12-1	1231-12-1	O-Ring	1
13	1231-13	Air Valve Seat Set	1
13-1	1231-13A	O-Ring	1
14	1231-14	Air Valve Spring	1

No.	Part No.	Description	Q'ty
15	1231-15	Fluid Adj. Guide Set	1
16	1231-16C	Fluid Needle 1.5	1
	1231-16D	Fluid Needle 1.8	1
	1231-16E	Fluid Needle 2.0	1
	1231-16F	Fluid Needle 2.5	1
17	1231-17	Needle Spring	1
18	1231-18	Fluid Adj. Knob	1
19	1231-19	Air Inlet Nipple	1
20	1231-20	Air Adj. Set	1
21	1231-21	Trigger	1
22	1231-22	Gasket	1
23	1231-23	Trigger Stud	1
24	1231-24	E-Ring	1
25	1231-25	Spanner	1
26	1231-26	Plastic Grip Brush	1
27	1231-27	Complete Lid Ass'y	1
28	1231-28	Gasket	1
29	1231-29	Cannister	1

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： SUCTION TYPE HIGH PRESSURE AIR SPRAY GUN

Model/ Serial No.： SS-1231

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 1953:2013**

Name and Signature/Position

Mike Su – Managing Director

Date and Place

2022/12/1

Taipei, Taiwan

SS-1231-D-2310B-GWF

SUMAKE®

MAKE JOBS BETTER THAN EVER

SPRAY GUN

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 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:

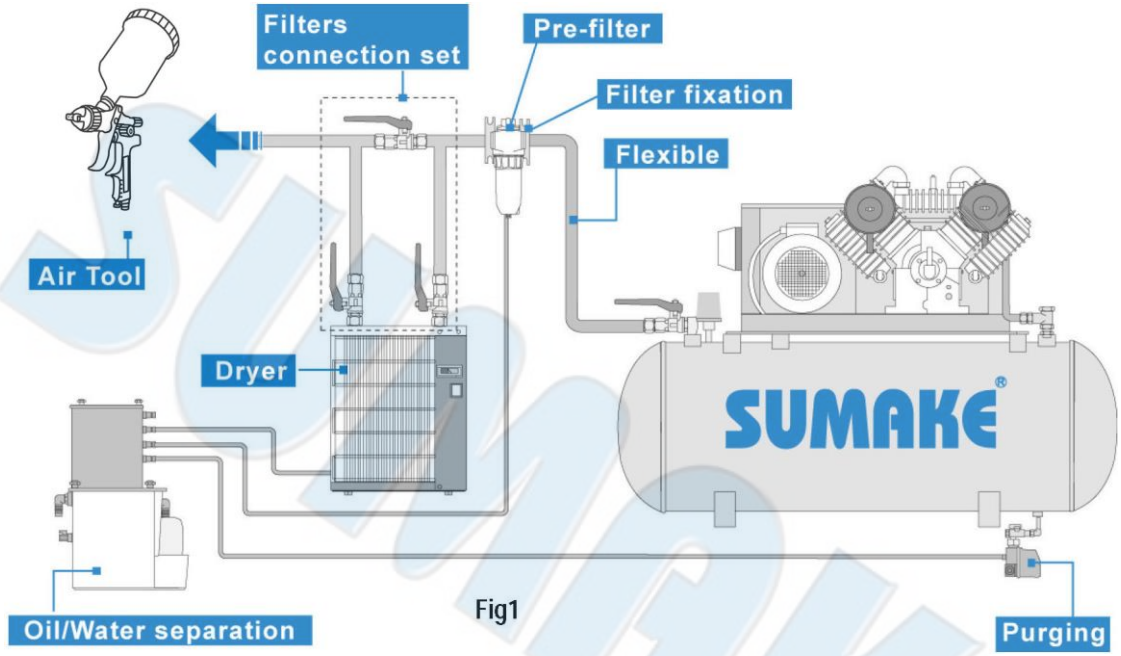


Fig1

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.