ASPRO DE GMBH

WERKZEUGE & BAUMASCHINEN

INSTRUCTIONS FOR USE

Airless high pressure spraying machine

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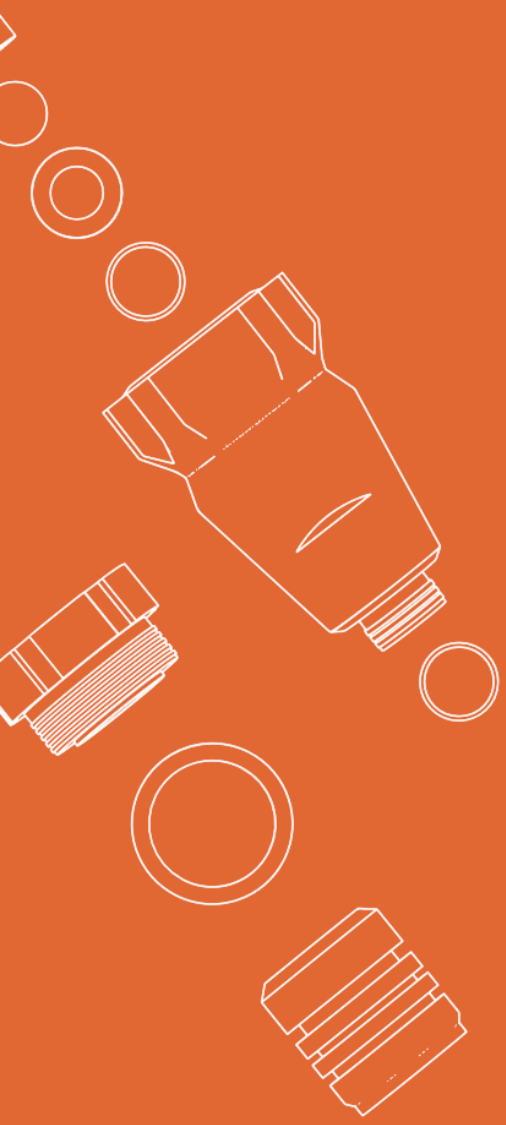
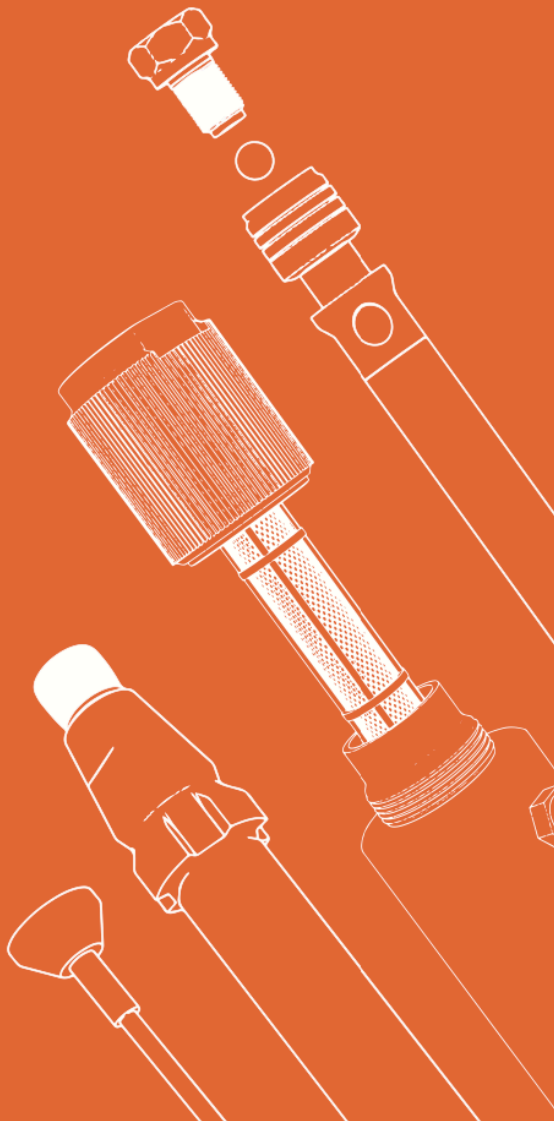
Airless High Pressure Spraying Machine

Welcome!

We are glad that you have chosen our product and are ready to help you in its operation.

In this manual you will find all the necessary information on the installation, configuration and operation of our equipment.





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Before working, carefully read the instructions for use. Keep up with safety techniques during operation. Failure to follow instructions can lead to injury or property damage!

SAFETY TECHNIQUE

Adhering to the safety technique when working with the paint machine is crucial, as it can prevent serious injuries and accidents. When working with the appliance, it is necessary to observe the rules for the protection of the eyes and airways, as well as use appropriate protective clothing.

Do not forget to properly handle the equipment and monitor its condition to avoid emergencies. All these measures help to ensure the safety of workers and surrounding people when doing business with the dyeing machine.

If you have any questions or concerns about this manual, contact the service center and we will be happy to help you solve any problem. Thank you for being
choose our product and we wish you success.

Attention!

The following warnings relate to the tuning, operation, maintenance and repair of this equipment.

GROUNDING INSTRUCTION

This product must be grounded. In the case of an electrical short circuit, grounding reduces the hazard of electric shock by providing conductors to drain the electric current.

The device is equipped with a power cable that has a grounding wire with a suitable grounding plug. This plug must be inserted into a socket that is properly positioned and grounded in accordance with all local regulations and regulations.

Improper placement of the grounding plug can create the danger of electric shock!

A wire whose insulation is green with or without yellow stripes is a grounding wire.

Seek advice from a qualified electrician or maintenance technician if you have doubts about whether the product is properly grounded.

It is forbidden to make changes to the attached plug; if it does not fit into the socket, then instruct a qualified electrician to install the appropriate socket.

This product is intended for use in a circuit with a nominal voltage of 220V and is equipped with a male fork with a grounded contact. It is forbidden to use the adapter in conjunction with this product.

Extension. Use only a 3-wire extension cord that has a 3-pin male plug with a grounding pin and a 3-pin male socket that is suitable for the plug plug of this product.

Solvents and liquids based on oils. Follow the company's standards.

Use only metal electrically conductive containers installed on a grounded surface such as concrete.

Do not place the container on a non-conductive surface, such as paper or cardboard, as this will disrupt the grounding circuit.

Grounding of a metal container.
Connect one end of the grounding wire to the container with a clamp, and the other end to a secure grounding.

Grounding when rinsing or releasing pressure.
Firmly press the metal part of the spray gun against the side of the grounded metal container.
Then pull the trigger.

DANGER OF FIRE AND EXPLOSION.

Flammable substances, such as a solvent pair and paint, can ignite or explode in the workspace!

To prevent ignition and explosion, it is prohibited to spray flammable or explosive materials near an open flame or ignition source, such as lit cigarettes, working motors, Motors or other spark forming equipment, electrical equipment.

The paint or solvent flowing through the equipment is capable of generating static charges.

Static electricity charges create a fire or explosion hazard in the presence of paint or solvent vapors.

All components of the spray system, including the pump, hose assembly, spray gun, and objects within and around the spray area, must be properly grounded to protect against static charges and sparks.

Use special conductive or ground hoses for a high-pressure airless paint sprayer.

Make sure that all containers and collection systems are grounded, in accordance with the grounding instructions, to prevent the occurrence of static charges.

It is forbidden to use paint or solvent containing halogenated hydrocarbons!

Ensure good ventilation in the spraying area, providing a suitable supply of fresh air moving through that area.

Keep the pump unit in a well-ventilated place. No paint is allowed on the pump block.

Smoking in the spraying area is prohibited.

Keep the spray area clean and remove paint or solvent containers, rags, and other similar flammable materials.

Get acquainted with the composition of dyes and solvents in the spray. Read all material safety sheets and labels on containers that come with paints and solvents. Follow the safety instructions of paint and solvent manufacturers.

Fire equipment must be available and in good condition!

The sprinkler produces sparks. When using a flammable liquid in or near the sprayer, for rinsing or cleaning, the sprayer must be at least 6 meters away from the explosive fumes.

RISK OF SUBCUTANEOUS INJECTION

It is forbidden to point spray guns or spray guns towards people or animals.

Do not bring your hands and other parts of your body close to the points of fluid ejection. For example, do not try to stop the leakage from any part of the body. Always use a protective co-president. Spraying with defective Nettle is not allowed. Be careful when cleaning and replacing the nozzles.

It is not allowed to leave the unit under electrical voltage or pressure when not under supervision.

High pressure spraying can inject toxins into the body and cause serious bodily injury.

If such an injection occurs, seek immediate surgical assistance.

Check your intestines and parts for damage. Replace damaged hoses or parts, in a timely manner.

This system is capable of creating a pressure of a size greater than 20 Mpa (200 bar). Use spare parts or supplies designed for this pressure.

Always place the spray gun trigger on the fuse between sprays.

Check to see if the trigger is working properly.

Before running the unit, make sure that all connections are reliable. Learn how to stop the operation of the unit and how to quickly relieve the pressure.

Read the controls carefully.

RISK OF MISUSE OF EQUIPMENT

Improper use of equipment can lead to serious injuries.

1. It is not allowed to work or spray around children. Do not allow children to approach the equipment at any time.

2. It is not allowed to reach out of reach or stand on an unstable carrier. Constantly monitor the effectiveness of the footrest and maintain balance.

3. Be careful and control your actions.

4. Do not use the device if you are tired, under the influence of drugs or alcohol.

5. Do not bend or tighten the hose.

6. Do not go wrong with temperatures or pressures that exceed the values that are maximum for the given equipment.
7. It is forbidden to use the hose as a loading element for pulling or lifting equipment.

ELECTRIC SHOCK HAZARD

Poor grounding, improper adjustment, or improper use of the system can lead to electrical shock.

Before maintaining the equipment, disconnect it and disconnect the power cord.

Use only ground electrical outlets.

Use only 3-wire extension cables.

It is forbidden to use an adapter from 3 pins to 2 pins.

Make sure your extension cord is not damaged. Use a cable with a wire cross-section of at least 2.5 mm2 to withstand the current consumed by this product. A cable with a smaller cross-section of wires will cause a drop in line voltage, loss of power and overheating.

Do not expose the device to high humidity and precipitation.

Keep it indoors.

THE DANGERS OF ALUMINIUM UNDER PRESSURE

Do not apply 1, 1, 1-dichloroethane, methylene chloride and other halogenated hydrocarbon solvents or liquids containing such solvents in pressurized aluminum equipment.

This use can lead to dangerous chemical reactions and destruction of equipment, as well as serious injury and material damage.

Individuals using or maintaining equipment, as well as those located in the work area, must apply appropriate protection to protect themselves

DANGER OF TOUCHING MOVING PARTS

Moving parts can injure or tear off fingers or other parts of the body.

Watch out for moving parts.

Do not use equipment with safety devices or covers removed.

Pressure equipment can be turned on without warning. Before you check whether the equipment is being moved or maintained, follow the pressure relief procedure given in this manual. Turn off power.

TEMPERATURE REGIME

This product works in a temperature regime from 5 °C to 45 °C.

The paint machine should work in a certain temperature regime, which may depend on the particular model and the material with which it is painted. Pay attention to the recommendations of the manufacturer of the material and its temperature regime.

Too high or low temperature can cause overheating / freezing or deformation of the material, which will affect the operation of the machine, so it is necessary to monitor the temperature regime and regulate it if necessary.

Dew point condensate in the equipment can cause corrosion and sealing, affecting the quality of the product. Avoid problems with insulation, ventilation and heating.

PERSONAL PROTECTION

Individuals using or maintaining equipment, as well as those located in the work area, must apply appropriate protection to protect themselves from serious injury, including eye damage, toxic gas inhalation, burns, and hearing loss.

These include the following and other protections:

- Goggles
- Protective clothing and respirator according to the recommendations of the manufacturer of liquids and solvents
- Gloves
- Protective headphones

TEHNIČKI PARAMETRI

Project	ASPRO 2000	ASPRO 2500	ASPRO 3000	ASPRO 3500	ASPRO 5000	ASPRO 8000
Power (W)	1500	2000	2200	2500	3500	4000
Voltage (V)	220V	220V	220V	220V	220V	220V
Current (A)	7	9	9	14	20	25
Flow LPM Filter (Max)	2,0	2,5	3,0	3,5	5,0	8,0
Monitor Flow Per 1000 Revolutions (L/1000 RPM)	0,435	0,557	0,721	1,142	1,520	2,260
Circulation times of 1L Pump (Times/1L)	164	128	99	48	26	18
Spray Tips	521	523	525	531	539	541
Paint Pressure MPa (Max)	20	20	20	20	20	20
L*W*H (mm)	410*340*575	410*340*575	410*340*575	655*530*825	655*530*825	655*530*825
Net/ Gross Weight (Kg)	17,8	18,0	18,6	30,8	43,8	52,8

STARTUP OPERATION

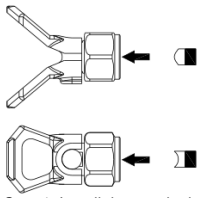
MODEL (ASPRO 2000 / ASPRO 2500 / ASPRO 3000)

Spray gun: Installation of the nozzle tip , nozzle tip sealing ring, and tip guard

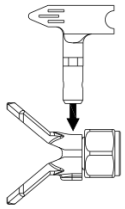
1. Installation of the spray gun as shown in figure 1
2. Connect the high-pressure airless hose to the spray gun and machine, and install the fluid intake tube as shown in figure 5
3. Place the fluid intake tube into the paint bucket
4. Connect the machine to the appropriate power source
5. Open the drain valve as shown in figure 2/4
6. Turn the pressure control valve to the minimum as shown in figure 3
7. Turn on the machine power switch
8. The drain tube flows out of paint and closes the drain valve as shown in figure 2/3
9. Turn the pressure control valve clockwise until the nozzle tip coating is atomized, and then start spraying construction
10. Please add 3-5 drops of lubricating oil to the sealing oil inlet of the machine plunger pump every time you use it

MODEL (ASPRO 2000 / ASPRO 2500 / ASPRO 3000)

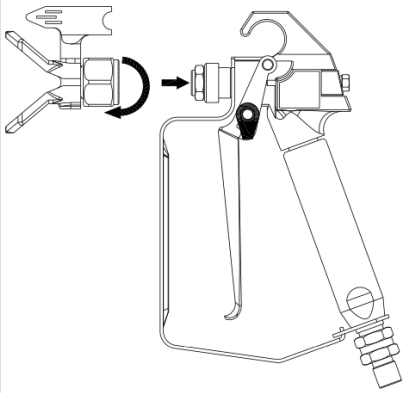
1



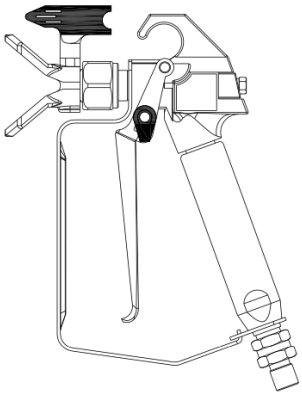
Step 1: Install the nozzle tips sealing ring and tip guard



Step 2: Switch the nozzle tip and tip guard



Step 3: Install the tip guard to the spray gun



Completed

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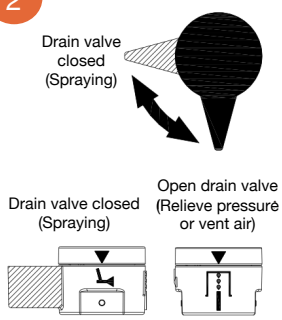

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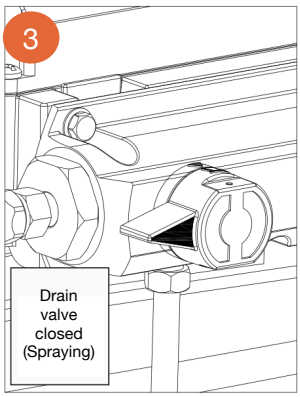

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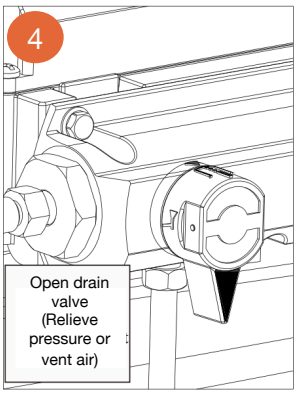

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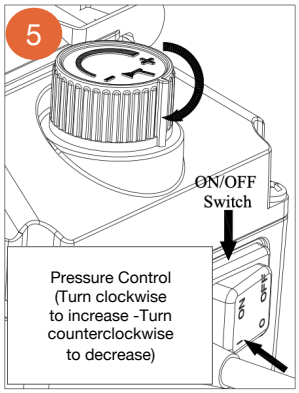

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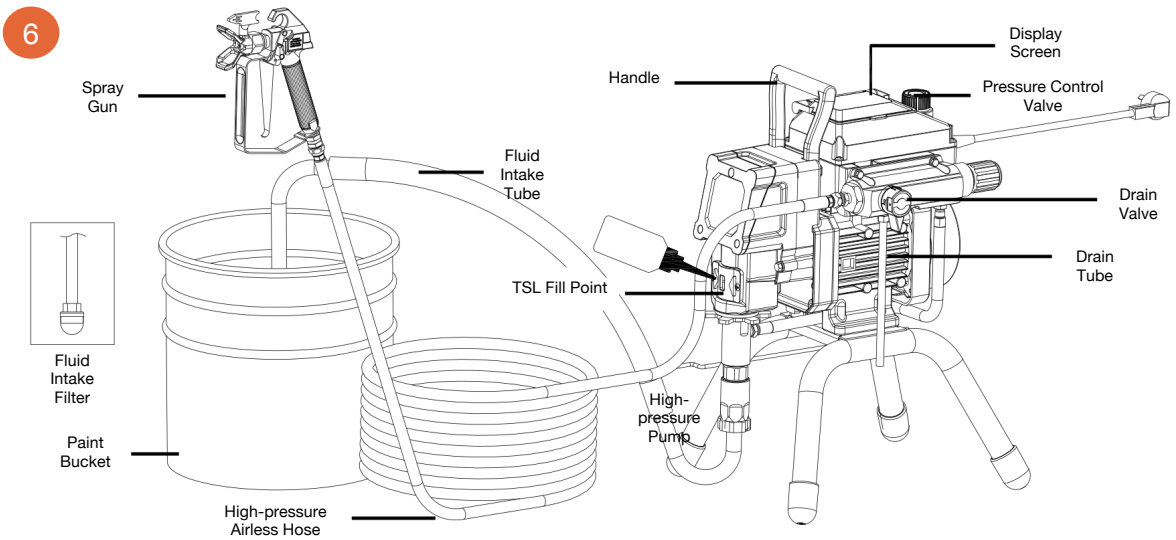


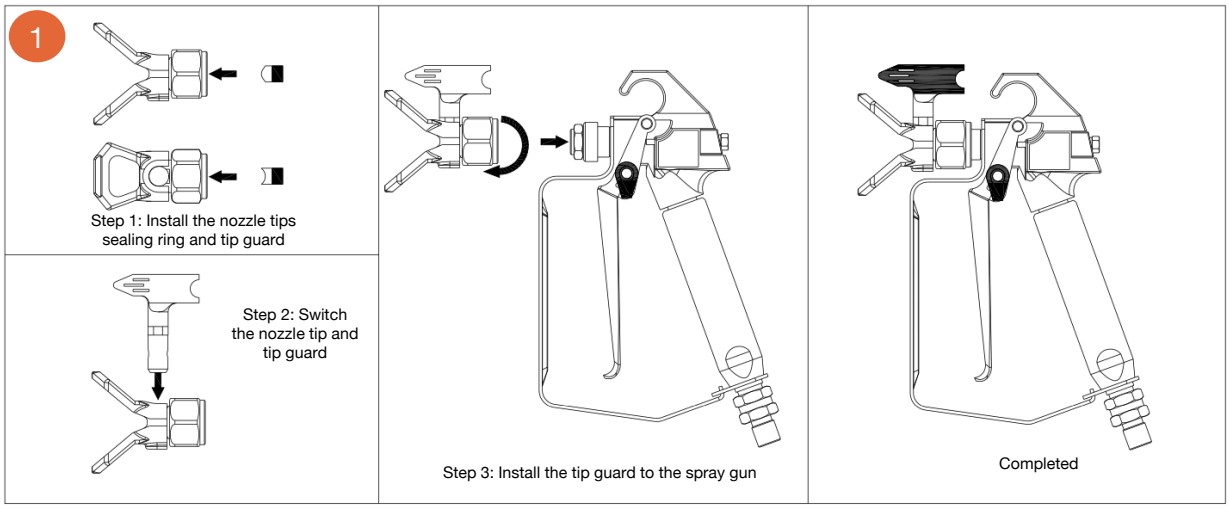
STARTUP OPERATION

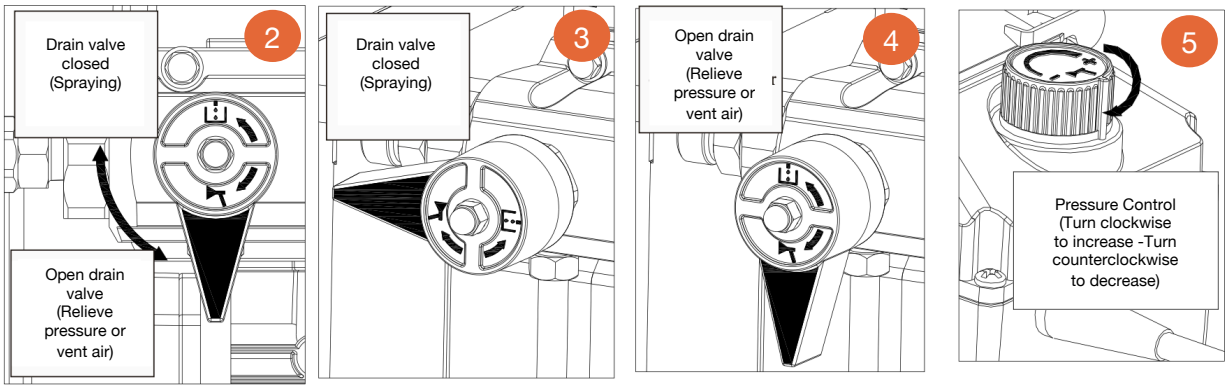
MODEL (ASPRO 8000)

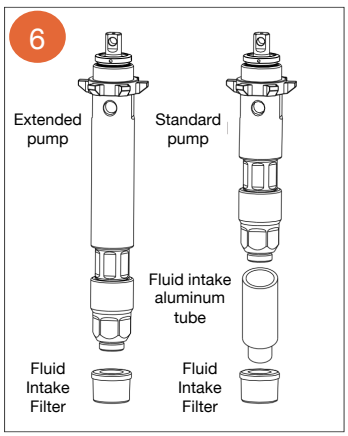
Spray gun: Installation of the nozzle tip, nozzle tip sealing ring, and tip guard

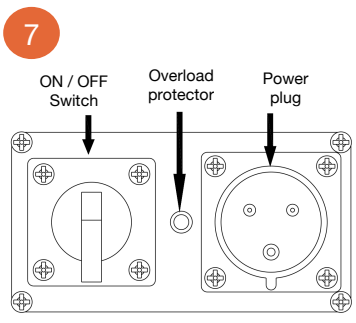
1. Installation of the spray gun as shown in figure 1
2. Connect the high-pressure airless hose to the spray gun and machine, and install the fluid intake tube as shown in figure 8
3. Place the fluid intake tube into the paint bucket
4. Connect the machine to the appropriate power source
5. Open the drain valve as shown in figure 2/4
6. Turn the pressure control valve to the minimum as shown in figure 5
7. Turn on the machine power switch
8. The drain tube flows out of paint and closes the drain valve as shown in figure 2/3
9. Turn the pressure control valve clockwise until the nozzle tip coating is atomized, and then start spraying construction
10. Please add 3-5 drops of lubricating oil to the sealing oil inlet of the machine plunger pump every time you use it

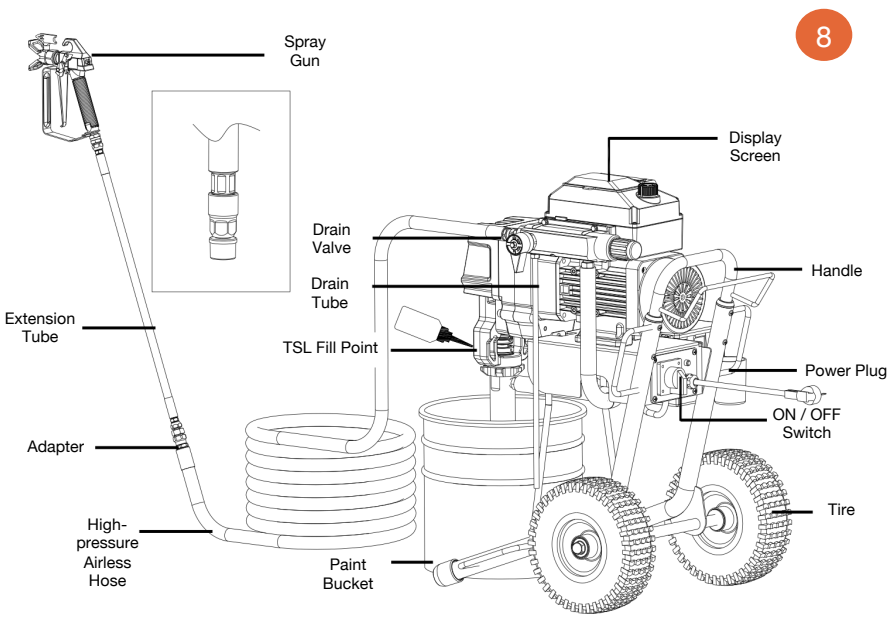
MODEL (ASPRO 8000)











PRESSURE RELIEF CLEANING STEPS

This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashed fluid and moving parts, follow the Pressure Relief Procedure whenever sprayer is stopped and before sprayer is cleaned or checked, and before equipment is serviced:

1. Engage the trigger lock.
2. Turn the ON/OFF switch to OFF position.
3. Turn pressure control to lowest setting. Disengage the trigger lock.
4. Hold a metal part of the gun firmly to a grounded metal pail. Trigger the gun to relieve pressure.
5. Confirm the pressure is completely released, engage the trigger lock.
6. Turn the drain valve wrench to the drain pipe position. Let the drain valve stay in this state before spraying again (figure G3).

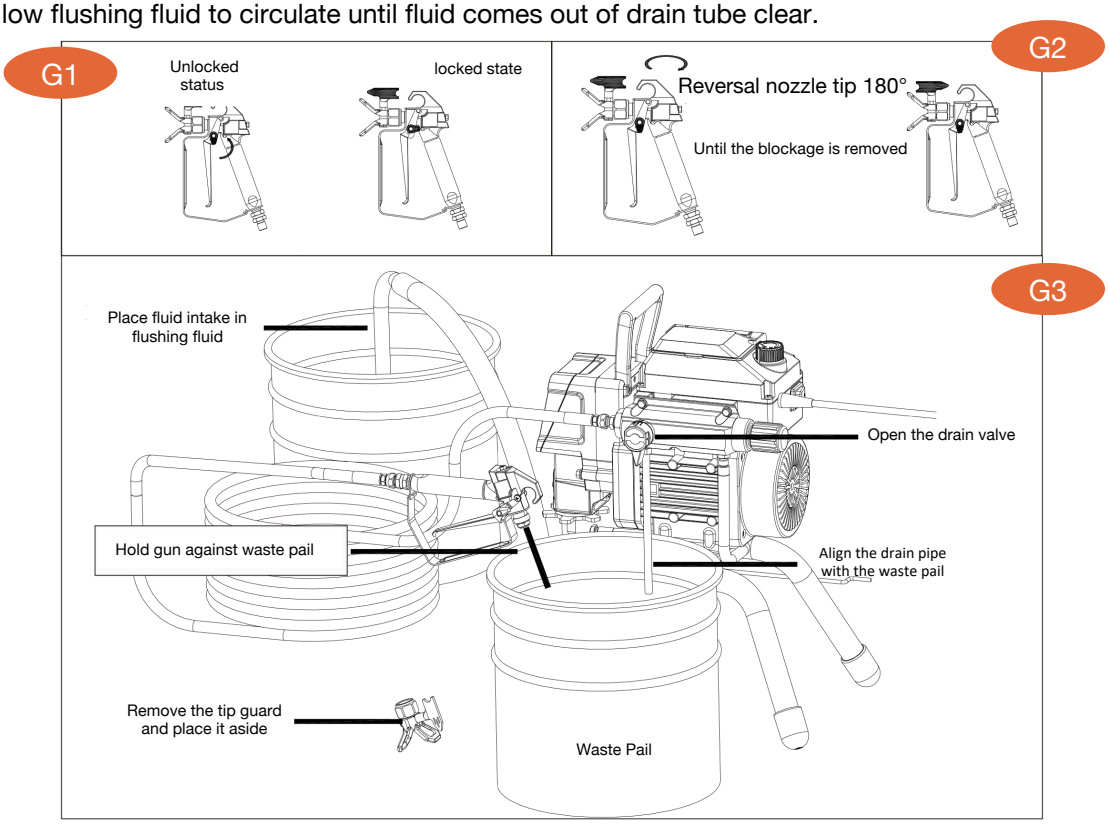
If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved:

a. VERY SLOWLY loosen the tip guard retaining nut or the hose end coupling to relieve pressure gradually.
b. Loosen the nut or coupling completely.
c. Clear hose or tip obstruction

7. After confirming shutdown and pressure relief, remove fluid intake and drain tube from paint, wipe excess paint off outside. Place fluid intake in flushing fluid.

Use water for water base paint and mineral spirits for oil-based paint.

8. Place drain tube in waste pail. Turn prime valve horizontal. Increase pressure 1/2 turn to start motor.
9. Put the drain valve wrench at the drain tube position, wait for water to come out of the drain tube.
10. After the drain tube is stable, set the drain valve to the spray gun position. Place the drain valve in the spray gun position.
11. Unlock the spray gun trigger lock, shoot into the bucket, continue for a while, until the cleaning liquid begins to flow out of the spray gun.
12. Stop triggering gun. Move gun to waste pail, hold gun against pail, trigger gun to thoroughly flush system. While continuing to trigger gun, turn prime valve down. Then, release gun trigger. Allow flushing fluid to circulate until fluid comes out of drain tube clear.



MAINTENANCE AND SERVICE

Every day: Check whether all high-pressure airless hose connectors are firmly connected.

Every day: Check high-pressure airless hoses for wear and damage.

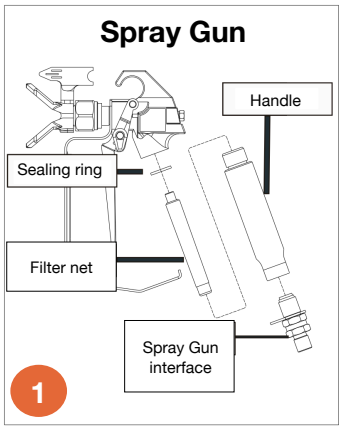
Every day: Check whether the Spray tip is worn or clogged

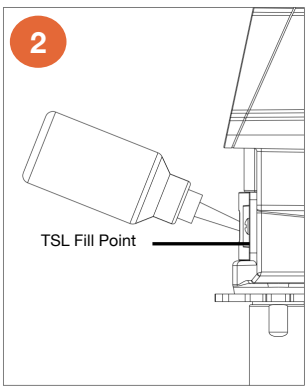
Every day: Check whether the Intake strainer is clogged. The intake valve ball and piston ball are not seated correctly.

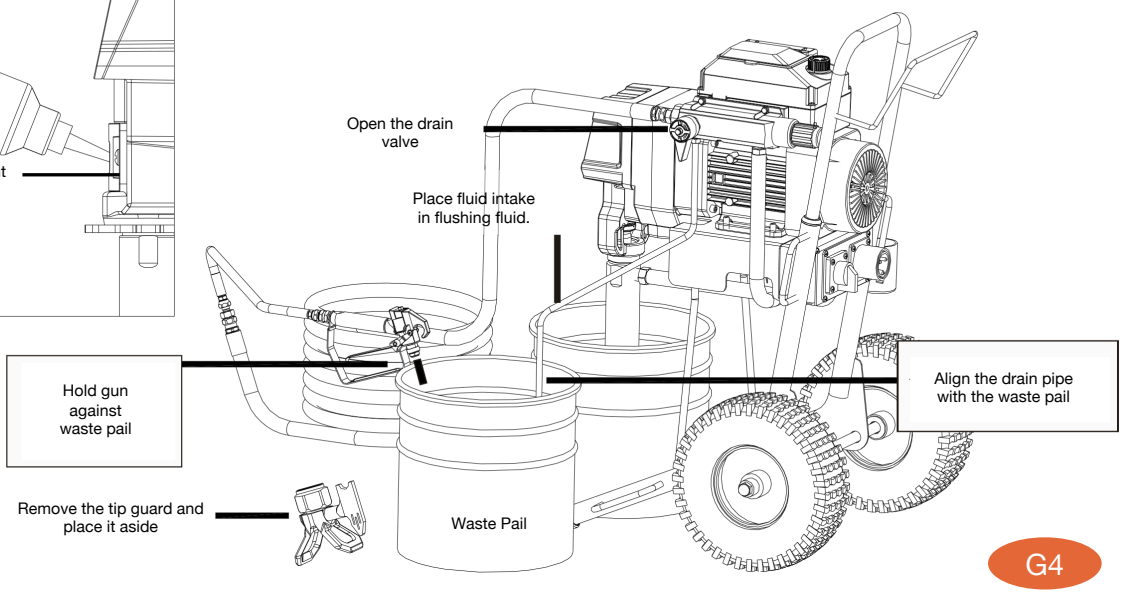
Every day: Check the fluid filter or tip filter to see if it is clogged or dirty. Is the filling valve leaking?

Every day: After releasing the gun trigger, Verify pump does not continue to stroke when gun trigger is released. (Prime valve not leaking.)

Every day: Check for leaks around the throat packing nut, which may indicate worn or damaged packing







FAULT CODE TABLE

Error code	Error Description	Program Judgement Condition	Maintenance Suggestions
	Pressure Sensor Failure	Abnormal signal detected from pressure sensor	1. Check if the pressure sensor is properly connected 2. Replace the pressure sensor 3. Replace the circuit board
E_4	Overload protection	Overcurrent signal received from hardware overcurrent detection circuit	1. Power up again 2. Check if the input power line is too thin or too long, leading to a large voltage drop 3. Replace the motor 4. Mechanical wear and tear, high resistance to rotation, such as damaged bearings or foreign objects in the gearbox 5. Replace the circuit board
E_5	Motor Overheating	Motor temperature exceeds limit value	1. Check if the motor fan blade is intact 2. Check if the gear or high-pressure pump mechanics are smooth
E_6	Power tube damage	Power tube damage on controller	Repair and replacement
E_7	Leakage in High-pressure Pump Body	Leakage in High-pressure Pump Body	Repair and replacement
E_8	Phase loss protection		Check if all power lines of the motor are loose or poorly connected
E_12	Shortage protection	During spraying, the pressure detected after the gun is closed is 50% less than the set pressure and 2Mpa less after 5 seconds	Add paint to paint bucket Zero the potentiometer and readjust it to the required pressure
E_13	Suction Protection	When the pressure is lower than 50% of the set pressure and less than 2Mpa, and the motor continues to run for more than 30 seconds	1.Check if the drain valve is open or blocked 2.Please check if the sealing ring of the intake and outlet valve piston rod is worn or blocked 3.Check if the suction tube is leaking
E_14	Motor Startup Stall Protection	When the motor is jammed or needs to run, but the actual motor stops, it is protected	1.Check if the UVW connection of the motor is intact 2.Replace circuit board 3.Replace motor
E_15	Communication check code error	When the chip finds a check code error during communication	1.Reset the potentiometer and power up again 2.Replace the circuit board
380U	Overvoltage protection	Overvoltage protection	Choose a power supply with the rated voltage of the spray gun
170U	Low input voltage protection	Input voltage is less than 170Vac	Choose a power supply with the rated voltage of the spray gun

TROUBLESHOOTING

Fault	Fault cause	Solution
Motor works normally, pump body does not work	Connecting rod is worn or damaged	Replace connecting rod
	Gear component is worn or damaged	Replace worn or damaged components
Motor cannot start	Error code (E-15) displayed	Replace the circuit board
	Piston rod is jammed by dry coating	PRepair the piston rod and pump
	Connecting rod or piston damaged, jamming mechanical parts	Replace damaged components
Motor cannot start	Spray gun or nozzle tip is blocked	Clean the spray gun or nozzle tip (see the spray gun manual)
	Pressure setting is too low	Turn the pressure adjustment knob clockwise to increase the pressure
	Blockage of filter	Clean the filter
	Blockage of High-pressure pipe	Clean or replace the high-pressure hose
Low output of the pump	Pressure setting is too low	Adjust the pressure controller to increase the pressure
	Blockage of filter	Clean the filter
	Piston or suction valve ball is damaged	Clean or replace the valve ball and valve seat
	Pump body sealing ring is worn or damaged	Replace seal ring
	Spray gun or nozzle tip is blocked	Clean the spray gun or nozzle tip
	High-pressure hose is blocked or the diameter is too small	Clean or replace the appropriate high-pressure hose
	High-pressure hose is blocked or the diameter is too small	Clean or replace the appropriate high-pressure hose
Leakage inside the sealing nut	Loosening of nut	Remove the nut, clean it, and tighten it
	The upper sealing ring of the pump body is worn or damaged	Replace the upper sealing ring of the pump body
	Piston rod is worn or damaged	Replace the piston rod
Intermittent discharge	Air in the pump body, filter, high-pressure pipe	Confirm all connection pipes are tightened. Open the gun continuously towards the bucket until the air is exhausted
	Nozzle tip partially blocked	Cleaning nozzle tip
	Insufficient supply of coating	Add enough coating to the barrel
Pump body works but does not discharge	Drain valve blocked	Turn the Drain valve wrench to the Drain position until continuous flow is observed from the Drain tube
	Outlet valve, inlet valve ball flaps are stuck	Check if the sealing ring in the inlet valve is worn or damaged. Check if the inlet valve is loose. If so, replace the seal and tighten the inlet valve
	Pump body seal is worn	Replace the pump body seal
	Coating is too thick	Dilute the coating as per the supplier's recommendation
Sprayer works, but the counter shows no display	Counter is damaged or connection is poor	Check the connection or replace the counter