ASAHI SUNAC

Operation and Maintenance Manual

Air-Wrap Automatic Gun

AGA10

Ec'Coater™ エコーター

This manual contains important information including warnings and cautions.
Read the manual thoroughly before starting to operate the pump, and follow the instructions.
Always keep the manual handy until such time as the pump is no longer being used.
If your manual is lost or worn badly, do not hesitate to contact our agency which is closest to you, or the Asahi Sunac Corporation, directly, and ask us to send you a new one.

15th Edition:November 1, 2022

Thank you for buying our product.

Dear Valued Customer,

Thank you for buying an Asahi Sunac product, the Air Wrap Automatic Gun, Model AGA10.

In order to enjoy use of this product over a long period, and in the best possible conditions, please ensure that you read this manual carefully before starting to operate the spray gun. Please pay particular attention to the various items that are determined by the specifications, the various warnings, and cautions contained herein and the various hazardous situations procedures that must at all costs be avoided. Please follow carefully the correct procedures that are outlined in this manual, and we strongly request that at all times you use this product on the basis of these procedure.

The equipment is geared to industrial painting. The spray gun is intended for use only by those who are knowledgeable about equipment and it applications, and have undergone an approved training program: no inexperienced persons should be allowed to operate it.

Should you have any questions with regard to the manual, please quote us the "Model Name" and "Serial Number" of your equipment, so that we can help you with your questions. You can reach us at any one of the addresses, phone and fax numbers shown on the back cover.

Thank you,
Asahi Sunac Corporation

15th Edition:November 1, 2022

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1 For Your Safety

Please read and follow all the technical and safety instructions in this manual.
Failure to do so may result in **personal injury and/or property damage.**

While all the safety precautions in the manual are very important, you should not consider them to be as cure-all. They are nothing but minimum requirements. You may need some other types of safety precautions: in fact, you may come across with other types of hazards not shown in the manual down the road. And, of course, there are regulatory and voluntary safety requirements set forth by the governments and businesses.

So, shown below and in the pages that follow are the basic minimum safety precautions in connection with use of our product.

●Safety precautions are classified into three categories based on the severity of hazards involved.

WARNING	Alerts a hazardous situation which may result in personal injury, along with hazard avoidance measures.
CAUTION	Alerts a hazardous situation which may result in equipment damage or breakage, along with hazard avoidance measures.
NOTE	Indicates important methods and practical information.

※ Safety precautions classified into the CAUTION category could cause personal injury if not properly followed. To ensure safety and prevent equipment failure, always observe the safety precautions and follow the hazard avoidance measures.

⚠ WARNING

<<For correct use of the product>>

The product covered by this Operation and Maintenance Manual is the Air Wrap Automatic Gun <AGA10>.

This product is a automatic spray gun designed to be installed in the coating booth equipped with an exhaust system and to spray paint for the airless spray.

Use this product in a spray booth with the capacity specified in the relevant law and regulations or under equivalent ventilation conditions.

If you have any doubt about the intended use or materials of the product, please consult us.

The use of the product under conditions other than specified above is always considered as misuse and may lead to an accident unless our special approval has been obtained.

<<General safety precautions for handling of the coating machine>>

1. Do not point this product toward people and animals. Failure to avoid this may cause serious injuries due to toxic substance such as inflammation and cause symptoms of poisoning.
2. Wear the appropriate antistatic shoes specified in JIS T8103 when you enter the place that this equipment is used such as coating booth. If you don't wear it, the spark discharge can be occurred because of human body charging. It may cause serious accidents such as fire and electric shock.
3. Supply and exhaust air properly through the ventilation system at all times so that vaporized organic solvent etc. will not remain under the environment where this product is used.
4. If you use this product when in poor physical condition, correct judgment on avoidance of danger may delay, which may lead to serious accident.
5. Stop using this product immediately when abnormality such as abnormal sound, vibration and high-voltage leakage is found during use. Continuing operation with abnormality may cause a fire or damage the product.
6. Do not use halogenated hydrocarbon solvents. Aluminum alloy contained in the component of this product may cause chemical reaction, leading to explosion.
7. Do not bring devices and tools such as matches and lighters, which generate spark, to the environment where this product is used. Flammable materials may catch fire, and cause explosion or fire.
8. If this product is used outside the prescribed specifications, fire or product damage could occur. Make sure to use this product within the specification range.

⚠ WARNING

9. Before operating this product, examine the installation status of the devices and check for damaged or chipped parts.

10. Before using the coating machine, complete the training course for safe operation of the coating machine. The coating machine may only be operated by those who have completed the training course for safe operation.

11. The work pieces to be coated shall be kept grounded. Their contact resistance shall be 1 kΩ in the case of metal and shall not exceed 1 MΩ in the case of resin. (The measuring voltage shall be at least 500 V.) The work pieces are generally grounded through the conveyor and hanger and may become poorly grounded if paint sticks to the area in contact with the hanger, and will be charged, cause sparks, resulting in fire. Be sure to periodically remove the paint sticking to the hanger.

12. Ground all conductive objects and paint containers in the coating booth using grounding wires. Do not place unnecessary paint cans, tools, etc. inside the coating booth.
Even in the case of outside the coating booth, be sure to ground the paint containers if placing them near the entrance.

13. The operators involved in coating, coating machine cleaning and maintenance operations or working around them shall wear antistatic shoes to prevent build-up of static electricity. Always check that the soles of the antistatic shoes are not contaminated due to paint.

14. The working floor shall be antistatic less than 1MΩ. The range of antistatic for enclosed coating booths is the whole working floor, and for open coating booths is the range of 1.5m from each side of the booth opening and 2.5m from its front. The working floor shall be cleaned to maintain the antistatic effect.

15. When cleaning the nozzle, be sure to stop the supply of paint and air.

16. Never use a metallic brush for cleaning the nozzle. The nozzle is an important part of the coating machine. If you damage the nozzle using a metallic brush, uniform spraying cannot be maintained. When cleaning the nozzle, use a bamboo brush and the like.

17. Do not immerse the coating machine, connecting hoses in the cleaning solvent. Since the electrostatic coating machine is an electric machine, if immersed in a cleaning solvent needlessly, it may be damaged.

18. Do not drag hoses over the floor as doing so scratches or otherwise damages them. They shall be suspended from the ceiling or side wall as far as possible.

19. The coating booth and exhaust system (duct and fan) shall be kept clean by periodically cleaning. In case a fire breaks out, it tends to spread and increase the damage if paint remains in the coating booth or on the exhaust system.

⚠ WARNING

20. Sufficiently drain the air transformer, air compressor, etc. If there is moisture in the air, it will lead to poor coating, the alarm buzzer will go off and safety circuit will be activated. Be sure to remove moisture.

21. A periodically-inspected extinguisher with a sufficient capacity must be provided in the vicinity of the work area in case of accidents.

22. Do not spray paint to human. Not to mention the state where paint or air is pressurized, also after the operation, paint may be discharged due to residual pressure. When it is not operated, close the paint adjuster then paint will not be discharged due to careless operation.

23. Before operation, check that there is no leakage of paint or air. Also when using it, frequently conduct inspections so that accidents will not occur due to screw loose.

24. For the use and installation of the gun, comply with current regulations.

⚠ WARNING

<<Danger of the pressurized fluid>>

1. The coating machine uses a high pressure that may cause serious injury. The paint is supplied under high pressure to the air wrap spray automatic gun. If the paint sprayed or leaked under high pressure or a broken piece of a part directly shots your body at point-blank, it injures your skin and a large amount of toxic substances intrudes into your body. If you fail to immediately receive adequate treatment, the toxic substances destroy your nerve system, possibly resulting in a serious situation, e.g. lifetime functional disorders or amputation of the injured part of your body. Even a splash of the paint may lead to serious injuries if it enters your eyes or sticks to your skin.

2. If you are shot by the paint spray under high pressure, do not undergo home treatment but immediately see a medical specialist such as orthopedist. It is necessary to notify him or her of the correct type of the paint used.

3. Never hold the nozzle of the gun with your finger, palm or another part of your body.

4. Do not hold the nozzle with your finger, palm or any object in your hand.

5. Take special care when cleaning or replacing the nozzle. If the nozzle is clogged during a spraying operation, immediately reduce the paint pressure according to the "**pressure releasing procedure**" and remove to clean the nozzle. It is dangerous to wipe the deposited paint off the nozzle and its surrounding parts with the paint pressure incompletely released.
   Release the pressure with the following procedure.

<<Pressure releasing procedure>>

Always release the paint pressure with the following procedure before inspecting the pump or gun, mounting, removing, cleaning or replacing the nozzle or stopping the spraying operation.

(1) Make sure no paint is spraying from the tip of the gun.

(2) Stop the compressed air supply into the pump. When a power pump has been used, turn it off.

(3) Slowly open the drain valve of the pump to reduce the paint pressure in the hose and gun. Then, put trigger air in the gun. After checking that, the paint pressure has been sufficiently reduced.

(4) Keep the drain valve open until restarting the spraying operation. If the nozzle or hose is completely clogged, or if the pressure does not seem to reduce completely after following the steps above, wrap the retaining nut or hose end connector with a waste cloth, and carefully and slowly discharge the paint of inside.

6. The maximum operating paint pressure of this equipment is 21MPa. Never apply the pressure above this level. Take care when setting the pressure of the paint pressure-feed pump. Check that all components of the machine and its accessories such as hose, connectors and swivel withstand the maximum operating pressure specified above. If the withstanding pressure of a component or accessory of the machine is lower than the maximum operating pressure of the pump, take care **not to exceed the maximum operating pressure specified for that component or accessory.**

7. Before using the machine, fasten all connections.

⚠ WARNING

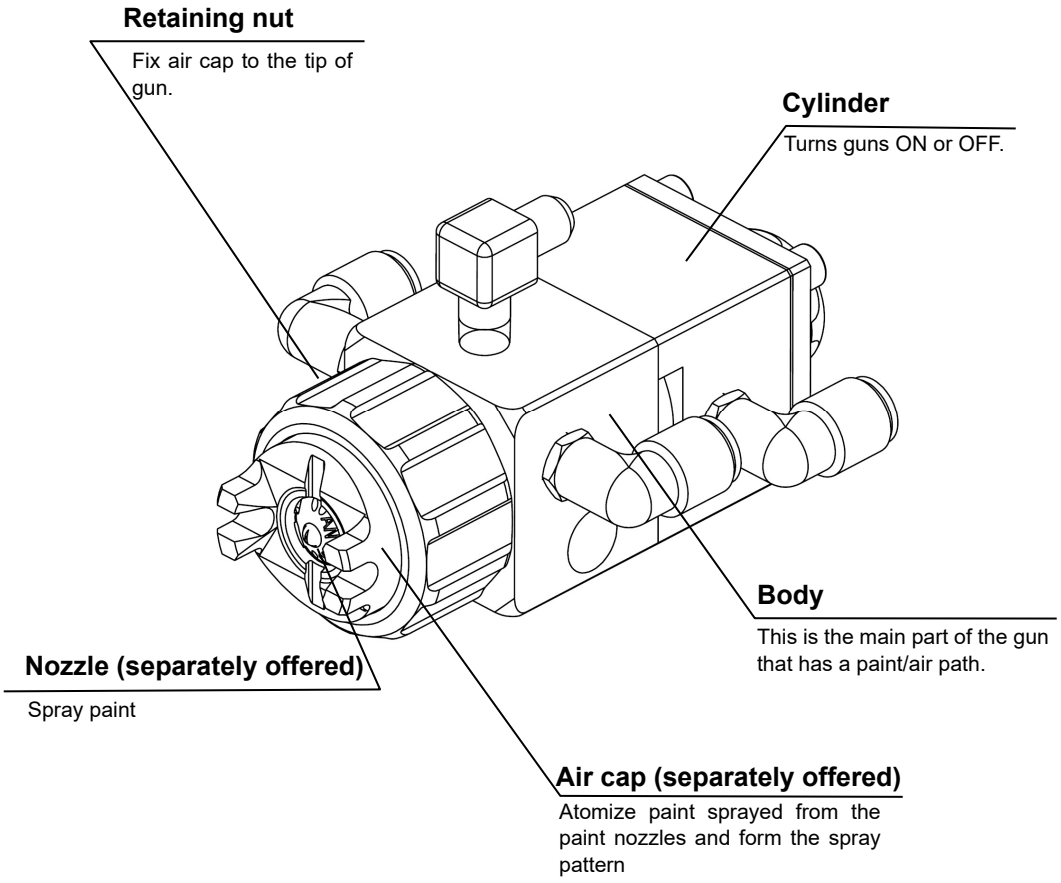
Danger of the wrong operation

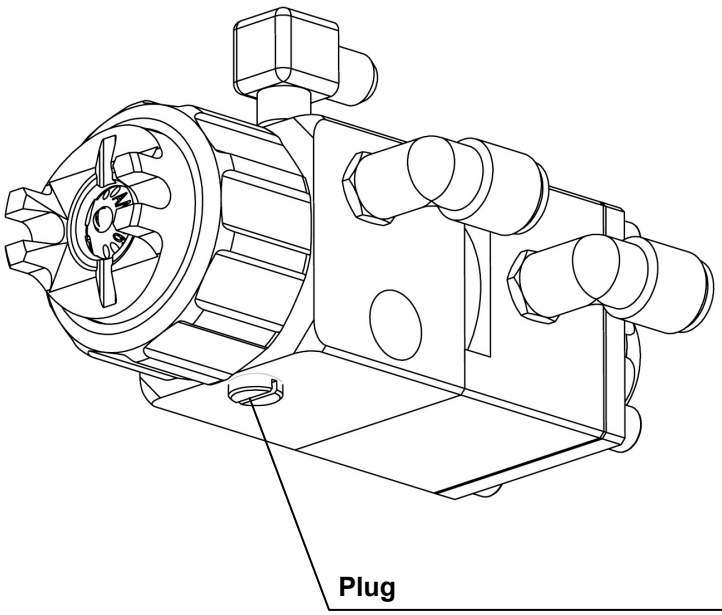
<<General safety notes>>

- An excessive pressure, modifications to the parts, the misuse of the paint or solvent or the use of a worn or broken part may lead to damage to the pump, injury from the paint spray or splashes into your eyes or skin and/or serious disasters such as fire and explosion.
- Never replace or modify any part of the air wrap spray automatic gun or coating machine without permit as doing so may lead to a malfunction or injury.
- Periodically inspect the whole machine and repair it or replace defective parts as necessary.
- When servicing the product, do not remove any part other than specified.
- Some substances contained in the paint or solvent do harm if inhaled or contacted to your skin. Observe the instructions in the Material Safety Data Sheets provided by the paint and solvent manufacturers.
- Install an adequate ventilation system to prevent accumulation of hazardous substances.
- When performing a spraying operation, always wear the safety goggles, working clothes and mask recommended by the paint and solvent manufacturers. Special protective devices may be required depending on the paint type or ventilation. Please consult the paint and solvent manufacturers.

2 Outline of Equipment

2.1 Names and Roles of Parts





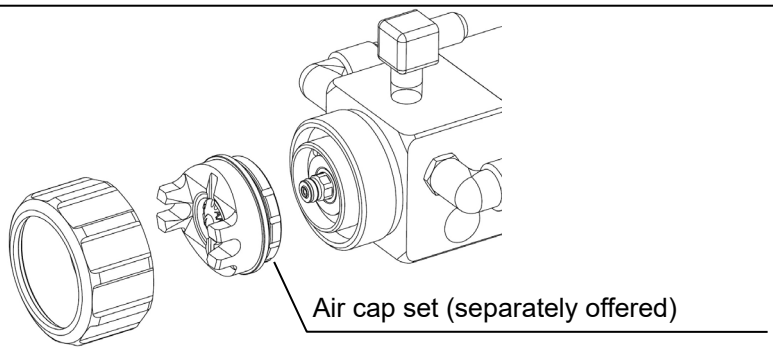
2.2 Related Accessory Parts (Optionally Available)

- As for arrangement of the products and parts of the related accessory equipment, check their part No. and quantity with their equipment manuals separately.

2.2.1 Air Cap (Model: AN Series) (separately offered)

- A part attached to the tip of the gun having a function of atomizing and creating pattern by force of air and pressure of paint.
- Select an air cap from the separate manual according to its usage.

Air cap set image



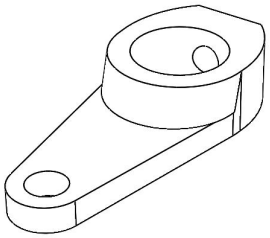
2.2.2 Paint hose (separately offered)

- A paint hose for sending high pressure paint from the pump.
  Select the hose length according to the required length.

2.2.3 Gun Holder (separately offered)

- Fix the coating equipment. Please order if necessary.

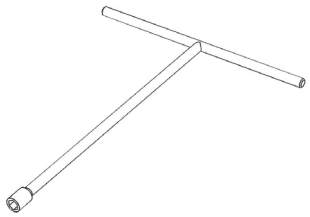
Parts No.	Part Name	Qty.	Remarks
1381-028	Gun holder	2	
03-80510	Hex. socket bolt(with plate)	4	M5×10L



2.2.4 T-Shaped Wrench (separately offered)

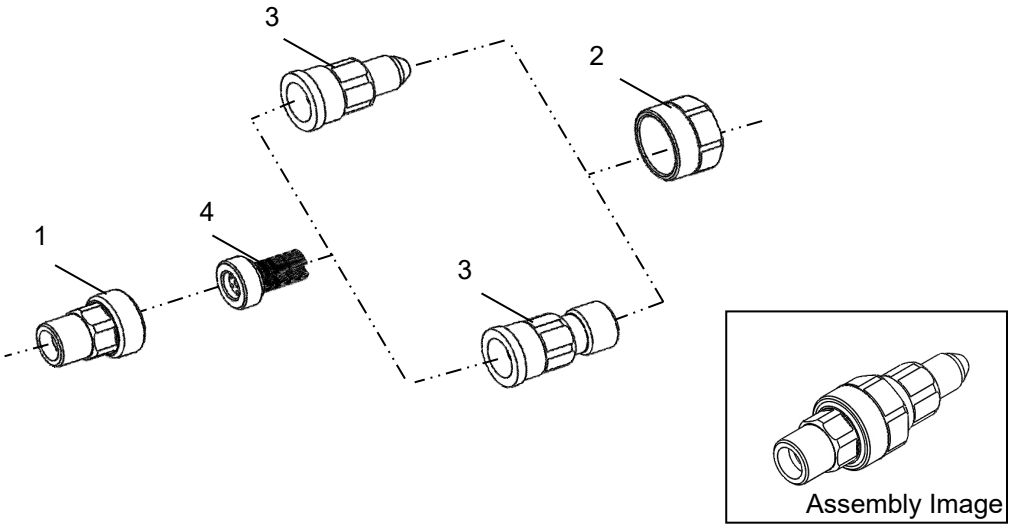
- The tool to replace the seat assy. Please order if necessary.

Parts No.	Part Name	Qty.	Remarks
332-1080	T-Shaped wrench	1	HEX8



2.2.5 Gun Filter (separately offered)

● A filter to prevent clogging of the gun. Choose the below if necessary, and assemble to 295-4101 : L-type nipple.



No.	Parts No.	Part Name	Qty.	Remarks
1	1775-101	Filter housing	1	PF1/8
2	1775-002	Nut	1	
3	1742-005	Hose joint	1	PF1/8
	1742-006		1	PF1/4
4	1404	Gun filter	1	#60
	1404-1		1	#80
	1404-2		1	#100

2.2.6 Other Components

(1) Paint supply pump ⇒ Refer to BEAR series (Plunger pump)

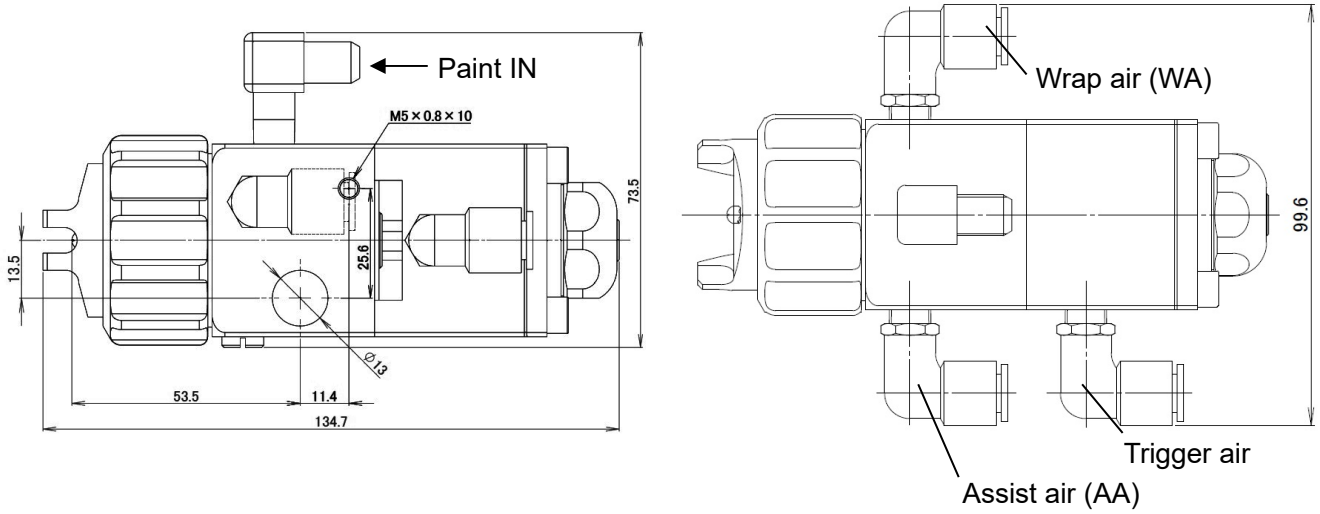
(2) Paint regulator ⇒ Refer to HMR series

(3) Drain valve ⇒ Refer to high pressure valve

(4) Controller ⇒ Please contact our person in charge.

3 Specifications

3.1 Outline Drawing



∗Set Wrap air/Assist air according to the markings on the gun body.

3.2 Specification

Model	AGA10
Dimensions	135(L)×100(W)×73(H)mm
Weight	930 g *Air cap is excluded.
Maximum hydraulic pressure	21MPa
Maximum air pressure	0.6MPa
Trigger valve working pressure	Normal working pressure: 0.4 to 0.5MPa Max: 0.6MPa
Applicable air cap set	AN series
Environment	Temperature: 5 to 40°C; Humidity: 40 to 80%
Supply air conditions	Solid particle size: 0.1 μm or less Dew point under pressure: 10°C Atmospheric dew point: -17°C Remaining oil: 0.01 mg/m^3

NOTE

Do not use a paint heater. The temperature of the paint must be 40°C or lower when it is supplied. If the temperature of the paint is high, the paint hose may soften and come off.

NOTE

For the paint pressure feed system and paint regulator, refer to their instruction manuals. The paint feeding pressure must be 21 MPa or lower.

4 Coating Preparation

Before starting the coating operation, make preparations for coating in accordance with the following procedures.

4.1 Supply of paint

(1) Insert paint into the paint feeder.

The standard viscosity when this coating equipment is used is around 9 to 30 sec/FC#4 in general, but the viscosity varies according to various conditions such as the type of paint and solvent, shape of the work piece subject to paint spraying, and thickness of a coating film, etc.

(2) Operate the paint feeder to feed the paint to the gun.

Operate the pump at a low pressure (approximately 2-3 MPa) with the air regulator for the pump and suck the paint.

(3) Discharge paint from the tip of the gun.

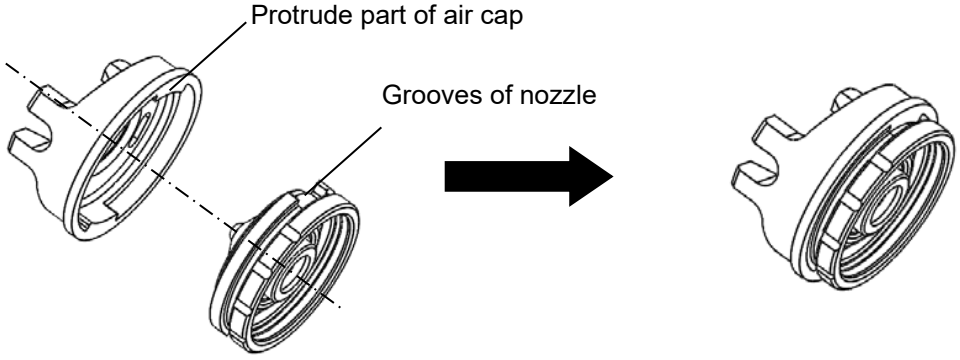
Without supplying the wrap air/assist air to the gun, turn on the trigger air without air cap set, and discharge paint from the tip of the gun. Thus the foreign matter and air from the paint circuit are discharged. If there is any residual air in the paint hoses, spraying performance will be deteriorated; discharge paint until all air is removed from the hoses.

(4) Check the coating machine and hose joints for paint leakage.

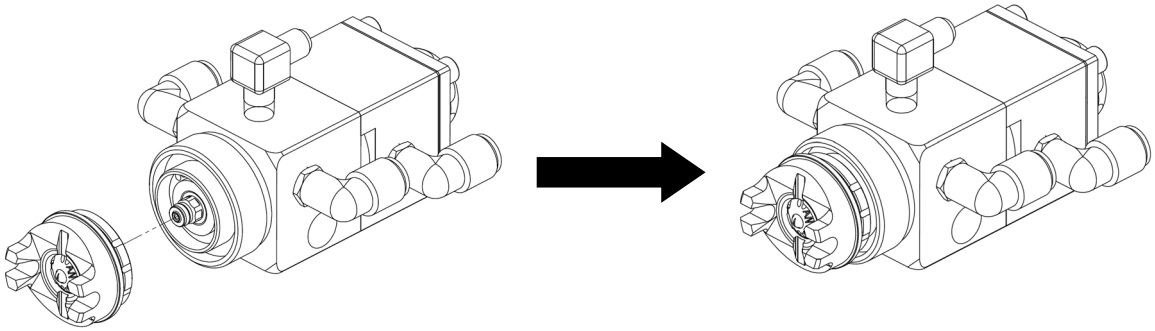
Set the operating pressure to operating pressure.

4.2 Installation of Air Cap set

(1) Place the protrude part of air cap in the grooves of nozzle snugly.



(2) Fix the air cap set to the seat assy.

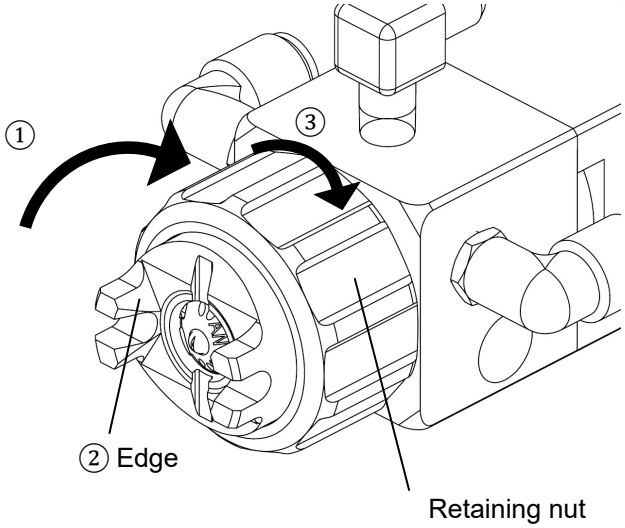


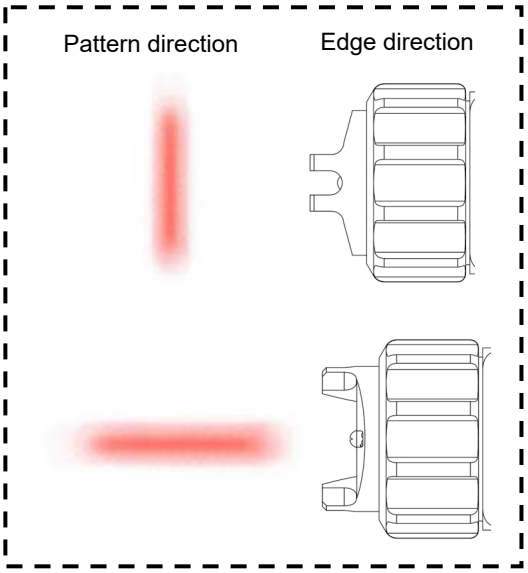
(3) Attach the retaining nut assembly to the outside of the air cap set.

① Tighten the retaining nut assembly tightly, and then adjust the angle direction of the air cap to the direction of pattern creation.

② Tighten the retaining nut assembly more strongly until the air cap set is fixed.

③ Keep distance between the designated surface of barrel and end of retaining nut is around 1mm for standard of tightening.





⚠ CAUTION

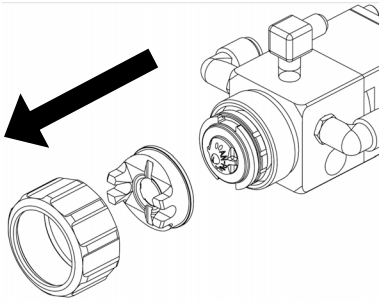
<u>Damage of the unit may occur.</u>

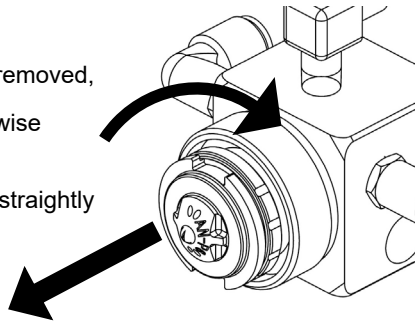
Since this is a resin product, the nozzle attachment joint inside diameter screw may be damaged if tightened too tightly. Remove and attach it with sufficient care.

⚠ CAUTION

Check the packing condition on the mating face of the nozzle tip and the O-ring of seat assembly. If the packing and O-ring are missing or damaged, the pressurized paint intrudes into the air circuit, possibly resulting in poor coating or disorder.

(4) When you disassemble the air cap set, retighten the retaining nut with supporting the edge of air cap by hand and remove retaining nut and air cap set. Please don't twist the nozzle if you remove it. In the case, it can't be removed, be sure to twist it clockwise.





⚠ CAUTION

Pull out the nozzle straightly or with twisting clockwise. If you twist it counter clockwise, paint leakage can be occurred because of seat assy corotation.

⚠ CAUTION

Be careful not to drop the air cap when you remove it.
If you drop the air cap, it may get damaged.

⚠ CAUTION

<u>It may cause breakage of the retaining nut, nozzle, and equipment.</u>
When you remove the retaining nut, be sure to turn it with your hand.
If you use a tool, etc. to remove the retaining nut, it may get damaged.

4.3 Adjustment of air

(1) Wrap air

Set the wrap air pressure regulator to between 0.1MPa and 0.5MPa.

Higher regulator pressure will narrow the spray pattern.

Adjust according to the shape of the work. Note that the spray pattern width cannot be varied enough at a higher paint pressure.

(2) Assist air

Set the assist air pressure regulator to between 0.1MPa and 0.5MPa.

Higher regulator pressure improves atomization.

⚠ CAUTION

- The nozzle is an important part of the coating machine. Be careful not to drop or damage it.
- Discharge drain of air compressor once a day.
  Replace the cartridge elements of air filter and mist separator every six months to a year.
- Be sure to filter the paint before use.
- When using two-component paint or paint that settles easily, thoroughly clean with solvent so that no paint remains in the gun.

5 Maintenance and inspection

Keep the gun, paint hose clean so that there will be no contamination such as paint.

Also always be careful so that they will not be damaged due to mechanical shocks.

5.1 Measures After Operation is Completed

When suspending or finishing the coating operation, use the following procedure.

⚠ WARNING

When the operator suspend or finish coating operation, be sure to release paint pressure. If paint pressure hasn't been released, it may cause unexpected accidents and machine failure.

5.1.1 In Case Where Operation is Resumed Within 24 Hours

(1) Adjust the air pressure of wrap air and assist air to the 0 MPa.

(2) Adjust the drive air pressure of the paint pressure-feed unit to 0 MPa.

(3) Discharge paint through the gun tip to release the residual pressure.

(4) Remove the air cap set according to 4.2 (4).

(5) Wipe off dirt such as paint mist attached to the gun and air cap with a cloth impregnated with cleaning solvent. For cleaning of nozzle tip, clean around seat part carefully in a brush or a cloth impregnated with cleaning solvent.

(6) Immerse the nozzle in cleaning solvent and blow off the dirt with compressed air.

⚠ CAUTION

When cleaning the gun and air cap, do not use a hard brush such as a metal brush. Their surfaces may be damaged and their performance may be impaired.

⚠ CAUTION

After cleaning or an operation, do not allow the gun, air cap set, hose, etc. to be immersed in solvent. Although it is made of a material which is not easily influenced by solvent, if they are immersed in solvent for a long time, their durability will be decreased, which may cause failures.

⚠ CAUTION

When using chemically hardened paint such as two-component paint or paint that settles easily, clean it based on "5.1.2 In Case Where Operation is Not Performed for 24 Hours or More" each time an operation has been completed.

5.1.2 In Case Where Operation is Not Performed for 24 Hours or More

(1) Adjust the air pressure of wrap air and assist air to the 0 MPa.

(2) Extract the suction pipe of the paint pump from the paint container.

(3) Drive the paint pump at a low pressure (approximately 2 to 3 MPa) and discharge the paint in the pump from the return side to the paint container.

(4) Discharge the paint remaining in the hose and gun through the gun tip by putting the trigger air, and release the residual pressure. Change the air pressure of paint feeder to 0MPa and release residual pressure. And remove the air cap set according to (4) of 4.2.

(5) Suck the cleaning solvent though the suction pipe, discharge it from the return side to the cleaning wastewater container and repeat the cleaning until the inside of the pump is cleaned.

(6) Discharge the solvent through the gun tip to clean the hose and inside of the gun. Then drain solvent while pull and open the gun over ten times. Wash the stuck paint on the needle.

(7) Stop the pump and release the residual pressure through the gun tip. Change the pressure of trigger air to 0.

(8) Wipe off dirt such as paint mist attached to the gun and air cap with a cloth impregnated with cleaning solvent. For cleaning nozzle, clean with the cloth or the brush which soaked with solvent.

(9) Immerse the nozzle tip in cleaning solvent and blow off the dirt with compressed air.

(10) As for disposal of cleaning wastewater, recover and recycle it using a solvent recovery system or dispose of it through a contracted industrial waste processor in accordance with the laws.

It is recommended to allow the cleaning fluid to remain in the passage after cleaning to prevent fixation of paint remaining in the paint passage.

⚠ CAUTION

When cleaning the gun and air cap, do not use a hard brush such as a metal brush. Their surfaces may be damaged and their performance may be impaired.

⚠ CAUTION

After cleaning or an operation, do not allow the gun, air cap set, hose, etc. to be immersed in solvent. Uses materials that are not easily affected by solvents, however if they are immersed in solvent for a long time, their durability will be decreased, which may cause failures.

5.2 Other Equipment

(1) Refer to individual instruction manuals for other paint feeders.

(2) When using a two-component paint or paint that settles easily, thoroughly clean the gun with solvent after use, and disassemble and clean the gun every three months.

5.3 Periodical Inspections

In order to fully exercise the performance of this equipment, perform periodical inspection according to the following table. The inspection timings are only shown as a guide and may vary depending on the conditions of use.

⚠ WARNING

<u>Personal injury or accidents may occur due to an unexpected operation of the coating machine.</u>

When conducting a periodic inspection, release the pressure of the air and paint.

Item	Measure	Period
Check external appearance of the gun body	If there is paint dirt, saturate a soft cloth or brush with cleaning solvent and wipe it off.	1 day
	If there is damage, replace with a new one.	
Check for air cap paint dirt	If there is paint dirt, saturate a soft cloth or brush with cleaning solvent and wipe it off.	
Check for clogging of air spray hole of air cap	After immersing in cleaning solvent, remove by blowing air.	
	If cannot be removed, replace with a new one.	
Check for scratches and dents around paint outlet of nozzle tip	If there are scratches or dents, replace with a new one.	
Check for clogging of paint spray hole of nozzle tip	After immersing in cleaning solvent, remove by nozzle pick. If cannot be removed, replace with a new one.	
Check paint leakage	If leaks from gun tip or packing, please contact our sales staff.	
Check for paint hose dirt	If the inside the paint hose is contaminated with paint, perform cleaning by pouring a cleaning solvent.	1 month
	If clogged paint cannot be removed, replace the hose with a new one.	
Check for sliding ON/OFF of gun	If there is any abnormality in the ON/OFF sliding of the trigger valve, please contact our sales staff.	

⚠ CAUTION

Do not disassemble the gun unnecessarily

In case of failure, please contact our sales staff.

6 Paint problems and solutions

Depending on the situation of a paint problem, several problematic phenomena and causes may occur at the same time.

Problematic phenomenon	Cause	Countermeasure
1. Atomization of spraying is bad	(1) Assist air pressure is too low	(1) Set assist air pressure to rather high
	(2) Viscosity is too high	(2) Decrease paint viscosity
	(3) Paint pressure is too low	(3) Raise paint pressure
	(4) Nozzle tip pin is bent	(4) Replace paint nozzle assembly
	(5) Solvent is inappropriate	(5) Please consult us or paint manufacturer
2. Much paint bounce back	(1) Spraying distance is too short	(1) Spraying distance should be within 200-300 mm
	(2) Paint or each air pressure is too high	(2) Adjust paint or each air pressure to rather low
	(3) Exhaust velocity is too slow	(3) Set exhaust velocity to rather fast
3. Coating efficiency is low	(1) Paint or assist air pressure is too high	(1) Adjust paint or assist air pressure to appropriate pressure
	(2) Spraying distance is too long	(2) Spraying distance should be within 200-300 mm.
	(3) Booth supply and exhaust rate is too high	(3) Adjust booth supply and exhaust rate to rather low
4. Paint is attached to nozzle, which causes roughening, or string like particles are created on product to be coated	(1) Evaporation rate of solvent is too high	(1) Replace with solvent whose evaporation rate is low or adjust with additives
	(2) Viscosity of paint is high	(2) Decrease viscosity of paint
5. Particles are created on coated surface	(1) Atomization of spraying is bad	(1) See Section 1 in this chapter "Atomization of spraying is bad"
	(2) There is plenty of dirt in coating booth and dirt is attached to coated surface	(2) Install dust-proof filter on suction part of coating booth to remove dirt on coated surface
	(3) Air is dirty	(3) Clean or replace filter at air passage
	(4) Pigment dispersion of paint is bad	(4) Review solvent or filter paint well
6. Orange peel (dapple, pockmark) is created	(1) Temperature is high in coating booth or evaporation rate of solvent is high	(1) Adjust temperature or replace with solvent whose evaporation rate is low
	(2) Temperature of product to be coated is too high	(2) To lower temperature of product to be coated, adjust drying furnace
	(3) Supply and exhaust rate is too high	(3) Adjust to 0.5-1.0 m/sec on product surface to be coated
7. Cissing occurs	(1) Cleaning of product to be coated is insufficient	(1) Clean or defat sufficiently
	(2) Air is dirty	(2) Clean or replace filter at air passage
	(3) Exhaust of baking furnace is inappropriate	(3) Exhaust air sufficiently

Problematic phenomenon	Cause	Countermeasure
8. Paint trickles down on coated surface	(1) Coating film is too thick	(1) Decrease paint discharge rate or increase operation speed of hand gun
	(2) Viscosity of paint is too low	(2) Increase paint viscosity
	(3) Evaporation rate of solvent is low	(3) Replace with solvent whose evaporation rate is high
9. Coating film is translucent	(1) Paint discharge rate is low	(1) Adjust paint discharge rate and consider operation speed of hand gun and recoating
	(2) Viscosity of paint is too low	(2) Increase viscosity
10. Pin holes (small holes) are created	(1) Air is dirty	(1) Clean or replace filter at air passage
	(2) Evaporation rate of solvent is too high	(2) Replace with solvent whose evaporation rate is low
	(3) Temperature of product to be coated is high	(3) Lower temperature
	(4) Drying of undercoating is insufficient	(4) Dry sufficiently
	(5) Setting time is short	(5) Take sufficient setting time
11. Whitening occurs	(1) Temperature and humidity are high inside/outside coating booth	(1) Replace with solvent whose evaporation rate is low or check air conditioner
	(2) Selection of solvent is inappropriate	(2) Please consult us or paint/solvent manufacturer
12. Foaming occurs	(1) Air is dirty	(1) Clean or replace filter at air passage
	(2) Drying after wet rubbing is insufficient	(2) Dry sufficiently
	(3) Coating film is too thick	(3) Set paint discharge rate to rather low
	(4) Evaporation rate of solvent is too high	(4) Replace with solvent whose evaporation rate is low
	(5) Temperature of baking furnace is too high	(5) Adjust temperature to appropriate value
13. Pattern shape is not good.	(1) Paint and dirt are attached to atomizing air and paint spray hole of nozzle tip	(1) Clean well with thinner and bamboo brush and filter paint
	(2) The paint viscosity is high.	(2) Decrease paint viscosity.
	(3) The nozzle tip is worn down.	(3) Replace the nozzle tip.
	(4) The pattern isn't adjusted sufficiently.	(4) Adjust wrap air pressure.
	(5) The air cap is deformed and clogged.	(5) Wash or replace the air cap.
14. Spray pattern width does not adjust much	(1) The paint pressure is too high.	(1) Decrease the paint pressure.
	(2) The wrap air pressure is too low.	(2) Increase the wrap air pressure.

7 Troubleshooting

Sometimes 2 or more troubles occur simultaneously depending on the situation.

Problematic phenomenon	Cause	Countermeasure
1. The paint flow is unstable and paint supply is breaking during operation.	(1) The air is mixed in paint.	(1) Check the paint supply system.
2. The paint flow rate is low.	(1) Error in paint conveying system.	(1) Check the paint supply system such as paint pump and paint regulator.
	(2) Paint seat parts is clogged with lump of paint and dirt.	(2) Wash the gun sufficiently.
	(3) The paint or dust is in nozzle tip.	(3) Remove nozzle tip and wash that.
3. The paint is leaked from seat ASSY.	(1) Paint seat parts is clogged with lump of paint and dirt.	(1) Wash the gun sufficient.
	(2) The paint seat part is worn down or broken.	(2)(3) Please contact us.
	(3) The spring of paint shaft axis is broken.	
	(4) The paint conveying pressure is too high.	(4) Raise the conveying voltage.
4. The paint is leaked from seal part.	(1) The V packing is worn down.	(1) Please contact us.
	(2) The V packing isn't tightened sufficiently.	(2) Retighten packing adjuster.
5. Nozzle is heavily clogged.	(1) The mesh of gun filter and material filter is too large.	(1) Select suitable filter mesh for the nozzle.
	(2) The gun isn't washed sufficiently.	(2) Wash the gun. Especially in the case that you use two-component paint, wash with special thinner sufficiently.

⚠ CAUTION

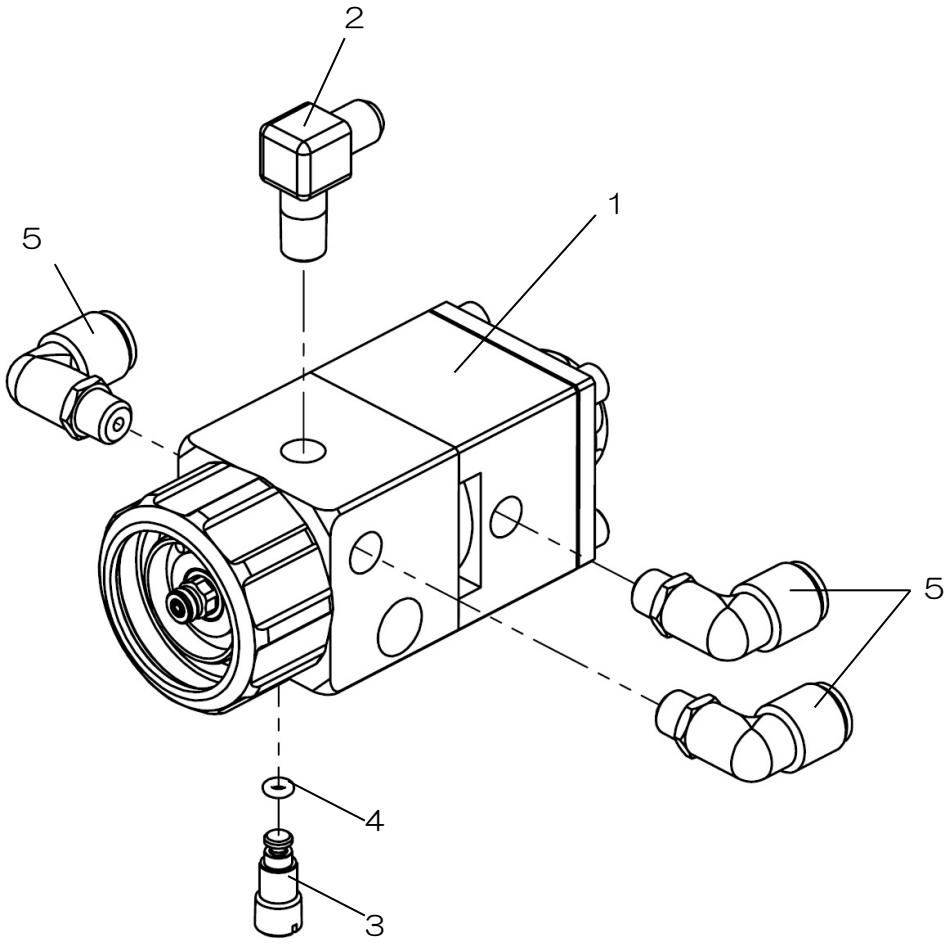
If you have some troubles, please contact us.

8 Components

8.1 AGA10

AGA10

1844

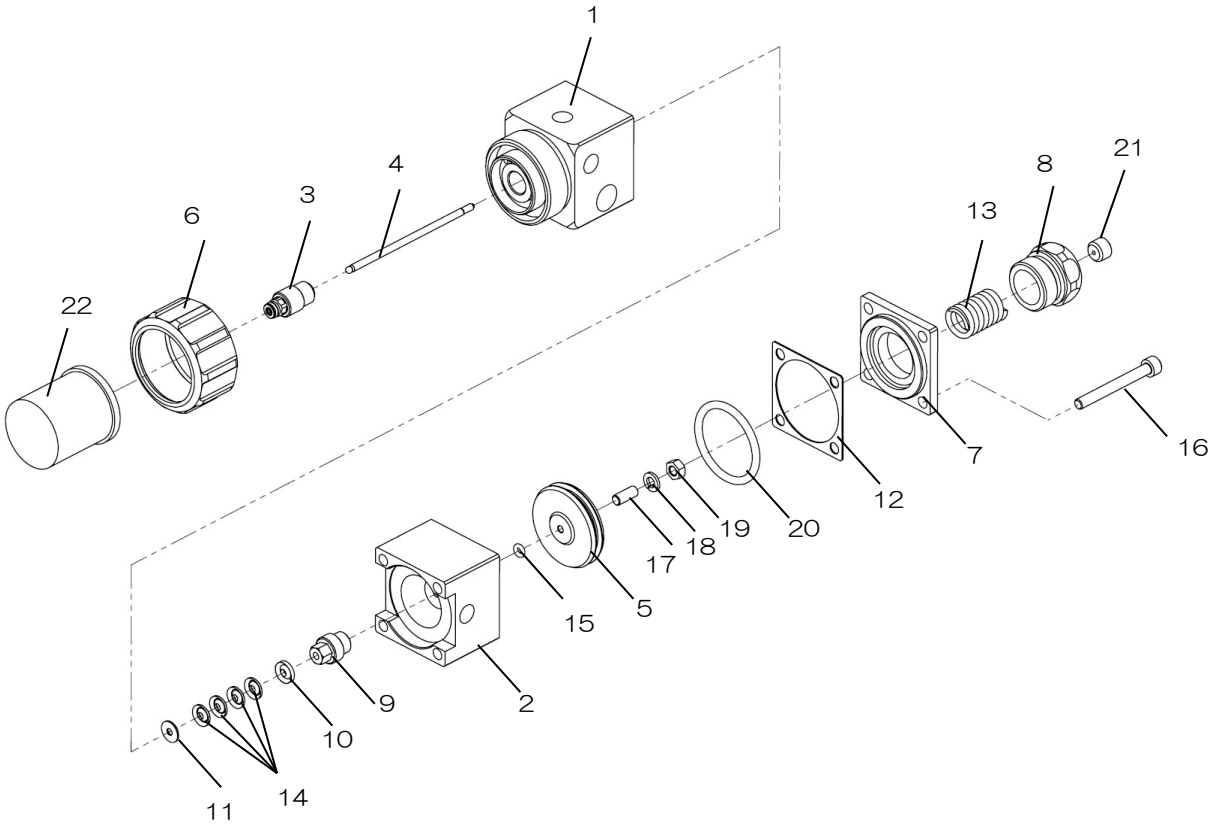


No.	Parts No.	Part name	Qty'	Remarks
1	1757	Core unit (AGA10)	1	
2	295-4101	L type nipple	2	Included 1 pc for circulation
3	1844-004	Plug	1	
4	101-9003	O ring	1	
5	384-0801	Quick joint	3	

8.2 Core Unit (AGA10)

Core Unit (AGA10)

1757



No.	Parts No.	Part name	Qty'	Remarks
1	1757-001	Body	1	
2	1381-002	Cylinder	1	
※3	1757-003	Seat ASSY	1	
※4	133F-020	Long needle	1	
5	1381-005	Piston	1	
6	1750-016	Retaining nut	1	
7	1381-006	End plate	1	
8	1381-007	End cap	1	
9	1381-009	Packing adjuster	1	
10	1203-224	Packing retainer	1	
11	1203-225	Packing retainer	1	

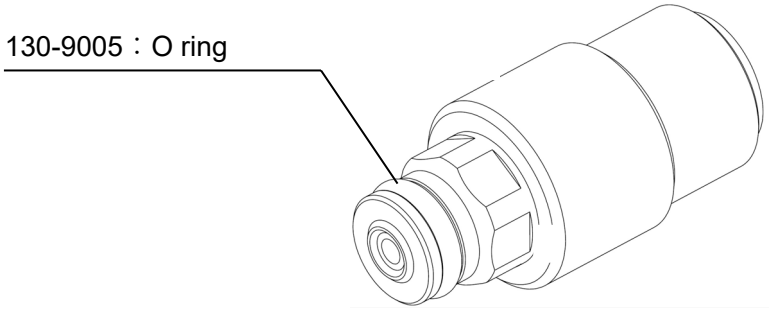
No.	Parts No.	Part name	Qty'	Remarks
12	1381-013	Gasket	1	
13	1757-014	Spring	1	
14	V850320105	V packing	4	
15	101-6003	O ring	1	
16	03-80545	Hex socket bolt	4	
17	83-70512	Hex socket screw	1	
18	41-80500	Spring washer	1	
19	15-10500	Hex nut	1	
20	101-6034	O ring	1	
21	1381-030	Leak plug	1	
22	12A1-099	Nozzle cover	1	

※Seat ASSY (3) and Long needle (4) are consumables, so it is recommended to replace them at the same time.

8.3 Constitution ASSY

Seat ASSY

1757-003



9 Maintenance Log

Shown below is a maintenance log format of a kind we recommend you to keep. Each time that you conduct a maintenance service, such as replacement of a part, tear-down cleaning, post-failure repair, etc., record the details. In the long run, you will find that such a log is very valuable in keeping your equipment in a consistently good operating condition.

Equipment name			Air Wrap Auto Gun 〈AGA10〉		Date of acquisition: YYYY/MM/DD	
Date of service			Portion worked on	Description	Portion worked on	Description
						In-house / Agency / Asahi Sunac
						In-house / Agency / Asahi Sunac
						In-house / Agency / Asahi Sunac
						In-house / Agency / Asahi Sunac
						In-house / Agency / Asahi Sunac
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						In-house / Agency / Asahi Sunac
						In-house / Agency / Asahi Sunac

Note: Because of possible modifications, such as improvements, changes may be made without advance warning, to both the configuration and the specifications of this equipment.

10 Warranty

ASAHI SUNAC CORPORATION (the “Company”) shall provide the original purchaser (the “Purchaser”) with warranty service for a period of 6months from the date of purchase of the product, as follows:

- Should you find defects in design or workmanship with regard to parts, ship them back to the Company, with freight prepaid. The Company shall repair or replace the parts free of charge and reimburse the freight charges, provided that, as a result of an inspection and investigation of the parts conducted by the Company, the defects are deemed to be to attributable to the factors within the Company’s responsibility.

- In the following cases, free after-sales service is not provided.

  1. Failure resulting from an inappropriate method of installing this equipment.
  2. Failure resulting from a use method not conforming to this instruction manual or mishandling.
  3. Failure resulting from insufficient maintenance management of this equipment and incorrect handling such as non-conformance to the procedures specified in this instruction manual.
  4. Failure resulting from unauthorized alteration or structure change of this equipment without the Company’s consent.
  5. Failure due to force majeure such as earthquake, disaster, flood disaster or lightening.
  6. Warranty for consumables worn or deteriorated even in the case where this equipment is used correctly.
  7. Repair after the machine has been used outside Japan, and shipping cost.
  8. In addition to the above, failure due to circumstances beyond our control.

- As for items such as parts purchased by the Company from another manufacturer, the warranty of that manufacturer shall apply.

- As for any parts deemed to be defective, the Company shall not be held liable for any expenses beyond the provision of repair or replacement parts free of charge.

- The Company shall not be held liable for any damage to the Purchaser caused by factors not attributable to the Company, such as misuse of product, etc.

●When the transfer of title takes place with regard to the equipment, please make sure that this manual is handed over to the new owner of the equipment.

●This equipment is built in accordance with the Japanese safety regulations. When it is to be used outside Japan, modifications may be necessary to be in compliance with the safety regulations of the country in which it will be used.

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