

# Operation and Maintenance Manual

## Flow Gun

# FMG III



FMG III Specifications	
Structure	Needle type
Paint fluid pressure	0 ~ 25MPa
Weight	400 g



This manual contains important information on warnings and cautions. Read the manual thoroughly before starting to operate the equipment, and follow the instructions. Always keep the manual handy until such time as the gun 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.

Thank you very much for buying our product.

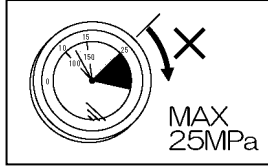
Please read the manual carefully before you use this equipment.

Operate the equipment properly and safely following the warnings, precautions and other instructions in the manual: by doing so you will get the most out of the equipment for years to come.

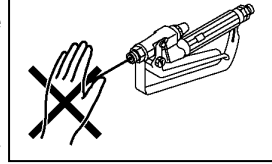
## **WARNING**

**Stay clear of the trajectory of spray jet from the gun nozzle: serious injury may result if high-pressure fluid splashes onto your body or your staff.**

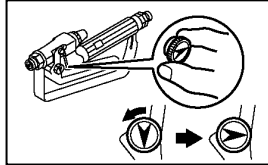
- ⊙ Use the gun with fluid at 25MPa or below.



- ⊙ Don't point the gun at anyone or at any part of your own body. Don't put your hand or fingers, or anything else over the nozzle.



- ⊙ Lock the safety trigger:
  - When you stop spraying.
  - When you mount or remove the nozzle.



**If a high-pressure fluid splashes on your skin or into the eyes, go immediately to a specialist and tell him/her exactly what type of paint fluid you were using in order to obtain proper medical treatment.**

- ⊙ Don't remove or take apart the nozzle or hose – until after you relieve the pressure.
- ⊙ When you conduct a painting operation: Always use a mask for breathing protection so that you do not inhale toxic gas from organic solvents. Always wear safety glasses to protect your eyes from exposure to toxic gas and from splashes of fluid.
- ⊙ To prevent hazards associated with static electricity, ground all the pumps, painting objects, painting equipment and components that are used in the area. Failure to do so may result in electric shock or fire due to sparks that are triggered by static electricity that is generated as paint fluid flows through.

### **<<Pressure Relief Procedures>>**

- ① Lock the trigger.
- ② Shut off the air source to the painting equipment (or power source/engine), shutting down the pump.
- ③ Unlock the trigger, and then pull it so as to bring the fluid pressure down.
- ④ Relieve the drain valve, bring the system pressure down to zero, and then pull the trigger one more time.
- ⑤ Lock the trigger.

## **Setting Up for Operations**

- ① Ensure that the gun grip is tightened enough. If not, first tighten it by hand and then securely tighten with a spanner.
- ② Securely connect the paint hose to the spray gun and set fluid pressure to 2~3 MPa.
- ③ Shoot some fluid into an empty can without the nozzle on. Once it's done, put the safety-lock on.
- ④ Put on a nozzle that's just right for the application. Don't forget to put the retaining nut on the gun and securely tighten.
- ⑤ Unlock the safety-lock. Conduct trial painting by carefully observing the way painting is performed. Adjust the fluid pressure and seek to find the minimum level that will render quality performance. Once you find it, set the fluid pressure.

## **CAUTION**

- Before you mix paint materials, please carefully read the instructions and precautions with regard to the paints and solvents.
- Always keep the nozzle clean. Once work is done, ensure that you put the safety-lock on.
- Never dip the gun into paint thinner bath: gun lubricant gets diluted and packing deteriorated.
- Use a metal-braided paint hose or one with an embedded grounding wire.

## **CAUTION**

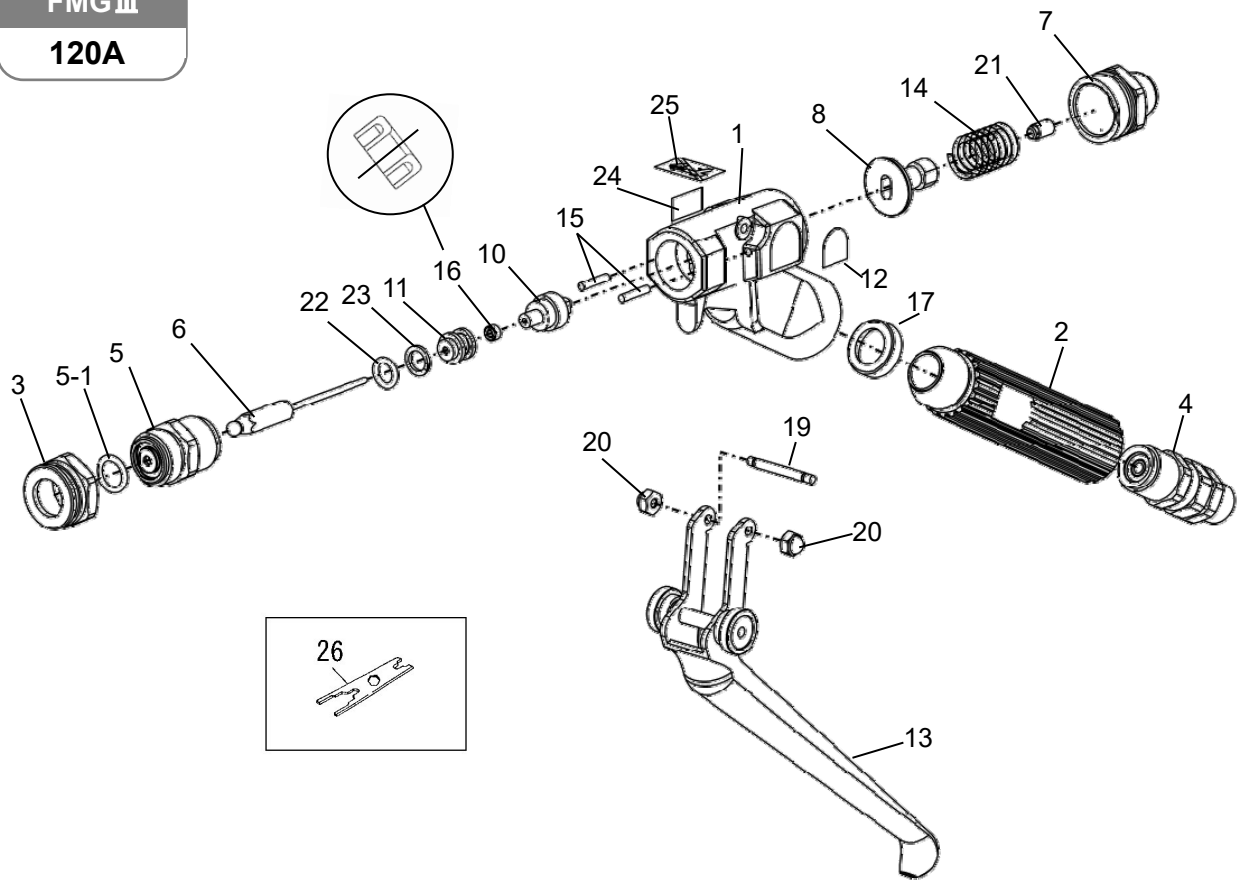
### **Maintenance Precautions**

- Before you get down to maintenance work, remove the residual fluid pressure and bring it down to 0Mpa.
- For the direction in which the U-packing (16) should be mounted, see "PARTS" on the next page where the correct direction is shown in a circled area.
- Turning the pusher (8) loosens the packing holder (10), allowing the needle to come off the rear end.
- When you replace the U-packing (16) and the needle (6), be careful not to tighten the setting screw (21) for the pusher (8) too much.

# Exploded Diagram and Names of Parts

FMG III

120A



## Flow Gun, Model FMG III

No.	Part No.	Part Name	Qty	Remarks
1	120A-001	Body	1	
2	1294-002	Grip	1	
3	1294-004	Retaining nut	1	
※4	2933	Universal joint	1set	
※5	1294-005	Seat housing	1set	
※5-1	101-2009	O-ring	1	
※6	1294-006	Needle	1	
7	1298-007	End cap	1	
8	1294-008	Pusher	1	
9	Nil	—	—	
10	1294-010	Packing retainer	1	
11	1294-011	Packing case	1	
12	120A-012	Name plate	1	

No.	Part No.	Part Name	Qty	Remarks
13	120A-013	Trigger set	1set	
14	1294-014	Spring	1	
15	1294-015	Pusher pin	2	
※16	1294-016	U-Packing	1	
※17	1245-018	Packing	1	
18	Nil	—	—	
19	1294-022	Trigger pin	1	
20	28-10300	Hex. cap nut	2	
21	1294-025	Set screw	1	
※22	101-6007	O-ring	1	
※23	153-2007	Backup ring	1	
24	5241-009	Max. pressure label	1	
25	5241-002	Caution plate: Spraying paint	1	

## ■ Accessory tool

No.	Part No.	Part Name	Qty	Remarks
26	3511-201	Special wrench (accessory tool)	1	

Items marked with ※ are those which we recommend you to carry in stock.

- When ordering, identify the part number (don't confuse with the index number on the parts list) and part name as well as the model number of the gun for which the part is to be used.

**CAUTION: The specifications of the equipment are subject to change without prior notice.**

# Troubleshooting

\* Numbers in parentheses ( ) are identification number used in the exploded diagram.

Symptom	Cause	Remedy
<b>Fluid will not flow</b>	• No fluid feed	• Inspect painting equipment, fluid passages (hoses and joints).
	• Clogged nozzle	• Remove clogging by air-blow.
<b>Inconsistent spray pattern</b>	• Clogged nozzle	• Remove clogging by air-blow.
<b>Fluid leakage</b>	• Loose packing holder (10)	• Retighten.
	• Worn U-packing (16)	• Replace perishable parts.
	• Broken O-ring (5-1)/(22), backup ring (23)	• Replace perishable parts.
	• Worn needle (6)	• Replace needle.
	• Worn packing (17)	• Replace packing.
	• Leak from universal joint (4)	• Replace universal joint.
<b>Fluid does not shut off but keeps dripping</b>	• Needle (6) is sticking.	• Take apart and clean. Also replace packing.
	• Pusher pin (15) is sticking.	• Take apart and clean. Also replace packing.
	• Foreign materials sticking between needle (6) and seat housing (5)	• Take apart and clean.
	• Wear on or damage to contacting surfaces between needle (6) and seat housing (5)	• Replace needle and seat.

- When a transfer of title of this equipment takes place, please ensure that this Operation and Maintenance Manual is handed over to the new owner.
- This equipment is manufactured in compliance with the Laws and Regulations of Japan. In the rare eventuality of this equipment being used outside Japan, compliance with the safety standards of the relevant countries is of course mandatory.

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