

Instruction Manual
for
MOMOJet Series Self-Cleaning Flat Spray Nozzles

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Preface

Thank you for purchasing the Spray Nozzle from H. Ikeuchi & Co., Ltd.

This manual gives detailed instructions for the basic handling, maintenance and cautions of the product.

Please be aware that due to continuing efforts to improve our products, some details in this manual may differ from the actual product.

After reading, keep this manual handy for quick reference.

Safety Precautions

Prior to use, read this manual carefully and familiarize yourself with the proper operation of the product for optimal performance.

H. Ikeuchi & Co., Ltd. takes no responsibility for any accidents and/or injuries resulting from improper handling, installation and/or operation.



Wear safety gloves.

Screw threads, edges and corners may be sharp and could cause injury.



Ensure that the nozzle is firmly installed.

Loose screws may cause the nozzle to come off during operation and lead to serious accidents.

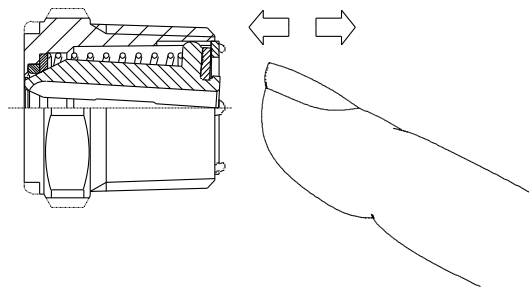


Be aware of the nozzle temperature and do not perform

maintenance until it has cooled down enough to avoid burns.

1. Suggestions & Cautions

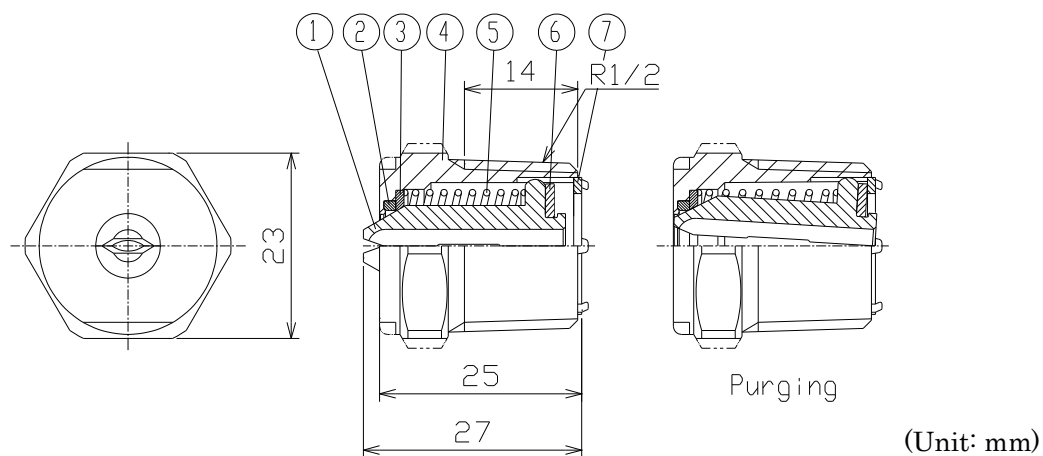
- (1) When disassembling a nozzle, be sure to read this manual thoroughly prior to doing so, in order to ensure proper disassembly and reassembly.
- (2) Be careful when handling and storing nozzles to avoid damaging or scratching the sealing and sliding surfaces. If dirt or damage is found, clean them immediately or replace them with new ones.
- (3) When a nozzle is stored for an extended period of time, the sliding part might not move easily because the packing has stuck to the nozzle body. Before installing them for the first use, carefully press the nozzle tip from the threaded side with your finger a few times to ensure proper movement.



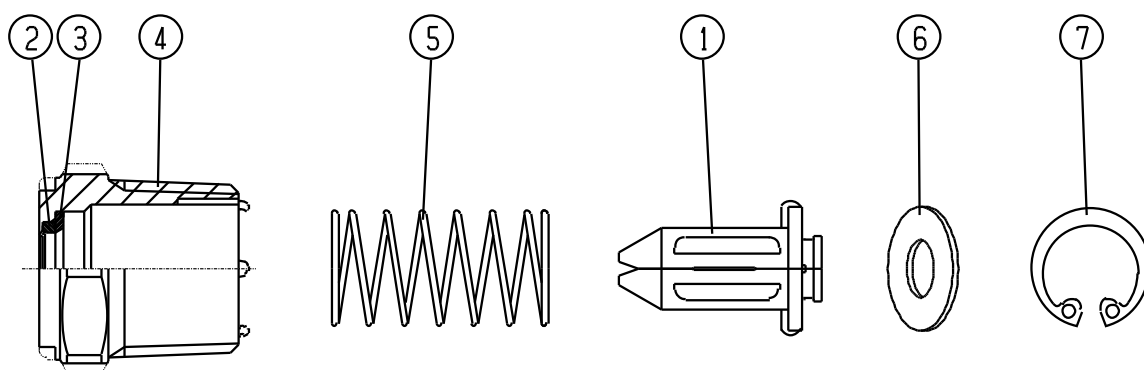
- (4) Each MOMOJet nozzle includes a pair of nozzle tips. Always keep each pair together when storing or assembling. DO NOT mix and match nozzle tips between nozzles, it can cause problems.
- (5) Take special care when handling sliding parts. Do not apply any strong force, shock or vibration to the nozzle. These can affect the nozzle performance and void the performance guarantee.
- (6) Since the MOMOJet series include EPDM packing, avoid the use in an environment with temperatures of 100°C and above as well as the use of chemicals or high temperature liquids that can corrode or harm EPDM.
- (7) When the liquid pressure (spray pressure) is reduced to 0.03 MPa or lower, the nozzle tip retracts and purges any foreign particles that clog the nozzle. Increasing the spray pressure to 0.2 MPa or higher resumes normal spraying.
- (8) Make sure to select an appropriate pump. To start spraying, a flow rate of about 9 L/min at 0.02–0.03 MPa is required.
When purging, the nozzle tip of the MOMOJet opens wide and the spray flow rate increases. This should also be taken into consideration when selecting a pump.
- (9) MOMOJet is designed to start spraying when the pressure is greater than 0.1 MPa. Use MOMOJet at a pressure of 0.2 MPa or higher.

2. Components of Nozzle

(1) Nozzle Assembly



(2) Parts and Materials



Part No.	Component	Material	Remark
1	Nozzle Tip	S316L equivalent	Consumable
2	Packing A	EPDM	
3	Plate	S303	
4	Nozzle Body	S316L equivalent	
5	Spring	S316	
6	Packing B	EPDM	Consumable
7	Retaining Ring	S304	

Note:

(1) Consumables

The lifetime of a nozzle varies, depending on the operational conditions.
Replace consumable parts when nozzle performance significantly deteriorates due to wear and tear on the parts.

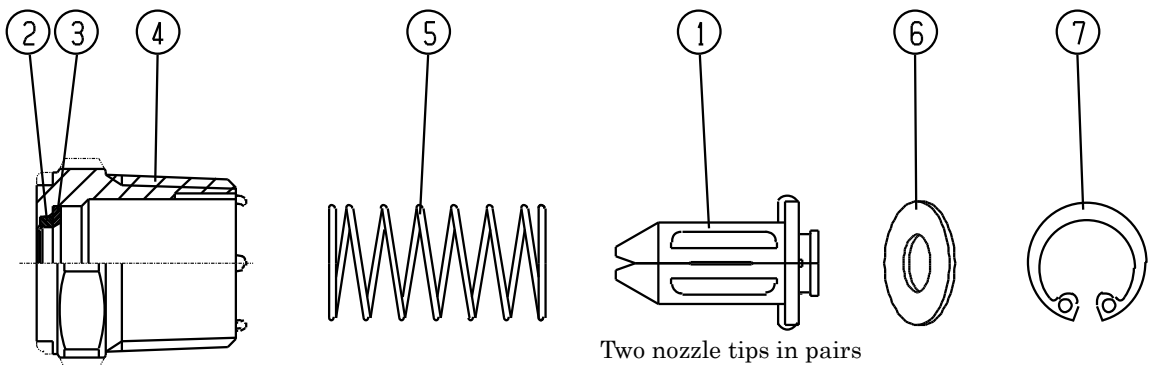
(2) Dimensions and materials may differ depending on product codes

(3) In the material code, "S" represents "stainless steel".

For example, S303 stands for stainless steel 303.

3. Assembly (after disassembling for maintenance)

- (1) MOMOJet series nozzle consists of 7 components. Parts #2-#4 do not come apart, making it 5 individual parts total. Make sure that all parts are present.
- (2) Line up the parts as shown below. First, slip packing (#6) on the end of the nozzle tips (#1). Now insert the spring (#5) into the main body (#2-#4) and then insert the already assembled nozzle tips (#1) with the packing (#6) as shown in the table below. Use nippers to press the retaining ring (#7) together to fit it behind the packing (#6) and within the hold of the protrusions.



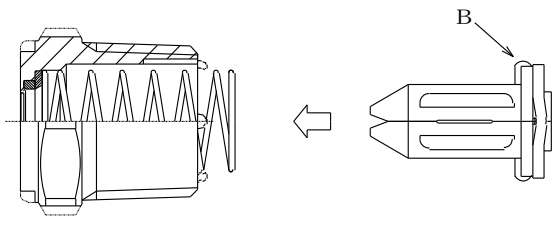
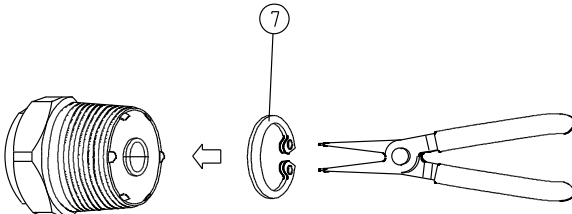
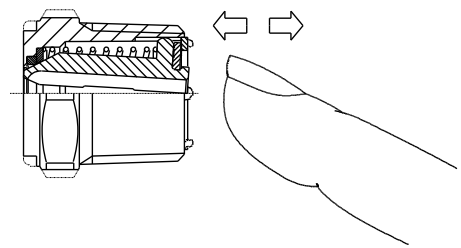
Necessary tools: Nippers for ring

Note:

Make sure to use dedicated tools to detach/attach the retaining ring (#7).

Do not apply excessive force. Doing so forcefully may break the protrusions (guide for the retaining ring) on the nozzle body.

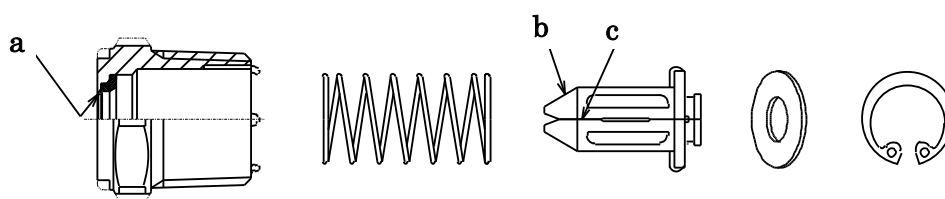
No.	Diagram	Procedure	Precaution
1		Put a pair of nozzle tips (#1) together and slip the packing (#6) in place in the provided groove.	Fit the packing securely around the ends.
2		Insert the spring (#5) into the main body (#2-#4) until it reaches the plate (#3). (For smooth insertion, insert the spring while turning it to the left.)	Be careful not to injure yourself by the protrusions A on the nozzle body.

No.	Diagram	Procedure	Precaution
3		Insert the assembled nozzle tips (#1+#6) into the nozzle body. Align the slot inside the body and protrusions B of the nozzle tips when inserting.	<ul style="list-style-type: none"> • Hold the parts securely in your hands to do this so the nozzle tips will not spring out of the body. • Do not push the ring in too far. If it is set too deep, the self-cleaning mechanism does not work.
4		Use nippers to fit the retaining ring (#7) into the protrusions of the nozzle body.	
5		Use your finger tips to press the nozzle tips (#1) in a few times to test the movement.	If the nozzle tips do not move correctly, disassemble the nozzle, clean it (see 5. Maintenance below), and reassemble.

4. Disassembly

Disassemble in the reverse order of 3. Assembly.

5. Maintenance



(1) Clogging

- Check the nozzle orifice and flow channel for any blockage. Metal shavings, seal tape and/or deposited materials may block/clog the orifice and flow.
- Remove any dirt and debris with a brush or cloth, and using high-pressure water and/or chemicals for cleaning. DO NOT use chemicals that may damage the nozzle materials.

Note: Take special care not to scratch or damage the orifice and sealing surfaces, indicated with a, b and c, during maintenance.

(2) Appearance

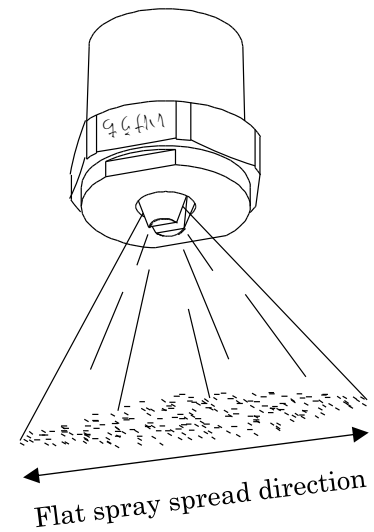
- Visually check the condition of each component.
- Make sure that the sealing surfaces a, b, and c are clean and undamaged. If damaged, replace them with new parts, otherwise this could result in water leaks or malfunction.

6. Installation

The MOMOJet series sprays parallel to the milling surface engraved with "いけうち" on the nozzle tip.

When connecting to a pipe, this can be used as an installation guide for the spray direction.

Appropriate tightening torque: 40 N·m



7. Troubleshooting

Troubles	Probable causes		Solutions
No spray is being created	Control	<ul style="list-style-type: none"> • Controller is not switched on. • Valves are not opened. 	<ul style="list-style-type: none"> • Switch it on. • Open the valves.
	Nozzle	<ul style="list-style-type: none"> • Nozzle or pipe is clogged (If sealing tape or debris larger than 3 mm become entangled, clogging can occur.) • Nozzle or pipe is clogged due to damage. 	<ul style="list-style-type: none"> • Check and clean the nozzle and pipe. • Replace the damaged part.
Liquid leaks	<ul style="list-style-type: none"> • Some parts are loose or not tightened. 		<ul style="list-style-type: none"> • Tighten the connections.
	<ul style="list-style-type: none"> • Sealing parts are scratched or damaged. • Nozzle or pipe is cracked. • Nozzle or pipe is corroded. 		<ul style="list-style-type: none"> • Replace scratched/damaged parts. Note: Follow the instructions and cautions on this manual. • Replace the cracked part. • Replace the corroded part.
Irregular spray pattern	<ul style="list-style-type: none"> • Nozzle or pipe is clogged. • Malfunction (Debris of 3 mm or larger and/or accumulation of dirt/foreign particles may cause irregular spray pattern) 		<ul style="list-style-type: none"> • Check and clean the nozzle and pipe. • Remove foreign particles on the sliding parts. Check sliding surfaces for any damage. Replace the damaged part.
Nozzle tip does not open/close	<ul style="list-style-type: none"> • Inside of the nozzle body is distorted/damaged by over-tightening with a torque of 60 N·m or more. 		<ul style="list-style-type: none"> • Replace the damaged part.

8. Disposal

Disposal should be practiced according to the regulations and codes of local authorities, or ask a disposal professional.

9. Inquiries

For spare parts or any trouble, contact your supplier or the following:

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