

TACMINA

Anti-siphonal Check Valve

SC1

OPERATION MANUAL

- Thank you for purchasing this Tacmina product. Please read through the following instructions carefully to ensure that you will use your product safely.

⚠ CAUTION

- When working on the liquid-end parts, wear protective gear suited to the chemical concerned (such as rubber gloves, a mask, protective goggles and work overalls that are resistant to chemicals).
- The nozzle anti-clogging function of the check cap of this product is not perfect. Be sure to periodically inspect and clean the nozzle.
- Structurally, a dead space exists in ball valves. Vaporizable liquids such as hydrogen peroxide water (H_2O_2) and hypochlorous acid soda ($NaClO$) may vaporize within this dead space, leading to an abnormal increase in pressure within the valve. This abnormal increase in pressure causes vaporization, resulting in pressurized gas that may explode if the valve is damaged, which can cause shards to go flying, resulting in an extremely hazardous situation. When handling vaporizable liquids, do not leave the valve closed for long periods of time. If leaving the valve closed for a long period of time, drain all the remaining liquid from the valve.

IMPORTANT

- When the product has a check cap, do not use the product without the black check cap on the tip of the nozzle. This is an important part for preventing the adherence of crystals.

Operating conditions

⚠ CAUTION

- Do not use the product outside the following usage ranges. Doing so may cause malfunctions.

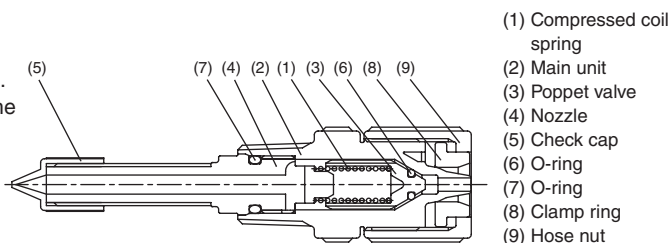
Ambient temperature	0 to 40°C
Transfer liquid temperature	0 to 40°C (No freezing)

■ Product description

- This anti-siphonal check valve prevents overfeed and siphonal phenomena, and also has a check valve function that prevents liquid from spurting out of the main pipe.

■ Structure

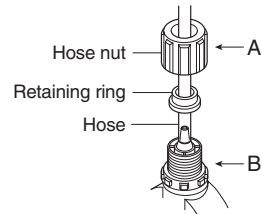
The figure shows a model with a check cap. Contact TACMINA for the conditions.



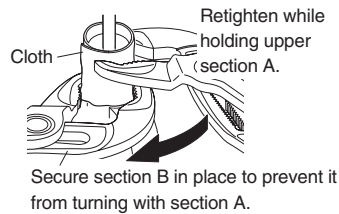
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■ Mounting method

- (1) Insert the hose fully to prevent it from falling out.



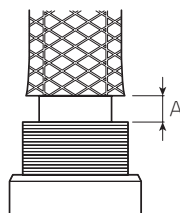
- (2) Fully tighten the hose nut by hand.
 (3) Wrap the nut with a cloth to prevent damage.
 (4) Use two water pump pliers to retighten one more rotation as shown in the figure below.



* After starting operation, retighten the nut as needed.

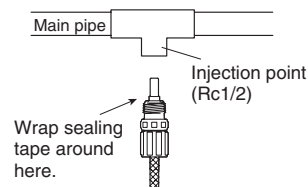
NOTE

- Connect using dimension A in the figure as a reference.
- * Applying excessive force may damage the hose.
- * Use as a reference because the dimension changes depending on the operating conditions.

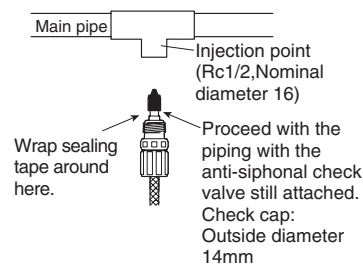


Hose type	Hose diameter	Dimension A
PVC braided hose	$\phi 4 \times \phi 9$	5.5 mm or less
	$\phi 6 \times \phi 11$	1 mm or less

- Without check cap



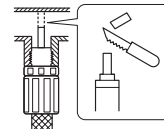
- With check cap



NOTE

- When using a PVC or PVDF anti-siphonal check valve

Install the valve so that the end of the injection nozzle is positioned at the center of the main pipe.
 If the nozzle is too long, use a saw or other tool to cut off its end, use a file or other means to finish the cut-off surface, and discard the metal scraps.

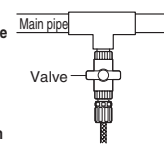


* In the case of an anti-siphonal check valve used for sodium hypochlorite, attach the shut-off cap to the body after cutting it.

- For maintenance

It is recommended that the tube be attached to the main pipe through a valve to enable the anti-siphonal check valve to be replaced or cleaned, etc.

* Use a valve made of materials which will resist any corrosion resulting from the chemical used.



■ Model codes

SC1	-	4	-	F	-	BV	-	C
(1)		(2)		(3)		(4)		(5)

(1) Series name

SC ☐	Anti-siphonal Check Valve
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(2) Inlet diameter

4	4 × 9*1
6	6 × 11

*1 4 × 6 for the SC3

(3) Materials used for liquid-end parts

E	EPDM
F	Fluoro rubber

(4) Ball valve

N/A	Without ball valve
BV	With ball valve

(5) Check cap

N/A	Without check cap
C	With check cap

■ Specifications and materials

Codes	(MPa)	Material		
		Main unit	O-ring	Check cap
SC1- ☐ E	0.15	PVC	EPDM	-
SC1- ☐ F			Fluoro rubber	-
SC1- ☐ F- ☐ C				Special fluoro rubber

■ Troubleshooting

Description of trouble	Causes	Remedial Action
Liquid is discharged at less than the set pressure. The check function does not work.	- Dirt is clogging the seals. - The poppet valve seal is defective. - The compressed coil spring is damaged or fatigued.	Disassemble and clean. Replace the O-rings. Replace the compressed coil spring.
The pressure rises above the set pressure. No liquid is discharged.	- A valve downstream from the discharge port is closed. - The piping downstream from the discharge port is blocked or clogged. - The discharge port or check cap are blocked.	Open the valve. Clean the pipe. Disassemble and clean.

■ Spare parts

- Check cap
- O-ring

Product designs and specifications are subject to change without notice for product improvement.

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