CVC3

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The MIYAWAKI CVC3 check valve is an all stainless steel check valve. Please use it to prevent the backflow of steam, water or hot water in a line. In order to get maximum benefit from this product, be sure to read this manual before installing it.

MIYAWAKI INC.

The following warnings and cautions are shown at appropriate places in this manual.

WARNING	Failure to observe this type of precaution may lead to serious injury or death.
CAUTION	Failure to follow this type of precaution can lead to injury or damage to equipment and property.

1 Specifications and markings

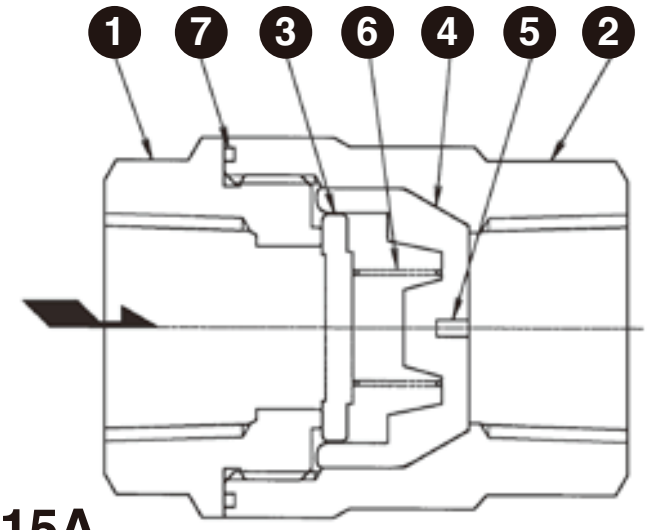
WARNING	Be sure not to use this product at higher pressures than the specified maximum allowable pressure (PMA) or at temperatures higher than the specified maximum allowable temperature (TMA).

The following items are displayed on the nameplate or the side of the product. Check each item to avoid misuse of the product.

(1) Maximum operating pressure (PMO) : 2.1 MPa(305psig)
(2) Maximum operating temperature (TMO) : 220°C(428°F)
(3) Size : 15mm(1/2”), 20mm(3/4”), 25mm(1”), 40mm(1-1/2”), 50mm(2”)
(4) Year of production : The two leftmost digits in the seven-digits ‘S.No.’ on the nameplate are the last two digits of the year of production.
(5) Flow direction : Shown by an arrow.
(6) Body material : SCS13A

*Some pictures and illustrations in this manual are that of the representative model. For more details regarding dimensions and other specifications, please refer to the catalog.

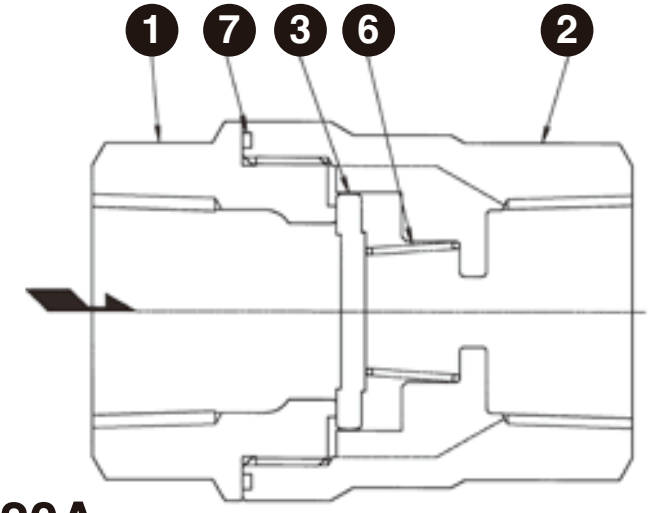
2 Construction details



15A

15A

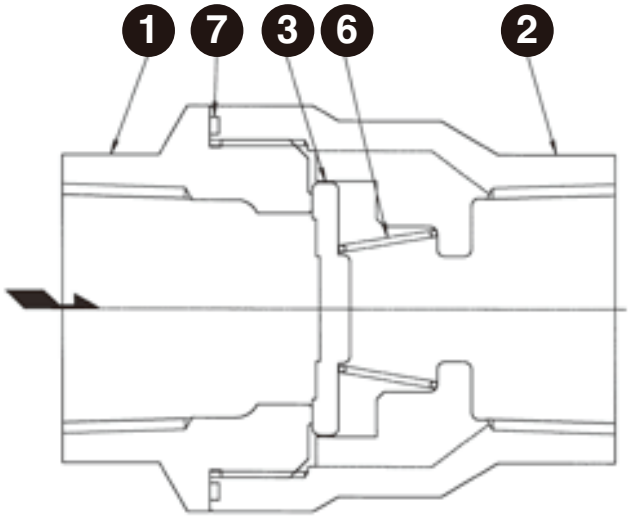
1. Body
2. Cover
3. Disc
4. Retainer A
5. Retainer B
6. Spring
7. Cover Gasket



20A

20A

1. Body
2. Cover
3. Disc
6. Spring
7. Cover Gasket



25A-50A

25A-50A

1. Body
2. Cover
3. Disc
6. Spring
7. Cover Gasket

3 Installation

WARNING	Pay very careful attention when working in hazardous environments such as this. There is a risk of explosion and the possibility of dangerous gases leaking. Always check whether the pipeline contains flammable, high pressure or high temperature materials before starting to work.

* Make sure that isolation valves are installed on both the upstream and downstream.

CAUTION	•Before installing the product, open both isolation valves and the bypass valve, if one exists, to blow out any debris or dirt inside the pipeline. •After blowing out the line, before starting to work, close the isolation valves and allow time for the temperature to drop to a safe working temperature. •Please do not use a sealing agent intended for normal temperatures on the threaded part of the pipe when you install the check valve in a pipeline. The sealing agent can stick to the valve seat and this may create a backflow. Please use only high temperature sealing tape, such as fluoroplastics (e.g. Teflon tape).

* When installing the product, be sure to leave clearance for maintaining it.

◯Remove the dustproof seals covering both connections.
◯Check the flow direction indicated on the side of the body.
◯The CVC3 can be used for both horizontal and vertical lines.
◯Open the isolation valve on the upstream line and make sure the product works normally.

4 Maintenance

CAUTION	•When replacing parts, make sure the replacement parts are supplied by Miyawaki.

○Repairs

When a trap fails, it is necessary to clean the internal parts and to replace damaged parts.

Take the failed check valve apart following the steps below.

Take apart the body.

- Secure the cover (2) in a vise and loosen the body (1).
- In the case of the size 15A,
  - •remove the disc (3), spring (6), retainer A (4), and retainer B (5), in this order
  - •remove the cover gasket (7) from the cover (2).
- In the case of other sizes 20A, 25A, 40A and 50A,
  - •remove the disc (3) and spring (6), in that order.
  - •remove the cover gasket (7) from the cover (2).

Take the appropriate measures, as described in Section 5, “Troubleshooting”. Reassemble the parts as follows, reversing the procedure used to disassemble them. Refer to the torque table to use the correct torque for each part.

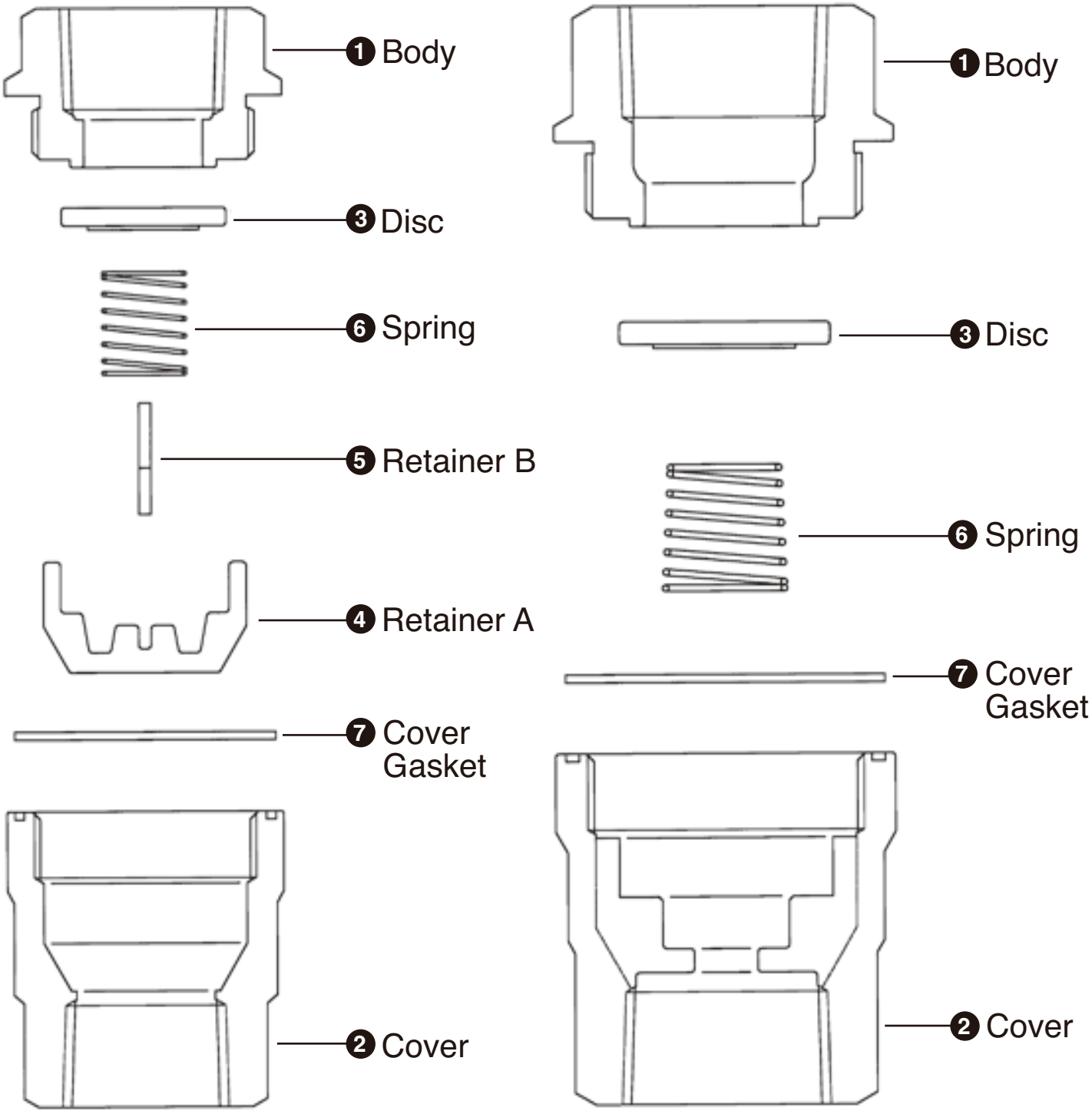
Re-assemble the body

- In the case of size 15A, put retainer B (5) into the groove in retainer A (4), and put the spring (6) into the groove in retainer A (4). Then install retainer A (4) into the bottom of the cover (2). In the case of other sizes 20A, 25A, 40A and 50A, fit the spring (6) into the groove in the cover (2).
- Place the machined surface of the disc (3) facing up, on the spring (6).
- Put the cover gasket (7) into the gasket groove in the cover (2), and then tighten the body (1) to the cover (2).

*The torque for each part is shown in the following table.

Torque table

Parts	Tools	Size	Across the flats	Torque
Body (1)	Torque wrench	15 mm (½″)	27 mm (1.06″)	150 N-m (1500kgf-cm)
		20 mm (¾″)	33 mm (1.3″)	200 N-m (2000kgf-cm)
		25 mm (1″)	41 mm (1.61″)	250 N-m (2500kgf-cm)
		40 mm (1½″)	58 mm (2.28″)	360 N-m (3600kgf-cm)
		50 mm (2″)	72 mm (2.83″)	400 N-m (4000kgf-cm)


1 Body
3 Disc
6 Spring
5 Retainer B
4 Retainer A
7 Cover Gasket
2 Cover
15A
1 Body
3 Disc
6 Spring
7 Cover Gasket
2 Cover
20A-50A

5 Troubleshooting

Problem	Possible causes	Solution
The fluid (steam, water or hot water) is flowing backward.	Foreign material such as scale or dirt is stuck between the disc (3) and the valve seat in the body (1).	Disassemble and remove the material.
	The disc (3) or the valve seat in the body (1) is damaged, worn or corroded.	Replace the disc or valve seat in the body.
	The spring (6) is damaged.	Replace the spring (6).
TThe fluid (steam, water or hot water) is leaking from the connection between the body (1) and cover (2).	The connection between the body (1) and cover (2) is loose.	Retighten the body (1) or cover (2).
	There is damage, wear or corrosion in the cover gasket (7).	Replace the cover gasket (7) with a new one.
Insufficient condensate discharged, or no condensate discharged	The disc (3) and the seat in the body (1) have become stuck to each other.	Disassemble and clean the disc (3) and seat.
	Wrong installation direction	Correct the installation direction.

Torque: Refer to the torque tables in section 4, “Maintenance” to retighten the parts with the correct torque.

●お買い上げの製品及びこの取扱説明書内容についてのご質問は下記にお問い合わせください。
また、この取扱説明書を紛失したり、汚損により読めなくなった場合は、同じく下記にご請求ください。

●For any questions about the product that you purchased or about the details in this user's manual, please contact the following.

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