

VACUUM BREAKER

CVU15

USER'S MANUAL



 **MIYAWAKI INC.**

SAFETY



WARNING

The model CVU15 is a stainless steel vacuum breaker with threaded ends.

In order to get maximum benefit from this product, be sure to read this manual thoroughly before installing the product.

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.

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1 SPECIFICATION AND MARKING

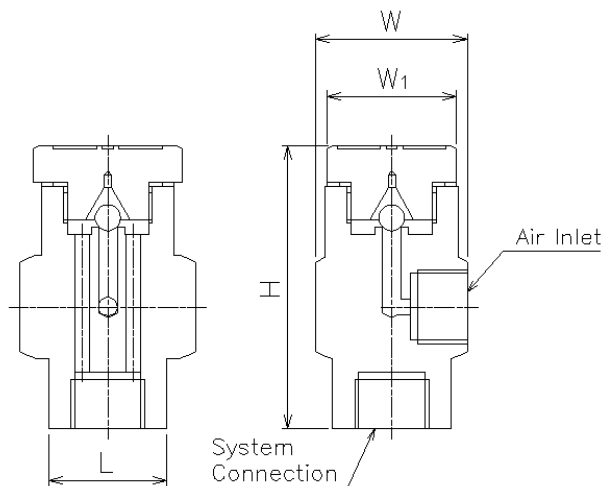


WARNING

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 name plate or the side of the product. Check each item to avoid misuse of the product.

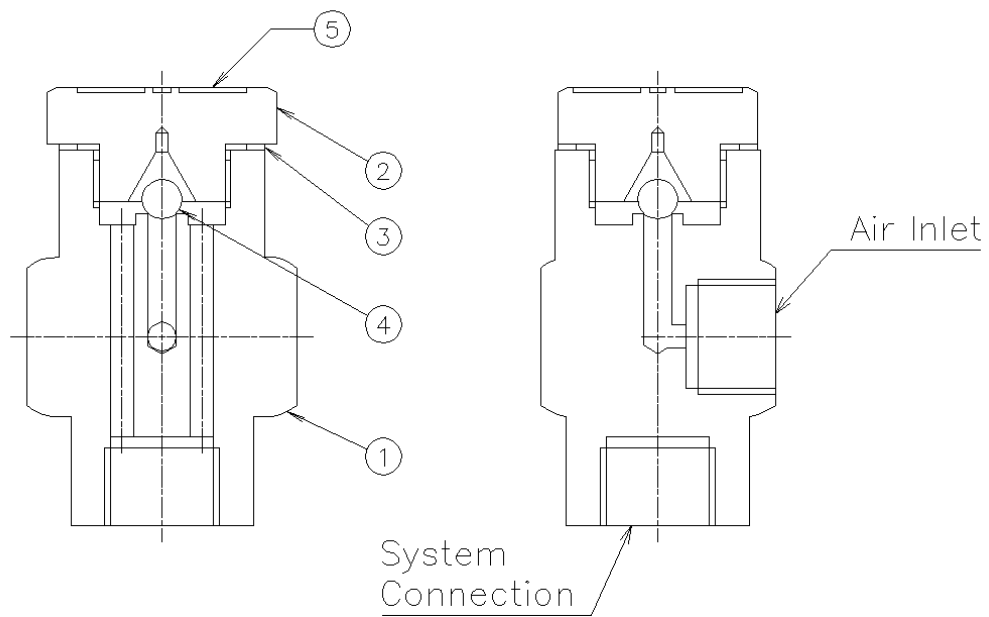
- (1) Maximum allowable pressure (PMA): 2,1 MPa (21 barg, 305 psig)
- (2) Maximum allowable temperature (TMA): 450°C (842°F)
- (3) Maximum operating pressure (PMO): 2,1 MPa (21 barg, 305 psig)
- (4) Maximum operating temperature (TMO): 450°C (842°F)
- (5) Size: ½" x ⅛" and ½" x ½"
- (6) Serial number: Showing the year and date of production
- (7) Body material: Stainless Steel AISI 304 (1.4301)



Connections		Size	PMO		TMO		Dimensions (mm)				Dimensions (in)				Weight	
System	Air inlet		MPa	psig	°C	°F	L	H	W	W ₁	L	H	W	W ₁	kg	lb
½"	⅛" and ½"	½" x ⅛"	2,1	305	450	842	32±2	55±3	41	36	1.26	2.16	1.62	1.42	0,38	0.84
		½" x ½"						70±3				2.75			0,55	1.21

Opening pressure: 0,5 kPa (5mbarg, 0.0725 psig)

2 CONSTRUCTION DETAILS



1.	Body	AISI 304
2.	Cap	AISI 304
3.	Gasket	Copper
4.	Ball	AISI 420
5.	Name Plate	AISI 304

3 INSTALLATION

WARNING

Pay very careful attention when working in hazardous environments. 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 lines.

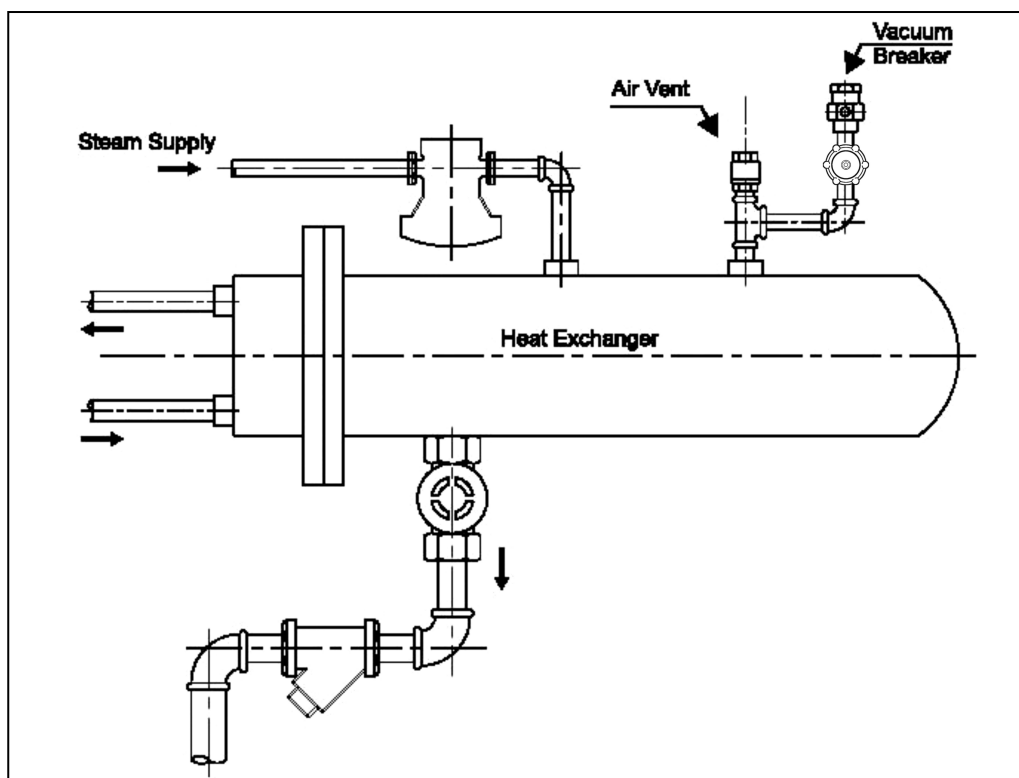
CAUTION

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 or equipment. After blowing out the line and/or the equipment, before starting to work, close the isolation valves and allow time for the temperature to drop to a safe working temperature.

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

The vacuum breaker should be installed in a vertical position with the cap and name plate at top and should be placed at the highest point in the system.

Typical installation



4 MAINTENANCE



CAUTION

- **When replacing parts, make sure the replacement parts are supplied by Miyawaki.**

After the vacuum breaker is isolated from the system, unscrew the top cap (2) with a wrench of 36mm and examine the product for any wear/tear and debris on the ball or seat, which could cause the breakage of the system pressure. Clean the parts and refit with a new gasket.

Recommended torque for tightening the cap : 12 Nm.

With the exception of possible cleaning this product is maintenance free. Vacuum breakers are not repairable on line.

5 WARRANTY

5.1 Warranty period

The warranty period is 18 months after shipment or 12 months after installation, whichever occurs first.

5.2 Details of the warranty

If the product stops working correctly within the warranty period, we will repair or replace the product free of charge if the cause of the trouble is not one of the following items.

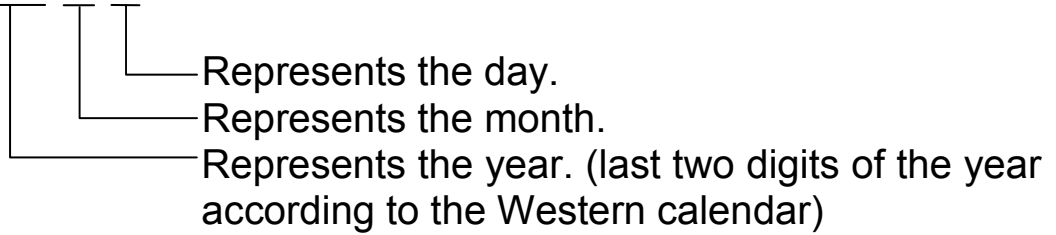
- 1) The precautions described in this manual were not observed.
- 2) User's errors or mistakes such as an inappropriate installation or incorrect handling, or an excessively large impact caused by dropping
- 3) Problems caused by devices or equipment other than ours, or a disallowed use environment
- 4) When a repair or modification has been performed by anyone other than us or people who are authorized to make such repairs
- 5) Intrusion of salt or other substances that promote significant rust or corrosion or problems from fluids that contain the same substances
- 6) Extremely worn gaskets or other parts
- 7) Attachment or accumulation of foreign matter in the pipe, such as dust and scale
- 8) Problems from fires, natural disasters, or other force majeure which is not our responsibility

5.3 Warranty limitation

The remedy available under the warranty shall not exceed the sales price of the products delivered, for any cause whatsoever.

6 SERIAL NUMBER (S.No.) DESIGNATION

S.No.



Month designation system

Symbol	Month	Symbol	Month	Symbol	Month	Symbol	Month
1	1	4	4	7	7	X	10
2	2	5	5	8	8	Y	11
3	3	6	6	9	9	Z	12

Day designation system

Symbol	Day	Symbol	Day	Symbol	Day	Symbol	Day
1	1	9	9	H	17	Q	25
2	2	A	10	J	18	R	26
3	3	B	11	K	19	S	27
4	4	C	12	L	20	T	28
5	5	D	13	M	21	U	29
6	6	E	14	N	22	V	30
7	7	F	15	O	23	W	31
8	8	G	16	P	24		

Example of serial number designation

1 7 11 → Jan 1, 2017

2 9 X M → Oct 21, 2029

7 GUIDANCE FOR READING SPECIAL PRODUCT NAME

○○○-○○-□

Special symbol:
Symbol apply only to special product
(Please refer to table 1 for details)
 English letter after “-“

Model symbol:
Product model number

Table 1 Symbol description

Suffix	Special contents
A	Trap for high-pressure gas installed property (only for Gas Trap)
C	Blow valve attached
K	Change of gasket
L	Special face to face dimension
M	Change of parts material
P, T	Change of operating pressure, temperature, condensate capacity, etc
R	Change of screen mesh
V	Change of air vent
X	Other than mentioned above or complex of special contents above

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