



# CHECK VALVE

## MODEL CK3M/CK3T/CK3R

**HIGH QUALITY DISC TYPE CHECK VALVE WITH LOW PRESSURE DROP**

### Benefits

**Compact check valve for steam, air and water services.**

1. Fine machined metal, fluorine resin or nitrile rubber valve seats provide tight closure.
2. Stainless steel internal parts and body ensure long service life.
3. No wear of valve disc or valve seat even with frequent, impulsive contact between them.
4. Performance assured with installation in either vertical or horizontal pipelines.
5. Simple construction eliminates problems.
6. Low pressure drop due to large flow area.
7. Also functions as a vacuum breaker (CK3M, CK3T only).  
See overleaf for details.



### Specifications

Model	CK3M	CK3T	CK3R
Connection	<b>Screwed</b>	Screwed	
Size (in)	<b>½, ¾, 1, 1¼, 1½, 2</b>	½, ¾, 1, 1¼, 1½, 2	
Sealing Surface*	Stainless Steel	Fluorine Resin	Nitrile Rubber
Maximum Operating Pressure (psig)	PMO 300	230	
Maximum Operating Temperature (°F)	TMO 428	365	194
Minimum Required Differential Pressure for Tight Sealing (psi)	-		7
Minimum Opening Differential Pressure** (psi)	0.3		
Maximum Allowable Pressure (psig)	PMA 300	300	
Maximum Allowable Temperature (°F)	TMA 428	428	
Applicable Fluids***	Steam	Steam, Hot Water	Air, Water

\* Perfect sealing cannot be guaranteed for metal or fluorine resin sealing surfaces. **Connections and sizes in bold are standard**

Degradation of, or debris on, rubber sealing surfaces may also prevent perfect sealing.

\*\* When the valve has remained closed for a long period of time, the valve and the valve seat may stick, increasing the necessary minimum opening differential pressure.

\*\*\* Do not use for toxic, flammable or otherwise hazardous fluids.

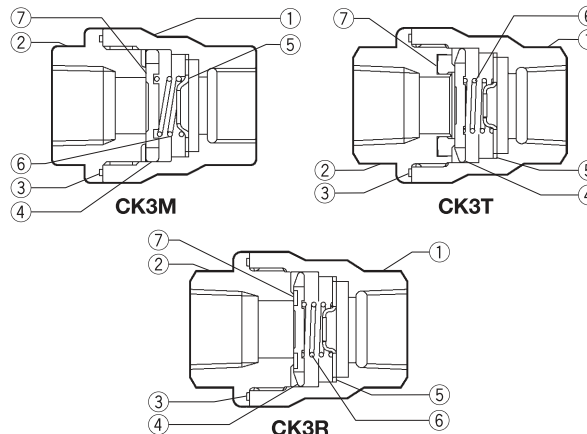


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	ASTM/AISI*	JIS
①	Valve Body	Cast Stainless Steel	A351 Gr.CF8	-
②	Inlet Union	Cast Stainless Steel	A351 Gr.CF8	-
③ <sup>MR</sup>	Union Gasket	Fluorine Resin	PTFE	PTFE
④ <sup>R</sup>	Valve Disc	½ - 1	Stainless Steel	AISI304
		1¼ - 2	Cast Stainless Steel	A351 Gr.CF8
⑤	Spring Holder	Stainless Steel	AISI304	SUS304
⑥ <sup>R</sup>	Coil Spring	Stainless Steel	AISI304	SUS304
⑦	Valve Seat	CK3M	Cast Stainless Steel	A351 Gr.CF8
		CK3T	Fluorine Resin	PTFE
		CK3R	Nitrile Rubber	D2000BF

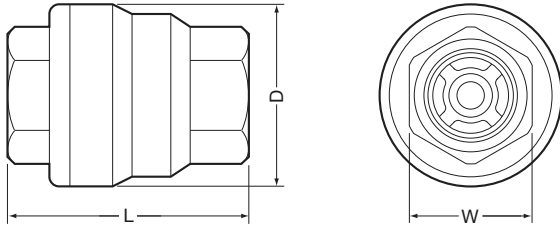
\* Equivalent

Replacement kits available: (M) maintenance parts, (R) repair parts  
When requesting replacements kits, please specify the minimum operating differential pressure.



### Dimensions

• CK3M/CK3T/CK3R Screwed



CK3M/CK3T/CK3R Screwed\* (in)

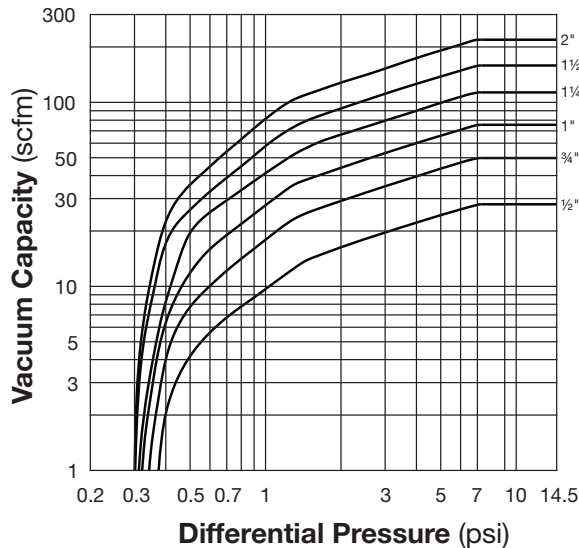
Size	L	φ D	W	Weight (lb)
1/2	2 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	0.7
3/4	2 <sup>3</sup> / <sub>8</sub>	2	1 <sup>1</sup> / <sub>4</sub>	1.1
1	2 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	1.8
1 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>16</sub>	2	2.9
1 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>	3.5
2	3 <sup>15</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>	4.9

\* NPT, other standards available

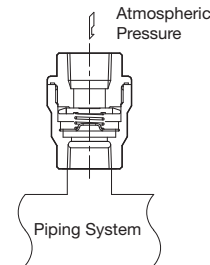
### Cv Values

Size (in)	1/2	3/4	1	1 1/4	1 1/2	2
Cv (US)	3.7	6.6	10	15	21	29
Cv (UK)	3.1	5.5	8.3	13	17	24
Kvs (DIN)	3.2	5.7	8.6	13	18	25

### Vacuum Breaker Function



1. Differential pressure is the difference between the inlet pressure of the check valve and the internal pressure of the piping system.
2. Capacities are equivalent capacities of air at 68°F and atmospheric pressure.
3. Configure the outlet piping to prevent dust penetration during suction.



**DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE.**  
 Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY.

## TLV CORPORATION

13901 South Lakes Drive, Charlotte, NC 28273-6790  
 Tel: 704-597-9070 Fax: 704-583-1610  
 E-mail: [tlv@tlvengineering.com](mailto:tlv@tlvengineering.com) <https://www.tlv.com>  
 For Technical Service 1-800 "TLV TRAP"



Manufacturer  
**TLV CO., LTD.**  
 Kakogawa, Japan  
 is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001  
 ISO 14001

