

Engineering Specification

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

Carbon Steel Unibody CHEXTER™ Check Valves API, RTJ Check Valves

Models: 1696, API Class 2000
 1697, API Class 3000
 Sizes: 2" – 4" (50 – 100mm)

Typical Services

- Recommended for use in higher temperature or pressure applications.

Features

- Compact design with short face-to-face dimensions for minimum space requirements.
- Unibody style provides full wall thickness throughout.
- Single moving part insures long, trouble-free service life.
- Seal-ring is one piece, easily replaceable in the field.
- Interchangeable parts for ease of maintenance.
- Operates fully at low pressure differential.
- Spring returns disc to fully closed position prior to reverse flow, minimizing water hammer.
- Disc is counter-weighted, utilizing gravity to additionally insure closure.
- Soft seal is located out of the flow path to reduce erosion effects.
- High Cv values due to aerodynamic disc shape and near full port opening.
 - Superior to other check valve designs, similar to Butterfly valves

Construction

- Robust unibody valve is wafer style, featuring compact face-to-face dimensions to fit in small spaces.
- Designed to fit within ANSI bolt circles.
- Metal-to-metal seats only.
- Disc rotates on the hinge pin, creating very low pivot friction, so little wear in operation.
- Can be supplied in Stainless Steel or Alloy Steel materials, consult factory.



Model 1696



Model 1696
Open

Pressure/Temperature - Non-Shock

Model	Material	Rating
1696-A	Carbon Steel	2000psi @ 100°F 138 bar @ 38°C 1430psi @ 650°F 99 bar @ 343°C
1697-A	Carbon Steel	3000psi @ 100°F 207 bar @ 38°C 2145psi @ 100°F 148 bar @ 38°C

Installation

- Can be installed horizontally or vertically.
 - Consult factory for downward vertical flow applications.
 - In horizontal applications, valve should be installed top up, with shaft aligned horizontally with the top up (hinge pin plugs are above the pipe centerline).
- Good piping practice recommends installing a distance of 5 to 10 pipe diameters from elbows, pumps, or others turbulence-creating devices.
- Mueller Steam Specialty strongly recommends the installation of a strainer ahead of the pump to ensure protection of both the pump and the valve from foreign particles.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Mueller Steam Specialty product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Mueller Steam Specialty Technical Service. Mueller Steam Specialty reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Mueller Steam Specialty products previously or subsequently sold.

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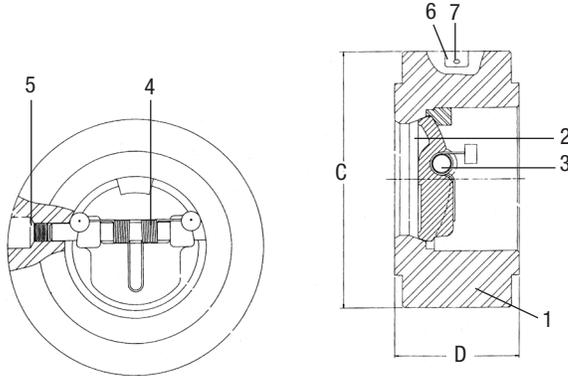
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Materials

- See Information section of the CHEXTER™ Check section of the Mueller Steam Specialty Engineering binder for standard materials.
- See Information section of the CHEXTER™ Check section of the Mueller Steam Specialty Engineering binder for How to Order instructions.

Dimensions

Raised Face and Ring Type Joint Styles



2000-3000psi API — RTJ Valve Dimensions

LINE SIZE		DIMENSIONS							
		OVERALL FACE TO FACE D		C DIAMETER & RING NO.					
in.	mm	in.	mm	2000PSI CLASS		RING NO.	3000PSI CLASS		RING NO.
				in.	mm	in.	in.	mm	in.
2	50	2 ³ / ₄	69.9	4 ¹ / ₄	108.0	R-23	5	127.0	R-24
3	80	3 ¹ / ₄	82.6	5 ³ / ₄	146.1	R-31	6 ¹ / ₈	155.6	R-31
4	100	4	101.6	7 ¹ / ₄	184.2	R-37	7 ¹ / ₄	184.2	R-37

Parts List

PART NO.	DESCRIPTION	NO.REQ'D
1	Body	1
2	Disc	1
3	Hinge Pin	1
4	Spring	1
5	Hex Socket Pipe Plug	2
6	Nameplate	1
7	Drive Screw	2

Denotes recommended spare parts for one year operation.

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CERTIFIED

Limited Warranty: Mueller Steam Specialty warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. This shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product. **THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** Any implied warranties that are imposed by law are limited in duration to one year.

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