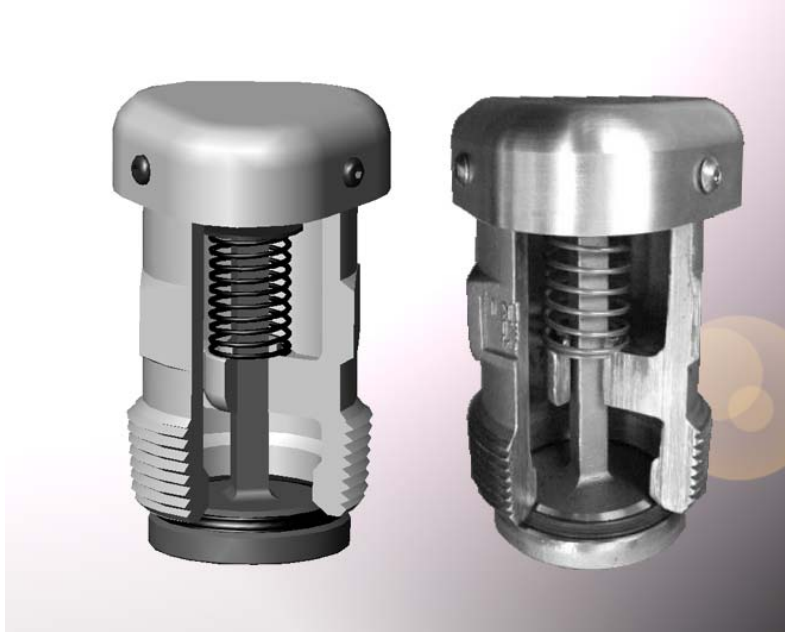




Tri-Cap meets Customer Requests and AAR M-1002 Requirements



Vacuum Relief Valves (VRVs) are used to relieve negative pressure inside a tank car. They open at a set pressure and reseal when the tank's internal pressure returns to an acceptable level.

Union Tank Car Company (UTLX) and McKenzie Valve & Machining Co. are proud to offer the new and innovative Tri-Cap, named for its uniquely shaped cover. The new design is being offered to help address NARs, potential actuation during roll-overs, and customer concerns about manual operation of the valve.

The internal design of the valve is almost identical to the standard Vacuum Relief Valve (VRV), including the proven clover-like cross section of the quad-seal, which has withstood the test and trials of time in the tank car industry.

Unlike the common names "non-cycling" and "no-step" imply, the valve does still cycle and can withstand someone stepping on the valve. The main design advantage of the Tri-Cap is that the cap is no longer attached to the stem of the valve, which originally allowed unintentional or accidental operation of the valve.

Valve Features:

- Eliminates implosion potential by relieving extreme vacuum conditions
- AAR approved under E-077023
- Constructed of corrosion resistant Stainless Steel
- 2-1/2" MNPT Threads
- Easy to Access 2-1/2" Wrench Flats for installation
- One-Piece investment cast stem to eliminate welded joints
- 3/4 (0.75) psi vacuum tested
- 100 psi pressure tested
- Quad-Seal technology
- Weather cap prevention of debris and contamination of commodity
- Stem damage prevention by fixed cap
- Accidental operation prevention by fixed cap

For more information, call 731-352-5027 or visit the McKenzie Valve & Machining website at www.McKenzieValve.com

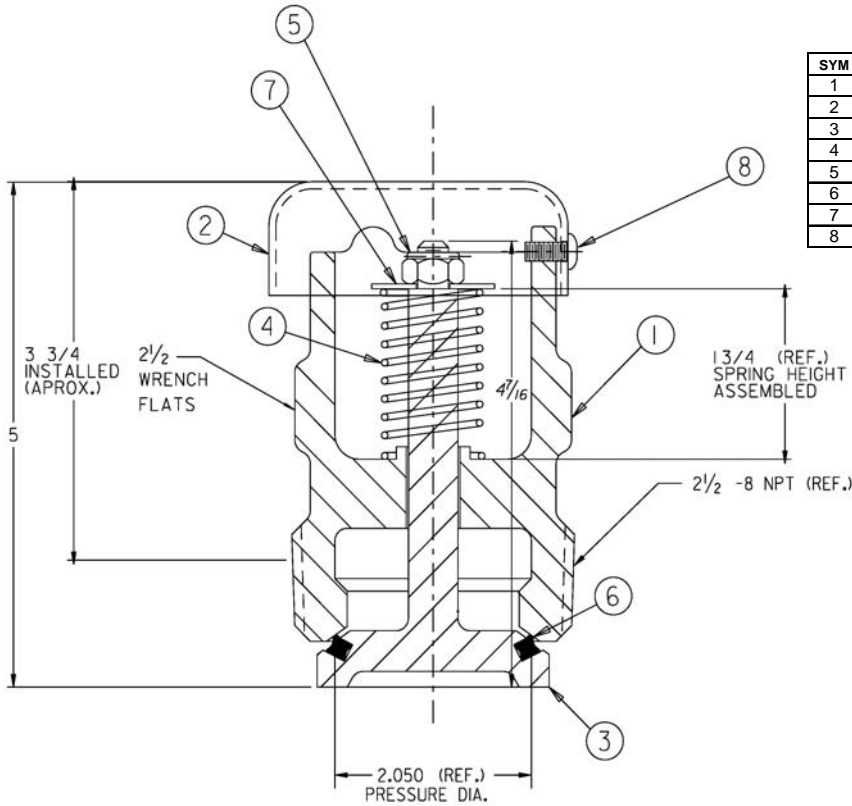


DESIGN DETAILS

VACUUM RELIEF VALVE

April 2008

506981-XX



SYM	PART NO.	REQ.	DESCRIPTION	MATERIAL
1	104937-04	1	BODY	304 SST
2	109294-01	1	CAP	304 SST
3	109293-01	1	STEM-BASE	304 SST
4	109292-01	1	SPRING	302 SST
5	304-8602	1	NUT, LOCK HEX	AISI 303
6	TABLED	1	QUAD-SEAL	TABLED
7	305-8766	1	WASHER	SST
8	304-9024	3	SCREW, BUTTON HEAD HEX	304 SST

LINE NO.	PART NO.	MATERIAL
01	208-8046	VITON® A
02	208-8045	BUNA-N
03	208-8047	NEOPRENE
04	208-8048	FOOD GRADE WHT EPDM
05	208-8049	VITON® B
06	208-8051	CERT. VITON® A
07	208-8031	EPDM (BLACK)
08	208-8053	VITON® 747
09	208-8032	FOOD GRADE WHT NEOPRENE
10	208-8033	FOOD GRADE BLK BUNA-N
11	208-8038	VITON® GF
12	208-8061	CSI 4273B
13	208-8062	CSI 5355
14	208-8063	VITON® GF-S
15	208-8064	VITON® EXTREME ETP

*Other materials available on request

**Viton® is a registered trademark of DuPont

Valve model number is 506981-XX where XX is a two digit number from the quad seal material table. (ie 506981-07 has an EPDM Quad-Seal).

For more information on this or any other product, please visit the McKenzie Valve Website at

www.McKenzieValve.com

or

contact us at:

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