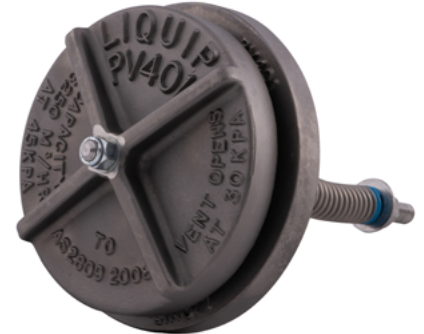


Pressure Vent 4" (100mm)

PV401 series of pressure vents are often used on storage tanks, road tankers and rail cars.

The PV401 series opens at an internal pressure of 30kPa max. (BRC model opens at pressure of 185kPa).

There are several different variations using combinations of aluminium, stainless steel and 316 grade stainless steel together with either buna nitrile, Viton™ or Teflon™ encapsulated O-rings.



Liquip's PV401 Series

Special opening pressures can be supplied on request.

Key Features

- Limits excess pressure within a tank to 30 kPa max.
- Range of materials and seals available.
- Simple and reliable emergency pressure relief venting.
- Special opening pressures can be supplied on request.
- PV401 series passes Australian drop test requirements of AS2809:2023.
- When welded into tank shell, a Ø100mm opening is held closed by a spring within the tank.

Ordering Information

PV401-AS-V: Aluminium cover, Stainless Steel 316 flange, Viton O-ring.

PV401-SS-V: Stainless Steel 316 cover, Stainless Steel 316 flange, Viton O-ring.

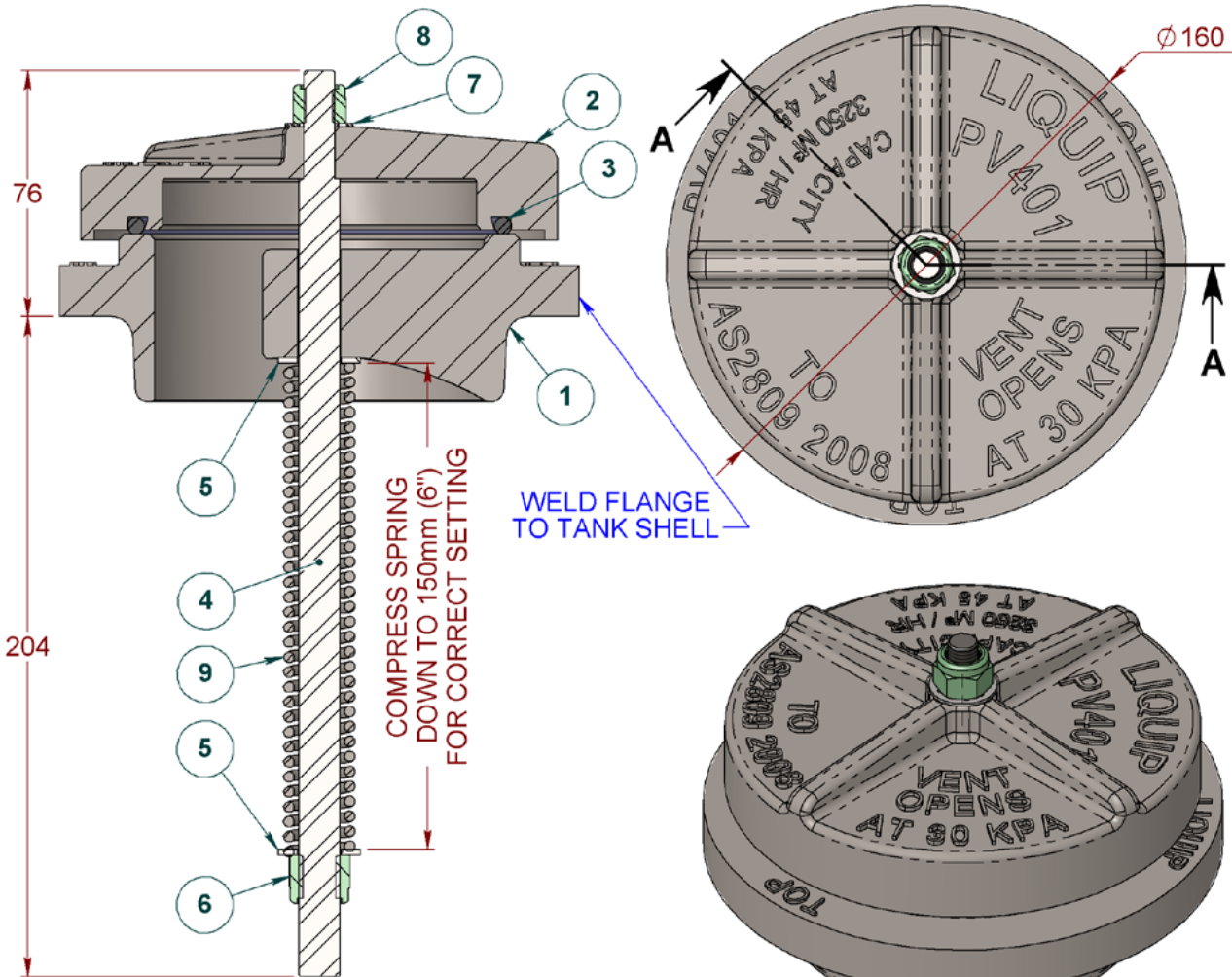
PV401-SST316: Stainless Steel 316 cover, Stainless Steel 316 flange, Teflon encapsulated O-ring.

PV401-AS-BRC: Aluminium cover, Stainless Steel flange with 185kPa opening pressure for rail car.

Technical Specifications

Opening Pressure	Standard setting vent opens at 30kPa. BRC model opens at 185kPa.(Compartment pressure never to exceed 230kPa).
Capacity	Standard setting: 3250m ³ /hr at a pressure of 45kPa. BRC model: 3635m ³ /hr at a pressure of 205kPa.
Mounting	Weld in flange.
Adjustment or service	None
Dismantle	From inside tank, remove nyloc nut, spring and 2 flat washers and lift poppet out.
Weight	Approx 4.8kg

PV401 PRESSURE VENT



SECTION A-A

ITEM	PART NUMBER	DESCRIPTION	QTY	MATERIAL
1	PV401-9	FLANGE WELD	1	ST STEEL
2	PV401-13	COVER AL	1	ALUMINIUM
3	0208	O-RING	1	NITRILE
4	PV401-3	SPINDLE	1	ST STEEL
5	0104	WASHER FLAT IMPERIAL	2	Z/P STEEL
6	0152	NUT NYLOC	1	Z/P STEEL
7	0116	WASHER SHK-PRF INT	1	Z/P STEEL
8	0150	NUT NYLOC	1	Z/P STEEL
9	4457	SPRING	1	ST STEEL
10	PV401-14	INSTRUCTION LEAFLET	1	PAPER

METERS - VALVES - VENTS - MANHOLES - HOSEREELS - OVERFILL PROTECTION - LOADING ARMS - ELECTRONIC DIPSTICKS

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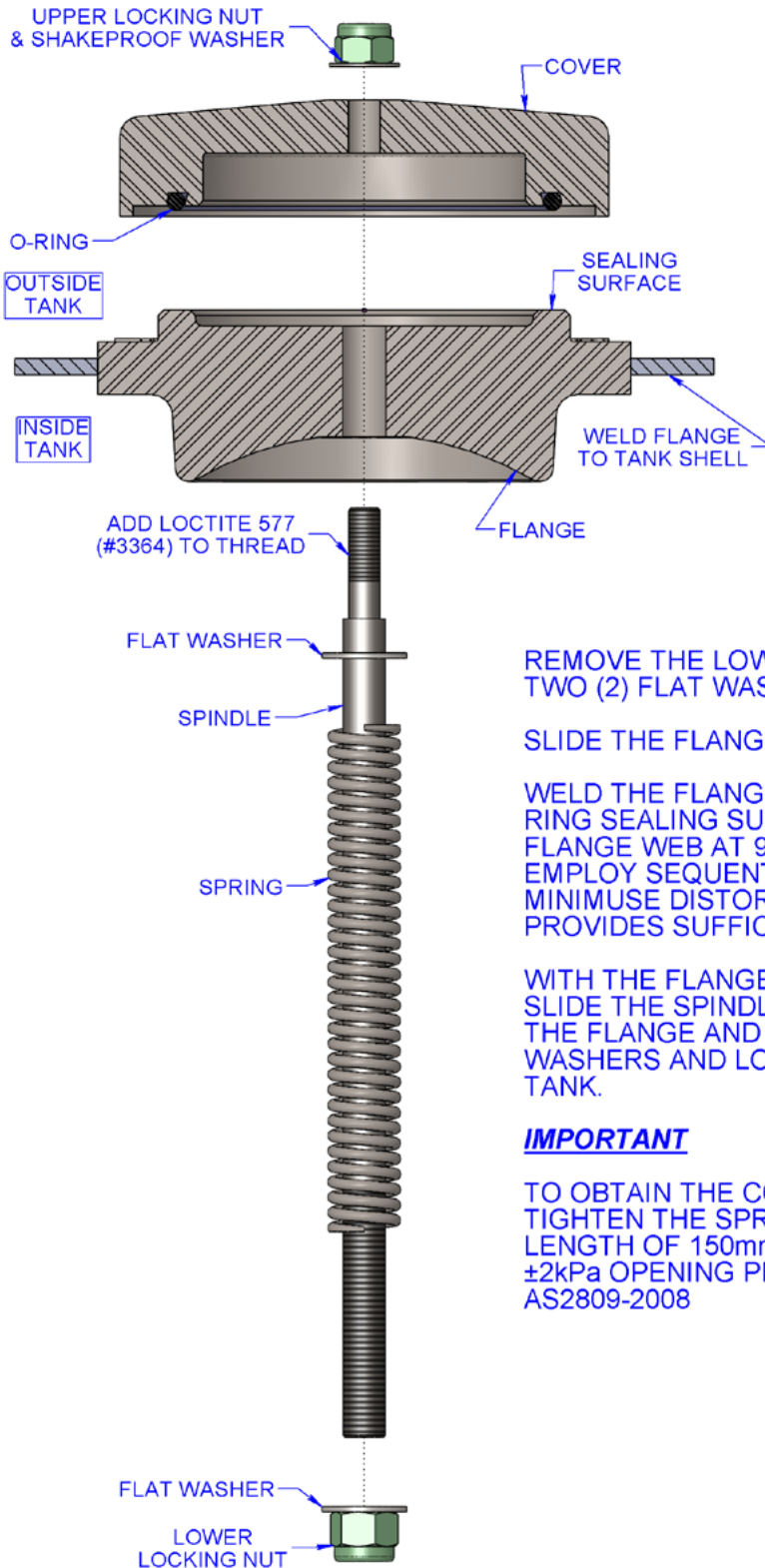
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Sheet 1 of 1
Issue: E

PV401 FITTING INSTRUCTIONS



REMOVE THE LOWER LOCKING NUT, SPRING AND TWO (2) FLAT WASHERS FROM THE SPINDLE.

SLIDE THE FLANGE OFF THE SPINDLE.

WELD THE FLANGE INTO THE TANK WITH THE O-RING SEALING SURFACE OUTWARDS (UP) AND THE FLANGE WEB AT 90° TO THE TANK CENTRE LINE. EMPLOY SEQUENTIAL WELDING TECHNIQUES TO MINIMISE DISTORTION, ONE EXTERNAL WELD PROVIDES SUFFICIENT STRENGTH.

WITH THE FLANGE FULLY WELDED INTO PLACE, SLIDE THE SPINDLE INTO THE CENTRAL HOLE ON THE FLANGE AND RE-ASSEMBLE THE SPRING, WASHERS AND LOCKING NUT FROM INSIDE THE TANK.

IMPORTANT

TO OBTAIN THE CORRECT LIFT PRESSURE, TIGHTEN THE SPRING DOWN TO A COMPRESSED LENGTH OF 150mm. THIS SETS THE VENT AT 30kPa \pm 2kPa OPENING PRESSURE IN ACCORDANCE WITH AS2809-2008

PART No: PV401-14

METERS - VALVES - VENTS - MANHOLES - HOSEREELS - OVERFILL PROTECTION - LOADING ARMS - ELECTRONIC DIPSTICKS

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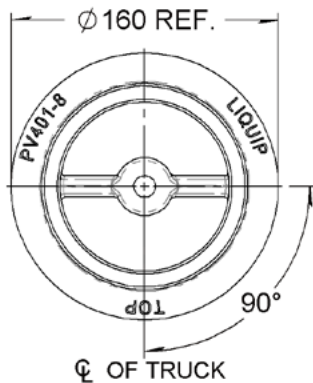
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Sheet 2 of 2
Issue: E

PV401 RAILCAR INSTALLATION



REMOVE THE LOWER LOCKING NUT, SPRING CARRIERS, SPRING AND TWO WASHERS FROM THE SPINDLE

SLIDE THE FLANGE OFF THE SPINDLE

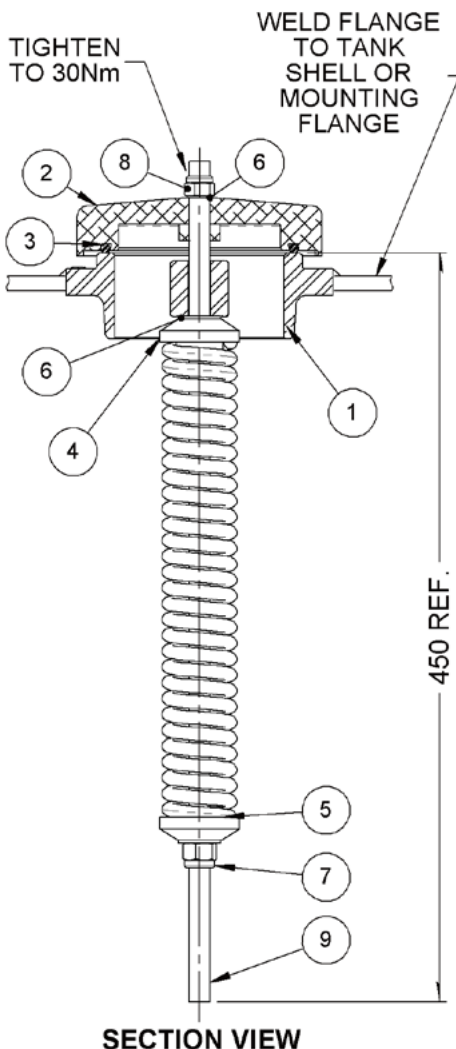
WELD THE FLANGE ONTO THE TANK OR MOUNTING FLANGE WITH THE O-RING MATING SURFACE OUTWARD AND THE FLANGE WEB AT 90° TO THE TANK CENTRE LINE. EMPLOY SEQUENTIAL WELDING TECHNIQUES TO MINIMISE DISTORTION.

WITH THE FLANGE FULLY WELDED INTO PLACE, SLIDE THE SPINDLE INTO THE CENTRAL HOLE ON THE FLANGE AND RE-ASSEMBLE THE SPRING, WASHERS AND LOCKING NUT FROM INSIDE THE TANK.

IF RETROFITTING TO AN OLDER PV401, DRILL OUT COVER HOLE (PV401-13) TO Ø12.8mm AND SEAL WITH LOCTITE 577 AS SHOWN.

IMPORTANT:

TO OBTAIN THE CORRECT LIFT PRESSURE, TIGHTEN THE SPRING DOWN TO A COMPRESSED LENGTH OF 290mm: THIS SETS THE VENT AT APPROXIMATELY 180 kPa. THE VENT MUST THEN BE CHECKED AND ADJUSTED IF NECESSARY TO ACHIEVE THE CORRECT VENTING PRESSURE.



ITEM NO.	PART NUMBER	DESCRIPTION	PV401-AS-BRC	MATERIAL
1	PV401-9	FLANGE WELD	1	ST STEEL
2	PV401-13RC	COVER SUIT PV401 PRESSURE VENT	1	ALUMINIUM
3	0208	O-RING	1	NITRILE
4	PV401-15	CARRIER FOR SPRING OD45	2	ST STEEL
5	6177	SPRING	1	ST STEEL
6	0104	WASHER FLAT IMPERIAL	3	Z/P STEEL
7	0152	NUT NYLOC	2	Z/P STEEL
8	3364V	LOCTITE 577	1	CYANOACRYLATE
9	PV401-16	SPINDLE SS W/WELD SLEEVE	1	ST STEEL

METERS - VALVES - VENTS - MANHOLES - HOSEREELS - OVERFILL PROTECTION - LOADING ARMS - ELECTRONIC DIPSTICKS

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Phone: +61 2 9725-9000 Web: www.liquip.com

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Issue: D