

Series 3908-SL

Pressure and Vacuum Relief Thief Hatch



- Size: 8" API flat face flange
- Lightweight, hinged cover design for easy tank access
- Available set points:
 - Pressure Relief – 2 oz./in.² to 40 oz./in.²
 - Vacuum Relief – 0.4 oz./in.² to 3.5 oz./in.²
- Leakage rate of less than 0.1 SCFH at 90% of set point
- Factory tested and certified for leakage rating and correct settings
- Each unit serialized for traceability



Objective

Protectoseal Model No. 3908-SL Pressure & Vacuum Relief Thief Hatch provides ready access to the tank interior for inspection, gauging or sampling operations. The Thief Hatch also provides pressure and vacuum relief of the tank vapor space through integral, spring-loaded pressure and vacuum relief mechanisms. Valves open and close to permit only that intake or outlet relief necessary to keep interior pressures within permissible working limits. The pressure relief valve controls the escape of vapor to the atmosphere, whereas the vacuum relief valve controls the intake of air.

Technique

The Thief Hatch is mounted to the top of the tank via an 8" API mounting flange. Placing the foot on the step pad releases the cover, permitting inspection and easy access into the tank. When the gauging or sampling operation is complete, the cover is closed and the step pad is manually latched closed.

Pressure and vacuum relief valves designed in the cover assembly provide additional venting capacity under operating conditions. The required relief settings are achieved through the proper selection of pressure and vacuum springs. When the pressure or vacuum set point is reached in the vapor

space of the tank, the respective spring-loaded pallet assembly lifts open, allowing for outflow from the tank (pressure relief) or inflow into the tank (vacuum relief). Once the tank pressure or vacuum is relieved to below the desired set point, the respective spring-loaded pallet assembly closes and re-seats to form a tight seal.

Special Features

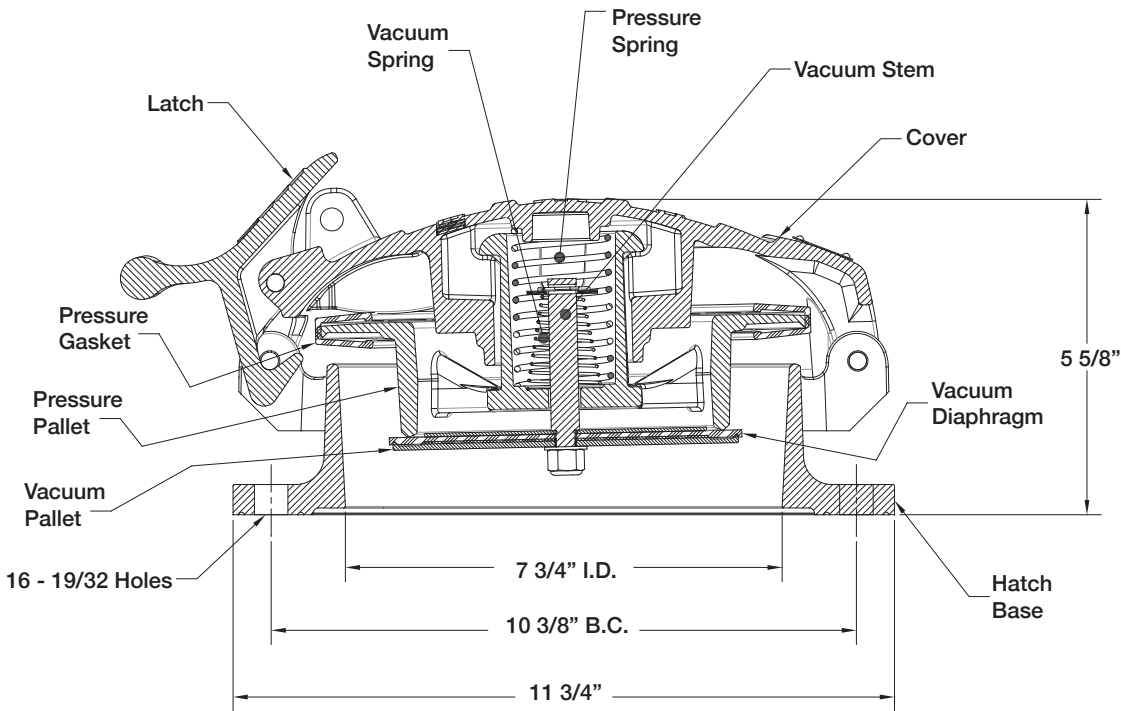
- Lightweight, non-sparking aluminum cast cover for easy installation, operation and maintenance.
- High quality 316 S.S. hardware (bearings, hinges, pins, etc.) for increased durability.
- Precision lapped valve seat for exceptional sealing capabilities. Anodized vacuum pallet for improved corrosion resistance.
- Selection of spring and gasket materials available to accommodate specific application requirements.
- Oversized step pad allowing for hands-free operation.
- Lockdown feature used with either a padlock or lockout safety pin to prevent unintended access to the tank.
- Integrated gauging hook located on the base for suspending gauge apparatus.

Materials of Construction

Cover and Base Mounting Flange:	Assembly Hardware:	Relief Springs:	Soft Goods:
Non-Sparking Cast Aluminum	316 Stainless Steel	Plated Steel or Inconel®	Pressure Gasket - HBNR or Viton® Vacuum Gasket - Fluorosilicone, Viton® or FEP

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Specifications



Series 3908-SL
Part Numbering System

Table 1 Pressure Spring	Table 2 Vaccuum Spring	Table 3 Pressure Gasket	Table 4 Vacuum Gasket	Table 5 Safety Pin
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Refer to Tables **1, 2, 3, 4** and **5** to determine pressure / vacuum spring and gasket numbers.

Dimensions

Pressure Spring Options - Table 1

Option Code	Setting oz./in. ²	Material	Color	Replacement Spring Part No.
A	2	Steel	Black	3908P-11A-161
B	4	Steel	Green	3908P-11B-161
C	6	Steel	Brown	3908P-11C-161
D	8	Steel	Orange	3908P-11D-161
E	12	Steel	Pink	3908P-11E-161
F	16	Steel	Dark Blue	3908P-11F-161
G	24	Steel	Red	3908P-11G-161
H	32	Steel	Purple	3908P-11H-161
Q	40	Steel	Black, Green	3908P-11J-161
I	2	Inconel®	Black, White, Orange	3908P-11A-56
J	4	Inconel®	Dark Green, White	3908P-11B-56
K	6	Inconel®	Brown, White	3908P-11C-56
L	8	Inconel®	Orange, White	3908P-11D-56
M	12	Inconel®	Pink, White	3908P-11E-56
N	16	Inconel®	Dark Blue, White	3908P-11F-56
O	24	Inconel®	Red, White, Orange	3908P-11G-56
P	32	Inconel®	Purple, White	3908P-11H-56

Pressure Gasket Options - Table 3

Option Code	Setting oz./in. ²	Material	Color	Replacement Gas-ket Part No.
V	HNBR	Black	3908P-18-102	Steel or Lead
W	Viton®	Dark Blue	3908P-18-118	S.S. or Lead

Vacuum Gasket Options - Table 4

Option Code	Setting oz./in. ²	Material	Color	Replacement Gas-ket Part No.
X	Fluorosili-cone	Blue	3908V-218-103	Steel or Lead
Y	Viton®	Black	3908V-218-118	S.S. or Lead
Z	FEP Film	Clear	3908V-218-107	Steel or Lead

Lockout Safety Pin Option - Table 5

Option Code	Setting oz./in. ²	Material	Color	Replacement Pin Part No.
0	Not Included	-	-	Steel or Lead
1	Included	S.S.	3908-74C-69	S.S. or Lead

Vacuum Spring Options - Table 2

Option Code	Setting oz./in. ²	Material	Color	Replacement Gasket Part No.
Q	0.4	Steel	Light Blue	3908V-11A-161
R	0.9	Steel	Steel Grey	3908V-11B-161
S	3.5	Steel	Yellow	3908V-11C-161
T	0.4	Inconel®	Blue, White	3908V-11A-56
U	0.9	Inconel®	Grey, White	3908V-11B-56
Y	Viton®	Black	3908V-218-118	S.S. or Lead

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