

## 94225 Emergency Vent & Manhole Cover (Pressure & Vacuum)

The Shand & Jurs 94225 Emergency Vent and Manhole Cover provides emergency relief of excessive internal pressure and vacuum beyond that provided by tank conservation vent requirements.

The weight loaded pressure vent section employs a flexible diaphragm or an Expanda-Seal diaphragm (option), which provides a tight seal between the pallet and seat. Special diaphragm materials are available for most product environments. Corrosion resistant pressure/vacuum seat is standard.

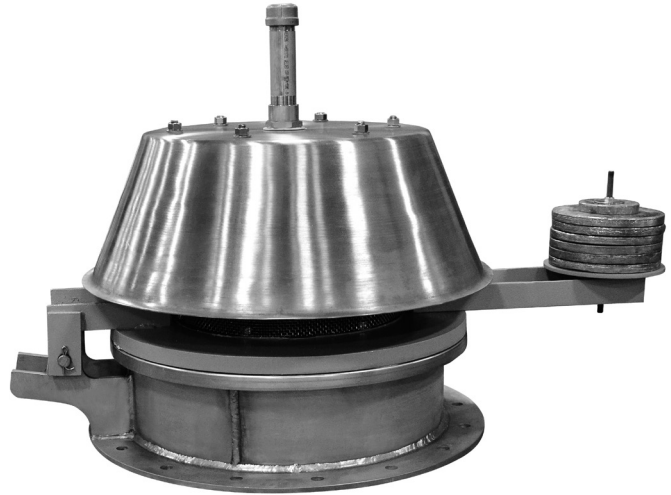
The pressure pallet starts to lift when set pressure is approached. Flow efficiency rises rapidly to approximately 60% of a perfect orifice at 40% excess of the set pressure. At higher overpressure, the flow efficiency approximates 75%.

Vacuum relief is spring operated and adjustable, which permits a wide range of vacuum settings without affecting the pressure set point.

For tank venting or examination, the entire hinged cover may be lifted open in a matter of seconds, offering clear passage through the unobstructed opening. Since no gasket replacement or unbolting is necessary, this vent eliminates the expensive manpower needed to put conventional manhole covers back in operation.

Model 94225 is available for standard ANSI and API flat face flange connections. Raised face connections and special flanges are available including EN1092-1.

Pallet construction permits a wide variety of pressure settings. See specifications for various pressure settings of all vent sizes.



### Features

- Design incorporates pressure and adjustable vacuum relief
- 18", 20", 24", and 30" ANSI 150# sizes
- 20" and 24" API-650 roof manhole sizes
- "Self-energizing" Expanda-Seal diaphragm (optional) assures a tight seal
- Hinged cover provide precise sealing and safety
- No unbolting of vent for seal replacement or tank examination

## Specifications

Size		18" through 30"	
Type		Low Setting	High Setting
Pressure Settings	Standard	2.5 oz/in <sup>2</sup>	> 4.0 oz/in <sup>2</sup>
	Maximum	4.0 oz/in <sup>2</sup>	16 oz/in <sup>2</sup>
Vacuum Settings		0.57 oz/in <sup>2</sup> through 2.9 oz/in <sup>2</sup> , Adjustable (1" W.C. - 5" W.C.)	

## Standard Materials of Construction

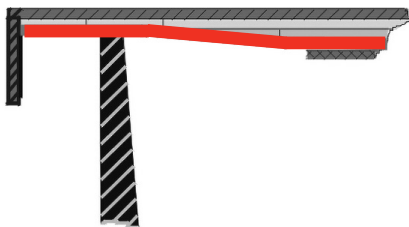
Base	Aluminum	Steel	316 Stainless Steel
Pallet	Aluminum	Aluminum	316 Stainless Steel
Seat - Pressure	Aluminum	316 Stainless Steel	316 Stainless Steel
Seat - Vacuum	Aluminum	316 Stainless Steel	316 Stainless Steel
Internal Diaphragm Clamp Ring	Aluminum	316 Stainless Steel	316 Stainless Steel
Load Weight(s)	Steel / Lead		316 Stainless Steel / Lead
Fasteners	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel
Hood	Aluminum	Aluminum	316 Stainless Steel
Hinge Arm	Aluminum	Steel	316 Stainless Steel
Hinge Pin	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel
Diaphragm	FEP	FEP	FEP
Back-up Disk	Fiber	Fiber	Fiber

\* Steel Pallets are available. Alternate materials of construction available including stainless steel trim. Consult Factory.

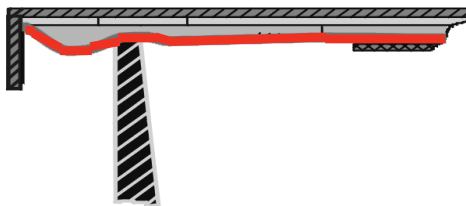
## Expanda-Seal

Shand & Jurs "Expanda-Seal" option is available on all pressure pallet assemblies. This feature significantly reduces leakage. The ballooning effect of the Teflon diaphragm effectively seals the valve. Leakage rate is less than 0.5 SCFH at 95% of set point.

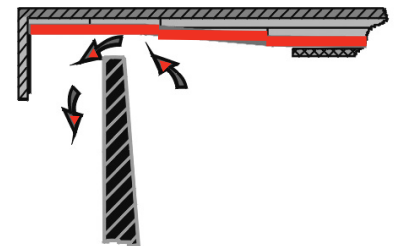
**Pressure Below Set Point**



**Approaching Set Point**



**Set Point Exceeded**

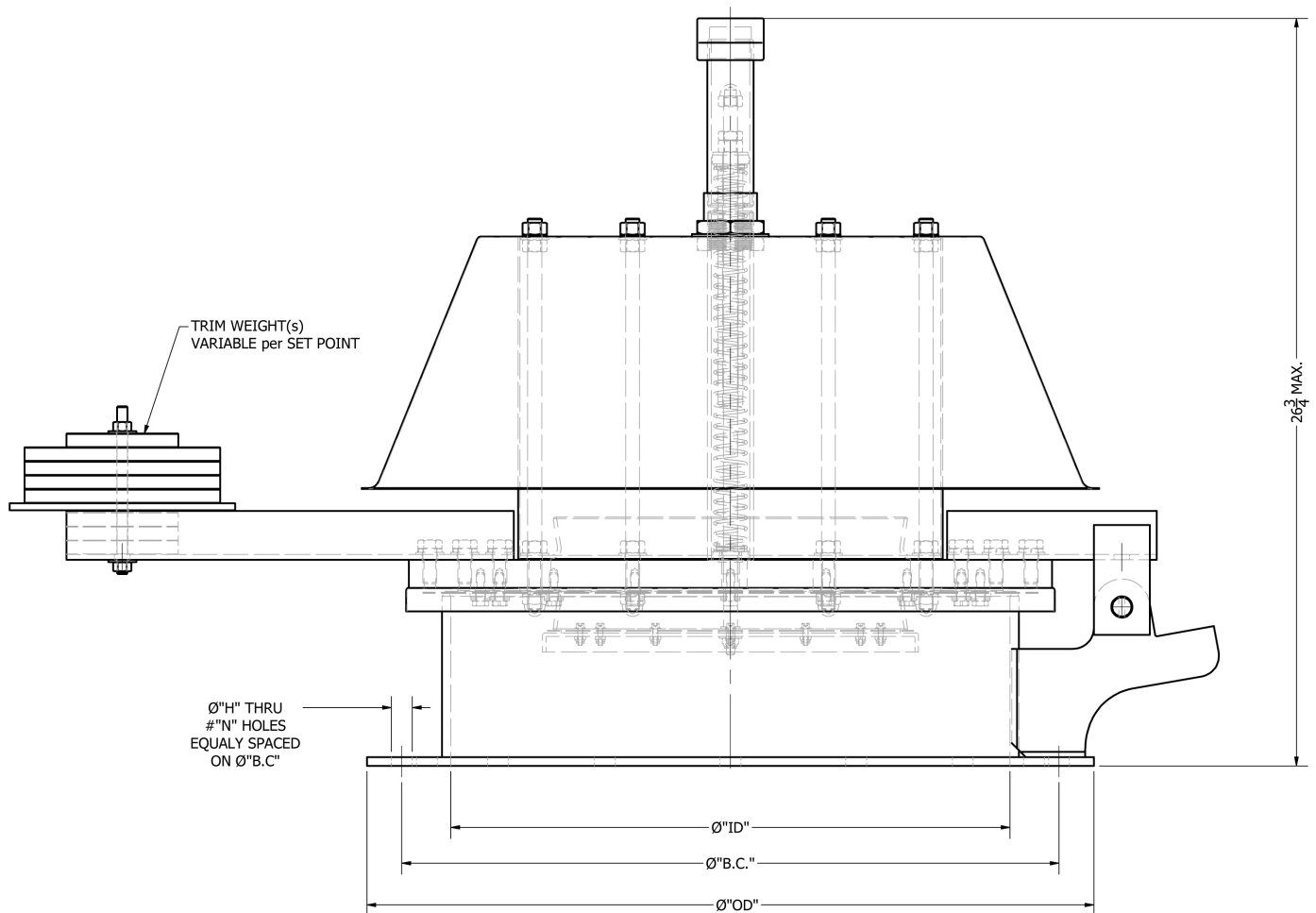


# 94225

## Emergency Vent & Manhole Cover

# SHAND & JURS

### Dimensions



Vent Size	Connection Matching Size	Diameter "BC"	Diameter "OD"	Diameter "ID"	Diameter "H"	"N" Holes
18"	18" ANSI Class 150	22 3/4	25	17 1/4	1 1/4	16
20"	20" API Roof Manhole	23 1/2	26	20	3/4	16
20"	20" ANSI Class 150	25	27 1/2	20	1 1/4	20
24"	24" API Roof Manhole	27 1/2	30	24	3/4	20
24"	24" ANSI Class 150	29 1/2	32	24	1 3/8	20
30"	30" ANSI Class 150	36	38 3/4	30	1 3/8	28

All designs subject to change. Certified dimensions and specifications available upon request.

# SHAND & JURS

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## 94225 Ordering Guide

### Model Number Selection

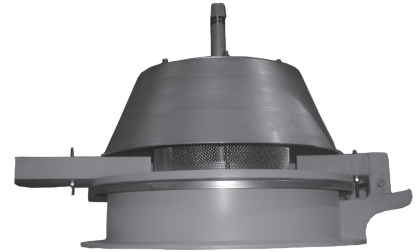
The model number will consist of a base number **94225** followed by 7 digit numbers. These digits will represent 5 option tables.

**94225 - AB - CD - EF - G**

### Ordering Information

Specify:

1. Model 94225 Emergency Vent / Manhole Cover
2. Size Required
3. Base and Cover Material
4. Pressure and Vacuum Setting
5. ANSI or API Base
6. Seal Type Standard or Expanda-Seal



**Table A/C/E - Size**

Option A	Mounting Flange, Pallet/Seal, Pallet Size
2	18"
3	20"
4	24"
5	30"

**Table B - Base Material & Flange Drilling, Pallet Material**

Option B	Base Material	Flange Drilling
A	Aluminum	ANSI-FF
B	Steel	
C	316SS	
D	Aluminum	API-650
E	Steel	
F	316SS	

\*\* API-650 is only Available with 20" & 24" Size

**Table D - Pallet Type / Seal Material**

Option D	Description	Seal Material
A	Standard	FEP
B	XOS	
C	Standard	FKM
D	XOS	
E	Standard	PFA
F	XOS	

**Table F - Pressure Set Point Range**

Option F	Pallet	Weight	Hood	Range oz/in2
A	Aluminum	Aluminum	Aluminum	2.5 to 4.0
B	316SS	Aluminum	Aluminum	
C	Aluminum	Aluminum	Aluminum	4.0 to 8.0
D	Aluminum	316SS	Aluminum	
E	Aluminum	Steel	Aluminum	
F	316SS	Steel	316SS	
G	316SS	316SS	316SS	8.0 to 12.0
H	Aluminum	Steel	Aluminum	
I	Aluminum	316SS	Aluminum	
J	316SS	316SS	316SS	
K	316SS	316SS	316SS	
L	Aluminum	Steel	Aluminum	
M	Aluminum	316SS	Aluminum	12.0 to 16.0
N	316SS	316SS	316SS	
O	316SS	316SS	316SS	

**Table G - Vacuum Set Point Range**

Option G	Description
0	0.57 to 2.9 oz/102