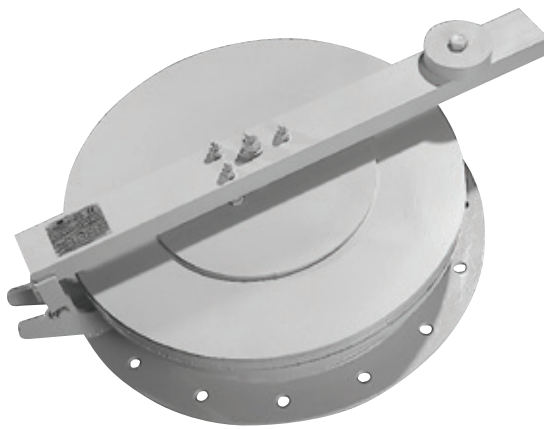




## VAREC 4210A SERIES EMERGENCY PRESSURE VENT AND MANWAY COVERS

Provides access and emergency protection against costly ruptures



### FEATURES

- Hinged cover provides a fixed pivot point, ensures proper reseating and added safety.
- Cover cannot separate from the base.
- Easily lifted open to provide a large, unobstructed passage for easy tank access.
- 'Tite seal' diaphragm design ensures minimum vapor leakage losses to 1 CFH at 90% of setting.
- Durable PTFE seal backed by a non-asbestos cushion disc for added resiliency and reduced leakage.
- PTFE diaphragm protects the cushion disc from direct contact with tank vapors in chemical and low temperature applications.
- Carbon steel units have steel bases with a welded and machined stainless steel tip on the nozzle perimeter to ensure a corrosion resistant seating surface.
- Optional stainless steel bases for chemical and low temperature applications.
- Flange mounting dimensions conform to either API 650 or ANSI 150#.
- Optional vacuum valve available in cover.

### GENERAL APPLICATION

The 4210A Series is designed to provide emergency venting of low pressure storage tanks and vessels.

### TECHNICAL DATA

Materials: Carbon steel, stainless steel, aluminum  
Sizes: 18", 20", 24" (450, 500, 600 mm)  
Connections: Flanged  
Pressure settings: 2" wc to 2 psig (5 to 160 mbar)  
Vacuum settings: -1.4" wc to 20" wc (-3.5 to 50 mbar)

# VAREC 4210A SERIES EMERGENCY PRESSURE VENT AND MANWAY COVERS

## SPECIFICATIONS

### Sizes

18" - 24"

### Connections

Drilled to 150# ANSI dimensions, flat face flange  
 Drilled to API 650 dimensions, flat face flange

### Setting ranges

Pressure 2" wc to 2 psig  
 Vacuum -1.4" wc to -20" wc

### Materials of construction

Base	Carbon steel with stainless steel seating surface 316 Stainless steel Aluminum
Pallet	Carbon steel Stainless steel Aluminum
Diaphragm	PTFE
Hinge arm	Steel - standard

### BOLT CIRCLE DIMENSIONS - inches (mm)

Size	E	F	Ø of holes	No. of holes
<b>API 650</b>				
18"	25 (635)	21½ (546)	⅝ (16)	16
20"	26 (660)	23½ (597)	¾ (19)	16
24"	30 (762)	27½ (698)	¾ (19)	20
<b>ANSI 150</b>				
18"	25 (635)	22¾ (578)	1¼ (32)	16
20"	27½ (698)	25 (635)	1¼ (32)	20
24"	32 (813)	29½ (749)	1⅝ (35)	20

### DIMENSIONS - inches (mm) - PRESSURE ONLY

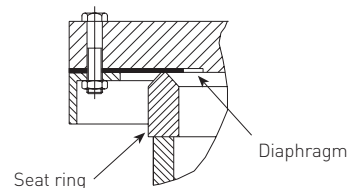
Size	A	B	C	D (Hinge arm length)	
				6 to 12 wc (15 to 30 mbar)	Over 12 wc (Over 30 mbar)
18 (450)	18.00 (457)	6.54 (166)	3.15 (80)	12.80 (325)	17.52 (445)
20 (500)	20.00 (508)	6.54 (166)	3.15 (80)	13.03 (331)	26.42 (671)
24 (600)	24.00 (609)	6.54 (166)	3.15 (80)	14.49 (368)	32.20 (818)

### PRESSURE AND VACUUM

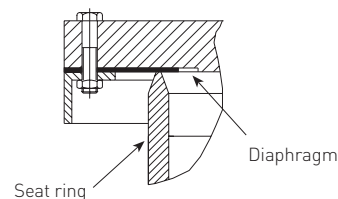
Size, in. (mm)	A	B	C
18 (450)	18.00 (457)	6.54 (166)	13.54 (344)
20 (500)	20.00 (508)	6.54 (166)	13.54 (344)
24 (600)	24.00 (609)	6.54 (166)	13.54 (344)

Installation, mounting arrangement and dimensions are preliminary general information not to be used for construction. Certified drawings are available.

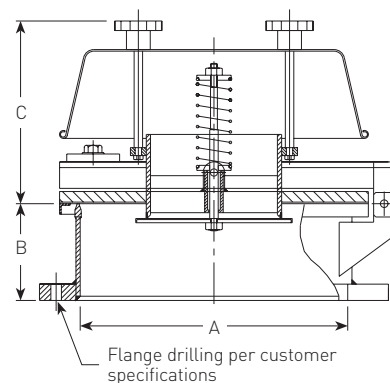
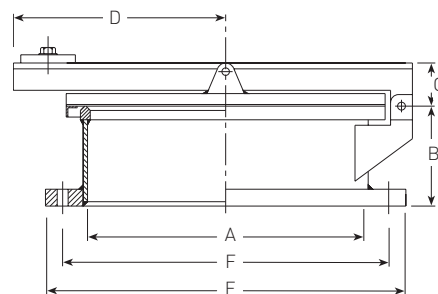
### SEAT DETAILS



Carbon steel body



Aluminum and stainless steel body



# VAREC 4210A SERIES EMERGENCY PRESSURE VENT AND MANWAY COVERS

## SPECIFICATIONS

### FLOW CAPACITY FOR PRESSURE AND VACUUM RELIEF - SCFH X 1000 AIR (NM<sup>3</sup>/hr X 1000 AIR)

SP wc (mbarg)	Size, in. (mm)								
	18 (457)			20 (500)			24 (600)		
	Overpressure								
	1.2	1.3	1.4	1.2	1.3	1.4	1.2	1.3	1.4
2 (5)	293 (8.3)	307 (8.69)	314 (8.9)	362 (10.26)	377 (10.67)	391 (11.08)	522 (14.77)	543 (15.37)	563 (15.95)
4 (10)	415 (11.75)	432 (12.23)	448 (12.69)	512 (14.5)	533 (15.1)	553 (15.67)	738 (20.89)	768 (21.74)	797 (22.56)
6 (15)	508 (14.39)	529 (14.98)	547 (15.5)	628 (17.77)	653 (18.49)	678 (19.19)	902 (25.55)	940 (26.63)	976 (27.63)
8 (20)	589 (16.69)	611 (17.29)	632 (17.9)	724 (20.5)	754 (21.35)	783 (22.16)	1043 (29.54)	1086 (30.75)	1127 (31.91)
10 (25)	656 (18.58)	683 (19.34)	709 (20.07)	809 (22.9)	843 (23.87)	875 (24.77)	1166 (33.03)	1214 (34.38)	1260 (35.68)
12 (30)	719 (20.35)	748 (21.18)	776 (21.98)	887 (25.13)	923 (26.15)	958 (27.14)	1278 (36.18)	1330 (37.66)	1380 (39.08)

### FLOW CAPACITY FOR VACUUM RELIEF ONLY - SCFH X 1000 AIR (NM<sup>3</sup>/hr X 1000 AIR)

SV wc (mbarg)	Size, in. (mm)								
	18 (457)			20 (500)			24 (600)		
	Overpressure								
	1.2	1.3	1.4	1.2	1.3	1.4	1.2	1.3	1.4
2 (5)	29 (0.81)	36 (1.02)	41 (1.16)	29 (0.81)	36 (1.02)	41 (1.16)	29 (0.81)	36 (1.02)	41 (1.16)
4 (10)	41 (1.16)	52 (1.47)	59 (1.67)	41 (1.16)	52 (1.47)	59 (1.67)	41 (1.16)	52 (1.47)	59 (1.67)
8 (20)	59 (1.66)	72 (2.05)	83 (2.36)	59 (1.66)	72 (2.05)	83 (2.36)	59 (1.66)	72 (2.05)	83 (2.36)

### WEIGHT, lbs. (kg) PRESSURE ONLY

Size, in. (mm)	18 (457)	20 (500)	24 (600)
Aluminum	45 (20)	55 (25)	65 (30)
Carbon steel	110 (50)	265 (120)	330 (150)
Stainless steel	130 (60)	285 (130)	350 (160)

### PRESSURE AND VACUUM

Size, in. (mm)	18 (457)	20 (500)	24 (600)
Aluminum	120 (55)	130 (60)	145 (65)
Carbon steel	175 (80)	275 (125)	330 (150)
Stainless steel	190 (85)	365 (165)	425 (195)

# VAREC 4210A SERIES EMERGENCY PRESSURE VENT AND MANWAY COVERS

## ORDERING INFORMATION

### SELECTION GUIDE

Example:	4210A	20	22	0	0	0	2
<b>Model</b>							
<b>4210A</b>	Emergency vent and manway cover						
<b>Size</b>							
<b>18</b>	18"						
<b>20</b>	20"						
<b>24</b>	24"						
<b>Base/cover material</b>							
<b>11</b>	Aluminum/aluminum						
<b>22</b>	Steel/steel						
<b>23</b>	316 SS/316 SS						
<b>Setting</b>							
<b>0</b>	2" wc to 10" WC (5 mbar to 70 mbar) aluminum lid						
<b>1</b>	2" wc to 2 psig (5 mbar to 140 mbar) steel lid						
<b>Vacuum requirements</b>							
<b>0</b>	No vacuum required						
<b>1</b>	Vacuum required (range -1.4" WC - 20" WC)						
<b>Flange option</b>							
<b>0</b>	API 650						
<b>2</b>	ANSI 150#						
<b>Flange face</b>							
<b>F</b>	Flat faced						
<b>2</b>	Raised face (steel and SS base only)						

**Example:** 20" emergency vent manway cover, carbon steel base, carbon steel pallet, PTFE diaphragm, pressure setting between 2" and 10" WC, API 650 drilling, RF flange face. Specify pressure setting when ordering.