



## ANDERSON GREENWOOD WHESSOE SERIES 4210A EMERGENCY RELIEF MANHOLE COVER

An emergency relief vent in a range of sizes and materials capable of handling pressure flows up to 188,000 cubic meters per hour



### FEATURES

- Vacuum option available
- Choice of construction materials.
- Stainless steel seats.
- Standard service option.
- Chemical service option.
- Cryogenic service option.
- API, ANSI and DIN flanges available.

### GENERAL APPLICATION

The Series 4210A is suitable for venting pressure and/or vacuum service in storage tank farms, petroleum and chemical refineries.

### TECHNICAL DATA

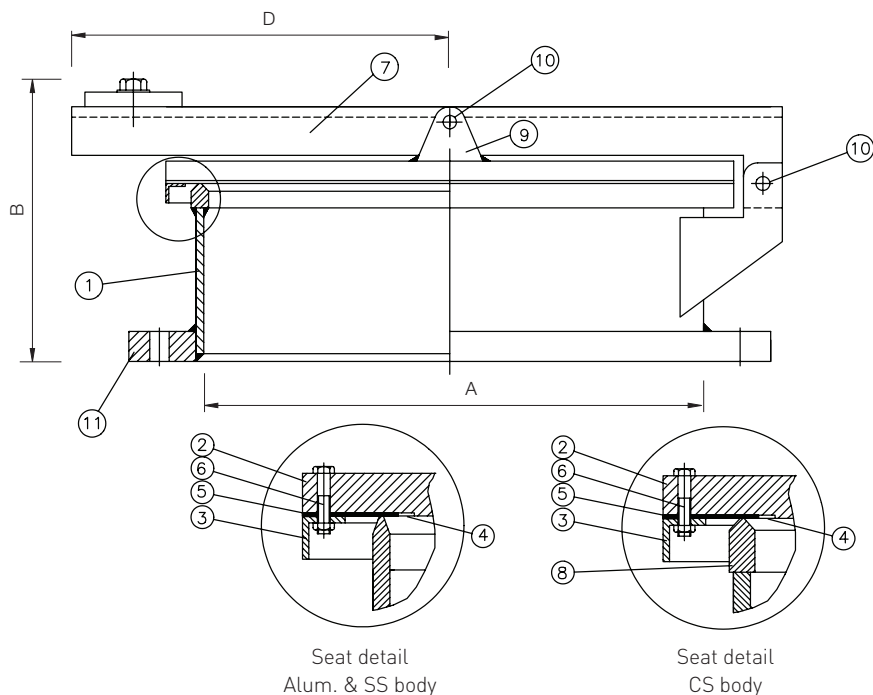
Materials: Aluminum, carbon steel, stainless steel  
Sizes: 10" to 36" (DN 250 to 900)  
Pressure settings: 4.5 mbar to 140 mbar  
Vacuum settings: 2.5 mbar to 50 mbar



# ANDERSON GREENWOOD WHESSOE SERIES 4210A EMERGENCY RELIEF MANHOLE COVER

## MATERIALS/DIMENSIONS

4210A PRESSURE RELIEF  
Weight loaded



### PARTS LIST

Item	Description	C.S. Spec.	S.S Spec	Alum. Spec.
1	Base	C.Steel	316 S.S.	Aluminum
2	Cover plate	C.Steel	316 S.S.	Aluminum
3	Drip ring	C.Steel	316 S.S.	Aluminum
4	Diaphragm	P.T.F.E	P.T.F.E	P.T.F.E
5	Backing disc	Non-abestos	Non-abestos	Non-abestos
6	Clamping screws	Galv Steel	18/8 S.S	18/8 S.S
7	Hinge arm	C.Steel	316 S.S.	Aluminum
8	Seat ring	316 S.S.	316 S.S.	Aluminum
9	Cover lug	C.Steel	316 S.S.	Aluminum
10	Pins	316 S.S.	316 S.S.	317 S.S.
11	Flange	C.Steel	316 S.S.	Aluminum

### SETTINGS

Weight loaded Pressure		Spring loaded Vacuum	
Min mbarg	Max mbarg	Min mbarg	Max mbarg
4.5	140	2.5	250

Maximum setting limitations: Aluminum 70 mbarg.

### NOTE

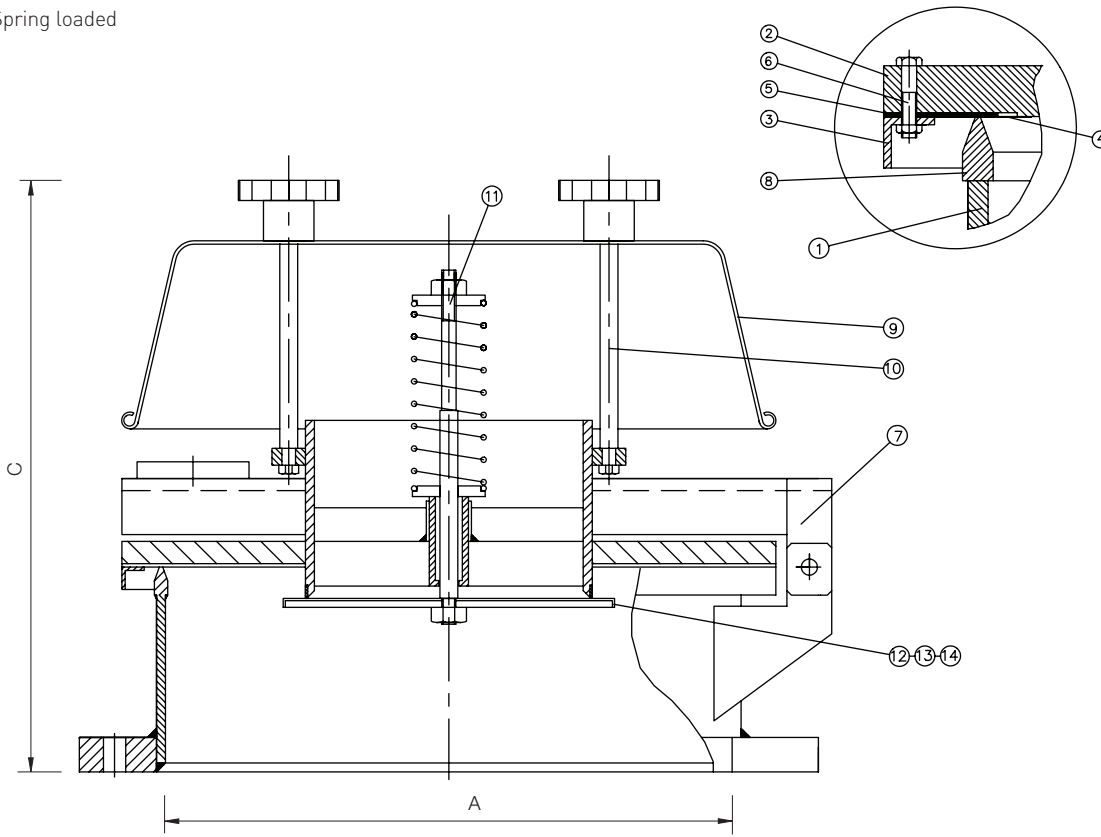
The vacuum capacity is based on a nominal DN 200 (8") vacuum valve, which is fitted to all sizes DN 450 (18") and above.

### DIMENSIONS AND WEIGHTS

Valve size	Dimensions mm					Approximate weights - Kgs			
	A	B	C	D		Weight loaded pressure relief		Spring loaded vacuum relief	
				< 30 mbarg	30 – 140 mbarg	ALUM	CS/SS	ALUM	CS/SS
DN 250 (10")	254	246	N/A	93	293	14	35	N/A	N/A
DN 300 (12")	305	246	N/A	67	367	16	40	N/A	N/A
DN 400 (16")	406	246	N/A	316	446	18	50	N/A	N/A
DN 450 (18")	457	246	510	325	445	20	60	53	86
DN 500 (20")	508	246	510	331	671	25	130	58	165
DN 600 (24")	609	246	510	368	818	30	160	63	195
DN 750 (30")	762	246	510	422	1042	40	190	73	225
DN 800 (32")	812	246	510	273	1022	50	230	83	265
DN 900 (36")	914	246	510	125	1455	80	260	113	295

# ANDERSON GREENWOOD WHESSOE SERIES 4210A EMERGENCY RELIEF MANHOLE COVER MATERIALS

4210A VACUUM RELIEF  
Spring loaded



## PARTS LIST

Item	Description	C.S. Spec.	S.S Spec	Alum. Spec.
1	Base	C Steel	316 SS	Aluminum
2	Cover plate	C Steel	316 SS	Aluminum
3	Drip ring	C Steel	316 SS	Aluminum
4	Diaphragm	PTFE	PTFE	PTFE
5	Backing disc	Non-asbestos	Non-asbestos	Non-asbestos
6	Clamping screws	Galv Steel	18/8 SS	18/8 SS
7	Hinge arm	C Steel	316 SS	Aluminum
8	Seat ring	316 SS	316 SS	Aluminum
9	Weatherhood	C Steel	316 SS	Aluminum
10	Weatherhood posts	316 SS	316 SS	316 SS
11	Spring assembly	316 SS	316 SS	316 SS
12	Vac pallet	316 SS	316 SS	316 SS
13	Vac diaphragm	PTFE	PTFE	PTFE
14	Vac backing disc	Non-asbestos	Non-asbestos	Non-asbestos

# ANDERSON GREENWOOD WHESSOE SERIES 4210A EMERGENCY RELIEF MANHOLE COVER CAPACITIES

## AIR CAPACITY in Nm<sup>3</sup>/h - Weight loaded pressure relief

Setting (mbarg)	DN 250 (10")		DN 300 (12")		DN 400 (16")		DN 450 (18")		DN 500 (20")		DN 600 (24")		DN 750 (30")		DN 800 (32")		DN 900 (36")	
	Over press.		Over press.		Over press.		Over press.		Over press.		Over press.		Over press.		Over press.		Over press.	
	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%
4.5	2435	2630	3506	3787	6234	6733	7890	8521	9740	10520	14026	15149	21915	23670	24935	26932	31558	34085
10	3629	3920	5226	5644	9290	10034	11758	12699	14516	15678	20904	22577	32662	35276	37162	40137	47033	50798
20	5130	5540	7387	7978	13133	14183	16622	17951	20521	22162	29550	31913	46171	49864	52533	56734	66487	71804
40	7249	7828	10438	11272	18557	20039	23487	25361	28996	31310	41754	45087	65241	70448	74229	80154	93947	101445
60	8871	9577	12774	13791	22709	24518	28741	31031	35482	38309	51095	55165	79835	86196	90835	98072	114963	124122
80	10234	11048	14737	15909	26200	28283	33159	35796	40937	44192	58949	63636	92108	99432	104789	113131	132635	143182
100	11432	12340	16463	17769	29267	31590	37041	39981	45730	49359	65851	71077	102893	111058	117069	126360	148165	159924
120	12513	13504	18019	19446	32034	34571	40543	43754	50052	54017	72075	77785	112618	121539	128134	138284	162170	175015
140	13504	14572	19446	20984	34571	37304	43754	47213	54017	58288	77785	83934	121159	131148	138284	149217	175015	188852

## AIR CAPACITY in Nm<sup>3</sup>/h - Spring loaded vacuum relief

Setting (mbarg)	DN 450 (18")		DN 500 (20")		DN 600 (24")		DN 750 (30")		DN 800 (32")		DN 900 (36")	
	Over press.		Over press.		Over press.		Over press.		Over press.		Over press.	
	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%	20%	40%
2.5	576	820	576	820	576	820	576	820	576	820	576	820
10	1151	1640	1151	1640	1151	1640	1151	1640	1151	1640	1151	1640
20	1627	2318	1627	2318	1627	2318	1627	2318	1627	2318	1627	2318
30	1992	2837	1992	2837	1992	2837	1992	2837	1992	2837	1992	2837
40	2300	3275	2300	3275	2300	3275	2300	3275	2300	3275	2300	3275
50	5698	8103	5698	8103	5698	8103	5698	8103	5698	8103	5698	8103

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