

Minimize Risk of Implosion

Alfa Laval SB Anti Vacuum House

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Concept

The Anti Vacuum House is used for minimizing the risk of implosion of tanks exposed to vacuum e.g. during emptying, cool-rinsing after hot-cleaning or caustic cleaning in a CO₂ atmosphere. The Anti Vacuum House can be combined with safety valves or pressure regulators mounted the top.

Working principle

The Anti Vacuum House operates as standard at 50 mmH₂O / 5 mbar for all valve sizes. Safety valves protect the vessel and ensures discharge if pressure in the tank exceeds the preset opening value. Regulating valves ensures pressure exhaust if pressure in the tank exceeds the preset opening value.

Standard design

The Anti Vacuum House can be cleaned during tank CIP cycle by connecting CIP nozzle to main CIP supply.

CIP flow is approximately 500-800 l/min.

When the tank is cleaned a small volume of cleaning fluid will pass the valve body and clean the seat. To ensure thorough flushing of valve seat, force opening of the valve is necessary - this must be done when the tank is pressureless. The use of a drain collector is recommended to prevent CIP fluid spilling on to the tank.

Compliance Pressure Equipment Directive 2014/68/EU of the European Community, Fluida Group II



TECHNICAL DATA

Nominal size	Opening pressure (ΔP)	Allowable pressure PS
2"	50 mmH ₂ O	4.5 bar
3"	50 mmH ₂ O	4.5 bar
4"	50 mmH ₂ O	4.5 bar
6"	50 mmH ₂ O	4.5 bar

PHYSICAL DATA

Materials

Product wetted steel parts: EN 1.4404 (AISI 316L)
Product wetted seals: EPDM

Connections

Nut and liner acc. DIN 11851
Clamp ferrule ISO 2852
Nut and liner acc. SMS Swedish Standard Union
Weld End acc. DIN 11850 or ISO 2037 depending on valve size

Options

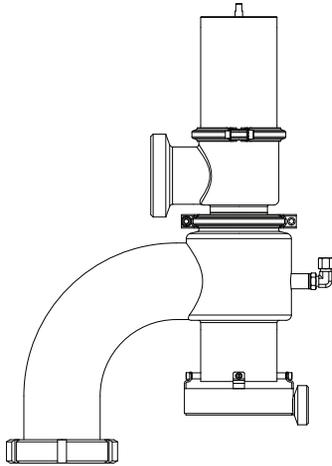
The Anti Vacuum House provides vacuum protection and can be combined with other valves to provide following functions:

- Safety valves for tank overpressure protection
- Regulating valves for process protection

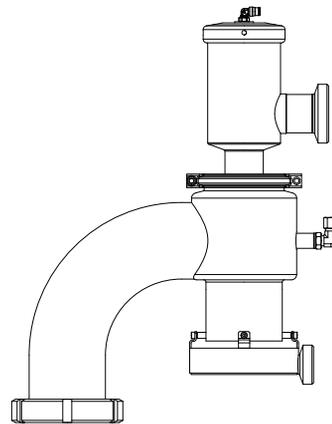
Available combinations

Anti Vacuum House	Regulating Valve		Safety Valve
	CO2 House	Pressure Exhaust	Pressure Relief Valve
Nominal size			
2"	X	X	
3"	X	X	X
4"	X	X	X
6"	X	X	X

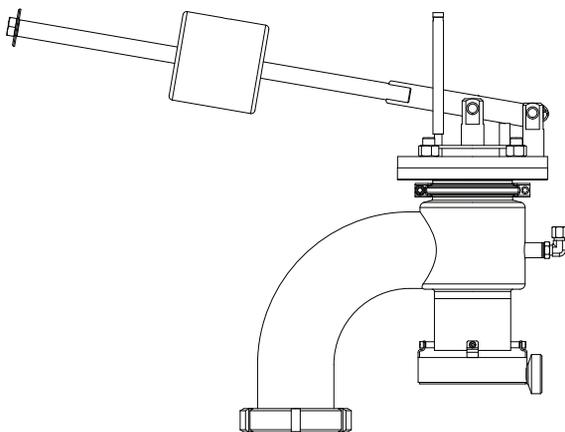
Anti Vacuum House with CO2 House



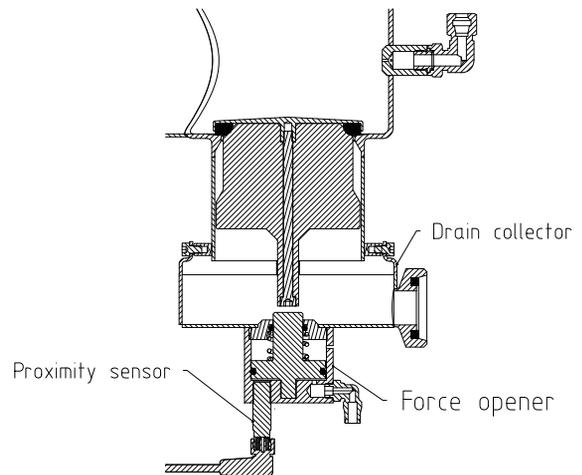
Anti Vacuum House with Pressure Exhaust



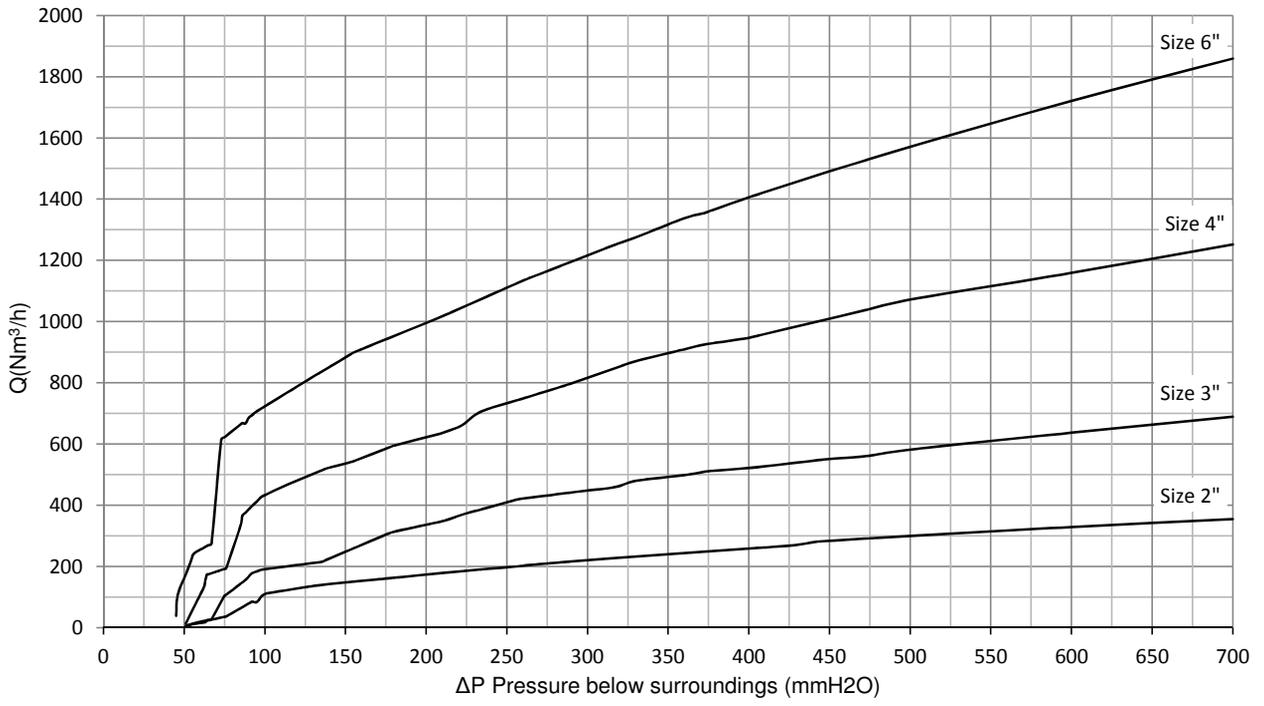
Anti Vacuum House with Pressure Relief Valve



Cross section of Anti Vacuum House with Force opener, Proximity sensor and Drain collector



Volumetric Flow Capacity
Medium: Air



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Safety Valve
Product code: 5916

Material: 1.4404
Seals: EPDM
Inside and outside surface finish: Blasted

Item No.	PPL EUR	Size DN	Operating range	Flow	Dimension (mm)		SCANDI BREW
					H	W	
Anti Vacuum House Weld End							
9615110503	994	51	50 - 500 mm WG	0 - 300 Nm ³ /h	267	263	
9615070503	1288	76.1	50 - 500 mm WG	0 - 580 Nm ³ /h	316	306	
9615070903	1605	101.6	50 - 500 mm WG	0 - 1080 Nm ³ /h	378	412	
9615071303	6994	DN150	50 - 500 mm WG	0 - 1850 Nm ³ /h	399	537	
Anti Vacuum House Standard DIN Nut & Liner acc. DIN11851							
9615110501	994	51	50 - 500 mm WG	0 - 300 Nm ³ /h	287	284	
9615070501	1288	76.1	50 - 500 mm WG	0 - 580 Nm ³ /h	336	370	
9615070901	1605	101.6	50 - 500 mm WG	0 - 1080 Nm ³ /h	401	436	
9615071305	6994	DN150	50 - 500 mm WG	0 - 1850 Nm ³ /h	429	567	
Anti Vacuum House Short DIN Nut & Liner acc. DIN11851							
9615110502	994	51	50 - 500 mm WG	0 - 300 Nm ³ /h	206	284	
9615070502	1288	76.1	50 - 500 mm WG	0 - 580 Nm ³ /h	258	370	
9615070902	1605	101.6	50 - 500 mm WG	0 - 1080 Nm ³ /h	319	436	
9615071306	6994	DN150	50 - 500 mm WG	0 - 1850 Nm ³ /h	363	567	

Safety Valve
Product code: 5916

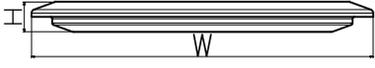
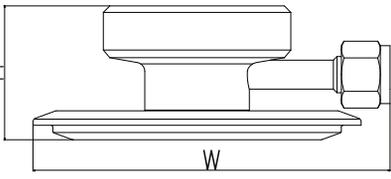
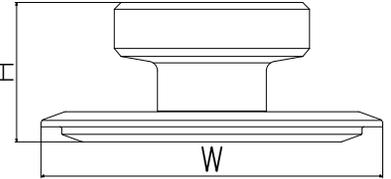
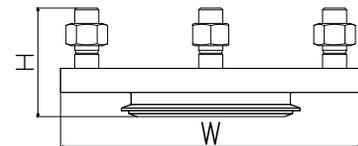
Material: 1.4404
Seals: EPDM
Inside and outside surface finish: Blasted

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Item No.	PPL EUR	Size DN	Operating range	Flow	Dimension (mm)		SCANDI BREW
					H	W	
Anti Vacuum House Standard SMS Nut & Liner							
9615110504	994	51	50 - 500 mm WG	0 - 300 Nm ³ /h	287	284	
9615070504	1288	76.1	50 - 500 mm WG	0 - 580 Nm ³ /h	336	370	
9615070904	1605	101.6	50 - 500 mm WG	0 - 1080 Nm ³ /h	401	436	
Anti Vacuum House Short SMS Nut & Liner							
9615110505	994	51	50 - 500 mm WG	0 - 300 Nm ³ /h	206	284	
9615070505	1288	76.1	50 - 500 mm WG	0 - 580 Nm ³ /h	258	370	
9615070905	1605	101.6	50 - 500 mm WG	0 - 1080 Nm ³ /h	319	436	

Safety Valve
Product code: 5919

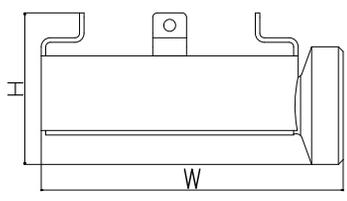
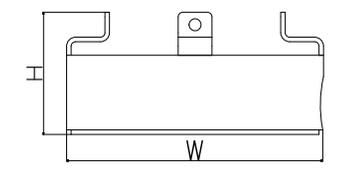
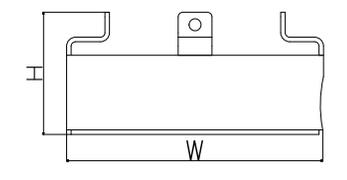
Material: 1.4404 (316L)
Seals: EPDM
Inside surface finish: Ra ≤ 1.6 µm
Outside surface finish: Ra ≤ 1.6 µm

Item No.	PPL EUR	Size	Connection	Dimension (mm)		SCANDI BREW	
				H	W		
AVH Blindplate							
9615121101	128	Ø51	Blind plate	8	91		
9615121401	127	Ø76.1-Ø101.6	Blind plate	8	119		
9615074801	128	DN150	Blind plate	28	183		
AVH Blindplate - With Connection & CIP							
9615147101	239	Ø51	DIN 25 Male Part	37	100		
9615147102	239	Ø51	DIN 40 Male Part	41	106		
9615147103	266	Ø76.1-Ø101.6	DIN 25 Male Part	37	114		
9615147104	266	Ø76.1-Ø101.6	DIN 40 Male Part	41	120		
9615147105	266	Ø76.1-Ø101.6	DIN 50 Male Part	43	126		
9615147106	266	Ø76.1-Ø101.6	DIN 65 Male Part	48	134		
9615147107	266	Ø76.1-Ø101.6	DIN 80 Male Part	53	141		
9615147108	323	DN150	DIN 40 Male Part	61	183		
9615147109	323	DN150	DIN 50 Male Part	63	183		
9615147110	403	DN150	DIN 65 Male Part	68	183		
9615147111	403	DN150	DIN 80 Male Part	73	183		
9615140801	185	Ø51	DIN 25 Male Part	37	91		
9615140802	185	Ø51	DIN 40 Male Part	41	91		
9615140803	207	Ø76.1-Ø101.6	DIN 25 Male Part	37	119		
9615140804	207	Ø76.1-Ø101.6	DIN 40 Male Part	41	119		
9615140805	207	Ø76.1-Ø101.6	DIN 50 Male Part	43	119		
9615140806	207	Ø76.1-Ø101.6	DIN 65 Male Part	48	119		
9615140807	207	Ø76.1-Ø101.6	DIN 80 Male Part	53	119		
9615140808	291	DN150	DIN 40 Male Part	61	183		
9615140809	291	DN150	DIN 50 Male Part	63	183		
9615140810	291	DN150	DIN 65 Male Part	68	183		
9615140811	291	DN150	DIN 80 Male Part	73	183		
9615121901	366	Ø76.1-Ø101.6	Pressure Relief Valve Ø75	73	200		
9615121902	366	Ø76.1-Ø101.6	Pressure Relief Valve Ø100	73	200		
9615122001	525	DN150	Pressure Relief Valve Ø75	94	200		
9615122002	525	DN150	Pressure Relief Valve Ø100	94	200		

Safety Valve
 Product code: 5919

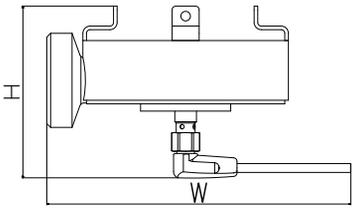
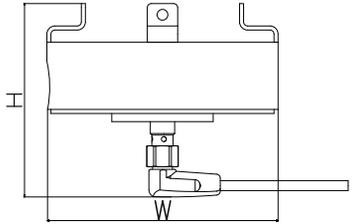
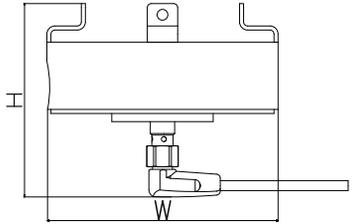
Material: 1.4307 (304L)
 Seals: EPDM
 Inside & outside surface finish: Blasted

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Item No.	PPL EUR	Size	Connection	Dimension (mm)		SCANDI BREW AVH Drain Collector
				H	W	
9615072801	343	Ø51	DIN 25 Male Part	67	134	
9615072803	343	Ø76.1	DIN 25 Male Part	80	165	
9615072805	351	Ø101.6	DIN 25 Male Part	70	165	
9615072807	611	DN150	DIN 25 Male Part	70	250	
9615072809	343	Ø51	SMS Ø25	61	127	
9615072810	343	Ø76.1	SMS Ø25	74	161	
9615072811	351	Ø101.6	SMS Ø25	64	158	
9615072812	611	DN150	SMS Ø25	64	243	
9615072802	343	Ø51	Weld end	54	114	
9615072804	343	Ø76.1	Weld end	67	145	
9615072806	351	Ø101.6	Weld end	67	145	
9615072808	611	DN150	Weld end	67	230	

Safety Valve
 Product code: 5919

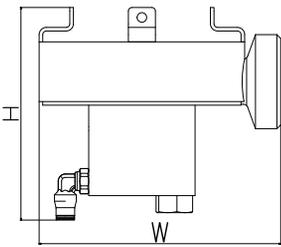
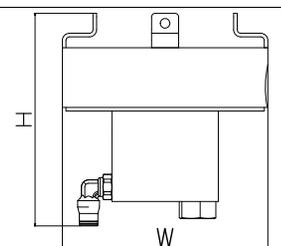
Material: 1.4307 (304L)
 Seals: EPDM
 Inside & outside surface finish: Blasted

Item No.	PPL EUR	Size	Connection	Dimension (mm)		SCANDI BREW
				H	W	
AVH Drain Collector with Prox Switch						
9615074501	440	Ø51	DIN 25	95	134	
9615074503	440	Ø76.1	DIN 25	108	165	
9615074505	449	Ø101.6	DIN 25	98	165	
9615074507	815	DN150	DIN 25	98	250	
9615074509	440	Ø51	SMS Ø25	95	134	
9615074510	440	Ø76.1	SMS Ø25	108	165	
9615074511	449	Ø101.6	SMS Ø25	98	165	
9615074512	815	DN150	SMS Ø25	98	250	
9615074502	440	Ø51	Weld end	95	114	
9615074504	440	Ø76.1	Weld end	108	145	
9615074506	449	Ø101.6	Weld end	98	145	
9615074508	815	DN150	Weld end	98	230	

Safety Valve
 Product code: 5919

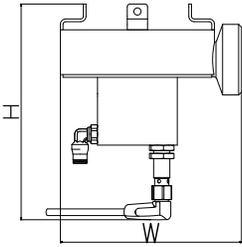
Material: 1.4307 (304L)
 Seals: EPDM
 Inside & outside surface finish: Blasted

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Item No.	PPL EUR	Size	Connection	Dimension (mm)		SCANDI BREW AVH Drain Collector with Force Opener
				H	W	
9615073909	747	Ø51	DIN 25	118	134	
9615073911	747	Ø76.1	DIN 25	131	165	
9615073913	755	Ø101.6	DIN 25	121	165	
9615073915	1016	DN150	DIN 25	121	250	
9615073917	747	Ø51	SMS Ø25	118	127	
9615073918	747	Ø76.1	SMS Ø25	131	158	
9615073919	755	Ø101.6	SMS Ø25	121	158	
9615073920	1016	DN150	SMS Ø25	121	243	
9615073910	747	Ø51	Weld end	118	114	
9615073912	747	Ø76.1	Weld end	131	145	
9615073914	755	Ø101.6	Weld end	121	145	
9615073916	1016	DN150	Weld end	121	230	

Safety Valve
 Product code: 5919

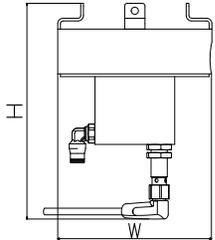
Material: 1.4307 (304L)
 Seals: EPDM
 Inside & outside surface finish: Blasted

Item No.	PPL EUR	Size	Connection	Dimension (mm)		SCANDI BREW
				H	W	
AVH Drain collector with Prox Switch & Force Opener						
9615073901	845	Ø51	DIN 25	159	134	
9615073903	845	Ø76.1	DIN 25	172	165	
9615073905	853	Ø101.6	DIN 25	162	165	
9615073907	1316	DN150	DIN 25	162	250	
9615073921	845	Ø51	SMS Ø25	159	127	
9615073922	845	Ø76.1	SMS Ø25	172	158	
9615073923	853	Ø101.6	SMS Ø25	162	158	
9615073924	1316	DN150	SMS Ø25	162	243	

Safety Valve
 Product code: 5919

Material: 1.4307 (304L)
 Seals: EPDM
 Inside & outside surface finish: Blasted

2.8

Item No.	PPL EUR	Size	Connection	Dimension (mm)		SCANDI BREW
				H	W	
9615073902	845	Ø51	Weld end	159	114	
9615073904	845	Ø76.1	Weld end	172	145	
9615073906	853	Ø101.6	Weld end	162	145	
9615073908	1316	DN150	Weld end	162	230	