



## SAFETY NOT RETURN VALVES NRV COMBO Ø100÷700 ATEX CERTIFIED (EN 16447)


**1370 EPT 20 ATEX 3954 X**


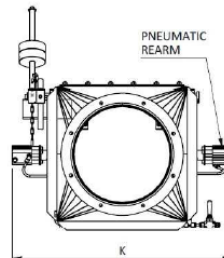
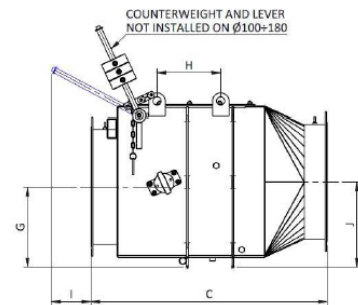
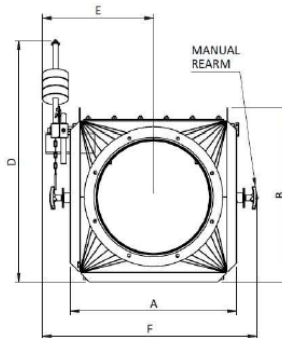
Safety not return valves are a passive protection system ATEX CERTIFIED EN 16447 against the propagation of explosion in suction lines. They are the sure solution to isolate the environments in case of explosion in the suction plants stopping the explosive effect in the suction line. They are produced in carbon steel painted standard RAL 3020 or stainless steel AISI 304 or AISI 316, welded in all the unions and the structure is reinforced to withstand high pressures. Our standard production is equipped with flanges and counterflanges compatible with DIN 24154-R1 except for Ø350, 550, 650, 700 and with locking mechanism. The gasket assures the sealing in closed position. Equipped with supporting slots for Ø350÷700.

### TECHNICAL DATA:

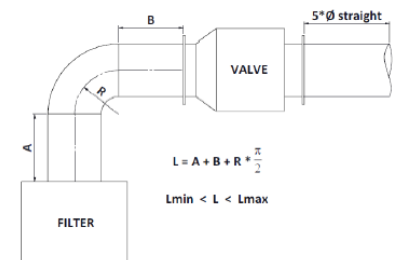
Pipe asset: Horizontal Working temperature: from -20°C to +60°C Process flux: pull flow Dust type: not metallic Minimum applicable volume: see table (Vmin) ATEX class: 3 - kst = 325 bar\*m/s Pred, max: see table Pmax: 9,5 bar MIE: 10÷30 mJ MIT: 400 °C Maximum air speed: 30 m/s Minimum and maximum installation distance: Lmin = 3m / Lmax = 5m with or without bend

### ACCESSORIES ON DEMAND:

Microswitch for closed position Capacitive sensor for dust deposit detection Siliconcel gasket Pneumatic cleaning system Pneumatic rearm for anti-opening lock (standard for Ø450÷700)



### EQUIVALENT LENGTH CALCULATION



Ø NRV COMBO [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	J [mm]	K [mm]	m [kg]	Vmin [m³]	P <sub>red, max</sub> [bar/psi]	Pressure drop @ 20 m/s [mm H <sub>2</sub> O]
100	150	185	415	-	170	340	75	-	-	90	425	10	1,2	1.0/14.5	67
125	175	210	440	-	180	360	88	-	-	103	445	11	1,2	1.0/14.5	65
150	200	235	465	-	195	390	100	-	-	115	475	12	1,2	1.0/14.5	63
160	210	245	475	-	200	400	105	-	-	120	485	13	1,2	1.0/14.5	61
180	230	265	495	-	210	420	115	-	-	130	505	14	1,2	1.0/14.5	59
200	360	360	575	590	270	510	140	-	125	155	575	31	1,2	0.6/8.7	34
250	410	410	625	640	295	560	165	-	125	180	625	38	1,2	0.6/8.7	34
300	460	460	675	690	320	610	190	-	125	205	675	48	1,2	0.6/8.7	33
350	510	530	725	740	345	660	215	305	125	230	725	58	1,2	0.6/8.7	32
400	560	580	775	790	370	710	240	350	125	255	775	68	1,2	0.6/8.7	32
450	610	630	825	970	415	780	295	400	255	295	825	88	5,0	0.6/8.7	34
500	660	680	875	1015	440	830	320	455	255	320	875	100	5,0	0.6/8.7	37
550	710	730	925	1065	465	880	345	505	255	345	925	112	5,0	0.6/8.7	40
600	760	780	975	1115	490	930	370	555	255	370	975	130	5,0	0.6/8.7	43
630	810	830	1025	1165	515	980	395	605	255	395	1025	155	5,0	0.6/8.7	45
650	810	830	1025	1165	515	980	395	605	255	395	1025	155	5,0	0.6/8.7	45
700	860	880	1075	1215	540	1030	420	655	255	420	1075	176	5,0	0.6/8.7	47

## MAIN DIFFERENCES BETWEEN SNR AND NRV COMBO

### DESCRIPTION SNR and NRV COMBO:

Explosion isolation Flap Valves SNR and NRV COMBO are ATEX certified EN 16447 and NFPA compliant. They have to be installed only in pull flow and with not metallic dusts.

Size [mm]	Minimum applicable volume [m <sup>3</sup> ]		P <sub>red, max</sub> [barg]		k <sub>st</sub> [bar*m/s]		L <sub>min</sub> / L <sub>max</sub> [m]		ATEX class	
	SNR	NRV COMBO	SNR	NRV COMBO	SNR	NRV COMBO	SNR	NRV COMBO	SNR	NRV COMBO
100	2.34	1.2	0.5	1.0	270	325	3 / 5	3 / 5	St2	St3
125	2.34	1.2	0.5	1.0	270	325	3 / 5	3 / 5	St2	St3
150	2.34	1.2	0.5	1.0	270	325	3 / 5	3 / 5	St2	St3
160	2.34	1.2	0.5	1.0	270	325	2 / 4	3 / 5	St2	St3
180	2.34	1.2	0.5	1.0	270	325	2 / 4	3 / 5	St2	St3
200	2.34	1.2	0.5	0.6	270	325	2 / 4	3 / 5	St2	St3
250	2.34	1.2	0.5	0.6	270	325	2 / 4	3 / 5	St2	St3
300	2.34	1.2	0.5	0.6	270	325	2 / 4	3 / 5	St2	St3
350	2.34	1.2	0.5	0.6	270	325	2 / 4	3 / 5	St2	St3
400	2.34	1.2	0.5	0.6	270	325	2 / 4	3 / 5	St2	St3
450	10.0	5.0	0.5	0.6	260	325	3 / 4	3 / 5	St2	St3
500	10.0	5.0	0.5	0.6	260	325	3 / 4	3 / 5	St2	St3
550	10.0	5.0	0.5	0.6	260	325	3 / 4	3 / 5	St2	St3
600	10.0	5.0	0.5	0.6	260	325	3 / 4	3 / 5	St2	St3
650	10.0	5.0	0.5	0.6	260	325	3 / 4	3 / 5	St2	St3
700	10.0	5.0	0.5	0.6	260	325	3 / 4	3 / 5	St2	St3
800	10.0	5.0	0.25	0.6	240	325	6 / 6	3 / 6	St2	St3
900	10.0	5.0	0.5	0.6	330	325	5 / 6	3 / 6	St3	St3
1000	-	10.0	-	0.5	-	325	-	3 / 6	-	St3
1100	-	10.0	-	0.5	-	325	-	3 / 6	-	St3
1200	-	10.0	-	0.5	-	325	-	3 / 6	-	St3

Size [mm]	p <sub>max</sub> [barg]		Pipe between valve and filter		Breaking element		Opening angle [°]	
	SNR	NRV COMBO	SNR	NRV COMBO	SNR	NRV COMBO	SNR	NRV COMBO
100	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Not installed	50	62
125	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Not installed	50	62
150	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Not installed	50	62
160	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Not installed	50	62
180	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Not installed	50	62
200	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	50	62
250	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	50	62
300	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	50	62
350	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	50	62
400	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	50	62
450	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	55	62
500	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	55	62
550	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	55	62
600	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	55	62
650	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	55	62
700	8.6	9.5	Straight	Straight or with n°1 elbow	Not installed	Installed	55	62
800	9.0	9.5	Straight	Straight or with n°1 elbow	Installed	Installed	65	67
900	9.0	9.5	Straight	Straight or with n°1 elbow	Installed	Installed	60	65
1000	-	9.5	-	Straight or with n°1 elbow	-	Installed	-	65
1100	-	9.5	-	Straight or with n°1 elbow	-	Installed	-	65
1200	-	9.5	-	Straight or with n°1 elbow	-	Installed	-	65