CARZ

Válvula flap de isolamento de explosão CARZ - Seu sistema de proteção para aplicações com poeira combustível

A válvula de isolamento de explosão do tipo CARZ impede a transmissão de ondas de pressão de explosão e chamas vindas do filtro para o seu local de trabalho. Ao usar nossa válvula de isolamento de explosão CARZ você reduz o risco de explosão de poeiras que podem atingir pessoas e equipamentos.

Função:

Durante a operação normal, a válvula é mantida aberta e seu grande ângulo de abertura garante baixa queda de pressão. Em caso de explosão no filtro, a onda de pressão forçará o fechamento da placa da aba, travando-a na posição. Quando esta placa é fechada, cria-se uma barreira eficaz contra a aproximação da chama. Isso evita que a explosão seja transmitida do filtro para as áreas de trabalho.

Independentemente do setor em que você atua ou do tipo de poeira gerado em sua fábrica, podemos fornecer a solução completa de filtros contra explosão de pó e válvulas de isolamento de explosão.

- Testado independentemente de acordo com as normas e regulamentos atuais
- Compatível com a maioria dos códigos internacionais de proteção contra explosão de poeira (ATEX e NFPA 68)
- Maior variedade de tamanhos, aplicações e configurações de sistemas de filtros do mercado (incluindo aprovação para sistemas de pressão positiva e negativa)
- Fabricado totalmente pela Nederman sob um sistema de garantia de qualidade certificado, garantindo o mais alto nível de qualidade e confiabilidade

None do Produto	CARZ
Material	Welded carbon steel, painted RAL5009
Operating temperature range	-20°C - +70°C (Min 0 F Max 160 F)
Ambient temperature range	-20°C - +60°C (Min 0 F Max 140 F)
Nota	LEL = Lower Explosion Limit = MEC Minimum Explosion Concentration
Explosion Class ATEX	St1
Max velocity in duct (m/s)	30
Minimum velocity in duct	0
Install type	Push and Pull
Dust type	[organic]
Kst (bar m/s)	200
Maximum reduced pressurem, Pred (bar)	0,45

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diâmetro (mm)	Connection	Peso (kg)	Dust Concentration in duct	Minimum vessel size, push (m3)	Minimum vessel size, pull (m3)	[model]
160	FL	23	Any	0,4	0,4	73001200
180	FL	26	< LEL	0,9	0,9	73001201*
200	FL	29	< LEL	0,9	0,9	73001202*
250	FL	36	< LEL	0,9	0,9	73001204*
315	FL	45	< LEL	0,9	0,9	73001207*
350	FL	50	< LEL	0,9	0,9	73001209*
400	FL	57	< LEL	0,9	0,9	73001211*
160	NW	23	Any	0,4	0,4	73001212
180	NW	26	< LEL	0,9	0,9	73001213*
200	NW	29	< LEL	0,9	0,9	73001214*
250	NW	36	< LEL	0,9	0,9	73001216*
315	NW	45	< LEL	0,9	0,9	73001219*
355	NW	50	< LEL	0,9	0,9	73001221*
400	NW	57	< LEL	0,9	0,9	73001223*
160	QF	23	Any	0,4	0,4	73001224
180	QF	26	< LEL	0,9	0,9	73001225*
200	QF		< LEL	0,9	0,9	73001226*
250	QF	29	< LEL	0,9	0,9	73001228*
315	QF	36	< LEL	0,9	0,9	73001231*
350	QF	45	< LEL	0,9	0,9	73001233*
400	QF	57	< LEL	0,9	0,9	73001235*
160	FL	23	Any	0,4	0,4	73000301
180	FL	26	< LEL	0,9	0,9	73000302*
200	FL	29	< LEL	0,9	0,9	73000303*
250	FL	36	< LEL	0,9	0,9	73000304*
315	FL	45	< LEL	0,9	0,9	73000305*
350	FL	50	< LEL	0,9	0,9	73000306*
400	FL	57	< LEL	0,9	0,9	73000307*
160	NW	36	Any	0,4	0,4	73000308
180	NW	26	< LEL	0,9	0,9	73000309*
200	NW	29	< LEL	0,9	0,9	73000310*
315	NW	45	< LEL	0,9	0,9	73000312*
355	NW	50	< LEL	0,9	0,9	73000313*
400	NW	57	< LEL	0,9	0,9	73000314*
160	QF	23	Any	0,4	0,4	73000315
180	QF	26	< LEL	0,9	0,9	73000316*
200	QF	29	< LEL	0,9	0,9	73000317*
250	QF	29	< LEL	0,9	0,9	73000318*
315	QF	36	< LEL	0,9	0,9	73000319*
350	QF	45	< LEL	0,9	0,9	73000320*
400	QF	57	< LEL	0,9	0,9	73000321*
250	NW		< LEL	0,9	0,9	73000311*

**LEL = Lower Explosion Limit = MEC Minimum Explosion Concentration*

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	[accessory]	[partno]
	CARZ Locking Sensor set	73001236
	CARZ support frame suspended 160	73001558
	CARZ support frame suspended 180	73001559
	CARZ support frame suspended 200	73001560
	CARZ support frame suspended 315	73001562
	CARZ support frame suspended 500	73001566
	CARZ support frame suspended 710	73001569
	Carz support frame suspended 900	73001571
	CARZ support frame suspended 1000	73001572
	CARZ support frame wall-hanging 160	73001573
	CARZ support frame wall-hanging 180	73001574
	CARZ support frame wall-hanging 200	73001575
	CARZ support frame wall-hanging 250	73001576
	CARZ support frame wall-hanging 315	73001577
	CARZ support frame wall-hanging 350	73001578
	CARZ support frame wall-hanging 400	73001579
	CARZ support frame wall-hanging 450	73001580
	CARZ support frame wall-hanging 500	73001581
	CARZ support frame wall-hanging 560	73001582
	CARZ support frame wall-hanging 900	73001586
	CARZ support frame wall-hanging 1000	73001587

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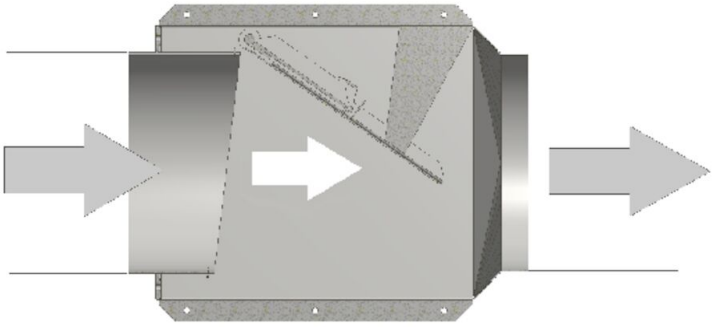
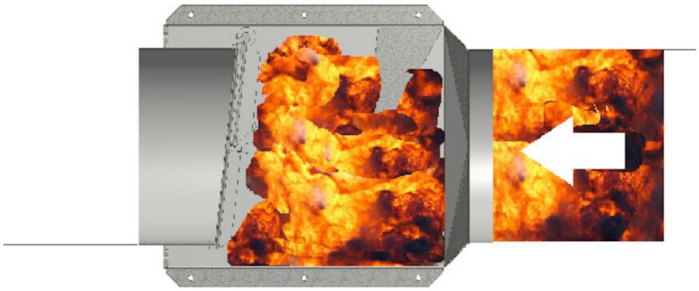


Suction direction



Explosion direction

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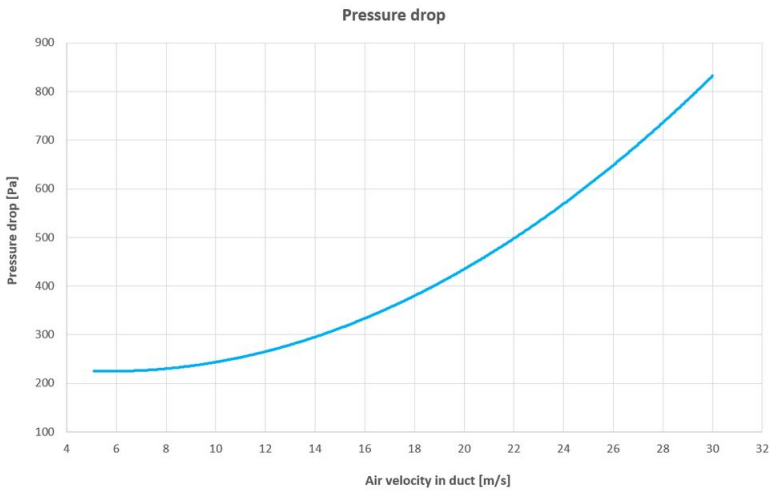
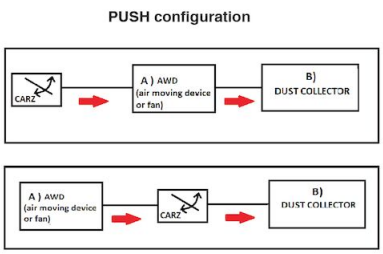


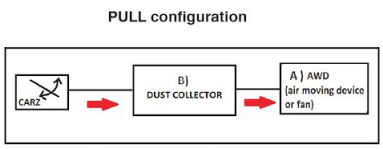
Chart of pressure drop vs. air velocity in duct

Pressure drop CARZ, sizes 160 -400

X- Axis: Air velocity in duct (m/s)

Y-Axsis: Pressure drop (Pa)





Parameter	Ø 6 "	Ø 7" -16"
1	2	3
L1* min	10 ft	16 ft
L1* max	26.5 ft	32.5 ft

Push/ Pull configuration, imperial

A) AWD (air moving device or fan)
B) Dust Collector

1) Elbows
2) Straight duct and max. 2 elbows 90°
3) Straight duct and max. 2 elbows 90°

L1 - Installation distance from the vessel, where the explosion could occure, to the CARZ.

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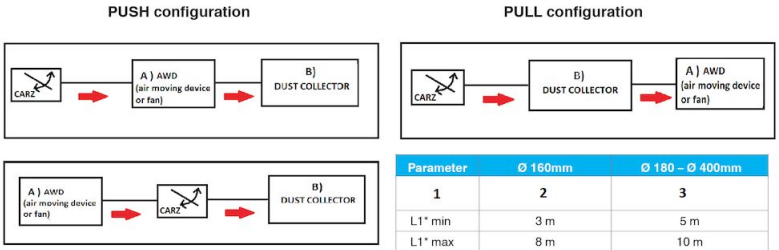

Parameter	Ø 160mm	Ø 180 – Ø 400mm
1	2	3
L1* min	3 m	5 m
L1* max	8 m	10 m

Push/ Pull configuration, metric

A) AWD (air moving device or fan)
B) Dust Collector

1) Elbows
2) Straight duct and max. 2 elbows 90°
3) Straight duct and max. 2 elbows 90°

L1 - Installation distance from the vessel, where the explosion could occure, to the CARZ.

Flap valve size ØD	Dimensions								Weight (lbs)	Part number	
	A (inch)	B (inch)	C (inch)	D (inch)	E (inch)	F (inch)	G (inch)	H (inch)		QuickFit	Flanged
(6")	19.5	18.5	17.1	22.9	7.7	12.2	5.1	6.1	51	73001273	73001261
(7")	20.3		17.9		8.1	11.9	5.5	6.5	57	73001274	73001262
(8")	21.1		18.7		8.5	11.4	5.9	6.9	64	73001275	73001263
(10")	23.0		20.7	23.0	9.5	10.5	6.9	7.9	79	73001277	73001265
(12,5")	26.0	19.9	24.2	26.0	10.8	9.1	8.4	9.9	104	73001281	73001269
(14")	27.0	20.9	25.2	27.0	11.5	8.5	8.9	10.4	110	73001282	73001270
(16")	28.9	22.8	27.2	28.9	12.4	7.8	9.8	11.5	126	73001284	73001272

Dimension table, Imperial

Flap valve size ØD	Dimensions [mm]								Weight [kg]	Part number					
													Stainless steel version		
	A	B	C	D	E	F	G	H		FL	QF	NW**	FL	QF	NW**
160mm	495	470	435	581	196	310	130	155	23	73001200	73001224	73001212	73000301	73000315	73000308
180mm	515		455		206	301	140	165	26	73001201	73001225	73001213	73000302	73000316	73000309
200mm	535		475		216	291	150	175	29	73001202	73001216	73001214	73000303	73000317	73000310
250mm	585		525	585	241	266	175	200	36	73001204	73001228	73001216	73000304	73000318	73000311
315mm	650	495	605	650	273	230	213	253	45	73001207	73001231	73001219	73000305	73000319	73000312
350mm*	685	530	640	685	291	217	225	265	50	73001209	73001233	73001221	73000306	73000320	73000313
400mm	735	580	690	735	316	198	250	290	57	73001211	73001235	73001223	73000307	73000321	73000314

Dimensions table, metric

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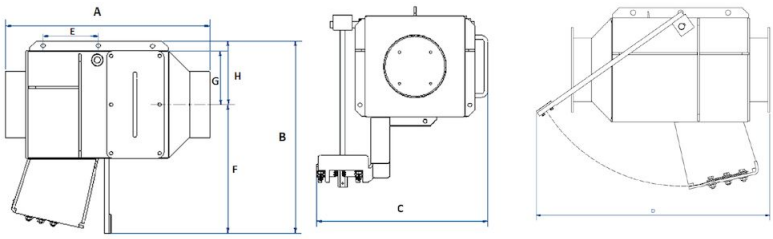

Dimensions

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