



Volume Control Damper (VCD)

Achieve simple and cost effective manual flow control application with the Wozair Volume Control Damper. (VCD)



Volume Control Damper

The Volume Control Damper has been designed to meet the requirements of the Offshore Oil & Gas, Marine and Nuclear markets where corrosion resistance and mechanical integrity are of prime importance. They are used to balance airflow through ventilation systems, and are not intended for isolation purposes.

The VCD can be offered with powered actuators for modulating control with either electric or pneumatic position actuators that can be connected at the control system for closed loop control.

Technical Information

Minimum Size

6"W x 6"H x 8"/12"D

Maximum Size

98"W x 98"H x 12"D

Explosive Atmosphere

ATEX/IECEX SGS Baseefa/SGS Fimko Oy

Materials of Construction

Casing and Flanges:

Materials

Stainless Steel 304L/316L (1.4307/1.4404); Galvanised Sheet Steel (GSS), Carbon Steel (GAM)
Other Stainless Steel grades available on request

Thickness

Minimum 14G (at 8" deep), 11G or 6G thick (at 12" deep)

Fully welded or welded and riveted

Flange drilling detail to ISO 15138
Custom flanges as option

Blades:

Materials

Stainless Steel 304L/316L (1.4307/1.4404)
Other Stainless Steel grades available on request

Thickness

Double skin from minimum 18G thick
Riveted to tubular shafts

Shafts:

Ø12.7 mm (1/2") continuous tubular shaft in Stainless Steel 316/316L (1.4401/1.4404)

Bearings:

Oil impregnated sintered bronze suitable to -67°F
Low leakage bearing assembly option available

Side Seals:

Option only with isolating blades Stainless Steel 316L (1.4404)

Linkage:

Stainless Steel 316L (1.4404)

6G thick link bars arranged to provide opposed blade motion

Blade Gasket:

Isolating blades for metal to metal that forms the seal as option

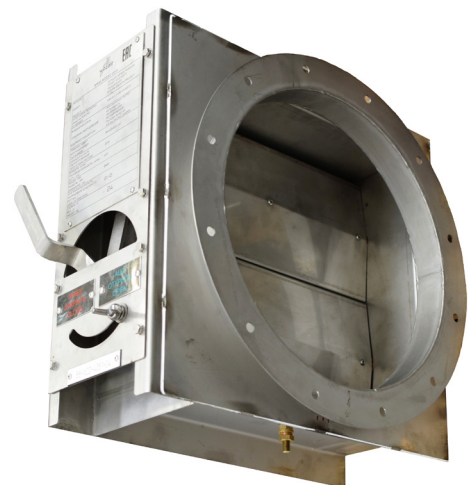
Mechanical Options

The following options can be incorporated if required.

- Increased flange thickness
- Stainless Steel bearings or for chemical application
PTFE bearings in place of sintered bronze (as standard)
- Transitions; various options for fitting into circular ductwork
- Earth bosses
- Lifting lugs

Ordering

Type:	VCD	Duct Width:	24"
Duct Height:	16"	Case Depth:	8"
Type Wozair: Volume Control Damper			
Case Material: <u>Stainless Steel</u> Low Carbon 1.4307 = 304L Low Carbon 1.4404 = 316L			
<u>Mild Steel Sheet</u> Pre-Galvanised FeP02 nac = GSS Galvanised after Manufacture = GAM			
Case Thickness: 14G - 6G			
Nominal: Clear inside duct dimensions Duct Size: 'Quote' (Width x Height)			
Order Code Example: VCD/316L/14G/24W/16H/8D			



Weights

VCD Bare Shaft Damper Weight Matrix - 8"D

lb	H (in)													
	4	12	18	24	30	35	41	47	61	75	83	89	98	
W (in)	4	9	18	22	29	33	40	46	51	68	86	95	101	110
	12	15	26	37	44	53	62	71	79	108	132	143	154	168
	18	22	35	46	55	68	79	90	99	137	168	179	194	209
	24	26	44	57	68	82	97	110	121	165	201	216	234	251
	30	31	51	68	79	97	112	130	141	196	236	251	273	295
	35	37	60	79	93	110	130	150	163	225	271	289	315	337
	41	42	68	90	104	126	148	168	183	254	304	326	355	379
	47	46	75	99	117	139	163	187	205	282	340	362	395	421
	61	71	117	154	181	218	256	293	322	428	514	551	597	646
	75	88	141	185	216	260	302	346	377	500	600	642	699	750
	89	104	163	212	247	295	344	392	428	571	683	730	791	851
	98	112	179	231	269	322	375	428	465	619	741	791	860	922

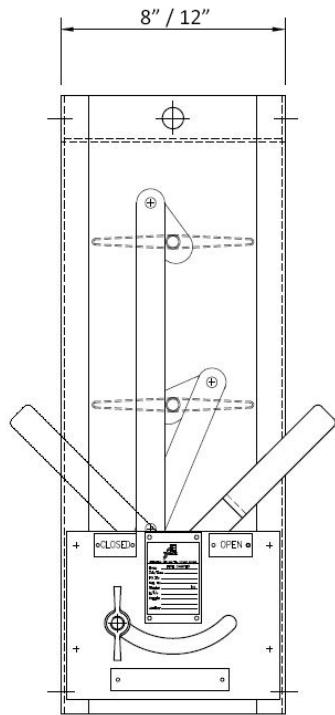
Additional nominal weights:
For Manual handle add 7lb nominally

VCD Bare Shaft Damper Weight Matrix - 12"D

lb	H (in)													
	4	12	18	24	30	35	41	47	61	75	83	89	98	
W (in)	4	15	26	35	44	53	62	71	79	108	132	148	157	172
	12	26	40	53	64	77	86	99	110	150	179	198	209	227
	18	35	51	66	77	93	106	119	132	181	214	236	249	271
	24	44	62	79	93	110	123	141	154	212	247	276	289	313
	30	53	73	93	106	128	141	161	176	243	282	313	328	355
	35	62	82	106	121	143	161	183	198	273	317	353	368	397
	41	68	93	117	134	161	179	203	223	304	351	390	408	441
	47	77	104	130	150	179	198	225	245	335	386	428	450	483
	61	112	151	194	225	267	298	337	368	483	560	622	653	705
	75	141	187	234	269	315	351	397	432	564	648	719	754	814
	89	163	214	267	304	357	397	448	487	637	730	809	849	913
	98	181	234	291	331	388	430	485	527	690	789	875	917	985

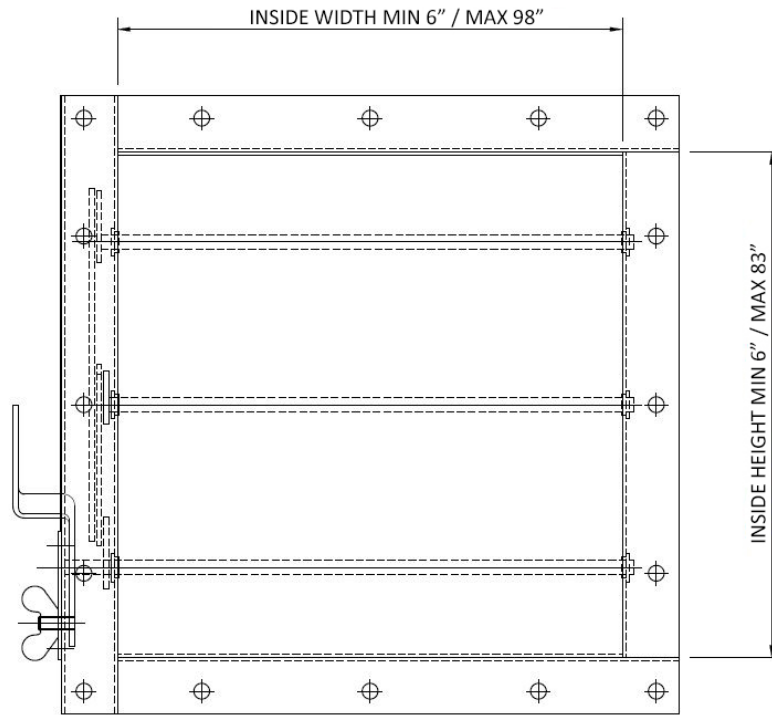
Additional nominal weights:
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Dimension Drawing



END ELEVATION

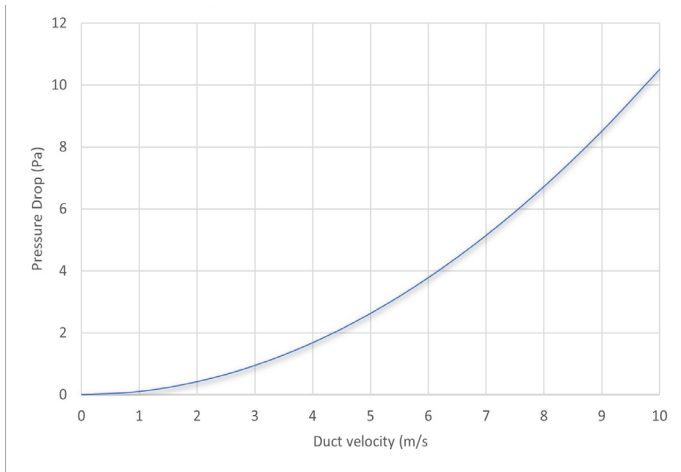
LINKAGE COVER PLATES
OMITTED FOR CLARITY



FRONT ELEVATION

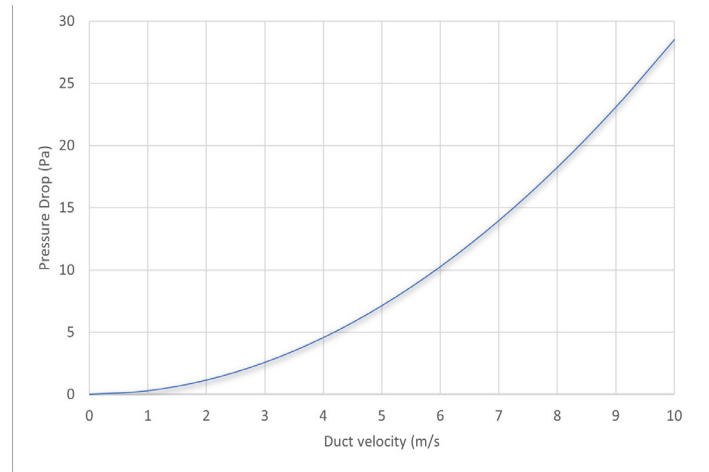
Performance

VCD 90° Open

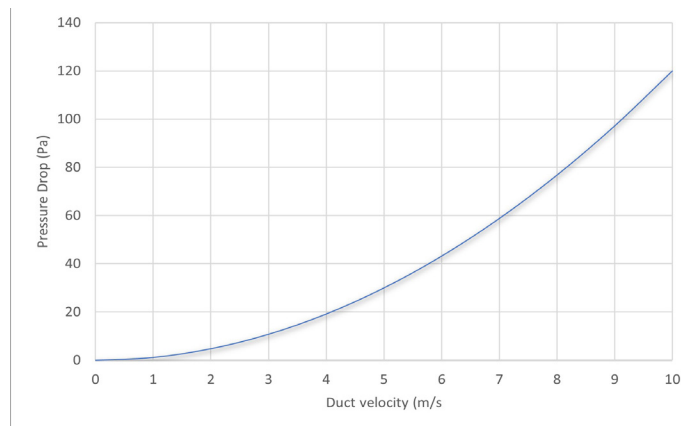


Performance

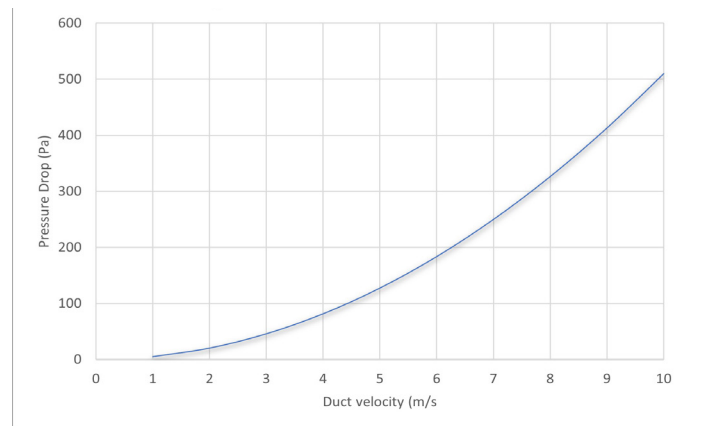
VCD 75° Open



VCD 60° Open



VCD 45° Open



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