

Volume Control Damper (VCD)

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



Volume Control Damper

These dampers have 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

150W x 150H x 200/300D mm

Maximum Size

2500W x 2100H x 300H mm

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 2.0 mm (at 200 mm deep) 3.0 or 5.0 mm thick (at 300 mm 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 1.2 mm 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 -55°C
Low leakage bearing assembly option available

Side Seals:

Stainless Steel 316L (1.4404)

Linkage:

Stainless Steel 316L (1.4404)

5.0 mm 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



Weights

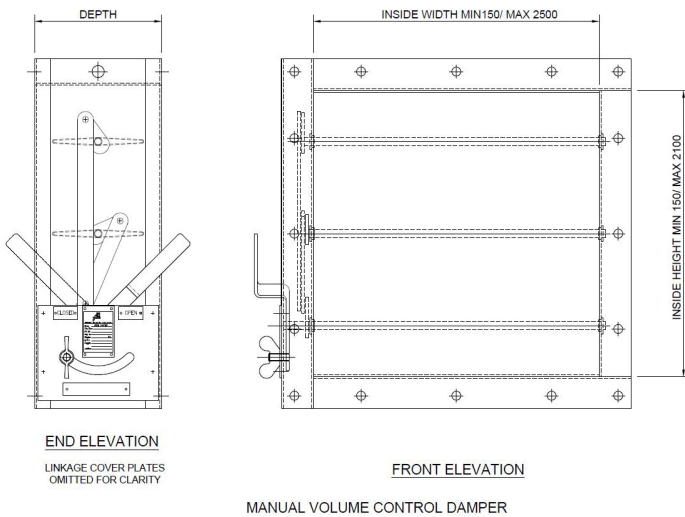
VCD Bare Shaft Damper Weight Matrix - 200D

Kg	H (mm)													
	100	300	450	600	750	900	1050	1200	1550	1900	2100	2250	2500	
W (mm)	100	4	8	10	13	15	18	21	23	31	39	43	46	50
	300	7	12	17	20	24	28	32	36	49	60	65	70	76
	450	10	16	21	25	31	36	41	45	62	76	81	88	95
	600	12	20	26	31	37	44	50	55	75	91	98	106	114
	750	14	23	31	36	44	51	59	64	89	107	114	124	134
	900	17	27	36	42	50	59	68	74	102	123	131	143	153
	1050	19	31	41	47	57	67	76	83	115	138	148	161	172
	1200	21	34	45	53	63	74	85	93	128	154	164	179	191
	1550	32	53	70	82	99	116	133	146	194	233	250	271	293
	1900	40	64	84	98	118	137	157	171	227	272	291	317	340
	2250	47	74	96	112	134	156	178	194	259	310	331	359	386
	2500	51	81	105	122	146	170	194	211	281	336	359	390	418

Please Note:

For Manual handle add 3kg nominally

Dimension Drawing Example (Manual Control)



Weights

VCD Bare Shaft Damper Weight Matrix - 300D

Kg	H (mm)													
	100	300	450	600	750	900	1050	1200	1550	1900	2100	2250	2500	
W (mm)	100	7	12	16	20	24	28	32	36	49	60	67	71	78
	300	12	18	24	29	35	39	45	50	68	81	90	95	103
	450	16	23	30	35	42	48	54	60	82	97	107	113	123
	600	20	28	36	42	50	56	64	70	96	112	125	131	142
	750	24	33	42	48	58	64	73	80	110	128	142	149	161
	900	28	37	48	55	65	73	83	90	124	144	160	167	180
	1050	31	42	53	61	73	81	92	101	138	159	177	185	200
	1200	35	47	59	68	81	90	102	111	152	175	194	204	219
	1550	51	69	88	102	121	135	153	167	219	254	282	296	320
	1900	64	85	106	122	143	159	180	196	256	294	326	342	369
	2250	74	97	121	138	162	180	203	221	289	331	367	385	414
	2500	82	106	132	150	176	195	220	239	313	358	397	416	447

Please Note:

For Manual handle add 3kg nominally

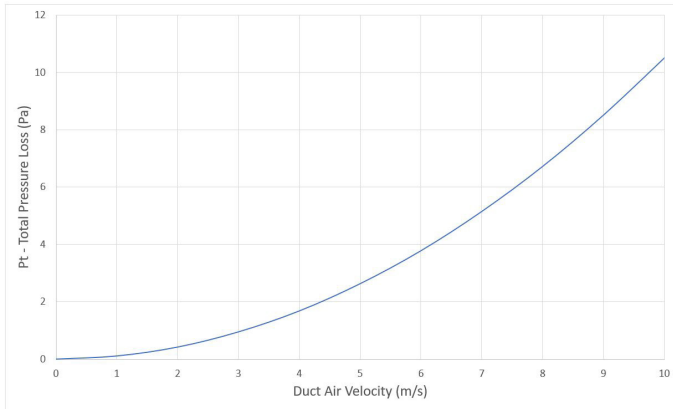
Ordering

Type:	VCD	Duct Width:	600
Duct Height:	400	Case Depth:	200
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: 2.0 - 5.0 mm			
Nominal: Clear inside duct dimensions			
Duct Size: 'Quote' (Width x Height)			
Order Code Example:			
VCD/316L/2.0/600W/400H/200D			

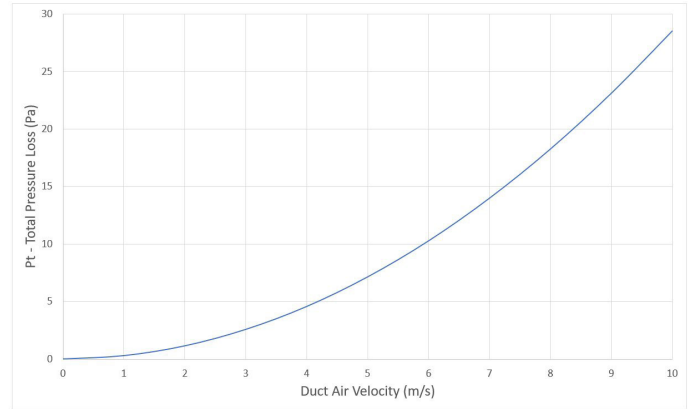


Performance

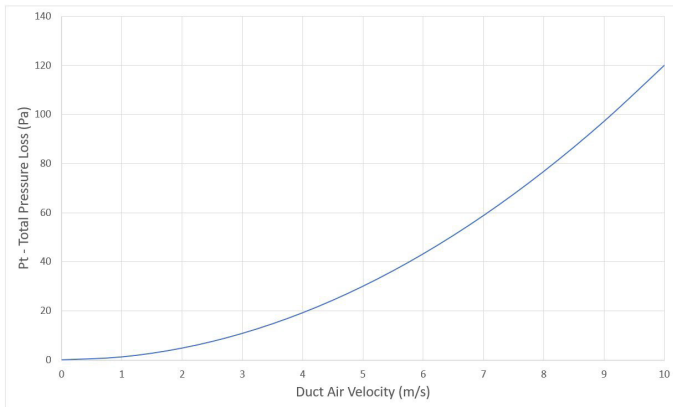
VCD 90° Open



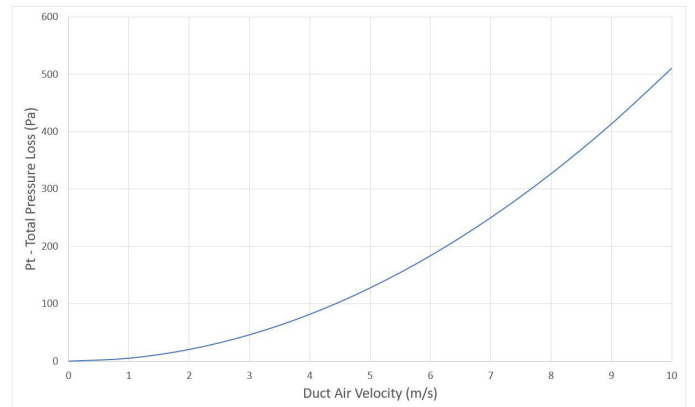
VCD 75° Open



VCD 60° Open



VCD 45° Open



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