

BLD

Non-Return Damper



Halton BLD non-return dampers are used in offshore and marine applications to prevent backflow through ventilation ductwork system. The BLD dampers do not need an actuator or motor. Non-return dampers can be installed in rectangular or circular ducts, horizontally or vertically. If required, they can easily be set by adjusting the weight of each damper/installation. Weights for BLD dampers are available as an option. When the blades are in the open position, the device does not cause significant pressure loss, noise or flow disturbance (with weights).

- Fixed frame in painted, galvanized or stainless steel. Blades of galvanized or stainless steel.
- Models for horizontal or vertical installation
- ATEX approved

- Closed damper fulfills the leakage requirement of NORSOK. Leakage class of closed damper according to EN 1751 class 2 (tested size 1000x1000 mm, VTT test report no. RTE4306/04)
- Blades contain silicone seal to lower the leakage through blades.
- Blades linked and open in parallel
- Adjustable by changing the position of counterweights. Counterweights supplied on request. Standard construction places weights on the right hand side, weights on the left hand side available as an option
- Maximum duct pressure for damper construction 5000 Pa and maximum air velocity 15 m/s. In case of high duct pressure, contact Halton Marine for finding the most suitable solution.

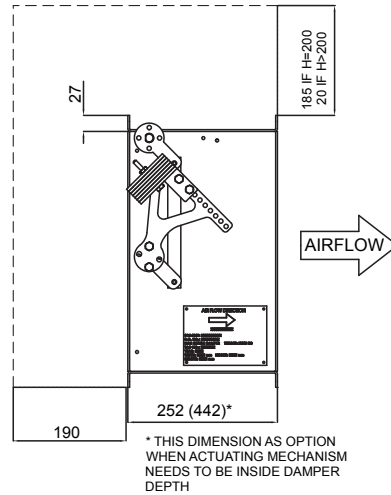
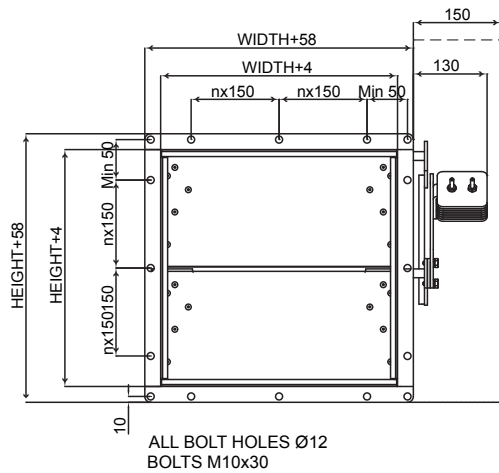
PART	MATERIAL	FINISHING	NOTE
Frame	Carbon steel	Painted or galvanized	-
Frame	Stainless steel	-	-
Blades	Steel	Galvanized	-
Blades	Stainless steel	-	-
Maintenance-free bearings	Stainless steel	-	Bronze bearings optional
Shafts	Stainless steel	-	-

BLD DIMENSIONS AND MATERIAL THICKNESS

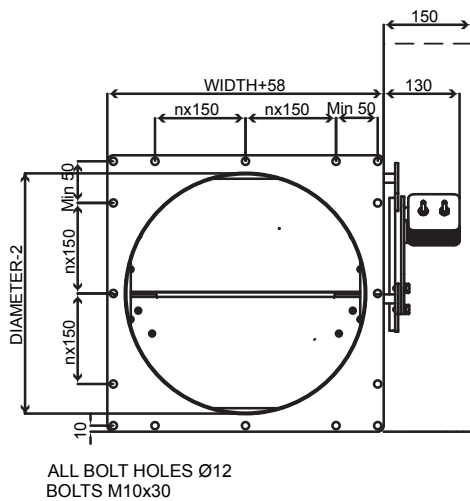
BLD non-return dampers meet international standards for both rectangular (width B 200-1200 and height H 200-1400 mm, 1mm division) and circular ducts (Ø100 - 1250 mm). Non-standard dimensions are available on request. Standard flange width 27 mm.

Flanges and drilling also available according to ISO 15138 standards. Modular construction sizes up to 2400x2800 mm. Standard frame material thickness 3 mm. Blades made of two sheets, each being 0.8 mm thick.

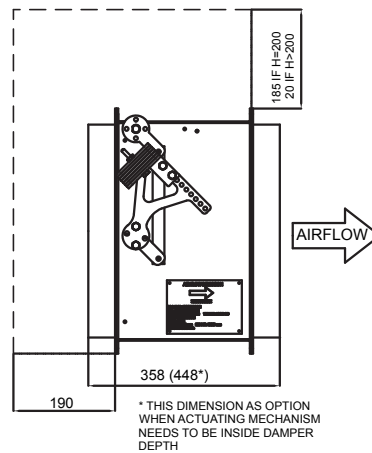
GENERAL BLD DRAWING



BLD DRAWING, CIRCULAR CONNECTIONS



BLD DRAWING, CIRCULAR CONNECTIONS

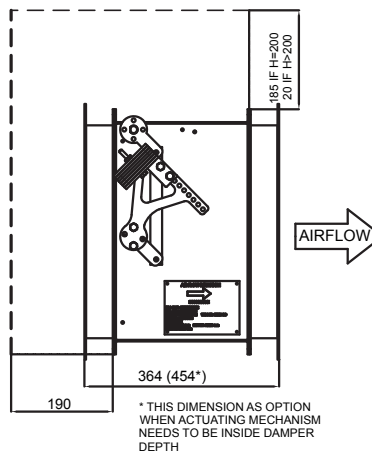


----- operation area

Please note:

Weights for Halton BLD are supplied on request.

BLD CIRCULAR, WITH CONNECTION FLANGES



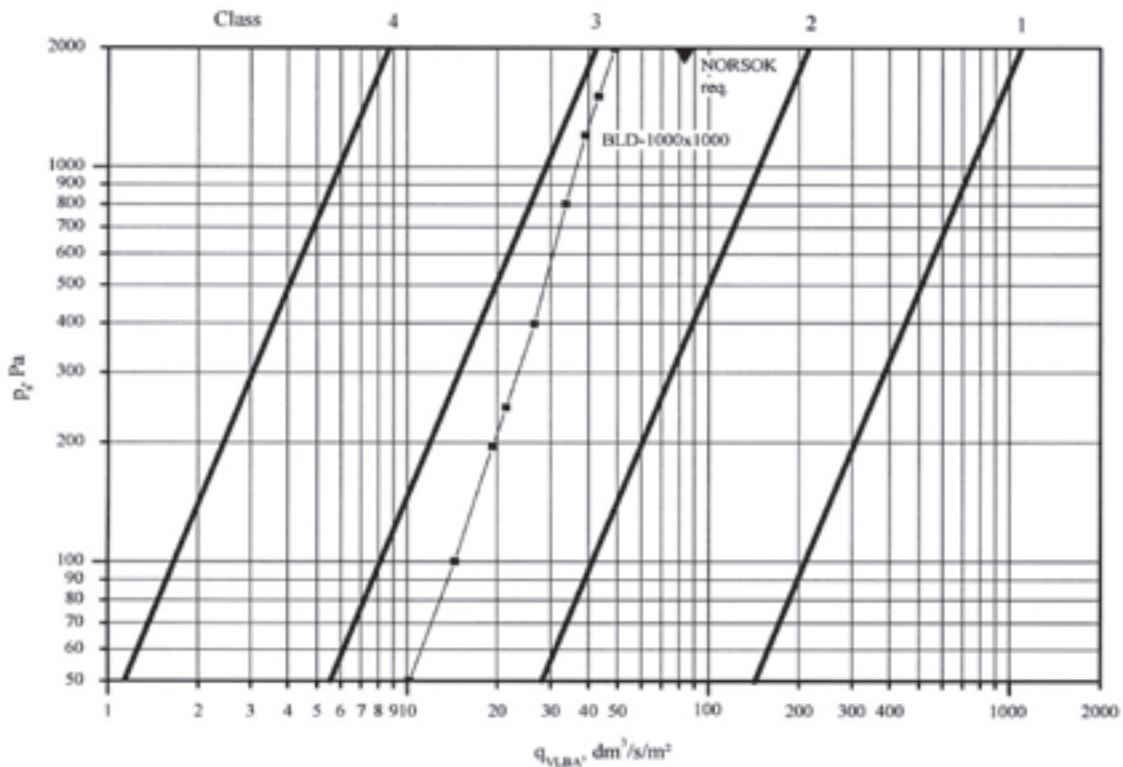
BLD PRODUCT MODELS AND ACCESSORIES

Models for horizontal and vertical installation available.
Circular connection pieces are available. Counter weights are supplied on request.

OPERATION PRINCIPLE

Non-return damper will allow one-way airflow in the ductwork. This feature is based on imbalanced blades. When the pressure in the ductwork drops below minimum opening force required, the blades close and seal the duct to prevent backflow. The minimum opening force can be adjusted with optional weights.

BLD/BRD LEAKAGE TEST, DAMPER SIZE 1000x1000



Closed blade leakage.

EN 1751:1998

Duct cross sectional area: 1,00 m²

Air density 1.20 kg/m³

Closed damper fulfils the leakage requirement of NORSOK; maximum leakage 300 m³/h/m² (83,3 dm³/s/m²) at 2000 Pa.

Closed damper fulfils the requirement of leakage class 2 (EN 1751:1998). (negative pressure)

Symbols and units

Ps Static test pressure

qVLBA Closed blade leakage air flow per duct cross sectional area, dm³/s/m²

WEIGHTS OF HALTON MARINE BLD DAMPERS (KG)

H/Height mm	B / Width (mm)											D2 ØD mm	Weight kg
	200	300	400	500	600	700	800	900	1000	1100	1200		
200	8	10	12	14	16	17	19	20	22	24	25	200	12
300	11	13	15	17	19	20	22	24	26	28	29	250	14
400	13	15	17	19	21	23	24	27	29	30	32	315	18
500	15	18	20	22	24	26	28	30	32	34	36	400	23
600	17	20	22	24	26	29	31	33	35	37	40	500	31
700	20	22	25	27	30	32	34	37	39	41	44	630	40
800	22	24	27	29	32	34	37	40	42	44	47	800	54
900	24	27	30	32	35	38	41	43	46	48	51	1000	73
1000	26	29	32	35	38	40	43	46	49	51	54	1250	94
1100	29	32	35	38	41	44	47	50	53	55	58		
1200	31	34	37	40	43	46	49	52	56	58	62		
1300	33	37	40	43	46	50	53	56	59	62	66		
1400	35	39	42	45	49	52	56	59	62	65	69		

Weights do not include counter weights

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Halton
MARINE

