

## BRD PRESSURE-RELIEF DAMPER

For offshore and marine ventilation systems



### MATERIALS

PART	MATERIAL	FINISHING
Frame	Carbon steel	Painted or galvanised
Frame	Stainless steel EN 1.4301 (AISI304), EN 1.4404 (AISI316L), EN 1.4432 (AISI316L)	-
Blades	Steel	Galvanized
Blades	Stainless steel EN 1.4301 (AISI304), EN 1.4404 (AISI316L), EN 1.4432 (AISI316L)	-
Maintenance-free bearings	Stainless steel EN 1.4404 (AISI316L)	-
Shafts	Stainless steel EN 1.4404 (AISI316L)	-

### BRD PRODUCT OPTIONS

- Models for horizontal and vertical installation available
- Circular connection pieces are available.
- Standard construction places weights on the right hand side. Weights on the left hand side available as an option.

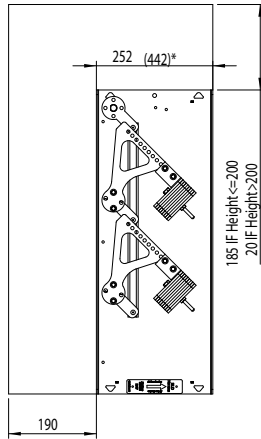
### APPLICATIONS

Halton BRD pressure-relief dampers are used in offshore and marine applications to regulate the pressure in the ductwork system. The Halton pressure relief dampers do not need an actuator or motor. The BRD dampers can be installed in rectangular or circular ducts horizontally or vertically. The damper is in closed position when the pressure in the duct is lower than the adjusted opening pressure. Opening pressure can easily be set by adjusting weight of each damper/installation. Weights are included in the delivery. Pressure relief dampers can be supplied with non-standard dimensions on request.

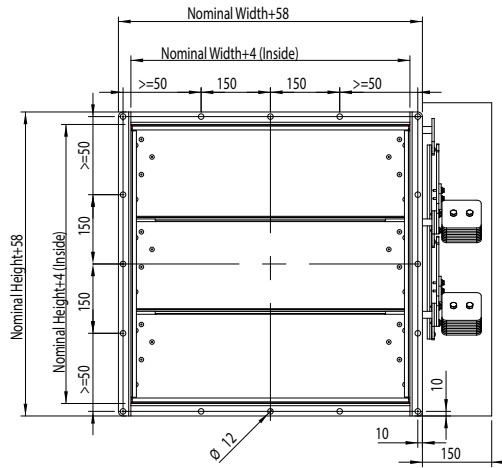
### FEATURES

- Fixed frame in painted, galvanized or stainless steel. Blades of galvanized or stainless steel.
- Models for horizontal or vertical installation
- Blades contain silicone seal to lower the leakage through blades
- Available as ATEX approved
- Leakage class (EN1751:2014) of closed damper up to class 2. Contact Halton for more details.
- Blades linked and open in parallel
- Opening pressure adjusted by changing the position of counterweight(s)
- Opening pressure range between 30 Pa and 150 Pa (up to 300 Pa optional). For higher opening pressure, contact Halton Marine.
- Counterweights included
- Standard construction places weights on the right hand side, weights on the left hand side available as an option
- Final adjustment of counterweights carried out during commissioning onsite
- 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.
- Temperature operation range up to +100°C, optionally up to +180°C

GENERAL BRD DRAWINGS

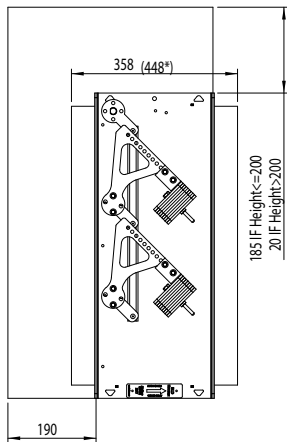


\*THIS DIMENSION AS OPTION  
WHEN ACTUATING MECHANISM  
NEEDS TO BE INSIDE DAMPER DEPTH

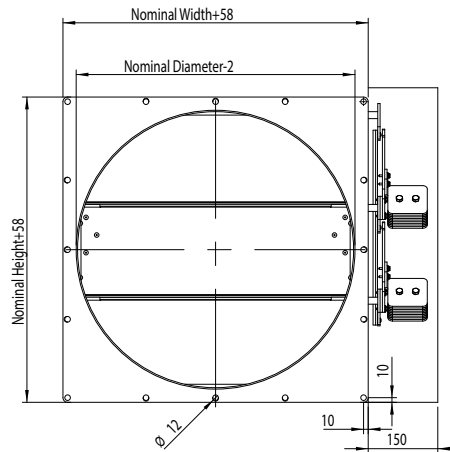


OPERATION AREA

BRD DRAWING, CIRCULAR CONNECTIONS

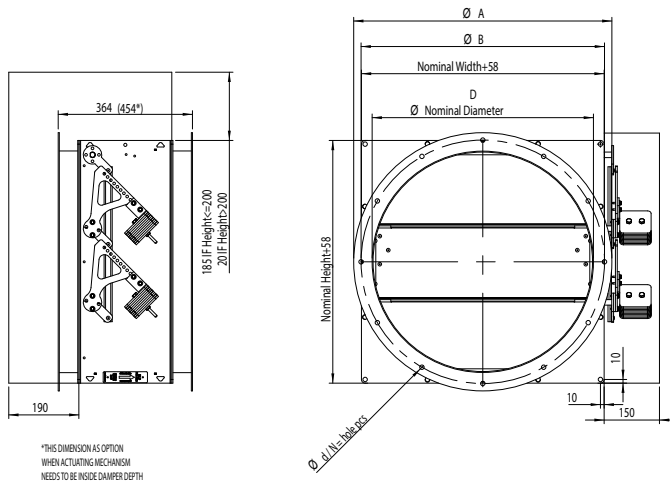


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WHEN ACTUATING MECHANISM  
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OPERATION AREA

BRD, CIRCULAR, WITH CONNECTION FLANGES



\*THIS DIMENSION AS OPTION  
WHEN ACTUATING MECHANISM  
NEEDS TO BE INSIDE DAMPER DEPTH

OPERATION AREA

D	B	A	d	N
200	225	300	8,5	4
250	280	350	12	4
315	355	415	12	8
400	450	500	12	8
500	560	600	12	12
630	690	730	12	12
800	860	900	12	16
1000	1070	1100	15	16
1250	1320	1350	15	20

**BRD DIMENSIONS AND MATERIAL THICKNESS**

BRD pressure relief dampers meet international standards for both rectangular (width B 150-1200 mm and height H 150-1400 mm, 1 mm 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 are available. Standard frame material thickness 3 mm. Blades are made of two sheets, each of being 0.8 mm thick (sandwich design).

**BRD OPERATION PRINCIPLE**

Pressure-relief damper will allow one-way pressure relief in the ductwork. This feature is based on imbalanced blades. When the pressure in the duct rises above selected value (from 30 Pa to 150 Pa, up to 300 Pa optionally) the damper blades open to allow pressure relief. For higher opening pressure, contact Halton Marine. The minimum opening force can be adjusted with weights. When the pressure in the ductwork drops below minimum opening force required, the blades close and seal the duct.

**WEIGHTS**

STANDARD HALTON MARINE BRD DAMPERS (KG) including counter weights. Frame thickness 3mm.

H/HEIGHT mm	B / WIDTH (mm)												D2 ØD mm	WEIGHT kg
	150	200	300	400	500	600	700	800	900	1000	1100	1200		
150	8	9	11	13	15	16	18	20	22	24	25	27	100	12
200	10	12	12	14	16	19	20	22	24	26	28	29	160	12
300	12	13	15	18	20	21	24	26	29	31	34	35	200	15
400	14	15	18	20	23	25	28	30	33	36	37	40	250	17
500	17	17	21	24	27	29	32	35	37	40	43	45	315	21
600	19	20	24	26	29	32	36	39	42	45	47	51	400	26
700	21	23	26	30	33	37	40	43	47	50	53	57	500	36
800	22	24	27	33	36	40	43	47	51	54	58	62	630	45
900	26	28	32	36	39	44	48	52	56	60	63	67	800	63
1000	28	30	34	39	43	48	51	55	60	64	68	72	1000	87
1100	31	33	38	42	47	51	56	60	65	70	72	78	1250	116
1200	33	35	40	45	50	54	59	64	69	74	78	84		
1300	36	38	44	48	53	58	64	69	74	79	83	89		
1400	38	40	46	51	56	62	67	73	78	83	88	94		

