

Barometric Relief Damper - Model BRL

Design Features – Traditional medium to light duty galvanized & aluminum backdraft damper with adjustable blade mounted counter weight.

PLEASE SPECIFY HORIZONTAL OR VERTICAL AIR FLOW

STANDARD CONSTRUCTION

FRAME

4-1/4" deep, 16 gauge galvanized steel, style # 2.

BLADES

.063" formed aluminum, 6" wide

BLADE AXLES & BEARINGS

AXLE – 1/2" Plated steel shaft

BEARINGS – 1/2" Bore ball bearings

LINKAGE

Mounted at the center point of the width dimension of face of blades

COUNTER WEIGHT

Adjustable, on .063" aluminum bracket

MAXIMUM VELOCITY & STATIC PRESSURE

2500 FPM @ 2" static pressure

MAXIMUM TEMPERATURE

250⁰ F

MAXIMUM SIZE

Unlimited, with mullions, structural bracing supplied by others

MAXIMUM SINGLE SECTION

48"W x 96"H

MINIMUM SIZE

6"W x 14"H

UNDERSIZED

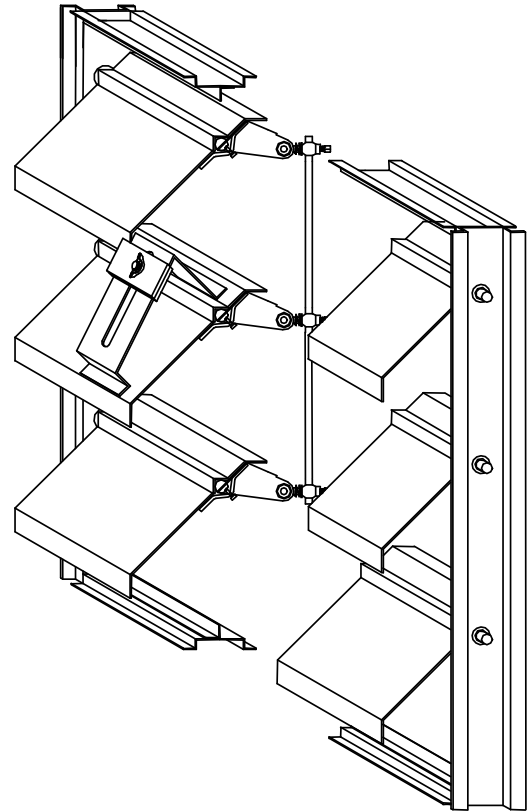
1/4" (6.35) under ordered size unless specified Exact or Actual

FINISH

Mill

OPERATOR

None



OPTIONAL CONSTRUCTION

FRAME – Available in galvanized steel or aluminum up to 10 ga.

BLADES - Available in galvanized steel or aluminum up to 14 ga.

SPECIFIED MATERIAL – Available in stainless steel

BLADE & JAMB SEALS – Neoprene blade edge and/or foam rubber side seals

SLEEVE AND DUCTWORK CONNECTION – 10 ga. To 20 ga. Galvanized steel to 30" in length. – Transition available in: round, oval, rectangular or custom. Factory can install access door, retaining angles, or flange connections.

FINISH – Air-dry primer, polyurethane, epoxy, or enamel, baked epoxy or enamel, Kynar, or Powder coat.

SPECIAL PURPOSE CONSTRUCTION

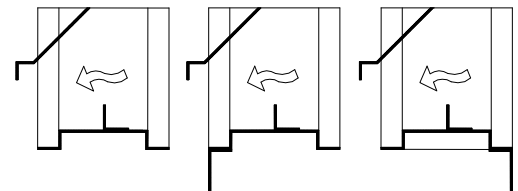
Fully welded construction

Security bars

Hinged as walk through door or swing out access

Filter racks

Sleeved for ductwork connection



(2) Channel

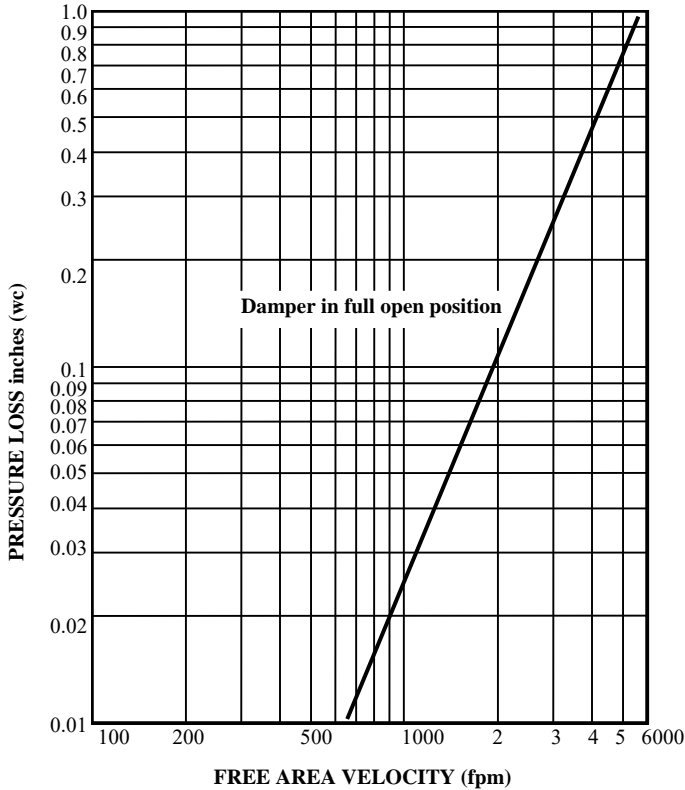
(1) Standard Flange

(5) Reverse Flange

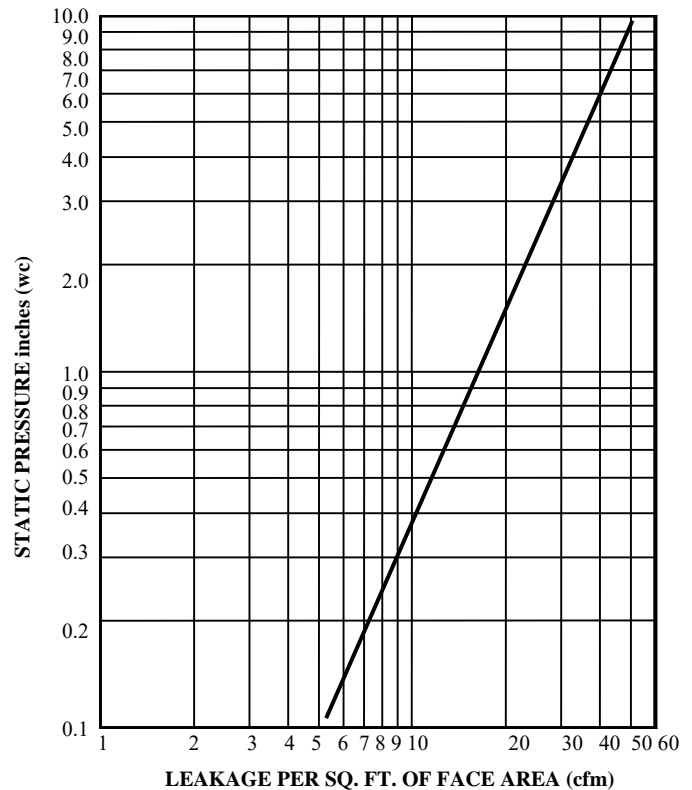
DATE	ARCHITECT			CUSTOMER
PROJECT				
ITEM	QTY	W	H	DESCRIPTION

All tests performed at an independent laboratory and based on AMCA standards for air performance.

AIR PERFORMANCE



AIR LEAKAGE



LEAKAGE PER SQ. FT. OF FACE AREA (cfm)
Tested per AMCA Std. 500, Fig. 5.5, w/ blade and jamb seals

BRL Performance Data

Damper Width Inches	Max. Pressure	Maximum System Velocity	Blade start to open	Blades fully open
48"	4" w.g.	2500 fpm		
36"	8" w.g.	2500 fpm	.01" wg.	.05" wg.
24"	12" w.g.	2500 fpm		
12"	16" w.g.	2500 fpm		

TO MINIMIZE LEAKAGE

The Leakage performance of a damper will improve with size and varies with aspect ratio. Leakage may always be minimized by selecting dampers as tall as possible, minimizing width. Testing was performed at an independent laboratory using test procedures based on Industry Standards for air leakage.

MAXIMUM SINGLE SECTION SIZE – 48"W x 96"H

MINIMUM SINGLE SECTION SIZE – 6"W x 19"H

FREE AREA CALCULATIONS WIDTH

Inches	12	16	20	24	28	32	36	40	44	48
12	0.56	0.78	1.00	1.22	1.44	1.67	1.89	2.11	2.33	2.56
16	0.83	1.17	1.50	1.83	2.17	2.50	2.83	3.17	3.50	3.83
20	1.06	1.48	1.91	2.33	2.75	3.18	3.60	4.02	4.45	4.87
24	1.28	1.80	2.31	2.83	3.34	3.85	4.37	4.88	5.40	5.91
28	1.51	2.11	2.72	3.32	3.93	4.53	5.14	5.74	6.34	6.95
32	1.79	2.50	3.22	3.93	4.65	5.36	6.08	6.80	7.51	8.23
36	2.01	2.82	3.63	4.43	5.24	6.04	6.85	7.65	8.46	9.26
40	2.24	3.14	4.03	4.93	5.82	6.72	7.61	8.51	9.41	10.30
44	2.47	3.45	4.44	5.42	6.41	7.40	8.38	9.37	10.35	11.34
48	2.74	3.84	4.94	6.03	7.13	8.23	9.33	10.42	11.52	12.62
52	2.97	4.16	5.34	6.53	7.72	8.91	10.09	11.28	12.47	13.66
56	3.19	4.47	5.75	7.03	8.31	9.58	10.86	12.14	13.42	14.69
60	3.42	4.79	6.16	7.52	8.89	10.26	11.63	13.00	14.36	15.73
64	3.70	5.18	6.66	8.14	9.61	11.09	12.57	14.05	15.53	17.01
68	3.92	5.49	7.06	8.63	10.20	11.77	13.34	14.91	16.48	18.05
72	4.15	5.81	7.47	9.13	10.79	12.45	14.11	15.77	17.43	19.09
76	4.43	6.20	7.97	9.74	11.51	13.28	15.05	16.82	18.59	20.36
80	4.65	6.51	8.38	10.24	12.10	13.96	15.82	17.68	19.54	21.40
84	4.88	6.83	8.78	10.73	12.68	14.64	16.59	18.54	20.49	22.44
88	5.10	7.15	9.19	11.23	13.27	15.31	17.35	19.40	21.44	23.48
92	5.38	7.53	9.69	11.84	13.99	16.15	18.30	20.45	22.60	24.76
96	5.61	7.85	10.09	12.34	14.58	16.82	19.07	21.31	23.55	25.80