

Insulated Blade Control Damper – Model 630 & 631

Design Features – Nested closure “V” blade design that provides a greater sealing surface than competitive designs. Blades are constructed with a fiberglass filled 1” hollow cavity centered between the sealing edges, providing a sound and thermal barrier.

STANDARD CONSTRUCTION

FRAME

4-7/16” Deep, .16 gauge galvanized steel

BLADES

6” Wide, .16 gauge double wall insulated galvanized steel
(Bottom blade width may vary depending on damper height)

BLADE AXLES & BEARINGS

AXLE – 7/16” Continuous steel plated hex
BEARING – Bronze oil impregnated

INSULATION

1” Fiberglass

LINKAGE

630 – Plated steel concealed inside of jamb
631 – Plated steel blade mounted only
Drive blade has a 1” to 6” extendable shaft to mount operator

MAXIMUM SIZE

Unlimited, with mullions, structural bracing supplied by others
(Multi-section sizes usually require jackshaftering)

MAXIMUM SINGLE SECTION

48”W x 72”H

MINIMUM SIZE

4”W x 8”H

UNDERSIZED

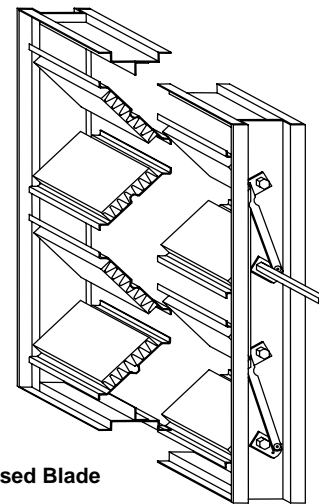
1/4” under ordered size unless specified Exact or Actual

FINISH

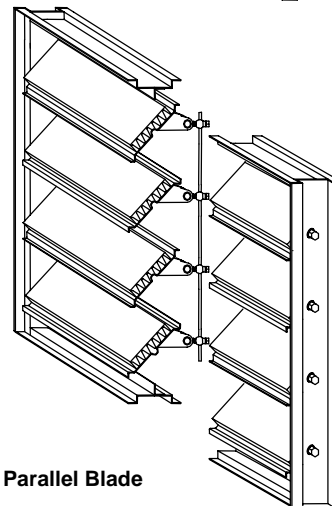
Mill

OPERATOR

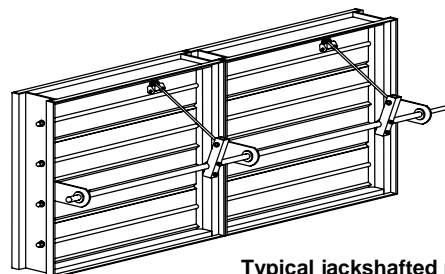
None



Opposed Blade



Parallel Blade



Typical jackshafted multiple assembly

OPTIONAL CONSTRUCTION

FRAME – Available in galvanized steel construction up to 10 gauge

BLADES – Available in galvanized steel construction up to 14 gauge

SPECIFIED MATERIAL – Available in Stainless, Aluminum or as requested

JAMB SEALS – Neoprene blade edge and/or stainless steel jamb seals

SLEEVE AND DUCTWORK CONNECTION – 10 ga. to 20 ga. galvanized steel to 30” in length. – Transitions available in; round, oval, rectangular, or custom. Factory can install access door, retaining angles, and flange connections.

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

OPERATOR – Manual, electric or pneumatic, internally and externally mounted, or jackshafted. Please consult operator listing.

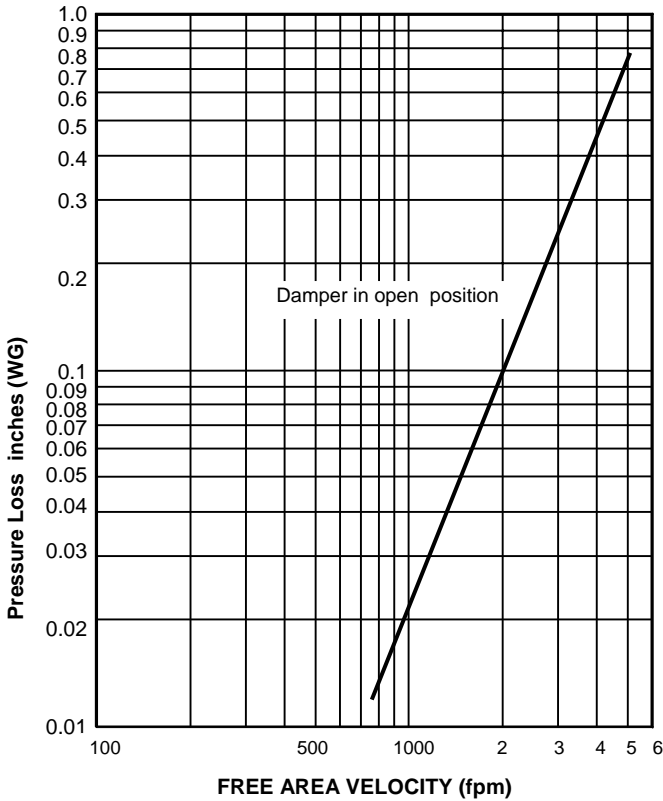
SPECIAL PURPOSE CONSTRUCTION

- Fully welded assembly
- Jackshaft when required
- Security bars (mounted in sleeve)
- Face and bypass dual mixing damper configuration

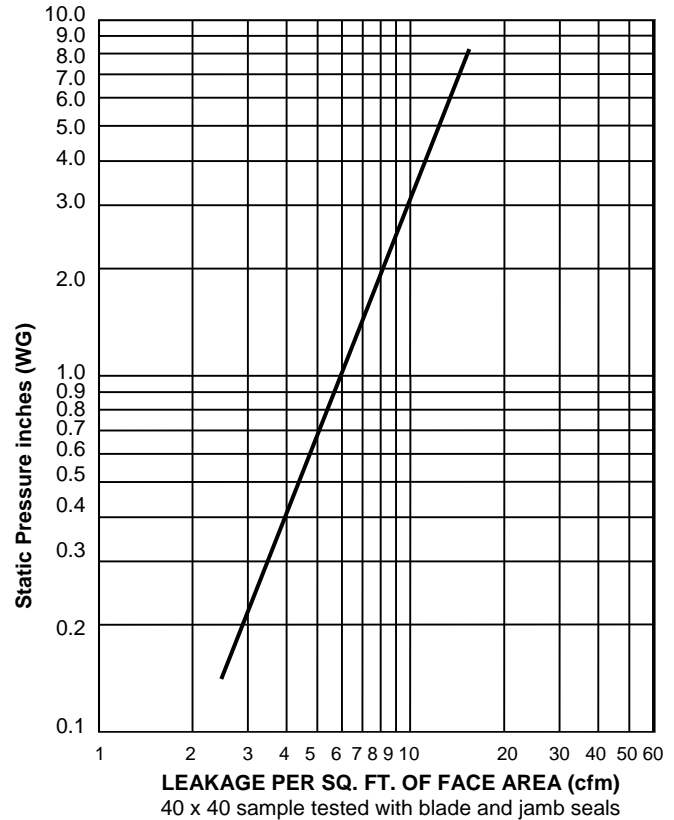
***Dampers under 11” high will be single blade only**

DATE	ARCHITECT	CUSTOMER		
PROJECT				
ITEM	QTY	W	H	DESCRIPTION

AIR PERFORMANCE



AIR LEAKAGE



CALCULATING PRESSURE LOSS:

Based upon a given flow rate (in CFM), the flowing pressure loss may be determined from the "air performance graph, knowing the sq. ft. of free area of the damper. Alternately, the free area may be determined based upon a volumetric flow rate and a maximum pressure loss. Utilizing the "air performance" graph.

_____ in. W.C. Max. Pressure Loss Intake or Exhaust
 _____ FPM (Free Area Velocity From "Air Performance" Graph)
 _____ CFM / _____ FPM Free Area Velocity = _____ Sq. Ft. Free Area

FREE AREA CALCULATIONS IN SQ. FT.

		WIDTH									
		12	16	20	24	28	32	36	40	44	48
HEIGHT	12	0.58	0.81	1.03	1.26	1.49	1.72	1.95	2.17	2.40	2.63
	16	0.86	1.20	1.54	1.88	2.22	2.56	2.89	3.23	3.57	3.91
	20	1.09	1.53	1.96	2.39	2.82	3.26	3.69	4.12	4.55	4.99
	24	1.33	1.86	2.38	2.91	3.43	3.96	4.49	5.01	5.54	6.06
	28	1.61	2.25	2.89	3.52	4.16	4.80	5.43	6.07	6.71	7.34
	32	1.85	2.58	3.31	4.04	4.77	5.50	6.23	6.96	7.69	8.42
	36	2.08	2.91	3.73	4.55	5.38	6.20	7.02	7.85	8.67	9.49
	40	2.37	3.30	4.23	5.17	6.10	7.04	7.97	8.91	9.84	10.78
	44	2.60	3.63	4.66	5.68	6.71	7.74	8.77	9.80	10.82	11.85
	48	2.84	3.96	5.08	6.20	7.32	8.44	9.56	10.69	11.81	12.93
	52	3.29	4.60	5.90	7.20	8.50	9.80	11.10	12.41	13.71	15.01
	56	3.36	4.68	6.01	7.33	8.66	9.98	11.31	12.63	13.96	15.29
	60	3.59	5.01	6.43	7.85	9.27	10.68	12.10	13.52	14.94	16.36
	64	3.87	5.40	6.93	8.46	9.99	11.52	13.05	14.58	16.11	17.64
68	4.11	5.73	7.35	8.98	10.60	12.22	13.85	15.47	17.09	18.72	
72	4.34	6.06	7.78	9.49	11.21	12.93	14.64	16.36	18.08	19.79	

Damper Width Inches	Maximum Static Pressure (W.G.)	Maximum Velocity
12	5"	1500 FPM
18	4.5"	1500 FPM
24	4"	1500 FPM
30	3.5"	1500 FPM
36	3"	1500 FPM
42	2.5"	1500 FPM
48	2"	1500 FPM