SUBMITTAL DATA

VD-1330 Class I Leakage Resistance Control Dampers

Standard Materials and Construction

Frame	3-1/2-inch x 1-inch x 13-gauge, galvanized steel, hat channel shaped, mechanically joined
Blades	1/16-inch airfoil shaped aluminum; 6-inch nominal width, 8-inch maximum width
Linkage	1/8-inch rolled steel, zinc plated, concealed in frame
Blade Pin	3/8-inch square steel, zinc plated
Bearings	Self-lubricating acetal or bronze
Side Seal	Self-compensating stainless steel
Blade Seal	Santoprene or silicone

Dimensional Data

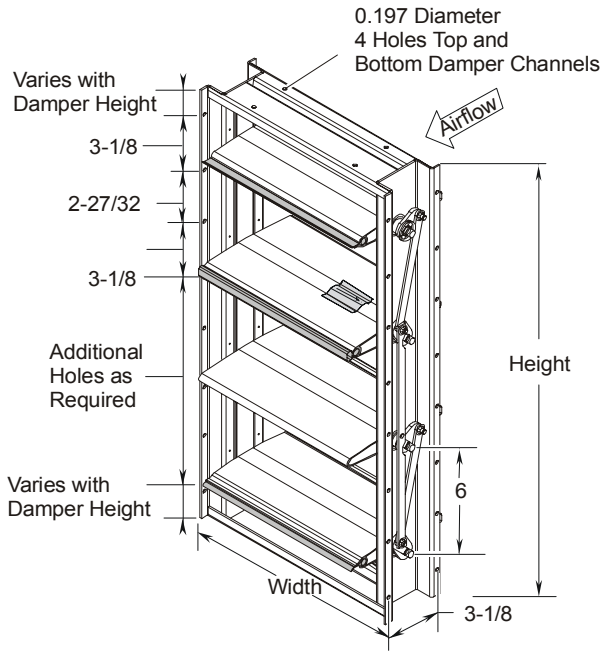

Figure 1: Damper Dimensions, inches

Table 1: Damper Dimensions

Size Limits	Width x Height, inches
Minimum	8 x 7
Maximum single panel	48 x 76
Multiple Panel	192 x 228

Note: Actual size is 1/4-inch less than nominal.

Specifications

Furnish and install Johnson Controls® VD-1330 low leakage, high-performance volume control dampers.

Frames are to be constructed of formed 13-gauge galvanized sheet steel, mechanically joined with linkage concealed in the side channel to eliminate noise and friction. Compressible spring stainless steel side seals and self-lubricating bearings shall also be provided.

Blades are to be constructed with 1/16-inch extruded aluminum in an airfoil shape. Damper blade width shall not exceed 8 inches and shall have seals. Blade rotation is to be parallel or opposed as shown on the schedules. Linkage to be included on both sides to assure proper torque distribution and facilitate actuator installation.

Performance shall be designed for very tight shutoff and tested in accordance with AMCA Standard 500. Leakage resistance for a 48-inch x 48-inch damper with seals shall not exceed 2.2 cfm per square foot at a 1-inch pressure differential, 3.7 cfm per square foot at a 4-inch pressure differential. Damper sealing force at 4 inches differential shall not exceed 6 lb·in/sq ft. The damper must be rated to operate over a temperature range of -40°F to 200°F (-40°C to 93°C) standard and -40°F to 250°F (-40°C to 121°C) extended temperature.

Sizing shall be determined by the designer in accordance with accepted industry practices to ensure proper system performance. Blank off-plates and duct-to-damper transitions may be required.

Factory Options

E Exact whole inch size, no undersizing

F 1.5-inch L flange air entering side
(Cannot be used with option G or H.)

G 1.5-inch L flange air leaving side
(Cannot be used with option F or H.)

H Double flange
(Cannot be used with option F or G.)

J Jackshaft, field installed

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Table 2: VD-1330 Control Damper Selector

	Ordering Code Number	V		A		N	-	w	w	w	x	h	h	h		
Application	V = Volume Control															
Blade Operation	O = Opposed P = Parallel															
Blade/Frame	A = Aluminum Airfoil/13-gauge Galvanized															
Bearing/Seal	S = Standard (Acetal/Santoprene) E = Extended (Bronze/Santoprene) H = High (Bronze/Silicone)															
Actuator	N = None															
Width	008 to 192 inches, 1-inch increments															
Height	007 to 228 inches, 1-inch increments															
Options	See *Factory Options* for descriptions															

Performance Data

Leakage Resistance - Fully Closed		2.2 cfm maximum at 1-inch static pressure for 48-inch x 48-inch damper 3.7 cfm maximum at 4-inch static pressure for 48-inch x 48-inch damper			
Operating Torque	0.5-inch static pressure and 100 fpm fully open approach velocity 1-inch static pressure and 1000 fpm fully open approach velocity			4.5 lb·in/sq ft 5.5 lb·in/sq ft	
Pressure Drop (inches WG) - Fully Open		**1000 fpm**	**2000 fpm**	**3000 fpm**	**4000 fpm**
	24 inches x 24 inches	0.05	0.20	0.42	0.57
	48 inches x 48 inches	0.03	0.10	0.25	0.45
Velocity and Pressure	Limits recommended to meet other performance specifications (not structural limits):	Damper Width:	12 inches 36 inches 48 inches	8000 fpm at 12-inch static 6000 fpm at 10-inch static 4000 fpm at 4-inch static	
Temperature Rating	Normal Operating Conditions Extended (with bronze bearings and silicone seals)			-40°F to 200°F (-40°C to 93°C) -40°F to 250°F (-40°C to 121°C)	
Approximate Weight		5 pounds/square foot (2.7 kg/square foot)			

Dampers are tested at an AMCA Certified Laboratory using instrumentation and procedures in accordance with AMCA Standard No. 500, Test Methods for Louvers, Dampers, and Shutters.

All dampers are built to order and cannot be returned due to improper ordering. If a damper fails within the 3-year warranty period, the factory will determine if the damper is to be returned.

For application at conditions beyond these specifications, consult the local Johnson Controls representative. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

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Printed in U.S.A.