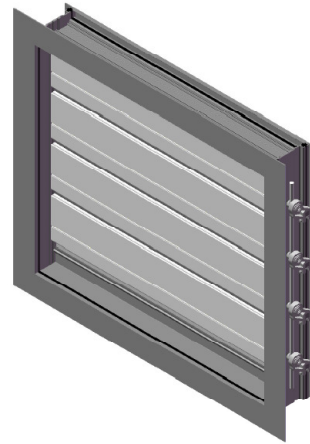


**3965 BF – Broken Frame
Flange-to-Duct**



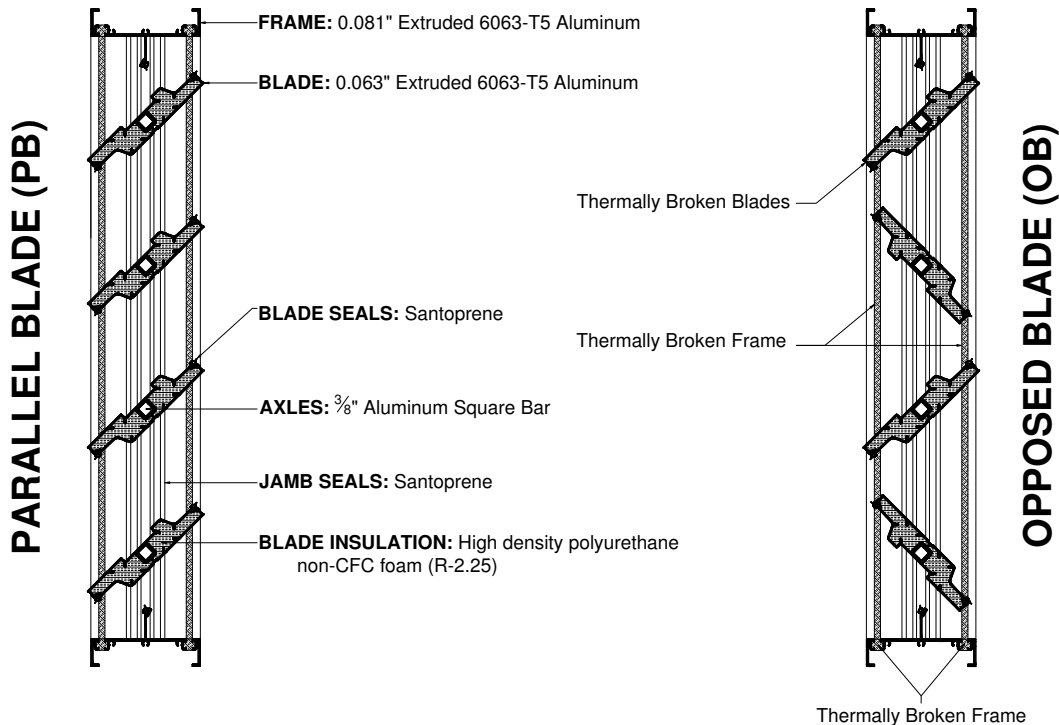
**3967 BF FFM – Broken Frame
Front-Flange Mount**

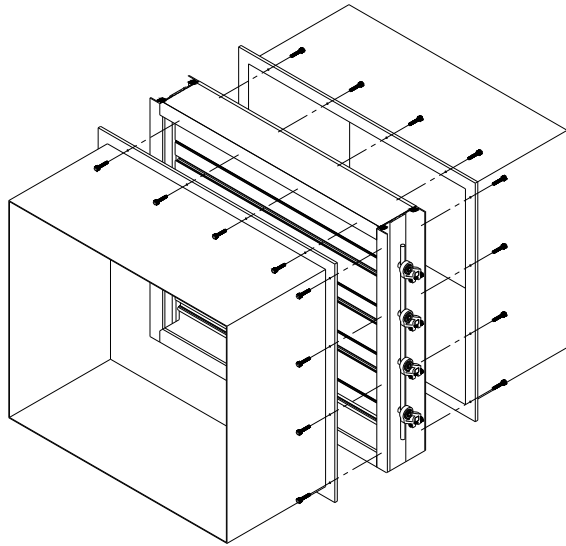
STANDARD CONSTRUCTION

Depth: 4" (101 mm)
 Depth with Blades Open: 6.125" (156 mm)
 Minimum Height: 8" (203 mm) - Single Blade
 15" (381 mm) - Multiple Blade
 Maximum Panel Width: 48" (1219 mm)
 Maximum Panel Height: 60" (1524 mm)
 Maximum Panel Size: 20 Sq.Ft.
 Maximum System Pressure: 4" w.g. (1 kPa)
 Operating Temperature Range: -40 to +160 F
 Standard Finish: Mill
 Standard Motor Installation: 6" Side Shaft Direct Drive
 Linkage: Concealed in Frame (3967 BF)
 Outside of Frame (3965 BF)

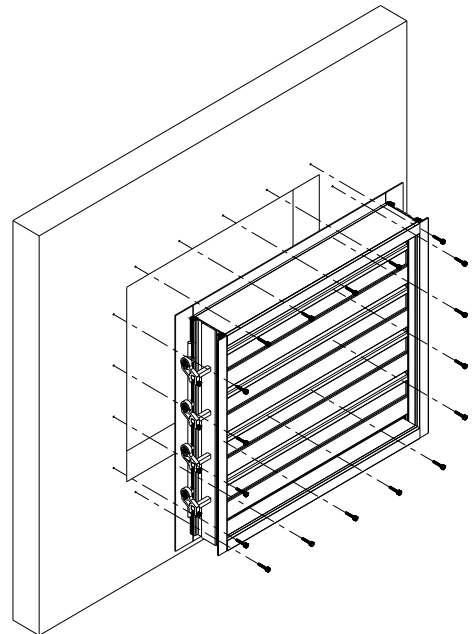
AVAILABLE ACCESSORIES

- Actuators [Honeywell, Belimo]
- End Switch for signaling peripheral devices
- Jack Shaft
- Hand Quadrants
- Chain Operation for manual operation spring closed
- Silicone Blade and Jamb Seals
- Frame Insulation: Polystyrene Insulation





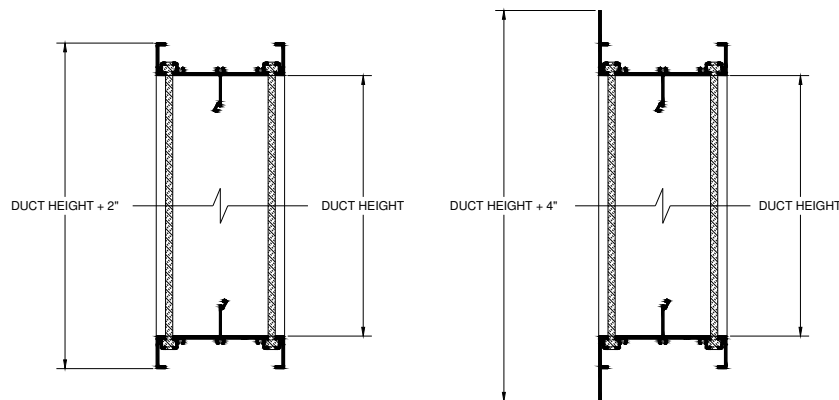
3965 BF – Flanged-to-Duct



3967 BF FFM – Front Flange-Mount

3965 BF

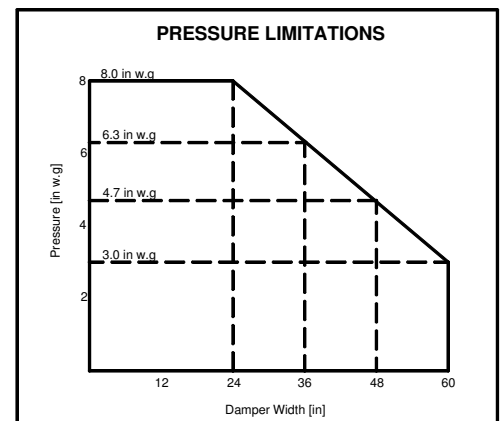
3967 BF FFM



*Duct-Mount Frame Not Available

RECOMMENDED SPECIFICATION

Furnish and install control damper models 3965 BF / 3967 BF FFM as manufactured by Alumavent Inc. Bolton, Ontario. Dampers must be licensed to bear the AMCA seal. Dampers shall be 4" (101 mm) deep. Blades shall be 0.063" (1.60 mm) thick, thermally broken with high density Polyurethane non-CFC injected foam insulation. Frame shall be 0.081" (2.06 mm) thick, thermally broken with Polystyrene insulation. Axles shall be 0.375" (9.53 mm) extruded aluminum alloy 6063-T5. Bearings shall be engineered thermo plastic (Acetal) rotating within a Polycarbonate outer bearing integral in frame. Blade and Jamb seals shall be Santoprene. Linkage is concealed in frame for model 3967 BF FFM and outside of frame for model 3965 BF. Air leakage through a 36"x36" (914 mm x 914 mm) damper shall not exceed 3 CFM/ft² (15.2 L/s/m²) against 4" w.g (1.0 kPa) static pressure at standard air (as per AMCA testing). Operating temperature range shall be -40° to +160° F.



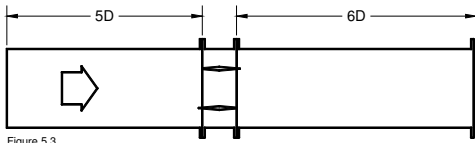
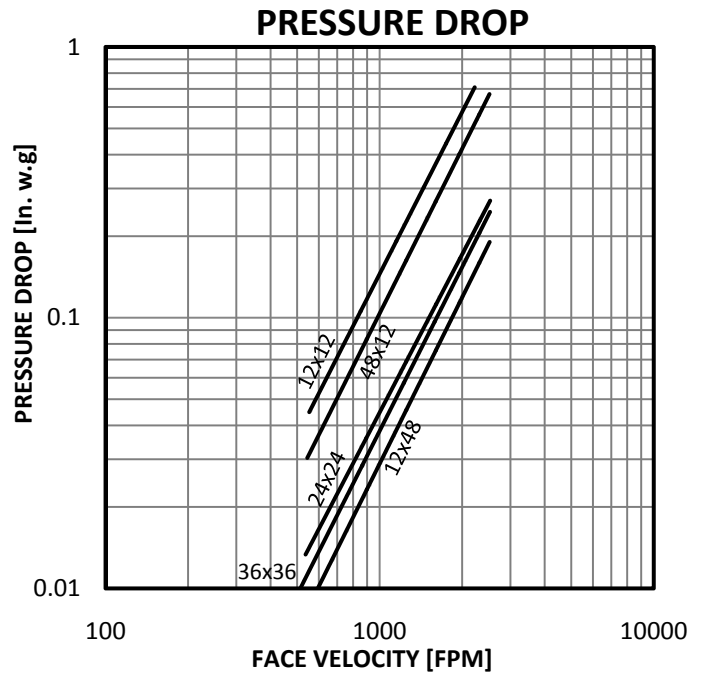


Figure 5.3

3900 SERIES CONTROL DAMPER PRESSURE DROP	
Velocity [FPM]	Pressure Drop [in. w.g]
12x12 (inches)	
553.6	0.044
891.4	0.119
1051.9	0.161
2021.4	0.554
2221.7	0.740
24x24 (inches)	
536.8	0.014
776.9	0.025
1101.1	0.056
2066.3	0.182
2530.1	0.272
36x36 (inches)	
500.4	0.01
750.6	0.021
1006.1	0.036
2019.5	0.161
2526.6	0.249
12x48 (inches)	
545	0.008
772.8	0.018
1095.3	0.035
2055.5	0.126
2519.2	0.187
48x12 (inches)	
544.6	0.029
772.2	0.064
1094.4	0.1228
2053.1	0.439
2516	0.661

CERTIFIED RATINGS

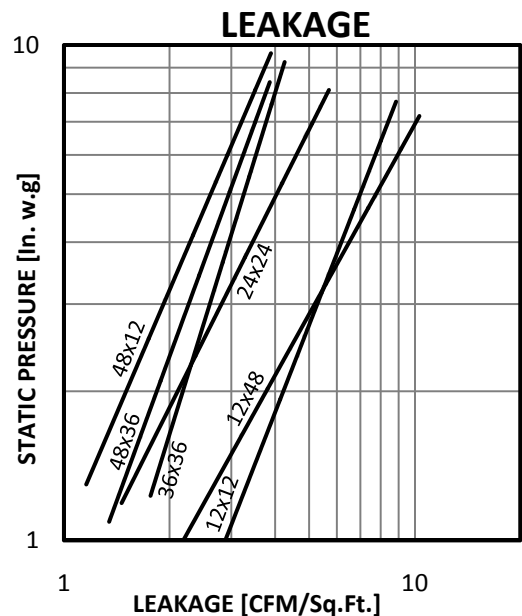
Alumavent Inc. certifies that the 3900 Series Insulated Control Dampers shown here are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings and air leakage ratings.



Ratings Based on: AMCA Standard 500-D Intake Ducted Test Figure 5.3 Setup

DEFINITION OF LEAKAGE CLASSIFICATION				
CLASS	LEAKAGE ft ³ /min/ft ² (L/s/m ²)			
	1" (0.25 kPa)	4" (1.0 kPa)	8" (2.0 kPa)	12" (3.0 kPa)
1A	3 (15.2)	N/A	N/A	N/A
1	4 (20.3)	8 (40.6)	11 (55.9)	14 (71.1)
2	10 (50.8)	20 (102)	28 (142)	35 (178)
3	40 (203)	80 (406)	112 (569)	140 (711)

3900 SERIES CONTROL DAMPER LEAKAGE RATING			
DAMPER SIZE Width x Height	PRESSURE in w.g (kPa)		
	1" (0.25 kPa)	4" (1.0 kPa)	8" (2.0 kPa)
12"x12" (305x305 mm)	1A	1	1
24"x24" (610x610 mm)	1A	1	1
36"x36" (914x914 mm)	1A	1	1
12"x48" (305x1219 mm)	1A	1	1
48"x12" (1219x305 mm)	1A	1	1
48"x36" (1219x914 mm)	1A	1	1



Leakage test was conducted in accordance with AMCA Standard 500-D-98. Holding torque applied was 6 in.-lbs./sq.ft on parallel blade dampers. AMCA Standard 500-D-98 states that air leakage is based on operation between 50°F (10°C) and 104°F (40°C).