

Volume Control Dampers

Construction - Selection - Performance



Catalog ID: ATAI VCD Code 20 & 20L series - June,2019

T. +966 13 341 5857 - F. +966 13 341 1631 - P.O Box10125 - info@ataiksa.com

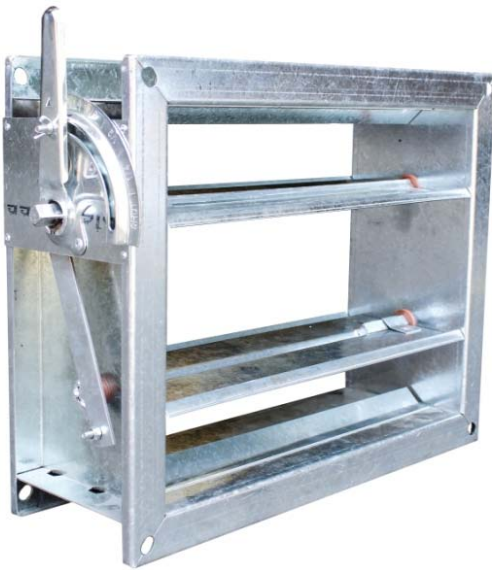
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Volume Control Dampers

Code 20 & 20L Series

Standard Construction



Frame: Galvanized Steel 16 Ga., Hat Channel 150mm x 35mm x 5 mm

Blade: Galvanized Steel 18 Ga. opposed or parallel Triple V blade.

Blade Stopper: Galvanized Steel 18 Ga.

Bearing Pins: Plated Steel Rod 12.7 mm dia or 12X12 mm

Bushings: Self Oiling Bronze, 12.7 mm diameter or Nylon Bushings 12X12 mm.

Blade Linkage: Galvanized steel strip 3mm thick. Concealed at frame

Bearing Pin Connecting Quadrant/Motor: Plated steel rod 12.7mm diameter (Motor excluded).

Build Out for Quadrant: Made of galvanized steel, to be used as quadrant adapter on externally insulated duct.

Note: A low Leakage damper with same specs as above and includes PVC or EPDM blade seal and stainless steel jamb seal.



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Selection



Rectangular Volume Damper Options										
Product name	Product Code	Material Type	Frame Thickness	Frame type	Blade Thickness	Blade Type	Axle / Bearing Pins	Bushings	Blade Movement	Control
ATAI VCD										
Code 20: normal VCD										
Code 20L: low leakage VCD with blade seal and Jamb Seal										
GI : Galvanized construction										
SS : Stainless Steel Construction										
Standard : Gage : 16 (1.5 mm)										
Other options :										
Gage : 22, 20,... to 10										
Standard : Flanged Type 35 mm										
Other options :										
- Inserted Type 15 mm										
- Slip Drive type										
Standard : Gage : 18 (1.2 mm)										
Other options :										
Gage : 22, 20,... to 14										
Standard : 3V (Triple V blade) GI or SS										
Other options :										
- Aero foil blade (Aluminum)										
Standard : Plated Steel Rod 12.7 mm dia pins										
Other options :										
SS 12.7 mm dia pins										
GI square pin 12X12 mm										
Plated Steel Rod 12 mm dia pins										
Standard : Self Oiling Bronze Bushing 12.7 mm dia										
Other options :										
Nylon Bushing 12 X 12 mm										
SS Bushing 12.7 mm dia										
Standard : Opposed blades										
Other options : Parallel Blades										
Standard: Quadrant and Handle										
Other options :										
Extended Shaft										
Actuator Open/Close type (220V or 24V)										
Actuator Modulating type (220V or 24V)										

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Performance

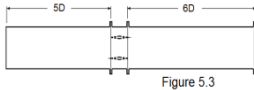
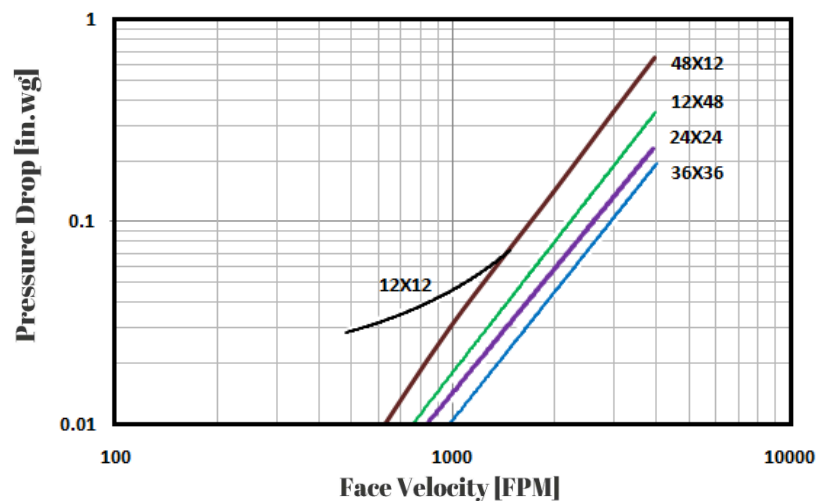


Figure 5.3



Pressure Drop

ATAI VCD Code 20 & 20L Damper Pressure Drop					
Velocity [FPM]	ΔP [in.wg]	Velocity [FPM]	ΔP [in.wg]	Velocity [FPM]	ΔP [in.wg]
12X12		36X36		24X24	
479	0.03	591	0.003	538	0.004
719	0.04	1017	0.01	976	0.01
965	0.04	1980	0.04	1967	0.06
1212	0.05	2988	0.10	2951	0.13
1473	0.07	4017	0.19	3934	0.22
12X48		48X12			
537	0.005	545	0.007		
977	0.02	978	0.03		
1970	0.08	1972	0.14		
2963	0.19	2965	0.35		
3961	0.34	3963	0.65		

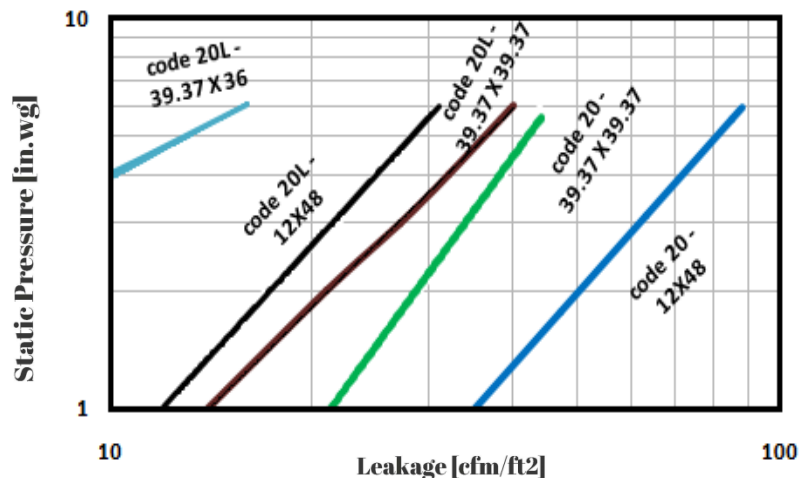


Ratings Based on : AMCA 500-D Figure 5.3 setup

AMCA Leakage Classifications					
CLASS	Leakage ft ³ /min/ft ² (L/s/m ²)				
	at 1 in. W.G.	at 2 in. W.G.	at 4 in. W.G.	at 6 in. W.G.	at 8 in. W.G.
1A	3	N/A	N/A	N/A	N/A
1	4	5.6	8	9.8	11
2	10	14	20	24.5	25
3	40	56.5	80	98	112

Leakage

ATAI VCD Code 20 & 20L Damper Leakage Rating					
Damper Size WXH	Model	Pressure in.wg (kpa)			
		at 1 in. W.G.	at 2 in. W.G.	at 4 in. W.G.	at 6 in. W.G.
39.37" (1000 mm) X 36" (914 mm)	Code 20L	1A	1	2	2
12" (305 mm) X 48" (1219 mm)	Code 20L	3	3	3	3
39.37" (1000 mm) X 39.37" (1000 mm)	Code 20L	3	3	3	3
12" (305 mm) X 48" (1219 mm)	Code 20	3	3	3	3
39.37" (1000 mm) X 39.37" (1000 mm)	Code 20	3	3	3	3



Leakage test Based on : AMCA 500-D-7 Figure 5.4 Alt
Applied Torque 133 lb.in opposed 3V blade damper

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