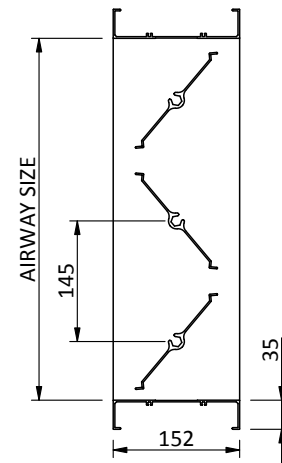


VOLUME CONTROL DAMPER MANUAL Model ADVCDMAN



ADVCDMAN

DESIGN DETAILS (mm)



APPLICATIONS

General purpose volume control damper.

All aluminium construction.

More resistant to corrosion enabling them to be used in areas of high humidity, like swimming centres and tropical environments.

Significantly lighter than their steel counterparts.

Easy to operate.

Low leakage when closed and they create very little resistance when open.

FEATURES

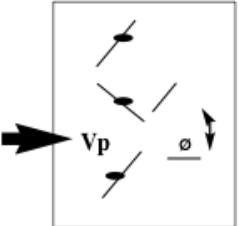
Aluminium lightweight construction (much lighter than steel dampers).

Interlocking Blades for low leakage.

Nylon Bearings.

Quadrant fitted for manual operation.

VOLUME CONTROL DAMPER MANUAL Model ADVCDMAN

P.D. Test Method	Loss Coefficient C									
	L/R	Ø								
		80°	70°	60°	50°	40°	30°	20°	10°	0°
Rectangular Duct 	0.3	807	284	73	21	9.0	4.1	2.1	0.8	0.52
	0.4	915	332	100	28	11	5.0	2.2	0.9	0.52
	0.5	1945	377	122	33	13	5.4	2.3	0.9	0.52
	0.6	1124	411	148	38	14	6.0	2.3	0.9	0.52
	0.8	1299	495	188	54	18	6.6	2.4	1.0	0.52
	1.0	1521	547	245	65	21	7.3	2.7	1.0	0.52
	1.5	1654	677	360	107	28	9.0	3.2	1.1	0.52
	P.D. = $V_p \times C$ where P.D. = Pressure Drop V_p = Velocity Pressure C = Loss Coefficient	$\frac{L}{R} = \frac{Nw}{2(H+W)}$	Where: N = Number of damper blades W = Duct dimension parallel to blade axis L = Sum of damper blade length R = Perimeter of duct							

For manual balancing and motorised opposed blade dampers, the pressure drop should not exceed the values calculated from the 1981 SMACNA duct design tables.

SPECIFICATIONS

Maximum pressure differential: 1.5kPa (6inch WC).

Maximum approach velocity: 20m/sec (4000 fpm).

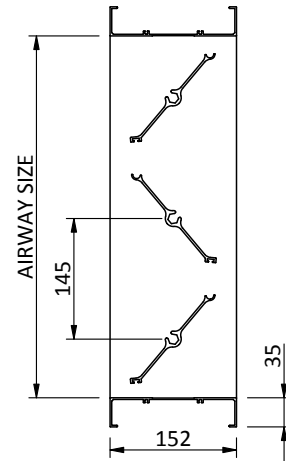
Temperature range: -40 to +93 degree C (in inflatable seal).

VOLUME CONTROL DAMPER MOTORISED Model ADVCDMOT



ADVCDMOT

DESIGN DETAILS (mm)



APPLICATIONS

General purpose volume control damper with hexonal shaft to suit motor operation.

All aluminium construction.

More resistant to corrosion enabling them to be used in areas of high humidity, like swimming centres and tropical environments.

Significantly lighter than their steel counterparts.

Easy to operate.

Low leakage when closed and they create very little resistance when open.

FEATURES

All extruded aluminium construction.

Self inflating Rubber Blade Tip Seals.

Nylon Bearings to ensure smooth action.

Hexagonal shaft supplied to suit motor operation (motor not supplied).

High temper 50mm aluminium venetian side seals.



VOLUME CONTROL DAMPER MOTORISED
Model ADVCDMOT

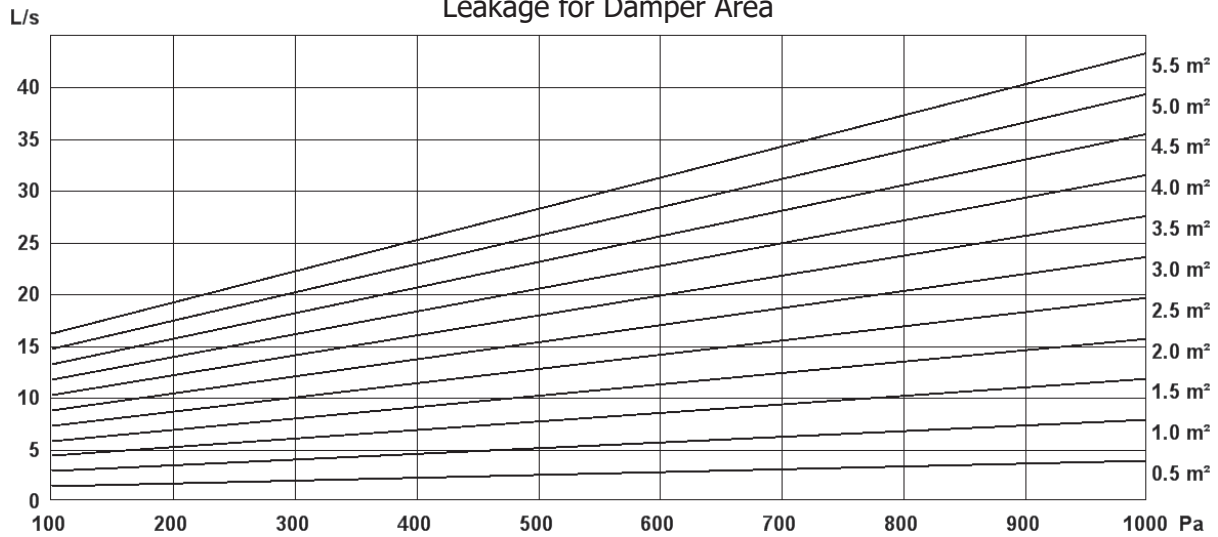
		Loss Coefficients for air at 1.2kg/m ³ Density. $C=PD / (0.6 \times V_2)$											
Pressure Drop (Pa)	50	333	83	37	21	13	9.3	6.8	5.2	4.1	3.3	2.8	2.3
	100	667	167	74	42	27	18.5	13.6	10.4	8.2	6.7	5.5	4.6
	150	1000	250	111	63	40	27.8	20.4	15.6	12.3	10.0	8.3	6.9
	200	1333	333	148	83	53	37.0	27.2	20.8	16.5	13.3	11.0	9.3
	300	2000	500	222	125	80	55.6	40.8	31.3	24.7	20.0	16.5	13.9
	400	2667	667	296	167	107	74.1	54.4	41.7	32.9	26.7	22.0	18.5
	500	3333	833	370	208	133	92.6	68.0	52.1	41.2	33.3	27.5	23.1
	600	4000	1000	444	250	160	111.1	81.6	62.5	49.4	40.0	33.1	27.8
	700	4667	1167	519	292	187	129.6	95.2	72.9	57.6	46.7	38.6	32.4
	800	5333	1333	593	333	213	148.1	108.8	83.3	65.8	53.3	44.1	37.0
	900	6000	1500	667	375	240	166.7	122.4	93.8	74.1	60.0	49.6	41.7
	1000	6667	1667	741	417	267	185.2	136.1	104.2	82.3	66.7	55.1	46.3
	1100	7333	1833	815	458	293	203.7	149.7	114.6	90.5	73.3	60.6	50.9
1300	8667	2167	963	542	347	240.7	176.9	135.4	107.0	86.7	71.6	60.2	
		0.5	1 m/s	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
		Core Velocity (m/s)											

For Manual Balancing and Motorised Opposed Blade Dampers, the pressure drop should not exceed the values calculated from the 1981 SMACNA duct design tables.



VOLUME CONTROL DAMPER MOTORISED
Model ADVCDMOT

Volume Control Damper
Leakage for Damper Area



Volume Control Damper
Loss Coefficient

