

ROUND DIFFUSER

SERIES : ACD

ACD Supply Diffusers are recommended for heating, ventilation and cooling, and are equipped with flush cores for matching architectural requirements for flush appearance. High diffusion induction rates result in rapid temperature and velocity equalization of the mixed air mass well above the zone of occupancy. Horizontal performance assures confident use of cooling temperature differentials of 30 F and greater, at predicted low air motion (35 fpm) in the zone of occupancy.

FEATURES

- * Fixed air pattern with flush core. 360 degree air pattern with wide performance range.
- * Removable center core affords access to accessories & fixing. All accessory adjustments easily made without disturbing ceiling or removing diffuser.
- * Core are interchangeable with stepped-down core in the field without disturbing ceiling.
- * Diffusers are equipped with margins designed to minimize smudging. Minimum dirt development on ceiling in normal applications.
- * Diffusers are constructed of aluminium.
- * Oven baked hardened finish to matching ceiling surface. Special colour finishes are applied over baked finish and are available to matching architectural requirements.
Price including standard powder coating finish (RAL 9010, RAL 9016 Black, White, Other colour can be supplied on request at extra 10% additional charges.)

BUTTERFLY DAMPER

SERIES : D1

- * Economical air volume control device.
- * Installs directly behind Round Ceiling Diffusers.
- * Screw Driver operated damper assembly provides full range volume control.
- * Damper is constructed of steel.

ALUMINIUM ROUND CEILING DIFFUSER						
Unit	6	8	10	12	14	16
BASE SIZE	Ø 320mm	Ø 430mm	Ø 540mm	Ø 650mm	Ø 740mm	Ø 860mm
NECK SIZE	Ø 150mm	Ø 200mm	Ø 250mm	Ø 300mm	Ø 350mm	Ø 400mm

PERFORMANCE TABLE FOR ACD

SIZE	NECK VELOCITY (m/s)	2	3	4	5	6
6 Ø 320mm (BASE) Ø 150mm (NECK) A_k 0.0112 (M ²)	AIR VOLUME (L/s)	37	56	74	93	112
	TOTAL PRESSURE LOSS (Pa)	8	17	32	50	70
	DIFF.RADIUS (M)	0.3-1	0.6-1.2	0.9-1.7	1.2-2.1	1.2-2.4
	NC	15	19	27	31	35
8 Ø 430mm (BASE) Ø 200mm (NECK) A_k 0.0204 (M ²)	AIR VOLUME (L/s)	65	98	130	163	196
	TOTAL PRESSURE LOSS (Pa)	8	17	32	50	70
	DIFF.RADIUS (M)	0.3-1	0.6-1.5	0.9-2.1	1.4-2.7	1.7-3.4
	NC	15	19	27	34	38
10 Ø 540mm (BASE) Ø 250mm (NECK) A_k 0.0316 (M ²)	AIR VOLUME (L/s)	102	153	204	256	307
	TOTAL PRESSURE LOSS (Pa)	8	17	32	50	70
	DIFF.RADIUS (M)	0.6-1.4	0.9-1.9	1.4-2.8	2-3.4	2.2-4
	NC	19	27	31	35	38
12 Ø 650mm (BASE) Ø 300mm (NECK) A_k 0.0474 (M ²)	AIR VOLUME (L/s)	147	220	294	367	441
	TOTAL PRESSURE LOSS (Pa)	8	17	32	44	62
	DIFF.RADIUS (M)	0.6-1.7	1-2.1	1.7-3.4	2.1-4.3	2.7-5.5
	NC	23	29	35	38	43
14" Ø 740mm (BASE) Ø 350mm (NECK) A_k 0.0651 (M ²)	AIR VOLUME (L/s)	204	307	409	511	613
	TOTAL PRESSURE LOSS (Pa)	8	17	32	46	63
	DIFF.RADIUS (M)	0.9-1.9	1.4-2.8	2.1-4	2.4-5.2	3-6
	NC	21	29	35	39	43
16 Ø 860mm (BASE) Ø 400mm (NECK) A_k 0.0846 (M ²)	AIR VOLUME (L/s)	260	390	520	650	780
	TOTAL PRESSURE LOSS (Pa)	8	17	32	44	63
	DIFF.RADIUS (M)	0.9-2.1	1.2-3.4	2.1-3.4	2.7-5.5	3.3-6.3
	NC	19	28	32	38	48
Maximum throw and minimum throw were based on terminal velocity of 1.0 m/s and 0.5 m/s room velocity.						
Noise Criteria (NC) values were taken in a reverberant room of 8db room effect.						
Total Pressure With Damper						

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ALUMINIUM ROUND CEILING DIFFUSER					
Unit	6	8	10	12	18
BASE SIZE	Ø 300mm	Ø 350mm	Ø 400mm	Ø 450mm	Ø 600mm
NECK SIZE	Ø 150mm	Ø 200mm	Ø 250mm	Ø 300mm	Ø 450mm

PERFORMANCE TABLE FOR ACD - 1

SIZE	NECK VELOCITY (m/s)	2	3	4	5	6
6 Ø 300mm (BASE) Ø 150mm (NECK)	AIR VOLUME (L/s)	37	55	74	93	112
	TOTAL PRESSURE LOSS (Pa)	13	22	37	52	77
	DIFF.RADIUS (M)	0.9-1.5	0.9-1.8	0.9-2.1	1.2-2.4	1.6-2.7
	NC RATING	24	25	31	33	39
8 Ø 350mm (BASE) Ø 200mm (NECK)	AIR VOLUME (L/s)	65	98	130	163	196
	TOTAL PRESSURE LOSS (Pa)	17	25	42	62	92
	DIFF.RADIUS (M)	0.9-1.5	0.92-1	1.2-2.4	1.5-3	1.8-3.7
	NC RATING	26	28	35	42	50
10 Ø 400mm (BASE) Ø 250mm (NECK)	AIR VOLUME (L/s)	102	153	204	256	307
	TOTAL PRESSURE LOSS (Pa)	17	27	47	67	92
	DIFF.RADIUS (M)	0.9-1.8	1.2-2.4	1.2-2.8	1.5-3	1.8-3.7
	NC RATING	28	32	35	44	50
12 Ø 450mm (BASE) Ø 300mm (NECK)	AIR VOLUME (L/s)	147	220	294	367	441
	TOTAL PRESSURE LOSS (Pa)	20	30	55	80	119
	DIFF.RADIUS (M)	1.5-3.4	2.1-4.3	2.4-4.9	2.7-5.5	3-6
	NC RATING	29	32	36	46	52
18 Ø 600mm (BASE) Ø 450mm (NECK)	AIR VOLUME (L/s)	335	502	670	837	1004
	TOTAL PRESSURE LOSS (Pa)	27	42	57	82	127
	DIFF.RADIUS (M)	2.4-4.6	2.4-5.5	3-6.7	3.6-7.2	4.2-9.1
	NC RATING	30	33	38	48	54

Maximum throw and minimum throw were based on terminal velocity of 1.0 m/s and 0.5 m/s room velocity.

Noise Criteria (NC) values were taken in a reverberant room of 8db room effect.

Total Pressure With Damper