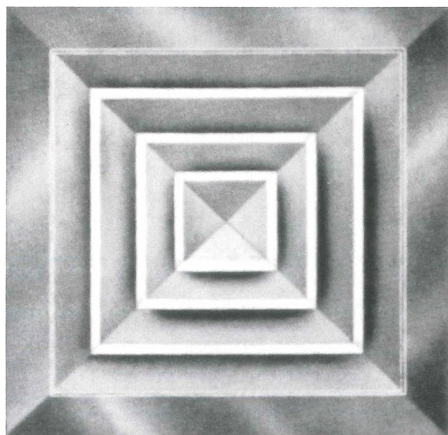


Model CD Ceiling Diffusers Square or Rectangular



Model CD ceiling diffusers are recommended for heating, ventilating and cooling. Designed for surface mounting in all types of ceiling. Available in various sizes and core styles. A horizontal lip is left on all sides of core blades providing a horizontal air pattern and assures confident use of cooling temperature differentials of 16°C or greater. It may be used with any ceiling height.

Features

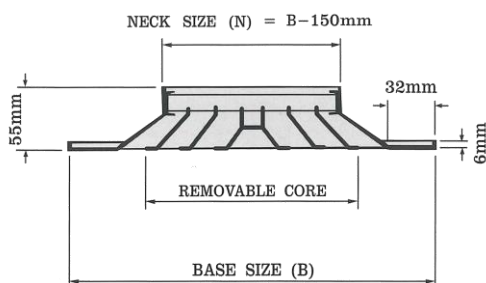
- Choice of extruded aluminium or sheet steel construction.
- Core styles of 1, 2, 3, or 4 way diffusion are available.
- Core is easily removable at face of diffuser without disturbing ceiling or removing diffuser.

Finish

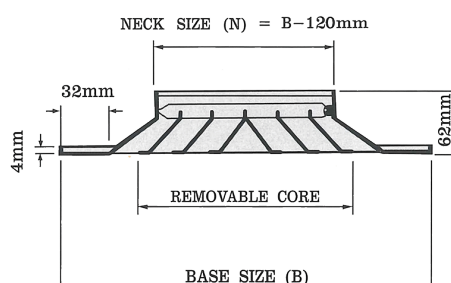
- Steel construction
Standard finish is white baked enamel. Special colour finishes are available to match architectural requirements.
- Extruded aluminium construction
Standard finish is natural anodize. Baked enamel or special anodize finishes are available.

Accessories

- Opposite blade damper (OBD)
Damper blades move simultaneously in opposite direction. Allow for smooth volume control from fully open to fully close. Smooth operation by turning a single adjustment screw. Dampers manufactured from sheet steel. Standard finish is black baked enamel.

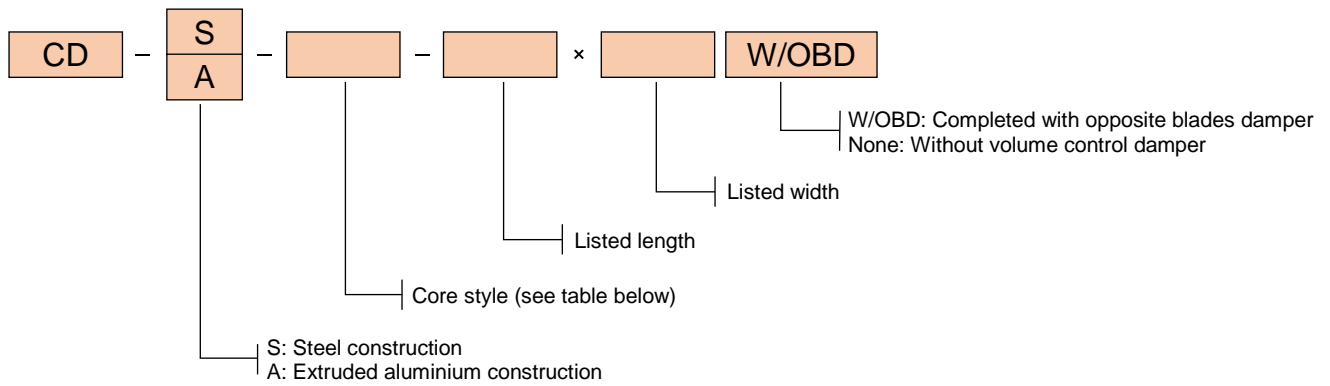


CD-S STEEL



CD-A ALUMINIUM

Order Code



Note: For special finishes and requirements, please specify when ordering.

	1WAY	2WAY		3WAY	4WAY
SQUARE	 <u>1S</u>	 <u>2S1</u>	 <u>2S2</u>	 <u>3S</u>	 <u>4S</u>
RECTANGULAR	 <u>1R1</u>	 <u>2R1</u>	 <u>2R2</u>	 <u>3R1</u>	 <u>4R</u>
	 <u>1R2</u>	 <u>2R3</u>	 <u>2R4</u>	 <u>2R2</u>	

One Way Square Diffusers

Neck Size (mm)	Neck Area (m ²)	Neck Velocity (m/s)	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5
		Velocity Pressure (Pa)	0.7	1	1.5	2	2.5	4	6	8	10	13
		Total Pressure (Pa)	4	6	9	11	15	23	34	46	60	76
150 x 150	0.023	m ³ /s	0.02	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.11
		Throw (m)	1-2-3	2-2-3	2-3-4	2-4-5	3-4-5	4-5-6	4-6-7	5-6-7	5-7-8	6-7-8
225 x 225	0.051	m ³ /s	0.05	0.07	0.08	0.09	0.11	0.13	0.16	0.19	0.21	0.24
		Throw (m)	2-3-4	2-3-5	3-4-5	3-5-5	4-5-6	5-6-7	5-6-7	6-7-8	6-7-9	6-8-9
300 x 300	0.090	m ³ /s	0.09	0.12	0.14	0.17	0.19	0.24	0.28	0.33	0.38	0.43
		Throw (m)	2-3-5	3-4-5	3-5-5	4-5-6	5-5-6	5-6-7	5-7-8	6-7-9	6-8-9	7-8-10
375 x 375	0.140	m ³ /s	0.15	0.18	0.22	0.26	0.30	0.37	0.44	0.51	0.60	0.66
		Throw (m)	3-4-5	3-5-5	4-5-6	5-6-6	5-6-7	5-7-8	6-7-8	6-8-9	7-8-9	7-9-10
450 x 450	0.203	m ³ /s	0.21	0.26	0.32	0.37	0.43	0.53	0.64	0.74	0.85	0.96
		Throw (m)	3-4-5	4-5-5	4-5-6	5-6-7	5-6-7	5-7-8	6-7-9	7-8-9	7-9-10	8-9-10
525 x 525	0.276	m ³ /s	0.29	0.36	0.43	0.51	0.58	0.72	0.87	1.01	1.16	
		Throw (m)	4-5-5	4-5-6	5-5-6	5-6-7	5-6-7	6-7-8	6-8-9	7-9-10	7-9-10	
600 x 600	0.360	m ³ /s	0.38	0.47	0.57	0.66	0.76	0.94	1.13	1.32		
		Throw (m)	4-5-5	4-5-6	5-6-7	5-6-7	5-7-8	6-7-9	7-8-9	7-9-10		
Sound Level			≤NC20			NC30		NC35	NC40	NC50		

Two Way Square Diffusers

Neck Size (mm)	Neck Area (m ²)	Neck Velocity (m/s)	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5
		Velocity Pressure (Pa)	0.7	1	1.5	2	2.5	4	6	8	10	13
		Total Pressure (Pa)	3	5	8	11	14	22	32	43	56	71
150 x 150	0.023	m ³ /s	0.02	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.11
		Throw (m)	2	1-2-2	1-2-2	2-3-3	2-3-4	2-3-4	2-4-5	3-5-6	4-5-7	4-6-7
225 x 225	0.051	m ³ /s	0.05	0.07	0.08	0.09	0.11	0.13	0.16	0.19	0.21	0.24
		Throw (m)	2	2-2-3	2-2-3	2-3-4	2-4-5	3-4-5	4-5-6	4-6-6	5-6-8	5-7-8
300 x 300	0.090	m ³ /s	0.09	0.12	0.14	0.17	0.19	0.24	0.28	0.33	0.38	0.43
		Throw (m)	2	2-3-3	2-3-4	3-4-5	3-5-6	4-5-6	4-6-7	5-7-8	6-7-8	6-8-9
375 x 375	0.140	m ³ /s	0.15	0.18	0.22	0.26	0.30	0.37	0.44	0.51	0.60	0.66
		Throw (m)	2	2-3-4	2-4-5	3-5-6	4-5-6	4-6-6	5-6-7	6-7-8	6-8-9	7-8-9
450 x 450	0.203	m ³ /s	0.21	0.26	0.32	0.37	0.43	0.53	0.64	0.74	0.85	0.96
		Throw (m)	2	2-4-5	3-4-5	4-5-6	4-5-6	5-6-7	5-7-8	6-7-9	6-8-9	7-9-10
525 x 525	0.276	m ³ /s	0.29	0.36	0.43	0.51	0.58	0.72	0.87	1.01	1.16	
		Throw (m)	2	3-4-5	3-5-6	4-5-6	5-6-7	5-6-7	6-7-8	6-8-9	7-8-9	7-9-10
600 x 600	0.360	m ³ /s	0.38	0.47	0.57	0.66	0.76	0.94	1.13	1.32	1.15	
		Throw (m)	2	3-4-5	4-5-6	4-5-6	5-6-7	5-6-7	6-7-8	6-8-9	7-9-10	7-9-11
Sound Level			≤NC20			NC30		NC35	NC40	NC50		

Throw values shown are based on Terminal Velocities of 0.75m/s, 0.5m/s and 0.38m/s respectively using isothermal air.

Three Way Square Diffusers

Neck Size (mm)	Neck Area (m ²)	Neck Velocity (m/s)		1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5	
		Velocity		0.7	1	1.5	2	2.5	4	6	8	10	13	
		Pressure (Pa)		3	5	7	9	12	18	27	36	47	60	
		Total Pressure (Pa)												
150 x 150	0.023	m ³ /s		0.02	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.11	
		Throw (m)	A	0-1-1	1-1-2	1-1-2	1-2-2	1-2-2	2-2-3	2-3-4	2-3-4	2-3-4	2-4-5	3-4-5
		Throw (m)	B	0-1-2	1-2-2	1-2-2	1-2-3	2-2-3	2-3-4	2-3-4	2-3-5	3-4-5	3-5-6	4-5-7
225 x 225	0.052	m ³ /s		0.05	0.07	0.08	0.09	0.11	0.13	0.16	0.19	0.21	0.24	
		Throw (m)	A	1-1-2	1-2-2	1-2-2	2-2-3	2-2-3	2-3-4	2-3-4	2-3-4	3-5-6	3-5-6	4-6-7
		Throw (m)	B	1-2-2	1-2-3	2-2-3	2-3-4	2-3-4	3-4-5	3-5-6	4-5-7	4-6-8	5-7-8	
300 x 300	0.090	m ³ /s		0.09	0.12	0.14	0.17	0.19	0.24	0.28	0.33	0.38	0.43	
		Throw (m)	A	1-2-2	1-2-3	1-2-3	2-3-4	2-3-4	2-4-5	3-5-6	4-5-6	4-6-7	5-6-7	
		Throw (m)	B	1-2-3	2-2-3	2-3-4	2-4-5	3-4-5	3-5-7	4-6-7	5-7-8	5-7-9	6-8-9	
375 x 375	0.140	m ³ /s		0.15	0.18	0.22	0.26	0.30	0.37	0.44	0.51	0.60	0.66	
		Throw (m)	A	1-2-2	2-2-3	2-3-4	2-3-4	2-4-5	3-5-6	4-5-6	5-6-7	5-6-8	5-7-8	
		Throw (m)	B	1-2-3	2-3-4	2-4-5	3-4-5	3-5-6	4-6-7	5-7-8	5-7-8	6-8-9	7-8-9	
450 x 450	0.203	m ³ /s		0.21	0.26	0.32	0.37	0.43	0.53	0.64	0.74	0.85	0.96	
		Throw (m)	A	2-2-3	2-3-4	2-4-4	2-4-5	3-4-5	4-5-6	4-6-7	5-6-7	5-7-4	6-7-9	
		Throw (m)	B	2-3-4	2-3-5	3-4-5	3-5-6	4-5-7	5-6-7	5-7-8	6-8-9	7-8-9	7-8-10	
525 x 525	0.276	m ³ /s		0.29	0.37	0.43	0.51	0.58	0.72	0.87	1.01	1.16	1.30	
		Throw (m)	A	2-2-3	2-3-4	2-4-5	3-4-5	3-5-6	4-6-7	5-6-7	5-7-8	6-7-8	6-8-9	
		Throw (m)	B	2-3-4	2-4-5	3-5-6	4-5-6	4-6-7	5-7-8	6-7-9	6-8-9	7-9-10	7-9-10	
600 x 600	0.360	m ³ /s		0.38	0.47	0.57	0.66	0.76	0.94	1.13	1.32	1.51		
		Throw (m)	A	2-3-4	2-3-5	3-4-5	3-5-6	4-5-6	4-6-7	5-6-7	6-7-8	6-8-8		
		Throw (m)	B	2-3-5	2-4-5	3-5-6	4-6-7	5-6-7	5-7-8	6-7-9	7-8-9	7-9-10		
Sound Level				≤NC20			NC30		NC35	NC40	NC50			

Four Way Square Diffusers

Neck Size (mm)	Neck Area (m ²)	Neck Velocity (m/s)		1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5	
		Velocity		0.7	1	1.5	2	2.5	4	6	8	10	13	
		Pressure (Pa)		3	4	6	8	10	16	24	32	42	54	
		Total Pressure (Pa)												
150 x 150	0.023	m ³ /s		0.02	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.11	
		Throw (m)		0-1-1	0-1-2	1-1-2	1-2-2	1-2-2	2-2-3	2-2-3	2-3-4	2-3-5	2-4-5	
225 x 225	0.051	m ³ /s		0.05	0.07	0.08	0.09	0.11	0.13	0.16	0.19	0.21	0.24	
		Throw (m)		1-1-2	1-2-2	1-2-2	2-2-3	2-2-3	2-3-4	2-2-3	3-4-5	3-5-6	4-5-6	
300 x 300	0.090	m ³ /s		0.09	0.12	0.14	0.17	0.19	0.24	0.28	0.33	0.38	0.43	
		Throw (m)		1-2-2	1-2-2	2-2-3	2-2-3	2-3-4	2-4-5	3-4-6	3-5-6	4-6-7	4-6-7	
375 x 375	0.140	m ³ /s		0.15	0.18	0.22	0.26	0.30	0.37	0.44	0.51	0.60	0.66	
		Throw (m)		1-2-2	2-2-3	2-3-4	2-3-4	2-4-5	3-4-5	3-5-6	4-5-6	5-6-7	5-6-7	
450 x 450	0.203	m ³ /s		0.21	0.27	0.32	0.37	0.43	0.53	0.64	0.74	0.85	0.96	
		Throw (m)		1-2-3	2-2-3	2-3-4	2-4-5	3-4-5	3-5-6	4-5-6	5-6-7	5-6-8	5-7-8	
525 x 525	0.276	m ³ /s		0.29	0.36	0.43	0.51	0.58	0.72	0.87	1.01	1.16	1.30	
		Throw (m)		1-2-3	2-3-3	2-3-5	3-4-5	3-5-5	4-5-6	5-6-7	6-6-7	6-7-8	6-7-9	
600 x 600	0.360	m ³ /s		0.38	0.47	0.57	0.66	0.76	0.94	1.13	1.32	1.51		
		Throw (m)		2-2-3	2-3-4	2-4-5	3-4-5	3-5-6	4-6-7	5-6-7	6-7-8	6-7-8		
Sound Level				≤NC20			NC30		NC35	NC40	NC50			

Throw values shown are based on Terminal Velocities of 0.75m/s, 0.5m/s and 0.38m/s respectively using isothermal air.

One Way Rectangular Diffusers (Core Style 1R1)

Neck Size (mm)	Neck Area (m ²)	Neck Velocity (m/s)	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5
		Velocity Pressure (Pa)	0.7	1	1.5	2	2.5	4	5.7	7.7	10	12.7
		Total Pressure (Pa)	4	7	9	13	17	32	42	57	72	87
300 x 150	0.045	m ³ /s	0.05	0.06	0.07	0.08	0.09	0.12	0.14	0.17	0.19	0.21
		Throw (m)	2-3-3	2-3-4	3-4-5	3-4-5	4-4-6	4-5-7	4-5-7	5-5-8	5-6-9	5-6-9
450 x 150	0.07	m ³ /s	0.07	0.09	0.11	0.12	0.14	0.18	0.21	0.25	0.28	0.32
		Throw (m)	2-3-4	3-4-5	4-5-6	4-5-7	4-5-7	5-5-8	5-5-6	5-7-10	6-7-10	6-8-11
450 x 300	0.14	m ³ /s	0.14	0.18	0.21	0.25	0.28	0.35	0.42	0.50	0.57	0.64
		Throw (m)	3-4-5	4-5-6	4-5-7	5-5-8	5-6-9	5-7-10	6-4-10	6-8-11	7-8-12	7-9-13
750 x 300	0.23	m ³ /s	0.24	0.30	0.35	0.41	0.47	0.59	0.71	0.83	0.94	1.06
		Throw (m)	4-5-6	4-5-7	5-6-9	5-6-9	6-7-10	7-8-12	7-9-13	8-10-14	8-10-14	9-11-15
750 x 450	0.34	m ³ /s	0.35	0.44	0.53	0.62	0.71	0.89	1.06	1.24	1.42	1.60
		Throw (m)	4-5-7	5-6-8	5-7-10	6-7-11	6-8-11	7-9-13	8-10-14	9-11-15	9-11-16	10-12-17
900 x 450	0.41	m ³ /s	0.43	0.53	0.64	0.74	0.85	1.06	1.28	1.49	1.70	1.91
		Throw (m)	5-6-9	5-6-9	6-7-10	6-8-11	7-8-12	8-9-13	8-10-14	9-11-16	9-11-16	10-12-18
1050 x 450	0.47	m ³ /s	0.50	0.62	0.74	0.87	1.0	1.24	1.49	1.74	1.98	
		Throw (m)	5-7-10	6-7-10	6-7-11	7-8-12	7-9-12	8-10-14	9-10-15	9-11-16	10-12-18	
Sound Level			≤NC20		NC30		NC35	NC40	NC50	NC55		

Two Way Rectangular Diffusers (Core Style 2R1)

Neck Size (mm)	Neck Area (m ²)	Neck Velocity (m/s)	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5
		Velocity Pressure (Pa)	0.7	1	1.5	2	2.5	4	5.7	7.8	10	12.7
		Total Pressure (Pa)	4	6	9	12	16	25	35	50	65	80
300 x 150	0.045	m ³ /s	0.05	0.06	0.07	0.08	0.09	0.12	0.14	0.17	0.19	0.21
		Throw (m)	2-2-4	2-3-4	2-3-4	2-3-5	3-3-5	3-4-5	3-4-6	4-5-6	4-5-7	4-5-7
450 x 150	0.07	m ³ /s	0.07	0.09	0.11	0.12	0.14	0.18	0.21	0.25	0.28	0.32
		Throw (m)	2-3-4	3-3-5	3-4-5	3-4-5	4-4-6	4-5-7	5-5-5	5-5-8	5-6-8	5-6-9
450 x 300	0.14	m ³ /s	0.14	0.18	0.21	0.25	0.28	0.35	0.42	0.50	0.57	0.64
		Throw (m)	3-4-5	3-4-5	4-5-6	4-5-7	4-5-7	5-6-8	5-6-9	5-7-10	6-7-10	6-7-11
750 x 300	0.23	m ³ /s	0.24	0.30	0.35	0.41	0.47	0.59	0.71	0.83	0.94	1.06
		Throw (m)	3-4-5	4-5-6	4-5-7	5-5-8	5-6-9	5-7-10	6-8-10	6-8-11	7-9-12	7-9-13
750 x 450	0.34	m ³ /s	0.35	0.44	0.53	0.62	0.71	0.89	1.06	1.24	1.42	1.59
		Throw (m)	4-5-6	4-5-7	5-5-8	5-6-9	5-6-9	6-7-10	6-8-11	7-9-12	7-9-13	8-10-13
900 x 450	0.41	m ³ /s	0.43	0.53	0.64	0.74	0.85	1.06	1.28	1.49	1.70	1.91
		Throw (m)	4-5-7	5-6-8	5-6-9	5-7-9	6-7-10	7-8-11	7-9-12	7-9-13	8-10-13	9-10-14
1050 x 450	0.47	m ³ /s	0.50	0.62	0.74	0.87	1.0	1.24	1.49	1.74	1.98	
		Throw (m)	5-6-8	5-6-9	5-7-9	5-7-9	6-8-10	7-9-12	8-9-13	8-10-14	9-11-15	
Sound Level			≤NC20		NC30		NC35	NC40	NC50	NC55		

Throw values shown are based on Terminal Velocities of 0.75m/s, 0.5m/s and 0.38m/s respectively using isothermal air.

Three Way Rectangular Diffusers (Core Style 3R1)

Neck Size (mm)	Neck Area (m ²)	Neck Velocity (m/s)		1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5		
		Velocity		0.7	1	1.5	2	2.5	4	5.7	7.7	10	12.7		
		Pressure (Pa)													
		Total Pressure (Pa)		3	5	7	9	12	13	25	36	47	60		
300 x 150	0.045	m ³ /s		0.05	0.06	0.07	0.08	0.09	0.12	0.14	0.17	0.19	0.21		
		Throw (m)	A	1-1-2	1-2-2	2-2-3	2-3-3	2-3-4	2-3-4	3-3-5	3-4-5	3-4-5	3-4-5	3-4-5	
		Throw (m)	B	1-1-2	1-2-2	2-2-3	2-3-3	2-3-4	2-3-4	3-3-5	3-4-5	3-4-5	3-4-5	3-4-5	
450 x 150	0.07	m ³ /s		0.07	0.09	0.11	0.12	0.14	0.18	0.21	0.25	0.28	0.32		
		Throw (m)	A	2-2-3	2-3-5	3-4-5	3-4-6	4-4-6	4-5-7	5-5-8	5-5-8	5-6-9	5-6-9	5-6-9	
		Throw (m)	B	1-1-2	1-2-2	2-2-3	2-3-3	2-3-4	2-3-5	3-3-3	3-4-5	3-4-5	3-4-5	3-4-6	
450 x 300	0.14	m ³ /s		0.14	0.18	0.21	0.25	0.28	0.35	0.42	0.50	0.57	0.64		
		Throw (m)	A	2-2-3	2-3-4	2-3-4	2-3-5	3-3-5	3-4-6	3-4-6	4-5-7	4-5-7	5-5-8	5-5-8	
		Throw (m)	B	2-2-4	2-4-3	3-3-5	3-4-5	3-4-5	3-5-6	4-5-7	4-5-8	5-5-8	5-6-9	5-6-9	
750 x 300	0.23	m ³ /s		0.24	0.30	0.35	0.41	0.47	0.59	0.71	0.83	0.94	1.06		
		Throw (m)	A	3-4-5	4-5-6	4-5-7	5-5-8	5-6-8	5-7-10	6-7-10	7-8-12	7-9-13	8-9-13	8-9-13	
		Throw (m)	B	2-2-4	2-3-4	3-3-5	3-4-5	3-4-5	3-5-7	4-5-10	4-5-8	5-6-8	5-6-9	5-6-9	
750 x 450	0.34	m ³ /s		0.35	0.44	0.53	0.62	0.71	0.89	1.06	1.24	1.42	1.59		
		Throw (m)	A	2-3-5	3-4-5	3-4-6	3-5-6	4-5-7	5-5-8	5-6-8	5-6-9	5-7-9	6-7-10	6-7-10	
		Throw (m)	B	3-4-5	3-4-6	4-5-7	4-5-7	5-5-8	5-6-9	5-7-10	6-7-11	6-8-11	7-9-12	7-9-12	
1050 x 450	0.47	m ³ /s		0.5	0.62	0.74	0.87	0.99	1.24	1.49	1.74	1.98			
		Throw (m)	A	4-5-7	4-6-9	5-6-9	5-7-10	6-7-10	10-8-12	7-9-13	8-9-14	8-10-14			
		Throw (m)	B	2-3-5	3-4-6	4-5-6	4-5-7	4-5-7	5-6-8	5-6-9	5-7-10	6-7-10			
Sound Level				≤NC20		NC30		NC35	NC40	NC50		NC55			

Four Way Rectangular Diffusers (Core Style 4R1)

Neck Size (mm)	Neck Area (m ²)	Neck Velocity (m/s)		1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5		
		Velocity		0.7	1	1.5	2	2.5	4	5.7	7.7	10	12.7		
		Pressure (Pa)													
		Total Pressure (Pa)		3	4	6	8	10	16	24	32	42	54		
300 x 150	0.045	m ³ /s		0.05	0.06	0.07	0.08	0.09	0.12	0.14	0.17	0.19	0.21		
		Throw (m)	A	1-2-3	2-2-3	2-3-4	2-3-4	3-3-5	3-4-5	3-4-6	4-5-6	4-5-7	4-5-7	4-5-7	
		Throw (m)	B	0-1-1	1-1-2	1-2-2	2-2-3	2-2-2	2-2-3	2-2-3	2-2-4	2-2-4	2-2-4	2-3-4	
450 x 150	0.07	m ³ /s		0.07	0.09	0.11	0.12	0.14	0.18	0.21	0.25	0.28	0.32		
		Throw (m)	A	2-2-3	2-3-4	3-3-5	3-4-5	3-4-5	3-5-7	4-4-5	4-5-8	5-6-8	5-6-9	5-6-9	
		Throw (m)	B	1-1-1	1-1-2	1-2-2	2-2-2	2-2-2	2-2-3	2-2-2	2-2-4	2-2-4	2-2-4	2-3-4	
450 x 300	0.14	m ³ /s		0.14	0.18	0.21	0.25	0.28	0.35	0.42	0.50	0.57	0.64		
		Throw (m)	A	2-2-4	2-3-5	3-4-5	3-4-5	4-4-6	4-5-7	5-5-8	5-6-8	5-6-9	6-7-9	6-7-9	
		Throw (m)	B	1-2-2	1-2-2	2-2-3	2-2-3	2-3-4	2-3-5	3-3-5	3-4-5	3-4-5	3-4-5	4-5-6	
750 x 300	0.23	m ³ /s		0.24	0.30	0.35	0.41	0.47	0.59	0.71	0.83	0.94	1.06		
		Throw (m)	A	3-3-5	3-4-6	4-5-7	4-5-8	5-5-8	5-6-9	5-7-10	6-7-10	6-8-11	7-8-9	7-8-9	
		Throw (m)	B	1-2-2	1-2-2	2-2-3	2-2-3	2-3-4	2-3-5	3-3-5	3-4-5	3-4-5	3-4-5	4-5-6	
750 x 450	0.34	m ³ /s		0.35	0.44	0.53	0.62	0.71	0.89	1.06	1.24	1.42	1.59		
		Throw (m)	A	3-4-6	3-5-7	4-5-7	5-5-8	5-6-7	5-7-10	6-8-10	6-8-11	7-9-12	7-9-13	7-9-13	
		Throw (m)	B	2-2-3	2-3-4	2-3-4	2-3-5	3-3-5	3-4-5	3-4-6	4-5-7	4-5-7	5-6-8	5-6-8	
1050 x 450	0.47	m ³ /s		0.5	0.62	0.74	0.87	0.99	1.24	1.49	1.74	1.98			
		Throw (m)	A	4-6-7	4-6-8	5-6-9	5-6-9	5-7-10	6-8-11	7-9-12	8-9-13	8-10-14			
		Throw (m)	B	2-2-3	2-3-4	2-3-4	2-3-5	3-3-5	3-4-5	3-4-6	4-5-7	4-5-7			
Sound Level				≤NC20		NC30		NC35	NC40	NC50		NC55			

Throw values shown are based on Terminal Velocities of 0.75m/s, 0.5m/s and 0.38m/s respectively using isothermal air.

Air Balancing Data

Notes on Performance data:

Neck Area

The cross-sectional area (sq.m) of the duct at the point where the diffuser is attached.

Neck Velocity

Air Flow Rate (m³/s) divided by Neck Area (sq.m) equals Neck Velocity (m/s)

Velocity Pressure

The pressure (Pa) corresponding to the tabulated Neck Velocity at standard air density.

Total Pressure

The sum of Static Pressure plus Velocity Pressure is given in Pa. Total pressure is tabulated for the Diffuser with OBD in fully open position.

Recommended

Air Balancing procedures

1. Use an Anor Velometer with tip no. 2220A positioned at locations shown in Fig. 1
2. Average the measuring data
3. Select proper A_k from area factor tables by diffuser type and size
4. Determine air flow rate by the following equation
 $m^3/s = A_k (m^2) \times \text{Average Velocity (m/s)}$

Throw

Throw values shown are based on isothermal air. Maximum throw value (m) shown in chart is based on 0.38 m/s Terminal Velocity. Center throw value is based on a 0.5 m/s Terminal Velocity. Minimum throw value is based on a 0.75 m/s Terminal Velocity.

0.75 m/s Terminal Velocity yield a room Velocity (Vr) in the occupied zone of approximately 0.18 m/s.

The throw values shown are for the diffuser mounted flush to the ceiling. If the diffuser is mounted on exposed ductwork, the throw will be reduced by the factor of 2.

NC Sound Data

Ratings are based on Room Attenuation of 8 decibels when 10⁻¹² watts is used as a reference.

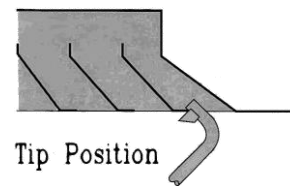


Fig.1 Tip Position

Tip Position

Area Factors Tables- A_k

1 way Diffuser W/OBD											
150	0.01										
225	0.02	0.03									
300	0.02	0.04	0.05								
375	0.03	0.04	0.06	0.07							
450	0.03	0.05	0.07	0.09	0.1						
525	0.04	0.06	0.08	0.1	0.120	0.14					
600	0.045	0.07	0.09	0.11	0.14	0.16	0.19				
675	0.05	0.08	0.1	0.130	0.15	0.18	0.2	0.23			
750	0.06	0.09	0.11	0.14	0.17	0.2	0.22	0.260	0.29		
825	0.06	0.09	0.130	0.16	0.19	0.22	0.25	0.28	0.32	0.34	
900	0.07	0.1	0.14	0.17	0.2	0.24	0.27	0.31	0.34	0.37	0.41
	150	225	300	375	450	525	600	675	750	825	900

2 way Diffuser W/OBD											
150	0.01										
225	0.02	0.03									
300	0.02	0.04	0.05								
375	0.030	0.05	0.06	0.08							
450	0.04	0.05	0.07	0.09	0.11						
525	0.05	0.06	0.09	0.1	0.130	0.15					
600	0.05	0.07	0.1	0.11	0.15	0.17	0.2				
675	0.05	0.08	0.11	0.120	0.17	0.2	0.22	0.25			
750	0.06	0.09	0.120	0.14	0.19	0.21	0.24	0.28	0.31		
825	0.07	0.1	0.130	0.17	0.2	0.23	0.27	0.31	0.33	0.37	
900	0.07	0.11	0.15	0.19	0.22	0.260	0.3	0.33	0.37	0.41	0.45
	150	225	300	375	450	525	600	675	750	825	900

3 way Diffuser W/OBD											
150	0.01										
225	0.02	0.03									
300	0.03	0.04	0.05								
375	0.03	0.05	0.06	0.08							
450	0.04	0.06	0.08	0.09	0.11						
525	0.04	0.07	0.09	0.11	0.130	0.16					
600	0.05	0.08	0.1	0.130	0.15	0.18	0.2				
675	0.06	0.09	0.11	0.14	0.17	0.2	0.23	0.260			
750	0.06	0.09	0.130	0.16	0.2	0.22	0.25	0.29	0.32		
825	0.07	0.1	0.14	0.18	0.21	0.24	0.28	0.32	0.35	0.390	
900	0.08	0.11	0.15	0.2	0.23	0.27	0.31	0.34	0.38	0.42	0.46
	150	225	300	375	450	525	600	675	750	825	900

4 way Diffuser W/OBD											
150	0.01										
225	0.020	0.03									
300	0.03	0.04	0.05								
375	0.03	0.050	0.07	0.08							
450	0.04	0.060	0.08	0.1	0.120						
525	0.05	0.07	0.09	0.120	0.14	0.17					
600	0.05	0.08	0.11	0.130	0.16	0.19	0.21				
675	0.060	0.090	0.120	0.15	0.18	0.21	0.24	0.27			
750	0.07	0.1	0.130	0.17	0.2	0.23	0.27	0.3	0.33		
825	0.07	0.11	0.15	0.19	0.22	0.260	0.3	0.33	0.37	0.41	
900	0.08	0.120	0.16	0.2	0.24	0.28	0.32	0.36	0.4	0.44	0.48
	150	225	300	375	450	525	600	675	750	825	900