



RECOMMENDED NOISE CRITERIA FOR AIR DISTRIBUTION PRODUCTS

TYPE OF ROOM	NC dB	TYPE OF ROOM	NC dB
Auditoriums		Sports Activites Indoor	
Concert and Opera halls	20 to 25 25 to 30	Coliseums	30 to 40
Studios and Sound reproduction		Bowling Alleys, Gymnasiums	35 to 45
Legitimate theatres and Multi-Purpose halls		Swimming Pools	40 to 55
Movie theatres and Lecture halls			
Planetorium and TV audience studios	30 to 35	Transportation	
Lobbies	35 to 40	Ticket sale Office	30 to 40
		Lounges, Waiting rooms	35 to 50
Churches and Schools			
Sanctuaries	20 to 30	Hotels	
Libraries, School and Classroom	30 to 40	Individual rooms or Suites, Bell rooms	30 to 40
Laboratories	35 to 45	Banquet rooms	
Recreation halls, Corridors and halls	35 to 50	Halls and Corridors, Lobbies	35 to 45
Kitchens	40 to 50	Garages, Kitchen and Laundries	40 to 50
Offices		Restaurants and Lounges	
Board Room	20 to 30	Restaurants	35 to 45
Conference Room	25 to 35	Cocktail Lounges	35 to 50
Excecutive Office	30 to 40	Night Clubs	35 to 45
Supervisor Office, Reception room	30 to 45	Cafetarias	40 to 50
General Open offices, Drafting Rooms	35 to 50		
Halls and Corridors		Hospitals and Clinics	
Tabulation and Computation	40 to 60	Private Rooms	25 to 35
		Operating rooms, Wards	30 to 40
Manufacturing Areas		Halls and Corridors, Laboratories	
Foreman's Office	40 to 50	Lobbies and Waiting rooms	35 to 45
Assemble lines, Light Machinery	55 to 75	Washrooms and Toilets	40 to 50
Foundries, Heavy Machinery			
		Public Buildings	
Stores Retail		Public Libraries, Museums	30 to 40
Clothing stores	35 to 45	Court Rooms	
Department Stores (upper floors)		Post Offices, General banking area	
Department Stores (main floors)		Lobbies	
Small Retail store, Supermarkets	40 to 50	Washrooms and Toilets	40 to 50

JAYDEE UTILITY CONSULTANTS PRIVATE LIMITED

No. 42 , Sy. No. 157, Jhanvi Industrial Layout

Hanchipura, Nelamangala - 562 123

BANGALORE , KARNATAKA , INDIA.

Webisie: <http://www.jaydeutility.com>

PERFORMANCE CHART: SQUARE DIFFUSERS

SQUARE DIFFUSERS													
Face Area m ²	Neck Size mmxmm	Air Flow CFM											
		100	150	200	250	300	400	500	600	800	1000	1200	1500
0.011	150x150	2.7	4.3	5.6									
		4.6	9.5	19.2									
		19	29	35									
		0.7	0.8	1.5									
0.023	225x225		2.2	2.6	3.5	10.2	5.6						
			2.6	4.8	7	4.2	20						
			16	23	28	32	36						
			0.9	1	1.1	1.6	2.1						
0.038	300x300				2	1.5	3.4	4	4.5				
					2.2	3	5.8	9.3	12.6				
					1.7	23	28	31	34				
					0.8	1.2	1.5	1.6	2.4				
0.057	375x375						1.9	2.6	2.8	3.9	5.1		
							2.4	3.4	5.4	9.6	16		
							21	25	27	34	38		
							1.3	1.5	1.6	2.5	2.7		
0.071	450x450								2.1	2.9	3.7	4.1	5
									3	5.3	7.7	10	18
									22	28	32	38	40
									1.9	2.4	3.1	3.9	4.4

PRFORMANCE CHART: SLOT DIFFUSERS

SLOT DIFFUSERS										
Face Area m ²	No of Slots	Air Flow CFM								
		35	60	90	115	145	175	235	295	350
0.007	1	2.3	4	5.8						
		5	14.2	31						
		18	22	34						
		1.7	2.9	4.7						
0.014	2		2.1	3.1	4.3	5	6			
			3.7	8	12	21	32			
			20	20	25	34	36			
			2.1	3.3	4.1	1.5	6.3			
0.021	3			2	2.6	3.1	4	5.3		
				3.7	6	11	14	25		
				18	18	23	28	36		
				2.5	3.4	4.3	5.2	7		
0.028	4				2.1	2.5	3.3	4.4	5.4	6
					3.5	5	8.2	14	21	33
					18	19	23	31	36	40
					2.8	4.1	4.6	6.5	7.8	9.4
0.035	5					2.3	2.8	3	4	5.7
						5	9.6	18.1	34	40.8
						18	19	25	30	39
						3.5	4	4.7	8	11.8
Velocity										
Pressure										
Noise										
Throw										

JAYDEE UTILITY CONSULTANTS PRIVATE LIMITED

No. 42 , Sy. No. 157, Jhanvi Industrial Layout

Hanchipura, Nelamangala - 562 123

BANGALORE , KARNATAKA , INDIA.

Websie: <http://www.jaydeutility.com>

PERFORMANCE CHART: ROUND DIFFUSERS

ROUND DIFFUSER												
Neck Sizes mm	Neck Area m ²	Neck Vel. fpm	300	400	500	600	700	800	1000	1200	1400	1600
		P _v in.	0.007	0.011	0.016	0.023	0.031	0.041	0.064	0.091	0.123	0.161
150	0.196	CFM	60	80	100	120	135	155	195	235	275	315
		Tot Pr. in	0.027	0.048	0.073	0.105	0.147	0.189	0.297	0.421	0.566	0.748
		N _c dB	<20	<20	<20	<20	21	27	30	36	43	47
200	0.349	CFM	105	140	175	210	245	280	350	420	490	560
		Tot Pr. in	0.021	0.036	0.051	0.075	0.12	0.123	0.209	0.295	0.396	0.525
		N _c dB	<20	<20	<20	21	26	31	35	40	43	46
250	0.545	CFM	165	220	275	325	380	435	545	655	765	870
		Tot Pr. in	0.02	0.034	0.06	0.075	0.099	0.12	0.19	0.288	0.377	0.478
		N _c dB	<20	<20	<20	22	26	32	35	42	46	48
300	0.785	CFM	225	315	395	470	550	630	785	940	1100	1255
		Tot Pr. in	0.019	0.024	0.048	0.06	0.082	0.118	0.174	0.25	0.336	0.447
		N _c dB	<20	<20	<20	23	28	34	38	43	47	49
350	1.07	CFM	320	430	535	640	750	855	1070	1285	1500	1710
		Tot Pr. in	0.018	0.026	0.045	0.067	0.088	0.11	0.174	0.242	0.327	0.439
		N _c dB	<20	<20	20	24	31	36	37	42	48	49
400	1.4	CFM	420	560	70	840	980	1120	1400	1680	1960	2240
		Tot Pr. in	0.015	0.022	0.044	0.059	0.073	0.106	0.157	0.228	0.329	0.417
		N _c dB	<20	<20	21	25	32	37	39	45	47	51

JAYDEE UTILITY CONSULTANTS PRIVATE LIMITED

No. 42 , Sy. No. 157, Jhanvi Industrial Layout

Hanchipura, Nelamangala - 562 123

BANGALORE , KARNATAKA , INDIA.

Website: <http://www.jaydeutility.com>

PERFORMANCE CHART: JET DIFFUSERS

JET DIFFUSER												
SIZE	8"			10"			12"			14"		
CFM	P _s in.	Throw, f	N _c dB	P _s in.	Throw, f	N _c dB	P _s in.	Throw, f	N _c dB	P _s in.	Throw, f	N _c dB
100	0.03	9	18									
200	0.07	20	22									
300	0.13	29	25	0.05	22	19						
400	0.23	42	31	0.09	29	22						
500	0.3	54	35	0.11	37	26	0.06	28	22			
600	0.44	65	40	0.17	44	31	0.07	38	27			
700				0.22	56	36	0.1	50	33			
800				0.26	63	40	0.12	55	36	0.07	47	25
900				0.31	70	43	0.15	68	37	0.08	52	30
1000				0.39	77	45	0.18	74	40	0.12	58	32
1300							0.28	87	42	0.14	63	36
1600							0.31	96	44	0.19	74	36
1900							0.4	110	47	0.27	80	38
2100							0.45	113	51	0.32	102	43
2400										0.39	114	44
2700										0.4	121	46
3000										0.48	132	48

JAYDEE UTILITY CONSULTANTS PRIVATE LIMITED

No. 42 , Sy. No. 157, Jhanvi Industrial Layout

Hanchipura, Nelamangala - 562 123

BANGALORE , KARNATAKA , INDIA.

Websie: <http://www.jaydeutility.com>

Terms used in Table:

Jet Velocity (Vk) : In FPM for an outlet or inlet is the velocity measured with an approved calibrated velometer at specified locations relative to the face of the outlet or inlet.

Terminal Velocity (Vt) : In FPM is the highest sustained velocity in the mixed air stream arbitrary specified and used to determine throw.

Velocity pressure (Pd) (Dynamic pressure): The forward moving force of an air stream within a duct measured in mm (inch) W.G. of water.

Static pressure (Ps) : The outward force within a duct measured in mm (inch) W.G. of water.

Total pressure (Pt) : The sum of the velocity pressure and the static pressure measured in mm (inch) W.G. of water.

Throw (T) : Throw of an outlet in m (feet), is the distance from the center of the outlet to a point in the mixed air stream where the highest sustained velocity of the mixed air stream has been reduced to a specified level (100 FPM & 50 FPM terminal velocity).

Area factor : Of an outlet or inlet which is also a flow factor determined from the discharge or intake velocity (Vk) and the volume flow rate (Q)

$A = Q/V$ in m² or Ft²

NC : Noise Criteria