

Model TCD - Supply Performance Data

NOMINAL 24" x 24" FACE

Nom. Neck Dia. (Sq. Ft.)	Neck Vel.	400	500	600	700	800	1000	1200	1400	1600
	P _v	0.01	0.02	0.02	0.03	0.04	0.06	0.09	0.12	0.16
6" Dia. (0.196)	CFM	80	100	120	135	155	195	235	275	315
	P _t	0.01	0.02	0.03	0.04	0.05	0.08	0.13	0.18	0.23
	NC	<15	<15	<15	<15	16	22	28	32	36
	Throw	1-2-4	1-2-4	2-3-5	2-3-6	2-4-7	3-4-9	4-5-11	4-6-12	5-7-13
8" Dia. (0.349)	CFM	140	175	210	245	280	350	420	490	560
	P _t	0.01	0.02	0.03	0.05	0.06	0.10	0.14	0.19	0.25
	NC	<15	<15	<15	15	19	26	31	36	40
	Throw	2-3-5	2-3-7	3-4-8	3-5-9	4-5-11	4-7-13	5-8-14	6-9-16	7-11-17
10" Dia. (0.545)	CFM	220	275	325	380	435	545	655	765	875
	P _t	0.01	0.03	0.03	0.05	0.07	0.10	0.15	0.20	0.26
	NC	<15	<15	<15	18	22	29	34	39	43
	Throw	2-4-7	3-5-9	4-5-11	4-6-13	5-7-14	6-9-17	7-11-18	8-13-20	10-14-21
12" Dia. (0.785)	CFM	315	395	470	550	630	785	940	1100	1255
	P _t	0.01	0.02	0.03	0.05	0.06	0.10	0.15	0.21	0.28
	NC	<15	<15	16	21	24	31	36	41	45
	Throw	3-5-9	4-6-11	5-7-14	5-8-16	6-9-18	8-11-20	9-14-22	11-16-23	12-18-25
14" Dia. (1.069)	CFM	430	535	640	750	855	1070	1285	1500	1710
	P _t	0.01	0.03	0.03	0.05	0.07	0.11	0.16	0.22	0.29
	NC	<15	<15	18	22	26	33	38	42	46
	Throw	4-5-11	5-7-14	5-8-16	6-10-19	7-11-21	9-14-23	11-16-25	13-19-27	14-21-29
15" Dia. (1.227)	CFM	490	615	735	860	980	1230	1475	1720	1965
	P _t	0.02	0.03	0.04	0.06	0.07	0.11	0.16	0.22	0.29
	NC	<15	<15	19	23	27	34	39	44	47
	Throw	4-6-12	5-7-15	6-9-18	7-10-21	8-12-22	10-15-25	12-18-27	14-21-29	16-22-31

Test Standard

- ANSI / ASHRAE standard 70
- Isothermal Conditions

Non-uniform air flow into diffusers increase sound levels, operating pressures and can distort the air distribution pattern into the space.

Sound Levels

- NC is noise criteria curve that will not be exceeded at the operating point. This is determined by assuming a 10dB (ref: 10⁻¹² watts) room attenuation that is subtracted from the power levels in each of the 2nd thru 7th octave bands.

Throw

- The numbers shown are throw distances, in feet, relating to terminal velocities of 150-100-50 fpm. For exposed duct applications, reduce throw distance by 30%.
- Terminal velocity is the air speed, in feet per minute, measured in the air stream that is discharged from the diffuser.

Pressure

- P_v represents the air velocity pressure and is calculated as $P_v = (\text{Velocity}/4005)^2$.
- P_t represents total pressure requirement. Static pressure can be calculated as $P_s = P_t - P_v$.
- All pressures are stated and calculated in inches of water.



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