

RD Series									
SIZE	VELOCITY	400	600	800	1000	1200	1400	1600	
6"	Eff. Area .12 ft ²	CFM	78	115	155	195	235	275	310
		Radial Diff.	3-6	4-6	4-6	5-7	5-7	6-8	7-10
		Duct Pt	.04	.08	.13	.20	.28	.38	.48
		NC	<20	22	20	36	41	45	48
8"	Eff. Area .20 ft ²	CFM	140	210	280	350	420	490	560
		Radial Diff.	4-6	5-8	5-8	6-10	7-11	8-13	9-14
		Duct Pt	.03	.07	.12	.18	.27	.37	.48
		NC	<20	27	34	40	45	49	52
10"	Eff. Area .31 ft ²	CFM	218	325	435	545	655	765	870
		Radial Diff.	5-9	6-11	7-13	7-14	9-16	12-18	15-22
		Duct Pt	.06	.12	.24	.36	.52	.72	.96
		NC	<20	29	37	42	47	51	54
12"	Eff. Area .44 ft ²	CFM	315	475	630	785	940	1100	1260
		Radial Diff.	6-10	6-12	7-14	10-18	13-21	15-25	20-28
		Duct Pt	.04	.10	.20	.31	.49	.67	.88
		NC	21	31	39	45	48	52	56
14"	Eff. Area .57 ft ²	CFM	430	645	855	1070	1280	1500	1710
		Radial Diff.	8-13	11-15	13-19	18-23	21-26	23-28	25-32
		Duct Pt	.05	.11	.20	.31	.44	.59	.78
		NC	22	32	40	46	49	53	57
16"	Eff. Area .785 ft ²	CFM	660	840	1120	1400	1680	1960	2220
		Radial Diff.	10-14	13-17	17-22	19-25	22-29	24-31	26-36
		Duct Pt	.07	.14	.26	.41	.59	.82	1.06
		NC	22	33	41	47	51	55	58
18"	Eff. Area .99 ft ²	CFM	710	1060	1420	1770	2120	2480	2830
		Radial Diff.	9-15	12-18	17-24	20-27	23-30	26-32	29-38
		Duct Pt	.05	.11	.22	.35	.53	.72	.96
		NC	23	34	42	47	52	56	59
20"	Eff. Area 1.22 ft ²	CFM	874	1310	1750	2150	2620	3050	3490
		Radial Diff.	11-17	14-20	19-25	22-29	23-31	27-35	30-40
		Duct Pt	.05	.12	.24	.36	.54	.76	1.00
		NC	24	35	43	48	53	57	60
24"	Eff. Area 1.77 ft ²	CFM	1258	1886	2510	3142	3770	4400	5030
		Radial Diff.	12-18	16-22	21-29	24-34	27-39	31-43	35-47
		Duct Pt	.05	.12	.20	.28	.40	.54	.71
		NC	25	36	44	49	54	58	61
28"	Eff. Area .99 ft ²	CFM	1715	2570	3425	4280	5140	6000	6850
		Radial Diff.	13-20	17-23	22-31	27-36	30-40	34-45	36-48
		Duct Pt	.06	.11	.19	.28	.39	.52	.66
		NC	27	38	46	51	56	60	63
32"	Eff. Area 1.22 ft ²	CFM	2238	3350	4470	5590	6710	7840	8950
		Radial Diff.	14-22	18-25	23-32	28-39	32-43	35-48	38-50
		Duct Pt	.02	.04	.07	.11	.16	.21	.28
		NC	28	39	47	52	57	61	65
24"	Eff. Area 1.77 ft ²	CFM	2828	4240	5650	7070	8480	9890	11300
		Radial Diff.	14-22	19-26	23-35	30-40	33-46	37-48	40-50
		Duct Pt	.03	.05	.10	.16	.23	.30	.40
		NC	29	40	48	53	58	62	66

ENGINEERING FOOTNOTES

ENGINEERING FOOTNOTES FOR SHOEMAKER DIFFUSERS & GRILLES:

SIZE: Nominal size or the duct opening / neck size.

EFFECTIVE AREA: The space between the blades actually utilized by the air.

VELOCITY: The actual velocity of the air through the blades measured with a velometer in at least 4 places.

FILTERVELOCITY: Some velocities higher than 500 FPM will decrease filter effectiveness and possibly blow off agglomerates.

Special Note: The 920FG table gives the air flow for different filter grilles at 2 CFM per square inch of filter with allowance for the blockage caused by the grille.

DUCT PT: The total pressure behind the diffuser in the duct forcing that air through the diffuser.

DUCT PS: The static pressure in the duct directly behind the grille or neck of the T-Bar grille. The static load on the fan chargeable against that grille. Velometer readings are taken between grille vanes giving actual velocity.

THROW: The throws noted in the tables are the distances from the diffuser to where the air stream velocity has dropped to not under 100/75/50 F.P.M.

NOISE CRITERIA:

NC "A" scale.

- (1) Below NC25 extremely quiet.
- (2) Below NC30 Quiet Office.
- (3) Below NC35 Conference Rooms; normal voice 10-30 ft.
- (4) Below NC40 Conference Rooms; 6-12 ft. normal voice.
- (5) NC45 Conference Rooms; 3-6 ft. normal voice.

NOISE CRITERIA addition for RD series:

The NC values are based on a room absorption of 18 db, re 10-13 watts.

NOISE CRITERIA addition for OBR – Damper Throttling:

- ¼ Closed – 5
- ⅓ Closed – 10
- ½ Closed – 15