



ENGINEERING DATA

700 600 Series

SIZE	VELOCITY		400	500	600	700	800	1000	1200
	DUCT PT.		0.032	0.048	0.07	0.092	0.12	0.14	0.16
6X6	Eff. Area .26 ft ²	CFM	96	120	145	169	193	241	287
		NC	<20	<20	<20	<20	20-25	25-30	25-30
8X8	Eff. Area .40 ft ²	CFM	172	214	256	300	343	429	510
		NC	<20	20-25	20-25	25-30	25-30	30	30
10X10	Eff. Area .61 ft ²	CFM	269	342	403	476	549	678	806
		NC	<20	25	25-30	25-30	30	30	35
12X12	Eff. Area .90 ft ²	CFM	414	526	616	728	840	1042	1243
		NC	<20	25	25-30	25-30	30	30	35
14X14	Eff. Area 1.21 ft ²	CFM	549	683	823	958	1092	1366	1557
		NC	<20	25	25-30	25-30	30	30	35
16X16	Eff. Area 1.61 ft ²	CFM	717	896	1075	1254	1445	1792	2139
		NC	<20	25	25-30	25-30	30	30	35
18X18	Eff. Area 2.09 ft ²	CFM	874	1098	1310	1534	1747	2195	2632
		NC	<20	25	25-30	25-30	30	30	35
20X20	Eff. Area 2.67 ft ²	CFM	1086	1355	1624	1898	2178	2727	3270
		NC	<20	25	25-30	25-30	30	30	35

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