

600 Series									
SIZE	Velocity		400	500	600	700	800	1000	1200
	Duct Ps		0.032	0.048	0.07	0.092	0.12	0.14	0.16
6x6	Eff. Area	CFM	96	120	145	169	193	241	287
	.26 ft <sup>2</sup>	NC	<20	<20	<20	<20	20-25	25-30	25-30
8x8	Eff. Area	CFM	172	214	256	300	343	429	510
	.40 ft <sup>2</sup>	NC	<20	20-25	20-25	25-30	25-30	30	30
14x6	Eff. Area	CFM	246	308	370	442	493	616	728
	.51 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
10x10	Eff. Area	CFM	269	342	403	476	549	678	806
	.61 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
12x12	Eff. Area	CFM	414	526	616	728	840	1042	1243
	.90 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
14x14	Eff. Area	CFM	549	683	823	958	1092	1366	1557
	1.21 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
16x16	Eff. Area	CFM	717	896	1075	1254	1445	1792	2139
	1.61 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
24x12	Eff. Area	CFM	784	980	1176	1388	1579	1960	2341
	1.82 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
18x18	Eff. Area	CFM	874	1098	1310	1534	1747	2195	2632
	2.09 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
30x12	Eff. Area	CFM	974	1221	1456	1714	1949	2442	2822
	2.15 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
20x20	Eff. Area	CFM	1086	1355	1624	1898	2178	2727	3270
	2.67 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
36x12	Eff. Area	CFM	1154	1450	1736	2016	2313	2873	3416
	2.83 ft <sup>2</sup>	NC	<20	25	25-30	25-30	30	30	35
22x22	Eff. Area	CFM	1277	1658	1932	2262	2576	3192	3808
	3.14 ft <sup>2</sup>	NC	20	25	25-30	25-30	30	35	40
24x24	Eff. Area	CFM	1523	1904	2296	2666	3052	2688	4536
	3.74 ft <sup>2</sup>	NC	20	25	25-30	25-30	30	35	40
30x20	Eff. Area	CFM	1752	2187	2633	3063	3508	4378	5130
	4.29 ft <sup>2</sup>	NC	20	25	25-30	25-30	35	35	40
30x24	Eff. Area	CFM	1876	2341	2817	3276	3752	4682	5488
	4.59 ft <sup>2</sup>	NC	20	25	25-30	25-30	35	35	40
36x24	Eff. Area	CFM	2240	2800	3360	3920	4480	5600	6720
	5.50 ft <sup>2</sup>	NC	20	25	25-30	25-30	35	40	45
30x30	Eff. Area	CFM	2307	2890	3461	4043	4614	5768	6944
	5.66 ft <sup>2</sup>	NC	20	25	25-30	25-30	35	40	45
36x36	Eff. Area	CFM	3248	4032	4928	5712	6552	8176	9464
	8.04 ft <sup>2</sup>	NC	20	25	30	35	35	40	45
48x48	Eff. Area	CFM	5600	7000	8400	9800	11,200	14,000	16,800
	13.75 ft <sup>2</sup>	NC	20	25	30	35	35	40	45

# 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