



# ENGINEERING DATA

## 920 FG4 Series

SIZE	Effective Area	Velocity	400	500	600	700	800	900
		Duct Ps						
10x10, 14x8	.784 ft <sup>2</sup>	CFM	309	366	453	515	608	690
12x12	.986 ft <sup>2</sup>	CFM	381	484	577	670	762	865
14x14, 24x8	1.27 ft <sup>2</sup>	CFM	494	618	742	865	989	1112
16x16, 30x8	1.57 ft <sup>2</sup>	CFM	608	762	917	1071	1215	1370
18x18, 20x16	2.07 ft <sup>2</sup>	CFM	803	1009	1205	1411	1607	1803
20x20, 25x16	2.57 ft <sup>2</sup>	CFM	989	1246	1494	1741	1998	2224
24x20, 30x16	3.02 ft <sup>2</sup>	CFM	1174	1473	1761	2060	2348	2647
24x24	3.60 ft <sup>2</sup>	CFM	1401	1751	2101	2404	2802	3152
25x20	2.99 ft <sup>2</sup>	CFM	1197	1502	1796	2100	2394	2699
30x20	3.70 ft <sup>2</sup>	CFM	1460	1830	2190	2560	2920	3290
30x24	4.43 ft <sup>2</sup>	CFM	1720	2153	2585	3018	3440	3873

# 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