



ENGINEERING DATA

900 FG Series

SIZE	Effective Area	Velocity	400	500	600	700	800	900
		Duct Ps	.038	.048	.070	.092	.120	.140
8x8, 12x6	.54 ft ²	CFM	196	247	287	350	376	443
10x10, 14x8	.784 ft ²	CFM	309	366	453	515	608	690
12x12, 22x6	.986 ft ²	CFM	381	484	577	670	762	865
14x14, 24x8	1.27 ft ²	CFM	494	618	742	865	989	1112
16x16, 30x8	1.57 ft ²	CFM	608	762	917	1071	1215	1370
18x18, 20x16	2.07 ft ²	CFM	803	1009	1205	1411	1607	1803
20x20, 25x16	2.57 ft ²	CFM	989	1246	1494	1741	1998	2224
24x20, 30x16	3.02 ft ²	CFM	1174	1473	1761	2060	2348	2647
24x24, 36x16	3.60 ft ²	CFM	1401	1751	2101	2404	2802	3152
25x20, 36x14	2.99 ft ²	CFM	1197	1502	1796	2100	2394	2699
30x24	4.43 ft ²	CFM	1720	2153	2585	3018	3440	3873
36x24	5.30 ft ²	CFM	2060	2575	3090	3605	4120	4635
30x30	6.46 ft ²	CFM	2122	2657	3183	3718	4244	4779
36x36	7.74 ft ²	CFM	3008	3760	4468	5212	5957	6701
48x48	13.25 ft ²	CFM	5100	6375	7650	8663	10200	11588

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