

PERFORMANCE DATA:

Models 4340R, 4340RA • Surface Mount • Square Neck

Listed Duct Size	Core Area (sq. ft.)	Ak Factor	Core Velocity	300	400	500	600	700	800	900	1000	1200
			Velocity Pressure	.006	.010	.016	.022	.031	.040	.051	.062	.090
			Neg. Static Pressure	.024	.042	.067	.095	.130	.170	.215	.265	.382
6 x 6	0.20	0.20	CFM	60	80	100	120	140	160	180	200	240
			Noise Criteria	—	—	—	15	21	26	32	37	44
8 x 8	0.38	0.36	CFM	114	152	190	228	266	304	342	380	456
			Noise Criteria	—	—	11	18	25	29	35	40	47
10 x 10	0.61	0.56	CFM	183	244	305	366	427	488	549	610	732
			Noise Criteria	—	—	13	20	27	31	37	42	49
12 x 12	0.90	0.80	CFM	270	360	450	540	630	720	810	900	1080
			Noise Criteria	—	—	15	22	28	33	38	44	51
14 x 14	1.24	1.09	CFM	372	496	620	744	868	992	1116	1240	1488
			Noise Criteria	—	—	16	23	29	34	39	45	52
16 x 16	1.64	1.42	CFM	492	656	820	984	1148	1312	1476	1640	1968
			Noise Criteria	—	—	17	24	30	35	40	46	53
18 x 18	2.10	1.80	CFM	630	840	1050	1260	1470	1680	1890	2100	2520
			Noise Criteria	—	—	17	24	30	36	40	46	53
20 x 20	2.61	2.22	CFM	783	1044	1305	1566	1827	2088	2349	2610	3132
			Noise Criteria	—	11	18	25	30	37	41	47	54
22 x 22	3.17	2.69	CFM	951	1268	1585	1902	2219	2536	2853	3170	3804
			Noise Criteria	—	11	18	26	31	37	42	48	55
24 x 24	3.79	3.20	CFM	1137	1516	1895	2274	2653	3032	3411	3790	4548
			Noise Criteria	—	12	19	27	33	38	43	49	56

Performance Notes:

- All pressures are in inches w.g..
- Diffuser tested without damper. Apply the following corrections for addition of opposed blade damper to diffuser:
Neg. Static Pressure Listed Value x 1.10.
Noise Criteria Add 5 dB to listed value.
- Noise Criteria (NC) values are based upon 10 dB room absorption, re 10⁻¹² watts. Dash (—) in space indicates an Noise Criteria of less than 10.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.
- Core Velocity is in feet per minute.

Airflow Measurements

- Balancing factors are applicable with or without dampers, providing uniform airflow exists into diffuser.
- Take velocity readings at a number of locations on the inlet face (a minimum of 4), while positioning probe as shown above, one inch out from the face.
- Total the various velocity readings and divide by the number of readings taken to arrive at an average inlet velocity (V_k in FPM).
- Calculate the airflow (CFM) by multiplying the average velocity by the appropriate Ak factor.
 Airflow (CFM) = Average velocity (V_k) x Ak.

