



ENGINEERING DATA

1600 Series			See Footnotes B							
SIZE	Effective Area	Velocity	400	500	600	700	800	1000	1200	1400
		Duct Ps								
4x10	.25	CFM	121	155	184	213	259	311	380	454
4x12	.290	CFM	138	173	201	230	276	334	403	483
4x14	.340	CFM	155	196	230	270	340	385	454	529
6x10	.375	CFM	173	213	253	299	339	426	512	592
6x12	.440	CFM	207	259	305	357	408	512	610	713
6x14	.51	CFM	230	288	345	403	460	575	690	805
8x12	.58	CFM	270	339	403	477	541	673	794	920
8x14	.685	CFM	311	403	472	546	633	782	932	1081
12x12	.85	CFM	391	489	587	684	782	978	1173	1369
6x24	.85	CFM	391	489	587	684	782	978	1173	1369
6x30	1.05	CFM	472	592	713	828	949	1185	1420	1656
8x24	1.10	CFM	512	638	765	891	1024	1277	1530	1783
8x30	1.35	CFM	621	782	943	1093	1254	1553	1857	2128
14x14	1.15	CFM	529	661	805	920	1064	1323	1581	1834
14x20	1.55	CFM	725	909	1093	1271	1455	1823	2191	2473
10x30	1.66	CFM	771	966	1167	1380	1553	1926	2300	2674
18x18	1.80	CFM	828	1035	1242	1466	1656	2070	2484	2904
14x24	1.88	CFM	863	1064	1294	1512	1725	2156	2588	3019
14x30	2.35	CFM	1081	1351	1622	1892	2162	2703	3243	3784
24x24	3.1	CFM	1426	1783	2156	2501	2852	3565	4278	4991

ENGINEERING FOOTNOTES

Footnote A:

Size: Nominal size or the duct opening.

Effective Area: The space between the vanes actually utilized by the air.

Velocity: The actual velocity of the air through the vanes measured with a velometer or similar device.

Duct Pt: The total pressure behind the register in the duct forcing that air through the register.

Throw: The throws noted in the tables are the distance from the register to where the air stream velocity has dropped to not under 100/75/50 F.P.M.

Footnote B:

Size: Nominal size or the duct opening.

Effective Area: The space between the vanes actually utilized by the air.

Velocity: The actual velocity of the air through the vanes measured with a velometer or similar device.

Duct Ps: The static pressure in the duct behind the grille. The static load on the fan chargeable against that grille. Velometer readings are taken between grille vanes giving actual velocity.

Footnote C:

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.

Footnote D:

1) Tested without filters. Typical disposable 1" capacity is 2 cfm per square inch of gross filter area. Recommended velocity is 300-400 fpm. Velocities higher than 500 fpm will decrease filter performance. Increase flow resistance, and possibly blow off agglomerates of collected dirt. Velocity measured 1" from face.

2) Generally the more surface area of media you have in an air filter the lower pressure drop you will have across the filter.

3) Lower face velocities (the air speed at the face of the filter) will also produce less pressure drop across the filter while higher return air velocities cause higher pressure drop and can cause the filter to blow off agglomerates. Ashrae calls out for 300 FPM face velocity across the filter face. This is the ideal return air velocity. Actual face velocities will vary depending on the system design."

Example: 20x25 filter = 3.47 SF x 300 FPM face velocity = 1041 CFM

20x25 filter = 3.47 SF x 500 FPM face velocity = 1736 CFM

Footnote E:

Size: Nominal size or the duct opening.

Effective Area: The space between the vanes actually utilized by the air.

Velocity: The actual velocity of the air through the vanes measured with a velometer or similar device.

Duct Pt: The total pressure behind the register in the duct forcing that air through the register.

Throw: The throws noted in the tables are the distance from the register 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.