

375 Series		See Footnotes E																	
SIZE	Velocity	300	400	500	600	700	800	900	1000										
	Duct Pt	0.007	0.011	0.017	0.024	0.034	0.044	0.055	0.068										
2 1/4 x10	Eff.Area .091ft ²	CFM	29	39	48	57	66	75	84	94									
		NC	<20	<20	20	25	25	25	30	35									
		Spread	3	4	5	7	8	9	10	11									
		Throw	2 2 2	2.5 3 3.5	2.5 3 3.5 3.5	4 4.5	4.5 5 6	4.5 5 6	5 6 7	5.5 7 9	5.5 7 9								
2 1/4 x12	Eff.Area .111 ft ²	CFM	36	46	56	66	77	87	97	108									
		NC	<20	<20	20	25	25	25	30	35									
		Spread	3	5	6	7	9	10	11	12									
		Throw	2 2 2	2.5 3 3.5	3.5 4 4.5 3.5	4 4.5	4.5 5 6	5 6 7	5.5 7 8.4	5.5 7 9	5.5 7 9								
2 1/4 x14	Eff.Area .125 ft ²	CFM	41	53	65	77	90	103	115	128									
		NC	<20	<20	20	25	25	25	30	35									
		Spread	4	5	7	8	10	11	12	13									
		Throw	2.5 3 3.5	2.5 3 3.5	3.5 4 4.5 4.5	5 6	5 6 7	6 7 8	5.5 7 8.5	6.5 8 10	6.5 8 10								
4x10	Eff.Area .180 ft ²	CFM	52	68	85	100	118	135	150	166									
		NC	<20	<20	20	25	25	30	30	35									
		Spread	4	6	8	9	11	12	14	16									
		Throw	2.5 3 3.5	3.5 4 4.5	4.5 5 5.5 5	6 7	6 7 8	6 7 8	6.5 8 9.5	7 9 11	7 9 11								
4x12	Eff.Area .212 ft ²	CFM	66	86	107	127	143	164	184	210									
		NC	<20	<20	20	25	25	30	30	35									
		Spread	4	7	9	10	12	14	16	17.5									
		Throw	2.5 3 3.5	3.5 4 4.5	4.5 5 5.5 5	6 7	6 7 8	7 8 9	7 9 11	8 10 12	8 10 12								
4x14	Eff.Area .251 ft ²	CFM	74	95	119	141	163	190	220	245									
		NC	<20	<20	20	25	25	30	30	35									
		Spread	6	8	10	11	13.5	15.5	17.5	19									
		Throw	3.5 4 4.5	4.5 5 5.5	5.5 6 6.5 6	7 8	7 8 9	7.5 7 10.5	8 10 12	9 11 13	9 11 13								



ENGINEERING DATA

375 Series		See Footnotes E																			
SIZE	Velocity	300	400	500	600	700	800	900	1000												
	Duct Pt	0.007	0.011	0.017	0.024	0.034	0.044	0.055	0.068												
6x10	Eff.Area .265 ft ²	CFM	82	112	138	163	194	219	250	275											
		NC	<20	<20	20	25	30	30	30	35											
		Spread	6	8	10	12	14	16	18	20											
		Throw	3.5 4 4.5	4.5 5 5.5	5.5 6 6.5	6 7 8	7 8 9	7.5 9 10.5	9 11 13	9.5 12 15											
6x12	Eff.Area .325 ft ²	CFM	102	133	168	204	235	270	301	337											
		NC	<20	<20	20	25	30	30	30	35											
		Spread	7	9	11	13	15.5	17.5	20	22											
		Throw	3.5 4 4.5	4.5 5 5.5	6.5 7 7.5	7 8 9	7.5 9 10.5	8.5 10 11.5	9.5 12 14.5	10.5 13 16											
6x14	Eff.Area .391 ft ²	CFM	117	158	199	240	281	316	357	398											
		NC	<20	<20	20	25	30	30	30	35											
		Spread	8	10	12	14.5	17.5	19.5	22	24											
		Throw	4.5 5 5.5	5.5 6 6.5	6.5 7 7.5	7.5 9 10.5	8.5 10 11.5	9.5 11 12.5	10.5 13 15.5	11.5 14.5 17											

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.

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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.