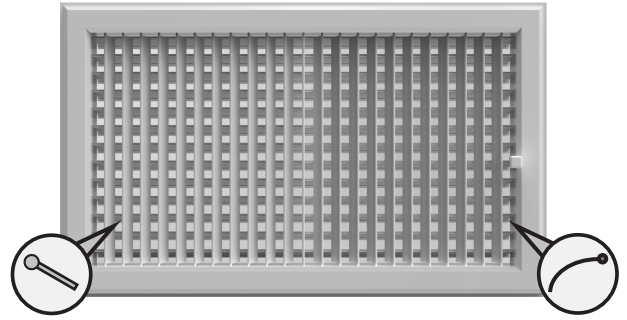


# VCP-HCP MODEL

## ALUMINUM LOUVERED SUPPLY GRILLE, FRONT BLADES TO THE SHORT DIMENSION

- Vertical position straight blades (VCP) or horizontal in front (HCP) individually adjustable, includes a space of  $\frac{3}{4}$ " between centers.
- Set of rear curved blades operated with a multi-action device, louver type, which allows a manually control the vertical or horizontal deflection adjustment of air flow and volume. Curved blades have a 1" space between centers.
- Operator lever accessible from the grille face.



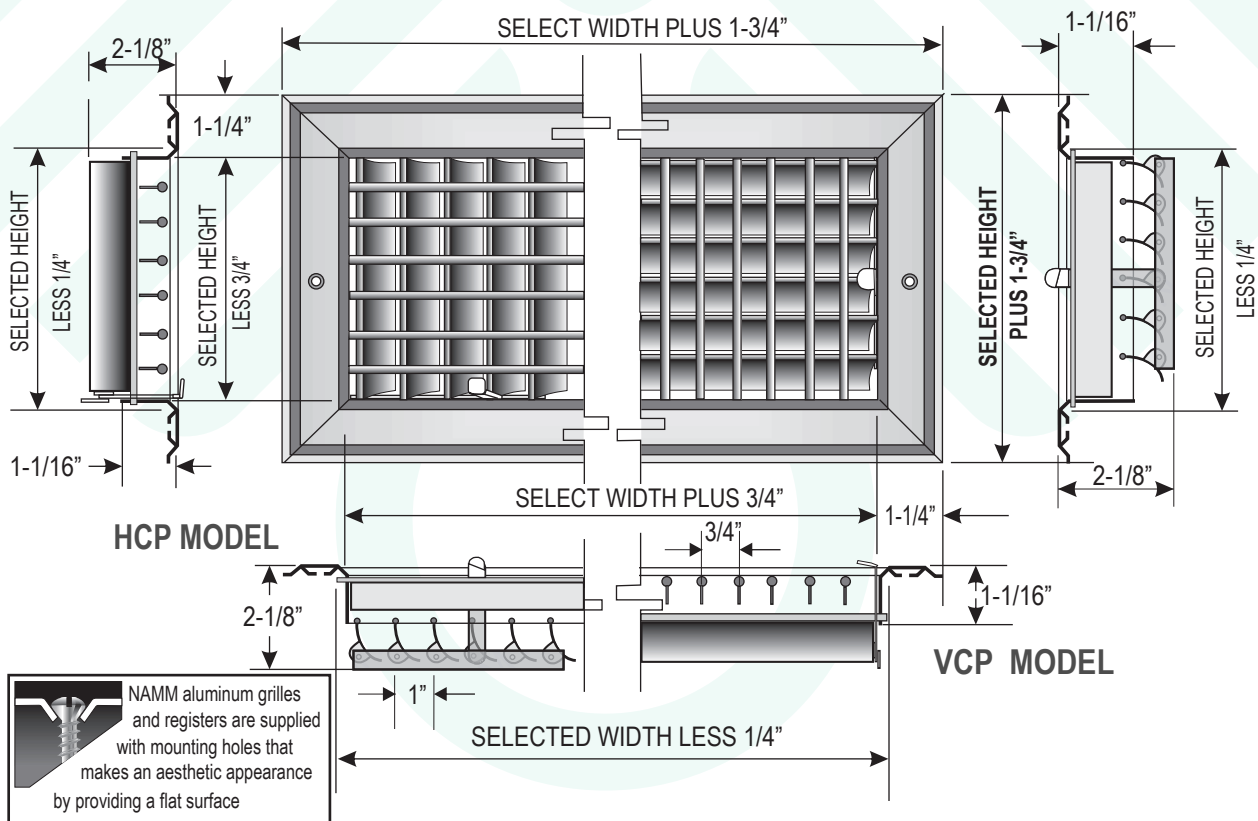
**CONSTRUCTION:** Extruded aluminum.

**FINISH:** Standard white Anodic acrylic paint. Other colors available.

**PERFORMANCE:** Ensures reliable use with temperature differentials from 18 to 20 ° F in cooling and from 20 to 50°F in heating.

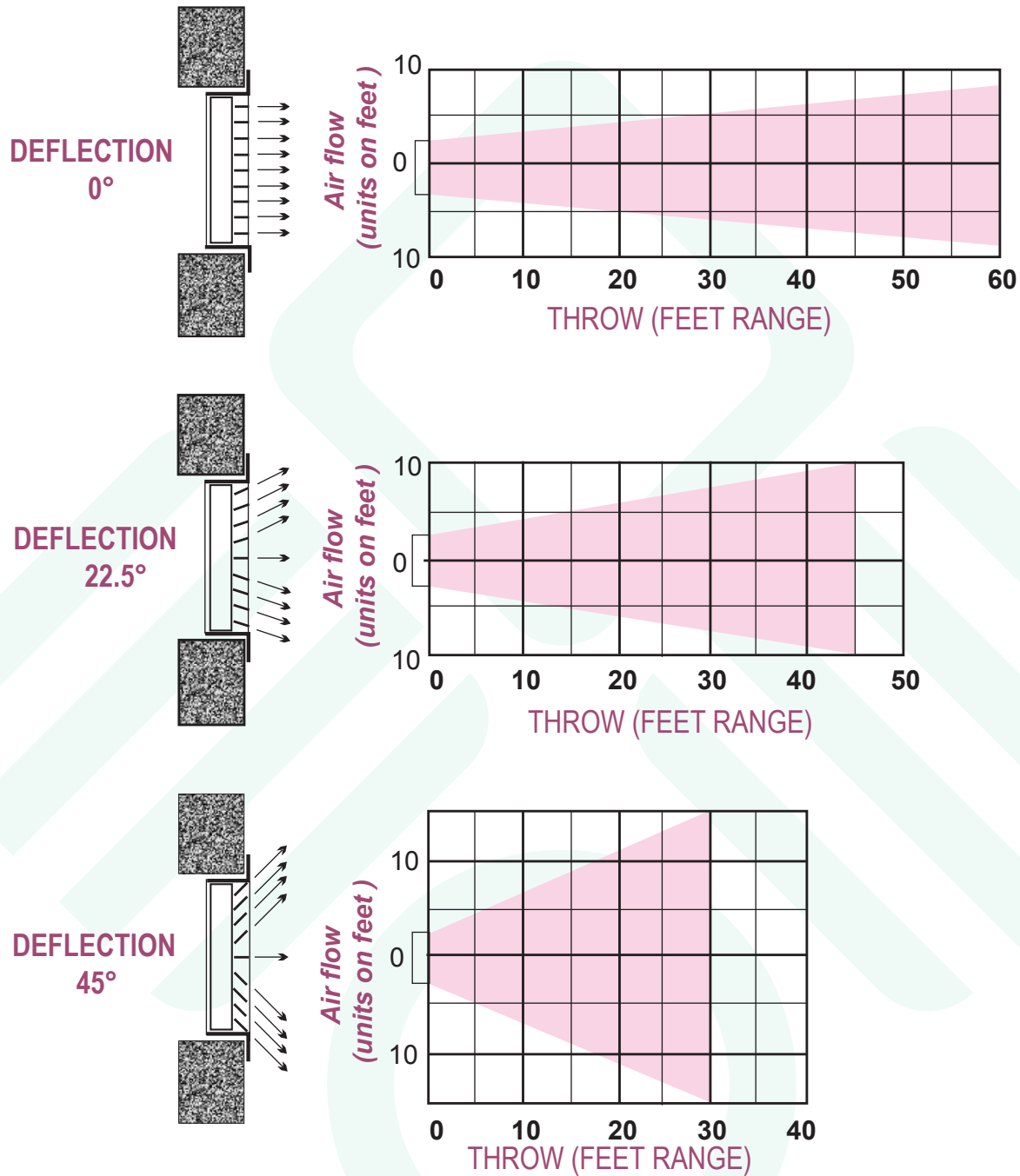
Maximum measure of 1 piece: 72"x 12"  
Minimum measure of 1 piece: 6"x 6"

## Dimensional Data



# WALL MOUNT GRILLES & REGISTERS.

GRAPHICS SHOWING THE AIR DISTRIBUTION PATTERN THROUGH A GRILLE WITH ITS ADJUSTABLE BLADES IN THREE DEVIATION POSITIONS.



When selecting grilles and supply registers, determine the appropriate deflection for each. For long throws and narrow deployment use the Selection Data corresponding to the zero-degree (0 °) deflection graph. For intermediate shots and deployments, use the selection data that corresponds to the 22-1/2-degree (22.5°) deflection graph. For short throws and wide deployment use the selection data corresponding to the 45-degree (45 °) deflection graph.

NOTE: The maximum range or shot shown in each of the graphs corresponds to a terminal speed of 50 feet / min.

# WALL MOUNT GRILLES & REGISTERS.

**VELOCITY LIMITATIONS: AN IMPORTANT FACTOR, IN THE SELECTION OF THE PERFORATED DIFFUSERS, IS THE VELOCITY OF AIR THAT PASSES THROUGH THESE IF VELOCITY IS INCREASED VALUES GREATER THAN THE RECOMMENDED, WILL ALSO INCREASE THE NOISE LEVEL AND WILL RESULTS ON A DISTURBANCE.**

## RECOMMENDED VELOCITY AND NOISE LEVELS.

AREA TYPE	Recommended outlet velocity (ft/min)		Variation Range of Noise Criteria Curves (NC)		Approx value of reading on the A equivalent scale (dBA)	
	Supply	Return	MIN.	MAX.	MIN.	MAX.
<b>AUDITORIUMS AND CONCERT HALLS</b>						
Concert and Opera Rooms	250-350	200-300	15	20	22	27
Theaters	350-500	250-350	20	30	27	37
Cinemas	500-600	300-450	30	35	37	42
Amphitheatres	400-500	300-400	25	30	32	37
Reading Rooms	350-500	250-400	20	30	27	37
Auditorium Lobbies	600-800	500-700	35	45	42	52
TV studio auditoriums	500-600	400-500	30	35	37	42
<b>SCHOOL'S AND CHURCHS</b>						
Sanctuaries	350-500	250-400	20	30	27	37
Schools and Classrooms	450-600	300-450	30	40	38	47
Recreation Rooms	700-1000	550-800	40	50	47	57
Kitchens	800-1000	600-800	45	50	52	57
Libraries	350-500	200-350	20	30	27	27
Laboratories	600-700	450-600	35	40	42	47
Rooms and halls	600-700	450-600	35	40	42	47
<b>HOSPITALS AND CLINICS</b>						
Private Rooms	400-600	250-450	25	35	32	42
Day care centers	500-700	350-500	30	40	37	47
Laboratories	600-800	450-600	35	45	42	52
Operating rooms	500-700	350-500	30	40	37	47
Lobbies and Waiting Rooms	600-700	450-600	35	40	42	47
Rooms and halls	600-700	450-600	35	40	42	47
<b>ROOF SPORTS</b>						
Stadiums	800-1200	600-900	45	55	52	62
Gyms and Bowling	600-800	450-700	35	45	42	52
Roofed pools	600-700	450-600	40	50	47	57
<b>INDUSTRIAL AREAS</b>						
Headquarters Offices	600-800	450-600	35	45	42	52
Maintenance	700-1200	550-900	40	50	47	57
Assembly Lines	1000-2000	800-1500	50	65	57	72
Light Manufactures	1000-2000	800-1500	50	70	57	77
Workshops	1200-2500	900-1800	55	75	62	82
<b>RETAIL STORES</b>						
Department stores	700-1000	550-750	40	50	47	57
Supermarkets	1000-1200	750-900	50	55	57	62
Clothes shops	600-800	450-650	35	45	42	52
Small Commerce	700-1000	600-800	40	50	47	57
<b>RESIDENCES</b>						
Residences (Rural and Sub-Urban)	350-500	250-400	20	30	27	37
Residences (Urban)	400-600	300-500	25	35	32	42
Apartments (Units of 2 and 3 families)	500-700	350-600	30	40	37	47
<b>OFFICES</b>						
Private Offices	400-500	300-400	25	30	32	37
General Office / Drawing Room	600-800	450-700	35	45	42	52
Council Rooms	300-400	250-300	20	30	27	37
Computer Rooms	800-1200	600-900	40	50	47	57
Conference Rooms	400-500	300-400	25	30	32	38
Lobby, etc.	600-800	450-600	35	45	42	52

AREA TYPE	Recommended outlet velocity (ft/min)		Variation Range of Noise Criteria Curves (NC)		Approx value of reading on the A equivalent scale (dBA)	
	Supply	Return	MIN.	MAX.	MIN.	MAX.
<b>PUBLIC BUILDINGS</b>						
Public Libraries	350-500	250-400	20	30	27	37
Museums	350-500	250-400	20	30	27	37
Post Offices	600-700	450-550	35	40	42	47
Banks	700-800	500-700	40	45	47	52
courthouse	600-700	450-600	35	40	42	47
Lobby, etc.	600-700	450-600	35	40	42	47
<b>RESTAURANTS AND CAFEETERIA</b>						
Restaurants	600-800	500-700	35	45	42	52
Coffee shops	600-800	500-700	35	45	42	52
Night clubs	700-1000	500-800	40	50	47	57
Social Clubs	500-700	400-500	30	40	37	47
Banquet Rooms	700-1000	600-800	40	50	47	57
<b>HOTELS</b>						
Private Rooms and Suites	500-600	400-500	30	35	37	42
Banquet Rooms	700-1000	600-800	40	50	47	57
Ballrooms	700-1000	600-800	40	50	47	57
Kitchens and Laundries	700-1200	500-900	40	55	47	62
Hallways	600-700	450-600	35	40	42	47
Halls	600-700	450-600	35	40	42	47
<b>TRANSPORTS (Trains, Buses, Planes)</b>						
Ticket Sales Offices	500-700	400-500	30	40	37	47
Waiting room	600-800	450-600	35	45	42	52
Towers and Control Rooms	800-1200	600-900	40	50	47	57
Commercial stores	600-800	450-600	35	45	42	52
Restaurant Bar	800-1200	600-900	40	50	47	57
<b>MISCELLANY</b>						
Reception Rooms	600-700	450-600	35	40	42	47
Sanitary Services	600-800	450-600	35	45	42	52
Recording studios	200-300	150-200	15	20	22	27
Other studies	500-600	300-450	30	35	38	42

DEFINITIONS:

**Sound Power (W)** - The equivalent of the Power source converted to sound in Watts unit.

**Sound Power Level (Lw)** - The logarithmic comparison between the Output Performance of the Sound Power exerted by a source and the Sound of a reference source,  $W_0$  (10-12 watt).

$$Lw = 10 \log_{10}(W/W_0) \text{ dB}$$

**Sound Pressure (P)** - The pressure associated with the Output Performance of the Sound Power of a source. The human ear reacts to this Sound Pressure.

**Sound Pressure Level (LP)** - The logarithmic comparison between the Output Performance of the Sound Pressure exerted by a -5 source and the Sound of a reference source,  $P_0$  ( $2 \times 10^{-5}$  Pa).

$$Lp = 20 \log_{10}(P/P_0) \text{ dB}$$

Even if the Sound Power Level and Sound Pressure Level are expressed in decibels (dB) **NO CONVERSION FACTOR EXISTS BETWEEN THEM.**

NOTE: When specifying the Sound Criteria for HVAC equipment, refer to the **Sound Power Level**, and not the Sound Pressure Level.

# VH, HV, SG, GS, VCP & HCP 8SG, 8GS, 8VCP & 8HCP MODELS

## AIRFOIL BLADES SUPPLY GRILLES & REGISTERS

TABLE 1 - SELECTION DATA

SIZE (INCHES)	FACE VEL. (FT/MIN)	400			450			500			550			600			700			800			1000			1200			1400		
		DEFLECTION	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°		
Free Area = 0.19ft <sup>2</sup> (A) 6 x 6 8 x 4	CFM	75			85			95			105			115			130			150			185			225			260		
	TP (INCHES H <sub>2</sub> O)	0.015	0.018	0.022	0.018	0.026	0.031	0.024	0.031	0.038	0.031	0.035	0.047	0.040	0.045	0.051	0.051	0.056	0.062	0.062	0.075	0.090	0.097	0.122	0.140	0.140	0.165	0.192	0.174	0.208	0.242
	THROW (FT.)	14	11	7	16	12	8	18	13	9	19	14	10	20	16	10	20	17	11	23	20	12	27	21	14	28	22	14	30	23	15
Free Area = 0.21ft <sup>2</sup> (B) 10 x 4	CFM	85			95			105			115			125			150			170			210			255			300		
	TP (INCHES H <sub>2</sub> O)	0.011	0.015	0.018	0.014	0.016	0.026	0.016	0.022	0.031	0.020	0.028	0.035	0.024	0.031	0.043	0.035	0.045	0.062	0.045	0.059	0.075	0.068	0.097	0.131	0.105	0.140	0.174	0.140	0.174	0.226
	THROW (FT.)	15	12	8	17	13	9	19	14	10	20	16	10	21	17	11	22	18	11	24	20	12	27	23	14	29	23	15	31	25	16
Free Area = 0.25ft <sup>2</sup> (C) 8 x 6 12 x 4	CFM	100			110			125			140			150			175			200			250			300			350		
	TP (INCHES H <sub>2</sub> O)	0.011	0.014	0.018	0.014	0.016	0.022	0.016	0.022	0.031	0.020	0.028	0.038	0.024	0.033	0.043	0.035	0.045	0.056	0.045	0.056	0.075	0.068	0.090	0.122	0.097	0.131	0.157	0.140	0.174	0.209
	THROW (FT.)	17	13	9	19	14	10	21	16	11	22	18	11	23	19	12	24	20	12	26	21	14	29	24	15	31	25	16	33	26	16
Free Area = 0.32ft <sup>2</sup> (D) 10 x 6 14 x 4	CFM	140			160			175			190			210			245			280			350			420			490		
	TP (INCHES H <sub>2</sub> O)	0.014	0.016	0.026	0.016	0.022	0.031	0.020	0.026	0.038	0.024	0.033	0.045	0.031	0.040	0.056	0.043	0.056	0.075	0.056	0.072	0.097	0.097	0.114	0.149	0.122	0.157	0.200	0.174	0.209	0.240
	THROW (FT.)	19	15	10	21	16	11	22	18	11	24	20	12	25	21	13	26	21	13	30	23	15	31	26	16	35	28	18	38	30	19
Free Area = 0.40ft <sup>2</sup> (E) 12 x 6 18 x 4	CFM	160			180			200			220			240			280			320			400			480			560		
	TP (INCHES H <sub>2</sub> O)	0.012	0.015	0.020	0.016	0.020	0.028	0.018	0.024	0.033	0.022	0.031	0.040	0.026	0.038	0.051	0.038	0.051	0.062	0.051	0.062	0.082	0.075	0.097	0.122	0.105	0.140	0.175	0.157	0.192	0.226
	THROW (FT.)	22	18	11	24	19	12	25	20	13	27	22	14	28	22	14	29	23	15	33	25	17	34	28	17	38	30	19	41	32	21
Free Area = 0.45ft <sup>2</sup> (F) 10 x 8 14 x 6 20 x 4	CFM	180			200			225			250			270			315			360			450			540			630		
	TP (INCHES H <sub>2</sub> O)	0.011	0.014	0.020	0.014	0.016	0.024	0.016	0.022	0.031	0.022	0.028	0.038	0.026	0.033	0.045	0.035	0.045	0.062	0.047	0.056	0.075	0.075	0.090	0.122	0.105	0.131	0.157	0.140	0.174	0.209
	THROW (FT.)	25	20	13	27	21	14	28	22	14	30	24	15	31	24	16	32	25	16	36	28	18	40	31	20	41	33	21	44	35	22

NOTES: (1).- FOR STRAIGHT BLADES MODELS, SG, GS & VCP THE SAME SELECTION DATA ARE AVAILABLE EXCEPT THE TOTAL PRESSURE DATA, WHICH INCREASE UP TO 50%.  
(2).- INDICATED THROWS ARE FOR 50 FPM TERMINAL VELOCITY. FOR 100 & 150 FPM TERMINAL VELOCITIES MULTIPLY TABULATED VALUES BY 0.70 & 0.53 RESPECTIVELY.

REFER TO EQUIVALENT SIZES TABLE TO CHOOSE OPTIONAL SIZES.

CFM = AIR HANDLING IN CUBIC FEET PER MINUTE.  
FPM = FACE VELOCITY IN FEET PER MINUTE.  
TP = TOTAL PRESSURE IN INCHES OF WATER COLUMN.

# VH, HV, SG, GS, VCP & HCP 8SG, 8GS, 8VCP & 8HCP MODELS

## AIRFOIL BLADES SUPPLY GRILLES & REGISTERS

**TABLE 2 - SELECTION DATA**

														NC 20			NC 30			NC 40											
SIZE (INCHES)	FACE VEL. (FT/MIN)	400			450			500			550			600			700			800			1000			1200			1400		
	DEFLECTION	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°
Free Area = 0.54ft²	(G)	<b>CFM</b>																													
	12 x 8	215			240			270			295			325			375			430			540			645			750		
	18 x 6	TP (INCHES H <sub>2</sub> O)	0.011	0.014	0.018	0.014	0.018	0.024	0.016	0.022	0.031	0.020	0.026	0.035	0.026	0.033	0.043	0.035	0.043	0.056	0.045	0.056	0.075	0.075	0.090	0.122	0.105	0.122	0.157	0.140	0.174
24 x 4	THROW (FT.)	28	22	14	30	23	15	31	24	16	20	26	35	26	33	17	35	27	18	38	30	19	43	33	22	44	35	22	47	37	24
Free Area = 0.68ft²	(H)	<b>CFM</b>																													
	16 x 8	275			305			340			375			400			475			545			680			815			950		
	20 x 6	TP (INCHES H <sub>2</sub> O)	0.011	0.015	0.018	0.015	0.018	0.024	0.018	0.024	0.031	0.022	0.028	0.038	0.026	0.033	0.040	0.035	0.047	0.062	0.048	0.056	0.075	0.075	0.097	0.122	0.105	0.140	0.174	0.140	0.182
30 x 4	THROW (FT.)	31	24	16	33	25	17	34	26	17	35	28	18	37	28	19	41	32	21	46	36	23	48	39	24	48	39	24	52	41	26
Free Area = 0.81ft²	(J)	<b>CFM</b>																													
	18 x 8	325			365			405			445			485			565			645			810			970			1135		
	24 x 6	TP (INCHES H <sub>2</sub> O)	0.009	0.014	0.018	0.012	0.015	0.022	0.016	0.022	0.031	0.020	0.026	0.035	0.024	0.033	0.043	0.035	0.045	0.056	0.045	0.056	0.072	0.075	0.090	0.114	0.105	0.131	0.165	0.131	0.174
36 x 4	THROW (FT.)	34	26	17	36	28	18	37	28	19	38	30	19	40	30	20	42	32	21	45	35	23	49	40	23	52	42	26	56	44	28
Free Area = 0.90ft²	(K)	<b>CFM</b>																													
	16 x 10	360			405			450			495			540			630			720			900			1080			1260		
	20 x 8	TP (INCHES H <sub>2</sub> O)	0.008	0.012	0.018	0.014	0.016	0.024	0.016	0.022	0.028	0.020	0.026	0.035	0.024	0.033	0.040	0.035	0.045	0.056	0.045	0.059	0.075	0.068	0.090	0.114	0.090	0.131	0.149	0.131	0.182
28 x 6	THROW (FT.)	36	28	18	38	30	19	39	30	20	40	32	20	42	32	21	44	34	22	47	38	24	52	42	26	56	44	28	60	48	30
Free Area = 1.08ft²	(L)	<b>CFM</b>																													
	18 x 10	430			485			540			595			650			755			865			1080			1295			1510		
	24 x 8	TP (INCHES H <sub>2</sub> O)	0.011	0.015	0.022	0.014	0.018	0.024	0.016	0.022	0.028	0.020	0.028	0.035	0.026	0.035	0.043	0.035	0.047	0.059	0.045	0.062	0.075	0.075	0.097	0.114	0.097	0.131	0.157	0.140	0.182
30 x 6	THROW (FT.)	38	30	19	40	32	20	41	32	21	43	34	22	44	34	22	47	36	24	50	41	25	56	46	28	60	48	30	64	52	32
Free Area = 1.33ft²	(M)	<b>CFM</b>																													
	18 x 12	530			600			665			730			800			930			1065			1330			1600			1865		
	28 x 8	TP (INCHES H <sub>2</sub> O)	0.014	0.016	0.022	0.016	0.022	0.035	0.022	0.035	0.038	0.026	0.033	0.045	0.031	0.040	0.051	0.043	0.051	0.068	0.054	0.068	0.090	0.082	0.105	0.140	0.122	0.149	0.192	0.157	0.192
36 x 6	THROW (FT.)	42	34	21	44	36	22	45	38	23	47	37	24	48	38	24	51	42	26	56	45	28	62	50	31	70	56	35	73	59	37

NOTES: (1).- FOR STRAIGHT BLADES MODELS, SG, GS & VCP THE SAME SELECTION DATA ARE AVAILABLE EXCEPT THE TOTAL PRESSURE DATA, WHICH INCREASE UP TO 50%.  
 (2).- INDICATED THROWS ARE FOR 50 FPM TERMINAL VELOCITY. FOR 100 & 150 FPM TERMINAL VELOCITIES MULTIPLY TABULATED VALUES BY 0.70 & 0.53 RESPECTIVELY.

**REFER TO EQUIVALENT SIZES TABLE TO CHOOSE OPTIONAL SIZES.**

CFM = AIR HANDLING IN CUBIC FEET PER MINUTE.  
 FPM = FACE VELOCITY IN FEET PER MINUTE.  
 TP = TOTAL PRESSURE IN INCHES OF WATER COLUMN.

# VH, HV, SG, GS, VCP & HCP 8SG, 8GS, 8VCP & 8HCP MODELS

## AIRFOIL BLADES SUPPLY GRILLES & REGISTERS

**TABLE 3- SELECTION DATA**

SIZE (INCHES)	FACE VEL. (FT/MIN)	400			450			500			550			600			700			800			1000			1200			1400		
		DEFLECTION			0° 22½° 45°			0° 22½° 45°			0° 22½° 45°			0° 22½° 45°			0° 22½° 45°			0° 22½° 45°			0° 22½° 45°			0° 22½° 45°			0° 22½° 45°		
		NC	20		NC	30		NC	40		NC	20		NC	30		NC	40		NC	20		NC	30		NC	40				
Free Area = 1.60ft <sup>2</sup> (N) 16 x 16 24 x 10 30 x 8	<b>CFM</b>	<b>640</b>			<b>720</b>			<b>800</b>			<b>880</b>			<b>960</b>			<b>1120</b>			<b>1280</b>			<b>1600</b>			<b>1920</b>			<b>2240</b>		
	TP (INCHES H <sub>2</sub> O)	0.015	0.020	0.026	0.020	0.026	0.035	0.024	0.031	0.040	0.031	0.040	0.051	0.038	0.045	0.062	0.045	0.056	0.075	0.056	0.078	0.122	0.097	0.122	0.192	0.140	0.174	0.218	0.182	0.200	0.268
	THROW (FT.)	46	37	23	48	39	24	49	41	25	51	41	26	53	43	27	57	47	28	62	49	31	68	55	34	76	62	38	80	63	40
Free Area = 1.78ft <sup>2</sup> (O) 24 x 12 30 x 10 36 x 8	<b>CFM</b>	<b>715</b>			<b>800</b>			<b>890</b>			<b>980</b>			<b>1070</b>			<b>1250</b>			<b>1425</b>			<b>1780</b>			<b>2140</b>			<b>2500</b>		
	TP (INCHES H <sub>2</sub> O)	0.012	0.016	0.024	0.015	0.020	0.031	0.018	0.024	0.031	0.022	0.028	0.038	0.026	0.033	0.040	0.035	0.047	0.062	0.048	0.056	0.075	0.075	0.097	0.122	0.105	0.140	0.174	0.140	0.182	0.209
	THROW (FT.)	50	39	25	52	42	26	53	44	27	55	44	28	57	45	29	61	50	31	66	52	33	73	58	37	80	66	40	85	70	43
Free Area = 2.06ft <sup>2</sup> (P) 18 x 18 28 x 12 40 x 8	<b>CFM</b>	<b>825</b>			<b>925</b>			<b>1030</b>			<b>1135</b>			<b>1240</b>			<b>1445</b>			<b>1650</b>			<b>2060</b>			<b>2475</b>			<b>2885</b>		
	TP (INCHES H <sub>2</sub> O)	0.014	0.016	0.022	0.016	0.022	0.031	0.022	0.026	0.035	0.026	0.033	0.043	0.031	0.040	0.051	0.043	0.054	0.072	0.056	0.062	0.094	0.090	0.105	0.149	0.131	0.149	0.192	0.157	0.192	0.234
	THROW (FT.)	54	42	27	56	44	28	56	46	28	59	47	30	61	47	31	65	53	33	70	55	35	80	62	40	90	70	45	95	75	48
Free Area = 2.44ft <sup>2</sup> (Q) 20 x 18 24 x 16 36 x 10	<b>CFM</b>	<b>975</b>			<b>1100</b>			<b>1220</b>			<b>1345</b>			<b>1465</b>			<b>1710</b>			<b>1950</b>			<b>2440</b>			<b>2930</b>			<b>3420</b>		
	TP (INCHES H <sub>2</sub> O)	0.015	0.018	0.022	0.020	0.024	0.031	0.024	0.031	0.040	0.031	0.035	0.051	0.035	0.045	0.062	0.047	0.056	0.082	0.075	0.105	0.097	0.097	0.122	0.157	0.140	0.174	0.209	0.182	0.226	0.268
	THROW (FT.)	57	45	29	59	47	30	60	50	30	61	50	31	65	52	33	70	58	35	77	60	39	85	68	43	94	73	47	100	79	50
Free Area = 2.78ft <sup>2</sup> (R) 24 x 18 30 x 14 36 x 12	<b>CFM</b>	<b>1110</b>			<b>1250</b>			<b>1390</b>			<b>1530</b>			<b>1670</b>			<b>1950</b>			<b>2225</b>			<b>2780</b>			<b>3335</b>			<b>3890</b>		
	TP (INCHES H <sub>2</sub> O)	0.014	0.015	0.019	0.017	0.022	0.028	0.022	0.024	0.038	0.026	0.033	0.038	0.032	0.035	0.045	0.044	0.051	0.062	0.056	0.068	0.090	0.090	0.099	0.129	0.126	0.143	0.174	0.168	0.196	0.226
	THROW (FT.)	58	47	29	61	51	31	66	55	33	69	56	35	72	56	36	80	60	40	86	70	43	94	75	48	100	80	50	110	88	56
Free Area = 3.10ft <sup>2</sup> (S) 24 x 20 40 x 12 60 x 8	<b>CFM</b>	<b>1240</b>			<b>1395</b>			<b>1550</b>			<b>1705</b>			<b>1860</b>			<b>2170</b>			<b>2480</b>			<b>3100</b>			<b>3720</b>			<b>4340</b>		
	TP (INCHES H <sub>2</sub> O)	0.013	0.020	0.024	0.016	0.026	0.033	0.021	0.033	0.040	0.026	0.040	0.047	0.031	0.047	0.056	0.043	0.064	0.075	0.043	0.082	0.097	0.079	0.131	0.151	0.122	0.182	0.204	0.163	0.234	0.257
	THROW (FT.)	62	49	32	66	53	33	70	55	35	73	58	37	76	61	38	82	65	41	89	70	45	97	78	49	108	86	54	117	92	58

- NOTES: (1).- FOR STRAIGHT BLADES MODELS, SG, GS & VCP THE SAME SELECTION DATA ARE AVAILABLE EXCEPT THE TOTAL PRESSURE DATA, WHICH INCREASE UP TO 50%.  
 (2).- INDICATED THROWS ARE FOR 50 FPM TERMINAL VELOCITY. FOR 100 & 150 FPM TERMINAL VELOCITIES MULTIPLY TABULATED VALUES BY 0.70 & 0.53 RESPECTIVELY.

REFER TO EQUIVALENT SIZES TABLE TO CHOOSE OPTIONAL SIZES.

CFM = AIR HANDLING IN CUBIC FEET PER MINUTE.  
 FPM = FACE VELOCITY IN FEET PER MINUTE.  
 TP = TOTAL PRESSURE IN INCHES OF WATER COLUMN.

# VH, HV, SG, GS, VCP & HCP 8SG, 8GS, 8VCP & 8HCP MODELS

## AIRFOIL BLADES SUPPLY GRILLES & REGISTERS

TABLE 4 - SELECTION DATA

SIZE (INCHES)	FACE VEL. (FT/MIN)	400			450			500			550			600			700			800			1000			1200			1400		
		DEFLECTION	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°		
Free Area = 3.60ft <sup>2</sup> (T) 42 x 14 48 x 12 72 x 8	CFM	1440			1620			1800			1980			2160			2520			2880			3660			4320			5040		
	TP (INCHES H <sub>2</sub> O)	0.012	0.016	0.022	0.015	0.021	0.028	0.018	0.026	0.035	0.023	0.032	0.043	0.023	0.038	0.051	0.040	0.052	0.069	0.051	0.068	0.091	0.077	0.105	0.142	0.112	0.151	0.197	0.153	0.197	0.244
	THROW (FT.)	67	54	34	72	57	36	74	60	37	78	63	39	82	66	41	88	70	44	94	76	47	106	85	53	115	91	58	124	100	62
Free Area = 4.20ft <sup>2</sup> (U) 28 x 22 36 x 18 42 x 16 48 x 14	CFM	1710			1920			2135			2350			2565			2990			3420			4270			5125			5980		
	TP (INCHES H <sub>2</sub> O)	0.012	0.016	0.022	0.016	0.022	0.028	0.020	0.028	0.035	0.024	0.034	0.043	0.026	0.040	0.051	0.037	0.054	0.068	0.047	0.070	0.090	0.075	0.111	0.140	0.105	0.157	0.192	0.144	0.203	0.242
	THROW (FT.)	72	56	36	76	60	38	80	63	40	84	67	42	88	70	44	95	76	48	104	83	52	115	90	58	124	99	62	134	107	67
Free Area = 4.64ft <sup>2</sup> (V) 48 x 16 60 x 12 72 x 10	CFM	1855			2085			2315			2550			2780			3240			3705			4630			5560			6485		
	TP (INCHES H <sub>2</sub> O)	0.011	0.016	0.024	0.014	0.021	0.031	0.021	0.026	0.038	0.020	0.033	0.045	0.025	0.039	0.054	0.034	0.052	0.072	0.044	0.067	0.097	0.068	0.105	0.149	0.099	0.151	0.200	0.135	0.196	0.253
	THROW (FT.)	75	59	38	79	63	40	84	66	42	88	70	44	92	73	46	97	78	49	105	83	53	118	92	59	129	102	65	138	110	69
Free Area = 5.56ft <sup>2</sup> (W) 36 x 24 60 x 14 72 x 12	CFM	2225			2505			2780			3060			3340			3895			4450			5560			6675			7785		
	TP (INCHES H <sub>2</sub> O)	0.013	0.016	0.019	0.016	0.020	0.026	0.020	0.026	0.033	0.025	0.032	0.038	0.031	0.038	0.045	0.042	0.051	0.062	0.054	0.065	0.078	0.085	0.102	0.122	0.122	0.148	0.174	0.161	0.192	0.222
	THROW (FT.)	82	65	41	87	69	44	92	73	46	96	76	48	100	79	50	109	85	55	117	94	59	131	104	66	142	111	71	150	122	75
Free Area = 6.25ft <sup>2</sup> (X) 30 x 30 40 x 24 48 x 20	CFM	2500			2815			3125			3435			3750			4375			5000			6250			7500			8750		
	TP (INCHES H <sub>2</sub> O)	0.013	0.018	0.025	0.016	0.023	0.032	0.020	0.028	0.040	0.026	0.035	0.047	0.031	0.043	0.056	0.043	0.058	0.076	0.056	0.075	0.099	0.082	0.118	0.157	0.105	0.165	0.209	0.157	0.209	0.260
	THROW (FT.)	88	69	44	93	74	47	98	78	49	99	79	50	102	80	51	116	92	58	124	99	62	140	112	70	154	123	77	166	132	83
Free Area = 6.80ft <sup>2</sup> (Y) 36 x 30 44 x 24 48 x 24	CFM	2720			3060			3400			3740			4080			4760			5440			6800			8160			9520		
	TP (INCHES H <sub>2</sub> O)	0.012	0.017	0.022	0.015	0.022	0.028	0.020	0.027	0.035	0.026	0.033	0.045	0.028	0.039	0.051	0.040	0.054	0.068	0.051	0.070	0.090	0.079	0.109	0.140	0.114	0.157	0.192	0.155	0.200	0.242
	THROW (FT.)	92	74	46	99	78	50	103	83	52	104	84	52	105	86	53	120	98	60	126	100	63	142	115	71	155	124	78	167	134	84

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CFM = AIR HANDLING IN CUBIC FEET PER MINUTE.

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TP = TOTAL PRESSURE IN INCHES OF WATER COLUMN.