



1400, 1400FR, 51400, M1400 & M51400
These supply diffusers feature a round neck and four cones.



1400A & 51400A
These supply diffusers feature a round neck, four cones, and adjustable pattern controllers.



1450, 51450, M1450, & M51450
These supply diffusers feature a round neck and three cones.



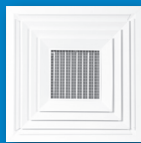
1450A & 51450A
These supply diffusers feature a round neck, three cones, and adjustable pattern controllers.



SH, 5SH, SHFR, MSH, SHV, 5SHV, SHR, 5SHR, SHRV, 5SHRV, SHFB, & 5SHFB
These supply diffusers feature a square neck, fixed louvered blades (1-way to 4-way), and removable core.



SHPC, 5SHPC, SHPCR, & 5SHPCR
These supply diffusers feature a square neck, fixed louvered blades (1-way to 4-way), removable core, and adjustable pattern controllers.



5SH/CAD & 5SHR/CAD
These supply diffusers feature fixed louvered blades with a center downblow.

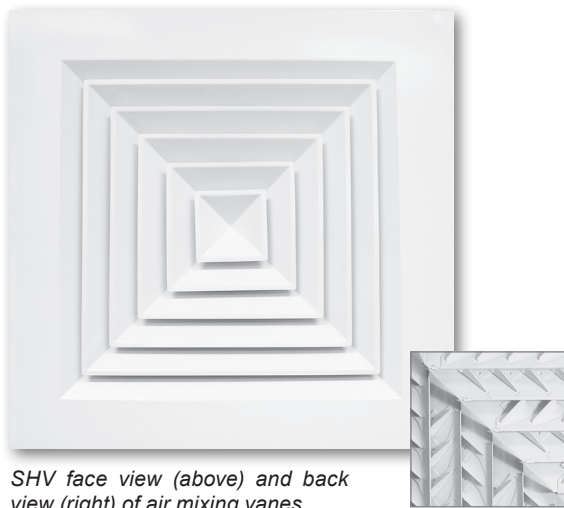


SHRPLQ
This supply diffuser features fixed louvered blades (1, 2, or 3 slots) with center plaque faceplate.



7000
This combination supply/return diffuser features fixed louvered blades with removable egg-crate center frame.

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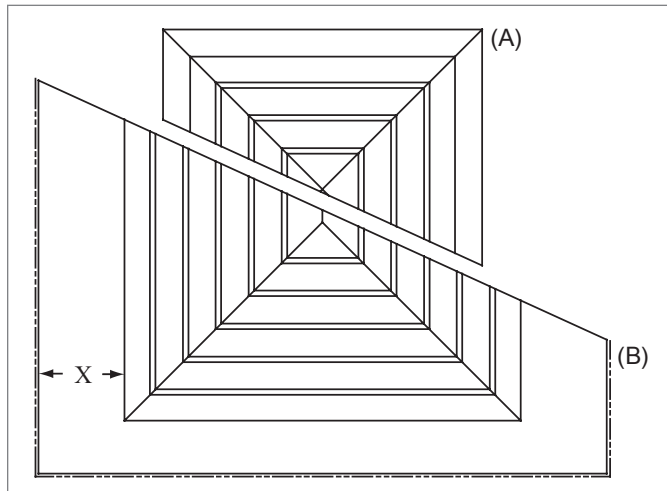
SHV face view (above) and back view (right) of air mixing vanes.

Introduction: SHV, 5SHV

The SHV/5SHV series square or rectangular diffusers are available in various sizes and discharge air patterns to meet engineering requirements for capacity and directional throw in addition to a variety of frame styles to meet architectural requirements of today's ceilings. They feature a 1/4" horizontal lip on all sides of the louvered core, resulting in a tight horizontal pattern at the ceiling and a higher discharge velocity at the face. This creates a high induction region just below the face of the diffuser. Each successive louver has vanes mounted in opposite directions behind the blade, which direct the air in opposite directions. This causes the discharged air to become turbulent in the horizontal plane, thereby increasing the induction rate of room air and shortening throw. Because these diffusers have higher discharge face velocities and turbulent horizontal jets, they are an excellent choice for variable air volume systems with above normal temperature differentials. At typical flow rates, isothermal throws of 15 - 25 feet make the SHV/5SHV ideal for mounting centrally in many spaces with high load requirements while providing high mixing rates in the space.

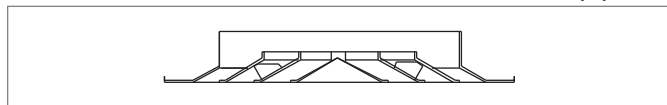
SHV, 5SHV Dimensional Information

SHV, 5SHV, FACE VIEW

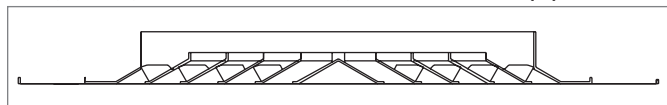


NOTE: Dimension 'X' will vary with neck sizes for Frames 23, 24, 27, and 98.

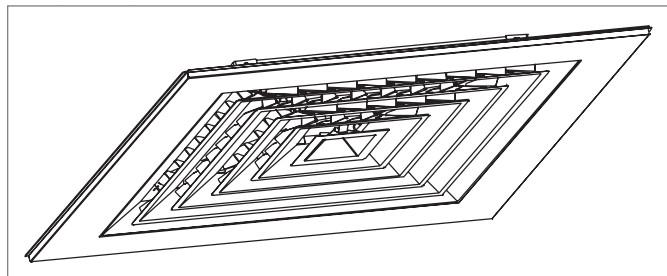
SHV, 5SHV, CROSS SECTION, SURFACE MOUNT (A)



SHV, 5SHV, CROSS SECTION, LAY-IN T-BAR (B)



SHV, 5SHV, ANGLED FACE VIEW



MODELS

- SHV - Steel Louvered Diffuser
- 5SHV - Aluminum Louvered Diffuser

FEATURES

- Core is removable from face of diffuser.
- Horizontal lip (1/4") on all sides of the louvered core to provide a horizontal discharge air pattern tight to the ceiling.
- Square or rectangular duct connections available.
- Maintains horizontal discharge air pattern from maximum to minimum CFM.
- Various discharge air patterns available.
- Excellent choice for VAV applications with high mixing rate requirements.
- Mixing vanes.

PANEL SIZES

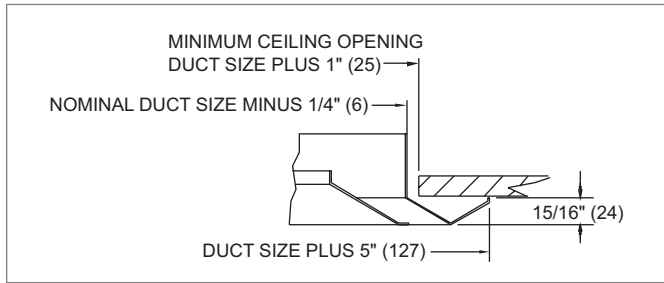
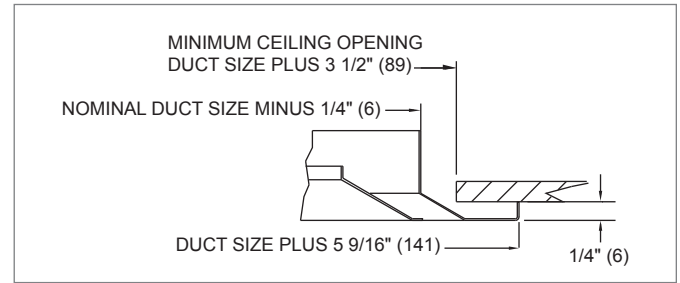
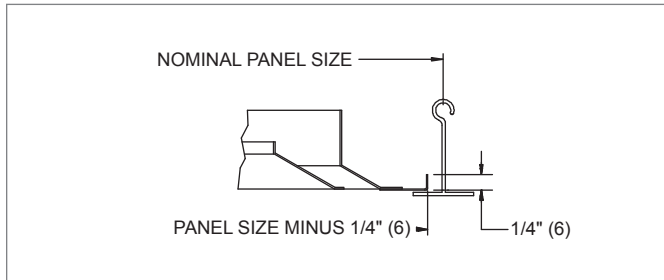
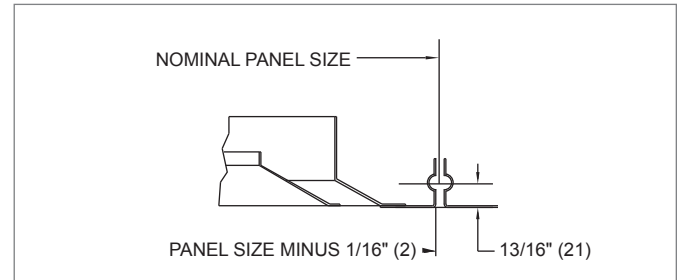
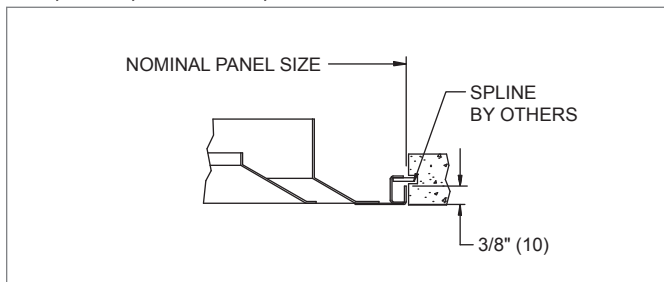
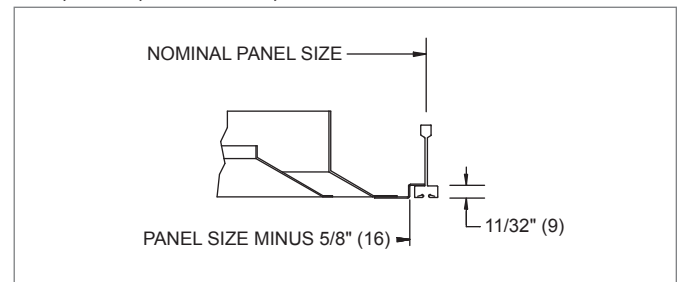
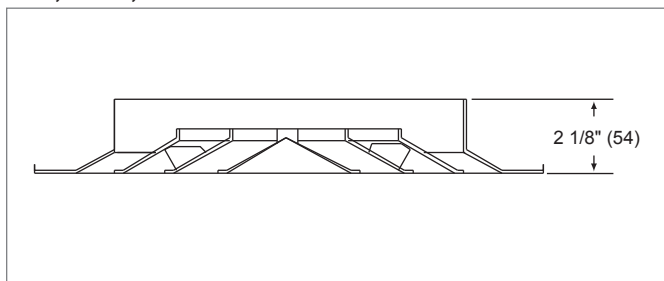
- 12"x12"
- 24"x24"
- 24"x48"

ACCESSORIES

- Optional straightening grids.
- Optional duct mounted damper.
- Optional MRI construction (5SHV).

FINISHES

- Standard finish is #44 British White.
- Optional finishes available.

SHV, 5SHV Frame Styles
SHV, 5SHV, FRAME 21, SURFACE MOUNT, BEVELED

SHV, 5SHV, FRAME 22, SURFACE MOUNT, FLAT

SHV, 5SHV, FRAME 23, LAY-IN T-BAR

SHV, 5SHV, FRAME 24, SNAP-IN T-BAR

SHV, 5SHV, FRAME 27, SPLINE

SHV, 5SHV, FRAME 98, NARROW-T

SHV, 5SHV, OVERALL HEIGHT

SHV, 5SHV, AVAILABLE NECK SIZES

Frame Style	Panel Size	Minimum Inlet Dim1 x Dim2	Maximum Inlet Dim1 x Dim2
21	-	6"x6" (152x152)	48"x48" * (1219x1219) 36"x36" ** (914x914)
22	-	6"x6" (152x152)	6"x6" (152x152)
23	12"x12" (305x305)	6"x6" (152x152)	6"x6" (152x152)
24			
27			
23	24"x24" (610x610)	6"x6" (152x152)	18"x18" (457x457)
24			
27			
98	24"x48" (610x1219)	12"x12" (305x305)	18"x42" (457x1067)

NOTES: Dimensions in parentheses are mm. Core removal is the same as the SH series of diffusers. See page B1-38 for details.

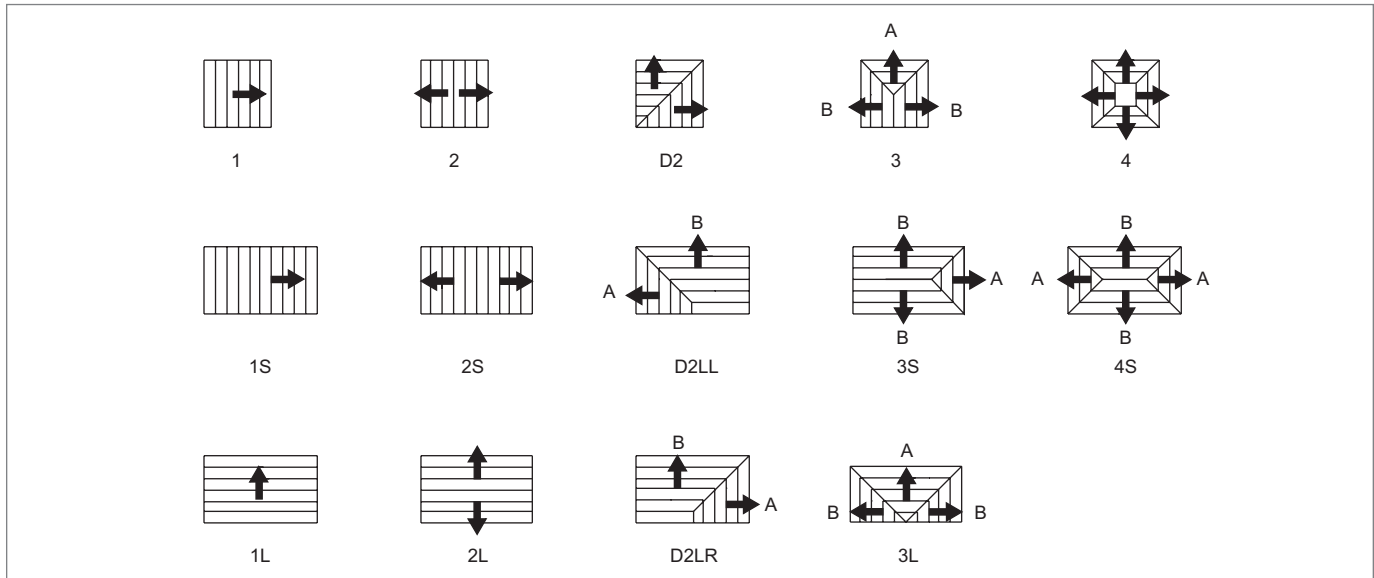
* Available in 4-way discharge air pattern only.

** Available to model SHV only.

*** Available to model 5SHV only.

SHV, 5SHV Discharge Air Patterns

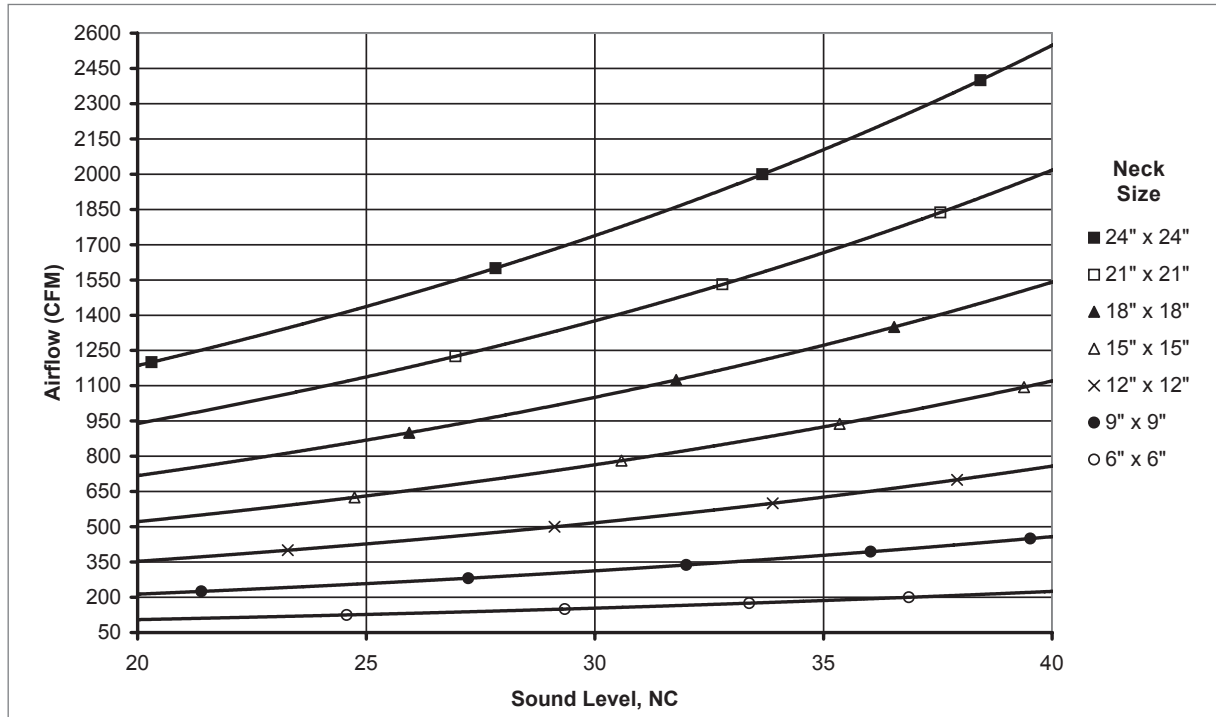
SHV, 5SHV, DISCHARGE AIR PATTERNS (FACE VIEW)



NOTE: 'A' & 'B' notations correspond to performance data.

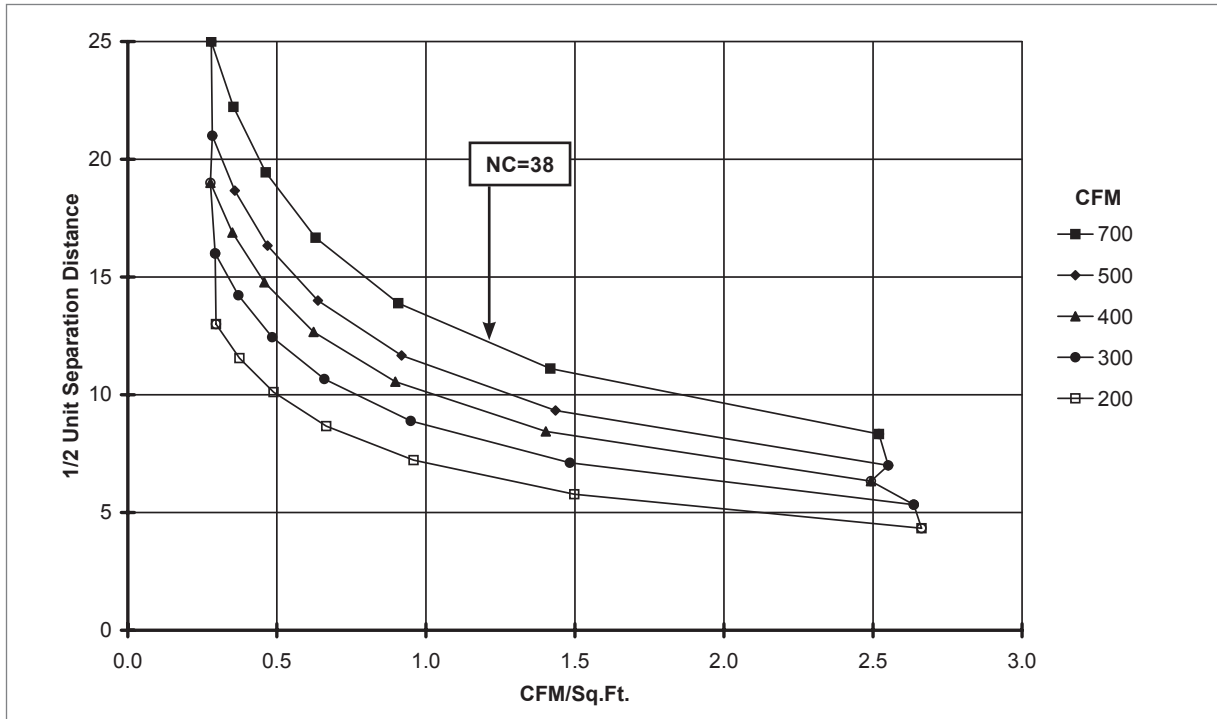
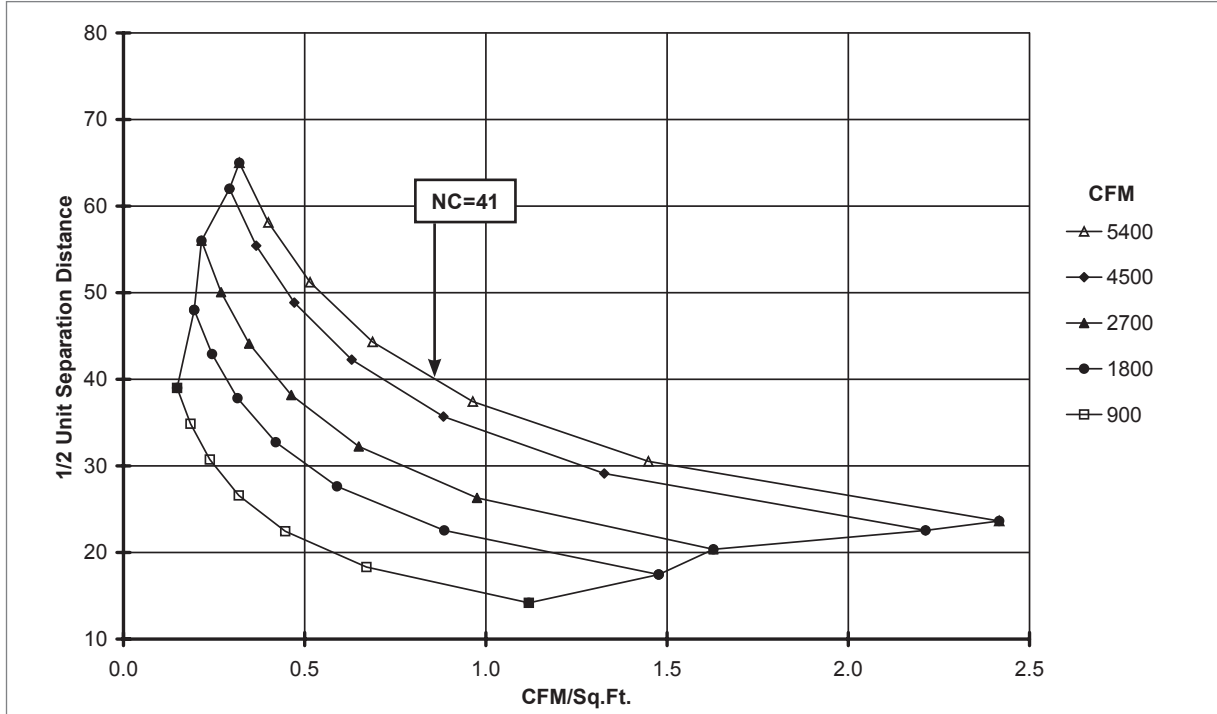
SHV, 5SHV Reference Chart

AIRFLOW VS. NC LEVEL: SHV, 5SHV (NO DAMPER)



LOUVERED FACE DIFFUSERS

SHV - 5SHV

SHV, 5SHV Reference Charts: Horizontal Throw
DIFFUSER SPACING FOR 80% ADPI: SHV, 5SHV, 12"x12" NECK, 4-WAY (NO DAMPER)

DIFFUSER SPACING FOR 80% ADPI: SHV, 5SHV, 36"x36" NECK, 4-WAY (NO DAMPER)


NOTES: Charts are at 20 BTUH/ft² loads. See the Engineering section of this catalog for instructions on how to read these charts and additional ADPI information.

SHV, 5SHV Performance Data: Horizontal Throw

IP DATA: SHV, 5SHV (NO DAMPER)

LOUVERED FACE DIFFUSERS

Neck Dim	Neck Vel	Total Pres	Static Pres	Total Flow	NC	Discharge Air Pattern						
						1-Way Throw	2-Way Throw	3 - Side A		3 - Side B		4-Way Throw
								Flow	Throw	Flow	Throw	
in.	FPM	"WG	"WG	CFM	ft	ft	CFM	ft	CFM	ft	ft	
6" x 6"	200	0.019	0.016	50	-	5 - 8 - 11	3 - 4 - 8	13	1 - 3 - 7	19	2 - 4 - 7	1 - 3 - 7
	400	0.075	0.065	100	19	9 - 11 - 16	5 - 8 - 12	25	4 - 7 - 9	38	3 - 6 - 10	4 - 7 - 9
	600	0.169	0.146	150	29	11 - 14 - 20	8 - 10 - 15	38	7 - 8 - 11	56	6 - 9 - 12	7 - 8 - 11
	800	0.300	0.260	200	37	13 - 16 - 23	10 - 12 - 17	50	8 - 9 - 13	75	8 - 10 - 14	8 - 9 - 13
	1000	0.468	0.406	250	43	15 - 18 - 25	11 - 14 - 19	63	8 - 10 - 15	94	9 - 11 - 16	8 - 10 - 15
	1200	0.674	0.584	300	47	16 - 20 - 28	12 - 15 - 21	75	9 - 11 - 16	113	10 - 12 - 17	9 - 11 - 16
9" x 9"	200	0.019	0.016	113	-	8 - 11 - 17	4 - 6 - 11	28	2 - 4 - 10	42	4 - 6 - 11	2 - 4 - 10
	400	0.075	0.065	225	21	14 - 17 - 24	8 - 11 - 18	56	7 - 10 - 14	84	7 - 11 - 16	7 - 10 - 14
	600	0.169	0.146	338	32	17 - 21 - 30	11 - 16 - 22	84	10 - 12 - 17	127	11 - 14 - 20	10 - 12 - 17
	800	0.300	0.260	450	40	20 - 24 - 34	15 - 18 - 26	113	11 - 14 - 20	169	13 - 16 - 23	11 - 14 - 20
	1000	0.468	0.406	563	45	22 - 27 - 38	17 - 20 - 29	141	13 - 16 - 22	211	15 - 18 - 25	13 - 16 - 22
	1100	0.567	0.491	619	48	23 - 28 - 40	17 - 21 - 30	155	13 - 16 - 23	232	15 - 19 - 27	13 - 16 - 23
12" x 12"	200	0.019	0.016	200	-	10 - 15 - 23	5 - 8 - 15	50	3 - 6 - 13	75	5 - 7 - 15	3 - 6 - 13
	400	0.075	0.065	400	23	19 - 23 - 32	10 - 15 - 24	100	9 - 13 - 19	150	10 - 15 - 21	9 - 13 - 19
	600	0.169	0.146	600	34	23 - 28 - 39	15 - 21 - 30	150	13 - 16 - 23	225	15 - 18 - 26	13 - 16 - 23
	800	0.300	0.260	800	41	26 - 32 - 46	20 - 24 - 34	200	15 - 19 - 26	300	17 - 21 - 30	15 - 19 - 26
	1000	0.468	0.406	1000	47	29 - 36 - 51	22 - 27 - 38	250	17 - 21 - 29	375	19 - 24 - 34	17 - 21 - 29
	1100	0.567	0.491	1100	50	31 - 38 - 53	23 - 28 - 40	275	18 - 22 - 31	413	20 - 25 - 35	18 - 22 - 31
15" x 15"	200	0.019	0.016	313	-	13 - 19 - 29	6 - 10 - 19	78	3 - 7 - 16	117	6 - 9 - 18	3 - 7 - 16
	400	0.075	0.065	625	25	23 - 29 - 40	13 - 19 - 30	156	11 - 16 - 23	234	12 - 18 - 27	11 - 16 - 23
	600	0.169	0.146	938	35	29 - 35 - 49	19 - 26 - 37	234	16 - 20 - 28	352	18 - 23 - 33	16 - 20 - 28
	800	0.300	0.260	1250	43	33 - 40 - 57	25 - 30 - 43	313	19 - 23 - 33	469	22 - 27 - 38	19 - 23 - 33
	1000	0.468	0.406	1563	49	37 - 45 - 64	28 - 34 - 48	391	21 - 26 - 37	586	24 - 30 - 42	21 - 26 - 37
	1100	0.567	0.491	1719	51	39 - 47 - 67	29 - 35 - 50	430	22 - 27 - 38	645	26 - 31 - 44	22 - 27 - 38
18" x 18"	200	0.019	0.016	450	-	15 - 23 - 34	8 - 11 - 23	113	4 - 9 - 20	169	7 - 11 - 22	4 - 9 - 20
	400	0.075	0.065	900	26	28 - 34 - 48	15 - 23 - 36	225	13 - 20 - 28	338	15 - 22 - 32	13 - 20 - 28
	600	0.169	0.146	1350	37	34 - 42 - 59	23 - 31 - 44	338	20 - 24 - 34	506	22 - 28 - 39	20 - 24 - 34
	800	0.300	0.260	1800	44	39 - 48 - 68	30 - 36 - 51	450	23 - 28 - 39	675	26 - 32 - 45	23 - 28 - 39
	900	0.379	0.329	2025	47	42 - 51 - 73	31 - 38 - 54	506	24 - 30 - 42	759	28 - 34 - 48	24 - 30 - 42
	1000	0.468	0.406	2250	50	44 - 54 - 76	33 - 41 - 57	563	25 - 31 - 44	844	29 - 36 - 51	25 - 31 - 44
1100	0.567	0.491	2475	52	46 - 57 - 80	35 - 42 - 60	619	27 - 33 - 46	928	31 - 38 - 53	27 - 33 - 46	

NOTES: Throw values are given for isothermal conditions and terminal velocities of 150, 100, and 50 FPM. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Dash in space denotes a NC value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. The throw values given for 1-Throw is for [Total CFM] CFM per side. The throw values given for 2-Throw is for [(Total CFM)/2] CFM per side. The throw values given for 4-Throw is for [(Total CFM)/4] CFM per side. Reference page B1-51 for 'Side A' and 'Side B' detail. See Krueger's selection software for performance data not shown, including octave band data and different core styles.

SHV - 5SHV

SHV, 5SHV Performance Data: Horizontal Throw

IP DATA: SHV, 5SHV (NO DAMPER)

Neck Dim	Neck Vel	Total Pres	Static Pres	Total Flow	NC	Discharge Air Pattern						
						1-Way Throw	2-Way Throw	3 - Side A		3 - Side B		4-Way Throw
								Flow	Throw	Flow	Throw	
in.	FPM	"WG	"WG	CFM		ft	ft	CFM	ft	CFM	ft	ft
21" x 21"	200	0.019	0.016	613	-	18 - 27 - 40	9 - 13 - 27	153	5 - 10 - 23	230	8 - 13 - 26	5 - 10 - 23
	400	0.075	0.065	1225	27	33 - 40 - 56	18 - 27 - 42	306	16 - 23 - 32	459	17 - 26 - 37	16 - 23 - 32
	600	0.169	0.146	1838	38	40 - 49 - 69	27 - 37 - 52	459	23 - 28 - 40	689	26 - 32 - 46	23 - 28 - 40
	800	0.300	0.260	2450	45	46 - 56 - 80	35 - 42 - 60	613	27 - 32 - 46	919	31 - 37 - 53	27 - 32 - 46
	900	0.379	0.329	2756	48	49 - 60 - 85	37 - 45 - 63	689	28 - 34 - 49	1034	32 - 40 - 56	28 - 34 - 49
	1000	0.468	0.406	3063	51	52 - 63 - 89	39 - 47 - 67	766	30 - 36 - 51	1148	34 - 42 - 59	30 - 36 - 51
1100	0.567	0.491	3369	53	54 - 66 - 94	40 - 50 - 70	842	31 - 38 - 54	1263	36 - 44 - 62	31 - 38 - 54	
24" x 24"	200	0.019	0.016	800	-	20 - 31 - 46	10 - 15 - 30	200	5 - 12 - 26	300	10 - 15 - 29	5 - 12 - 26
	400	0.075	0.065	1600	28	37 - 46 - 64	20 - 30 - 48	400	18 - 26 - 37	600	20 - 29 - 43	18 - 26 - 37
	600	0.169	0.146	2400	38	46 - 56 - 79	30 - 42 - 59	600	26 - 32 - 45	900	29 - 37 - 52	26 - 32 - 45
	700	0.229	0.199	2800	42	49 - 60 - 85	35 - 45 - 64	700	28 - 35 - 49	1050	33 - 40 - 56	28 - 35 - 49
	800	0.300	0.260	3200	46	53 - 64 - 91	39 - 48 - 68	800	30 - 37 - 52	1200	35 - 43 - 60	30 - 37 - 52
	900	0.379	0.329	3600	49	56 - 68 - 97	42 - 51 - 72	900	32 - 39 - 56	1350	37 - 45 - 64	32 - 39 - 56
1000	0.468	0.406	4000	52	59 - 72 - 102	44 - 54 - 76	1000	34 - 41 - 59	1500	39 - 48 - 68	34 - 41 - 59	
30" x 30"	200	0.019	0.016	1250	11	26 - 38 - 57	13 - 19 - 38	313	7 - 15 - 33	469	12 - 18 - 37	7 - 15 - 33
	400	0.075	0.065	2500	29	47 - 57 - 81	25 - 38 - 60	625	22 - 33 - 46	938	25 - 37 - 53	22 - 33 - 46
	600	0.169	0.146	3750	40	57 - 70 - 99	38 - 52 - 74	938	33 - 40 - 57	1406	37 - 46 - 65	33 - 40 - 57
	700	0.229	0.199	4375	44	62 - 75 - 107	44 - 56 - 80	1094	35 - 43 - 61	1641	41 - 50 - 71	35 - 43 - 61
	800	0.300	0.260	5000	47	66 - 81 - 114	49 - 60 - 85	1250	38 - 46 - 66	1875	44 - 53 - 76	38 - 46 - 66
	900	0.379	0.329	5625	51	70 - 86 - 121	52 - 64 - 91	1406	40 - 49 - 70	2109	46 - 57 - 80	40 - 49 - 70
1000	0.468	0.406	6250	53	74 - 90 - 127	55 - 68 - 95	1563	42 - 52 - 73	2344	49 - 60 - 84	42 - 52 - 73	
36" x 36**	200	0.019	0.016	1800	12	31 - 46 - 68	15 - 23 - 46	450	8 - 18 - 39	675	14 - 22 - 44	8 - 18 - 39
	400	0.075	0.065	3600	30	56 - 68 - 97	30 - 46 - 72	900	27 - 39 - 56	1350	29 - 44 - 64	27 - 39 - 56
	500	0.117	0.101	4500	36	62 - 76 - 108	38 - 57 - 81	1125	33 - 44 - 62	1688	37 - 51 - 72	33 - 44 - 62
	600	0.169	0.146	5400	41	68 - 84 - 118	46 - 63 - 89	1350	39 - 48 - 68	2025	44 - 55 - 78	39 - 48 - 68
	700	0.229	0.199	6300	45	74 - 90 - 128	53 - 68 - 96	1575	43 - 52 - 74	2363	49 - 60 - 85	43 - 52 - 74
	800	0.300	0.260	7200	49	79 - 97 - 137	59 - 72 - 102	1800	45 - 56 - 79	2700	52 - 64 - 91	45 - 56 - 79
900	0.379	0.329	8100	52	84 - 103 - 145	63 - 77 - 109	2025	48 - 59 - 83	3038	55 - 68 - 96	48 - 59 - 83	
48" x 48"	200	0.019	0.016	3200	14	41 - 61 - 91	20 - 30 - 61	800	11 - 24 - 52	1200	19 - 29 - 59	11 - 24 - 52
	400	0.075	0.065	6400	32	74 - 91 - 129	41 - 61 - 97	1600	36 - 52 - 74	2400	39 - 59 - 85	36 - 52 - 74
	500	0.117	0.101	8000	38	83 - 102 - 144	51 - 76 - 108	2000	44 - 59 - 83	3000	49 - 68 - 96	44 - 59 - 83
	550	0.142	0.123	8800	41	87 - 107 - 151	56 - 80 - 113	2200	49 - 62 - 87	3300	54 - 71 - 100	49 - 62 - 87
	600	0.169	0.146	9600	43	91 - 112 - 158	61 - 84 - 118	2400	52 - 64 - 91	3600	59 - 74 - 105	52 - 64 - 91
	700	0.229	0.199	11200	47	99 - 121 - 171	71 - 90 - 128	2800	57 - 69 - 98	4200	65 - 80 - 113	57 - 69 - 98
800	0.300	0.260	12800	51	105 - 129 - 182	79 - 97 - 137	3200	61 - 74 - 105	4800	70 - 85 - 121	61 - 74 - 105	

NOTES: Throw values are given for isothermal conditions and terminal velocities of 150, 100, and 50 FPM. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Dash in space denotes a NC value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. The throw values given for 1-Throw is for [Total CFM] CFM per side. The throw values given for 2-Throw is for [(Total CFM)/2] CFM per side. The throw values given for 4-Throw is for [(Total CFM)/4] CFM per side. Reference page B1-51 for 'Side A' and 'Side B' detail. See Krueger's selection software for performance data not shown, including octave band data and different core styles. * Maximum size for model 5SHV is 36"x36".

LOUVERED FACE DIFFUSERS

SHV - 5SHV

SHV, 5SHV Performance Data: Horizontal Throw

METRIC DATA: SHV, 5SHV (NO DAMPER)

Neck Dim	Neck Vel	Total Pres	Static Pres	Total Flow	NC	Discharge Air Pattern						
						1-Way Throw	2-Way Throw	3 - Side A		3 - Side B		4-Way Throw
								Flow	Throw	Flow	Throw	
mm	m/s	Pa	Pa	L/s		m	m	L/s	m	L/s	m	m
152 x 152	1.02	4.7	4.0	24	-	1.6-2.3-3.5	0.8-1.2-2.3	6	0.4-0.9-2.0	9	0.7-1.1-2.2	0.4-0.9-2.0
	2.03	18.7	16.2	47	19	2.8-3.5-4.9	1.5-2.3-3.7	12	1.3-2.0-2.8	18	1.1-1.8-3.0	1.3-2.0-2.8
	3.05	42.0	36.4	71	29	3.5-4.2-6.0	2.3-3.2-4.5	18	2.0-2.4-3.5	27	1.8-2.6-3.7	2.0-2.4-3.5
	4.06	74.6	64.7	94	37	4.0-4.9-6.9	3.0-3.7-5.2	24	2.3-2.8-4.0	35	2.4-3.0-4.3	2.3-2.8-4.0
	5.08	116.6	101.1	118	43	4.5-5.5-7.7	3.4-4.1-5.8	29	2.6-3.2-4.5	44	2.8-3.4-4.8	2.6-3.2-4.5
	6.10	167.9	145.5	142	47	4.9-6.0-8.5	3.7-4.5-6.4	35	2.8-3.5-4.9	53	3.0-3.7-5.2	2.8-3.5-4.9
	6.60	197.0	170.8	153	50	5.1-6.2-8.8	3.8-4.7-6.6	38	2.9-3.6-5.1	58	3.1-3.8-5.4	2.9-3.6-5.1
229 x 229	1.02	4.7	4.0	53	-	2.3-3.5-5.2	1.2-1.7-3.5	13	0.6-1.4-3.0	20	1.1-1.7-3.4	0.6-1.4-3.0
	2.03	18.7	16.2	106	21	4.2-5.2-7.4	2.3-3.5-5.5	27	2.0-3.0-4.2	40	2.2-3.4-4.9	2.0-3.0-4.2
	3.05	42.0	36.4	159	32	5.2-6.4-9.0	3.5-4.8-6.7	40	3.0-3.7-5.2	60	3.4-4.2-6.0	3.0-3.7-5.2
	4.06	74.6	64.7	212	40	6.0-7.4-10.4	4.5-5.5-7.8	53	3.5-4.2-6.0	80	4.0-4.9-6.9	3.5-4.2-6.0
	5.08	116.6	101.1	265	45	6.7-8.2-11.6	5.0-6.2-8.7	66	3.9-4.7-6.7	100	4.4-5.4-7.7	3.9-4.7-6.7
	5.59	141.1	122.3	292	48	7.0-8.6-12.2	5.3-6.5-9.1	73	4.1-5.0-7.0	110	4.7-5.7-8.1	4.1-5.0-7.0
	6.10	167.9	145.5	319	50	7.4-9.0-12.7	5.5-6.7-9.5	80	4.2-5.2-7.3	119	4.9-6.0-8.4	4.2-5.2-7.3
305 x 305	1.02	4.7	4.0	94	-	3.1-4.7-6.9	1.5-2.3-4.6	24	0.8-1.8-4.0	35	1.5-2.2-4.5	0.8-1.8-4.0
	2.03	18.7	16.2	189	23	5.7-6.9-9.8	3.1-4.6-7.3	47	2.7-4.0-5.6	71	3.0-4.5-6.5	2.7-4.0-5.6
	3.05	42.0	36.4	283	34	6.9-8.5-12.0	4.6-6.4-9.0	71	4.0-4.9-6.9	106	4.5-5.6-8.0	4.0-4.9-6.9
	4.06	74.6	64.7	378	41	8.0-9.8-13.9	6.0-7.3-10.4	94	4.6-5.6-8.0	142	5.3-6.5-9.2	4.6-5.6-8.0
	5.08	116.6	101.1	472	47	8.9-11.0-15.5	6.7-8.2-11.6	118	5.1-6.3-8.9	177	5.9-7.3-10.3	5.1-6.3-8.9
	5.59	141.1	122.3	519	50	9.4-11.5-16.3	7.0-8.6-12.2	130	5.4-6.6-9.4	195	6.2-7.6-10.8	5.4-6.6-9.4
	6.10	167.9	145.5	566	52	9.8-12.0-17.0	7.3-9.0-12.7	142	5.6-6.9-9.8	212	6.5-8.0-11.2	5.6-6.9-9.8
381 x 381	1.02	4.7	4.0	147	-	3.9-5.8-8.7	1.9-2.9-5.8	37	1.0-2.3-5.0	55	1.8-2.8-5.6	1.0-2.3-5.0
	2.03	18.7	16.2	295	25	7.1-8.7-12.3	3.9-5.8-9.2	74	3.4-5.0-7.1	111	3.7-5.6-8.1	3.4-5.0-7.1
	3.05	42.0	36.4	442	35	8.7-10.6-15.0	5.8-7.9-11.2	111	5.0-6.1-8.6	166	5.6-7.0-9.9	5.0-6.1-8.6
	4.06	74.6	64.7	590	43	10.0-12.3-17.3	7.5-9.2-13.0	147	5.8-7.1-10.0	221	6.6-8.1-11.5	5.8-7.1-10.0
	5.08	116.6	101.1	737	49	11.2-13.7-19.4	8.4-10.3-14.5	184	6.4-7.9-11.1	277	7.4-9.1-12.8	6.4-7.9-11.1
	5.59	141.1	122.3	811	51	11.7-14.4-20.3	8.8-10.8-15.2	203	6.8-8.3-11.7	304	7.8-9.5-13.5	6.8-8.3-11.7
	6.10	167.9	145.5	885	53	12.3-15.0-21.2	9.2-11.2-15.9	221	7.1-8.6-12.2	332	8.1-9.9-14.1	7.1-8.6-12.2
457 x 457	1.02	4.7	4.0	212	-	4.7-7.0-10.4	2.3-3.5-6.9	53	1.2-2.7-6.0	80	2.2-3.4-6.7	1.2-2.7-6.0
	2.03	18.7	16.2	425	26	8.5-10.4-14.7	4.6-6.9-11.0	106	4.0-6.0-8.5	159	4.5-6.7-9.7	4.0-6.0-8.5
	3.05	42.0	36.4	637	37	10.4-12.7-18.0	6.9-9.5-13.5	159	6.0-7.3-10.4	239	6.7-8.4-11.9	6.0-7.3-10.4
	4.06	74.6	64.7	850	44	12.0-14.7-20.8	9.0-11.0-15.6	212	6.9-8.5-12.0	319	8.0-9.7-13.8	6.9-8.5-12.0
	4.57	94.4	81.9	956	47	12.7-15.6-22.1	9.5-11.7-16.5	239	7.3-9.0-12.7	358	8.4-10.3-14.6	7.3-9.0-12.7
	5.08	116.6	101.1	1062	50	13.4-16.4-23.2	10.1-12.3-17.4	265	7.7-9.5-13.4	398	8.9-10.9-15.4	7.7-9.5-13.4
	5.59	141.1	122.3	1168	52	14.1-17.2-24.4	10.5-12.9-18.3	292	8.1-9.9-14.0	438	9.3-11.4-16.1	8.1-9.9-14.0

NOTES: Throw values are given for isothermal conditions and terminal velocities of 0.75, 0.50, and 0.25 m/s. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Dash in space denotes a NC value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. The throw values given for 1-Throw is for [Total L/s] L/s per side. The throw values given for 2-Throw is for [(Total L/s)/2] L/s per side. The throw values given for 4-Throw is for [(Total L/s)/4] L/s per side. Reference page B1-51 for 'Side A' and 'Side B' detail. See Krueger's selection software for performance data not shown, including octave band data and different core styles.

LOUVERED FACE DIFFUSERS

SHV - 5SHV

SHV, 5SHV Performance Data: Horizontal Throw

METRIC DATA: SHV, 5SHV (NO DAMPER)

Neck Dim	Neck Vel	Total Pres	Static Pres	Total Flow	NC	Discharge Air Pattern						
						1-Way Throw	2-Way Throw	3 - Side A		3 - Side B		4-Way Throw
								Flow	Throw	Flow	Throw	
mm	m/s	Pa	Pa	L/s		m	m	L/s	m	L/s	m	m
533 x 533	1.02	4.7	4.0	289	-	5.4 - 8.1 - 12.1	2.7 - 4.0 - 8.1	72	1.4 - 3.2 - 7.0	108	2.5 - 3.9 - 7.8	1.4 - 3.2 - 7.0
	2.03	18.7	16.2	578	27	9.9 - 12.1 - 17.2	5.4 - 8.1 - 12.9	145	4.7 - 7.0 - 9.9	217	5.2 - 7.8 - 11.4	4.7 - 7.0 - 9.9
	3.05	42.0	36.4	867	38	12.1 - 14.9 - 21.0	8.1 - 11.1 - 15.7	217	7.0 - 8.5 - 12.1	325	7.8 - 9.8 - 13.9	7.0 - 8.5 - 12.1
	4.06	74.6	64.7	1156	45	14.0 - 17.2 - 24.3	10.5 - 12.9 - 18.2	289	8.1 - 9.9 - 14.0	434	9.3 - 11.4 - 16.1	8.1 - 9.9 - 14.0
	4.57	94.4	81.9	1301	48	14.9 - 18.2 - 25.7	11.1 - 13.6 - 19.3	325	8.5 - 10.5 - 14.8	488	9.8 - 12.0 - 17.0	8.5 - 10.5 - 14.8
	5.08	116.6	101.1	1445	51	15.7 - 19.2 - 27.1	11.7 - 14.4 - 20.3	361	9.0 - 11.0 - 15.6	542	10.4 - 12.7 - 18.0	9.0 - 11.0 - 15.6
5.59	141.1	122.3	1590	53	16.4 - 20.1 - 28.4	12.3 - 15.1 - 21.3	397	9.5 - 11.6 - 16.4	596	10.9 - 13.3 - 18.8	9.5 - 11.6 - 16.4	
610 x 610	1.02	4.7	4.0	378	-	6.2 - 9.3 - 13.9	3.1 - 4.6 - 9.2	94	1.6 - 3.6 - 8.0	142	2.9 - 4.5 - 8.9	1.6 - 3.6 - 8.0
	2.03	18.7	16.2	755	28	11.3 - 13.9 - 19.6	6.2 - 9.2 - 14.7	189	5.4 - 8.0 - 11.3	283	6.0 - 8.9 - 13.0	5.4 - 8.0 - 11.3
	3.05	42.0	36.4	1133	38	13.9 - 17.0 - 24.0	9.2 - 12.7 - 18.0	283	8.0 - 9.8 - 13.8	425	8.9 - 11.2 - 15.9	8.0 - 9.8 - 13.8
	3.56	57.1	49.5	1321	42	15.0 - 18.3 - 25.9	10.8 - 13.7 - 19.4	330	8.6 - 10.6 - 14.9	496	9.9 - 12.1 - 17.2	8.6 - 10.6 - 14.9
	4.06	74.6	64.7	1510	46	16.0 - 19.6 - 27.7	12.0 - 14.7 - 20.8	378	9.2 - 11.3 - 16.0	566	10.6 - 13.0 - 18.4	9.2 - 11.3 - 16.0
	4.57	94.4	81.9	1699	49	17.0 - 20.8 - 29.4	12.7 - 15.6 - 22.0	425	9.8 - 12.0 - 16.9	637	11.2 - 13.8 - 19.5	9.8 - 12.0 - 16.9
5.08	116.6	101.1	1888	52	17.9 - 21.9 - 31.0	13.4 - 16.4 - 23.2	472	10.3 - 12.6 - 17.8	708	11.9 - 14.5 - 20.5	10.3 - 12.6 - 17.8	
762 x 762	1.02	4.7	4.0	590	11	7.8 - 11.6 - 17.3	3.9 - 5.8 - 11.6	147	2.0 - 4.5 - 10.0	221	3.6 - 5.6 - 11.2	2.0 - 4.5 - 10.0
	2.03	18.7	16.2	1180	29	14.1 - 17.3 - 24.5	7.7 - 11.6 - 18.4	295	6.7 - 10.0 - 14.1	442	7.5 - 11.2 - 16.2	6.7 - 10.0 - 14.1
	3.05	42.0	36.4	1770	40	17.3 - 21.2 - 30.0	11.6 - 15.9 - 22.5	442	10.0 - 12.2 - 17.3	664	11.2 - 14.1 - 19.9	10.0 - 12.2 - 17.3
	3.56	57.1	49.5	2065	44	18.7 - 22.9 - 32.4	13.5 - 17.2 - 24.3	516	10.8 - 13.2 - 18.7	774	12.4 - 15.2 - 21.5	10.8 - 13.2 - 18.7
	4.06	74.6	64.7	2360	47	20.0 - 24.5 - 34.7	15.0 - 18.4 - 26.0	590	11.5 - 14.1 - 19.9	885	13.3 - 16.2 - 23.0	11.5 - 14.1 - 19.9
	4.57	94.4	81.9	2655	51	21.2 - 26.0 - 36.8	15.9 - 19.5 - 27.5	664	12.2 - 15.0 - 21.2	996	14.1 - 17.2 - 24.3	12.2 - 15.0 - 21.2
5.08	116.6	101.1	2950	53	22.4 - 27.4 - 38.7	16.8 - 20.5 - 29.0	737	12.9 - 15.8 - 22.3	1106	14.8 - 18.1 - 25.7	12.9 - 15.8 - 22.3	
914 x 914*	1.02	4.7	4.0	850	12	9.3 - 14.0 - 20.8	4.6 - 6.9 - 13.9	212	2.4 - 5.4 - 12.0	319	4.4 - 6.7 - 13.4	2.4 - 5.4 - 12.0
	2.03	18.7	16.2	1699	30	17.0 - 20.8 - 29.4	9.2 - 13.9 - 22.0	425	8.1 - 12.0 - 16.9	637	8.9 - 13.4 - 19.5	8.1 - 12.0 - 16.9
	2.54	29.1	25.3	2124	36	19.0 - 23.2 - 32.9	11.6 - 17.3 - 24.6	531	10.1 - 13.4 - 18.9	796	11.2 - 15.4 - 21.8	10.1 - 13.4 - 18.9
	3.05	42.0	36.4	2549	41	20.8 - 25.5 - 36.0	13.9 - 19.1 - 27.0	637	12.0 - 14.7 - 20.7	956	13.4 - 16.9 - 23.9	12.0 - 14.7 - 20.7
	3.56	57.1	49.5	2973	45	22.5 - 27.5 - 38.9	16.2 - 20.6 - 29.1	743	12.9 - 15.8 - 22.4	1115	14.9 - 18.2 - 25.8	12.9 - 15.8 - 22.4
	4.06	74.6	64.7	3398	49	24.0 - 29.4 - 41.6	18.0 - 22.0 - 31.2	850	13.8 - 16.9 - 23.9	1274	15.9 - 19.5 - 27.5	13.8 - 16.9 - 23.9
4.57	94.4	81.9	3823	52	25.5 - 31.2 - 44.1	19.1 - 23.4 - 33.0	956	14.7 - 17.9 - 25.4	1434	16.9 - 20.7 - 29.2	14.7 - 17.9 - 25.4	
1219 x 1219	1.02	4.7	4.0	1510	14	12.4 - 18.6 - 27.7	6.2 - 9.2 - 18.5	378	3.2 - 7.2 - 16.0	566	5.8 - 8.9 - 17.9	3.2 - 7.2 - 16.0
	2.03	18.7	16.2	3020	32	22.6 - 27.7 - 39.2	12.3 - 18.5 - 29.4	755	10.8 - 16.0 - 22.6	1133	11.9 - 17.9 - 26.0	10.8 - 16.0 - 22.6
	2.54	29.1	25.3	3776	38	25.3 - 31.0 - 43.8	15.4 - 23.1 - 32.8	944	13.5 - 17.8 - 25.2	1416	14.9 - 20.5 - 29.0	13.5 - 17.8 - 25.2
	2.79	35.3	30.6	4153	41	26.5 - 32.5 - 46.0	16.9 - 24.4 - 34.4	1038	14.8 - 18.7 - 26.5	1557	16.4 - 21.5 - 30.4	14.8 - 18.7 - 26.5
	3.05	42.0	36.4	4531	43	27.7 - 34.0 - 48.0	18.5 - 25.4 - 36.0	1133	16.0 - 19.5 - 27.6	1699	17.9 - 22.5 - 31.8	16.0 - 19.5 - 27.6
	3.56	57.1	49.5	5286	47	29.9 - 36.7 - 51.9	21.6 - 27.5 - 38.9	1321	17.2 - 21.1 - 29.8	1982	19.8 - 24.3 - 34.4	17.2 - 21.1 - 29.8
4.06	74.6	64.7	6041	51	32.0 - 39.2 - 55.4	24.0 - 29.4 - 41.5	1510	18.4 - 22.6 - 31.9	2265	21.2 - 26.0 - 36.7	18.4 - 22.6 - 31.9	

NOTES: Throw values are given for isothermal conditions and terminal velocities of 0.75, 0.50, and 0.25 m/s. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Dash in space denotes a NC value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. The throw values given for 1-Throw is for [Total L/s] L/s per side. The throw values given for 2-Throw is for [(Total L/s)/2] L/s per side. The throw values given for 4-Throw is for [(Total L/s)/4] L/s per side. Reference page B1-51 for 'Side A' and 'Side B' detail. Sizes greater than 914x914mm are not available on 5SHV. See Krueger's selection software for performance data not shown, including octave band data and different core styles.* Maximum size for model 5SHV is 914x914mm.

SHV, 5SHV | Flush Face, Mixing Vanes

SHV, 5SHV Suggested Specification & Configuration**SHV, 5SHV**

The ceiling diffuser shall be Krueger model SHV (steel) or 5SHV (aluminum) louver face for non-adjustable horizontal discharge airflow. These diffusers shall have a square or rectangular neck of the sizes and frame styles shown on the drawings or job schedule. The square or rectangular neck shall be an integral part of the backpan. The diffuser shall have an easily removable core with fixed blades in 1, 2, 3, or 4-way configurations. Mixing vanes shall be attached to the core louver blades. These mixing vanes shall be at 45° deflection in opposite directions to the next corresponding core louver blade resulting in turbulent discharge airflow, causing high induction rates in the horizontal plane.

PERFORMANCE

The manufacturer shall provide published (printed or electronic) performance data for the diffuser. Performance data shall include 2 - 7 octave band sound power levels. The diffuser shall be tested in accordance to the data standards at the time of product introduction or ANSI/ASHRAE Standard 70.

FINISH

The paint finish shall be #44 British White and be an anodic acrylic paint, baked at 315° for 30 minutes. The paint thickness shall be 0.8 - 1.0 mils, gloss at 60° per ASTM D523-89 of 50 - 85%, pencil hardness per ASTM D3363-92A of HB - H, crosshatch adhesion per ASTM D3359-83 of 4B - 5B, impact per ASTM D2794-93 of direct impact >100 in/lb and reverse impact >80 in/lb, salt spray per ASTM B117-9048 of 96 hours, humidity per ASTM D2247-92 of >500 hours and water soak per ASTM D870-92 of 250 hours.

1. SERIES: (XXXX)

SHV - Square/Rectangular Neck with Core Deflectors, Steel Ceiling Diffuser

5SHV - Square/Rectangular Neck with Core Deflectors, Aluminum Ceiling Diffuser

2. PATTERN: (XX)

01 - 1-Way

02 - 2-Way

03 - 3-Way

04 - 4-Way

3. WIDTH: (XX)

6" - 48" in 3" Increments *

4. HEIGHT: (XX)

6" - 48" in 3" Increments *

5. FRAME: (XXX) **

F21 - Surface Mount, Beveled

F22 - Surface Mount, Flat

F23 - Lay-in T-Bar

F24 - Snap-in T-Bar

F27 - Spline

F98 - 5/16" Step Down

6. PANEL: (XX)x(XX) ***

None

12"x12"

24"x24"

24"x48"

7. DAMPER: (XXXXXX)

00 - None

OBDSHV - Duct Mounted Damper

8. ACCESSORIES: (XX)

00 - No Accessories

M - MRI Construction

9. FINISH: (XX)

01 - Mill

10 - Alumican

35 - Black

44 - British White

* Maximum neck size for Model 5SHV is 36"x36".

** If Frame 23, 24, 27, or 98 are specified, specify panel size.

*** Reference page B1-51 for panel and neck size availability. Specify Panel 'None' if Frame 21 or 22 has been selected.

LOUVERED FACE DIFFUSERS

SHV - 5SHV

SAMPLE CONFIGURATION: SHV - 02 - 15x15 - F23 - 24x24 - 00 - 44