

MODELS

- SHV - Steel, louvered ceiling diffuser with square or rectangular inlet, core deflectors, and mixing vanes
- 5SHV - Aluminum, louvered ceiling diffuser with square or rectangular inlet, core deflectors, and mixing vanes ¹

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

INLET SIZES

- Square: 6"x6" - 48"x48" (3" increments) ²

FRAME STYLES

- 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

PANEL SIZES

- 12"x12", 24"x24", or 48"x24"

COMPATIBLE OPTIONS AND ACCESSORIES

- OBDSHV - Duct mounted damper
- OBDSHV - Steel, square or rectangular face operated damper for sh series (duct mount)
- SRNA - Steel, square to round adapter for SH Series
- SRNA2 - Steel, square to round adapter for SH Series
- SSG - Steel, square or rectangular straightening grid
- SRAC325 - Steel, square to round adapter
- OBDDM - Steel, square or rectangular damper (duct mount)
- EX8 - Steel duct extractor with 1" blade spacing (duct mount)
- EX88 - Steel duct extractor with 2" blade spacing (duct mount)
- HCF23 - Steel, hard ceiling frame (F23 only)
- 5HCF23 - Aluminum, hard ceiling frame (F23 only)

NOTES:

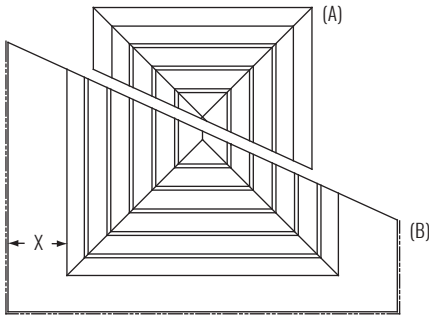
¹ Maximum inlet size for Model 5SHV is 36"x36".



MIXING VANES ON BACK OF CORE

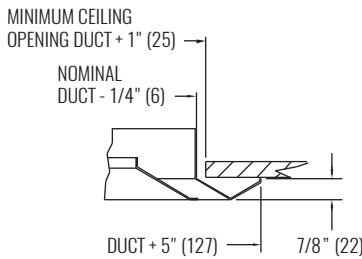


DIMENSIONAL DATA

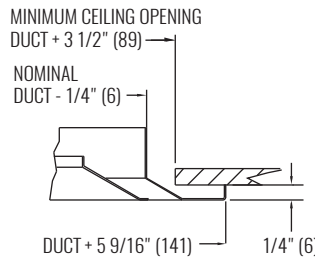


FRAME STYLE DIFFERENCES
A = SURFACE MOUNT, B = LAY-IN T-BAR

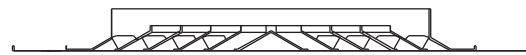
DIMENSIONS			
PANEL	FRAME STYLE	MIN INLET (DIM1 x DIM2)	MAX INLET (DIM1 x DIM2)
NO PANEL	21, 22	6"x6" (152x152)	48"x48" (1219x1219) SHV ¹ 36"x36" (914x914) 5SHV ²
12"x12"	23, 24, 27	6"x6" (152x152)	6"x6" (152x152)
24"x24"	23, 24, 27, 98	6"x6" (152x152)	18"x18" (457x457)
48"x24"	23	12"x12" (305x305)	42"x18" (1067x457)



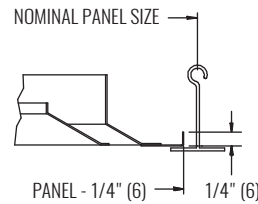
FRAME 21, SURFACE MOUNT, BEVELED



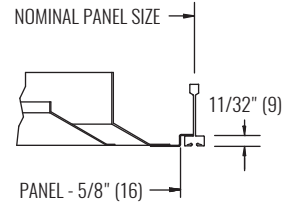
FRAME 22, SURFACE MOUNT, FLAT



CROSS SECTION, FRAME 23



FRAME 23, LAY-IN T-BAR



FRAME 98, NARROW-T

NOTE: Dimensions in parentheses are millimeters (mm). Illustrations shown are for a 24"x24" panel. Dimension 'X' will vary with inlet sizes for Frames 23, 24, 27, and 98. Core removal is the same as the SH series of diffusers.

- ¹ Available in 4-way discharge air pattern only.
- ² Available to model SHV only.

PERFORMANCE AND DESIGN DATA

SIZE	PERFORMANCE - HORIZONTAL THROW				DESIGN		
	NC (< 25)		NC (25 - 40)		CFM @ NC=30	SPACING @ 0.6 CFM/sf (ft)	MINIMUM CFM/sf
NOMINAL INLET	CFM	THROW (ft)	CFM	THROW (ft)			
6"x6"	50 - 120	7 - 10	130 - 220	11 - 14	175	17	0.30
9"x9"	85 - 245	8 - 15	265 - 450	15 - 20	330	23	0.30
12"x12"	150 - 415	10 - 19	440 - 740	19 - 25	500	29	0.30
15"x15"	220 - 615	12 - 23	625 - 1095	23 - 31	800	37	0.30
18"x18"	305 - 850	14 - 27	900 - 1510	28 - 36	1200	45	0.31
21"x21"	440 - 1110	17 - 31	1225 - 1838	32 - 46	1500	50	0.32
24"x24"	590 - 1405	20 - 35	1465 - 2495	36 - 46	1850	56	0.33

NOTES: Information shown is abbreviated. See website for complete information. Dimensions in parentheses are millimeters (mm). Throw value ranges are given for isothermal conditions, unless otherwise noted, and a terminal velocity of 50 FPM (0.25 m/s). NC ranges are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. Design spacing is recommended distance between diffusers in an open plan office based on ADPI > 80%, 9ft ceiling, and 55°F discharge at 30 NC and 0.6 CFM/sf. Minimum CFM/sf is based on recommended spacing at 80% ADPI. Design recommendations not applicable to vertical throw. "N/A" in design table denotes situations which do not result in ADPI>80% and are therefore not recommended.