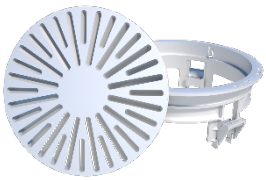
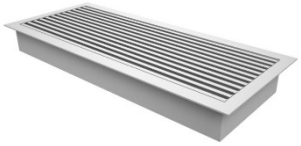
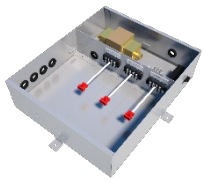






GLOBAL IFS®

Underfloor Air Distribution System

Sidewall Displacement Diffuser (SDD)

SYSTEM OVERVIEW

The Sidewall Displacement Diffuser (SDD) is a unique diffuser that supplies low velocity discharge air in a 1-way pattern into an occupied zone from relatively hidden locations. The SDD has an easy to install perforated face that is securely retained with mounting clips in a contractor supplied plenum. A mud frame is available for drywall applications. With no visible fasteners the SDD can be discreetly installed in stair risers, in a wall at floor level or in a toe kick, making it ideal for classrooms, theaters and lobbies.

Features

- Mud frame option for plaster applications
- Discrete or continuous applications
- Curved face options
- Several standard & custom finishes
- Aluminum Equalization baffle
- Steel frame and perforated face panel

Flexibility in Design

Installed in standard frame or mud frame for plaster applications

SDD can be installed in separate detached or continuous applications

Straight or curved face options

Standard finishes:

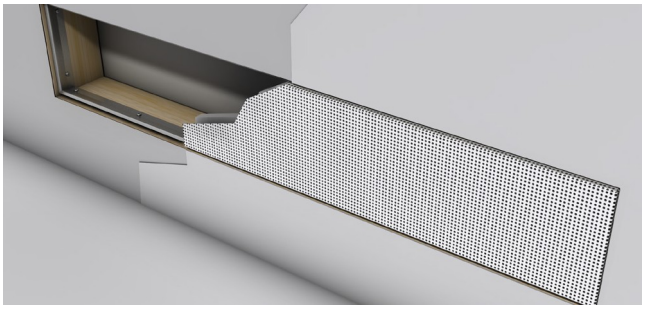
- White (B12)
- Grey (B15)
- Black (B17)

Custom color to match

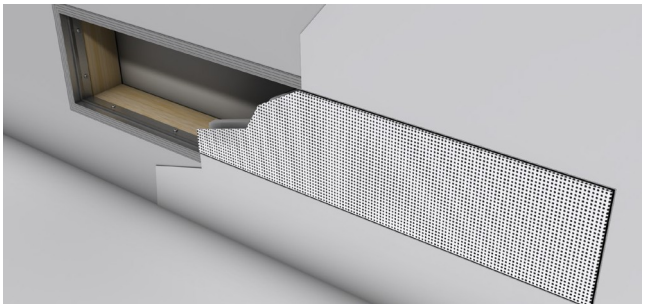
- Match samples with baked enamel finishes (B25)

PRODUCT APPLICATION

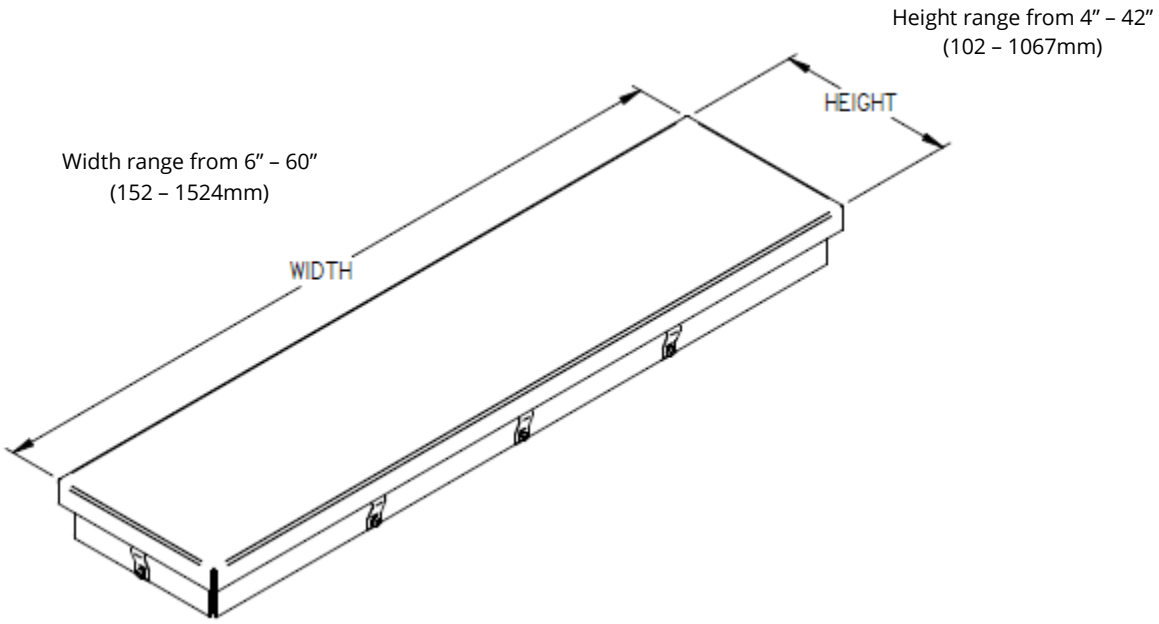
Standard frame installation



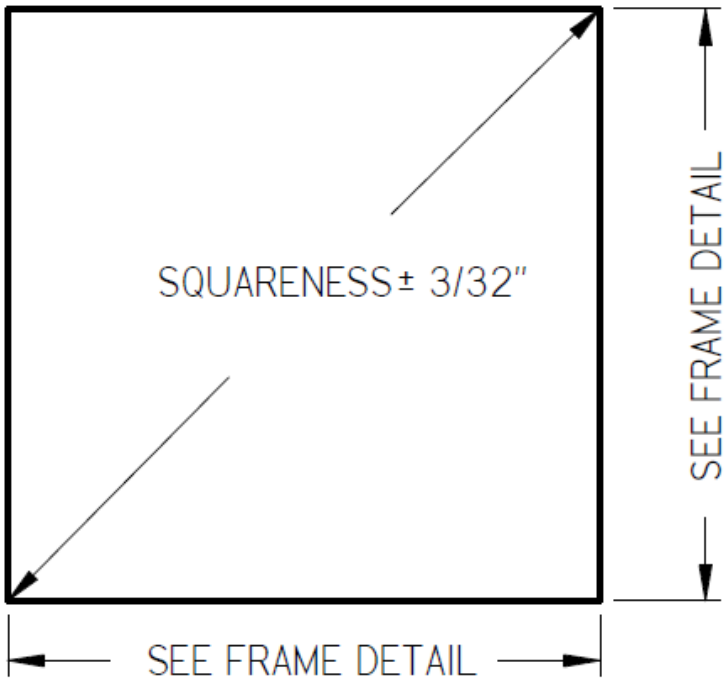
Mud frame installation



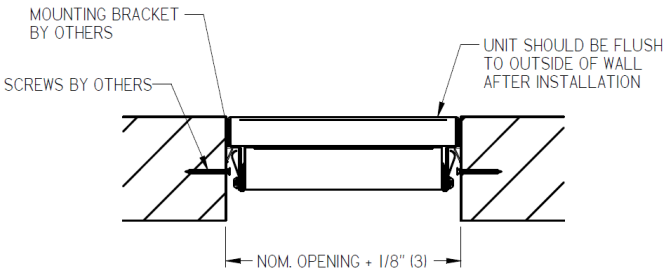
DIMENSIONAL DATA



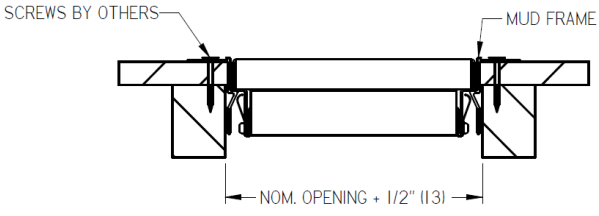
Opening Detail



Standard Frame



Mud Frame



PERFORMANCE DATA

Riser Applications

Unit Size W x H [in]	Nominal Face Velocity [fpm]	Nominal Air Flow [cfm]	Total Pressure [in. w.g.]	Static Pressure [in. w.g.]	Noise Criteria [NC]	DR 20%		Adjacent Zone	
						ΔT = 5 °F	ΔT = 10 °F	ΔT = 5°F	ΔT = 10°F
24 x 4	20	13	-	-	-	-	-	-	-
	30	20	-	-	-	-	-	-	-
	40	27	-	-	-	1	1	-	-
	50	33	-	-	-	2	3	3	3
24 x 6	20	20	-	-	-	-	-	-	-
	30	30	-	-	-	-	-	-	-
	40	40	-	-	-	2	3	2	2
	50	50	0.01	0.01	-	4	5	5	5
24 x 8	20	27	-	-	-	-	-	-	-
	30	40	-	-	-	-	1	-	-
	40	53	-	-	-	3	4	3	3
	50	67	0.01	0.01	-	5	6	7	7
30 x 4	20	17	-	-	-	-	-	-	-
	30	25	-	-	-	-	-	-	-
	40	33	-	-	-	2	2	2	2
	50	42	-	-	-	4	5	5	5
30 x 6	20	25	-	-	-	-	-	-	-
	30	38	-	-	-	-	1	-	-
	40	50	-	-	-	3	4	4	4
	50	63	0.01	0.01	-	6	7	7	7
30 x 8	20	33	-	-	-	-	-	-	-
	30	50	-	-	-	1	2	2	2
	40	67	-	-	-	4	5	6	6
	50	83	0.01	0.01	-	7	8	9	9
36 x 4	20	20	-	-	-	-	-	-	-
	30	30	-	-	-	-	1	-	-
	40	40	-	-	-	3	4	3	3
	50	50	0.01	0.01	-	5	6	6	7
36 x 6	20	30	-	-	-	-	-	-	-
	30	45	-	-	-	1	2	2	2
	40	60	-	-	-	4	5	5	6
	50	75	0.01	0.01	-	7	8	9	9
48 x 12	20	80	-	-	-	2	3	2	2
	30	120	-	-	-	6	7	8	8
	40	160	0.01	0.01	-	10	11	12	12
	50	200	0.02	0.02	-	12	14	15	15

Performance Notes:

1. Sound and pressure drop tested in accordance with ASHRAE Standard 70-2006 "Method of Testing for Rating the Performance of Air Outlets and Inlets."
2. Air flow is in cubic feet per minute, cfm.
3. Pressure is in inches of water, in. w.g.
4. The NC values, sound pressure level, are based on a room absorption of 10 dB, re 10^{-12} watts and one diffuser.
5. ΔT is the difference between the room air temperature 3½ ft above the floor and the temperature of the supply air.
6. Proximity to outlet is the minimum distance from an outlet to the occupant in order to achieve the listed DR value.
7. Distances closer to the diffuser have a higher DR than the cataloged value.
8. DR is the predicted percentage of people dissatisfied (PPD) due to draft. A value of less than 20 meets the requirements of ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy.
9. Blanks "-" indicate that the DR is below the specified value at all distances from the diffuser face.
10. DR catalog data is presented for an occupant density of 25 people/1000ft², which is the default occupancy density for classrooms (ages 5-8) given by ASHRAE 62.1-2004. For other occupant densities, please refer to the DV Room Designer Software.
11. The Adjacent zone describes the distance from the face of the diffuser and measured 1 in. from the floor, at which the supply air velocity is 50 fpm.

PERFORMANCE DATA

In-Wall Applications

Unit Size W x H [in]	Nominal Face Velocity [fpm]	Nominal Air Flow [cfm]	Total Pressure [in. w.g.]	Static Pressure [in. w.g.]	Noise Criteria [NC]	DR 20%		Adjacent Zone	
						ΔT = 5 °F	ΔT = 10 °F	ΔT = 5°F	ΔT = 10°F
24 x 24	20	80	-	-	-	-	1	-	-
	30	120	-	-	-	4	5	5	6
	40	160	0.01	0.01	-	7	8	9	10
	50	200	0.02	0.02	-	10	11	13	13
24 x 30	20	100	-	-	-	1	2	1	1
	30	150	-	-	-	5	6	7	7
	40	200	0.01	0.01	-	8	9	11	11
	50	250	0.02	0.02	-	11	12	14	14
24 x 36	20	120	-	-	-	2	2	1	2
	30	180	-	-	-	6	7	8	8
	40	240	0.01	0.01	-	9	10	12	12
	50	300	0.02	0.02	-	12	13	15	15
24 x 48	20	160	-	-	-	2	3	3	4
	30	240	-	-	-	7	8	9	9
	40	320	0.01	0.01	-	10	12	13	13
	50	400	0.02	0.02	-	13	15	16	17
30 x 24	20	100	-	-	-	1	2	2	2
	30	150	-	-	-	6	7	7	8
	40	200	0.01	0.01	-	9	10	11	12
	50	250	0.02	0.02	-	12	13	15	15
36 x 24	20	120	-	-	-	3	4	3	3
	30	180	-	-	-	7	8	9	9
	40	240	0.01	0.01	-	11	12	13	13
	50	300	0.02	0.02	-	13	15	16	16
48 x 24	20	160	-	-	-	5	6	6	6
	30	240	-	-	-	9	10	11	12
	40	320	0.01	0.01	-	13	14	16	16
	50	400	0.02	0.02	-	16	17	19	19

Performance Notes:

1. Sound and pressure drop tested in accordance with ASHRAE Standard 70-2006 "Method of Testing for Rating the Performance of Air Outlets and Inlets."
2. Air flow is in cubic feet per minute, cfm.
3. Pressure is in inches of water, in. w.g.
4. The NC values, sound pressure level, are based on a room absorption of 10 dB, re 10^{-12} watts and one diffuser.
5. 5. ΔT is the difference between the room air temperature 3 ½ ft above the floor and the temperature of the supply air.
6. Proximity to outlet is the minimum distance from an outlet to the occupant in order to achieve the listed DR value.
7. Distances closer to the diffuser have a higher DR than the cataloged value.
8. DR is the predicted percentage of people dissatisfied (PPD) due to draft. A value of less than 20 meets the requirements of ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy.
9. Blanks "-" indicate that the DR is below the specific value at all distances from the diffuser face.
10. DR catalog data is presented for an occupant density of 25 people/1000ft^2, which is the default occupancy density for classrooms (ages 5-8) given by ASHRAE 62.1-2004. For other occupant densities, please refer to the DV Room Designer Software.
11. The Adjacent zone describes the distance from the face of the diffuser and measured 1 in. from the floor, at which the supply air velocity is 50 fpm.