

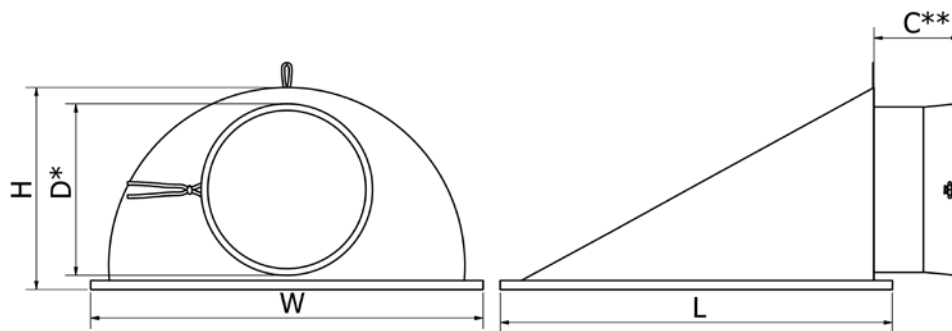
Technical data

Supply unit, SMI

The FabricAir SMI ceiling diffusers are drop-in diffusers, suitable for T-profile-based suspended ceiling installations and are used for both cooling and isothermal air supply. They are quick to install and require no tools. The diffusers can be connected to both solid and flexible ducts. The plenum box – the upper and hidden part of the diffuser – is insulated. The connection sleeve is centered

on the end or side of the plenum box and it fits duct sizes from 5 in to 10 in by adjusting the strap lock. The flow panel – the lower and visual part – is a fabric with a MicroFlow™ flow model and is available in alternative colors or printed patterns. FabricAir® Ceiling Diffusers are made from FabricAir Combi 80 and Combi 90 fabrics, and they come with a 10-year warranty.

Dimensions



Performance data

SMI	W (in)	L (in)	H (in)	D* (in)	C** (in)		m (lbs)
					solid duct	flexible duct	
24" x 24"	23¾	23¾	12	10¾	8	4¼	4.0
24" x 48"	23¾	47¾	12	10¾	8	4¼	6.4
48" x 24"	47¾	23¾	12	10¾	8	4¼	6.4

Notes:

- * Fits duct sizes Ø5"-10" by adjusting the strap lock.
- ** Length of the connection sleeve when fully extended. Length decreases with the size of the duct when connected. Smaller duct diameter results in a shorter length of the connection sleeve.

Disclaimer: Diffuser flow panels may experience a small amount of sagging during operation or at rest after extended use.

Performance data

Tested in general accordance to ANSI/ASHRAE Standard 70-2006. Tests performed with straight metal duct connection. Actual performance may vary in the field depending on upstream duct layout and when flexible duct is used.

NC values based on octave band 2 to 7 sound power levels minus a room absorption of 10 dB, re 10-12 Watts. Dash (-) in space denotes an NC value of less than 15. Throw values given are the vertical distance from the diffuser to the jet

average terminal velocities of 150, 100 and 50 fpm in isothermal conditions. Where throw is left blank means the terminal velocity is not achieved or is less than 1.0 ft. Recommended airflow range up to 175 cfm for 24"x24" unit and up to 350 cfm for 24"x48" and 48"x24" unit for optimum performance and appearance. Grey zone indicates the range where airflow exceeds the recommended values.

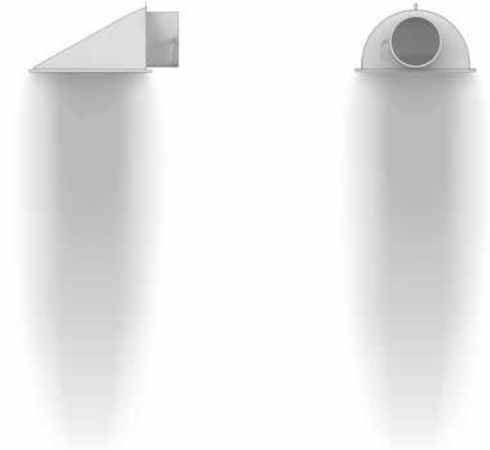
Code compliance

							Feature
EN 13501-1	UL 723	ULC s102.2	GOST 30244	NFP 92:507	DS 428	GB 8624	Anti-microbial
B-s1, d0	✓	✓	✓	M1	✓	B-s1, d0, t1	✓

SMI 24" x 24"

Air distribution pattern

The air at isothermal or cooling conditions is distributed below the diffuser creating a low velocity air dispersion beneath it.



Sound attenuation

Sound attenuation of the diffuser ΔL from duct to room in dB.

Dash (-) denotes attenuation was not determined.

Diffuser	Connecting duct diameter (in)	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
24" x 24"	5	-	-	-	-	3.2	0.8	2.6	4.3
	6	-	-	-	-	5.2	-	0.4	3.0
	8	-	0.6	-	-	6.5	1.5	1.6	4.1
	10	-	0.2	-	0.1	5.8	2.5	3.7	3.8

Sizing tables

Connecting duct diameter (in)	Neck velocity (fpm)	200	300	400	500	600	700	800	900	1000	1100	
	Velocity pressure (in.w.g.)	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.051	0.062	0.076	
5	Airflow (cfm)	27	41	55	68	82	95	109	123	136	150	
	Total pressure loss (in.w.g.)	0.010	0.023	0.040	0.063	0.090	0.123	0.161	0.203	0.251	0.304	
	NC	-	-	-	-	-	-	-	-	-	16	18
	Throw ₅₀ (ft)											1.1
	Throw ₁₀₀ (ft)											
6	Airflow (cfm)	39	59	79	98	118	137	157	177	196	216	
	Total pressure loss (in.w.g.)	0.022	0.049	0.086	0.135	0.194	0.264	0.345	0.437	0.539	0.653	
	NC	-	-	-	-	-	-	16	19	21	23	
	Throw ₅₀ (ft)							1.2	1.6	2.0	2.4	
	Throw ₁₀₀ (ft)											
8	Airflow (cfm)	70	105	140	175	209	244	279	314	349	384	
	Total pressure loss (in.w.g.)	0.050	0.114	0.202	0.315	0.454	0.618	0.807	1.022	1.261	1.526	
	NC	-	-	-	16	19	22	25	27	28	30	
	Throw ₅₀ (ft)				1.6	2.3	3.0	3.7	4.4	5.2	5.9	
	Throw ₁₀₀ (ft)								1.2	1.6	2.0	
10	Airflow (cfm)	109	164	218	273	327	382	436	491	545	600	
	Total pressure loss (in.w.g.)	0.120	0.271	0.481	0.752	1.083	1.474	1.925	2.437	3.008	3.640	
	NC	-	-	19	24	27	29	32	34	36	38	
	Throw ₅₀ (ft)		1.4	2.5	3.6	4.7	5.8	6.9	8.0	9.2	10.3	
	Throw ₁₀₀ (ft)					1.4	1.9	2.5	3.0	3.6	4.2	
	Throw ₁₅₀ (ft)						1.0	1.4	1.8	2.1		

