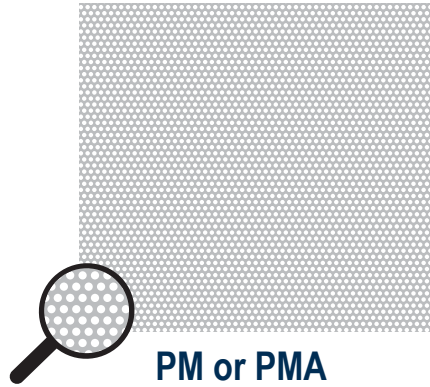


PM MODEL

STEEL PERFORATED MODULAR FACE FOR TEE CEILING



- **PM, PMA MODELS**

Perforated steel sheet (PM Model) or aluminum sheet (PMA Model) to mount on T profiles of false ceiling.

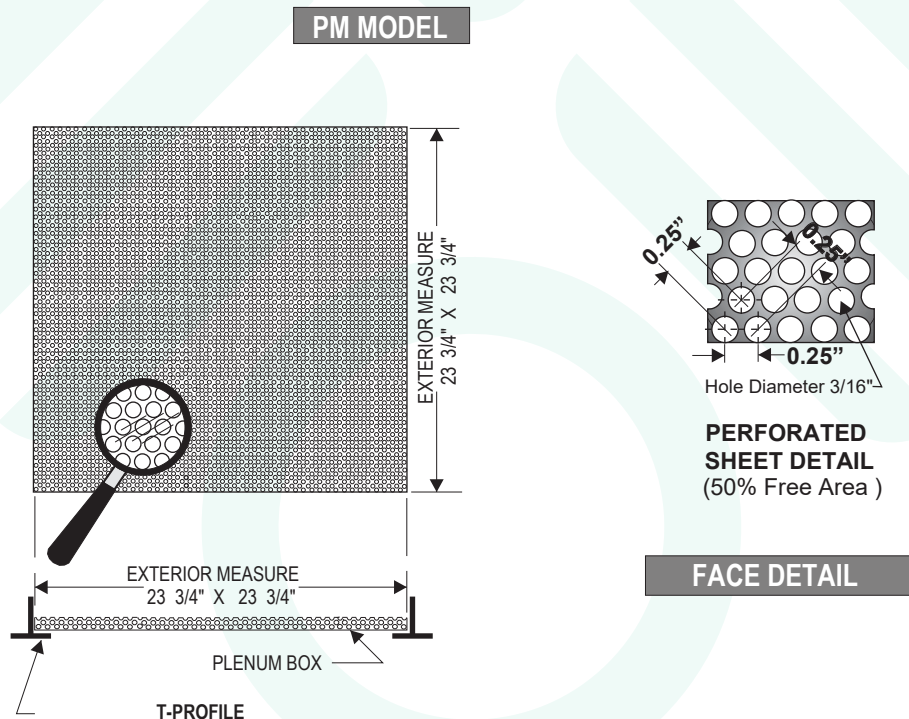
CONSTRUCTION

(PMRN, PMR & PM Models) or aluminium sheet (PMRNA<PMRA & PMA).

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

PERFORMANCE: Recommended for HVAC applications with constant or variable air volume.
For return only.
50% air volume.

Dimensional Data



PM MODEL

PERFORATED PLENUM RETURN DIFFUSER (FACE)
TABLE 6 PERFORMANCE DATA

Perforated Face (Inches)	AIR VELOCITY THROUGH FACE Feet / Min.	300	400	500	600	700	800	900	1000
24 x 24	NEGATIVE S.P., INCHES H ₂ O	0.024	0.043	0.068	0.098	0.133	0.174	0.222	0.271
	FLOW RATE, CFM	1010	1350	1680	2020	2360	2700	3030	3360
	NOISE CRITERIA, NC	—	12	16	19	22	26	30	34

PERFORATED INJECTION DIFFUSERS (PDM y PMI) AND RETURN (PMRN, PMR y PM)

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 IN VALUES GREATER THAN THE RECOMMENDED, WILL ALSO INCREASE THE NOISE LEVEL AND WILL RESULT 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.
AUDITORIUMS AND CONCERT HALLS						
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
SCHOOL'S AND CHURCHS						
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
HOSPITALS AND CLINICS						
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
ROOF SPORTS						
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
INDUSTRIAL AREAS						
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
RETAIL STORES						
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
RESIDENCES						
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
OFFICES						
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.
PUBLIC BUILDINGS						
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
RESTAURANTS AND CAFETERIA						
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
HOTELS						
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
TRANSPORTS (Trains, Buses, Planes)						
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
MISCELLANY						
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 (2x10⁻⁵Pa).

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

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.