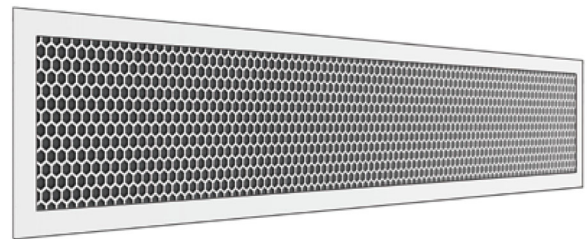


PRODUCT BROCHURE

SMARTEMP[®]
IN COMFORT



Perforated Multistream Diffuser

PMW-AD

DESCRIPTION

The SMARTEMP® Perforated Multistream Diffuser, type PMW-AD (figure 1), is a side-wall diffuser that provides high levels of draught-free thermal comfort in such spaces as hotel rooms, apartments, restaurants and commercial offices. The design is both aesthetically pleasing and technically advanced.

Unlike standard side-blow air grilles, which produce broad, low momentum air bundles that mix poorly with room air, the PMW-AD discharges a multitude of individual, high momentum air streams, each one of which is highly inductive. These produce largely uniform temperature distribution with low draught-risk throughout the occupancy space. Thermal comfort levels are high even when airflow rates are high.

Mode of Operation

The draught-free air pattern from the diffuser has adjustable throw, spread and discharge direction (up, down, left and right) via the rotatable hexagonal nozzle plates (figure 2).

Four different hexagonal nozzle plate types are used, each with a unique nozzle angle (angles flatten towards the diffuser left and right edges).

Each hexagonal nozzle plate may be rotated through 360 degrees to any one of six positions, thereby providing six possible discharge directions for each of the four nozzle plate types.

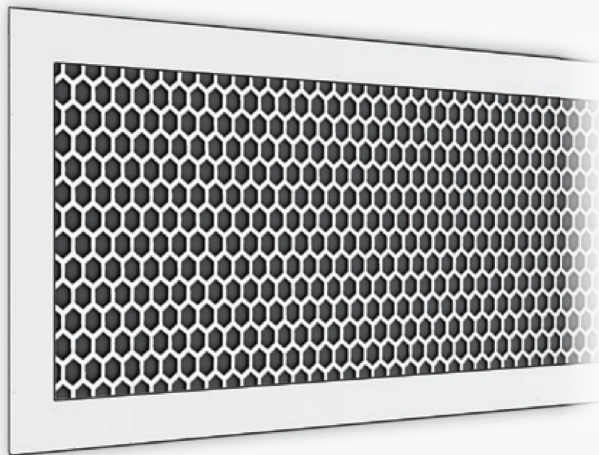


Figure 1

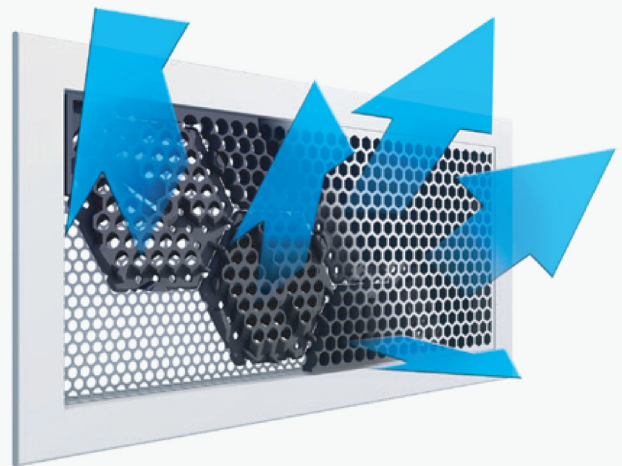


Figure 2

The high momentum air streams discharged by the nozzle plates remain substantially discrete (figure 3) and are highly inductive, inducing both low momentum air discharged by the fixed nozzles around the perimeter of the diffuser, and large quantities of room air.

Rapid temperature equalisation and intense discharge velocity decay occur, bringing about low velocity air motion with uniform temperature distribution throughout the occupancy space.

The discharge direction of each nozzle plate may be rotated via an Allen key inserted through the front face of the diffuser into the centre of the nozzle plate (figure 4).

The Allen key shaft aligns with the nozzle plate stream axis to act as a visual indicator of the nozzle plate discharge direction.

Due to its adjustable discharge direction, the diffuser may be located symmetrically or asymmetrically along the wall of the room. Throws of 3 to 9 m for a divergent air pattern, and of 6 to 18 m for a convergent air pattern, are realised, depending on the airflow rate and discharge direction. Thermal comfort is high, due to the uniform temperature distribution of typically ± 1.5 K and low draught air motion generally below 0.25 m/s in the occupancy space.

Adjustable discharge elements are not included in the return air variant of the diffuser.

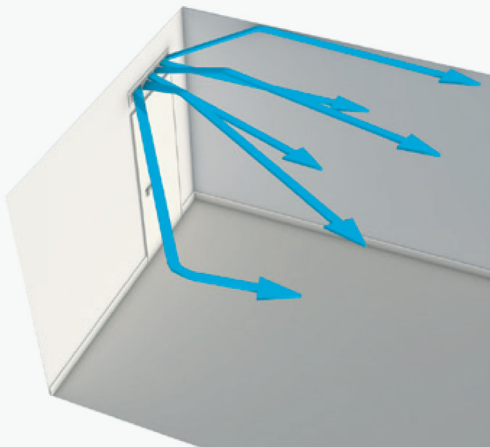


Figure 3

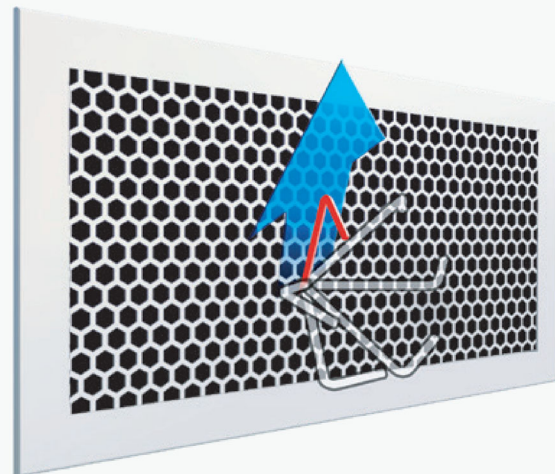


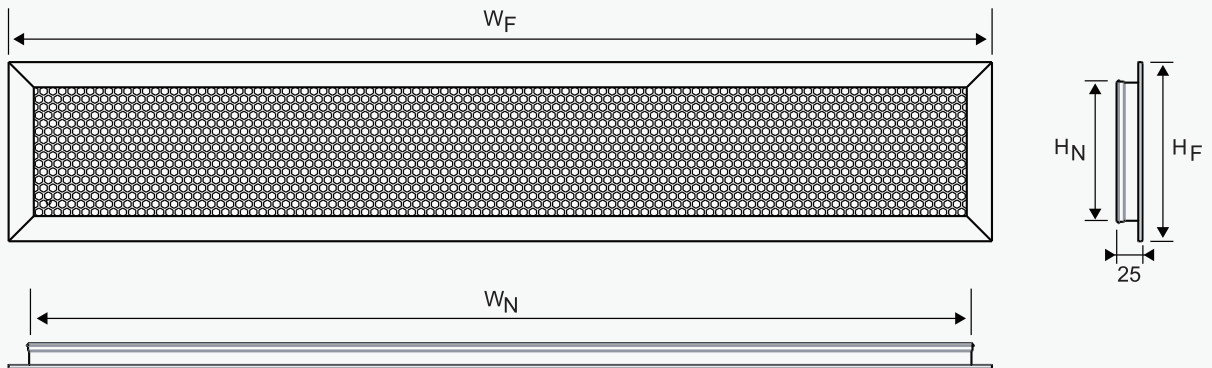
Figure 4

TECHNICAL DATA

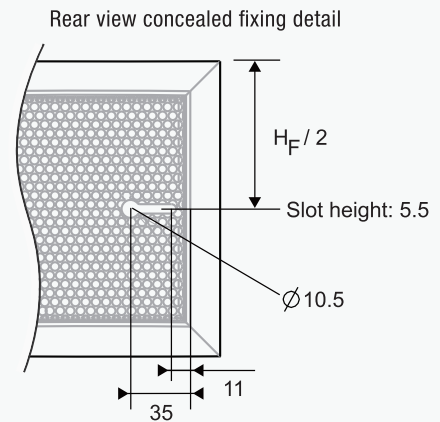
The PMW-AD consists of an aluminium mounting frame surrounding a perforated metal front plate, behind which are located adjustable nozzles, and fixed nozzles. The nozzles are made of black plastic. The fixed nozzles are located along the diffuser perimeter. The adjustable nozzles comprise angled nozzles integrated into rotatable hexagonal nozzle plates.

The mounting frame and perforated front face are painted signal white (RAL9003) as standard, though other colours are available on request. The PMW-AD is available as standard in four heights (1, 2, 3 or 4-rows of adjustable nozzles) and in three nominal widths. Bespoke widths are available on request.

DIFFUSER DIMENSIONS

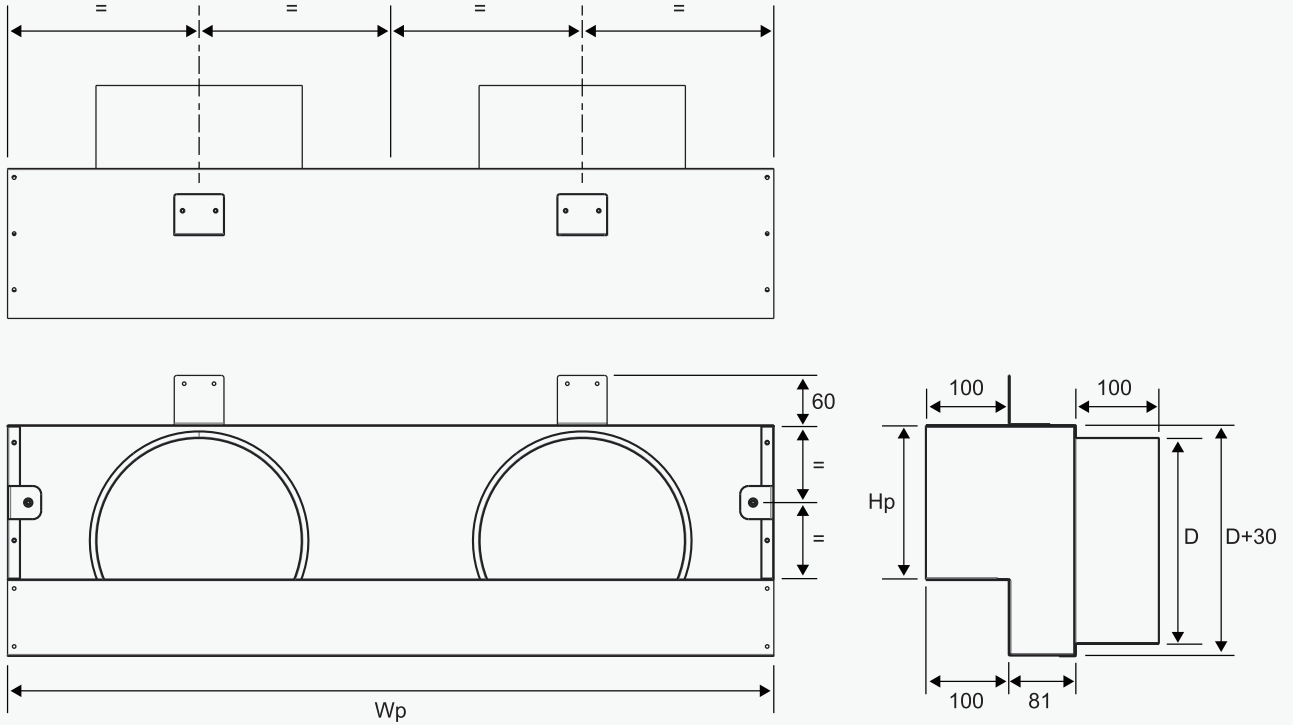


Standard Sizes			Nominal Width					
Height			600		950		1500	
Rows R_H	H_F	H_N	W_F	W_N	W_F	W_N	W_F	W_N
1	134	99	612	577	950	915	1490	1455
2	173	138						
3	212	177						
4	251	216						



Products supplied may differ slightly from those described in this technical brochure due to on-going product development.

CONNECTION BOX DIMENSIONS



Size	D [mm]	Wp [mm]	Hp [mm]
600-1	2x149	587	109
600-2	2x199	587	148
600-3	2x199	587	187
600-4	2x249	587	226
950-1	2x199	925	109
950-2	2x249	925	148
950-3	2x249	925	187
950-4	2x299	925	226
1500-1	2x249	1465	109
1500-2	2x299	1465	148
1500-3	2x299	1465	187
1500-4	2x349	1465	226

PERFORMANCE

PMW-AD-DN600 Quick selection guide. Refer to the online selection tool for detailed selections.

W_N=577mm W_F=612mm

DN600	ADPI ≥ 90%	Ṽ [L/s]	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	L/s
ROWS	Throw	Pt	3.2	5.7	8.9	12.9	17.7	23.2	29.4	36.4	44.2	52.8	62.1															Pa
	Lw	Lw	<15	15.5	22.7	28.5	33.5	37.7	41.5	44.9	47.9	50.7	53.3															dB(A)
	Setting	Lp*	<5	<5	7.7	13.5	18.5	22.7	26.5	29.9	32.9	35.7	38.3															NC*
	RH	Hmin	2.12	2.16	2.19	2.23	2.27	2.31	2.35	2.39	2.43	2.47	2.51															m
	S Short	Lmin	1.3	1.5	1.7	1.9	2.0	2.2	2.3	2.5	2.6	2.7	2.9															m
		Lmax	1.9	2.5	3.2	3.8	4.4	4.9	5.6	6.3	6.9	7.1	7.2															m
		Bmin	2.2	2.6	2.9	3.2	3.5	3.7	4.0	4.2	4.5	4.7	5.0															m
		Bmax	3.3	4.4	5.5	6.6	7.5	8.5	9.7	10.9	12.0	12.3	12.5															m
1 ROW	M Medium	Lmin	1.7	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8															m
		Lmax	2.5	3.3	4.2	5.0	5.7	6.5	7.3	8.3	9.1	9.3	9.5															m
		Bmin	1.7	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8															m
		Bmax	2.5	3.3	4.2	5.0	5.7	6.5	7.3	8.3	9.1	9.3	9.5															m
	L Long	Lmin	2.2	2.6	2.9	3.2	3.5	3.7	4.0	4.2	4.5	4.7	4.9															m
		Lmax	3.3	4.3	5.4	6.5	7.5	8.5	9.6	10.8	11.9	12.2	12.4															m
		Bmin	1.3	1.5	1.7	1.8	2.0	2.2	2.3	2.4	2.6	2.7	2.9															m
		Bmax	1.9	2.5	3.1	3.8	4.3	4.9	5.5	6.2	6.9	7.1	7.2															m

DN600	ADPI ≥ 90%	Ṽ [L/s]	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	L/s
DN600	Throw	Pt			4.5	6.6	9.0	11.8	15.0	18.6	22.5	26.9	31.6	36.8	42.3	48.2	54.5											Pa
	Lw	Lw			<15	19.3	24.3	28.5	32.3	35.7	38.7	41.5	44.1	46.5	48.7	50.7	52.7											dB(A)
	Setting	Lp*			<5	<5	9.3	13.5	17.3	20.7	23.7	26.5	29.1	31.5	33.7	35.7	37.7											NC*
	RH	Hmin			2.19	2.23	2.27	2.31	2.35	2.39	2.43	2.47	2.51	2.54	2.58	2.62	2.66											m
	S Short	Lmin			1.7	1.8	2.0	2.1	2.3	2.4	2.5	2.7	2.8	2.9	3.0	3.1	3.3											m
		Lmax			2.7	3.2	3.7	4.3	4.8	5.3	5.7	6.3	6.8	7.2	7.2	7.2	7.2											m
		Bmin			2.9	3.2	3.4	3.7	3.9	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6											m
		Bmax			4.6	5.6	6.5	7.4	8.3	9.1	10.0	10.9	11.9	12.5	12.5	12.5	12.5											m
2 ROWS	M Medium	Lmin			2.2	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.8	4.0	4.1	4.3											m
		Lmax			3.5	4.2	4.9	5.6	6.3	6.9	7.6	8.3	9.0	9.5	9.5	9.5	9.5											m
		Bmin			2.2	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.8	4.0	4.1	4.3											m
		Bmax			3.5	4.2	4.9	5.6	6.3	6.9	7.6	8.3	9.0	9.5	9.5	9.5	9.5											m
	L Long	Lmin			2.9	3.2	3.4	3.7	3.9	4.1	4.3	4.6	4.8	5.0	5.2	5.4	5.6											m
		Lmax			4.6	5.5	6.4	7.4	8.2	9.0	9.9	10.8	11.8	12.3	12.3	12.3	12.3											m
		Bmin			1.7	1.8	2.0	2.1	2.3	2.4	2.5	2.6	2.8	2.9	3.0	3.1	3.2											m
		Bmax			2.7	3.2	3.7	4.3	4.8	5.2	5.7	6.2	6.8	7.2	7.2	7.2	7.2											m

Bmin & Bmax: minimum and maximum coverage breadth.
Lmin & Lmax: minimum and maximum coverage length.

Legend

Pt	≤ 20	≤ 30	≤ 40	≤ 50	Pa
Lw	≤ 40	≤ 45	≤ 50	≤ 55	dB(A)
Lp	≤ 25	≤ 30	≤ 35	≤ 40	NC*
* for 10 dB room absorption					

PMW-AD-DN600

Quick selection guide. Refer to the online selection tool for detailed selections.

W_N=577mm W_F=612mm

DN600	ADPI ≥ 90%	Ṽ [L/s]	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	U/s
DN600	Pt					4.0	5.4	7.1	9.0	11.2	13.6	16.2	19.1	22.2	25.5	29.1	32.9	36.9	41.2	45.7	50.5	55.5						Pa
	Throw					<15	17.4	21.7	25.4	28.8	31.9	34.6	37.2	39.6	41.8	43.8	45.8	47.6	49.3	51.0	52.5	54.0						dB(A)
	Setting					<5	6.7	10.4	13.8	16.9	19.6	22.2	24.6	26.8	28.8	30.8	32.6	34.3	36.0	37.5	39.0							NC*
	Hmin					2.23	2.27	2.31	2.35	2.39	2.43	2.47	2.51	2.54	2.58	2.62	2.66	2.70	2.74	2.78	2.82	2.86						m
	Lmin					1.8	2.0	2.1	2.3	2.4	2.5	2.6	2.7	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7						m
	Lmax					2.8	3.3	3.8	4.3	4.7	5.2	5.6	6.0	6.5	6.9	7.2	7.2	7.2	7.2	7.2	7.2	7.2						m
	Bmin					3.2	3.4	3.7	3.9	4.1	4.3	4.6	4.8	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.2	6.4						m
	Bmax					4.9	5.7	6.5	7.4	8.2	9.0	9.7	10.4	11.2	12.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5						m
3	Lmin					2.4	2.6	2.8	3.0	3.1	3.3	3.5	3.6	3.8	3.9	4.0	4.2	4.3	4.5	4.6	4.7	4.9						m
	Lmax					3.7	4.4	5.0	5.6	6.2	6.8	7.4	7.9	8.5	9.1	9.5	9.5	9.5	9.5	9.5	9.5	9.5						m
	Bmin					2.4	2.6	2.8	3.0	3.1	3.3	3.5	3.6	3.8	3.9	4.0	4.2	4.3	4.5	4.6	4.7	4.9						m
	Bmax					3.7	4.4	5.0	5.6	6.2	6.8	7.4	7.9	8.5	9.1	9.5	9.5	9.5	9.5	9.5	9.5	9.5						m
	Lmin					3.1	3.4	3.6	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	6.0	6.2	6.4						m
	Lmax					4.9	5.7	6.5	7.3	8.1	8.9	9.6	10.3	11.1	11.9	12.3	12.3	12.3	12.3	12.3	12.3	12.3						m
	Bmin					1.8	2.0	2.1	2.2	2.4	2.5	2.6	2.7	2.8	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7						m
	Bmax					2.8	3.3	3.8	4.2	4.7	5.2	5.6	6.0	6.4	6.9	7.2	7.2	7.2	7.2	7.2	7.2	7.2						m

DN600	ADPI ≥ 90%	Ṽ [L/s]	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	L/s	
DN600	Pt						3.6	4.8	6.0	7.5	9.1	10.8	12.7	14.8	17.0	19.4	22.0	24.7	27.5	30.5	33.7	37.1	40.5	44.2	48.0	52.0	56.2	Pa	
	Throw						<15	16.1	19.9	23.3	26.3	29.1	31.7	34.1	36.3	38.3	40.3	42.1	43.8	45.5	47.0	48.5	50.0	51.3	52.6	53.9	55.1	dB(A)	
	Setting						<5	<5	8.3	11.3	14.1	16.7	19.1	21.3	23.3	25.3	27.1	28.8	30.5	32.0	33.5	35.0	36.3	37.6	38.9	40.1	NC*		
	Hmin						2.27	2.31	2.35	2.39	2.43	2.47	2.51	2.54	2.58	2.62	2.66	2.70	2.74	2.78	2.82	2.86	2.89	2.93	2.97	3.01	3.05	m	
4 ROWS							2.0	2.1	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	m	
							3.0	3.4	3.8	4.3	4.7	5.1	5.6	6.0	6.3	6.7	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	m	
		S					3.4	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	6.0	6.1	6.3	6.5	6.6	6.8	7.0	7.1	m	
		Short					5.2	5.9	6.7	7.4	8.2	8.9	9.6	10.3	11.0	11.6	12.3	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	m	
							2.6	2.8	3.0	3.1	3.3	3.4	3.6	3.7	3.9	4.0	4.1	4.3	4.4	4.5	4.7	4.8	4.9	5.0	5.2	5.3	5.4	m	
		Lmax					3.9	4.5	5.1	5.6	6.2	6.8	7.3	7.8	8.3	8.8	9.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	m
		Bmin					2.6	2.8	3.0	3.1	3.3	3.4	3.6	3.7	3.9	4.0	4.1	4.3	4.4	4.5	4.7	4.8	4.9	5.0	5.2	5.3	5.4	m	
		Medium					3.9	4.5	5.1	5.6	6.2	6.8	7.3	7.8	8.3	8.8	9.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	m
		Bmax					3.9	4.5	5.1	5.6	6.2	6.8	7.3	7.8	8.3	8.8	9.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	m
							3.4	3.6	3.9	4.1	4.3	4.5	4.7	4.9	5.0	5.2	5.4	5.6	5.7	5.9	6.1	6.2	6.4	6.6	6.7	6.9	7.1	m	
		Lmax					5.1	5.9	6.6	7.3	8.1	8.8	9.5	10.2	10.9	11.5	12.2	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	m
		Bmin					2.0	2.1	2.2	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	m	
	Bmax					3.0	3.4	3.8	4.3	4.7	5.1	5.5	5.9	6.3	6.7	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	m	

Bmin & Bmax: minimum and maximum coverage breadth.
Lmin & Lmax: minimum and maximum coverage length.

Legend

Pt	≤ 20	≤ 30	≤ 40	≤ 50	Pa
Lw	≤ 40	≤ 45	≤ 50	≤ 55	dB(A)
Lp	≤ 25	≤ 30	≤ 35	≤ 40	NC*
* for 10 dB room absorption					

PMW-AD-DN950 Quick selection guide. Refer to the online selection tool for detailed selections.

W_N=915mm W_r=950mm

DN950	ADPI ≥ 90%	Ṽ [l/s]	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	320	340	360	380	L/s	
ROWS RH	Throw	Pt	3.5	5.1	6.9	9.1	11.5	14.3	17.3	20.7	24.3	28.3	32.5	37.1	42.0	47.1	52.6																	Pa
	Setting	Lw	<15	15.8	20.7	25.0	28.7	32.1	35.2	38.0	40.5	42.9	45.1	47.2	49.1	50.9	52.7																	dB(A)
		Lp*	<5	<5	5.7	10.0	13.7	17.1	20.2	23.0	25.5	27.9	30.1	32.2	34.1	35.9	37.7																	NC*
		Hmin	2.12	2.15	2.17	2.20	2.22	2.25	2.27	2.29	2.32	2.34	2.37	2.39	2.42	2.44	2.47																	m
1 ROW	S Short	Lmin	1.7	1.8	2.0	2.1	2.3	2.4	2.5	2.6	2.8	2.9	3.0	3.1	3.2	3.3	3.4																	m
		Lmax	2.5	3.0	3.5	4.0	4.5	5.0	5.4	5.9	6.4	6.7	6.8	6.9	7.0	7.1																	m	
	M Medium	Bmin	2.9	3.2	3.4	3.7	3.9	4.1	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0																	m
		Bmax	4.3	5.2	6.1	7.0	7.8	8.7	9.4	10.2	11.0	11.7	11.8	11.9	12.0	12.2	12.3																	m
			Lmin	2.2	2.4	2.6	2.8	3.0	3.1	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	4.5																
2 ROWS	Medium	Lmax	3.3	4.0	4.6	5.3	5.9	6.6	7.2	7.7	8.4	8.9	9.0	9.1	9.1	9.2	9.3																	m
		Bmin	2.2	2.4	2.6	2.8	3.0	3.1	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	4.5																	m
	Bmax	3.3	4.0	4.6	5.3	5.9	6.6	7.2	7.7	8.4	8.9	9.0	9.1	9.1	9.2	9.3																		m
	L Long	Lmin	2.9	3.2	3.4	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9																	m
		Lmax	4.3	5.2	6.0	6.9	7.8	8.6	9.3	10.1	10.9	11.6	11.7	11.8	11.9	12.1	12.2																	m
Bmin		1.7	1.8	2.0	2.1	2.3	2.4	2.5	2.6	2.7	2.9	3.0	3.1	3.2	3.3	3.4																		m
	Bmax	2.5	3.0	3.5	4.0	4.5	5.0	5.4	5.9	6.3	6.7	6.8	6.9	7.0	7.1																			m

DN950	ADPI ≥ 90%	Ṽ l/s	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	320	340	360	380	L/s
DN950	Throw	Pt			3.5	4.6	5.9	7.3	8.8	10.5	12.4	14.4	16.6	18.9	21.4	24.0	26.8	29.7	32.8	36.1	39.5	43.1	46.8										Pa
	Setting	Lw			<15	15.8	19.6	22.9	26.0	28.8	31.3	33.7	35.9	38.0	39.9	41.7	43.5	45.1	46.7	48.2	49.6	51.0	52.3										dB(A)
		Lp*			<5	<5	7.9	11.0	13.8	16.3	18.7	20.9	23.0	24.9	26.7	28.5	30.1	31.7	33.2	34.6	36.0	37.3											NC*
		Hmin			2.17	2.20	2.22	2.25	2.27	2.29	2.32	2.34	2.37	2.39	2.42	2.44	2.47	2.49	2.52	2.54	2.56	2.59	2.61										m
		Lmin			2.0	2.1	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.1	3.2	3.3	3.4	3.5	3.6	3.6	3.7	3.8	3.9										m
2 ROWS	S Short	Lmax			3.0	3.4	3.8	4.2	4.7	5.1	5.5	5.9	6.3	6.7	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2										m
		Bmin			3.4	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.6	5.8	6.0	6.2	6.3	6.5	6.6	6.8										m
		Bmax			5.2	5.9	6.6	7.4	8.1	8.8	9.6	10.3	10.9	11.6	12.2	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5										m
	M Medium	Lmin			2.6	2.8	3.0	3.1	3.3	3.4	3.6	3.7	3.9	4.0	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.0	5.2										m
		Lmax			3.9	4.5	5.0	5.6	6.1	6.7	7.3	7.8	8.3	8.8	9.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5										m
		Bmin			2.6	2.8	3.0	3.1	3.3	3.4	3.6	3.7	3.9	4.0	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.0	5.2										m
		Bmax			3.9	4.5	5.0	5.6	6.1	6.7	7.3	7.8	8.3	8.8	9.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5										m
	L Long	Lmin			3.4	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.2	5.4	5.6	5.8	5.9	6.1	6.3	6.4	6.6	6.8										m
		Lmax			5.1	5.8	6.6	7.3	8.0	8.8	9.5	10.2	10.8	11.5	12.1	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3										m
		Bmin			2.0	2.1	2.2	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9										m
		Bmax			3.0	3.4	3.8	4.2	4.7	5.1	5.5	5.9	6.3	6.6	7.0	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2										m

Bmin & Bmax: minimum and maximum coverage breadth.
Lmin & Lmax: minimum and maximum coverage length.

Legend

Pt	≤ 20	≤ 30	≤ 40	≤ 50	Pa
Lw	≤ 40	≤ 45	≤ 50	≤ 55	dB(A)
Lp	≤ 25	≤ 30	≤ 35	≤ 40	NC*
* for 10 dB room absorption					

PMW-AD-DN950 Quick selection guide. Refer to the online selection tool for detailed selections.

W_N=915mm W_r=950mm

DN950	ADPI ≥ 90%	V [L/s]	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	320	340	360	380	L/s	
DN950	Throw Setting	Pt					3.5	4.4	5.3	6.4	7.5	8.7	10.0	11.4	12.9	14.5	16.2	17.9	19.8	21.8	23.8	26.0	28.2	30.6	33.0	35.5	38.1	40.9	46.6					Pa
		Lw					<15	16.0	19.1	21.9	24.4	26.8	29.0	31.1	33.0	34.9	36.6	38.2	39.8	41.3	42.7	44.1	45.4	46.6	47.8	49.0	50.1	51.2	53.3					dB(A)
		Lp*					<5	<5	<5	6.9	9.4	11.8	14.0	16.1	18.0	19.9	21.6	23.2	24.8	26.3	27.7	29.1	30.4	31.6	32.8	34.0	35.1	36.2	38.3					NC*
		Hmin					2.2	2.25	2.27	2.29	2.32	2.34	2.37	2.39	2.42	2.44	2.47	2.49	2.52	2.54	2.56	2.59	2.61	2.64	2.66	2.69	2.71	2.74	2.79					m
3 ROWS	S Short	Lmin				2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.9	4.0	4.1	4.2	4.3	4.4					m	
		Lmax				3.4	3.8	4.1	4.5	4.9	5.3	5.6	6.0	6.4	6.7	7.0	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2					m	
		Bmin				3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.2	5.4	5.6	5.7	5.9	6.1	6.2	6.4	6.5	6.7	6.8	7.0	7.1	7.3	7.4	7.7					m	
		Bmax				5.9	6.5	7.2	7.8	8.5	9.1	9.8	10.4	11.1	11.7	12.2	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5					m
4 ROWS	M Medium	Lmin				3.0	3.1	3.3	3.4	3.6	3.7	3.9	4.0	4.1	4.2	4.4	4.5	4.6	4.7	4.8	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.9					m	
		Lmax				4.4	4.9	5.4	5.9	6.4	6.9	7.4	7.9	8.4	8.9	9.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5					m
		Bmin				3.0	3.1	3.3	3.4	3.6	3.7	3.9	4.0	4.1	4.2	4.4	4.5	4.6	4.7	4.8	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.9					m	
		Bmax				4.4	4.9	5.4	5.9	6.4	6.9	7.4	7.9	8.4	8.9	9.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5				
5 ROWS	L Long	Lmin				3.9	4.1	4.3	4.5	4.7	4.9	5.0	5.2	5.4	5.5	5.7	5.9	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	7.6					m	
		Lmax				5.8	6.4	7.1	7.7	8.4	9.0	9.7	10.3	11.0	11.6	12.1	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3					m
		Bmin				2.2	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.8	3.9	4.0	4.1	4.2	4.3	4.4					m	
		Bmax				3.4	3.7	4.1	4.5	4.9	5.2	5.6	6.0	6.3	6.7	7.0	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2				

DN950	ADPI ≥ 90%	V [L/s]	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	320	340	360	380	L/s		
DN950	Throw	Pt	3.6	4.2	5.0	5.8	6.7	7.6	8.6	9.7	10.8	12.0	13.2	14.5	15.9	17.3	18.8	20.4	22.0	23.7	25.5	27.3	31.1	35.2	39.5	44.1							Pa		
	Setting	Lw	<15	16.4	18.9	21.3	23.5	25.6	27.5	29.3	31.1	32.7	34.3	35.8	37.2	38.6	39.9	41.1	42.3	43.5	44.6	45.7	47.8	49.7	51.5	53.3	55.3	57.3	59.3	61.3	63.3	65.3	67.3	dB(A)	
		Lp*	<5	<5	<5	6.3	8.5	10.6	12.5	14.3	16.1	17.7	19.3	20.8	22.2	23.6	24.9	26.1	27.3	28.5	29.6	30.7	32.8	34.7	36.5	38.3	40.1	41.9	43.7	45.5	47.3	49.1	50.9	NC*	
		Hmin	2.27	2.29	2.32	2.34	2.37	2.39	2.42	2.44	2.47	2.49	2.52	2.54	2.56	2.59	2.61	2.64	2.66	2.69	2.71	2.74	2.79	2.83	2.88	2.93								m	
4 ROWS	S	Lmin	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.2	4.4	4.5	4.7	4.8								m	
		Lmax	3.7	4.1	4.4	4.8	5.1	5.4	5.8	6.1	6.5	6.8	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	m
	Short	Bmin	4.3	4.5	4.7	4.9	5.1	5.2	5.4	5.6	5.7	5.9	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.0	7.2	7.3	7.6	7.8	8.1	8.4								m	
		Bmax	6.5	7.1	7.6	8.2	8.8	9.4	10.0	10.6	11.2	11.8	12.4	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	m
5 ROWS	M	Lmin	3.3	3.4	3.6	3.7	3.8	4.0	4.1	4.2	4.3	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.6	5.8	6.0	6.2	6.4								m	
		Lmax	4.9	5.4	5.8	6.3	6.7	7.1	7.6	8.0	8.5	8.9	9.4	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	m
	Medium	Bmin	3.3	3.4	3.6	3.7	3.8	4.0	4.1	4.2	4.3	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.6	5.8	6.0	6.2	6.4								m	
		Bmax	4.9	5.4	5.8	6.3	6.7	7.1	7.6	8.0	8.5	8.9	9.4	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	m
6 ROWS	L	Lmin	4.3	4.5	4.7	4.8	5.0	5.2	5.3	5.5	5.7	5.8	6.0	6.1	6.3	6.4	6.6	6.7	6.8	7.0	7.1	7.2	7.5	7.8	8.0	8.3								m	
		Lmax	6.4	7.0	7.6	8.2	8.7	9.3	9.9	10.5	11.1	11.7	12.2	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	m
	Long	Bmin	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.4	4.5	4.7	4.8									m	
		Bmax	3.7	4.1	4.4	4.7	5.1	5.4	5.7	6.1	6.4	6.8	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	m

Bmin & Bmax: minimum and maximum coverage breadth.
Lmin & Lmax: minimum and maximum coverage length.

Legend

Pt	≤ 20	≤ 30	≤ 40	≤ 50	Pa
Lw	≤ 40	≤ 45	≤ 50	≤ 55	dB(A)
Lp	≤ 25	≤ 30	≤ 35	≤ 40	NC*
* for 10 dB room absorption					

PMW-AD-DN1500

Quick selection guide. Refer to the online selection tool for detailed selections.

 $W_N = 1490\text{mm}$ $W_F = 1455\text{mm}$ [illegible][illegible]

Bmin & Bmax: minimum and maximum coverage breadth.
Lmin & Lmax: minimum and maximum coverage length.

Legend

Pt	≤ 20	≤ 30	≤ 40	≤ 50	Pa
Lw	≤ 40	≤ 45	≤ 50	≤ 55	dB(A)
Lp	≤ 25	≤ 30	≤ 35	≤ 40	NC*

* for 10 dB room absorption

FEATURES

- Aesthetically appealing uniform perforated design.
- Low smudge risk – reduces cleaning costs.
- Uniform temperature distribution throughout the occupied space.
- Draught-free air supply.
- Quiet operation – suitable for hotel rooms.
- Improved heating performance.
- Suitable for 3 to 9 m throws (airflow rate and discharge direction dependent).
- Suitable for standard and low temperature supply air systems ($\Delta T_{\text{supply-room}} \leq -12 \text{ K}$).
- Suitable for heating up to $+10 \text{ K}$
- Suitable for constant flow and VAV systems turning down to 50%.
- Suitable for low pressure fan-coil applications operating at up to 20 Pa, as well as for higher pressure systems.
- Diffuser discharge direction adjustment via Allen key-avoids inadvertent adjustment (eg by cleaners).
- Return air variant excludes adjustable discharge direction elements.

Sound Power Level and Pressure Drop

The sound power level of the PMW-AD is low, even at high airflow rates. Owing to the lower pressure drop of the diffuser, it is well suited for connection to fan-coil units; furthermore, it lowers the energy consumption of the HVAC system.

Layout Specifications

The minimum mounting height (from floor to outlet lower edge) is 2 m. The minimum distance from the outlet upper edge to the ceiling is 50 mm. The maximum difference in temperature between the supply and room air is up to -12 K when cooling and up to $+10 \text{ K}$ when heating.

ORDER DETAILS

PMW- _ - _ - _ -T _ - _ - _

ACCESSORIES:

- 0* = Diffuser only.
- K = With uninsulated connection box.

FACE COLOUR (painted):

- RAL9003* (Signal White).
- RAL _ /DUL _.

DISCHARGE DIRECTION (in direction of airflow):

- L = Left.
- C* = Centre.
- R = Right.

THROW:

- S = Short.
- M* = Medium.
- L = Long.

ROW HEIGHT (R_H):

- 1 = 1 row ($H_F = 134$ mm; $H_N = 99$ mm).
- 2 = 2 rows ($H_F = 173$ mm; $H_N = 138$ mm).
- 3 = 3 rows ($H_F = 212$ mm; $H_N = 177$ mm).
- 4 = 4 rows ($H_F = 251$ mm; $H_N = 216$ mm).

NOMINAL WIDTH:

- DN600 ($W_F = 612$ mm; $W_N = 577$ mm).
- DN950 ($W_F = 950$ mm; $W_N = 915$ mm).
- DN1500 ($W_F = 1490$ mm; $W_N = 1455$ mm).

SUPPLY/RETURN:

- AD* = Adjustable Direction.
- RA = Return Air.

MODEL:

- Perforated Multistream Wall Adjustable Diffuser.

Note:

* Standard, if no type code entered.

Products supplied may differ slightly from those described in this technical brochure due to on-going product development.

TENDER TEXT

Furnish and install SMARTEMP Perforated Multistream Diffusers, type PMW-AD, consisting of:

Front face made of perforated metal, located in an aluminium frame, both painted to the colour specified. Adjustable nozzles (manually rotatable via an Allen key inserted through the front face) made of plastic, located upstream of the front face, produce a multitude of high and low momentum air streams of differing discharge direction. A galvanised perforated inlet plate is located upstream of the nozzles.



For additional information, please contact info@smartemp.com

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