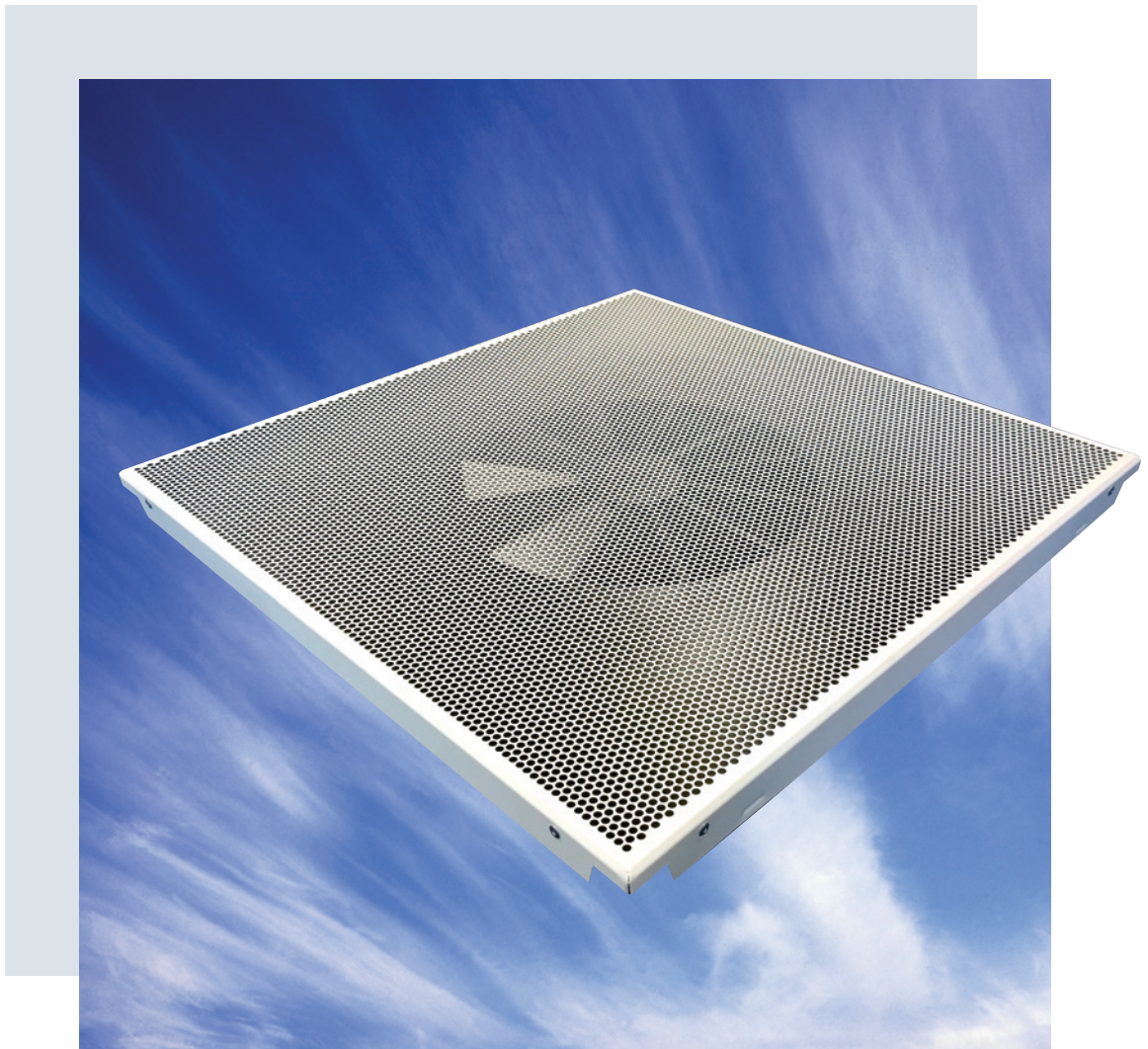


COLMAN
Air Distribution

E N G I N E E R E D A I R P R O D U C T S

PERFORATED SWIRL DIFFUSERS PW SERIES

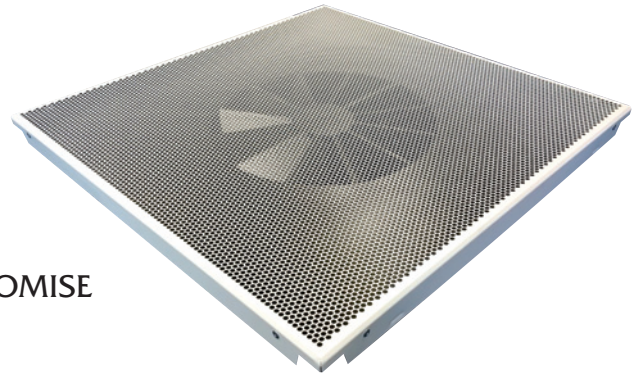


PW
SERIES

PERFORATED SWIRL DIFFUSERS

PW SERIES

QUALITY AND EFFICIENCY WITHOUT COMPROMISE



Application

The PW perforated swirl diffuser offers a good balance between performance and aesthetics. The fixed swirl unit can deliver high air change rates compared to more conventional diffusers.

The PW type can be supplied to suit any ceiling type from standard lay-in 595x595 to 24m T tegular edge applications.

Description

A circular swirl diffuser with press formed blades sits behind a perforated face.

The unit can be supplied fixed face or come with a hinged opening.

Four swirl diffuser sizes are available as standard. Please refer to the performance data to select which size swirl is best suited to your requirements.

Fixing

The PW swirl diffuser is suitable to mounting at height if between 2.4 and 4 metres from floor level.

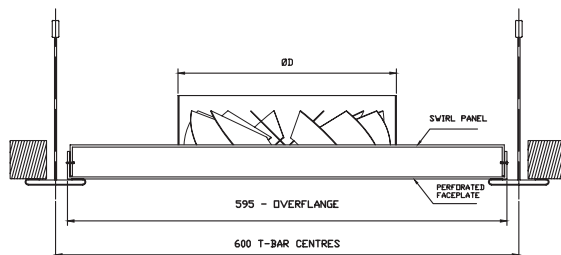
The diffuser can be provided with a fixing bracket for use with support rods or wires.

Finish

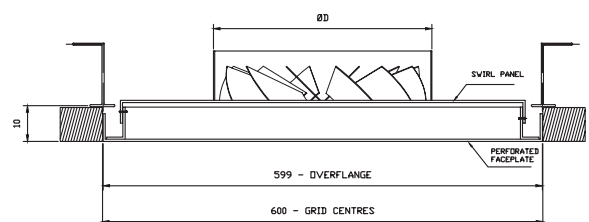
The diffuser is supplied powder coated white (RAL9010) matt or gloss as standard. The swirl behind the perforated plate can be white (RAL9010) or black (RAL9005)

Alternative Ceiling Fixings

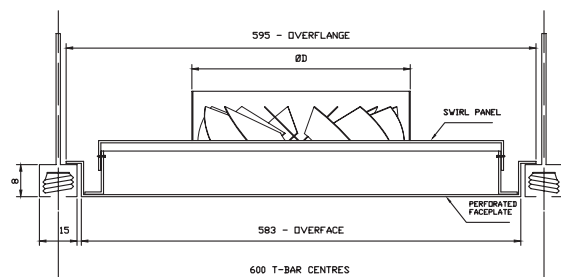
Style PWLT
T – Bar



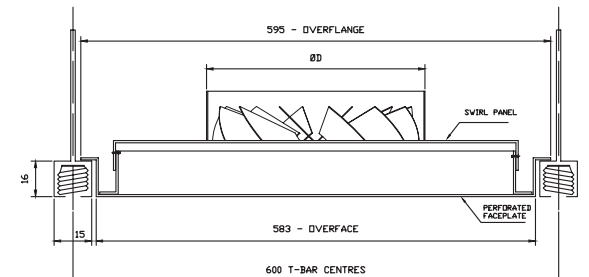
Style PWLR
Recessed



Style PWLX
Threadline 8mm Drop Face



Style PWLF
Threadline 16mm Drop Face



Options and Order Codes

Diffuser codes

1. SERIES	2. STYLE	3. CORE	4. ACCESSORIES	5. ARRANGEMENT	6. FIXING	7. FINISH
P	W Swirl	L Fixed H Hinged	T T-bar X Threadline mounting 8mm drop F Threadline mounting 16mm drop R Recessed / Burgess mounting	O Swirl 1 Special	O None B Support Bracket 1 Special	F RAL 9010 matt white E RAL 9010 gloss white 1 Special

Plenum codes

1. SERIES	2. LINING	3. INSTALLATION METHOD	4. ACCESSORIES	5. ARRANGEMENT	6. SPIGOT TYPE	7. SPIGOT SIZE (DIA or SQ – all in mm)
P	L Lined N Unlined 1 Special	O Straight Edge 1 Special	O None M Monoblade Damper N Monoblade Damper Painted Matt Black) P Plenum Painted Matt Black) Internally	S Supply E Extract 1 Special	R Round — Side entry S Square — Side entry T Round — Top Entry W Round — Flush with top of unit X Square — Flush with top of unit Y Square — Top Entry 1 Special	A 100 P 280 B 125 F 300 C 150 N 315 L 160 G 350 T 175 S 355 M 180 H 400 D 200 J 450 R 225 K 500 E 250 1 Special <i>All Standard Spigots are 75mm deep.</i>

Example of Order Codes

PWLT00F **4560**
PL00SRE **4560**

Supply diffuser complete side entry plenum with 1 × 250 spigot

Overall diffuser size 595 × 595 for a standard lay-in ceiling grid with a 450mm diameter swirl.

Performance data

Nominal Size Code	Volume (l/s)	Volume (m³/s)	Pressure Drop (Pa)	Throw to 0.5 m/s Velocity (m)	NoiseRating (NR)
1660	30	0.03	14	0.6	20
	40	0.04	25	0.7	21
	50	0.05	39	1	36
	60	0.06	57	1.2	42
2560	50	0.05	7	0.5	16
	60	0.06	11	0.7	21
	70	0.07	15	0.9	26
	80	0.08	20	1.1	30
	90	0.09	25	1.2	33
	100	0.1	30	1.4	37
	110	0.11	37	1.5	40
	120	0.12	45	1.7	42
3160	90	0.09	8	1	17
	100	0.1	11	1.1	20
	120	0.12	16	1.3	24
	140	0.14	22	1.5	30
	160	0.16	31	1.9	34
	180	0.18	39	2.1	38
4560	160	0.16	6	1	14
	180	0.18	8	1.2	17
	200	0.2	10	1.4	20
	220	0.22	12	1.6	23
	260	0.26	17	2	28
	300	0.3	20	2.3	32
	350	0.35	26	2.8	40

Performance figures are for diffuser only and assume supply air temperature -10 to +10 degrees C relative to room temperature.

Pressure drop shown is static pressure drop for diffuser only and does not allow for effect of plenum.

Above figures are for supply applications for return applications multiply PA x 0.8. Also see our P Series Perforated Diffusers for compatible extract options.

Throw value is measured horizontally to terminal velocity of 0.5m/s and assumes ceiling effect.

All NR ratings based on room absorption of 8dB, dampers fully open.

PRODUCT RANGES

GRILLES	DIFFUSERS	LOUVRES
Linear Bar	Linear Slot	External
Ceiling	Louvre Face	Circular
Sidewall	Sidewall	Door
Floor	Perforated Face	Screens
Computer Floor	Circular	Penthouse
Cill	Swirl	Sand Louvres
Single & Double Deflection	Ceiling	Roof Louvres
Egg Crate	Sidewall Fixed & Adjustable	
Hinged Core	Jet Flow / Nozzle	
Door Transfer	Repus Displacement Ventilation	
Security and Prison		
Supply and Extract Valves		

BESPOKE SERVICE

We offer a bespoke design service where standard products do not fit the requirements of the build, we also supply products in special colours and finishes including bronze, brass, gold and chrome to meet Architectural design specifications.



COLMAN
Air Distribution

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PRODUCTS

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We reserve the right to alter specifications without notice and products will sometimes be supplied with modifications which do not strictly comply with the descriptions and illustrations in this publication.