

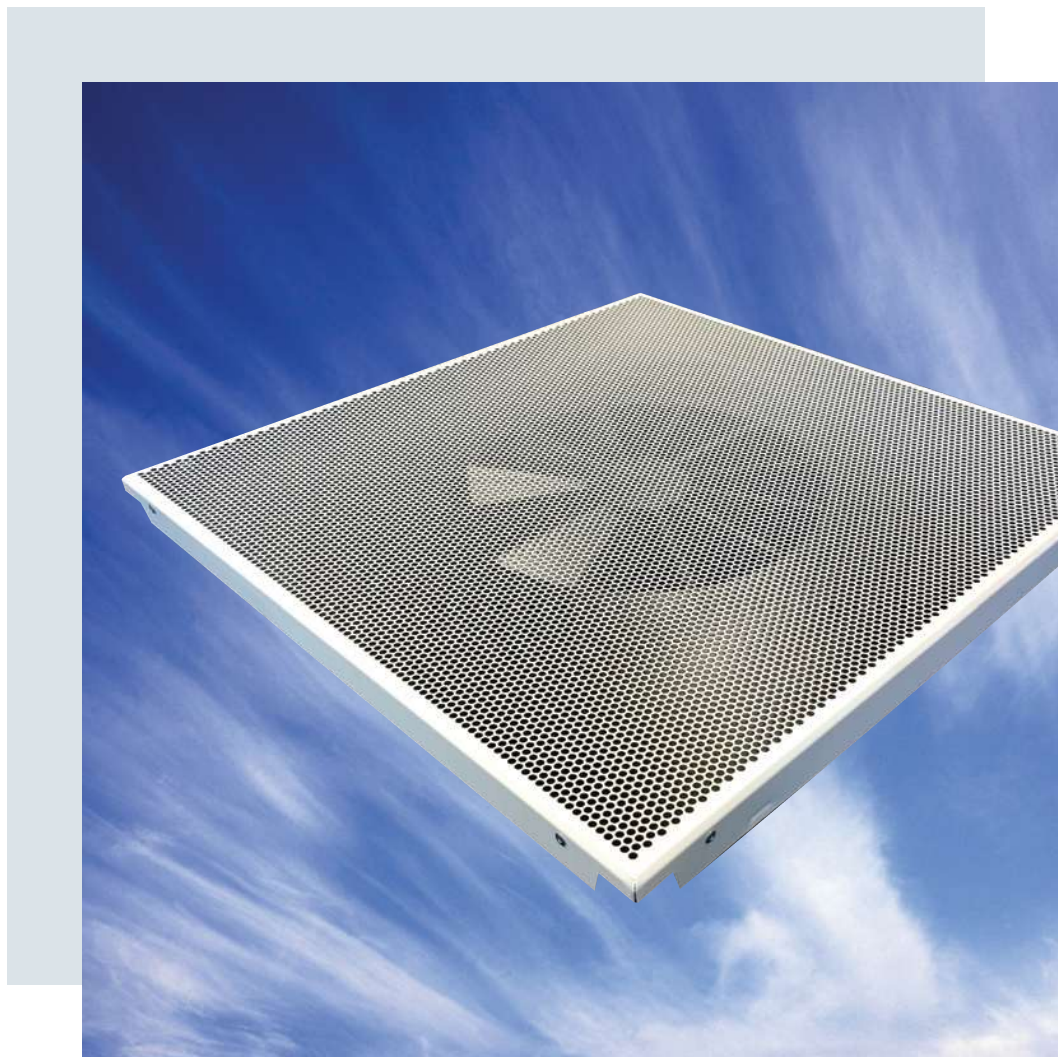
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ENGINEERED AIR PRODUCTS

# PERFORATED SWIRL DIFFUSERS

## PW SERIES

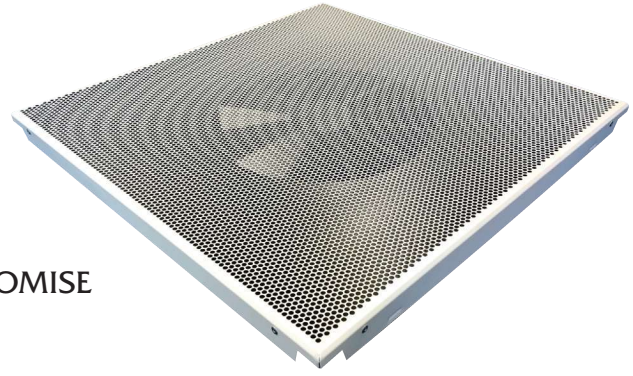


**PW**  
SERIES

# 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.

A surface mounted option is also available. Please contact the Sales Office for further details.

### 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

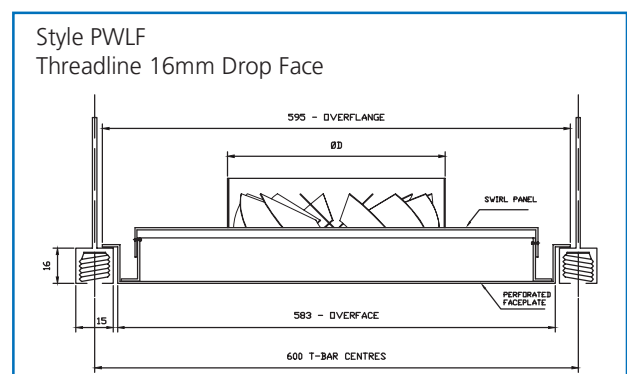
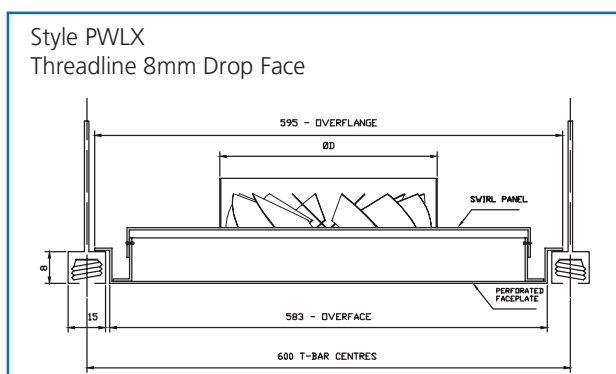
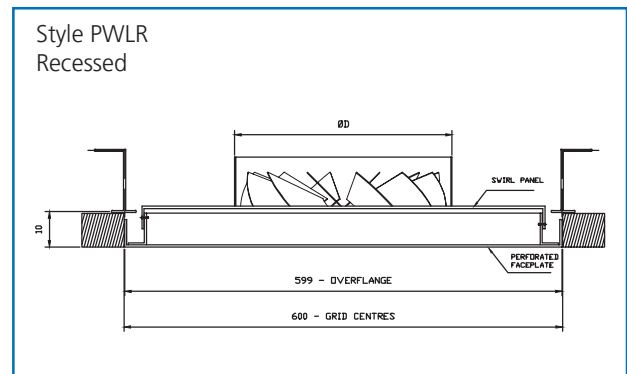
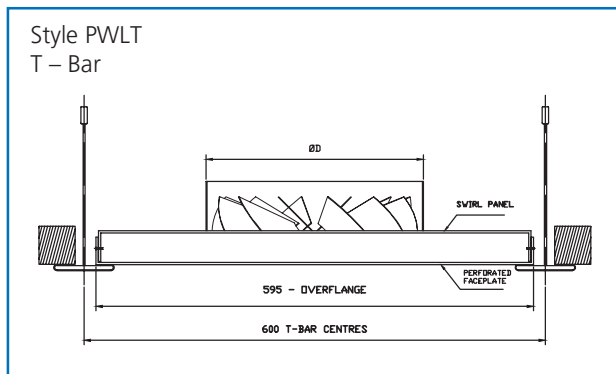
The PW swirl diffuser is suitable to mounting at height if between 2.4 and 4 metres from floor level.

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



# Options and Order Codes

## Diffuser codes

1. SERIES	2. STYLE	3. CORE	4. ACCESSORIES	5. ARRANGEMENT	6. FIXING	7. FINISH
<b>P</b>	<b>W</b> Swirl	<b>L</b> Fixed <b>R</b> Removable <b>S</b> Surface Mounted	<b>T</b> T-bar <b>X</b> Threadline mounting 8mm drop <b>F</b> Threadline mounting 16mm drop <b>R</b> Recessed / Burgess mounting	<b>O</b> Swirl <b>1</b> Special	<b>O</b> None <b>B</b> Support Bracket <b>1</b> Special	<b>F</b> RAL 9010 matt white <b>E</b> RAL 9010 gloss white <b>1</b> 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)
<b>P</b>	<b>L</b> Lined <b>N</b> Unlined <b>1</b> Special	<b>0</b> Straight Edge <b>1</b> Special	<b>0</b> None <b>M</b> Monoblade Damper <b>N</b> Monoblade Damper Painted Matt Black) <b>P</b> Plenum Painted Matt Black) Internally	<b>S</b> Supply <b>E</b> Extract <b>1</b> Special	<b>R</b> Round — Side entry <b>S</b> Square — Side entry <b>T</b> Round — Top Entry <b>W</b> Round — Flush with top of unit <b>X</b> Square — Flush with top of unit <b>Y</b> Square — Top Entry <b>1</b> Special	<b>A</b> 100 <b>P</b> 280 <b>B</b> 125 <b>F</b> 300 <b>C</b> 150 <b>N</b> 315 <b>L</b> 160 <b>G</b> 350 <b>T</b> 175 <b>S</b> 355 <b>M</b> 180 <b>H</b> 400 <b>D</b> 200 <b>J</b> 450 <b>R</b> 225 <b>K</b> 500 <b>E</b> 250 <b>1</b> Special  <i>All Standard Spigots are 75mm deep.</i>

## Example of Order Codes

**PWLT00F** 4560  
**PLOOSRE** 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 (m <sup>3</sup> /s)	Pressure Drop (Pa)	Throw to 0.5 m/s Velocity (m)	NoiseRating (NR)
1630	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
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

Linear Bar

Ceiling

Sidewall

Floor

Computer Floor

Cill

Single & Double Deflection

Egg Crate

Hinged Core

Door Transfer

Security and Prison

Supply and Extract Valves

## DIFFUSERS

Linear Slot

Louvre Face

Sidewall

Perforated Face

Circular

Swirl

Ceiling

Sidewall Fixed & Adjustable

Jet Flow / Nozzle

Repus Displacement Ventilation

## LOUVRES

External

Circular

Door

Screens

Penthouse

Sand Louvres

Roof Louvres

## BESPOKE SERVICE

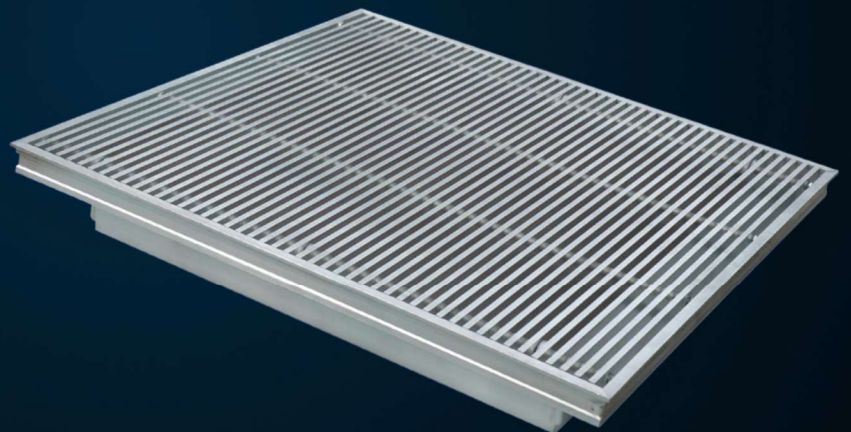
We offer a bespoke design service where standard products do not fit the requirements of the build, we also supply products in special colours and finishes including bronze, brass, gold and chrome to meet Architectural design specifications.

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