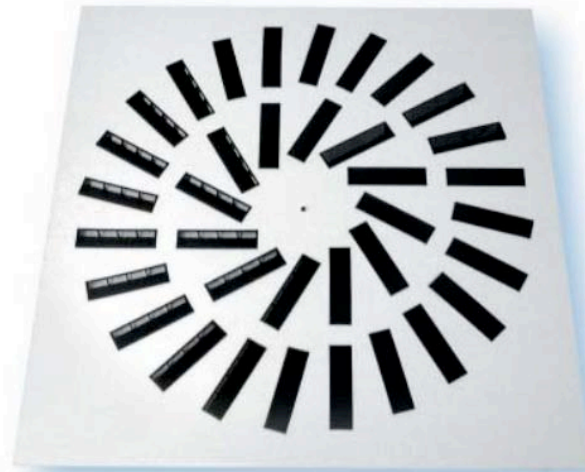


SWIRL DIFFUSERS

DWT SERIES



Quality and efficiency without compromise

AIR IN MOTION

SWIRL DIFFUSERS

DWT SERIES

QUALITY AND EFFICIENCY WITHOUT COMPROMISE

Application

The DWT Series of swirl diffusers have been designed for the supply of cooled or warmed air to a wide range of commercial applications. A high level of induction is achieved allowing supplied air to mix more thoroughly with room air, closer to the diffuser.

By adjusting the setting of individual radial nozzles different distribution patterns can be created.

A matching extract version is also available without nozzles.

Description

The diffuser comprises a circular array of black plastic supply nozzles fitted within a square steel panel. Nominal size is determined by the number of nozzles and the overall face size of the diffuser.

All diffuser sizes are available within a 594mm square panel to fit directly into 600mm square T-bar suspended ceiling systems. Smaller nominal sizes may be supplied within 294mm square, 394mm square or 494mm square panels.

The DWT Series diffusers can be supplied with matching side or top entry plenum boxes, with or without perforated volume control dampers.



Fixing

The DWT Series diffuser is suitable for mounting at heights of between 2.5m and 4m from floor level. The diffuser plate is fastened to the plenum by a central fixing screw. The side or top entry plenum is to be fixed via support rods or wires to suitable structural support.

Finish

The diffuser panel is supplied powder coated white (RAL 9010) gloss as standard. Matt finish is available at no extra cost. Other RAL colours are available on request.

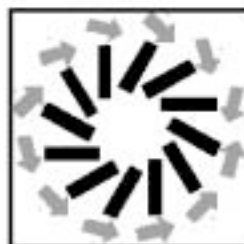
Distribution Pattern Adjustment Options



External swirl
pattern
(Code O)



Internal swirl
pattern
(Code S)



One way
pattern
(Code D)

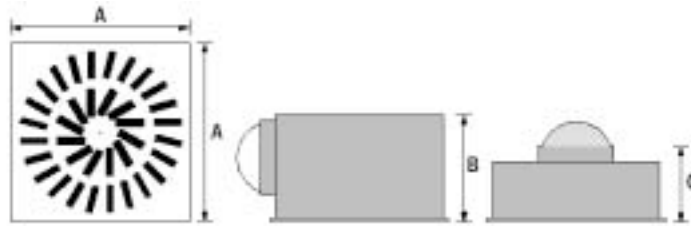


Two way
pattern
(Code C)



Without nozzles
for extract
(Code X)

Diffuser Dimensions



Nominal Size code	Number of nozzles	Calculated free area (m ³)	A Overall panel size (mm)	Plenum size (L & W) (mm)	B Side entry plenum height (mm)	C Top entry plenum height (mm)	Standard Spigot Diameter
1030	9	0.0105	294 × 294	265 × 265	230	150	125
1040	9	0.0105	394 × 394	265 × 265	230	150	125
1050	9	0.0105	494 × 494	265 × 265	230	150	125
1060	9	0.0105	594 × 594	265 × 265	230	150	125
1240	12	0.0140	394 × 394	265 × 265	305	200	200
1250	12	0.0140	494 × 494	265 × 265	305	200	200
1260	12	0.0140	594 × 594	265 × 265	305	200	200
3660	36	0.0396	594 × 594	555 × 555	355	200	250
4860	48	0.0500	594 × 594	555 × 555	420	250	315

Options and Order Codes

Diffuser Codes

1 - SERIES	2 - STYLE	3 - CORE	4 - ACCESSORIES	5 - ARRANGEMENT	6 - FIXING	7 - FINISH
D	W 1 Swirl Special	T 1 Adjustable Pattern Special	O 1 None Special	O External swirl S Internal swirl D 1 way C 2 way X Extract 1 Special	O 1 None Special	E RAL 9010 Gloss F RAL 9010 Matt White 1 Special

Plenum Codes

1 - SERIES	2 - LINING	3 - INSTALLATION METHOD	4 - ACCESSORIES	5 - ARRANGEMENT	6 - SPIGOT TYPE	7 - SPIGOT DIAMETER
D	L Lined N Unlined 1 Special	T 1 Adjustable pattern c/w supports for drop rods Special	O None A Perforated cord operated monoblade damper B Perforated cord operated monoblade damper (Matt Black) P Internally painted (Matt Black) 1 Special	S Supply E Extract	R Round-side entry T Round-top entry 1 Special	B 125 C 150 D 200 E 250 F 300 N 315 P 280 R 225 T 175 I Special

Example of Order Codes

DWTOOOE 3660
DLTASRE 3660

Supply diffuser complete with lined side entry plenum.
Perforated volume control damper in 250 diameter spigot.
Overall diffuser size 594mm square with 36 outlet nozzles.
Diffuser panel powder coated white (RAL 9010) gloss.

Performance Data

Number of nozzles	Volume (l/s)	Vol ³ /s ³ (m	Face Velocity (m/s)	Pressure Drop (Pa)	Throw to 0.5 m/s Velocity (m)	N _r (NR)
9	50	0.05	4.8	21	0.5	20
	75	0.08	7.1	48	0.8	28
	100	0.10	9.5	85	1.1	33
	125	0.13	11.9	13.4	1.4	37
12	60	0.06	4.3	23	0.6	19
	80	0.08	5.7	41	0.8	24
	100	0.10	7.1	65	1.0	29
	130	0.13	9.3	109	1.3	34
	160	0.16	11.4	166	1.6	38
36	125	0.13	3.2	10	0.7	18
	150	0.15	3.8	14	0.9	21
	175	0.18	4.4	19	1.0	24
	200	0.20	5.1	25	1.2	27
	250	0.25	6.3	39	1.5	31
	300	0.30	7.6	57	1.8	35
	350	0.35	8.8	77	2.2	38
48	175	0.18	3.8	17	0.9	19
	200	0.20	4.3	22	1.1	22
	250	0.25	5.4	35	1.4	27
	300	0.30	6.5	50	1.7	31
	365	0.37	7.9	74	2.1	35
	425	0.43	9.2	100	2.4	38

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. Throw value is measured horizontally to terminal velocity of 0.5 m/s with external pattern (code 0) and ceiling effect. Multiply throw value by 0.7 for installation without ceiling effect. All NR ratings based on room absorption of 8 dB, dampers fully open.



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