

Square Ceiling Diffusers

The Polyaire range of Square Ceiling Diffusers are designed to provide excellent directional performance typically in a 4 way airflow pattern. Manufactured from extruded aluminium the diffuser offers a removable core as standard while also providing options for 1 way, 2 way opposite, 2 way corner and 3 way airflow patterns. LFD's are lightweight and will not rust or corrode under normal usage.

The flush frame is designed for surface mounting in the ceiling or alternatively as a lay-in T-Bar ceiling installations. Standard finish is powder coat white (RAL 9010) while other finishes are available to suit the interior and architectural design requirements.



All sizes of 4-ways are also stocked in RAL 9016 We also stock the 595x595mm 4-Way in RAL9005 (Black)

The LFD range is suitable for heating, cooling or ventilation in commercial and domestic applications.

Diffuser ratings are based on mounting height being 2.8 metres.

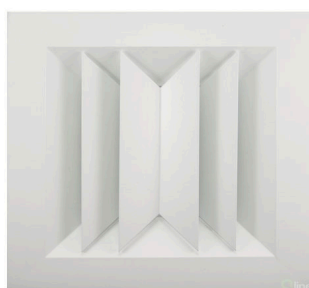
Throw range is defined by the minimum and maximum horizontal distances at right angles to the side of the diffuser.

Note: Stock diffusers can also be provided with internal blanking plates to achieve 1, 2 & 3 way blow. They can also be supplied with Neck Reducing Plates (NRP)

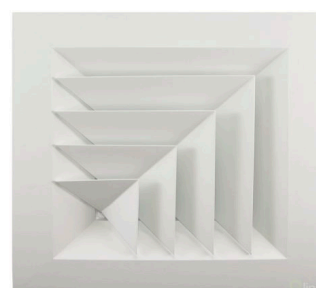
Core Patterns



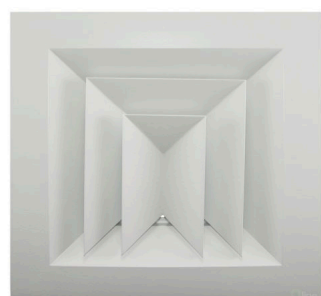
Flush Face Diffuser
- 1 Way Blow



Flush Face Diffuser
- 2 Way Blow



Flush Face Diffuser
- 2 Way Corner Blow



Flush Face Diffuser
- 3 Way Blow



Flush Face Diffuser
- 4 Way Blow



Flush Face Diffuser
- Double Tile 4 Way Blow

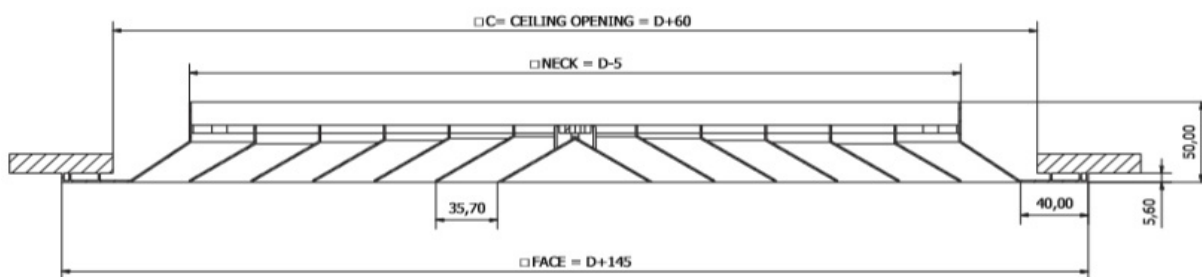
Options

Opposed Blade Damper variants.

All 4-way sizes are stocked in RAL9010 & RAL9016.

248005/TEG 8 - Tegal 8mm 4-way Blow Diffuser 450 x 450mm Neck.

Available in RAL9005 Black.



Square Ceiling Diffusers Type LFD

NECK SIZE (mm)	Airflow (L/s)	Velocity (m/s)	STATIC PRESSURE DROP (P/a)	NR (dB)	Minimum Throw (m)	Maximum Throw (m)
150x150	100	2	9	17	0.4	1.4
	150	3	15	19	1.2	2.5
225x225	100	2	15	<22	0.5	1.5
	150	3	35	28	1.4	3.2
300x300	150	1.7	12	<22	0.9	2.7
	200	2.2	19	23	1.4	3.3
	250	2.8	31	26	2.2	4.2
	300	3.3	42	31	2.8	4.6
375x375	250	1.8	13	<22	1.3	3.4
	300	2.1	18	<22	1.5	3.9
	350	2.5	26	28	1.7	4.6
	400	2.9	32	31	2.1	5
	450	3.2	39	35	2.7	5.2
450x450	350	1.7	12	25	1.2	3.8
	400	2	15	26	1.4	4.2
	450	2.2	20	29	2	4.8
	500	2.5	25	32	2.7	5.4
	550	2.7	30	33	3.1	5.8
	600	3	35	35	3.5	6.2

NOTE: The above sizes are based on a 4-way throw

3-way x Air Quantity x 0.75

2-way x Air Quantity x 0.50

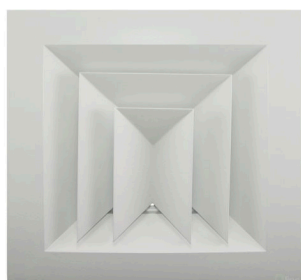
Opposed Blade Dampers - Effect of Volume Control on Noise Levels

The additional noise level for diffusers with Opposed Blade Dampers installed is set out in the following table:

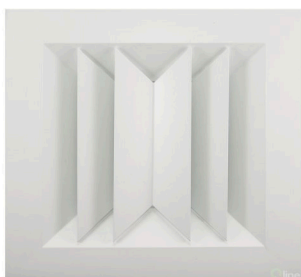
Diffuser with OBD	Fully Open	50% Closed
NR25 or less	1	5
NR 30	1	6
NR 35	2	8



FOUR WAY BLOW		
PART NO #	PART NO # (with OBD)	SIZE (Neck / Face)
248001	248001/6	150 / 300
248002	248002/7	225 / 375
248002/200 N	248002/200 N/6E	200 / 350
248002/250 N	248002/250 N/7E	250 / 400
248003	248003/8	300 / 450
248004/495x495	248004/495x495/9E	350 / 500
248004	248004/9	375 / 520
248005	248005/10	450 / 595 (Lay-In)



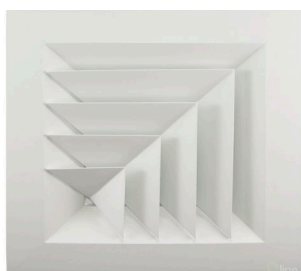
THREE WAY BLOW		
PART NO #	PART NO # (with OBD)	SIZE (Neck / Face)
248001/3W	248001/6/3W	150 / 300
248002/3W	248002/7/3W	225 / 375
248003/3W	248003/8/3W	300 / 450
248004/3W	248004/9/3W	375 / 520
248005/3W	248005/10/3W	450 / 595 (Lay-In)



TWO WAY BLOW		
PART NO #	PART NO # (with OBD)	SIZE (Neck / Face)
248001/2W	248001/6/2W	150 / 300
248002/2W	248002/7/2W	225 / 375
248003/2W	248003/8/2W	300 / 450
248004/2W	248004/9/2W	375 / 520
248005/2W	248005/10/2W	450 / 595 (Lay-In)



ONE WAY BLOW		
PART NO #	PART NO # (with OBD)	SIZE (Neck / Face)
248001/1W	248001/6/1W	150 / 300
248002/1W	248002/7/1W	225 / 375
248003/1W	248003/8/1W	300 / 450
248004/1W	248004/9/1W	375 / 520
248005/1W	248005/10/1W	450 / 595 (Lay-In)



TWO WAY CORNER BLOW		
PART NO #	PART NO # (with OBD)	SIZE (Neck / Face)
349001/2WC	349001/6/2WC	150 / 300
349002/2WC	349002/7/2WC	225 / 375
349003/2WC	349003/8/2WC	300 / 450
349004/2WC	349004/9/2WC	375 / 520
349005/2WC	349005/10/2WC	450 / 595 (Lay-In)



Flush Face Diffuser		
PART NO #	PART NO # (with OBD)	SIZE (mm)
248100	MTO	1200 x 600

Please contact our Sales Office on for selection guidance on the above:

3-4 Torridge Close,
Telford Way Industrial Estate,
Kettering, Northants, NN16 8PY

P 01536 519 922

E sales@polyaire.co.uk