



Monodraught are the recognised market leaders in ultra-low carbon, low energy solutions for Natural Ventilation, Natural Cooling and Natural Lighting.

WINDCATCHER[®], **SUNPIPE**[®] and **COOL-PHASE**[®] brands are synonymous with quality and innovation (ISO9001 & 14001) and are supported by our market leading design service.

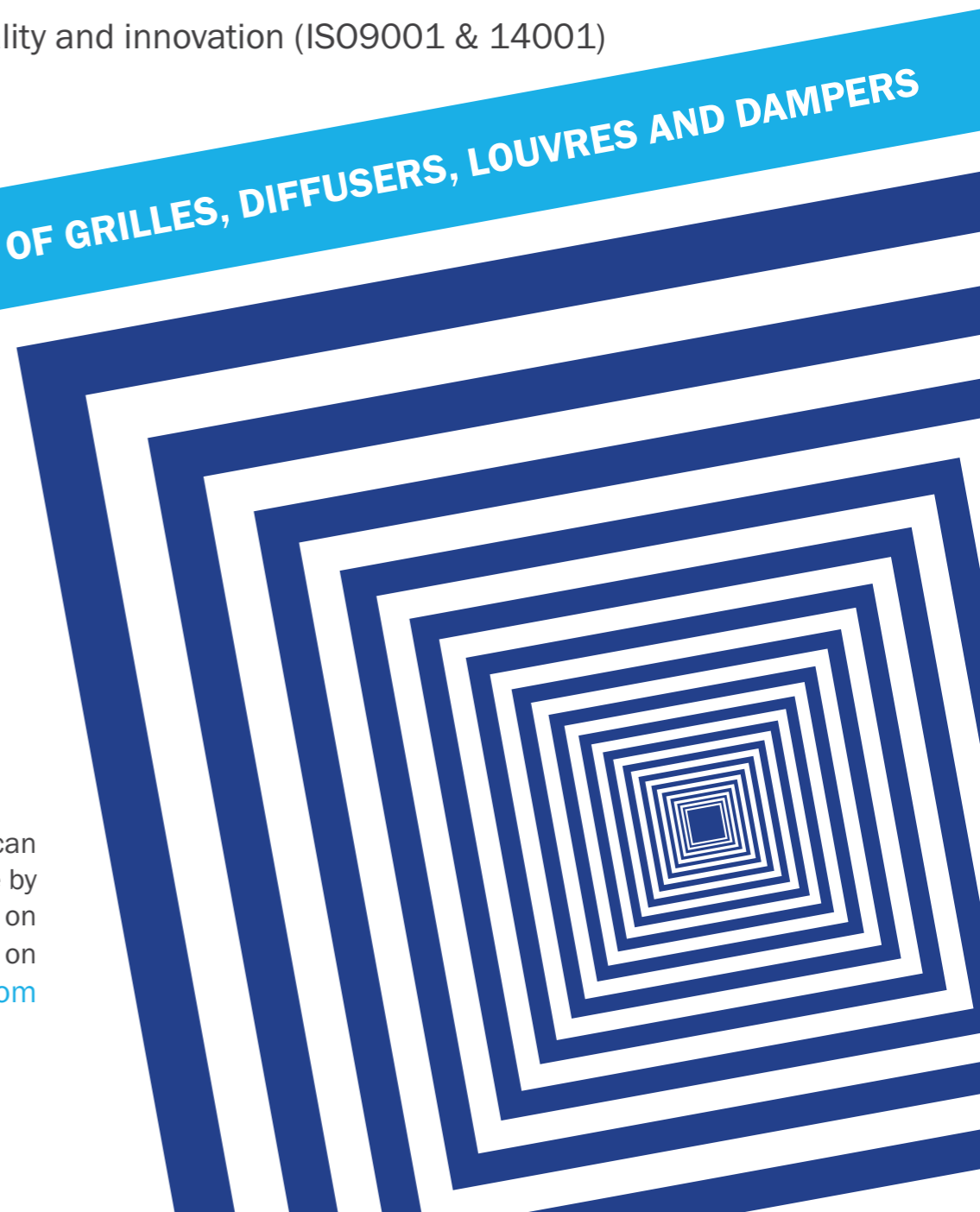
Air-Precision is an addition to Monodraught's portfolio including grilles, diffusers, external louvres and volume control dampers.

PRODUCT RANGE OF GRILLES, DIFFUSERS, LOUVRES AND DAMPERS

We are supporting this range with:

- £1 million of fast moving stock
- Bespoke manufacture with any standard RAL colour within 5 days
- 15 dedicated selection experts
- Designed with industry leading software
- Belimo actuators used throughout
- AA5 anodisation (ISO7599) utilised
- Market leading quality fully supported by a **10 year guarantee**

We are confident that we can beat any quotation you have by 10% so please contact us on **01494897700** or email us on air-precision@monodraught.com



Large Format Circular Diffusers - LFCD



High capacity diffusers perfect for arenas and other large open areas.

The large format circular diffusers are designed to handle large volumes of air and distribute it evenly in a 360° pattern. Various blow patterns can be obtained by moving the core into or out of the frame simply by spinning it.

Materials:

- Aluminium spinnings frame and blades
- Moulded plastic internal framework

Construction:

- Blades held by plastic framework

Fixings:

- None. Usually riveted through neck into ductwork on site

Finish:

- Standard: Stove enamel white
- Optional: Stove enamel to any RAL colour



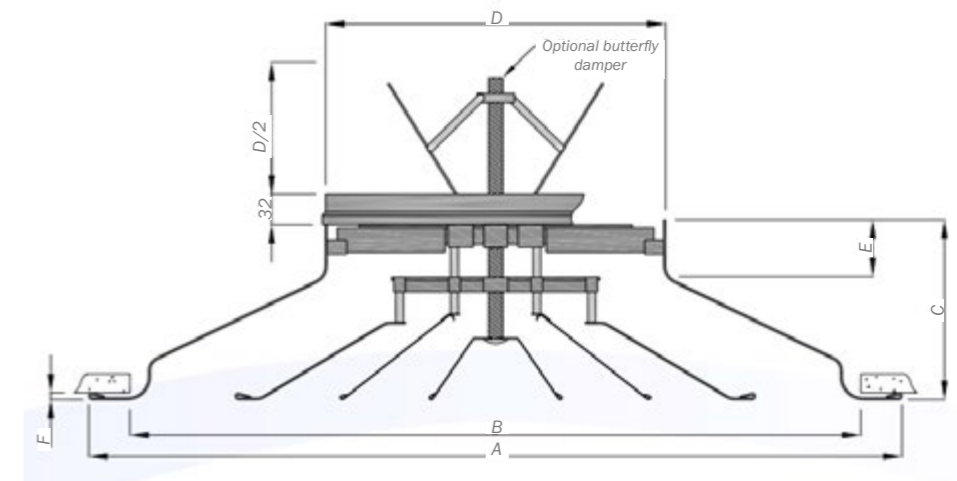
Adjustable Throw:

The adjustable core makes adjustment of throw easy. Screwing in the core gives a mostly vertical throw, perfect for spot cooling. In contrast, rotating the core out directs the majority of air sideways for excellent diffusion.

Volume Control:

Adjustable to the centre of the LFCD, they make volume control adjustment quick and easy without needing volume control dampers further into ductwork.

Technical Drawings:



SIZES	DIMENSIONS (mm)					
	A	B	C	D	E	F
6	340	325	110	152	60	5
8	457	427	127	203	60	5
10	569	528	146	254	60	5
12	680	630	155	305	60	6
14	851	782	172	356	60	6
15	851	782	172	381	60	6
16	851	782	172	406	60	6
18	1041	934	248	457	60	20
20	1041	934	248	508	60	20
21	1148	1100	280	533	60	20
24	1170	1100	280	610	60	20

Large Format Circular Diffusers - LFCD

Selection Data

Throw:

Maximum throw taken to be when air velocity is 0.25 m/s, minimum at 0.75 m/s.

Condition:

3 m High ceiling, 11°C cooling.
When installed in an exposed duct, reduce throws by a factor of 0.7.

Noise alteration (NR)	+3
Pressure Loss Factor	1.2

Projection:

Data based on a recessed core supplying air with a temperature differential of 10°C with terminal velocity 0.5 m/s. Use the correction table for temperatures other than 10°C.

Temperature Differential (°C)	-10	0	+10	+15	+20	+25
Projection Factor	1.2	1.05	1	0.9	0.8	0.65

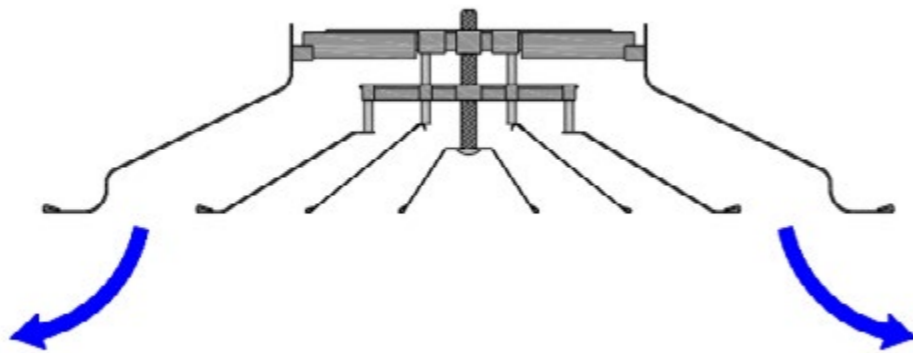
SIZE	PARAMETER	NECK VELOCITY									
		3	3.5	4	4.5	5	5.5	6	7	8	10
6	Airflow Rate (l/s)	54	63	73	81	91	100	109	127	145	181
	Throw (m) Min - Max	0.6 - 1.2	0.7 - 1.5	0.8 - 1.7	0.9 - 1.9	1.0 - 1.2	1.1 - 2.3	1.25 - 2.5	1.4 - 2.9	1.6 - 3.3	2.0 - 4.1
	Projection (m)	3.6	4.0	4.3	4.5	4.7	5.0	5.2	5.7	6.1	6.7
	Pressure Loss (Pa)	13	18	24	30	37	44	53	72	94	140
	NR Level		16	21	24	28	31	34	40	44	51
8	Airflow Rate (l/s)	97	114	130	146	162	179	202	224	256	320
	Throw (m) Min - Max	0.8 - 1.7	0.9 - 1.9	1.1 - 2.2	1.2 - 2.5	1.4 - 2.8	1.5 - 3.0	1.6 - 3.3	1.9 - 3.9	2.2 - 4.4	2.7 - 5.5
	Projection (m)	4.7	5.2	5.5	6.0	6.2	6.5	6.7	7.3	7.9	8.8
	Pressure Loss (Pa)	11	16	21	26	32	41	50	64	84	130
	NR Level	17	21	25	28	31	35	37	41	44	51
10	Airflow Rate (l/s)	152	177	203	228	252	279	304	355	405	507
	Throw (m) Min - Max	1.0 - 2.1	1.2 - 2.4	1.4 - 2.8	1.5 - 3.1	1.7 - 3.5	1.9 - 3.8	2.1 - 4.2	2.4 - 4.9	2.7 - 5.5	3.5 - 6.9
	Projection (m)	5.8	6.4	6.8	7.3	7.7	8.1	8.5	9.2	10.4	11.4
	Pressure Loss (Pa)	9	13	17	21	25	33	39	52	68	110
	NR Level	16	22	26	30	33	36	39	44	48	55
12	Airflow Rate (l/s)	219	255	292	328	366	401	438	511	585	731
	Throw (m) Min - Max	1.2 - 2.5	1.2 - 2.4	1.6 - 3.3	1.8 - 3.7	2.1 - 4.6	2.3 - 4.6	2.5 - 5.0	2.9 - 5.8	3.3 - 6.7	4.1 - 8.3
	Projection (m)	6.9	7.6	8.2	8.8	9.5	10.4	11.4	12.1	12.8	14.2
	Pressure Loss (Pa)	9	12	16	21	25	30	37	51	66	102
	NR Level	18	23	27	31	35	38	41	46	50	57
15	Airflow Rate (l/s)	342	399	456	513	570	627	680	798	912	1140
	Throw (m) Min - Max	1.2 - 2.5	1.8 - 3.6	2.1 - 4.2	2.3 - 4.7	2.6 - 5.2	2.8 - 5.7	3.1 - 6.2	3.6 - 7.3	4.1 - 8.3	5.2 - 10.4
	Projection (m)	6.9	9.5	10.9	11.8	12.3	12.8	13.3	14.2	15.2	17.1
	Pressure Loss (Pa)	9	10	13	16	20	21	28	39	51	80
	NR Level	18	25	29	32	35	38	41	44	50	56
18	Airflow Rate (l/s)	492	574	656	738	820	902	984	1148	1312	1640
	Throw (m) Min - Max	1.8 - 3.7	2.2 - 4.4	2.5 - 5.0	2.8 - 5.6	3.1 - 6.2	3.4 - 6.8	3.7 - 7.5	4.3 - 8.7	5.0 - 10.0	6.2 - 12.5
	Projection (m)	10.9	11.9	12.8	13.3	14.2	14.7	15.7	17.1	18.0	20.4
	Pressure Loss (Pa)	6	8	10	13	15	19	22	31	40	64
	NR Level	20	25	29	33	36	39	42	47	51	58
21	Airflow Rate (l/s)	672	784	896	1008	1120	1232	1344	1568	1792	2240
	Throw (m) Min - Max	2.2 - 4.4	2.5 - 5.1	2.9 - 5.8	3.2 - 6.5	3.6 - 7.3	4.0 - 8.0	4.3 - 8.7	5.2 - 10.2	5.8 - 11.6	7.3 - 14.6
	Projection (m)	12.3	13.3	14.2	15.2	16.1	17.1	18.0	20.0	22.0	24.0
	Pressure Loss (Pa)	4	6	7	9	11	14	16	23	30	46
	NR Level	25	30	34	38	41	44	47	51	55	62
24	Airflow Rate (l/s)	876	1022	1168	1314	1460	1606	1750	2045	2340	2920
	Throw (m) Min - Max	2.5 - 5.0	2.9 - 5.8	3.3 - 6.7	3.7 - 7.5	4.1 - 8.3	4.6 - 9.2	5.0 - 10.0	5.8 - 11.6	6.6 - 13.3	8.3 - 16.6
	Projection (m)	13.3	14.7	15.7	17.1	18.0	19.0	20.4	22.0	24.0	28.0
	Pressure Loss (Pa)	6	9	10	13	15	19	22	30	40	62
	NR Level	28	32	36	39	43	45	48	52	56	63

Large Format Circular Diffusers - LFC

Blow Patterns:

- **Core Flush with Frame:**

Adjust the core to be flush with the frame to create a throw with a balance between vertical and horizontal projection.



- **Core Recessed:**

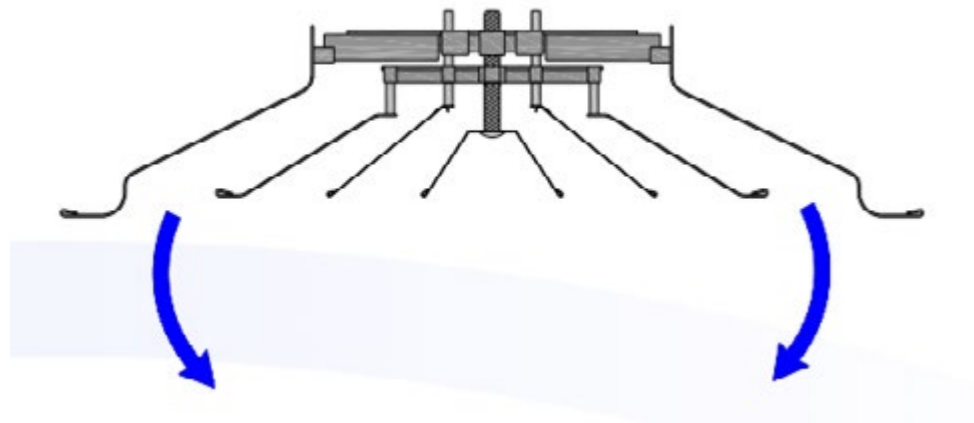
Screw the core in to recess it into the frame and create a powerful downward throw.

Perfect for spot cooling / heating.

Throw x 0.7

Noise: -2 NR

Pressure x 0.8



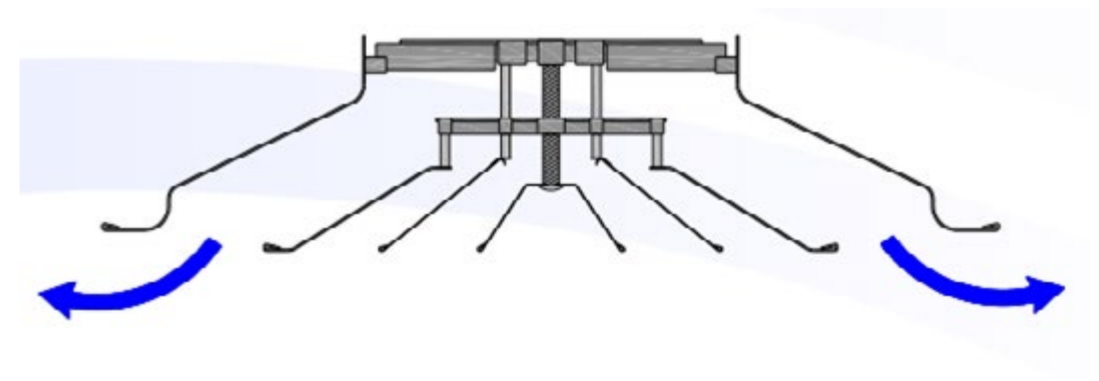
- **Core Protruding:**


Screw out the core until it protrudes past the frame and the blades will deflect supplied air sideways.


When installed in a ceiling, this allows use of the Coanda effect to maximise the affected area.


Noise: +2 NR


Pressure x 1.7



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