Incorporating

Grilles & Diffusers

Series LFCD
Large format circular diffusers

- High capacity diffusers designed for large open plan areas
- Optional volume control damper
- Spun aluminium construction
- Polyester powder coating to any RAL or BS colour available

Series LFCD

Series LFCD large format circular diffusers are high capacity supply units, designed to suit large open plan areas like airport terminals or exhibition halls.

The concentric circular core pattern spreads air in all directions, perfect for installations requiring a non targeted, well diffused throw.

Comprising a spun aluminium outer frame and inner core, the throw is adjustable by simply screwing the centre core in or out.

Rear mounted butterfly dampers are optional.

Design features

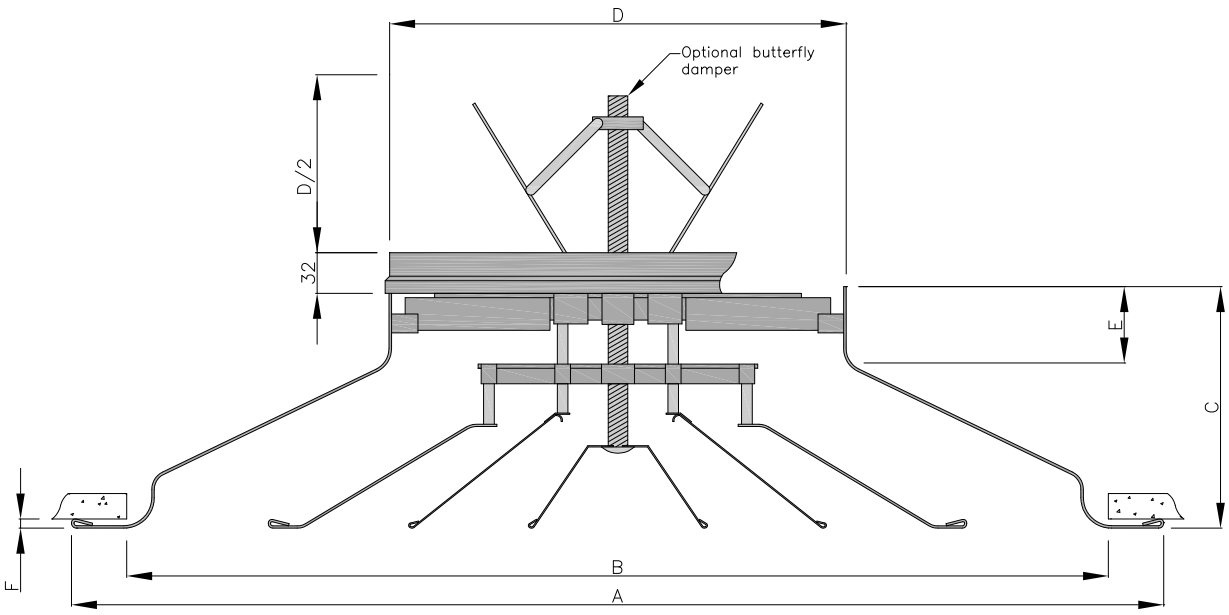
Material	Spun aluminium outer frame and core
	Plastic internal mounting structure
	Dampers are either moulded plastic or metal based on size
Sizes	See overleaf
Core	Removable
Finish	Standard: Mill aluminium (please note scratches will be visible on mill finish units from manufacturing)
	Optional: See page 6
	Butterfly dampers are supplied in black regardless of diffuser colour

Quality assurance

HVC Supplies (Stourbridge) Ltd is an ISO 9001 certified company.

Assessed to ISO 9001
Cert/Ref No. 1186

Technical drawings



SIZE	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	941	834	248	457	60	20
20	941	834	248	508	60	20
21	1148	1100	280	533	60	20
24	1170	1100	280	610	60	20

Selection data

		NECK VELOCITY									
SIZE	**PARAMETER**	**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	1.4 - 2.9	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	24	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

Throw:
Conditions:

Maximum throw taken to be when air velocity is 0.25m/s, minimum at 0.75m/s.
3m 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 0.5m/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**

Notes

Finish

Mill finish (scratches will be visible)

Polyester powder coating to any RAL or BS colour

Ordering codes

Example

1 - 630 dia - LFCD - D - RAL9010

Codes

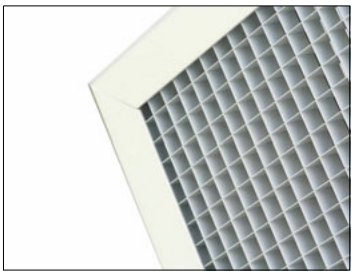
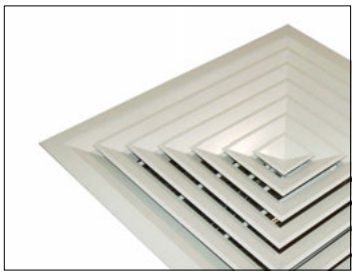
1)	**Quantity**		
2)	**Size (mm)**	(diameter)	Nominal diameter
3)	**Series**	LFCD	Small format circular diffuser
4)	**Damper**	D	Butterfly damper fitted
5)	**Finish**	Mill RAL... BS...	Mill finish aluminium (scratches will be visible) Polyester powder coated to RAL... Polyester powder coated to BS...

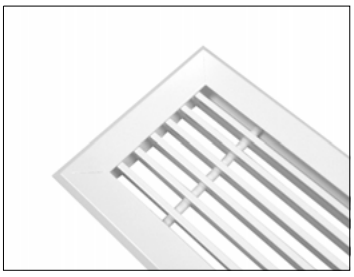
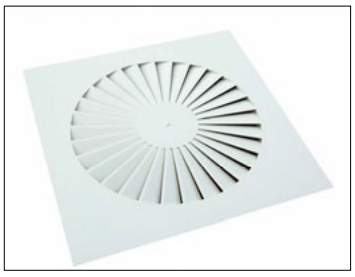
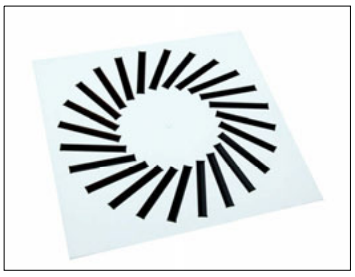
HVC & NCA products

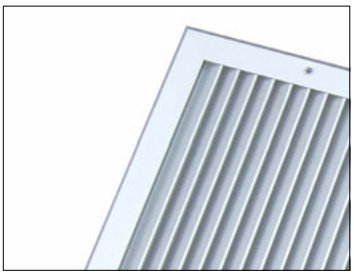
HVC offer the significant advantage of manufacturing both in duct and duct terminal equipment, making us a one stop shop for all your HVAC needs.

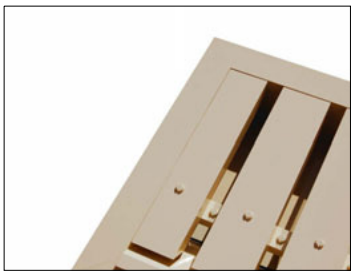
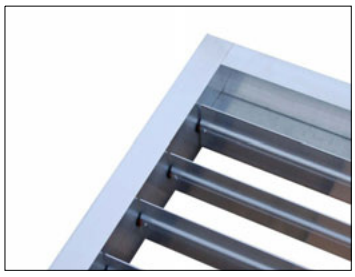
The products shown below are a selection, not an exhaustive list. Go to **www.h-v-c.com** for details on all HVC and NCA products.

HVC: Grilles, Diffusers, Louvres and Volume Control Dampers



NCA: Fire and Volume Control Dampers



Assessed to ISO 9001
Cert/Ref No. 1186

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