

Mesaavent.

COLMAN
Air Distribution

E N G I N E E R E D A I R P R O D U C T S

CIRCULAR DIFFUSERS DCC SERIES



DCC
SERIES

DCC SERIES

CIRCULAR DIFFUSERS



Application

The DCC series of circular diffusers have been designed with aesthetics, versatility and ease of installation in mind.

Diffusers can be used for supply or exhaust of warmed or cooled air and are adjustable to provide horizontal or vertical air distribution patterns.

The DCC diffuser has a low air flow resistance and is therefore ideal for applications with controlled variable air volumes and where warmed and cooled air are supplied through the same outlet.

Description

The circular diffuser body is manufactured from spun aluminium with a flat aluminium front deflector plate. The deflector plate has five click-stop positions allowing for adjustment between a horizontal and vertical air distribution.

Fixing

The DCC is designed for surface mounting within ceilings and for connections to flexible ducting. After removing the deflector the fixing clamps can be screwed

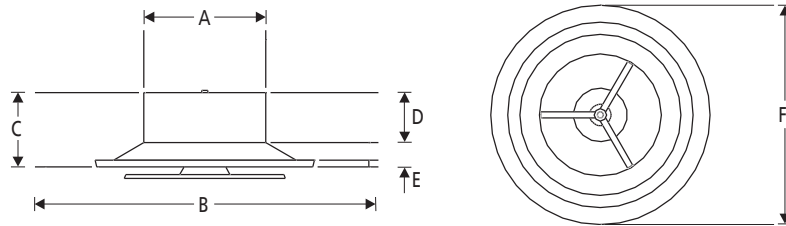
down onto the upper side of the ceiling panel. The diffuser is connected either directly to the duct by screwing or riveting through the neck.

Finish

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

ADJUSTMENT/DIMENSIONS, OPTIONS & ORDER CODES

Distribution Pattern Adjustment



A Nominal Size (Spigot Diameter) (mm)	B Overall Size of Diffuser (mm)	C Spigot Height (mm)	D Diffuser Height (mm)	E Overall Diameter (mm)	Opening Size Required (mm)
100	286	97	25	9	102
125	286	97	25	9	127
160	286	97	25	9	162
200	354	81	30	10	202
250	440	84	39	12	252
315	546	102	52	14	317
400	685	135	70	14	402

Options and Order Codes

Diffuser Codes

1. SERIES	2. STYLE	3. CORE	4. ACCESSORIES	5. ARRANGEMENT	6. FIXING	7. FINISH
D	C Adjustable blades surface mounted 1 Special	C Adjustable core 1 Special	0 None 1 Special	0 None 1 Special	A Neck fixing 1 Special	E RAL 9010 gloss white F RAL 9010 matt white 1 Special

DCC00AE[250]

Nominal Size

DCC00AE 250

Nominal size 250mm diameter (connection spigot diameter).

Standard diffuser finish: Powder coated white RAL 9010 gloss.

PERFORMANCE DATA

Sound Level Data, Horizontal Jet

Nominal Size	Volume (l/s)	Volume (m³/h)	Pressure Drop (Pa)	Noise Rating (NR)
100	36	130	13	20
	41	148	16	26
	47	169	21	31
	53	191	28	36
125	60	216	14	20
	70	252	19	25
	80	288	25	31
	93	335	34	36
160	74	266	14	20
	88	317	20	25
	102	367	27	30
	120	432	37	35
200	110	396	17	19
	132	475	24	24
	157	565	35	29
	190	684	50	35
250	199	716	24	20
	224	806	30	25
	253	911	39	30
	285	1026	49	36
315	278	1001	24	18
	315	1134	31	23
	358	1289	40	29
	405	1458	51	34
400	549	1976	26	19
	598	2153	31	24
	649	2336	36	29
	718	2585	45	34

Performance figures are for diffuser only and assume supply air temperature –14 to +30°C relative to room temperature.

Pressure drop shown is static pressure drop for diffuser only with damper fully open.

Multiply pressure loss by 2.7 and add 10 NR for an approximation of performance with 50% damping.

Throw value is measured horizontally with horizontal distribution setting to terminal velocity of 0.5 m/s and assumes 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.

PERFORMANCE DATA

Sound Level Data, Vertical Jet

Nominal Size	Volume (l/s)	Volume (m³/h)	Pressure Drop (Pa)	Noise Rating (NR)
100	35	126	19	20
	40	144	24	25
	45	162	32	31
	52	187	42	36
125	39	140	20	20
	46	166	27	26
	52	187	36	31
	60	216	48	36
160	68	245	32	21
	78	281	42	26
	89	320	56	31
	103	371	74	36
200	91	328	34	21
	104	374	44	26
	120	432	58	31
	138	497	77	36
250	144	518	35	20
	170	612	49	25
	198	713	67	30
	233	839	93	35
315	248	893	36	18
	283	1019	47	24
	323	1163	61	29
	368	1325	80	34
400	394	1418	32	18
	458	1649	44	23
	532	1915	59	29
	619	2228	80	34

Performance figures are for diffuser only and assume supply air temperature –14 to +30°C relative to room temperature.

Pressure drop shown is static pressure drop for diffuser only with damper fully open.

Multiply pressure loss by 2.7 and add 10 NR for an approximation of performance with 50% damping.

Throw value is measured horizontally with horizontal distribution setting to terminal velocity of 0.5 m/s and assumes 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.

PRODUCT RANGES

GRILLES	DIFFUSERS	LOUVRES
Linear Bar	Linear Slot	External
Ceiling	Louvre Face	Circular
Sidewall	Sidewall	Door
Floor	Perforated Face	Screens
Computer Floor	Circular	Penthouse
Cill	Swirl	Sand Louvres
Single & Double Deflection	Ceiling	Roof Louvres
Egg Crate	Sidewall Fixed & Adjustable	
Hinged Core	Jet Flow / Nozzle	
Door Transfer	Repus Displacement Ventilation	
Security and Prison		
Supply and Extract Valves		

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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