



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

JET DIFFUSERS
DCJ SERIES



DCJ
SERIES

DCJ SERIES JET DIFFUSERS



Application

Colman's DCJ jet diffuser has been designed to supply cooled or warm air to larger spaces such as exhibition halls, showrooms, factories and shopping centres.

The DCJ has been specially designed to ensure that long throws can be achieved at relatively low noise levels. The DCJ can be freely moved to alter the direction of the air stream through 30 degrees directionally and 360 degrees rotationally allowing for accurate 'Spot Cooling' or adjustment for heating (downwards) and cooling (upwards) modes.

To supply air over long distances a high outlet velocity is required, therefore we recommend the DCJ jet diffuser is installed at higher levels and careful consideration is given to the direction of the supply air flow.

Description

The DCJ jet diffuser is formed from special aluminium spinning and is fixed to the diffuser housing by a 'ball and socket' arrangement. A perimeter sealing gasket is used between the spherical discharge nozzle and diffuser housing to prevent air leakage, while allowing free rotation of the nozzle. The DCJ is complete with a front flanged mounting ring and circular spigot connection for direct connection to a circular duct.

Fixing

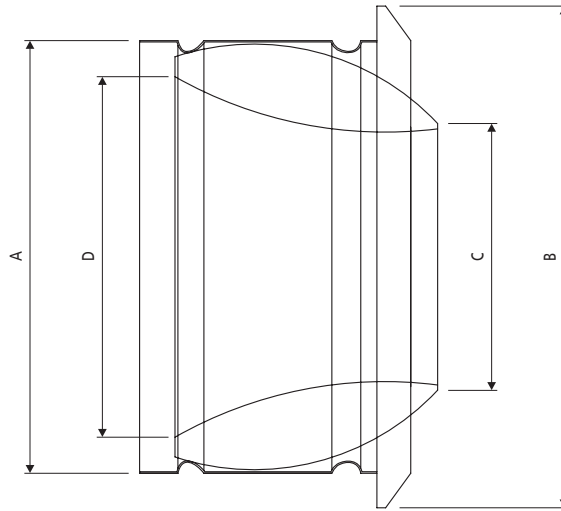
The DCJ jet diffuser's aesthetical design allows for various fixing methods:

- Direct onto the side of a rigid rectangular section ductwork. A hole of the appropriate size is cut in the duct and the DCJ jet diffuser is fixed to the duct by screws through the mounting ring.

- Direct fixing to rigid supported circular ductwork. This is fixed by screws through the duct to the connection spigot.
- Installation into a bulkhead with connection to a flexible duct. The DCJ jet diffuser is fixed to the bulkhead by screws through the mounting flange with the duct securely fixed to the connection spigot.

DIMENSIONS, OPTIONS & ORDER CODES

Diffuser Dimensions



Nominal Size	A Diameter (mm)	B Diameter (mm)	C Diameter (mm)	D Diameter (mm)	Net Weight (kg)
125	123	170	60	90	0.37
160	158	200	76	108	0.43
200	198	265	96	152	0.62
250	248	309	127	195	1.24
315	313	378	180	240	1.60
400	398	466	220	330	2.04
450	448	520	276	378	2.75

Options and Order Codes

Diffuser Codes

1. SERIES	2. STYLE	3. CORE	4. ACCESSORIES	5. ARRANGEMENT	6. FIXING	7. FINISH
D	C Circular 1 Special	J Jet nozzle 1 Special	0 None 1 Special	M Mounting flange only	F Screw fix through mounting flange A Neck fixing to spigot 1 Special	E RAL 9010 gloss white 1 Special

DCJ0MFE[315]

Nominal Size

DCJ0MFE 315

Adjustable circular jet nozzle diffuser nominal diameter 315mm.

Supplied with mounting flange.

Standard diffuser finish: Powder coated white RAL 9010 gloss.

PERFORMANCE DATA

Nominal Size (mm)	Volume (m³/s)	Volume (l/s)	Neck Velocity (m/s)	Face Velocity (m/s)	Pressure Drop (Pa)	Throw to 0.25 m/s Velocity (m)	Throw to 0.5 m/s Velocity (m)	Throw to 1.0 m/s Velocity (m)	Noise Rating dB(A)
125	0.034	34	2.4	9.9	71	20	10	—	25
	0.050	50	4	16.6	136	30	—	—	36
	0.068	68	5.7	23.2	265	—	20	10	46
160	0.023	23	1	4.4	11	10	—	—	<20
	0.046	46	2.5	11.1	26	20	10	—	<20
	0.069	69	3.5	15.5	98	30	—	—	35
	0.092	92	4.5	20	113	—	20	10	44
	0.138	138	7	31.1	200	—	30	—	55
200	0.029	29	0.9	3.3	—	10	—	—	<20
	0.061	61	1.9	6.7	29	20	10	—	<20
	0.085	85	2.8	10.1	67	30	—	—	27
	0.121	121	3.8	13.4	123	—	20	10	38
	0.182	182	5.7	20.2	218	—	30	—	50
	0.242	242	7.6	26.9	312	—	—	20	—
250	0.037	37	0.8	3.1	—	10	—	—	<20
	0.076	76	1.6	6.2	8.3	20	10	—	<20
	0.106	106	2.2	8.5	34	30	—	—	22
	0.152	152	3	11.7	63	—	20	10	34
	0.229	229	4.6	17.9	112	—	30	—	45
	0.306	306	6.3	24.2	160	—	—	20	53
315	0.050	50	0.6	2	—	10	—	—	<20
	0.097	97	1.2	4	11	20	10	—	<20
	0.150	150	1.9	6	36	30	—	—	20
	0.192	192	2.4	7.6	57	—	20	10	28
	0.293	293	3.7	11.6	104	—	30	—	40
	0.389	389	5	15.6	150	—	—	20	48
0.585	585	7.5	23.6	243	—	—	30	—	
400	0.065	65	0.5	1.8	—	10	—	—	<20
	0.129	129	1	3.3	8	20	10	—	<20
	0.195	195	1.5	5.2	13	30	—	—	<20
	0.258	258	2	6.6	32	—	20	10	20
	0.387	387	3.1	10	69	—	30	—	33
	0.517	517	4.1	13.3	123	—	—	20	42
	0.773	773	6.1	19.7	273	—	—	30	53
450	0.086	86	0.4	1.3	—	10	—	—	<20
	0.167	167	0.8	2.5	—	20	10	—	<20
	0.259	259	1.3	3.8	—	30	—	—	<20
	0.348	348	1.7	5.2	—	—	20	10	20
	0.520	520	2.6	7.7	26	—	30	—	26
	0.672	672	3.4	10	38	—	—	20	36
	1.040	1040	5.3	15.5	100	—	—	30	52

Performance figures are for diffusers only and the data presented is for isothermal air conditions.

Pressure drop shown is static pressure drop for diffuser only (without damper).

Throw values are measured horizontally with the spherical jet nozzle set in a single free horizontal jet position to terminal velocities of 0.25 m/s - 1 m/s.

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		

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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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