

JCFS FLOOR SWIRL DIFFUSER

Floor mounted swirl
diffusers available in
150mm and 200mm
diameter models

Concealed and fully
removable swirl blade set
and dirt collection tray

¼ inch thick aluminium
core is strong enough to
support light foot traffic

Quick and simple to fit

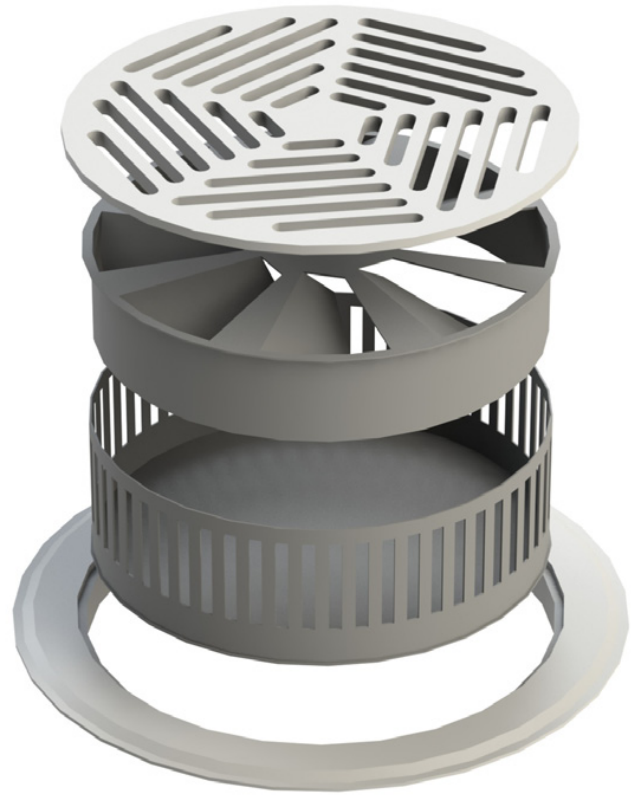
Available polyester
powder coated to any
RAL or BS colour



Floor swirl diffusers are specially reinforced units, providing an effective method of supplying air to areas like open plan offices. Suitable for any sort of raised flooring, and available in 150mm and 200mm diameter models.

Constructed from four main components:

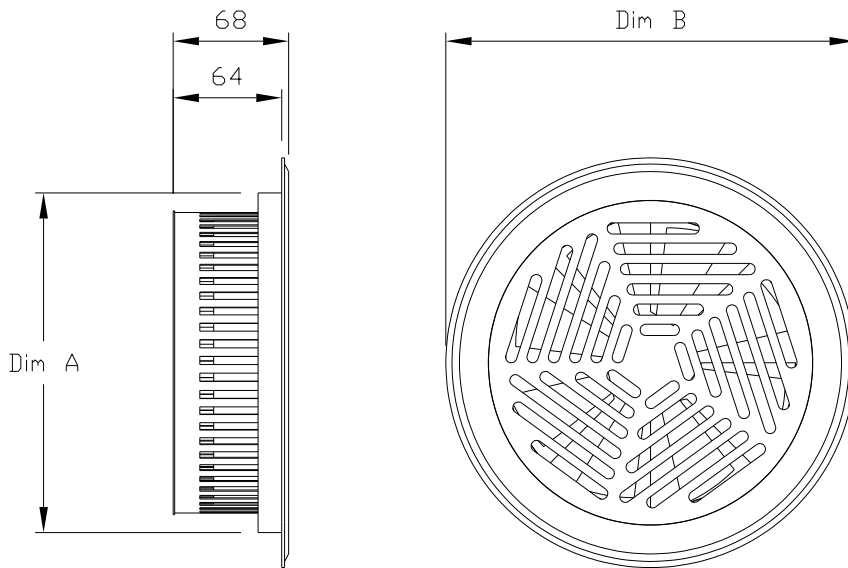
- **Outer ring**
Manufactured from cast aluminium, the outer ring is the main support for the rest of the unit. It also holds the three clips which secure the unit into the floor.
- **Inner core**
Also from cast aluminium, this perforated 6.4mm thick section is strong enough to support light foot traffic. Fully removable from the outer ring, and fitted with a captive bolt from which the deflector set and dirt catchment tray are mounted.
- **Swirl deflector set**
Polyester powder coated matt black, this is screwed onto the captive bolt on the underside of the inner core and provides the swirling throw required for good mixing of supplied and resident air.
- **Dirt catchment tray**
Hung underneath the swirl set, the dirt catchment tray is designed to catch any dirt or debris which may fall through the inner core, ensuring floor voids are kept clean, and making maintenance easier.



Design features

Material	Cast aluminium fascia plate and outer ring Galvanised steel dirt collection pan and swirl blade set (powder coated matt black)
Sizes	150mm and 200mm diameter
Core	Removable to allow cleaning and fitting
Finish	Standard: Cast aluminium Optional: See page 4
Mass per unit	Approx 1 kg

Technical drawings

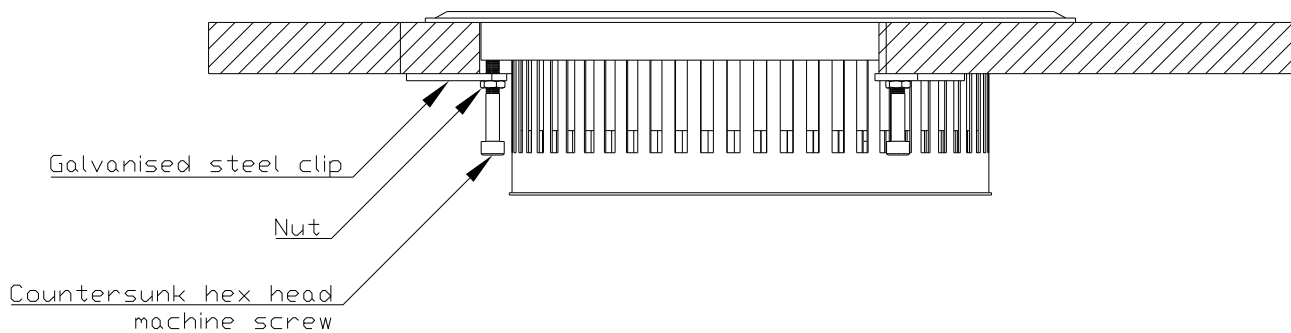


	Dim A (mm)	Dim B (mm)
FCFS 150	150	190
FCFS 200	200	240

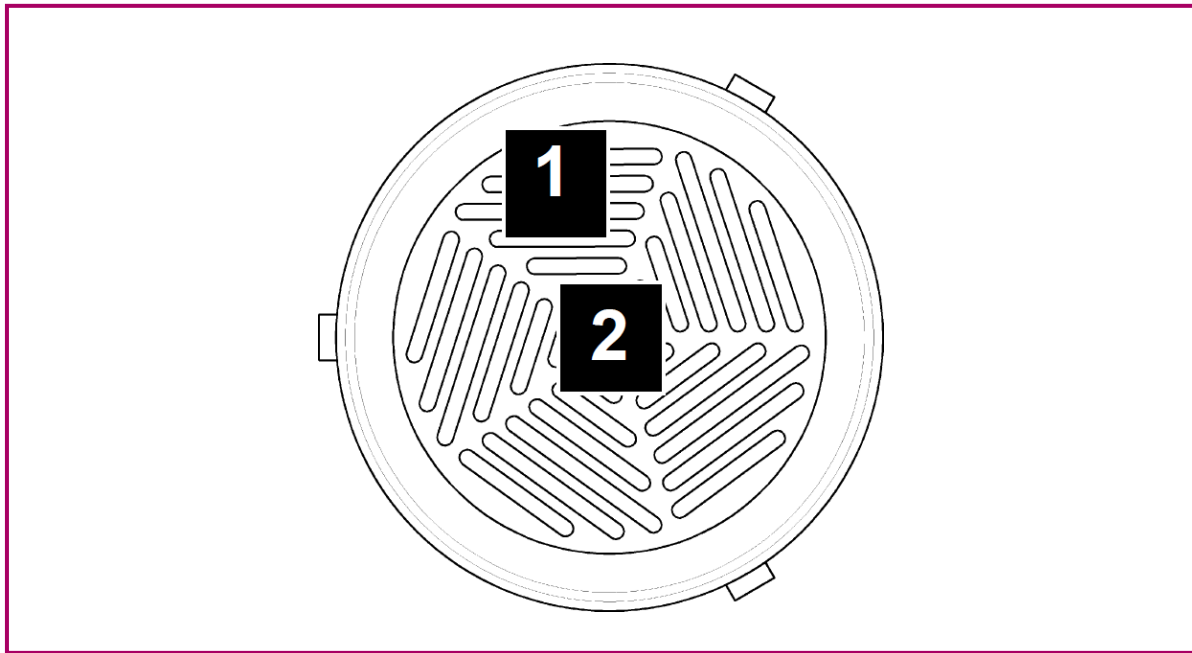
Fitting

Fitting is quick and simple.

- Fit the three steel clips into position using the tapped holes in the underside of the outer ring and the nuts and machine screws.
- Turn the clips to face inside the outer ring, and then lay it into a pre-cut hole in the floor.
- Turn the steel clips 180 degrees so they protrude from the outer ring to sit underneath the floor tile.
- Adjust the machine screw and nut to secure the outer ring to the floor.
- Lay in the assembled inner core, swirl set and dirt tray.



DIFFUSER LOAD CAPACITY



Model	Size	Position 1	Position 2
JCFS	Ø 150	2,9	2,5
	Ø 200	2	2,25

Load in kN

According to the requirements of European test standard EN 13264:2001, over 30 x 30 mm² area.

Selection table

Circular floor diffuser DSA									Circular floor diffuser DSA									
Q		Size	150			200			Q		Size	150			200			
		A _k (m ²)	0,00495			0,00945					A _k (m ²)	0,00495			0,00945			
(m ³ /h)	(l/s)	ΔT (°C)	-4	-6	-8	-4	-6	-8	(m ³ /h)	(l/s)	ΔT (°C)	-4	-6	-8	-4	-6	-8	
30	8,3	h _{0,25} (m)	0,8	0,7	0,6				85	23,6	h _{0,25} (m)	2,3	2,0	1,7	1,1	1,0	0,9	
		V _k (m/s)		1,7							V _k (m/s)	4,8				2,5		
		ΔP _{est} (Pa)		6							ΔP _{est} (Pa)	48				10		
		L _w - [dB(A)]		<20							L _w - [dB(A)]	43				29		
35	9,7	h _{0,25} (m)	0,9	0,8	0,7				100	27,8	h _{0,25} (m)	2,7	2,3	2,0	1,3	1,2	1,0	
		V _k (m/s)		2,0							V _k (m/s)	5,6				2,9		
		ΔP _{est} (Pa)		8							ΔP _{est} (Pa)	67				14		
		L _w - [dB(A)]		22							L _w - [dB(A)]	47				33		
40	11,1	h _{0,25} (m)	1,1	0,9	0,8				115	31,9	h _{0,25} (m)				1,5	1,3	1,2	
		V _k (m/s)		2,2							V _k (m/s)					3,4		
		ΔP _{est} (Pa)		11							ΔP _{est} (Pa)					18		
		L _w - [dB(A)]		25							L _w - [dB(A)]					36		
45	12,5	h _{0,25} (m)	1,2	1,0	0,9				130	36,1	h _{0,25} (m)				1,7	1,5	1,3	
		V _k (m/s)		2,5							V _k (m/s)					3,8		
		ΔP _{est} (Pa)		13							ΔP _{est} (Pa)					23		
		L _w - [dB(A)]		28							L _w - [dB(A)]					39		
50	13,9	h _{0,25} (m)	1,3	1,2	1,0	0,7	0,6	0,5	150	41,7	h _{0,25} (m)				2,0	1,7	1,5	
		V _k (m/s)		2,8			1,5				V _k (m/s)					4,4		
		ΔP _{est} (Pa)		17			3				ΔP _{est} (Pa)					31		
		L _w - [dB(A)]		31			<20				L _w - [dB(A)]					43		
60	16,7	h _{0,25} (m)	1,6	1,4	1,2	0,8	0,7	0,6	170	47,2	h _{0,25} (m)				2,3	2,0	1,7	
		V _k (m/s)		3,4			1,8				V _k (m/s)					5,0		
		ΔP _{est} (Pa)		24			5				ΔP _{est} (Pa)					40		
		L _w - [dB(A)]		35			20				L _w - [dB(A)]					46		
70	19,4	h _{0,25} (m)	1,9	1,6	1,4	0,9	0,8	0,7										
		V _k (m/s)		3,9			2,1											
		ΔP _{est} (Pa)		33			7											
		L _w - [dB(A)]		39			24											

- Q (m³/h)** Air flow rate
- AK (m²)** Effective supply area
- ΔT (°C)** Temperature ΔT
- h_{0,25} (m)** Vertical throw for an air velocity of 0,25 m/s
- V_k (m/s)** Effective supply velocity
- ΔP_{est} (Pa)** Pressure drop
- L_w [dB(A)]** Sound power

Finish

Cast aluminium (standard)

Polyester powder coating to any RAL or BS colour



Ordering codes

Example

1 - 200 dia - JCFS

Codes

1)	Quantity		
2)	Size (mm)	150 dia 200 dia	150mm nominal size 200mm nominal size
3)	Series	JCFS	Floor swirl diffuser
4)	Finish	<i>*nothing*</i> RAL... BS...	Cast aluminium (standard) Polyester powder coated to RAL... Polyester powder coated to BS...