



Small Format Circular Diffusers

MC

Introduction

The Waterloo MC diffuser has been designed for both supply and exhaust applications requiring compact circular diffusers; unlike conventional high aspiration diffusers the MC has a small overall to neck size ratio. The diffusers are adjustable to produce horizontal or vertical air patterns.

Product Description

- MC** Small format circular diffuser
LD Butterfly type Louvre Dampener
ED & LD Equalising Deflector & Louvre Dampener
Blind Fix Available as standard (see drawing)

Features

- Compact frame design
- Robust steel construction
- Adjustable for vertical or horizontal air patterns

Finishes

PPG9010 (RAL 9010 Gloss - 80% Gloss White)
 PPM9010 (RAL 9010 Matt - 20% Gloss White)
 PPM9006 (RAL 9006 Matt - 30% Gloss Silver)
 Other colours available on request

Weights

MC/150	1.0 kg
MC/200	2.1 kg
MC/300	3.4 kg
MC/450	4.8 kg

Manufacture

The MC diffusers are constructed from steel spinings retained on aluminium spider braces.

Selection Criteria

Noise level is based on diffuser sound power level less 8dB room absorption.

Pressure Loss (Pa): static pressure loss of the diffuser.
 Throw: radius of diffusion and projection see individual tables

• Supply Horizontal Diffusion

Radius of diffusion.

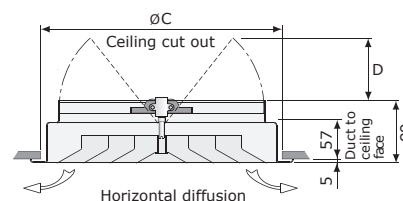
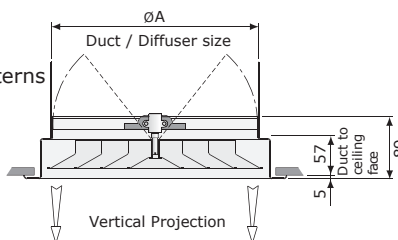
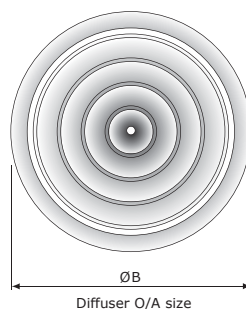
Minimum — space covered by one diffuser which results in a mean room air movement of 0.25 m/s Maximum — space covered by one diffuser which results in a mean room air movement of 0.10 m/s

• Supply Vertical Projection

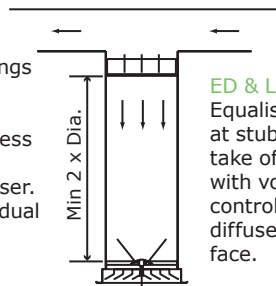
Projection — downward throw to a terminal velocity $v_t = 0.5$ m/s

Selection Example MC/200

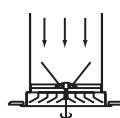
- Total air flow rate 94 l/s
- Horizontal Supply Application
 Throw Min - Max — 1.5 - 3.0 m
 Noise Level — 26 dBA
 Pressure Loss — 21 Pa
- Exhaust Application
 Noise Level — 36 dBA
 Pressure Loss — 38 Pa



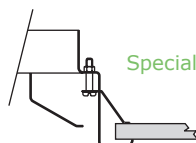
Accessories



ED & LD -
 Equalisation
 at stub duct
 take off
 with volume
 control at
 diffuser
 face.



LD - Standard
 arrangement for
 supply ducts.
 Adjustable through
 diffuser face.



Special Blind fixing

Performance Table

	MC		Air Volume (Vertical)			
	m³/h		65	126	191	252
150 Dia	l/s		18	35	53	70
	Projection (m)		0.9	1.5	2.5	3.5
	L _w		-	22	32	41
	P _s		4	14	33	56
	m³/h		112	227	338	454
200 Dia	l/s		31	63	94	126
	Projection (m)		1.3	2.1	3.0	4.3
	L _w		-	24	36	45
	P _s		4	17	38	65
	m³/h		256	508	763	1016
300 Dia	l/s		71	141	212	282
	Projection (m)		2.0	3.1	4.6	6.3
	L _w		-	27	39	48
	P _s		5	20	48	80
	m³/h		572	1145	1717	2290
450 Dia	l/s		159	318	477	636
	Projection (m)		3.2	5.0	7.6	10.1
	L _w		19	32	45	53
	P _s		8	32	75	128



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 MC Operation and Maintenance Instructions

Exhaust

Ø A Diffuser & Duct Size	Ø B Overall Diameter	Ø C Ceiling Opening	D Maximum open LD height
150	228	203	75
200	305	280	100
300	381	356	150
450	533	508	225

	MC		Air Volume				
	m³/h		65	126	191	252	317
150 Dia	l/s		18	35	53	70	88
	L _w		-	18	23	31	40
	P _s		3	11	23	38	56
	m³/h		112	227	338	454	565
	l/s		31	63	94	126	157
200 Dia	L _w		-	19	28	38	46
	P _s		4	15	31	51	76
	m³/h		256	508	763	1016	-
	l/s		71	141	212	282	-
	L _w		-	22	37	47	-
300 Dia	P _s		6	23	49	80	-
	m³/h		572	1145	1717	-	-
	l/s		159	318	477	-	-
	L _w		18	32	47	-	-
	P _s		10	35	74	-	-

	MC		Air Volume (Horizontal)				
	m³/h		65	126	191	252	317
150 Dia	l/s		18	35	53	70	88
	Min - Max (m)		0.5-1.0	0.8-1.5	1.0-2.1	1.5-3.0	2.0-4.0
	L _w		-	-	23	31	39
	P _s		2	9	21	37	58
	m³/h		112	227	338	454	565
200 Dia	l/s		31	63	94	126	157
	Min - Max (m)		0.5-1.0	0.9-1.8	1.5-3.0	2.0-4.0	2.5-5.0
	L _w		-	18	26	36	45
	P _s		2	9	21	37	58
	m³/h		256	508	763	1016	1271
300 Dia	l/s		71	141	212	282	353
	Min - Max (m)		0.7-1.5	1.4-2.8	2.1-4.2	2.8-5.6	5.0-10
	L _w		-	23	34	44	51
	P _s		2	9	21	37	58
	m³/h		572	1145	1717	2290	-
450 Dia	l/s		159	318	477	636	-
	Min - Max (m)		1.3-2.5	2.5-5.0	3.8-7.6	5.0-10	-
	L _w		-	26	40	50	-
	P _s		4	18	41	72	-

ORDER EXAMPLE

MC/150/PPM9010/LD
 Type _____
 Diffuser Size _____
 Finish _____
 Extras _____