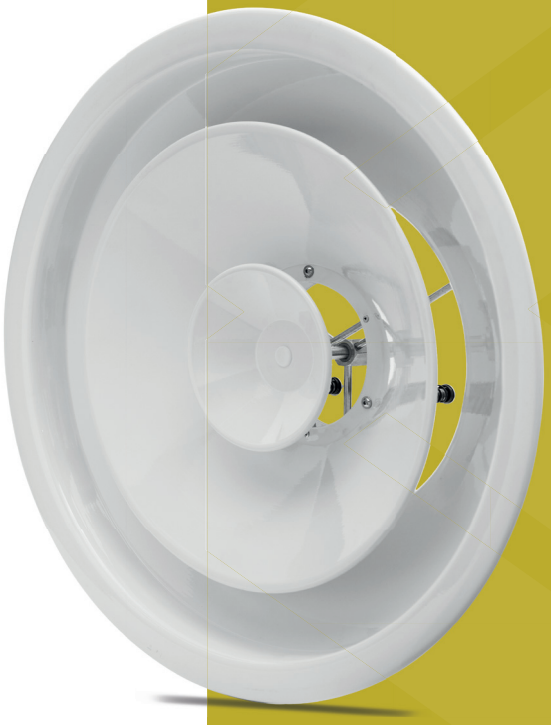


ROUND DIFFUSERS

DC SERIES

DCF Round diffuser with fixed cones
DCR Round diffuser with adjustable cones
DRC-S Round diffuser with adjustable cones and spiral regulation
DCR-T Round thermostatic diffuser with adjustable cones
DCD Round diffuser with adjustable disc

SAMOVENT® TECHNIK

DIFUSIÓN Y VENTILACIÓN

DCF

DCR

DCR-S

DCR-T

DCD

DC SERIES
DCF

ROUND DIFFUSER WITH FIXED CONES

Model **DCF.** Round diffuser with fixed cones, with flow regulation and mounting bracket.

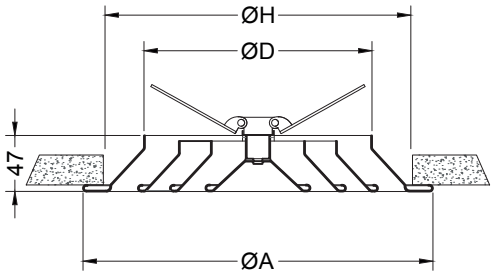
Made of aluminium.
Standard finish in matt silver anodised or white lacquer similar to RAL 9016.

Finished:

(AL) Matt silver anodised aluminium

(BL) White lacquer aluminium

DCF

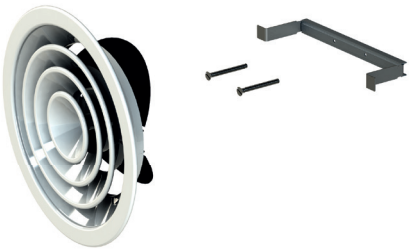


DCF
Rear detail

	Ø D	Ø A	Ø H
DCF 6	148	257	240
DCF 8	198	312	290
DCF 10	248	358	335
DCF 12	298	418	395
DCF 14	348	472	455

DESCRIPTION

Round diffuser with fixed cones, type DCF 8. Butterfly type flow regulator and fixing by mounting bracket.
White lacquer finish, similar to RAL 9016.



Order form:

DCF	8	BL

DC SERIES
DCF

SELECTION TABLE

Legend:
Q = Flow rate
Vk = Effective velocity in m/s
X = throw in m. for final velocity 0.25 m/s with ceiling effect
Pt = Pressure drop in Pa
LwA = Sound power level in dB(A)

	Size	6	8	10	12	14
Q (m³/h) (l/s)						
100 27,8	Vk X Pt LwA	3,2 0,6 4 22	1,6 0,4 1 < 10			
200 55,6	Vk X Pt LwA	6,4 1,2 19 36	3,2 0,9 4 24	1,9 0,7 1 14		
300 83,3	Vk X Pt LwA	9,6 1,9 45 44	4,8 1,3 10 32	2,9 1,0 3 23		
400 111,1	Vk X Pt LwA	12,7 2,5 83 50	6,4 1,8 19 38	3,8 1,4 6 29	2,6 1,1 3 22	1,8 0,9 1 17
500 138,9	Vk X Pt LwA		8,0 2,2 31 43	4,8 1,7 10 34	3,2 1,4 4 27	2,3 1,2 2 22
600 166,7	Vk X Pt LwA		9,6 2,6 45 47	5,8 2,0 15 38	3,8 1,7 6 31	2,7 1,4 3 27
800 222,2	Vk X Pt LwA		12,8 3,5 84 53	7,7 2,7 28 44	5,1 2,2 12 38	3,6 1,9 6 34
1000 277,8	Vk X Pt LwA			9,6 3,4 45 49	6,4 2,8 19 43	4,5 2,3 9 40
1200 333,3	Vk X Pt LwA			11,5 4,1 67 53	7,7 3,3 28 47	5,5 2,8 14 44
1400 388,9	Vk X Pt LwA				8,9 3,9 39 50	6,4 3,3 19 48
1600 444,4	Vk X Pt LwA				10,2 4,4 52 53	7,3 3,7 25 51
1800 500,0	Vk X Pt LwA				11,5 5,0 67 56	8,2 4,2 32 54

DAMPER OPENING

	100%	50%	25%
Pt	x1,2	x3	x5
LwA	+4	+10	+20

DC SERIES
DCR

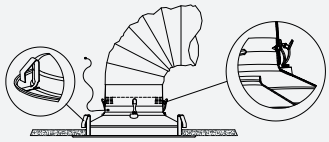
ROUND DIFFUSER WITH ADJUSTABLE CONES

Model **DCR.** High induction round diffuser with adjustable cones, by means of a micrometric screw.
Model **DCR-P.** High induction circular diffuser with adjustable cones, by means of a micrometric screw. Square plate

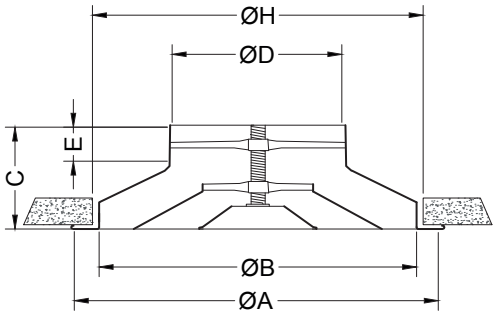
Outer ring made of aluminium and central cone made of class V0 ABS plastic.
Standard finish white lacquer RAL 9010.

Accessories:

(KD) Mounting kit type kd for plaster plate: (from Ø160 to Ø315).
Valid fo DCR.

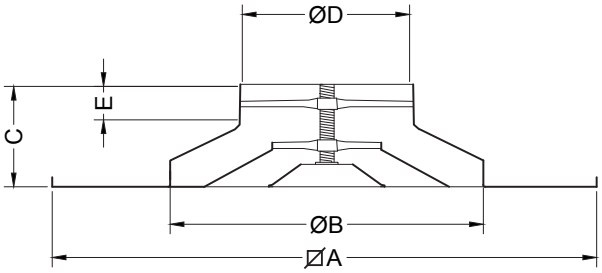


DCR



	Ø D	Ø A	Ø B	Ø H	C	E
DCR 100	98	230	194	198	75	30
DCR 160	158	335	280	288	105	45
DCR 200	198	423	360	370	118	48
DCR 250	248	517	445	461	130	48
DCR 315	313	640	560	576	146	48

DCR-P



	Ø D	Ø A	Ø B	C	E
DCR-P 100	98	596	194	70	30
DCR-P 160	158	596	280	100	45
DCR-P 200	198	596	360	110	48
DCR-P 250	248	596	445	120	48
DCR-P 315	313	596	495	126	48

DESCRIPTION

High induction round diffuser with adjustable cones, type DCR 100.
Clip fixing, type KD.
White lacquer finish, RAL 9010.

Order form:

DCR	100	BL	KD

DC SERIES
DCR-S

ROUND DIFFUSER WITH ADJUSTABLE CONES AND SPIRAL REGULATION

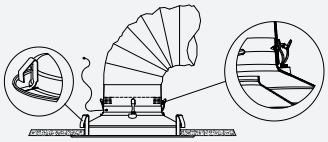
Model **DCR-S.** High induction round diffuser with adjustable cones and spiral regulation, by means of a micrometric screw.

Model **DCR-SP.** High induction round diffuser with adjustable cones with spiral regulation, by means of a micrometric screw. Square plate.

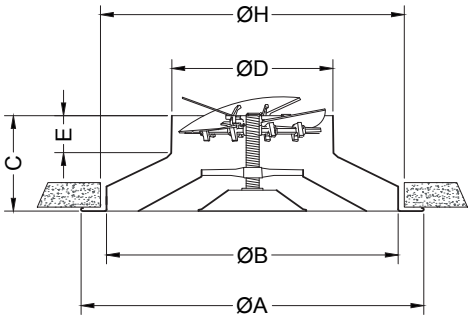
Outer ring made of aluminium and central cone made of ABS plastic class V0.
Standard finish white lacquer RAL 9010.

Accessories:

(KD) Mounting kit type kd for plaster plate: (from Ø160 to Ø315).
Valid fo DCR-S.

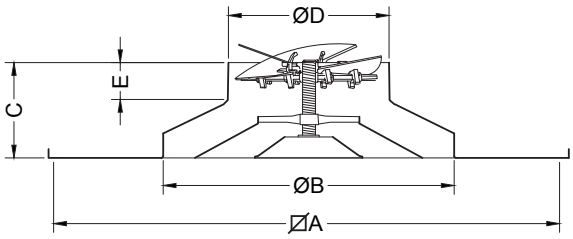


DCR-S



	Ø D	Ø A	Ø B	Ø H	C	E
DCR-S 160	158	335	280	288	105	45
DCR-S 200	198	423	360	370	118	48
DCR-S 250	248	517	445	461	130	48
DCR-S 315	313	640	560	576	146	48

DCR-SP



	Ø D	Ø A	Ø B	C	E
DCR-SP 160	158	596	280	100	45
DCR-SP 200	198	596	360	110	48
DCR-SP 250	248	596	445	120	48
DCR-SP 315	313	596	495	126	48

DESCRIPTION

High induction round diffuser with adjustable cones and spiral regulation, type DCR-S 160. Clip fixing, KD type. White lacquer finish, RAL 9010.

Order form:

DCR-S	160	BL	KD

DC SERIES
DCR-T

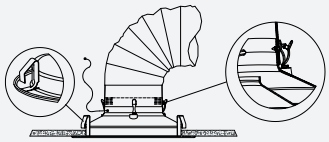
ROUND THERMOSTATIC ADJUSTABLE CONE DIFFUSER

Model **DCR-T.** High induction round diffuser with thermostatic actuator.
Model **DCR-TP.** High induction round diffuser with thermostatic actuator. Square plate.

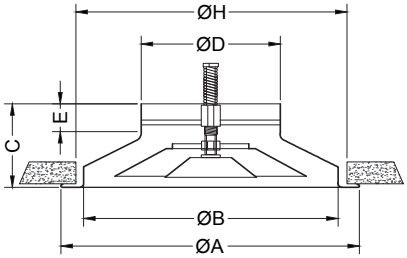
The DCRT diffuser is characterised by the fact that it operates without the need for any auxiliary system (power supply or servomotor). No specific maintenance is required. By means of a spring the diffuser DCRT, moves according to the temperature varying the adjustment of the cones to obtain a perfect control of the air flow.

Outer ring made of aluminium and central cone made of ABS plastic class V0.
Standard finish white lacquer RAL 9010.

Accessories:
(KD) Mounting kit type kd for plaster plate: (from Ø160 to Ø355).
Valid fo DCR-T.

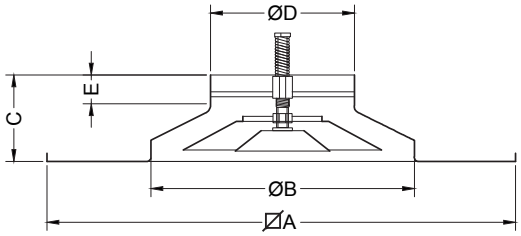


DCR-T



	Ø D	Ø A	Ø B	Ø H	C	E
DCR-T 160	158	335	280	288	105	45
DCR-T 200	198	423	360	370	118	48
DCR-T 250	248	517	445	461	130	48
DCR-T 315	313	640	560	576	146	48
DCR-T 355	353	730	640	656	185	65
DCR-T 400	398	766	700	716	185	65
DCR-T 450	448	825	755	771	185	65
DCR-T 500	498	917	825	841	185	65

DCR-TP



	Ø D	⧄A	Ø B	C	E
DCR-TP 160	158	596	280	100	45
DCR-TP 200	198	596	360	110	48
DCR-TP 250	248	596	445	120	48
DCR-TP 315	313	596	495	126	48

DESCRIPTION

High induction round diffuser with thermostatic actuator, type DCR-T 160. Clip fixing, type KD.
White lacquer finish, RAL 9010.

Order form:

DCF	8	BL

DC SERIES
DCR - DCR-T
SELECTION TABLE

Legend:
Q = Flow rate
B = Distance between diffusers in m.
H = Head of installation of diffusers in m.
Vz = Maximum velocity in occupied zone according to the distance between diffusers and the installation height in m/s.
Vk = Effective velocity in m/s
X = throw in m. for a final velocity of 0.25 m/s with ceiling effect in isothermal condition. Cones in summer position
Y = Reach in m. for a final speed of 0.25 m/s with ΔT=10°C. Cones in winter position.
Pt = Pressure drop in Pa
LwA = Sound power in dB(A)

			DCR-T														
			DCR														
	Size		100			160			200			250			315		
Q (m³/h) (l/s)	B		1,2	2,4	3,6	1,2	2,4	3,6	1,2	2,4	3,6	2,4	3,6	4,2	3,6	4,2	4,8
200 55,6	Vz	H = 2,7	0,71	0,50	0,39	0,43	0,31	0,24	0,33	0,24	0,18						
		H = 3,2	0,53	0,41	0,33	0,32	0,25	0,20	0,25	0,19	0,15						
		H = 3,8	0,41	0,33	0,28	0,25	0,20	0,17	0,19	0,15	0,13						
	Vk (summer)		4,2			1,8			1,2								
	Vk (winter)		4,2			1,9			1,3								
	X		4,2			2,6			2,0								
	Y (ΔT = 10° C)		3,9			2,3			2,1								
	Pt (summer)		40			5			2								
	Pt (winter)		86			16			7								
	LwA (summer)		38			14			1								
	LwA (winter)		52			30			19								
300 83,3	Vz	H = 2,7	1,06	0,76	0,59	0,64	0,46	0,36	0,50	0,35	0,28						
		H = 3,2	0,79	0,61	0,50	0,48	0,37	0,30	0,37	0,29	0,23						
		H = 3,8	0,61	0,50	0,42	0,37	0,30	0,25	0,29	0,23	0,20						
	Vk (summer)		6,4			2,7			1,8								
	Vk (winter)		6,2			2,9			2,0								
	X		6,3			3,9			3,0								
	Y (ΔT = 10° C)		5,9			3,2			2,8								
	Pt (summer)		90			12			5								
	Pt (winter)		192			36			16								
	LwA (summer)		52			28			15								
	LwA (winter)		66			44			33								
400 111,1	Vz	H = 2,7				0,86	0,61	0,48	0,66	0,47	0,37	0,35	0,27	0,25			
		H = 3,2				0,64	0,50	0,40	0,50	0,38	0,31	0,28	0,23	0,21			
		H = 3,8				0,50	0,40	0,34	0,38	0,31	0,26	0,23	0,19	0,18			
	Vk (summer)					3,6			2,4			1,6					
	Vk (winter)					3,9			2,7			1,9					
	X					5,1			4,0			3,0					
	Y (ΔT = 10° C)					4,2			3,4			3,2					
	Pt (summer)					21			8			3					
	Pt (winter)					64			29			13					
	LwA (summer)					38			25			13					
	LwA (winter)					54			43			31					
600 166,7	Vz	H = 2,7				1,29	0,92	0,72	0,99	0,71	0,55	0,53	0,41	0,37	0,29	0,26	0,24
		H = 3,2				0,97	0,74	0,60	0,74	0,57	0,46	0,43	0,35	0,32	0,24	0,22	0,21
		H = 3,8				0,74	0,60	0,51	0,57	0,46	0,39	0,35	0,29	0,27	0,21	0,19	0,18
	Vk (summer)					5,4			3,6			2,4			1,6		
	Vk (winter)					5,8			4,0			2,8			1,9		
	X					7,7			5,9			4,4			3,1		
	Y (ΔT = 10° C)					6,1			4,8			4,1			3,9		
	Pt (summer)					48			18			7			3		
	Pt (winter)					141			64			29			13		
	LwA (summer)					52			39			27			13		
	LwA (winter))					68			57			45			32		
800 222,2	Vz	H = 2,7							1,32	0,94	0,73	0,70	0,55	0,49	0,39	0,35	0,32
		H = 3,2							0,99	0,76	0,62	0,57	0,46	0,42	0,33	0,30	0,27
		H = 3,8							0,76	0,62	0,52	0,46	0,39	0,36	0,27	0,25	0,24
	Vk (summer)								4,8			3,2			2,1		
	Vk (winter)								5,3			3,7			2,5		
	X								7,9			5,9			4,2		
	Y (ΔT = 10° C)								6,1			5,0			4,5		
	Pt (summer)								32			12			5		
	Pt (winter)								112			51			22		
	LwA (summer)								49			37			23		
	LwA (winter)								67			55			42		
1000 277,8	Vz	H = 2,7										0,88	0,68	0,62	0,48	0,43	0,39
		H = 3,2										0,71	0,58	0,53	0,41	0,37	0,34
		H = 3,8										0,58	0,49	0,45	0,34	0,32	0,30
	Vk (summer)											4,0			2,6		
	Vk (winter)											4,6			3,2		
	X											7,4			5,2		
	Y (ΔT = 10° C)											5,9			5,1		
	Pt (summer)											19			7		
	Pt (winter)											79			35		
	LwA (summer)											44			30		
	LwA (winter)											63			50		

DC SERIES
DCR - DCR-T

SELECTION TABLE

			DCR-T											
	Size		355			400			450			500		
Q (m³/h) (l/s)	B		3,6	4,2	4,8	3,6	4,2	4,8	3,6	4,2	4,8	3,6	4,2	4,8
800 222,2	Vz	H = 2,7	0,31	0,28	0,26									
		H = 3,2	0,26	0,24	0,22									
		H = 3,8	0,22	0,21	0,19									
	Vk (summer)		1,69											
	Vk (winter)		2,09											
	X		3,4											
	Y (ΔT = 10º C)		4,4											
	Pt (summer)		3											
	Pt (winter)		15											
	LwA (summer)		15											
	LwA (winter)		35											
1000 277,8	Vz	H = 2,7	0,39	0,35	0,32	0,31	0,28	0,25						
		H = 3,2	0,33	0,30	0,28	0,26	0,24	0,22						
		H = 3,8	0,28	0,26	0,24	0,22	0,20	0,19						
	Vk (summer)		2,11			1,70								
	Vk (winter)		2,61			2,14								
	X		4,2			3,4								
	Y (ΔT = 10º C)		4,9			4,7								
	Pt (summer)		4			3								
	Pt (winter)		23			15								
	LwA (summer)		23			15								
	LwA (winter)		43			35								
1250 347,2	Vz	H = 2,7	0,49	0,44	0,40	0,39	0,35	0,32	0,30	0,27	0,25			
		H = 3,2	0,41	0,38	0,35	0,33	0,30	0,28	0,25	0,23	0,21			
		H = 3,8	0,35	0,32	0,30	0,28	0,26	0,24	0,21	0,20	0,18			
	Vk (summer)		2,64			2,13			1,72					
	Vk (winter)		3,26			2,68			2,21					
	X		5,3			4,2			3,2					
	Y (ΔT = 10º C)		5,6			5,3			5,0					
	Pt (summer)		7			4			2					
	Pt (winter)		35			23			15					
	LwA (summer)		30			23			14					
	LwA (winter)		51			43			35					
1500 416,7	Vz	H = 2,7	0,59	0,53	0,48	0,47	0,42	0,38	0,36	0,32	0,29	0,28	0,25	0,23
		H = 3,2	0,50	0,45	0,42	0,39	0,36	0,33	0,30	0,28	0,26	0,23	0,21	0,20
		H = 3,8	0,42	0,39	0,36	0,33	0,31	0,29	0,26	0,24	0,22	0,20	0,18	0,17
	Vk (summer)		3,17			2,55			2,06			1,70		
	Vk (winter)		3,91			3,22			2,65			2,23		
	X		6,3			5,0			3,9			3,0		
	Y (ΔT = 10º C)		6,2			5,8			5,5			5,0		
	Pt (summer)		10			6			3			2		
	Pt (winter)		50			33			22			15		
	LwA (summer)		37			29			21			13		
	LwA (winter)		57			49			42			35		
1750 486,1	Vz	H = 2,7	0,68	0,62	0,56	0,54	0,49	0,44	0,42	0,38	0,34	0,32	0,29	0,26
		H = 3,2	0,58	0,53	0,49	0,46	0,42	0,39	0,35	0,32	0,30	0,27	0,25	0,23
		H = 3,8	0,49	0,45	0,42	0,39	0,36	0,33	0,30	0,28	0,26	0,23	0,21	0,20
	Vk (summer)		3,70			2,98			2,40			1,98		
	Vk (winter)		4,56			3,75			3,09			2,60		
	X		7,4			5,9			4,5			3,5		
	Y (ΔT = 10º C)		6,9			6,4			5,9			5,4		
	Pt (summer)		13			8			5			3		
	Pt (winter)		68			45			29			20		
	LwA (summer)		42			34			26			18		
	LwA (winter)		62			55			47			40		
2000 555,6	Vz	H = 2,7	0,78	0,70	0,64	0,62	0,56	0,51	0,48	0,43	0,39	0,37	0,33	0,30
		H = 3,2	0,66	0,60	0,56	0,52	0,48	0,44	0,40	0,37	0,34	0,31	0,28	0,26
		H = 3,8	0,56	0,52	0,48	0,44	0,41	0,38	0,34	0,32	0,29	0,26	0,24	0,23
	Vk (summer)		4,23			3,40			2,75			2,27		
	Vk (winter)		5,22			4,29			3,53			2,97		
	X		8,4			6,7			5,2			4,0		
	Y (ΔT = 10º C)		7,6			6,9			6,4			5,8		
	Pt (summer)		17			10			6			4		
	Pt (winter)		89			58			38			26		
	LwA (summer)		47			39			31			23		
	LwA (winter)		67			59			52			45		

DAMPER OPENING

	100%	50%	25%
Pt	x1	x1,2	x1,9
LwA	+0	+3	+11

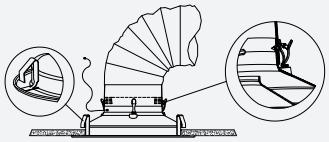
DC SERIES
DCD

ROUND DIFFUSER WITH ADJUSTABLE DISC

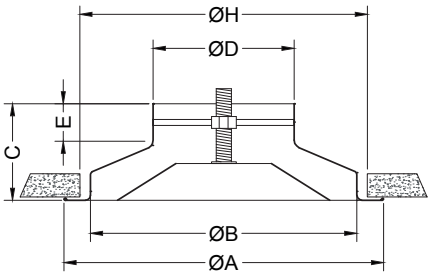
Model **DCD.** High induction round diffuser with adjustable disc, by means of a micrometric screw.
Model **DCD-P.** High induction round diffuser with adjustable disk, by means of a micrometric screw. Square plate.

Made entirely of aluminium.
Standard finish white lacquer RAL 9010.

Accessories:
(KD) Mounting kit type kd for plaster plate: (from Ø100 to Ø315).
Valid DCD.

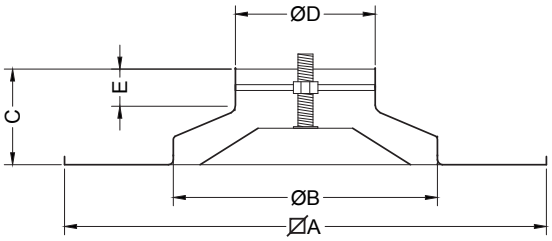


DCD



	Ø D	Ø A	Ø B	Ø H	C	E
DCD 100	98	230	194	198	75	30
DCD 160	158	335	280	288	105	45
DCD 200	198	423	360	370	118	48
DCD 250	248	517	445	461	130	48
DCD 315	313	640	560	576	146	48

DCD-P



	Ø D	Ø A	Ø B	C	E
DCD-P 100	98	596	194	75	30
DCD-P 160	158	596	280	105	45
DCD-P 200	198	596	360	118	48
DCD-P 250	248	596	445	130	48
DCD-P 315	313	596	560	146	48

DESCRIPTION

High induction round diffuser with adjustable disc, type DCD 100.
Clip fixing, type KD.
White lacquer finish, RAL 9010.

Order form:

DCD	100	BL	KD

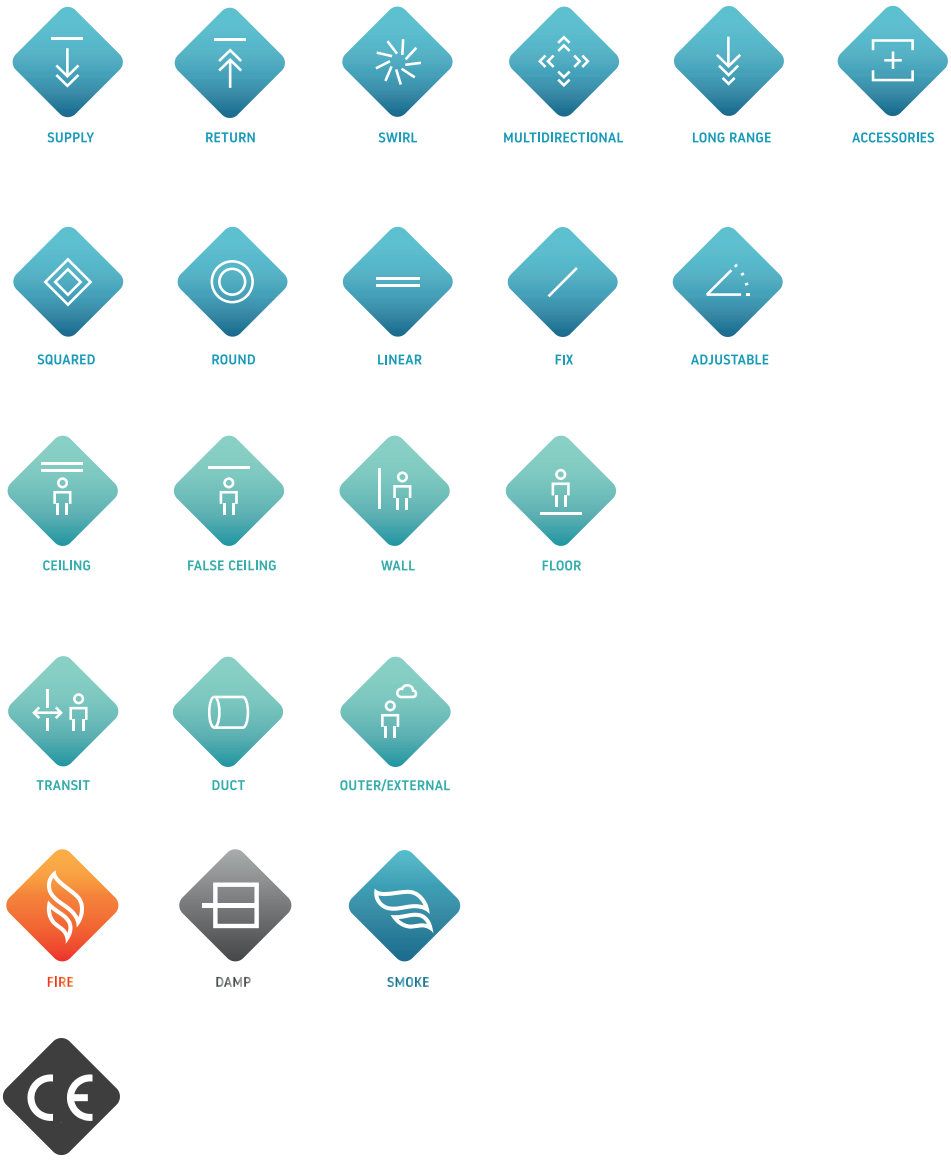
DC SERIES
DCD
SELECTION TABLE

Legend:
Q = Flow rate
B = Distance between diffusers in m.
H = Head of installation of diffusers in m.
Vz = Maximum velocity in occupied zone according to the distance between diffusers and the installation height in m/s.
Vk = Effective velocity in m/s
X = throw in m. for a final velocity of 0.25 m/s with ceiling effect in isothermal condition. Cones in summer position
Y = Reach in m. for a final speed of 0.25 m/s with ΔT=10°C. Cones in winter position.
Pt = Pressure drop in Pa
LwA = Sound power in dB(A)

Q (m³/h) (l/s)	Tamaño		100			160			200			250			315		
	B		1,2	2,4	3,6	1,2	2,4	3,6	1,2	2,4	3,6	2,4	3,6	4,2	3,6	4,2	4,8
100 27,8	Vz	H = 2,7	0,31	0,21	0,16	0,21	0,14	0,10									
		H = 3,2	0,23	0,17	0,13	0,15	0,11	0,09									
		H = 3,8	0,17	0,13	0,11	0,11	0,09	0,07									
	Vk (summer)			3,5			1,7										
	Vk (winter)			4,0			2,0										
	X			1,8			1,3										
	Y (ΔT = 10º C)			1,4			0,9										
	Pt (summer)			20			5										
	Pt (winter)			26			7										
	LwA (summer)			26			10										
	LwA (winter)			30			13										
200 55,6	Vz	H = 2,7	0,63	0,43	0,32	0,42	0,28	0,21	0,36	0,24	0,17						
		H = 3,2	0,45	0,34	0,26	0,30	0,22	0,17	0,25	0,18	0,14						
		H = 3,8	0,34	0,26	0,22	0,22	0,17	0,14	0,18	0,14	0,11						
	Vk (summer)			6,9			3,5			2,5							
	Vk (winter)			7,9			4,0			2,9							
	X			3,4			2,3			2,0							
	Y (ΔT = 10º C)			2,8			1,8			1,5							
	Pt (summer)			66			17			9							
	Pt (winter)			85			23			12							
	LwA (summer)			44			27			20							
	LwA (winter)			49			31			24							
400 111,1	Vz	H = 2,7				0,85	0,57	0,42	0,72	0,47	0,35	0,37	0,27	0,23			
		H = 3,2				0,60	0,44	0,34	0,50	0,36	0,28	0,28	0,22	0,19			
		H = 3,8				0,44	0,34	0,28	0,36	0,28	0,23	0,22	0,17	0,16			
	Vk (summer)						6,9			5,0			3,1				
	Vk (winter)						8,0			5,7			3,5				
	X						4,1			3,5			2,8				
	Y (ΔT = 10º C)						3,5			2,9			2,1				
	Pt (summer)						56			29			11				
	Pt (winter)						74			39			15				
	LwA (summer)						44			37			28				
	LwA (winter)						49			41			31				
700 194,4	Vz	H = 2,7							1,25	0,83	0,61	0,65	0,47	0,41	0,34	0,30	0,26
		H = 3,2							0,88	0,64	0,49	0,49	0,38	0,34	0,27	0,24	0,22
		H = 3,8							0,64	0,49	0,40	0,38	0,30	0,27	0,22	0,19	0,18
	Vk (summer)									8,7			5,4			2,7	
	Vk (winter)									10,0			6,2			3,1	
	X									5,5			4,4			3,4	
	Y (ΔT = 10º C)									5,1			3,7			2,4	
	Pt (summer)									76			30			8	
	Pt (winter)									102			40			11	
	LwA (summer)									50			40			33	
	LwA (winter)									55			44			34	
1000 277,8	Vz	H = 2,7										0,92	0,67	0,58	0,49	0,42	0,37
		H = 3,2										0,70	0,54	0,48	0,39	0,34	0,31
		H = 3,8										0,54	0,43	0,39	0,31	0,28	0,25
	Vk (summer)												7,7			3,9	
	Vk (winter)												8,8			4,5	
	X												5,8			4,4	
	Y (ΔT = 10º C)												5,3			3,5	
	Pt (summer)												55			15	
	Pt (winter)												74			20	
	LwA (summer)												48			39	
	LwA (winter)												52			41	
1500 416,7	Vz	H = 2,7													0,73	0,63	0,56
		H = 3,2													0,58	0,52	0,46
		H = 3,8													0,46	0,42	0,38
	Vk (summer)															5,9	
	Vk (winter)															6,7	
	X															6,0	
	Y (ΔT = 10º C)															5,2	
	Pt (summer)															30	
	Pt (winter)															41	
	LwA (summer)															45	
	LwA (winter)															48	

SIMBOLOGY

TECHNICAL ICONS



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