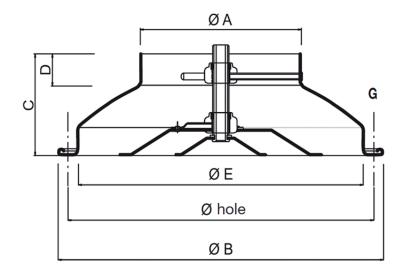


DCMC

High-induction circular diffuser with adjustable cones made up of concentric truncated cone profiles. Height adjustable by means of an adjustment screw in order to change the direction of the air jet in relation to the required thermal conditions.

INSTALLATION HEIGHT:: da 2,7 a 6 m
 APPLICATION: room cooling and heating

TECHNICAL SPECIFICATION AND USAGE LIMIT									
INSTALLATION HEIGHT	APPLICATIONS	MATERIALS	SURFACE FINISH	COLOR	FASTENING				
2,7 to 6 m	Room cooling and heating	Aluminium and steel	Epoxy powder coating resistant to impact and abrasion	Standard RAL 9010 - glossy RAL 9016 - glossy RAL 9003 - mat	by means of screws positioned on the diffuser neck				



GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for suistainable buildings:



Contributes to credits:

IP, EA, MR



Contributes to credits: MATERIALS, COMMUNITY



BREEAM

Contributes to credits: MAN, WST

For further details about specific contributions to the credits indicated, contact Tecnica Srl

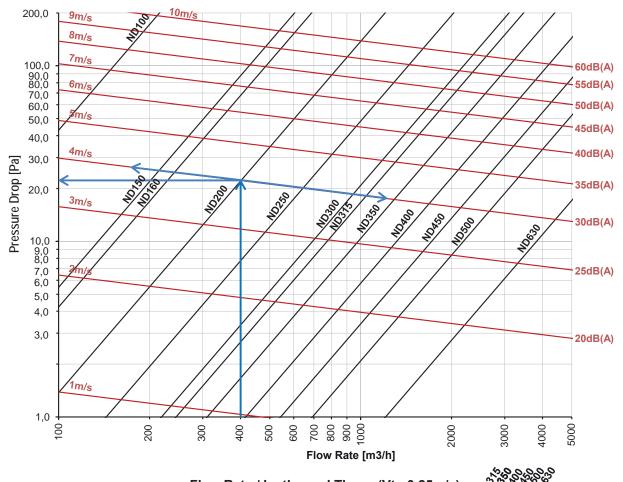
TECHNICAL DATA										
Model	Ø A [mm]	Ø B [mm]	Ø E [mm]	Ø foro [mm]	C [mm]	D [mm]	G [mm]			
DCMC 100	96	250	195	225	85	33	25			
DCMC 150	146	330	280	308	90	25	23			
DCMC 160	156	330	280	308	90	27	23			
DCMC 200	196	445	370	410	115	37	35			
DCMC 250	246	535	460	500	135	37	35			
DCMC 300	296	655	560	610	170	45	45			
DCMC 315	311	655	560	610	170	48	45			
DCMC 350	346	763	650	709	195	60	54			
DCMC 400	396	793	680	740	195	60	52			
DCMC 450	444	843	730	790	195	60	52			
DCMC 500	496	893	782	842	195	60	52			
DCMC 630	624	1045	929	991	210	55	54			

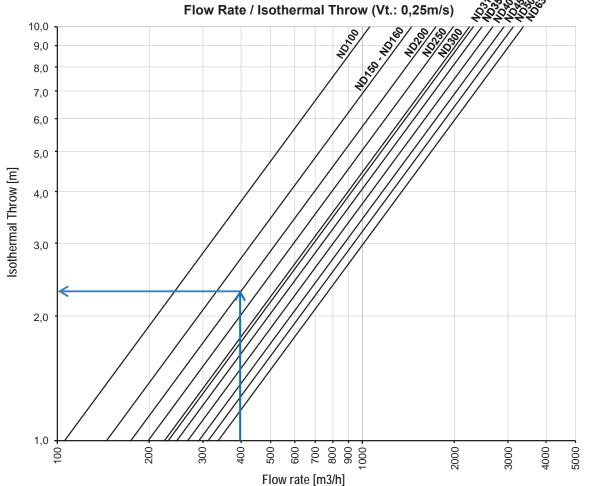
APPLICATIONS + -× = Calculation **REACH** RoHS Interior Air Easy Pack Residential Industry Building Method Certificat Conditioning Certificat design

*on request

Selection charts

Flow Rate / Pressure Drop Noise Level / Air Speed





NOTE: Pressure drop data shown in the diagram refer to the diffuser with the damper fully open.

Diagram 1

The diagram shows the pressure drop of the diffuser based on the flow rate with relative indication of the noise level without environmental attenuation and speed of the incoming air flow.

C A L C U L A T I O N (input data)							
Total Flow Rate	4000 m ³ /h						
Max. Noise Level	30dB(A)						
Number of diffusers expected	10pz.						
Throw	2,20m						

SELECTION								
Model	DCMC 200							
Flow Rate	400 m ³ /h							
Pressure Drop	+/- 22Pa							
Noise Level	30dB(A)							
Air Speed	4,0m/s							
Isothermal Throw	+/- 2,20m							

Diagram 2

The diagram shows the isothermal launch of the diffuser according to the flow rate with terminal speed (Vt) of 0,25m/s. The horizontal launch data are to be understood in isothermal conditions.

For $\Delta T < 10^{\circ}C$ multiply the horizontal throw by 0,85.

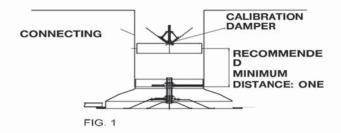


	DESCRIPTION		Vi (m/sec)										
MODEL		U.M.	1	2	3	4	5	6	7	8	9	10	Note: the data indicated refer to operation in isothermal conditions
	Flow Rate	m3/h	21	42	63	84	105	127	148	169	190	211	mal
100	Pressure Drop	Pa	1,9	7,6	17,2	30,6	47,7	68,7	93,6	122,2	154,7	191,0	ther
	Horizontal Throw Vt 0,25	mt	0,2	0,4	0,6	0,8	1,0	1,2	1,4	1,6	1,8	2,0	iso
Ak: 0,0059m2	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	on
	Min. Installation height Max. Installation height	mt mt	2,5 3,2	2,6 3,3	2,7 3,4	2,8 3,5	2,9 3,6	3,0 3,7	3,1 3,8	3,2 3,9	3,3 4,0	3,4 4,1	erati
150 Ak: 0,0149m2	Flow Rate	m3/h	5,2	107	161	215	268	322	376	429	483	537	do
	Pressure Drop	Pa	1,6	6,3	14,2	25,2	39,4	56,8	77,3	101,0	127,8	157,7	er
	Horizontal Throw Vt 0,25	mt	0,4	0,7	1,1	1,5	1,9	2,2	2,6	3,0	3,3	3,7	d ref
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	ate
	Min. Installation height	mt	2,5	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4	indic
	Max. Installation height	mt	3,2	3,3	3,4	3,5	3,6	3,7	3,8	3,9	4,0	4,1	ata
	Flow Rate	m3/h	60	120	181	241	301	361	421	482	542	602	ne d
	Pressure Drop	Pa	1,5	6,1	13,8	24,5	38,3	55,1	75,0	98,0	124,0	153,1	te:
160	Horizontal Throw Vt 0,25	mt	0,4	0,8	1,2	1,7	2,1	2,5	2,9	3,3	3,7	4,1	2
Ak: 0,0167m2	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	
	Min. Installation height	mt	2,5	2,6	2,7	2,8	2,9 3,6	3,0	3,1	3,2	3,3	3,4	
	Max. Installation height Flow Rate	mt m3/h	3,2 100	3,3 201	3,4 301	3,5 402	502	3,7 602	3,8 703	3,9 803	4,0 904	4,1 1004	
	Pressure Drop	Pa	1,4	5,5	12,5	22,2	34,7	49,9	68,0	88,8	112,3	138,7	
200	Horizontal Throw Vt 0,25	mt	0,6	1,2	1,7	2,3	2,9	3,5	4,0	4,6	5,2	5,8	
200	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	
Ak: 0,0279m2	Min. Installation height	mt	2,5	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4	
	Max. Installation height	mt	3,2	3,3	3,4	3,5	3,6	3,7	3,8	3,9	4,0	4,1	
	Flow Rate	m3/h	161	323	484	645	806	968	1129	1290	1451	1613	
	Pressure Drop	Pa	1,3	5,0	11,3	20,1	31,5	45,3	61,7	80,5	101,9	125,8	
250	Horizontal Throw Vt 0,25	mt	0,8	1,6	2,4	3,2	4,1	4,9	5,7	6,5	7,3	8,1	
Ak: 0,0448m2	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	
	Min. Installation height	mt	2,5 3,2	2,6 3,3	2,7 3,4	2,8 3,5	2,9 3,6	3,0 3,7	3,1 3,8	3,2 3,9	3,3 4,0	3,4 4,1	
	Max. Installation height Flow Rate	mt m3/h	236	473	709	945	1181	1418	1654	1890	2127	2363	
	Pressure Drop	Pa	1,2	4,6	10,5	18,6	29,1	41,8	57,0	74,4	94,1	116,2	
200	Horizontal Throw Vt 0,25	mt	1,1	2,1	3,2	4,2	5,3	6,3	7,4	8,4	9,5	10,5	
300	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	
Ak: 0,0656m2	Min. Installation height	mt	2,5	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4	
	Max. Installation height	mt	3,2	3,3	3,4	3,5	3,6	3,7	3,8	3,9	4,0	4,1	
	Flow Rate	m3/h	262	523	785	1046	1308	1569	1831	2092	2354	2615	
	Pressure Drop	Pa	1,1	4,6	10,3	18,2	28,5	41,1	55,9	73,0	92,4	114,0	
315	Horizontal Throw Vt 0,25	mt	1,1	2,3	3,4	4,5	5,7	6,8	7,9	9,1	10,2	11,3	
Ak: 0,0726m2	Noise Level	dB(A)	15 2,5	20 2,6	25 2,7	30 2,8	35 2,9	40 3,0	45 3,1	50 3,2	55 3,3	60 3,4	
	Min. Installation height Max. Installation height	mt mt	3,2	3,3	3,4	3,5	3,6	3,7	3,8	3,9	4,0	4,1	
	Flow Rate	m3/h	325	651	976	1302	1627	1953	2278	2603	2929	3254	
	Pressure Drop	Pa	1,1	4,4	9,9	17,6	27,5	39,6	53,8	70,3	89,0	109,9	
350	Horizontal Throw Vt 0,25	mt	1,3	2,6	4,0	5,3	6,6	7,9	9,2	10,6	11,9	13,2	
Ak: 0,0904m2	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	
AR. 0,0304IIIZ	Min. Installation height	mt	2,5	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4	
	Max. Installation height	mt	3,2	3,3	3,4	3,5	3,6	3,7	3,8	3,9	4,0	4,1	
	Flow Rate	m3/h	423	846	1269	1692	2116	2539	2962	3385	3808	4231	
400	Pressure Drop Horizontal Throw Vt 0,25	Pa mt	1,0 1,6	4,1 3,2	9,3 4,7	16,5 6,3	25,8 7,9	37,2 9,5	50,6 11,1	66,1 12,7	83,7 14,2	103,3 15,8	
400	Noise Level	dB(A)	1,0	20	25	30	35	40	45	50	55	60	
Ak: 0,1175m2	Min. Installation height	mt	2,5	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4	
	Max. Installation height	mt	3,2	3,3	3,4	3,5	3,6	3,7	3,8	3,9	4,0	4,1	
	Flow Rate	m3/h	540	1080	1620	2160	2700	3240	3780	4320	4860	5400	
	Pressure Drop	Pa	1,0	4,0	8,9	15,8	24,7	35,6	48,4	63,2	80,0	98,8	
450	Horizontal Throw Vt 0,25	mt	1,9	3,7	5,6	7,4	9,3	11,1	13,0	14,8	16,7	18,6	
Ak: 0,1500m2	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	
	Min. Installation height	mt	2,5	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4	
	Max. Installation height Flow Rate	mt m3/h	3,2 671	3,3 1342	3,4 2013	3,5 2684	3,6 3355	3,7 4026	3,8 4697	3,9 5368	4,0 6039	4,1 6710	
	Pressure Drop	Pa	0,9	3,8	8,5	15,0	23,5	33,8	46,0	60,1	76,1	93,9	
EOO	Horizontal Throw Vt 0,25	mt	2,1	4,3	6,4	8,6	10,7	12,9	15,0	17,2	19,3	21,5	
500	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	
Ak: 0,0059m2	Min. Installation height	mt	2,5	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4	ĺ
	Max. Installation height	mt	3,2	3,3	3,4	3,5	3,6	3,7	3,8	3,9	4,0	4,1	
	Flow Rate	m3/h	1078	2156	3233	4311	5389	6467	7545	8622	9700	10778	
	Pressure Drop	Pa	0,8	3,2	7,1	12,7	19,9	28,6	38,9	50,8	64,3	79,4	
630 Ak: 0,2994m2	Horizontal Throw Vt 0,25	mt	3,2	6,4	9,6	12,8	16,0	19,2	22,4	25,6	28,8	32,0	
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60	
	Min. Installation height	mt	2,5	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4	
	Max. Installation height	mt	3,2	3,3	3,4	3,5	3,6	3,7	3,8	3,9	4,0	4,1	

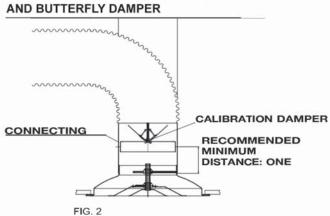


ASSEMBLY INSTRUCTION

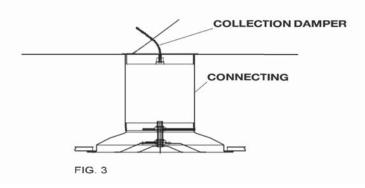
INSTALLATION WITH CONNECTING SLEEVE AND BUTTERFLY DAMPER



INSTALLATION WITH FLEXIBLE HOSE



INSTALLATION WITH CONNECTING SLEEVE AND COLLECTION DAMPER



Easy installation, adjustments and maintenance. The intermediate cones are easy to remove by turning the central hollow threaded pin. The damper fitted at the top of the diffuser is adjusted by acting on the adjustment screw through the hole in the threaded bar of the diffuser.

It is fastened to the ceiling by means of screws on the diffuser neck.

Adjustment

Central cone in low position: optimal position in cooling conditions in order to have the largest horizontal diffusion radius without creating discomfort in the occupied area in rooms with an ideal height between 3 and 4 m. With this configuration, you have the best pressure drop, velocity and sound level conditions. The maximum temperature difference (DI) between the ambient air and the air flowing from the diffuser to obtain the optimal induction conditions is 12°C.

Central cone in high position: optimal position for particularly high rooms up to 6 m and in heating conditions, as you obtain a vertical throw that resists the convective motion of the ambient air.

Fig. 1 Installation with butterfly damper

- Fit the damper on the connecting sleeve, if possible keeping a distance with respect to the diffuser of one nominal diameter but not less than 5 cm.
- Unscrew the central cones from the diffuser and fasten the external housing on the connecting sleeve.
- Screw the central cones onto the external housing.
- Adjust the internal cones according to the desired diffusion parameters.
- Adjust the damper through the central hole in the threaded bar of the diffuser.

Fig. 2 Installation on flexible hose with butterfly damper

- Hang the diffuser on the ceiling or fasten it on the false ceiling.
- Fasten the damper on the connecting sleeve.
- Fit the connecting sleeve in the diffuser.
- Fit the flexible duct on the connecting sleeve and fasten it with a hose clamp.

Fig. 3 Installation with connecting sleeve and collection damper

- Fit the damper on the connecting sleeve in proximity of the hole in the main duct and fasten it with screws or rivets.
- Adjust the damper.
- Fasten the diffuser on the connecting sleeve.
- Finally adjust the flow rate by acting on the damper through the central hole in the threaded bar.

