



DCG

DCG-DAL

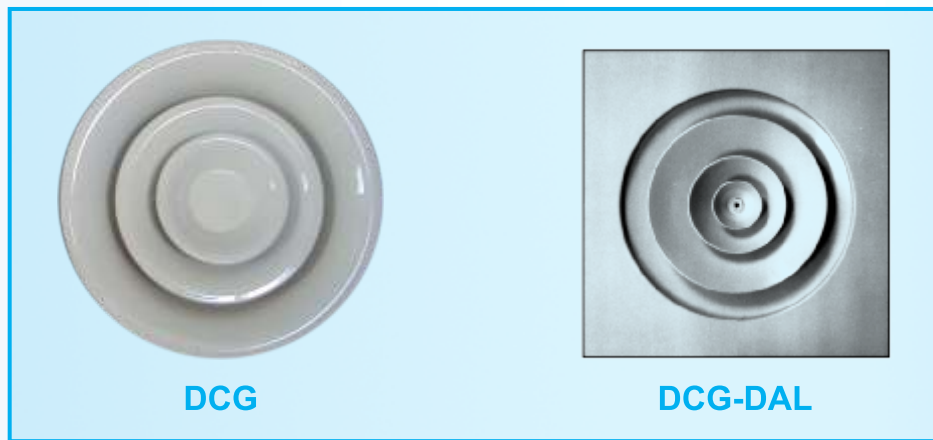
DCN

DCN-DAL

Round Ceiling Diffusers



Round Ceiling Diffusers DCG \ DCG-DAL



Round Diffuser DCB \ DCG:

They have wide application in heating and cooling. The number of cones changes with diffuser size, but also assures uniformity of appearance.

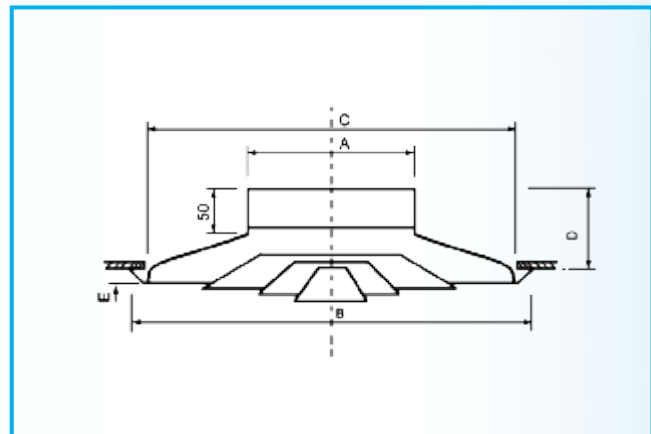
Features:

- Sizes 6 through 24in.
- Inner cones are movable for controlling the air volume.
- Adjustment from full horizontal to full vertical by turning the small center cone.

Material:

Steel or Alum. Thermally painted with any color required.

- All pressures are in inches of water.
- To obtain static pressure subtract the velocity pressure at the head of the column from the total pressure.
- Minimum radii of diffusion are to a terminal velocity of 150FPM, middle to 100FPM and maximum to 50FPM.
- If the diffuser is mounted on an exposed duct, multiply the radii of diffusion shown by 0.70.



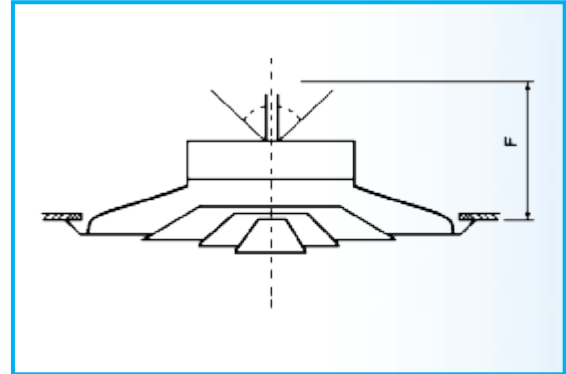
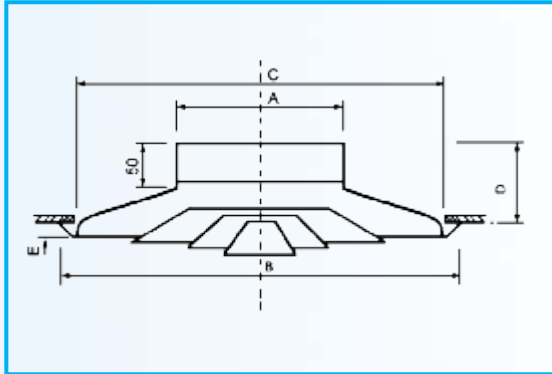
SIZE

Dimention Size	A	B	C	D	E	F	G	H
180	156	324	305	99	8	177	158	82
200	195	465	432	99	15	198	198	72
250	246	494	440	99	20	222	246	90
315	308	616	552	100	20	254	313	105



Round Ceiling Diffusers

DCG / DCG-DAL



Material:

Diffuser are made from Pressed Aluminum

Accessories:

Circular regulator directly installed, made from galvanized iron painted in black.

Measurements of the Blowing Power:

The Dpt of the diffuser is measured when plotted on graphic 2, it shows the outside blowing power.

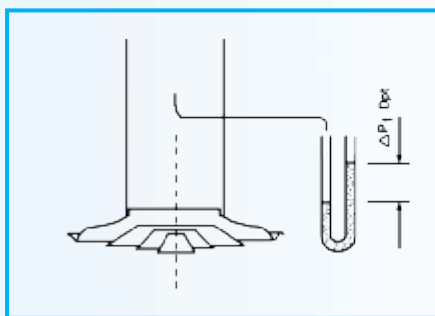
SIZE

Dimention Size	A	B	C	D	E	F	G	H
160	156	324	305	99	8	177	158	62
200	195	465	432	99	15	196	198	72
250	246	494	440	99	20	222	248	90
315	308	616	552	100	20	254	313	105



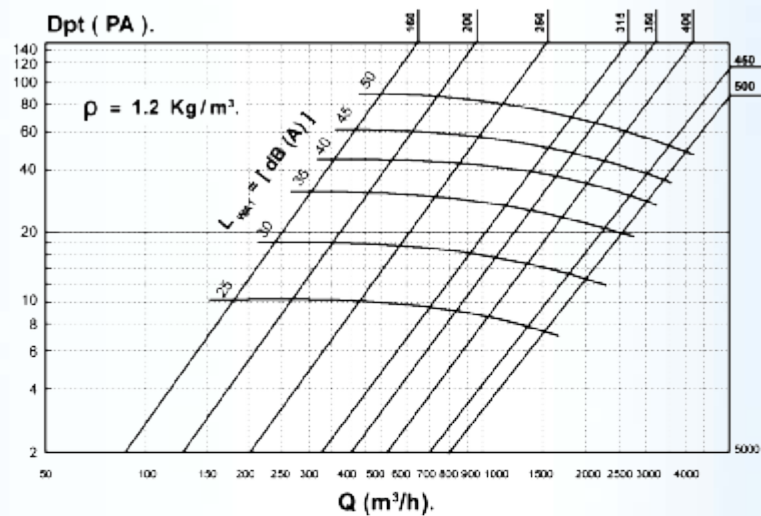
Round Ceiling Diffusers

DCG / DCG-DAL



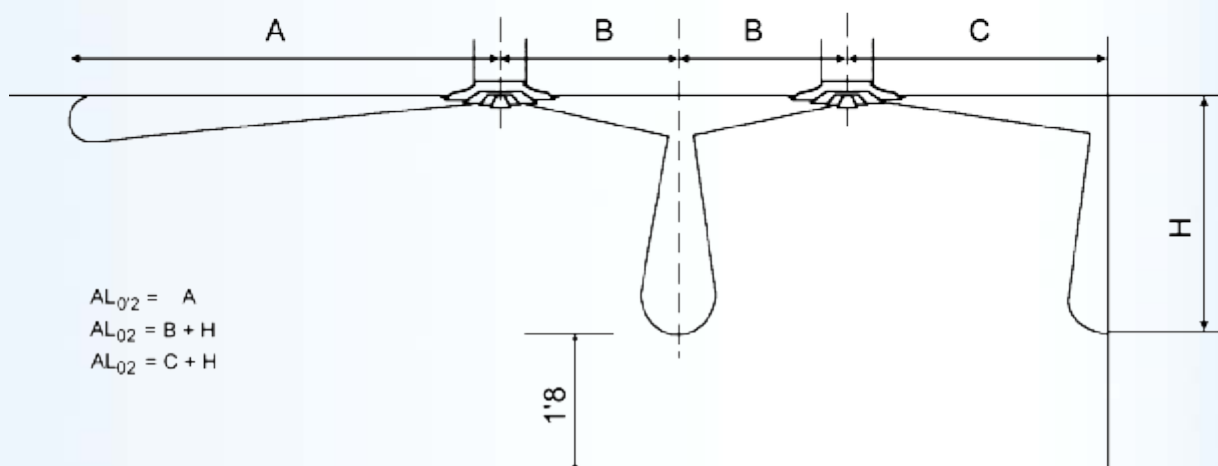
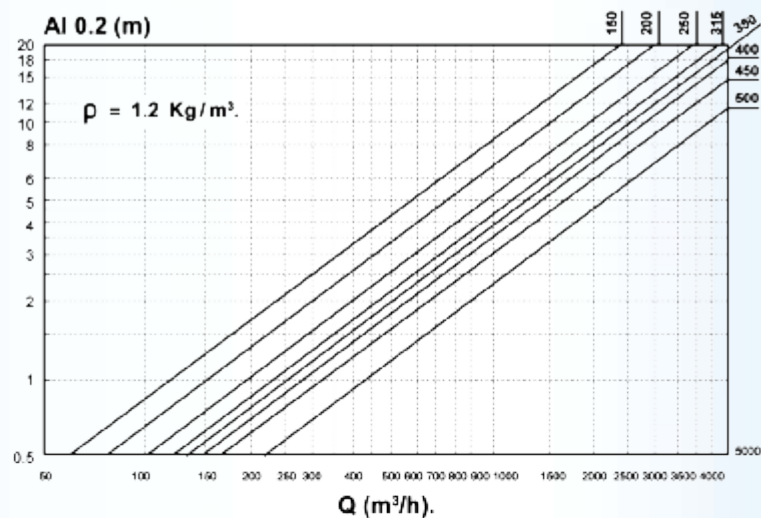
Loss of Load: Sound Level Horizontal

Graphic 1



Load: Horizontal

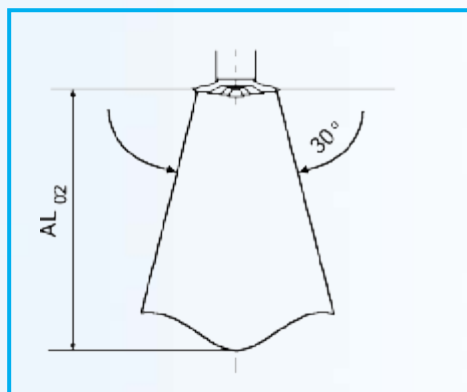
Graphic 2





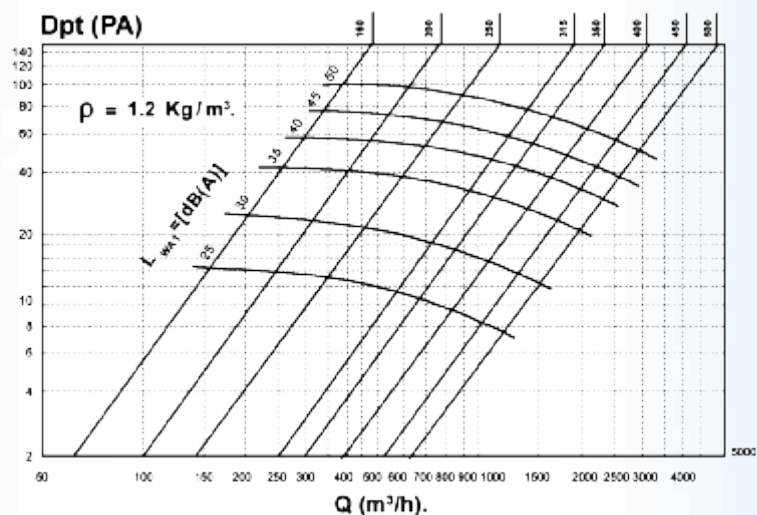
Round Ceiling Diffusers

DCG / DCG-DAL



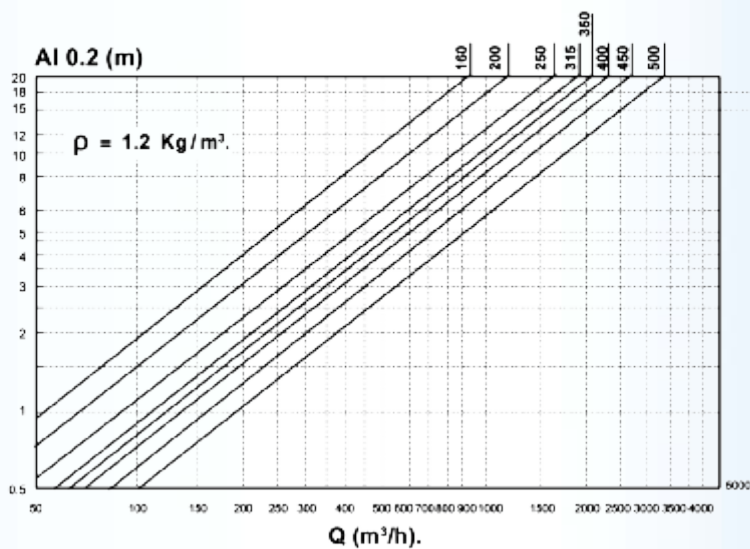
Loss of Load: Sound Level Vertical

Graphic 3



Load: Vertical

Graphic 4



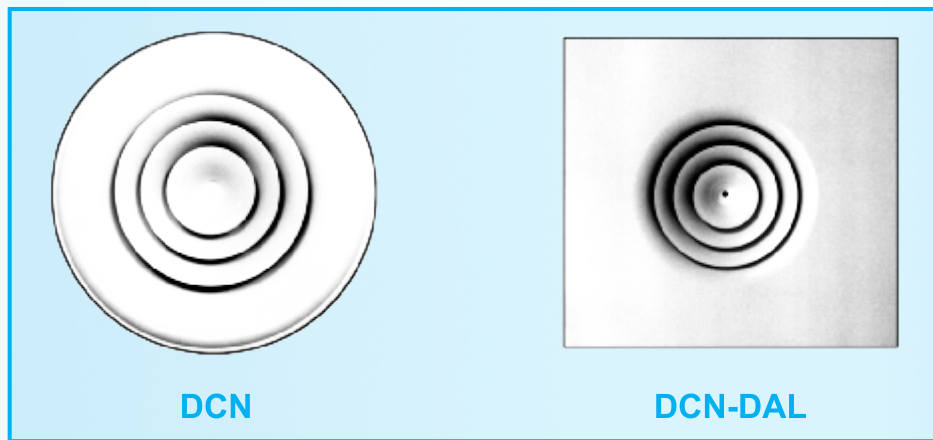


Round Ceiling Diffusers DCG \ DCG-DAL Performance Data :

Size	NC 20 30 40										
	Neck Velocity, fpm	400	500	600	700	800	900	1000	1200	1400	1600
	Vel. Press. in. W.G.	0.01	.016	.023	.031	.040	.051	.063	.090	.122	.160
	Total Horizontal Press. Vertical	0.021	.034	.048	.065	.084	.107	.132	.189	.256	.346
6"	Flow Rate, cfm	80	100	120	140	160	180	200	235	275	315
	Radius of Diff., ft.	1 - 2 - 3	2 - 3 - 4	2 - 3 - 5	2 - 4 - 6	3 - 4 - 7	3 - 5 - 7	4 - 5 - 8	4 - 6 - 10	5 - 7 - 11	6 - 8 - 13
8"	Flow Rate, cfm	140	175	210	245	280	315	350	420	490	560
	Radius of Diff., ft.	2 - 3 - 4	2 - 3 - 5	3 - 4 - 7	3 - 5 - 8	2 - 5 - 9	4 - 6 - 10	5 - 7 - 11	5 - 8 - 13	6 - 9 - 15	7 - 11 - 17
10"	Flow Rate, cfm	220	270	330	380	435	490	545	655	765	870
	Radius of Diff., ft.	2 - 3 - 5	3 - 4 - 7	3 - 5 - 8	4 - 6 - 9	4 - 7 - 11	5 - 8 - 12	4 - 8 - 14	7 - 10 - 16	8 - 12 - 19	9 - 13 - 22
12"	Flow Rate, cfm	315	390	470	550	630	705	785	940	1100	1255
	Radius of Diff., ft.	3 - 4 - 7	3 - 5 - 8	4 - 6 - 10	5 - 7 - 11	5 - 8 - 13	6 - 9 - 15	7 - 10 - 16	8 - 12 - 19	9 - 14 - 23	11 - 16 - 26
14"	Flow Rate, cfm	425	530	635	745	850	955	1060	1270	1490	1695
	Radius of Diff., ft.	3 - 5 - 8	4 - 6 - 9	5 - 7 - 11	5 - 8 - 13	6 - 9 - 15	7 - 11 - 17	8 - 12 - 19	9 - 14 - 22	11 - 16 - 26	13 - 19 - 30
16"	Flow Rate, cfm	560	700	840	980	1120	1260	1400	1680	1960	2240
	Radius of Diff., ft.	4 - 5 - 9	5 - 7 - 11	5 - 8 - 13	6 - 9 - 15	7 - 11 - 17	8 - 12 - 20	9 - 14 - 22	11 - 16 - 26	13 - 19 - 30	14 - 22 - 35
18"	Flow Rate, cfm	710	885	1060	1240	1420	1590	1770	2120	2480	2830
	Radius of Diff., ft.	4 - 6 - 10	5 - 8 - 12	6 - 9 - 15	7 - 11 - 17	8 - 12 - 20	9 - 14 - 22	10 - 15 - 24	12 - 18 - 29	14 - 21 - 34	16 - 24 - 39
20"	Flow Rate, cfm	875	1100	1310	1530	1750	1970	2190	2610	3060	3500
	Radius of Diff., ft.	4 - 7 - 11	6 - 9 - 14	7 - 10 - 16	8 - 12 - 19	9 - 14 - 22	10 - 15 - 24	11 - 17 - 27	13 - 19 - 32	16 - 24 - 38	18 - 27 - 43
24"	Flow Rate, cfm	1260	1570	1880	2200	2510	2820	3140	3770	4400	5020
	Radius of Diff., ft.	5 - 8 - 13	7 - 10 - 16	8 - 12 - 19	9 - 14 - 23	11 - 16 - 26	12 - 18 - 29	14 - 20 - 32	16 - 24 - 39	19 - 28 - 45	22 - 32 - 52



Round Ceiling Diffusers DCN \ DCN-DAL



Round Diffusers DCL \ DCN:

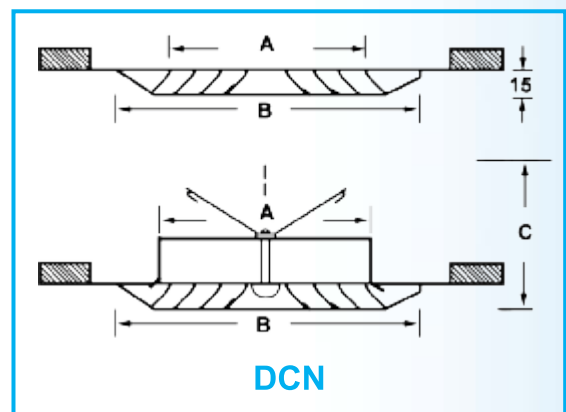
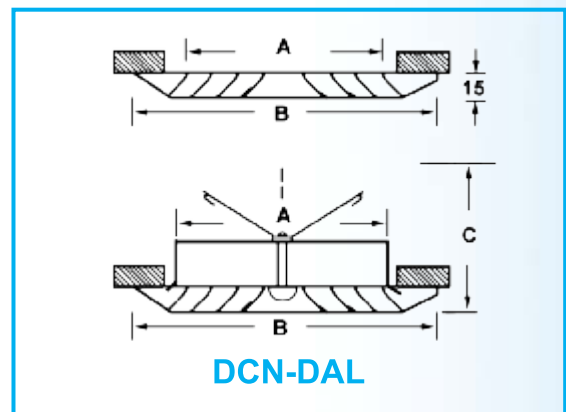
They are designed to be used in air conditioning ventilation and heating systems. They are mounted on plenum. It's circular shape assures an uniform air diffusion in all direction. Cones are unmovable they can be used in premises up to 4 meters high and with a temperature higher than 12, it gives good results not only in air speed but also in sound pressure level. They have a height restrictions.

Material:

Diffuser are made from Pressed Aluminum
All Diffusers are felted with a foam joint along the perimeters of collect with the ceiling.

Circulars regulator :

Circulars regulator moved with a key and Put directly on the Diffuser, the regulator is made from galvanized iron painted in black.

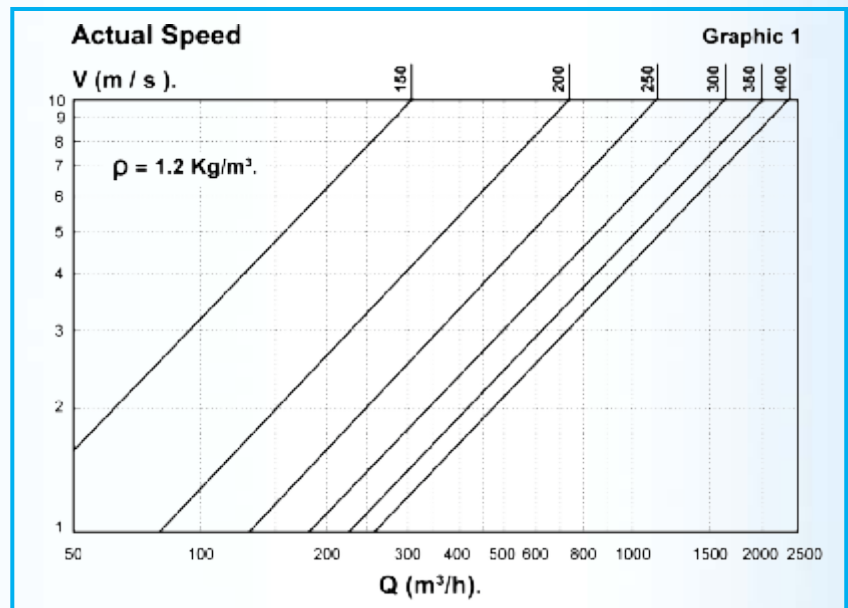


Normal Size	A	B	C
150	140	250	120
200	190	300	143
250	240	350	168
300	290	400	193
350	340	450	216
400	390	500	239
450	440	550	262



Round Ceiling Diffusers DCN \ DCN-DAL

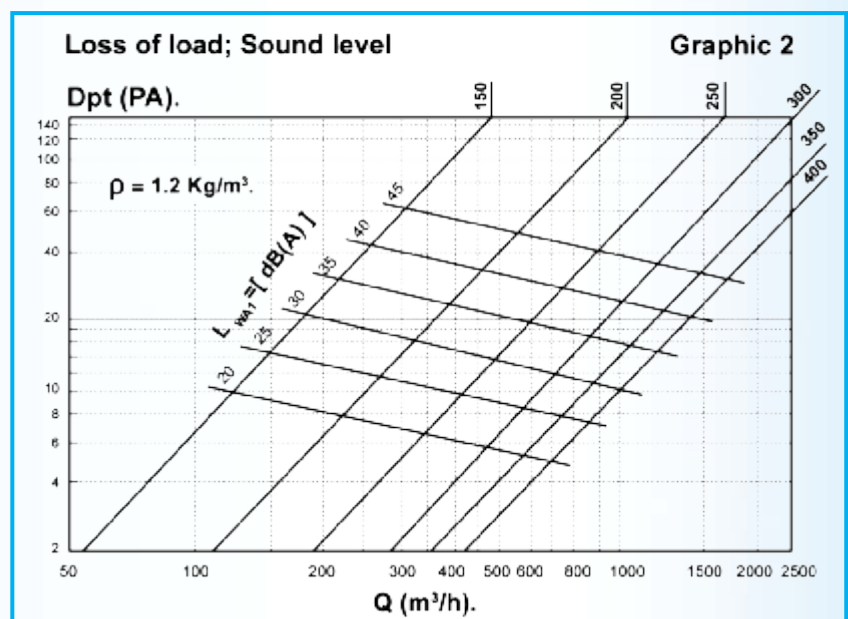
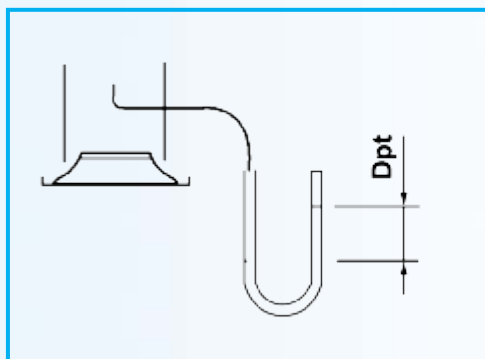
Performance Data :



Normal Size	Effecton Area	Q max m3\h	Q min m3\h
150	0'0086	275	70
200	0'020	500	120
250	0'0326	800	200
300	0'046	1100	275
350	0'055	1200	350
400	0'0702	1500	400
450	0'0854	1800	460

Measurement of the Blowing power:

The Dpt of the diffuser is measured, when potted on graphic 2, it shows the outside blowing power.





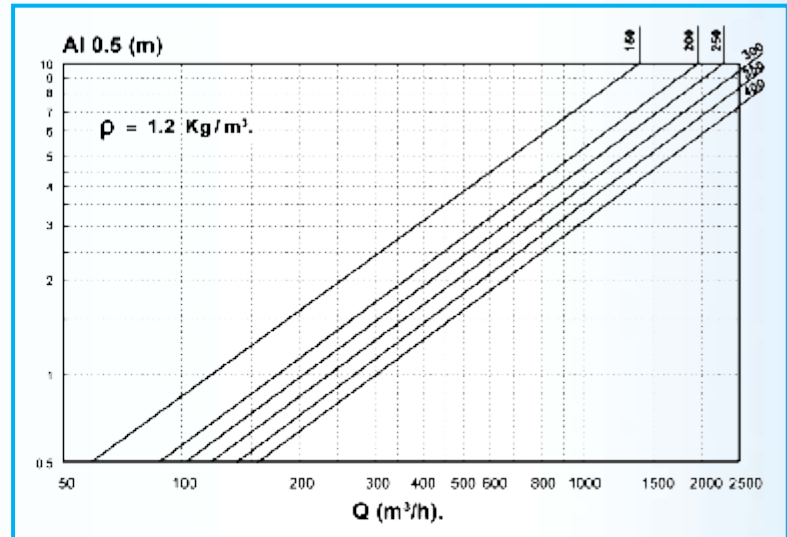
Load: with ceiling effect

Graphic 3

In order to calculate the correction coefficient of the air supply regulator, please use the data of below table.

Chiusura	Kps
100%	1'2
50%	1'7
25%	3'3

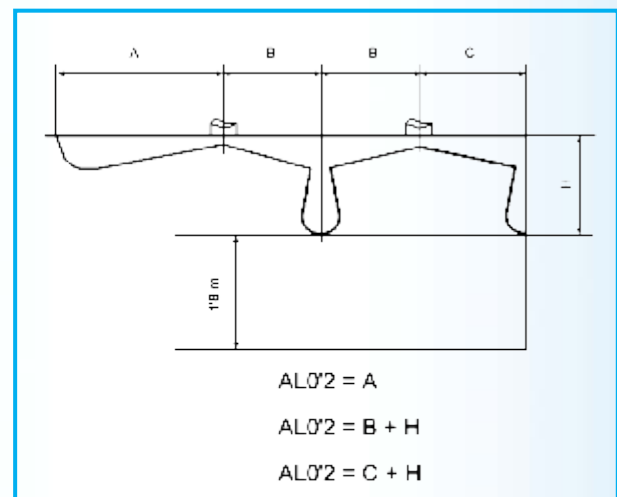
$$Dpt' = Dpt \cdot Kps$$



In order to calculate the correction coefficient of the air return regulator, please use the data of below table.

Chiusura	Kpe
100%	0'8
50%	1'1
25%	2

$$Dpt' = Dpt \cdot Kpe$$



In case of absence of a regulator, data show in main table should be used.