DIMO decorative core modular diffusers

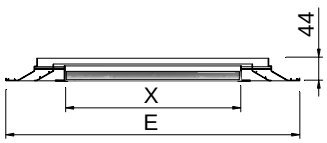
MADEL®

The **DIMO** series modular diffusers are designed to be applied in air conditioning ventilation and heating systems. This sort of diffuser can be used in premises from 2,6 up to 4 meters high and with a temperature differential up to 12º C, obtaining good results, not only in air speed but also in sound pressure level in the comfort zone.

The **DIMO** diffuser causes a 4- way horizontal air supply with coanda effect. Its removable core can be replaced by a piece of false ceiling plate in order to maximise its integration within the interior architecture.

The **DIMO** modular diffusers meet the functional requirements of modern updated locations. Its design fits perfectly in the technical false ceiling.

DIMO



CLASSIFICATION

DIMO Four-Way square diffuser for air supply with removable decorative core.

MATERIAL

Diffuser constructed from aluminium.

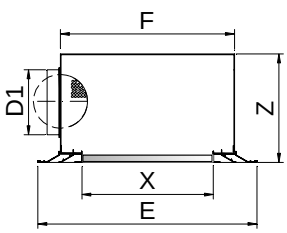
All diffusers are provided with a seal on the back of the frame in order that the perimeter in contact with the ceiling is airtight.

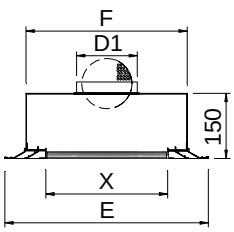
ADDITIONAL ACCESSORIES

PLMO Plenum box with an upper circular connection. Made in galvanised steel.
…-R Plenum box with a flow damper in the spigot.
…/L/ Plenum box with a lateral circular connection.
…/AIS/ Plenum box thermo acoustically insulated by a foam with a coefficient of thermal conductivity of 0,04 w/mk. This foam complies with the fire reaction specifications:

UNE 23-727 M2
NFP 92-501 M2
DIN 4102 M2

PLMO…-R





Dim.	E	F	Z	X	D1
1x600	595	473	310	438	248
2x600	595	473	310	374	248
3x600	595	473	370	310	313
4x600	595	473	370	247	313
1x625	620	498	310	465	248
2x625	620	498	310	399	248
3x625	620	498	370	335	313
4x625	620	498	370	272	313
1x675	670	548	310	513	248
2x675	670	548	310	449	248
3x675	670	548	370	385	313
4x675	670	548	370	322	313

FIXING SYSTEMS

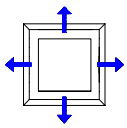
1) Support brackets to hang from the ceiling with drop rods.

FINISHES

M9016 Painted in white similar to RAL 9016.
R9010 Painted in white RAL 9010.
RAL… Painted in other RAL colours.

SPECIFICATION TEXT

Supply and mounting of Four-Way modular diffuser for air supply with decorative core series **DIMO+PLMO/L/-R M9016 dim. 2x600** constructed from aluminium paint in white **M9016**. With lateral circular connection plenum box and air flow damper in the spigot **PLMO-R**. Manufacturer **MADEL**.



RECOMMENDED VELOCITY.

DIMO	Vmin m/s	Vmax m/s
1 x 600	2.5	4.5
2 x 600	2.5	4.5
3 x 600	2.5	4.5
4 x 600	2.5	4.5

NECK AREA m2.

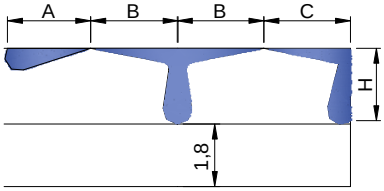
DIMO	Afree m2	Qmin. m3/h	Qmax. m3/h
1 x 600	.0269	242	455
2 x 600	.0449	404	760
3 x 600	.0604	545	1020
4 x 600	.0732	658	1240

CORRECTION FACTOR FOR DPt AND Lwa1.

PLMO		100% Open	50% Open	10% Open
1 x 600	Dpt (Kp)	1	1,82	4,55
	Lwa1 (Kf)	+0	+6	+15
2 x 600	Dpt (Kp)	1	4,38	7,5
	Lwa1 (Kf)	+0	+6	+15
3 x 600	Dpt (Kp)	1	4,17	8,33
	Lwa1 (Kf)	+0	+6	+16
4 x 600	Dpt (Kp)	1	3	18
	Lwa1 (Kf)	+0	+7	+16

DPt1 = Kp x DPt

Lwa = Lwa1 + Kf



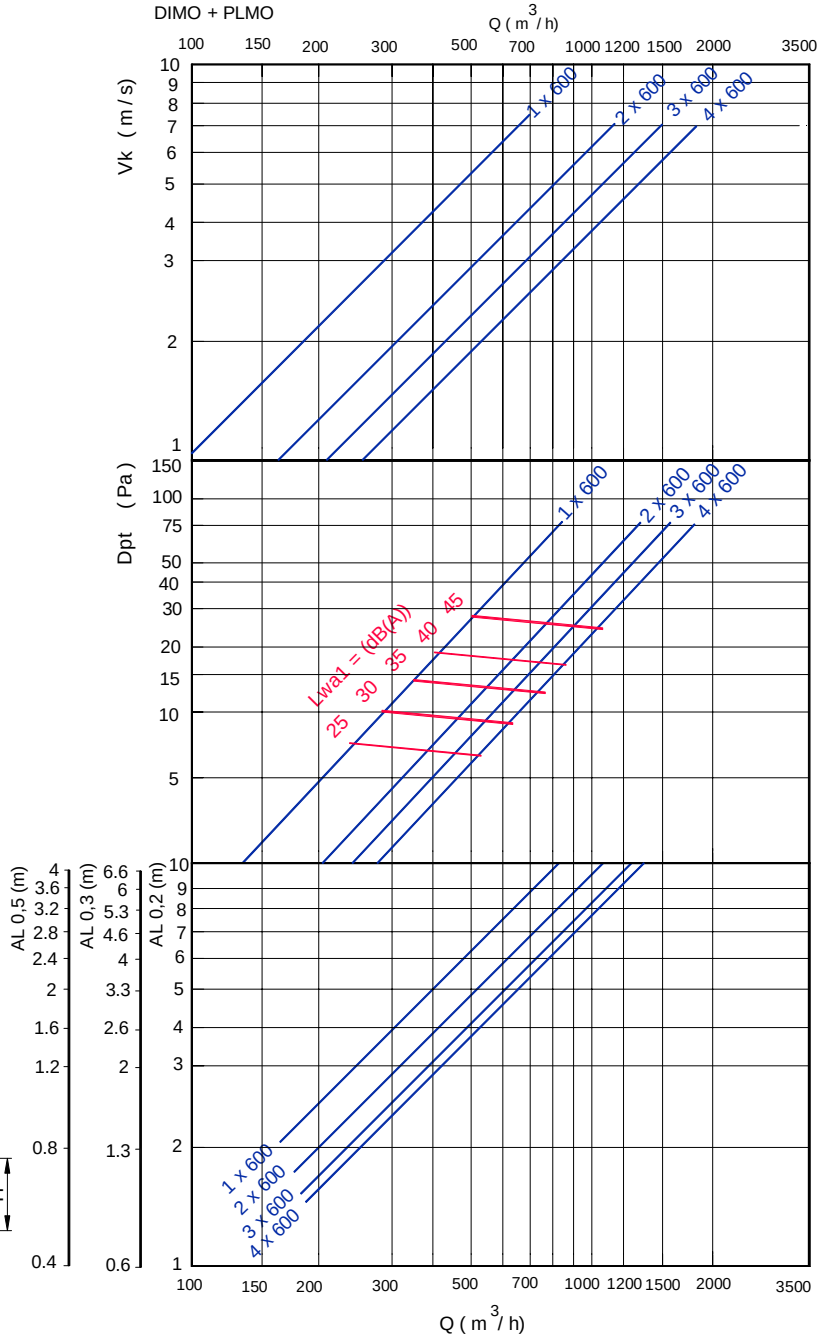
$AL_{0.2}$ = A

$AL_{0.2}$ = B+H

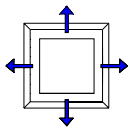
$AL_{0.2}$ = C+H

NECK VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT.

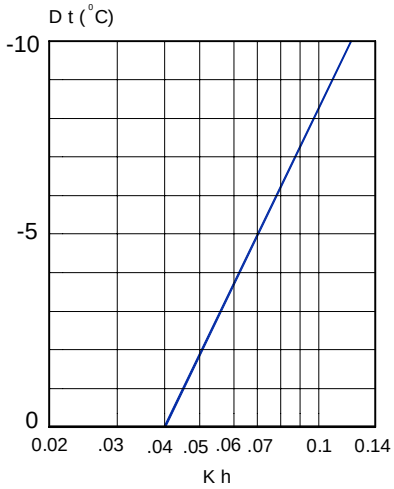
DIMO + PLMO



Note: In MadelMedia Octava band centre frequency in Hz.

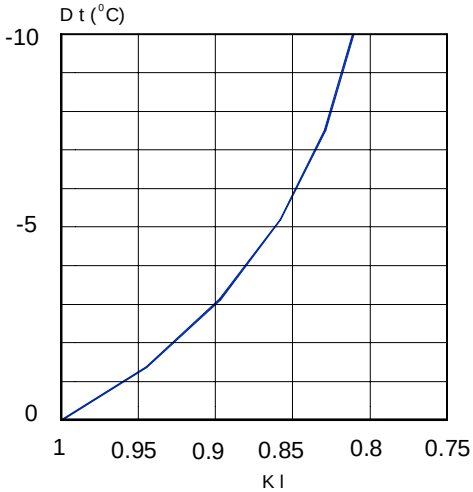


CORRECTION FACTOR FOR VERTICAL DIFFUSION (bV) FOR DT (-).

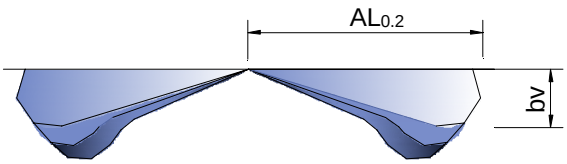


Kh = Correction factor for the vertical diffusion.

CORRECTON FACTOR FOR THROW (L0.2) DT (-).



Kl = Correction factor for the throw.



$bv = Kh \times Al_{0.2}$

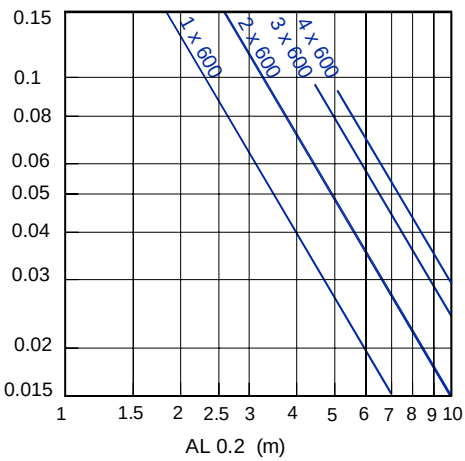
$AL'_{0.2}\ (Dt<0) = Kl \times AL_{0.2}$

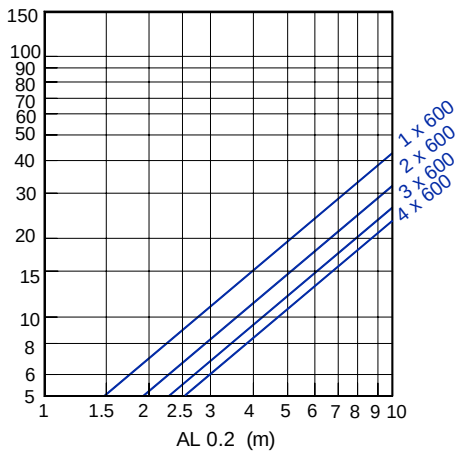
TEMPERATURE RATIO.

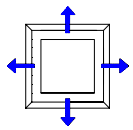
$$\frac{Dtl}{Dtz} = \frac{t\ room - t\ x}{t\ room - t\ supply}$$

INDUCTION RATIO.

$$i = \frac{Qr}{Q_0} = \frac{Q\ total\ at\ x}{Q\ of\ supply.}$$







RECOMMENDED VELOCITY.

DIMO	Vmin m/s	Vmax m/s
1 x 625	2.5	4.5
2 x 625	2.5	4.5
3 x 625	2.5	4.5
4 x 625	2.5	4.5

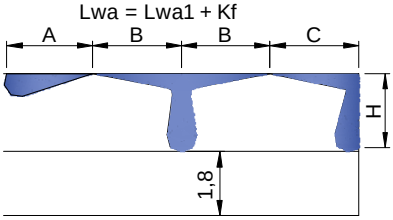
NECK AREA m2.

DIMO	Afree m2	Qmin. m3/h	Qmax. m3/h
1 x 625	.0279	255	445
2 x 625	.0468	410	795
3 x 625	.0639	575	1080
4 x 625	.0762	685	1290

CORRECTION FACTOR FOR DPt AND Lwa1.

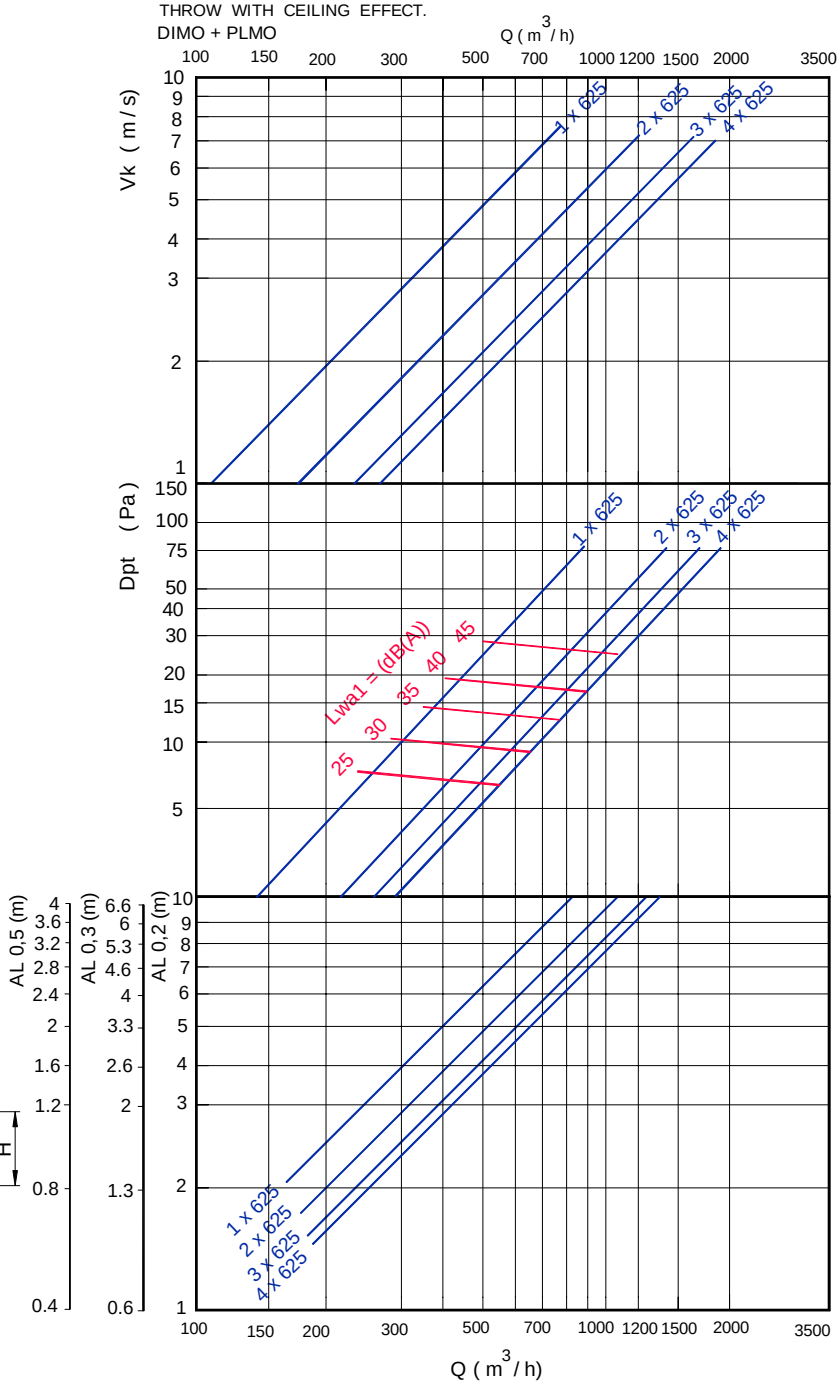
PLMO		100% Open	50% Open	10% Open
1 x 625	Dpt (Kp)	1	1,82	4,55
	Lwa1 (Kf)	+0	+6	+15
2 x 625	Dpt (Kp)	1	4,38	7,5
	Lwa1 (Kf)	+0	+6	+15
3 x 625	Dpt (Kp)	1	4,17	8,33
	Lwa1 (Kf)	+0	+6	+16
4 x 625	Dpt (Kp)	1	3	18
	Lwa1 (Kf)	+0	+7	+16

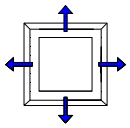
DPt1 = Kp x DPt
Lwa = Lwa1 + Kf



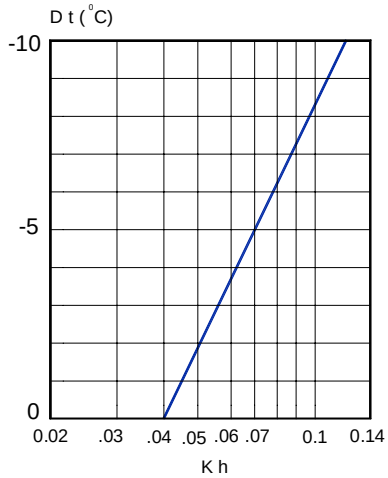
$AL_{0.2}$ = A
$AL_{0.2}$ = B+H
$AL_{0.2}$ = C+H

NECK VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT.
DIMO + PLMO



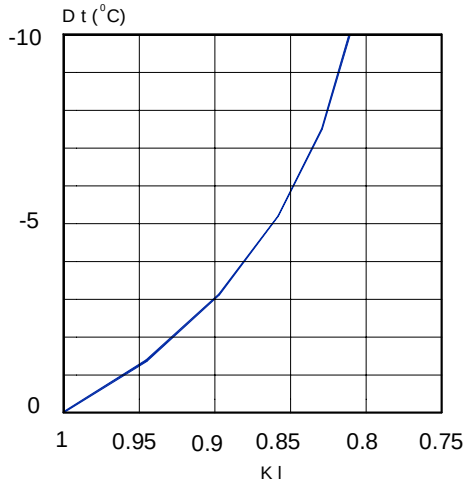


CORRECTION FACTOR FOR VERTICAL DIFFUSION (bV) FOR DT (-).

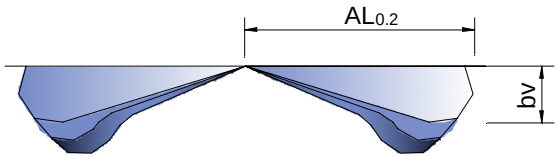


Kh = Correction factor for the vertical diffusion.

CORRECTON FACTOR FOR THROW (L0.2) DT (-).



Kl = Correction factor for the throw.



$$bv = Kh \times Al_{0.2}$$

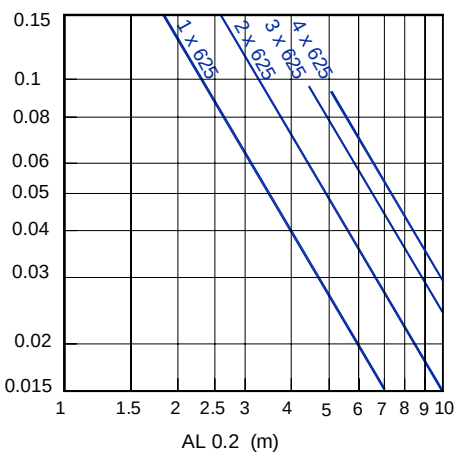
$$AL'_{0.2} \ (Dt<0) = Kl \times AL_{0.2}$$

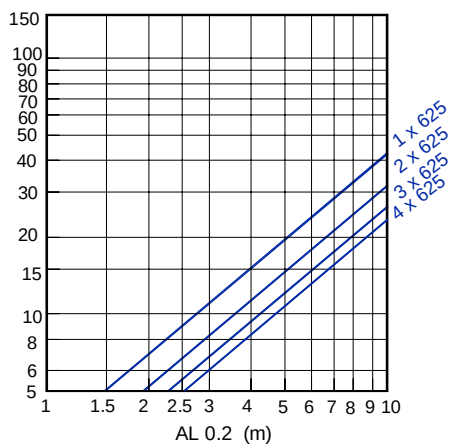
TEMPERATURE RATIO.

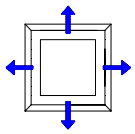
$$\frac{Dtl}{Dtz} = \frac{t\ room - t\ x}{t\ room - t\ supply}$$

INDUCTION RATIO.

$$i = \frac{Qr}{Q_0} = \frac{Q\ total\ at\ x}{Q\ of\ supply.}$$







RECOMMENDED VELOCITY.

DIMO	Vmin m/s	Vmax m/s
1 x 675	2.5	4.5
2 x 675	2.5	4.5
3 x 675	2.5	4.5
4 x 675	2.5	4.5

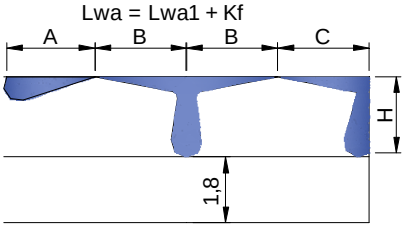
NECK AREA m2.

DIMO	Afree m2	Qmin. m3/h	Qmax. m3/h
1 x 675	.0316	285	535
2 x 675	.0516	465	873
3 x 675	.0711	640	1200
4 x 675	.0857	770	1450

CORRECTION FACTOR FOR DPt AND Lwa1.

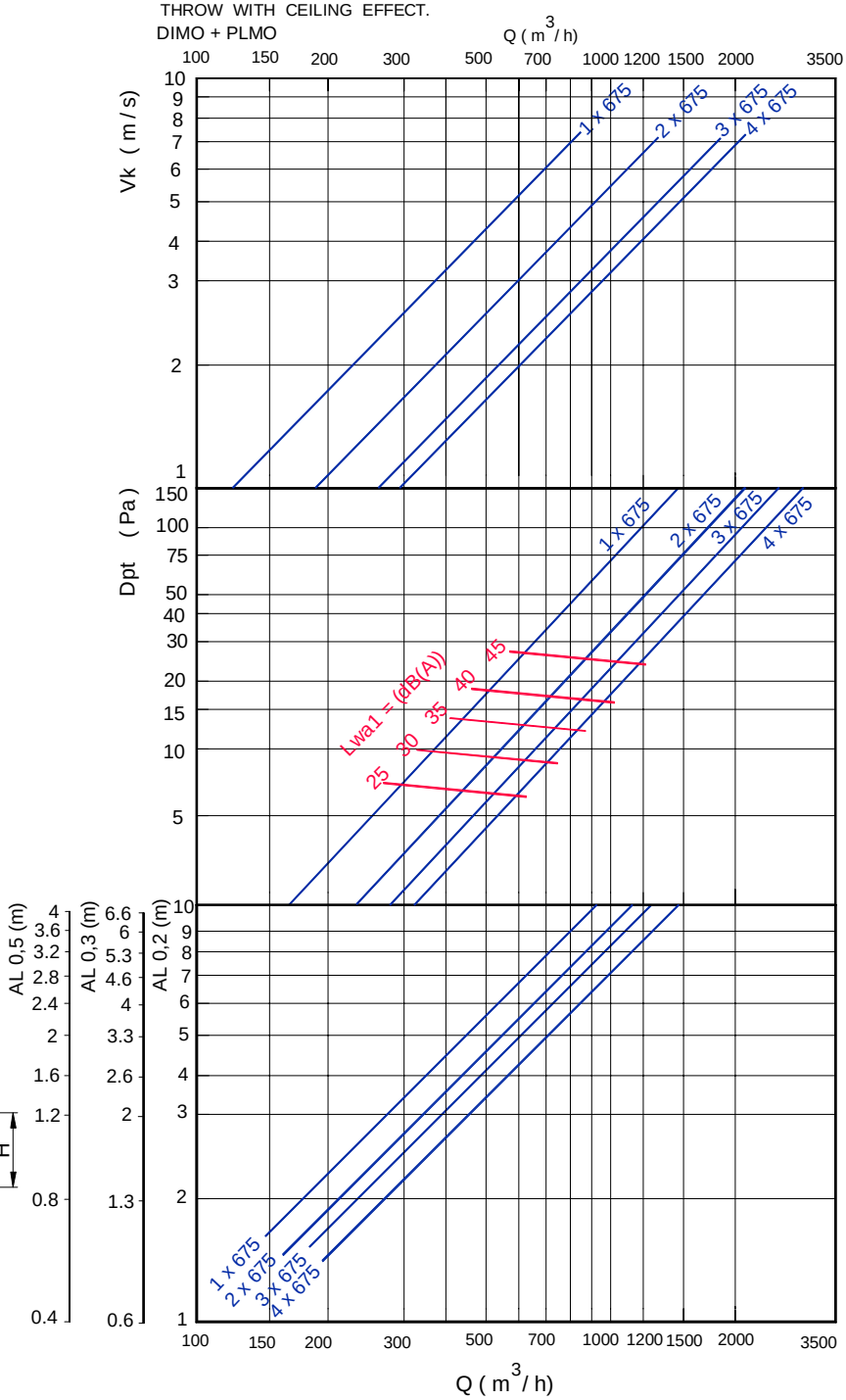
PLMO		100% Open	50% Open	10% Open
1 x 675	Dpt (Kp)	1	1,82	4,55
	Lwa1 (Kf)	+0	+6	+15
2 x 675	Dpt (Kp)	1	4,38	7,5
	Lwa1 (Kf)	+0	+6	+15
3 x 675	Dpt (Kp)	1	4,17	8,33
	Lwa1 (Kf)	+0	+6	+16
4 x 675	Dpt (Kp)	1	3	18
	Lwa1 (Kf)	+0	+7	+16

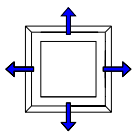
DPt1 = Kp x DPt
Lwa = Lwa1 + Kf



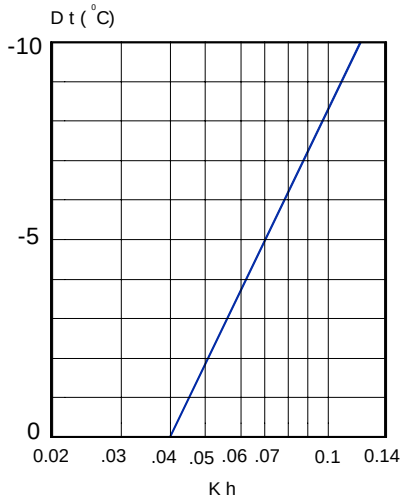
$AL_{0.2}$ = A
$AL_{0.2}$ = B+H
$AL_{0.2}$ = C+H

NECK VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT.

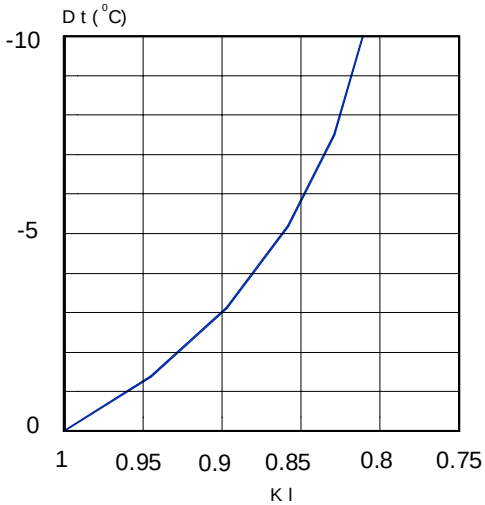




CORRECTION FACTOR FOR VERTICAL DIFFUSION (bV) FOR DT (-).

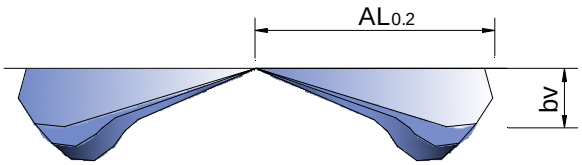


CORRECTON FACTOR FOR THROW (L0.2) DT (-).



Kh = Correction factor for the vertical diffusion.

Kl = Correction factor for the throw.



$$bv = Kh \times Al_{0.2}$$

$$AL'_{0.2}\ (Dt<0) = Kl \times AL_{0.2}$$

TEMPERATURE RATIO.

$$\frac{Dtl}{Dtz} = \frac{t\ room - t\ x}{t\ room - t\ supply}$$

INDUCTION RATIO.

$$i = \frac{Qr}{Q_0} = \frac{Q\ total\ at\ x}{Q\ of\ supply.}$$