

MAD E L



AXO adjustable vanes swirl diffusers



MAD E L

The **AXO** swirl diffusers are designed to be applied in air conditioning ventilation and heating systems. They can be mounted in false ceilings or suspended from ceiling. The design of their vanes and its radial arrangement in the diffuser cause a swirl air supply with a coanda effect, which provides a high level of induction rate of the air in the atmosphere and reducing the stratification. Their individually adjustable vanes allow to change the supply angle to adjust the diffuser to the different architectonics environments. Their sectored vanes emit a uniform air flow all over the passage section. The **AXO** series diffusers admit a flow variation of 60% keeping the air stream stable. These diffusers can be used from 2,6 up to 4 meters high and at a temperature differential up to 12°C.

Models:

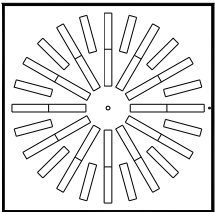
AXO-S

AXO-KLIN

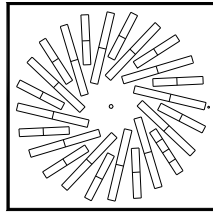
AXO-C

AXO-R

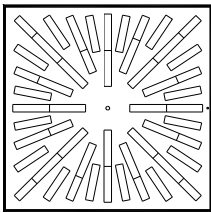
AXO-S



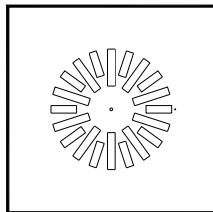
AXO-SY



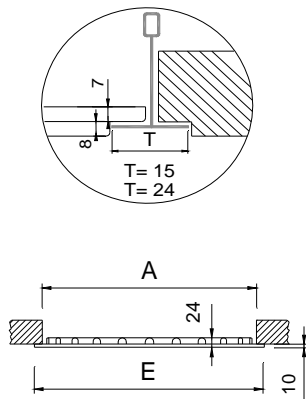
AXO-SX



AXO-S.../SR/



AXO-S.../T.../



	E	A
300	295	280
310	308	289
400	395	376
500	495	476
600	595	576
625	620	601
800	795	776
825	820	801

Classification

AXO-S Diffuser with vanes in radial arrangement.

...SY Vanes in radial inclined arrangement.

...SX Vanes in square radial arrangement.

.../SR/ Reduced supply area.

.../T15/ Panel with angled borders to replace an angled ceiling tile profile 15 mm.

.../T24/ Panel with angled borders to replace an angled ceiling tile profile 24 mm.

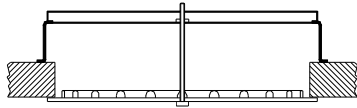
Material

Diffuser constructed from galvanised steel and deflection vanes made of injected plastic, ABS type.

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

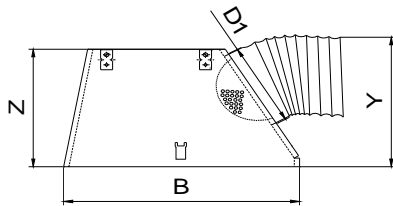
Additional accessories

PMXO



PMXO Crossbar suitable for mounting in false ceiling with rectangular duct.

BOXSTAR



BOXSTAR Plenum box with a lateral circular connection for AXO-S...diffusers. It includes supports to hang from the ceiling. The crossbar is supplied separately to be assembled manually on the work site. Made in galvanised steel. Plenum box with a lateral Circular.

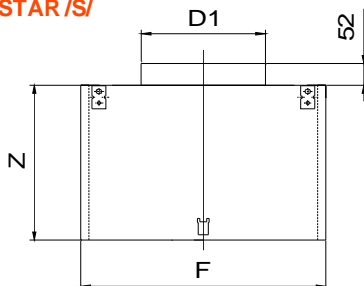
...-R Plenum box with a flow damper in the spigot. The AXO diffusers incorporate a vane, indicated by means of a point, that can be positioned totally in vertical to allow the access to the regulator once the diffuser is mounted.

	B	Z	Y	D1
300	290	250	275	123
310	303	250	275	123
400	390	300	325	198
500	490	300	325	198
600	590	350	375	248
625	615	350	375	248
800	790	415	440	313
825	815	415	440	313

.../S/ Plenum box with an upper 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

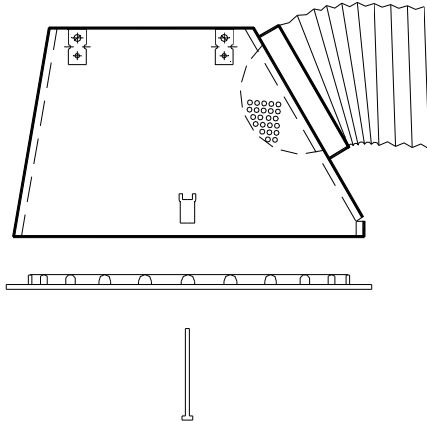
BOXSTAR /S/



	F	Z	D1
300	290	300	198
310	305	300	198
400	390	300	198
500	490	300	198
600	590	350	248
625	615	350	248
800	790	415	313
825	815	415	313

FIXING SYSTEMS

1)



- 1) Connection into the crossbar or to the plenum box by means of central screw. Plenum box incorporates supports to hang the assembly from the ceiling with drops rods.

Finishes

M9016 Painted in white similar to RAL 9016.

R9010 Painted in white RAL 9010.

RAL... Painted in other RAL colours.

.../AB/ ABS plastic vanes in white..

Specification Text

Supply and mounting of square swirl diffuser with individually adjustable radial vanes series

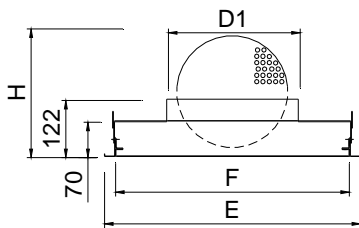
AXO-S+BOXSTAR-R M9016 dim. 600 constructed from galvanised steel paint in white **M9016** and black ABS plastic vanes. With lateral circular connection pyramidal plenum box and air flow damper in the spigot **BOXSTAR-R**. Manufacturer **MADEL**.

AXO-S-KLIN

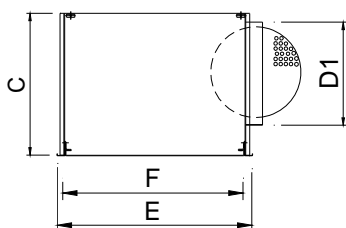


	E	A	F
400	395	369	365
500	495	469	465
600	595	569	565
625	620	594	590
675	670	644	640
600-400	595	569	565
600-500	595	569	565
625-400	620	594	590
625-500	620	594	590
675-400	670	644	640
675-500	670	644	640

AXO-S-KLIN+PLK...-R



AXO-S-KLIN+PLK/L/...-R



	E	F	D1	H	C
400	395	365	198	205	320
500	495	465	248	286	370
600	595	565	313	353	435
625	620	590	313	353	435
675	670	640	313	353	435

AXO-S-KLIN

Classification

AXO-S-KLIN KLIN Hinged removable core diffuser for the easy access to the installations above the ceiling with no need of tools, by means of PUSH fasteners. By slightly pressing on the invisible latch, the core opens, remaining hinged on one side. If necessary the core can be easily removed for maintenance of HVAC installations.

Material

Diffuser constructed from galvanised steel and deflection vanes made of injected plastic, ABS type. All diffusers are provided with a seal on the back of the frame in order that the perimeter in contact with the plenum box or the ceiling is Airtight.

Additional accessories

PLK Plenum box fixed to the diffuser, suitable For -KLIN models.

Plenum Box with an upper connection, made in galvanised steel.

...-R Plenum box with a flow damper in the spigot.

.../L/ Plenum box with a lateral 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

FIXING SYSTEMS

1) Suspended at the false ceiling.

1)



Finishes

M9016 Painted in white similar to RAL 9016.

R9010 Painted in white RAL 9010.

RAL... Painted in other RAL colours.

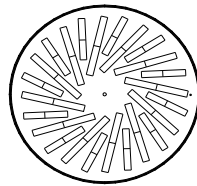
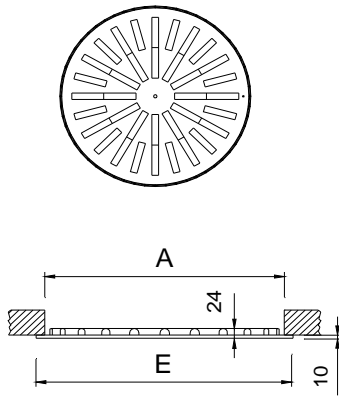
.../AB/ ABS plastic vanes in white..

Specification Text

Supply and mounting of square swirl diffuser with adjustable vanes with hinged removable core without tools, by pressing on the invisible PUSH fasteners series **AXO-S-KLIN+PLK-R M9016 dim. (mm)** constructed from galvanised steel paint in white **M9016** and black ABS plastic vanes. With upper circular connection plenum box and air flow damper in the spigot **PLK-R**. Manufacturer **MADEL**.

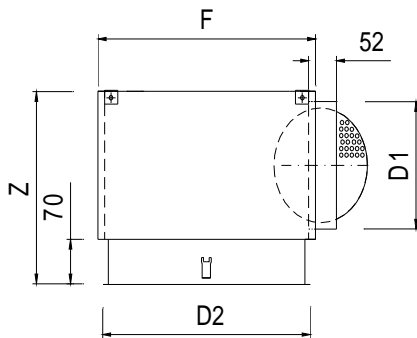
AXO-C

AXO-CY



	E	A
300	300	284
400	400	376
500	500	476
625	625	601
825	825	801

PLXOC



	D2	F	Z	D1
300	295	315	300	198
400	395	415	300	198
500	495	515	300	198
625	620	640	350	248
825	820	840	415	313

AXO-C

Classification

AXO-C Circular diffuser with vanes in circular Radial arrangement.

...-CY Vanes in circular radial arrangement, inclined in relation to the centre.

Material

Diffuser constructed from galvanised steel and deflection vanes made of injected plastic, ABS type. All diffusers are provided with a seal on The back of the frame in order that the perimeter in contact with the plenum box or the ceiling is Airtight.

Additional accessories

PMXO Crossbar suitable for mounting in false ceiling with rectangular duct.

PLXOC Plenum box with a lateral circular connection for AXO-C. circular diffusers. Made in galvanised steel.

...-R Plenum box with a flow damper in the spigot. The AXO diffusers incorporate a vane, indicated by means of a point, that can be positioned totally in vertical to allow the access to the regulator once the diffuser is mounted.

.../S/ Plenum box with an upper connection.

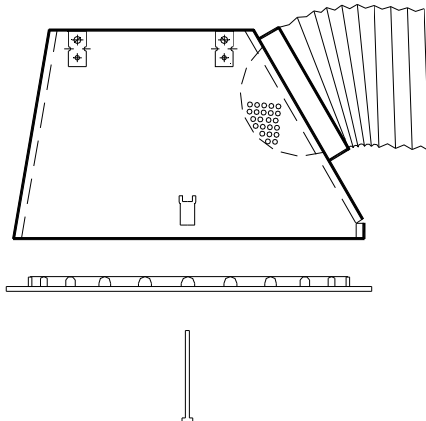
.../AIS/ Plenum box thermo acoustically Insulated by a foam with a coefficient of thermal conductivity of 0,04 w/mk. This foam complies with the fire reaction.

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

FIXING SYSTEMS

1) Crossbar suitable for mounting in false ceiling with rectangular duct.

1)



Finishes

M9016 Painted in white similar to RAL 9016.

R9010 Painted in white RAL 9010.

RAL... Painted in other RAL colours.

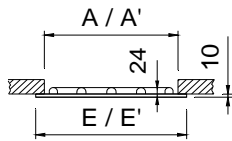
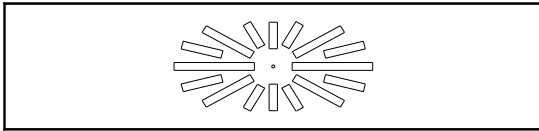
.../AB/ ABS plastic vanes in white.

Specification Text

Supply and mounting of circular swirl diffuser with individually adjustable radial vanes series

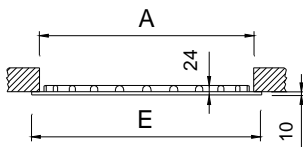
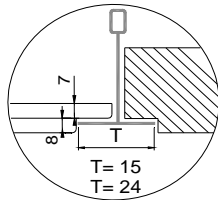
AXO-C+PLXOC-R M9016 dim. 600 constructed from galvanised steel paint in white **M9016** and black ABS plastic vanes. With lateral circular connection plenum box and air flow damper in the spigot **PLXOC-R**.
Manufacturer **MADEL**.

AXO-R



Dim.	E	E'	A	A'
600 x 300	595	295	576	276
625 x 310	620	305	601	286
675 x 335	670	330	651	311
1200 x 300	1195	295	1176	276
1250 x 310	1245	308	1226	286
1350 x 335	1345	330	1326	311

AXO-R.../T.../



	E	A
300	295	280
310	308	289
400	395	376
500	495	476
600	595	576
625	620	601
800	795	776
825	820	801

AXO-R

Classification

AXO-R Rectangular diffuser with vanes in radial arrangement.

.../T15/ Panel with angled borders to replace an angled ceiling tile profile 15 mm.

.../T24/ Panel with angled borders to replace an angled ceiling tile profile 24 mm.

Material

Diffuser constructed from galvanised steel and deflection vanes made of injected plastic, ABS type. All diffusers are provided with a seal on The back of the frame in order that the perimeter in contact with the plenum box or the ceiling is Airtight.

Additional accessories

PMYR Crossbar suitable for mounting in false ceiling with rectangular duct.

PLXOR Plenum box with a lateral circular Connection . Made in galvanised steel.

...-R Plenum box with a flow damper in the spigot.
.../S/ Plenum box with an upper 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

FIXING SYSTEMS

1) Crossbar suitable for mounting in false ceiling with rectangular duct.

Finishes

M9016 Painted in white similar to RAL 9016.

R9010 Painted in white RAL 9010.

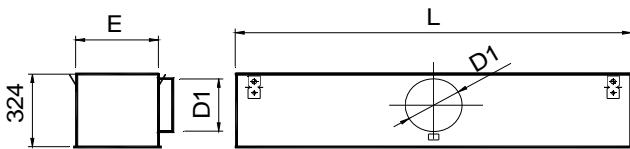
RAL... Painted in other RAL colours.

.../AB/ ABS plastic vanes in white.

Specification Text

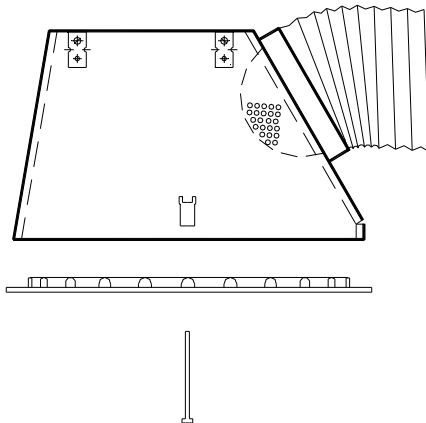
Supply and mounting of rectangular swirl diffuser with individually adjustable radial vanes series **AXO-R+PLXOR M9016 dim. 1000X300** constructed from galvanised steel paint in white **M9016** and black ABS plastic vanes. With lateral circular connection plenum box **PLXOR**. Manufacturer **MADEL**.

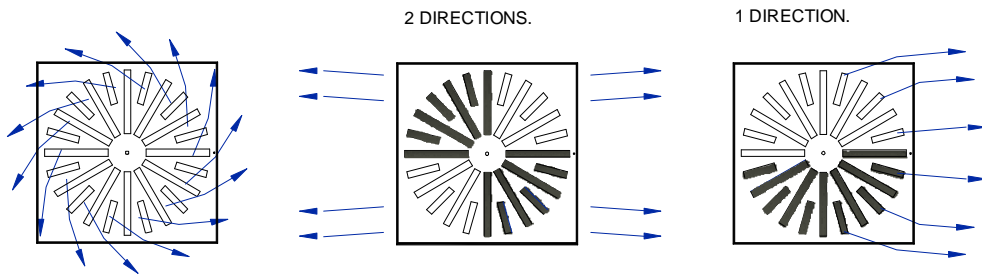
PLXOR



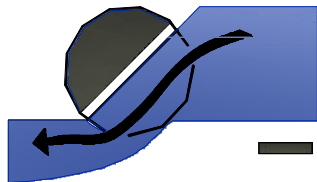
Dim.	L (mm)	E	D1
600 x 300	590	290	248
625 x 310	615	300	248
675 x 335	665	325	248
1200 x 300	1190	290	248
1250 x 310	1240	300	248
1350 x 335	1340	325	248

1)

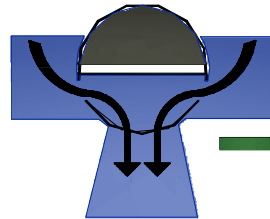




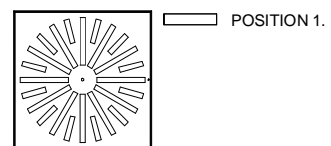
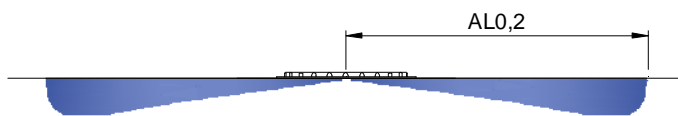
HORIZONTAL SUPPLY.
POSITION 1.



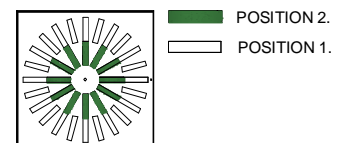
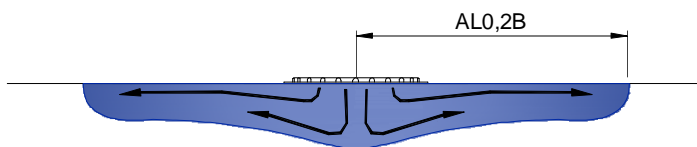
VERTICAL SUPPLY.
POSITION 2.



TYPE A. 100% POSITION 1.



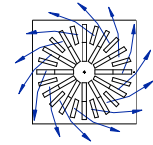
TYPE B. 50% POSITION 1 AND 50% POSITION 2.





MADEL®

AXO-S



RECOMMENDED VELOCITY.

AXO-S	Vmin m/s	Vmax m/s
310	2.5	6,5
400	2.5	5,9
500	2.5	5,4
600	2.5	5,3
625	2.5	5,3
800	2.5	4,2
825	2.5	4,2

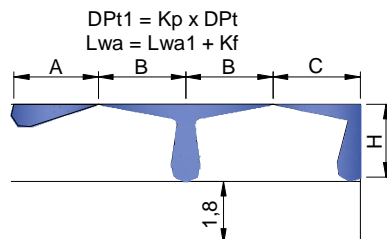
FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL,
THROW WITH CEILING EFFECT.
AXO-S+BOXSTAR

FREE FACE AREA (m2).

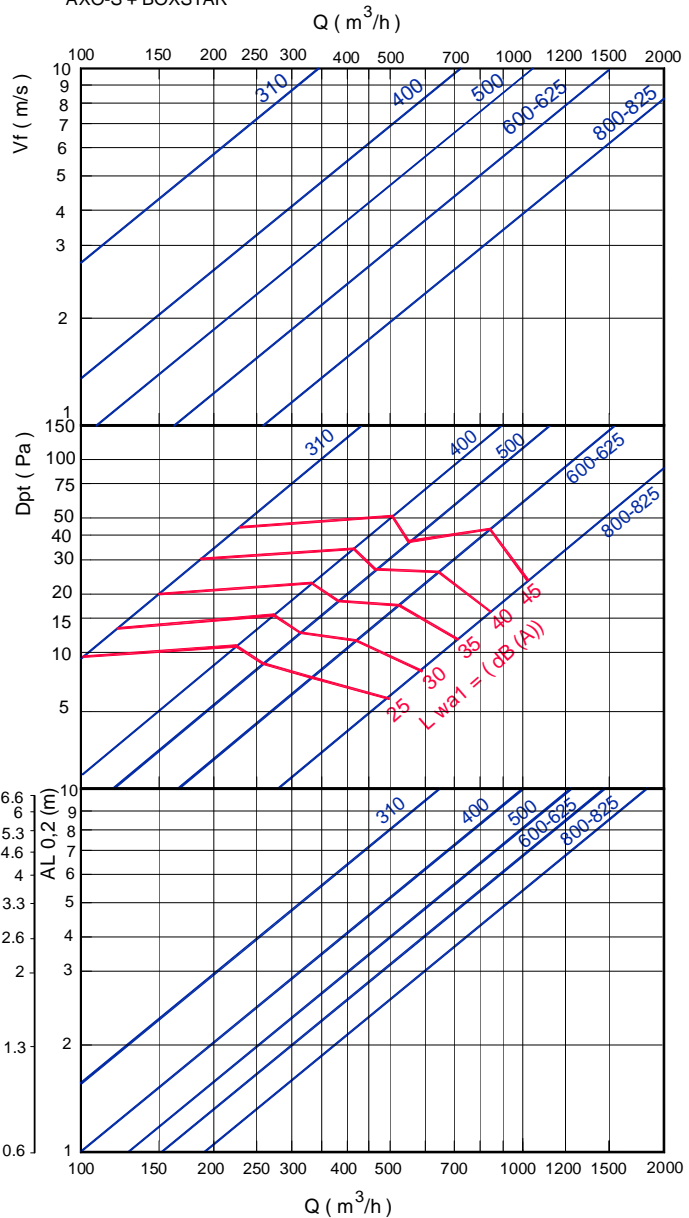
AXO-S	Afree m2	Qmin. m3/h	Qmax. m3/h
310	.0096	87	225
400	.0201	181	430
500	.029	261	565
600	.044	396	845
625	.044	396	845
800	.068	612	1025
825	.068	612	1025

CORRECTION FACTOR FOR DPT AND Lwa1.

BOXSTAR-R		100% Open	50% Open	10% Open
		Dpt (Kp)	1	1,2
310	Lwa1 (Kf)	+0,7	+1,1	+2,4
	Dpt (Kp)	1	1,2	2,3
400	Lwa1 (Kf)	+0,8	+1,5	+2,9
	Dpt (Kp)	1	1,4	4
500	Lwa1 (Kf)	+0,8	+2,1	+2,8
	Dpt (Kp)	1	1,5	4,8
600	Lwa1 (Kf)	+0,9	+5,8	+7,7
	Dpt (Kp)	1	1,5	4,8
625	Lwa1 (Kf)	+0,9	+5,8	+7,7
	Dpt (Kp)	1	1,7	4,5
800	Lwa1 (Kf)	+0,9	+3,6	+5,2
	Dpt (Kp)	1	1,7	4,5
825	Lwa1 (Kf)	+0,9	+3,6	+5,2



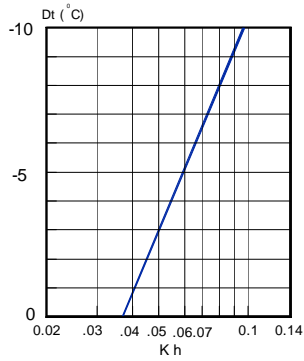
AL_{0,2} = A
AL_{0,2} = B+H
AL_{0,2} = C+H



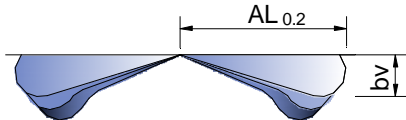
Note: In MadelMedia Octava band centre frequency in Hz.

AXO-S

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

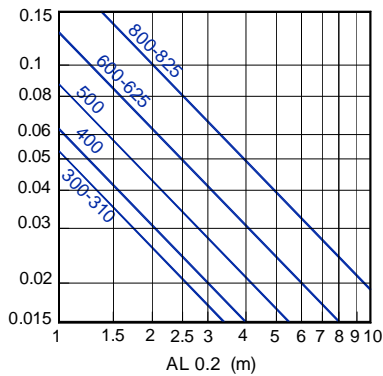


Kh = Correction factor for the vertical diffusion.

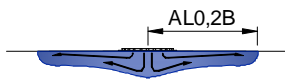


TEMPERATURE RATIO.

$$\frac{Dtl}{Dtz} = \frac{t_{\text{room}} - t_x}{t_{\text{room}} - t_{\text{supply}}}$$



TYPE B. 50% POSITION 1 AND 50% POSITION 2.



CORRECTION FACTOR FOR THROW TYPE B.

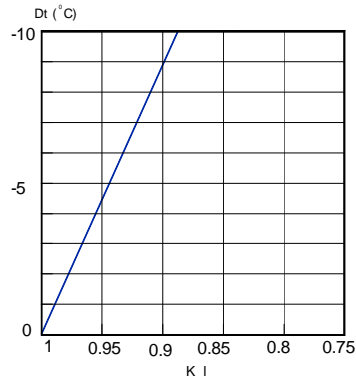
AXO-S	KB
500	0,75
600-625	0,74
800-825	0,7

$$i = \frac{Q_r}{Q_0} = \frac{Q_{\text{total at } x}}{Q_{\text{of supply}}}$$

$AL_{0,2B} = KB * AL_{0,2}$
EXAMPLE:

AXO-S-600-625
Q = 600 m³/h
AL_{0,2} = 4 m
AL_{0,2B} = 0,74 * 4 = 2,96 m
i = 28

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



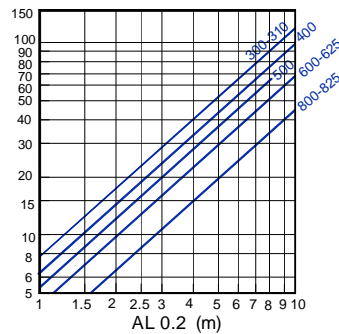
KI = Correction factor for the throw.

$$bv = Kh * AL_{0,2}$$

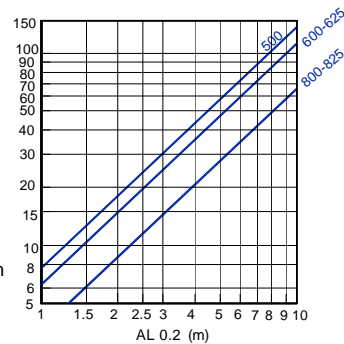
$$AL'_{0,2} (Dt < 0) = KI * AL_{0,2}$$

INDUCTION RATIO.

$$i = \frac{Q_r}{Q_0} = \frac{Q_{\text{total at } x}}{Q_{\text{of supply}}}$$



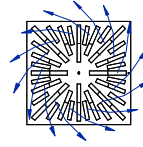
INDUCTION RATIO. TYPE B.





MADEL®

AXO-SX



RECOMMENDED VELOCITY.

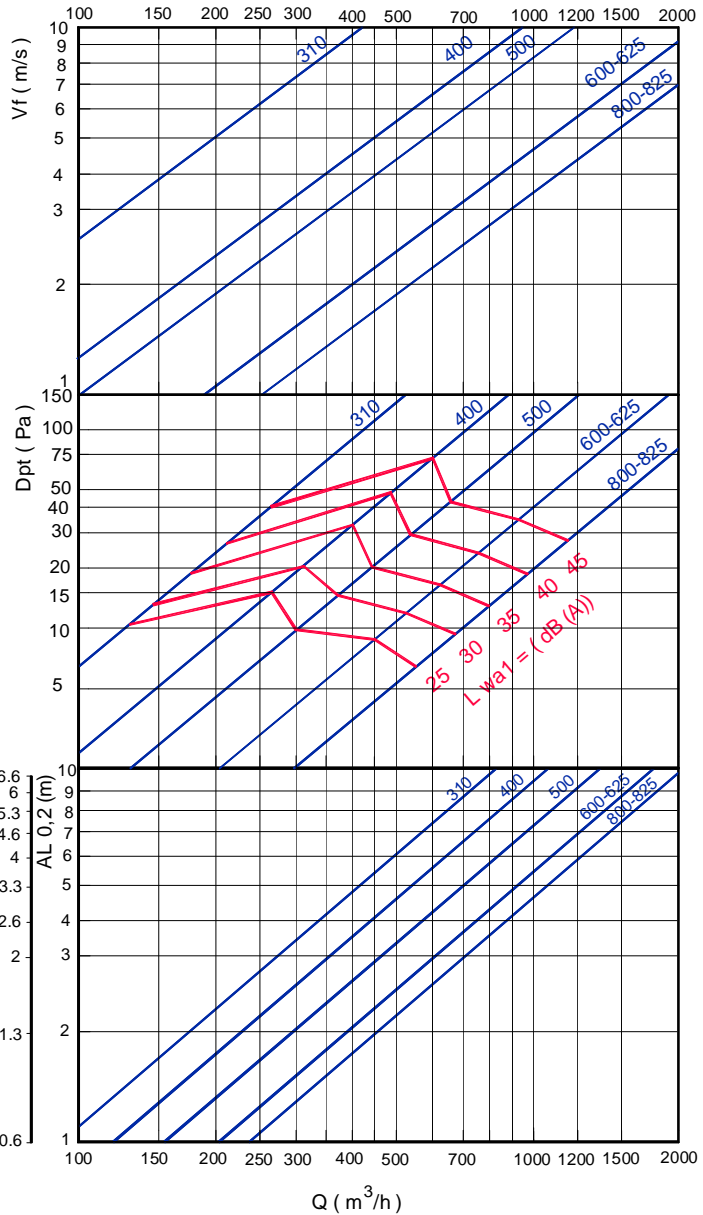
AXO-SX	Vmin m/s	Vmax m/s
310	2.5	6,5
400	2.5	6,9
500	2.5	5,6
600	2.5	4,2
625	2.5	4,2
800	2.5	3,9
825	2.5	3,9

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

AXO-SX + BOXSTAR Q (m³/h)

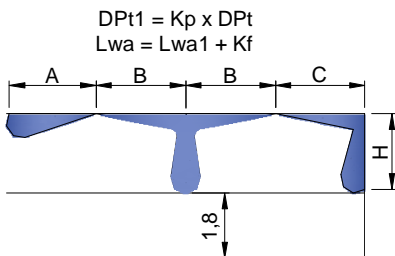
FREE FACE AREA (m²).

AXO-SX	Afree m ²	Qmin. m ³ /h	Qmax. m ³ /h
310	.0112	101	263
400	.024	216	598
500	.032	288	652
600	.058	522	880
625	.058	522	880
800	.079	711	1110
825	.079	711	1110



CORRECTION FACTOR FOR Dpt AND Lwa1.

BOXSTAR-R		100% Open	50% Open	10% Open
		Dpt (Kp)	1	1,2
310	Lwa1 (Kf)	+0,8	+1,5	+1,1
	Dpt (Kp)	1	1,2	2,6
400	Lwa1 (Kf)	+0,8	+2,1	+2
	Dpt (Kp)	1	1,4	4
500	Lwa1 (Kf)	+0,9	+2	+1
	Dpt (Kp)	1	1,5	4,8
600	Lwa1 (Kf)	+0,8	+4,8	+5,2
	Dpt (Kp)	1	1,3	4,8
625	Lwa1 (Kf)	+0,9	+4,8	+5,3
	Dpt (Kp)	1	1,8	4,5
800	Lwa1 (Kf)	+0,9	+3,6	+2,7
	Dpt (Kp)	1	1,8	4,5
825	Lwa1 (Kf)	+0,9	+3,7	+2,8

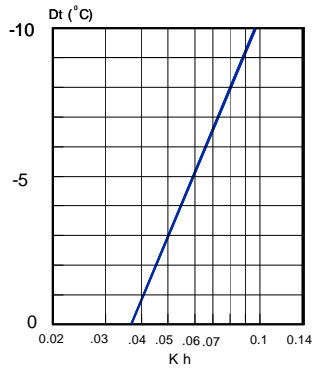


$AL_{0,2} = A$
 $AL_{0,2} = B+H$
 $AL_{0,2} = C+H$

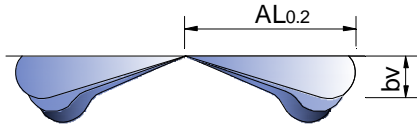
Note: In MadelMedia Octava band centre frequency in Hz.

AXO-SX

FACTOR DE CORRECCION DE LA DIFUSION VERTICAL (bv) PARA DT (-).

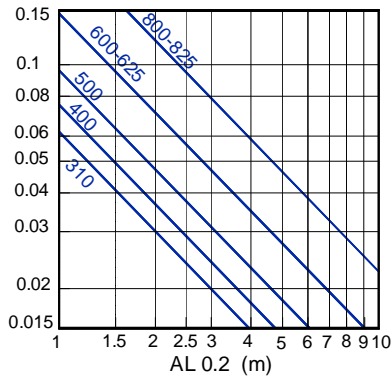


Kh = Factor de corrección de la difusión vertical.

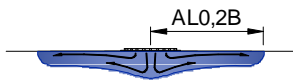


RELACION DE TEMPERATURAS.

$$\frac{Dtl}{Dtz} = \frac{t \text{ local} - t x}{t \text{ local} - t \text{ imp}}$$



TIPO B. 50% POSICION 1 Y 50% POSICION 2.



FACTOR DE CORRECCION DEL ALCANCE TIPO B.

AXO-SX	KB
400	0,75
500	0,65
600-625	0,6
800-825	0,65

$$i = \frac{Q_r}{Q_0} = \frac{Q \text{ total en } x}{Q \text{ de impulsión}}$$

$$AL_{0,2B} = KB * AL_{0,2}$$

EJEMPLO:

AXO-SX-800-825

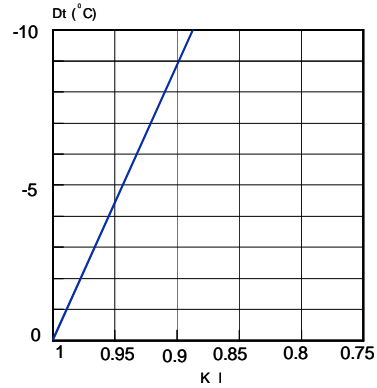
Q = 800 m³/h

AL_{0,2} = 4,25 m

AL_{0,2B} = 0,6 * 4,25 = 2,55 m

i = 28

FACTOR DE CORRECCION DEL ALCANCE (L0.2) DT (-).



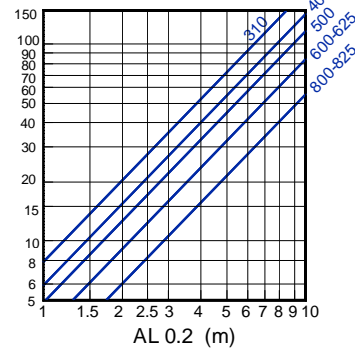
Kl = Factor de corrección del alcance.

$$bv = Kh * AL_{0,2}$$

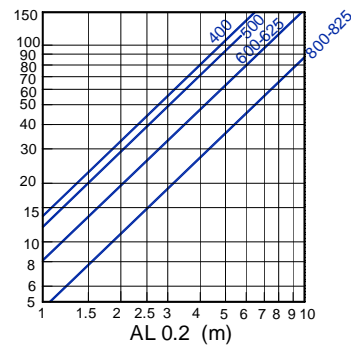
$$AL'_{0,2} (Dt < 0) = Kl * AL_{0,2}$$

RELACION DE INDUCCION.

$$i = \frac{Q_r}{Q_0} = \frac{Q \text{ total en } x}{Q \text{ de impulsión}}$$



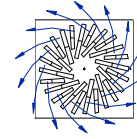
RELACION DE INDUCCION. TIPO B.





MADEL®

AXO-SY



RECOMMENDED VELOCITY.

AXO-SY	Vmin m/s	Vmax m/s
310	2.5	6.6
400	2.5	6.8
500	2.5	6.1
600	2.5	5.3
625	2.5	5.3
800	2.5	4.5
825	2.5	4.5

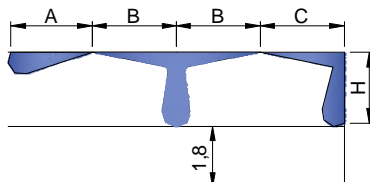
FREE FACE AREA (m2).

AXO-SY	Afree m2	Qmin. m3/h	Qmax. m3/h
310	.01	90	240
400	.0181	163	445
500	.025	225	555
600	.044	387	840
625	.044	387	840
800	.068	612	1105
825	.068	612	1105

CORRECTION FACTOR FOR DPT AND Lwa1.

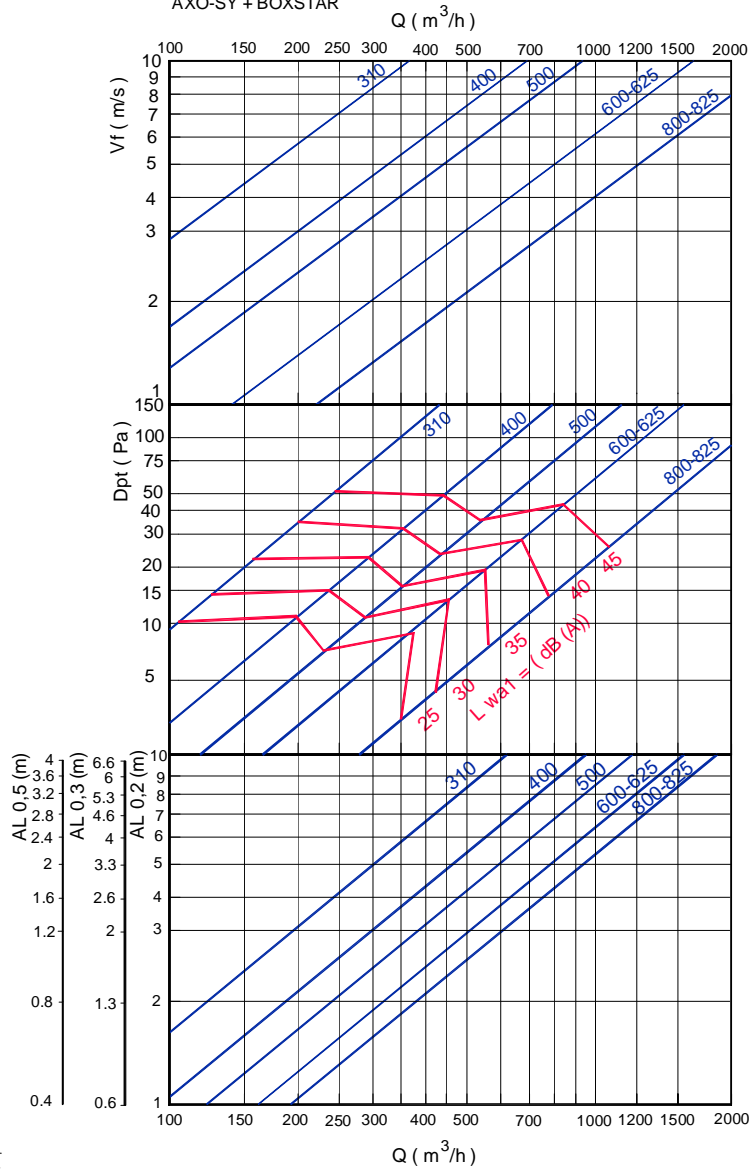
BOXSTAR-R	100% Open			50% Open			10% Open		
	Dpt (Kp)	Lwa1 (Kf)		Dpt (Kp)	Lwa1 (Kf)		Dpt (Kp)	Lwa1 (Kf)	
310	Dpt (Kp)	1	1,2	2,4					
	Lwa1 (Kf)	+0,8	+1,4	+0,2					
400	Dpt (Kp)	1	2	2,3					
	Lwa1 (Kf)	+0,8	+2,2	+1,9					
500	Dpt (Kp)	1	1,4	4					
	Lwa1 (Kf)	+0,8	+2,1	+1,7					
600	Dpt (Kp)	1	1,5	4,8					
	Lwa1 (Kf)	+0,9	+5,1	+7					
625	Dpt (Kp)	1	1,5	4,8					
	Lwa1 (Kf)	+0,8	+5,1	+7					
800	Dpt (Kp)	1	1,7	4,5					
	Lwa1 (Kf)	+0,9	+4,7	+7,7					
825	Dpt (Kp)	1	1,7	4,5					
	Lwa1 (Kf)	+0,9	+4,4	+7,8					

$Dpt1 = Kp \times Dpt$
 $Lwa = Lwa1 + Kf$



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

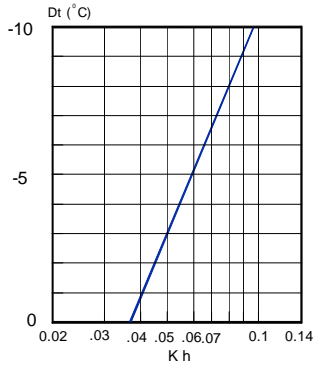
FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT. AXO-SY + BOXSTAR



Note: In MadelMedia Octava band centre frequency in Hz.

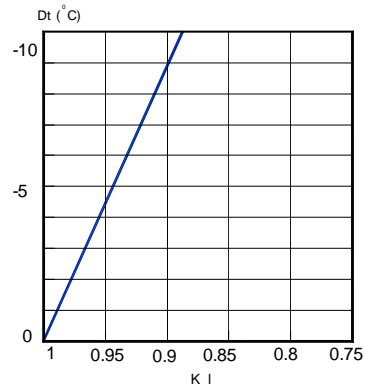
AXO-SY

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



Kh = Correction factor for the vertical diffusion.

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



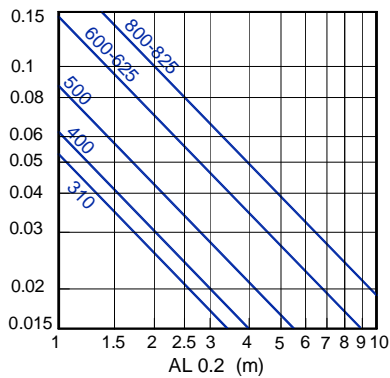
KI = Correction factor for the throw.

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

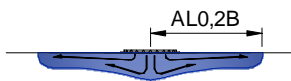
$$AL_{0.2} (Dt < 0) = KI \times AL_{0.2}$$

TEMPERATURE RATIO.

$$\frac{Dtl}{Dtz} = \frac{t_{room} - t_x}{t_{room} - t_{supply}}$$



TYPE B. 50% POSITION 1 AND 50% POSITION 2.



$$i = \frac{Q_r}{Q_0} = \frac{Q_{total\ at\ x}}{Q_{of\ supply}}$$

CORRECTION FACTOR FOR THROW TYPE B.

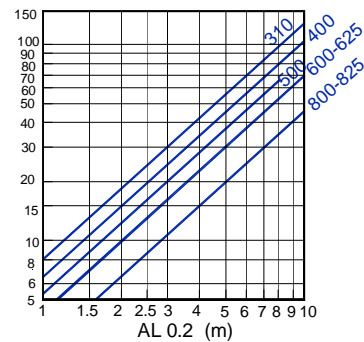
AXO-SY	KB
500	0,75
600-625	0,75
800-825	0,7

$$AL_{0,2B} = KB * AL_{0,2}$$

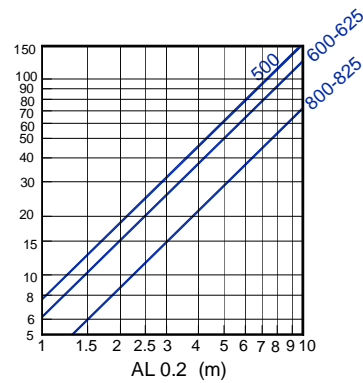
EXAMPLE:
 AXO-SY-600-625
 Q = 600 m³/h
 AL_{0,2} = 4 m
 AL_{0,2B} = 0,74 * 4 = 3 m
 i = 27

INDUCTION RATIO.

$$i = \frac{Q_r}{Q_0} = \frac{Q_{total\ at\ x}}{Q_{of\ supply}}$$

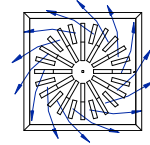


INDUCTION RATIO. TYPE B.





AXO-KLIN



RECOMMENDED VELOCITY.

AXO-S KLIN	Vmin m/s	Vmax m/s
400	2,5	5,9
500	2,5	5,4
600	2,5	5,3

FREE FACE AREA (m2).

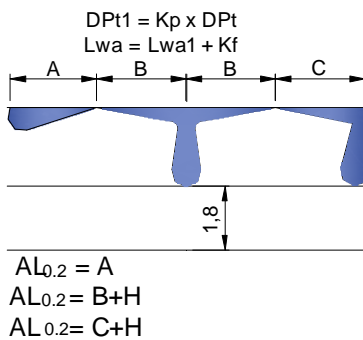
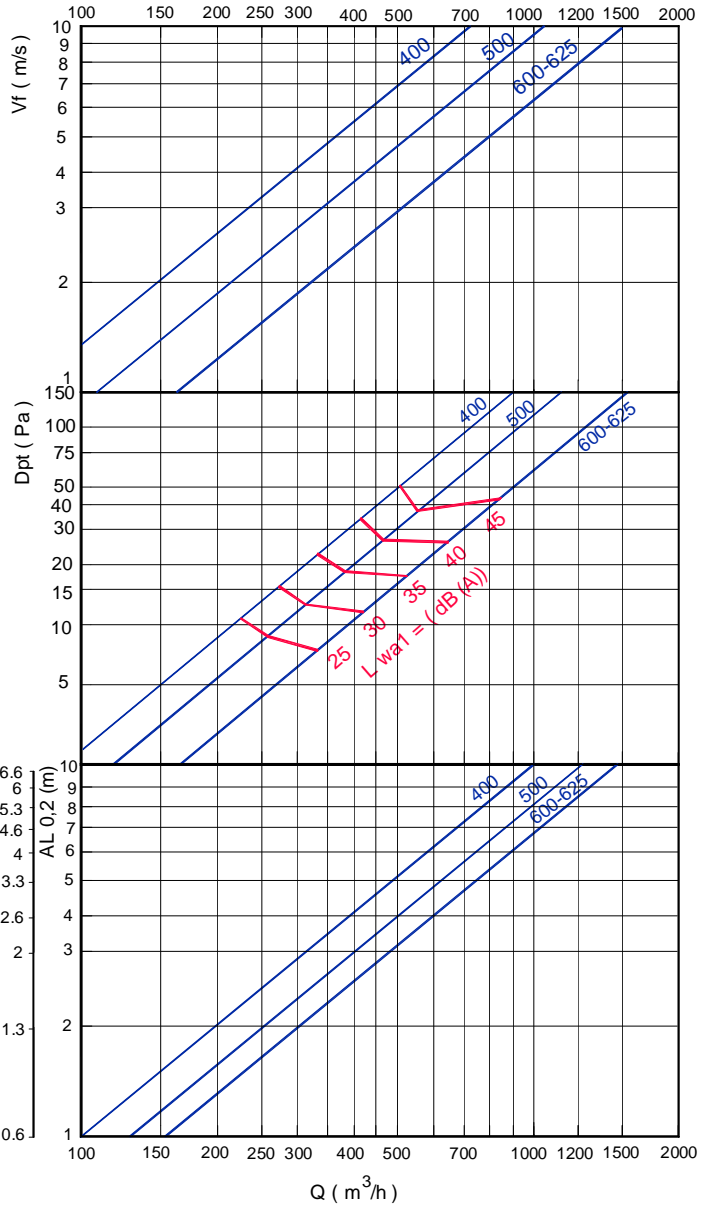
AXO-S KLIN	Afree m2	Qmin. m3/h	Qmax. m3/h
400	.0201	181	430
500	.029	261	565
600	.044	396	845
625	.044	396	845

CORRECTION FACTOR FOR Dpt AND Lwa1.

PLFZ/L-R	100% Open			50% Open			10% Open		
	Dpt (Kp)	Lwa1 (Kf)		Dpt (Kp)	Lwa1 (Kf)		Dpt (Kp)	Lwa1 (Kf)	
400	Dpt (Kp)	1		1,2			2,3		
	Lwa1 (Kf)	+0,8		+1,5			+2,9		
500	Dpt (Kp)	1		1,4			4		
	Lwa1 (Kf)	+0,8		+2,1			+2,8		
600	Dpt (Kp)	1		1,5			4,8		
	Lwa1 (Kf)	+0,9		+5,8			+7,7		
625	Dpt (Kp)	1		1,5			4,8		
	Lwa1 (Kf)	+0,9		+5,8			+7,7		

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL,
THROW WITH CEILING EFFECT.
AXO-S-KLIN + PLFZ/L/

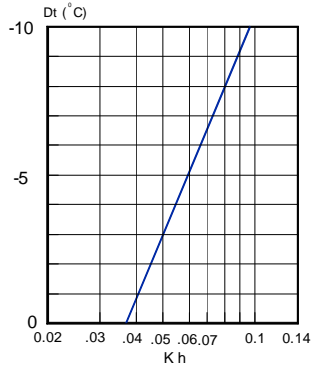
3



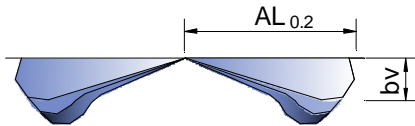
Note: In MadelMedia Octava band centre frequency in Hz.

AXO-KLIN

FACTOR DE CORRECCION DE LA DIFUSION VERTICAL (bv) PARA DT (-).

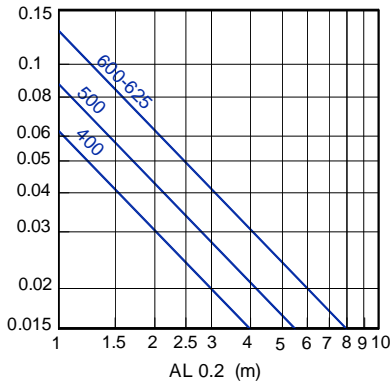


Kh = Factor de corrección de la difusión vertical.

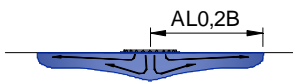


RELACION DE TEMPERATURAS.

$$\frac{Dtl}{Dtz} = \frac{t_{local} - t_x}{t_{local} - t_{imp}}$$



TIPO B.



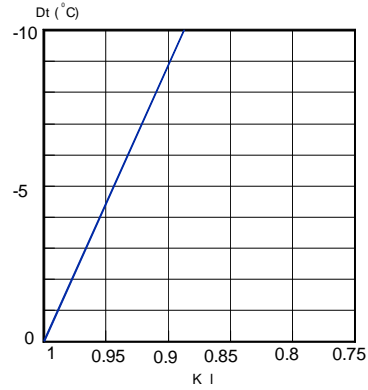
FACTOR DE CORRECCION DEL ALCANCE TIPO B.

AXO-S KLIN	KB
500	0,75
600-625	0,74

$$i = \frac{Q_r}{Q_0} = \frac{Q_{total\ en\ x}}{Q_{de\ impulsión}}$$

AL0,2B = KB * AL0,2
 EJEMPLO:
 AXO-S-KLIN-600-625
 Q = 600 m³/h
 AL0,2 = 4 m
 AL0,2B = 0,74 * 4 = 2,96 m
 i = 28

FACTOR DE CORRECCION DEL ALCANCE (L0.2) DT (-).



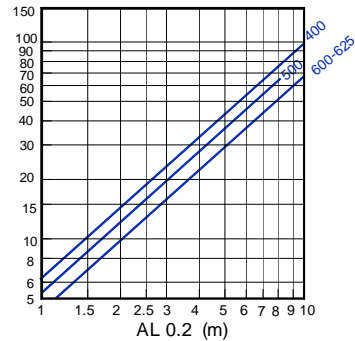
kl = Factor de corrección del alcance.

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

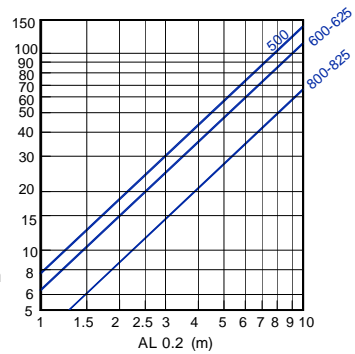
$$AL'_{0.2} (Dt < 0) = Kl \times AL_{0.2}$$

RELACION DE INDUCCION.

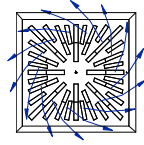
$$i = \frac{Q_r}{Q_0} = \frac{Q_{total\ en\ x}}{Q_{de\ impulsión}}$$



RELACION DE INDUCCION. TIPO B.



AXO-KLIN



RECOMMENDED VELOCITY.

AXO-SX KLIN	Vmin m/s	Vmax m/s
400	2,5	6,9
500	2,5	5,6
600	2,5	4,2
625	2,5	4,2

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

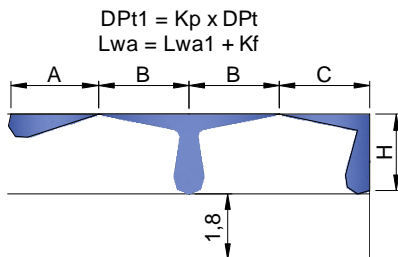
AXO-SX-KIN + PLFZ/L Q (m³/h)

FREE FACE AREA (m²).

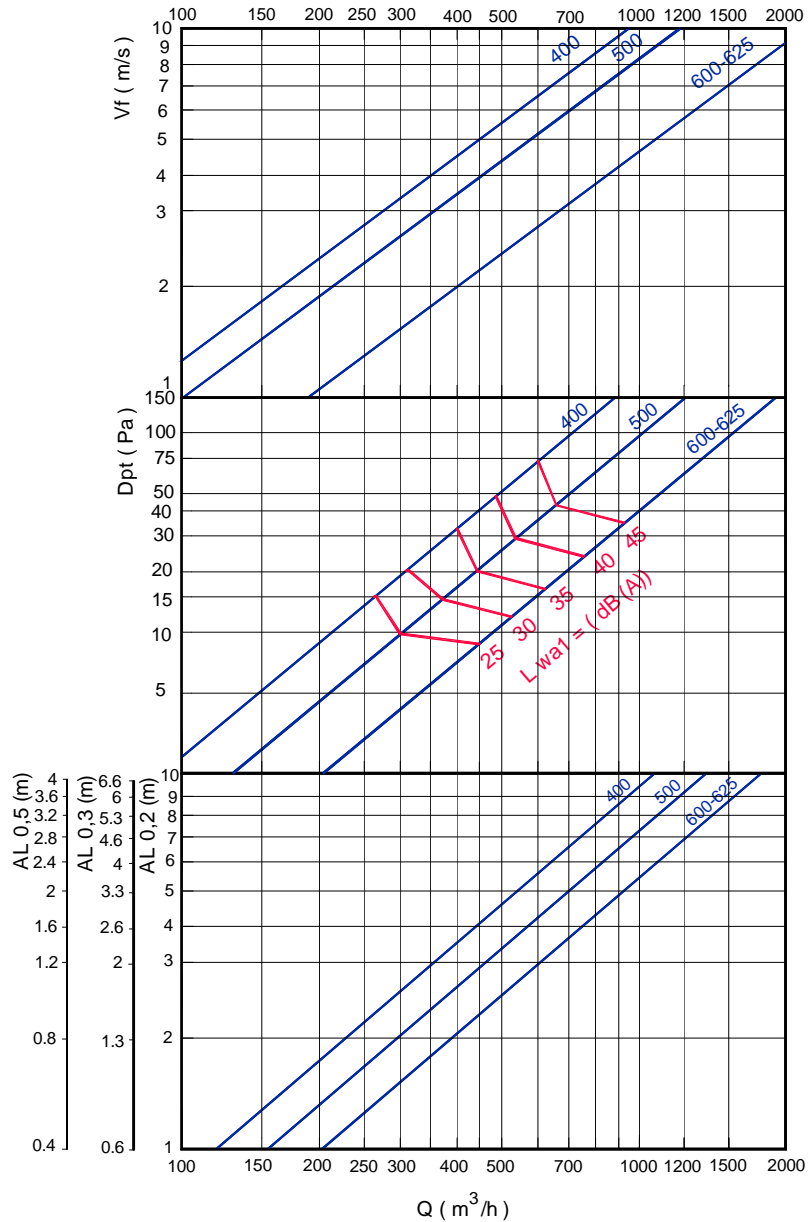
AXO-SX KLIN	Afree m ²	Qmin. m ³ /h	Qmax. m ³ /h
400	.024	216	598
500	.032	288	652
600	.058	522	880
625	.058	522	880

CORRECTION FACTOR FOR Dpt AND Lwa1.

PLFZ/L-R		100% Open	50% Open	10% Open	
		400	Dpt (Kp)	1	1,2
	Lwa1 (Kf)	+0,8	+2,1	+2	
	500	Dpt (Kp)	1	1,4	4
	Lwa1 (Kf)	+0,9	+2	+1	
	600	Dpt (Kp)	1	1,5	4,8
	Lwa1 (Kf)	+0,8	+4,8	+5,2	
	625	Dpt (Kp)	1	1,3	4,8
	Lwa1 (Kf)	+0,9	+4,8	+5,3	



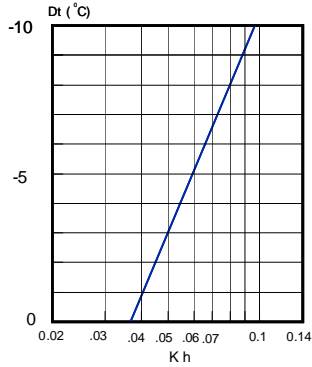
$AL_{0,2} = A$
 $AL_{0,2} = B+H$
 $AL_{0,2} = C+H$



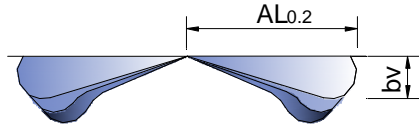
Note: In MadelMedia Octava band centre frequency in Hz.

AXO-KLIN

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

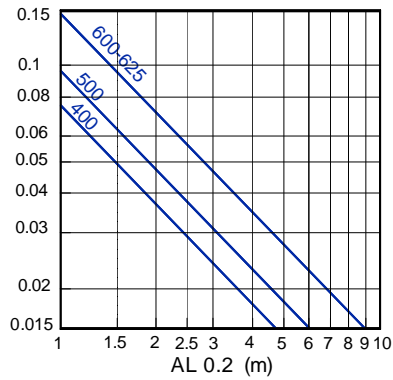


Kh = Correction factor for the vertical diffusion.

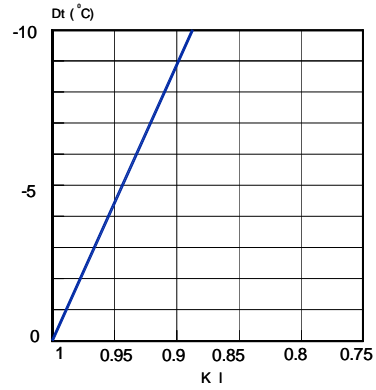


TEMPERATURE RATIO.

$$\frac{Dt_l}{Dt_z} = \frac{t_{\text{room}} - t_x}{t_{\text{room}} - t_{\text{supply}}}$$



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



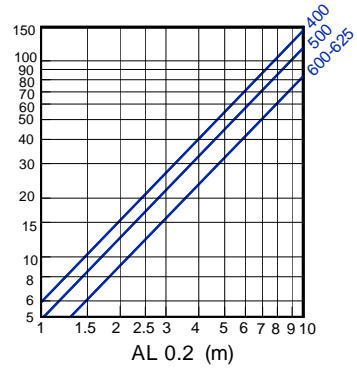
KI = Correction factor for the throw.

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

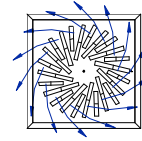
$$AL'_{0.2} (Dt < 0) = KI \times AL_{0.2}$$

INDUCTION RATIO.

$$i = \frac{Q_r}{Q_0} = \frac{Q_{\text{total at } x}}{Q_{\text{of supply}}}$$



AXO-KLIN



RECOMMENDED VELOCITY.

AXO-SY KLIN	Vmin m/s	Vmax m/s
400	2,5	6,8
500	2,5	6,1
600	2,5	5,3
625	2,5	5,3

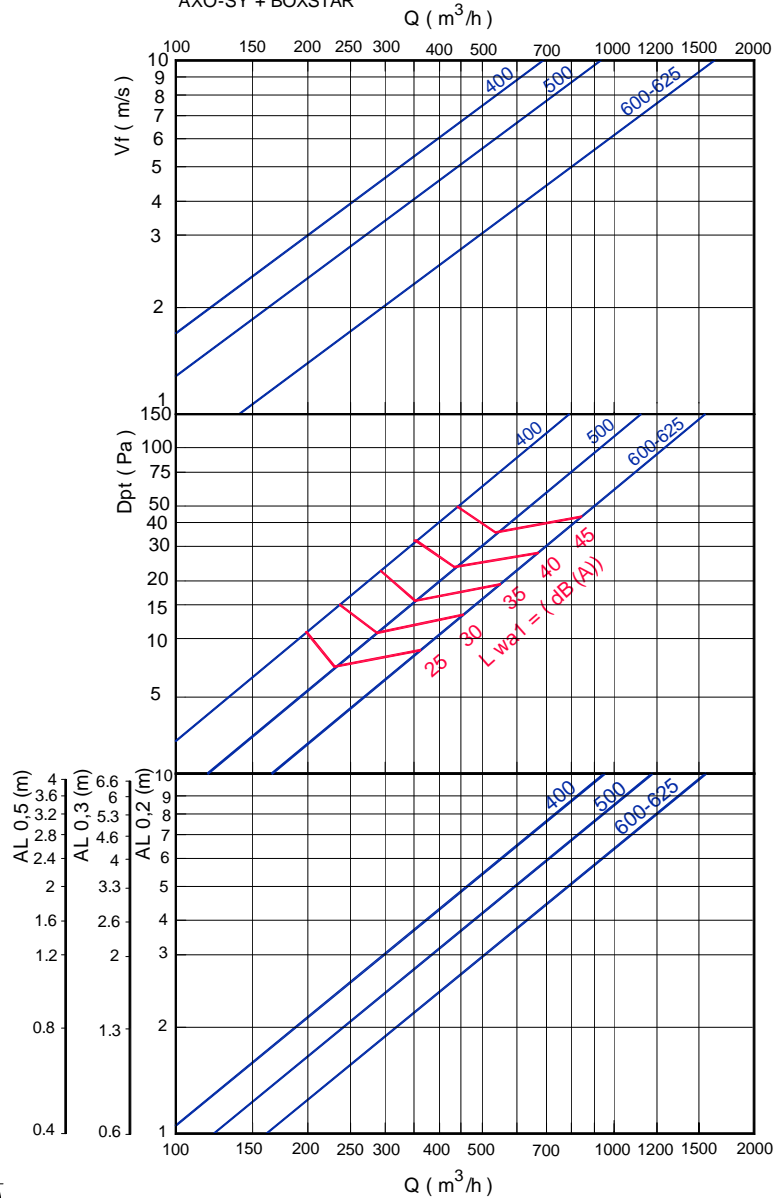
FREE FACE AREA (m2).

AXO-SY KLIN	Afree m2	Qmin. m3/h	Qmax. m3/h
400	.0181	163	445
500	.025	225	555
600	.044	387	840
625	.044	387	840

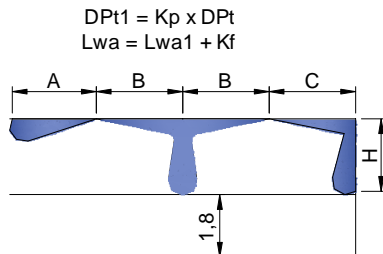
CORRECTION FACTOR FOR Dpt AND Lwa1.

PLFZ-R	100% Open	50% Open	10% Open	
400	Dpt (Kp)	1	2	2,3
	Lwa1 (Kf)	+0,8	+2,2	+1,9
500	Dpt (Kp)	1	1,4	4
	Lwa1 (Kf)	+0,8	+2,1	+1,7
600	Dpt (Kp)	1	1,5	4,8
	Lwa1 (Kf)	+0,9	+5,1	+7
625	Dpt (Kp)	1	1,5	4,8
	Lwa1 (Kf)	+0,8	+5,1	+7

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT. AXO-SY + BOXSTAR



Note: In MadelMedia Octava band centre frequency in Hz.



$$D_{Pt1} = K_p \times D_{Pt}$$

$$L_{wa1} = L_{wa1} + K_f$$

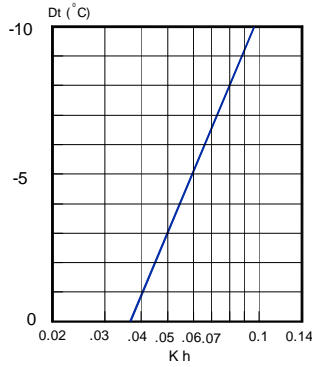
$$AL_{0,2} = A$$

$$AL_{0,2} = B+H$$

$$AL_{0,2} = C+H$$

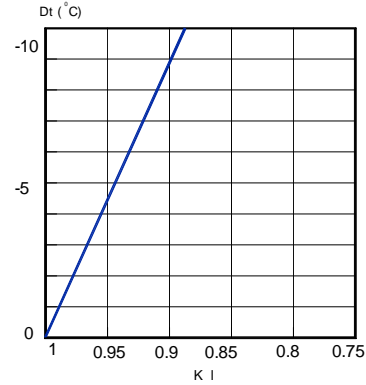
AXO-KLIN

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



Kh = Correction factor for the vertical diffusion.

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



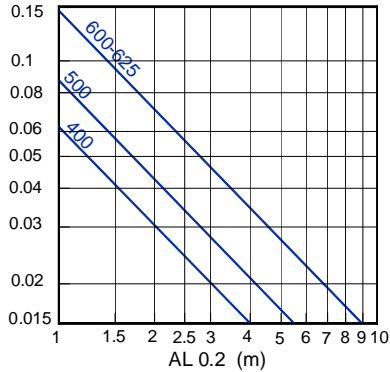
KI = Correction factor for the throw.

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

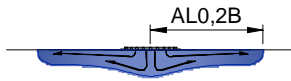
$$AL_{0.2} (Dt < 0) = KI \times AL_{0.2}$$

TEMPERATURE RATIO.

$$\frac{Dtl}{Dtz} = \frac{t_{\text{room}} - t_x}{t_{\text{room}} - t_{\text{supply}}}$$



TYPE B. 50% POSITION 1 AND 50% POSITION 2.



$$i = \frac{Q_r}{Q_0} = \frac{Q_{\text{total at } x}}{Q_{\text{of supply}}}$$

$$AL_{0,2B} = KB \cdot AL_{0,2}$$

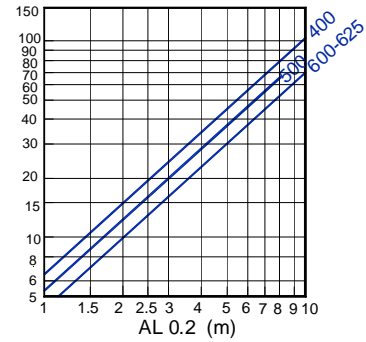
EXAMPLE:
AXO-SY-KLIN-600-625
Q = 600 m³/h
AL_{0,2} = 4 m
AL_{0,2B} = 0,74 · 4 = 3 m
i = 27

CORRECTION FACTOR FOR THROW TYPE B.

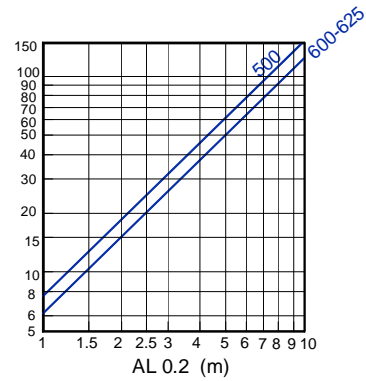
	KB
500	0,75
600-625	0,75

INDUCTION RATIO.

$$i = \frac{Q_r}{Q_0} = \frac{Q_{\text{total at } x}}{Q_{\text{of supply}}}$$



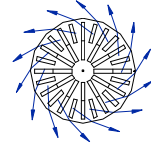
INDUCTION RATIO. TYPE B.





MADEL®

AXO-C



RECOMMENDED VELOCITY.

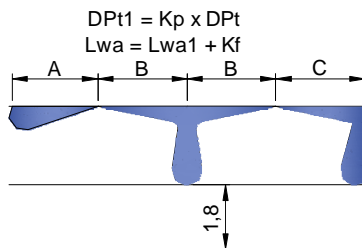
AXO-C	Vmin m/s	Vmax m/s
300	2,5	6,5
400	2,5	5,9
500	2,5	5,4
625	2,5	5,3
825	2,5	4,2

FREE FACE AREA (m2).

AXO-C	Afree m2	Qmin. m3/h	Qmax. m3/h
300	.0096	87	225
400	.0201	181	430
500	.029	261	565
625	.044	396	845
825	.068	612	1025

CORRECTION FACTOR FOR DPt AND Lwa1.

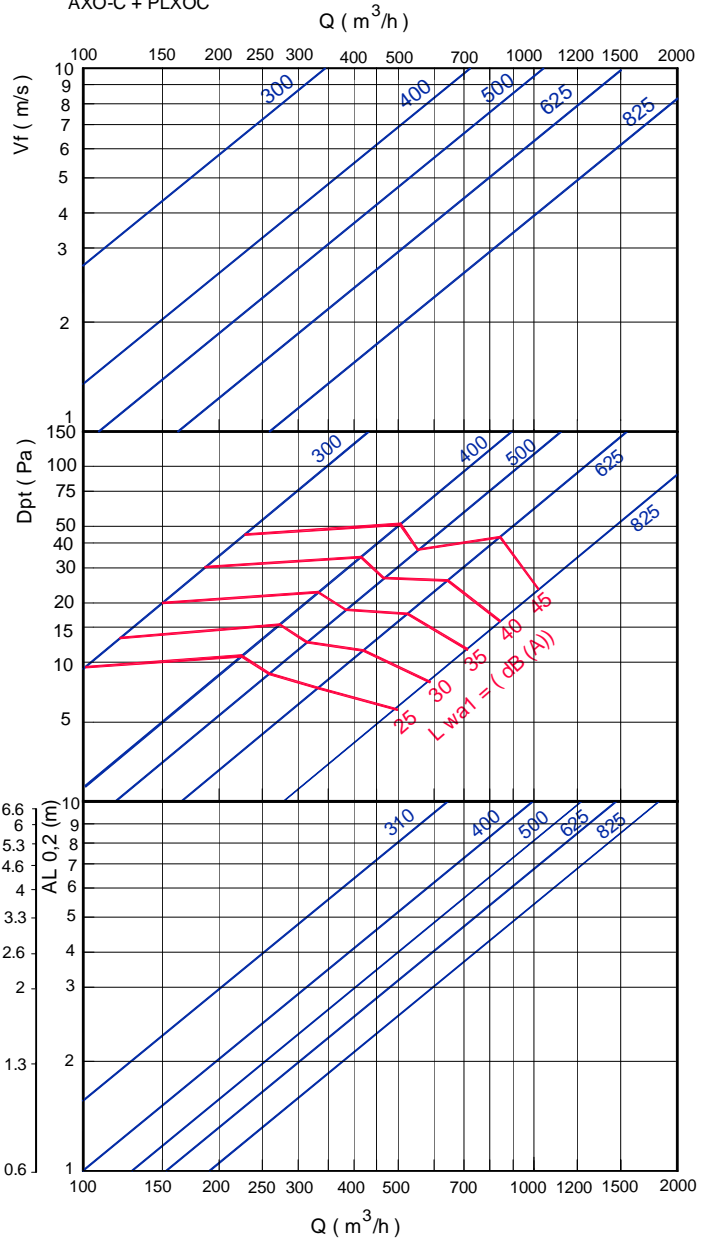
PLXOC-R		100% Open	50% Open	10% Open
		300	Dpt (Kp) 1	1,2
	Lwa1 (Kf) +0,7	+1,1	+2,4	
400	Dpt (Kp) 1	1,2	2,3	
	Lwa1 (Kf) +0,8	+1,5	+2,9	
500	Dpt (Kp) 1	1,4	4	
	Lwa1 (Kf) +0,8	+2,1	+2,8	
625	Dpt (Kp) 1	1,5	4,8	
	Lwa1 (Kf) +0,9	+5,8	+7,7	
825	Dpt (Kp) 1	1,7	4,5	
	Lwa1 (Kf) +0,9	+3,6	+5,2	



$AL_{0,2} = A$
 $AL_{0,2} = B+H$
 $AL_{0,2} = C+H$

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

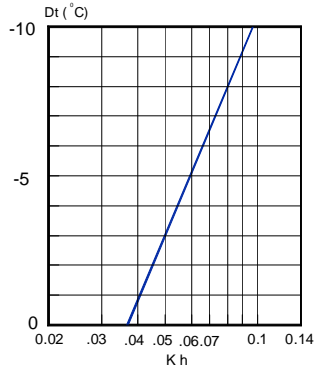
AXO-C + PLXOC



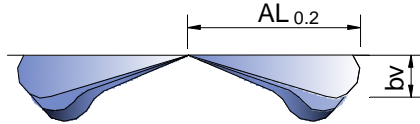
Note: In MadelMedia Octava band centre frequency in Hz.

AXO-C

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

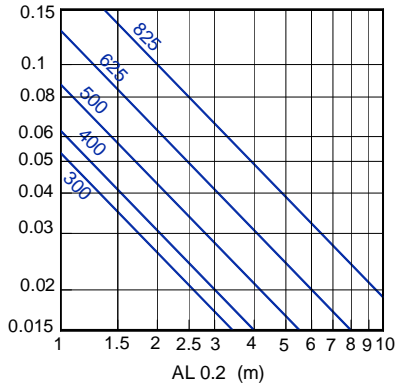


Kh = Correction factor for the vertical diffusion.

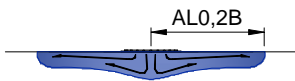


TEMPERATURE RATIO.

$$\frac{Dtl}{Dtz} = \frac{t_{\text{room}} - t_x}{t_{\text{room}} - t_{\text{supply}}}$$



TYPE B. 50% POSITION 1 AND 50% POSITION 2.



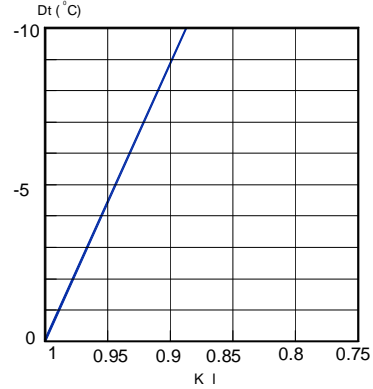
CORRECTION FACTOR FOR THROW TYPE B.

	KB
500	0,75
625	0,74
825	0,7

$$i = \frac{Q_r}{Q_0} = \frac{Q_{\text{total at } x}}{Q_{\text{of supply}}}$$

AL0,2B = KB * AL0,2
EXAMPLE:
 AXO-C-600-625
 Q = 600 m³/h
 AL0,2 = 4 m
 AL0,2B = 0,74 * 4 = 2,96 m
 i = 28

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



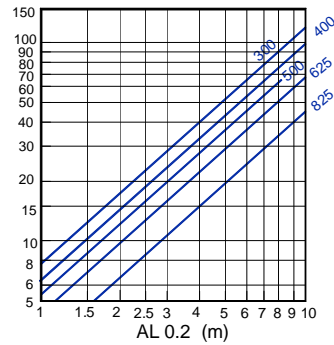
Kl = Correction factor for the throw.

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

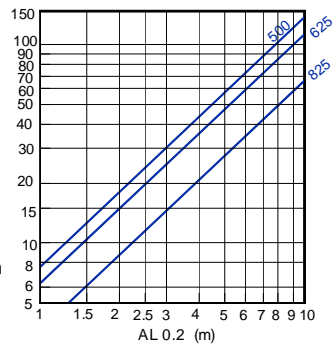
$$AL'_{0.2}(Dt < 0) = Kl \times AL_{0.2}$$

INDUCTION RATIO.

$$i = \frac{Q_r}{Q_0} = \frac{Q_{\text{total at } x}}{Q_{\text{of supply}}}$$



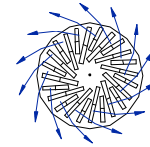
INDUCTION RATIO TYPE B.





MADEL®

AXO-CY



RECOMMENDED VELOCITY.

AXO-CY	Vmin m/s	Vmax m/s
300	2,5	6,6
400	2,5	6,8
500	2,5	6,1
625	2,5	5,3
825	2,5	4,5

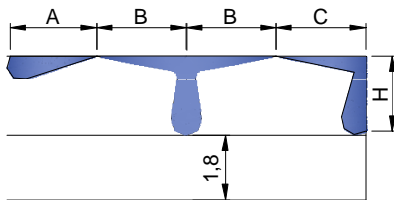
FREE FACE AREA (m2).

AXO-CY	Afree m2	Qmin. m3/h	Qmax. m3/h
300	.01	90	240
400	.0181	163	445
500	.025	225	555
625	.044	387	840
825	.068	612	1105

CORRECTION FACTOR FOR Dpt AND Lwa1.

PLXOC-R		100% Open	50% Open	10% Open
		Dpt (Kp)	1	1,2
300	Lwa1 (Kf)	+0,8	+1,4	+0,2
	Dpt (Kp)	1	2	2,3
400	Lwa1 (Kf)	+0,8	+2,2	+1,9
	Dpt (Kp)	1	1,4	4
500	Lwa1 (Kf)	+0,8	+2,1	+1,7
	Dpt (Kp)	1	1,5	4,8
625	Lwa1 (Kf)	+0,8	+5,1	+7
	Dpt (Kp)	1	1,7	4,5
825	Lwa1 (Kf)	+0,9	+4,4	+7,8

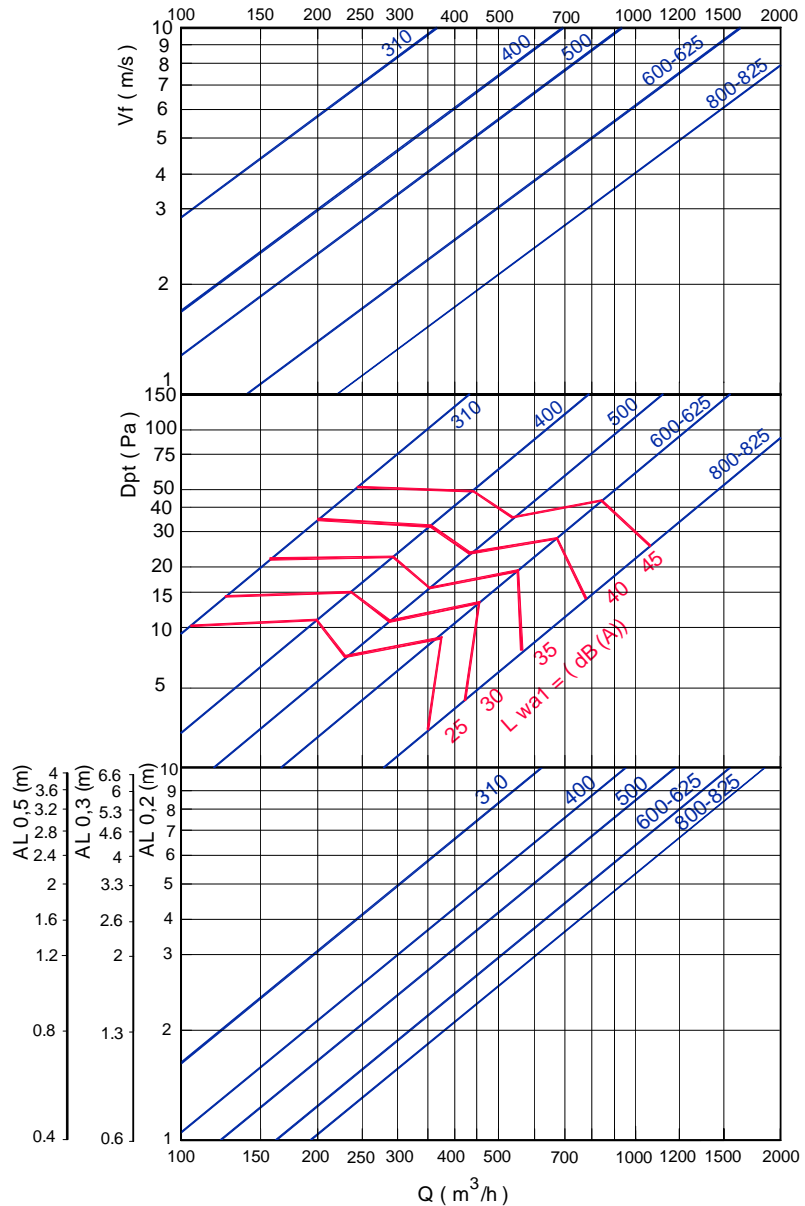
$Dpt1 = Kp \times Dpt$
 $Lwa = Lwa1 + Kf$



- AL_{0,2}= A
- AL_{0,2}= B+H
- AL_{0,2}= C+H

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

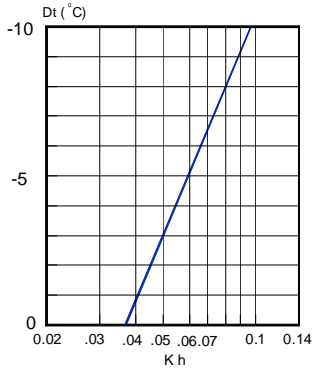
AXO-CY + PLXOC-R Q (m³/h)



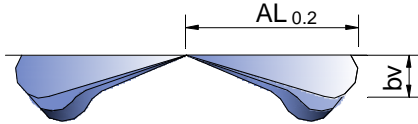
Note: In MadelMedia Octava band centre frequency in Hz.

AXO-CY

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

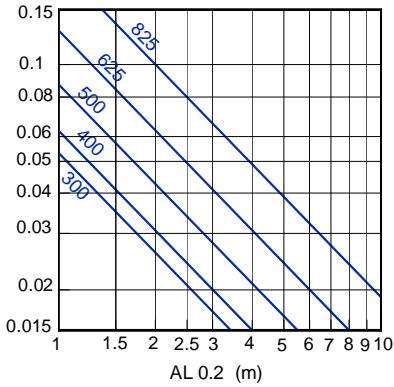


Kh = Correction factor for the vertical diffusion.

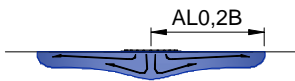


TEMPERATURE RATIO.

$$\frac{Dtl}{Dtz} = \frac{t_{\text{room}} - t_x}{t_{\text{room}} - t_{\text{supply}}}$$



TYPE B. 50% POSITION 1 AND 50% POSITION 2.



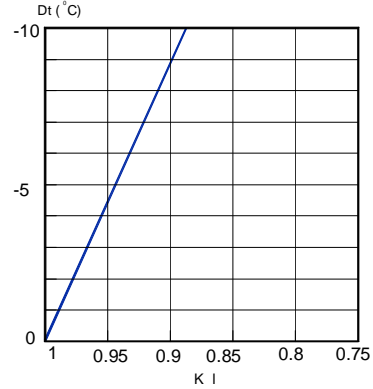
CORRECTION FACTOR FOR THROW TYPE B.

	KB
500	0,75
625	0,74
825	0,7

$$i = \frac{Q_r}{Q_0} = \frac{Q_{\text{total at } x}}{Q_{\text{of supply}}}$$

AL0,2B = KB * AL0,2
EXAMPLE:
 AXO-C-600-625
 Q = 600 m3/h
 AL0,2 = 4 m
 AL0,2B = 0,74 * 4 = 2,96 m
 i = 28

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



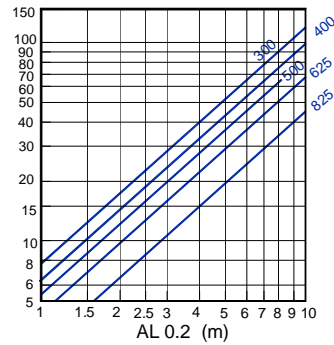
Kl = Correction factor for the throw.

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

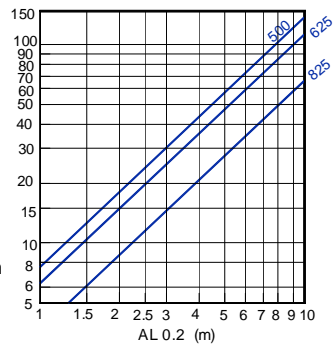
$$AL'_{0.2}(Dt < 0) = Kl \times AL_{0.2}$$

INDUCTION RATIO.

$$i = \frac{Q_r}{Q_0} = \frac{Q_{\text{total at } x}}{Q_{\text{of supply}}}$$

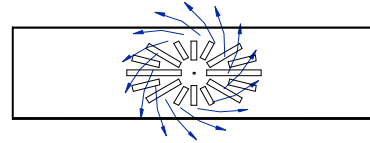


INDUCTION RATIO.TYPE B.





AXO-R



RECOMMENDED VELOCITY.

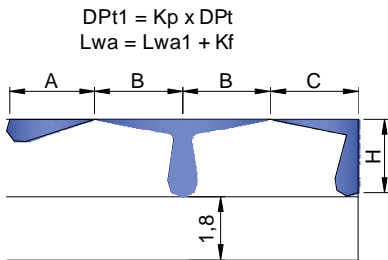
AXO-R	Vmin m/s	Vmax m/s
	2.5	6.8

FREE FACE AREA (m2).

AXO-R	Afree m2	Qmin. m3/h	Qmax. m3/h
	.0181	163	445

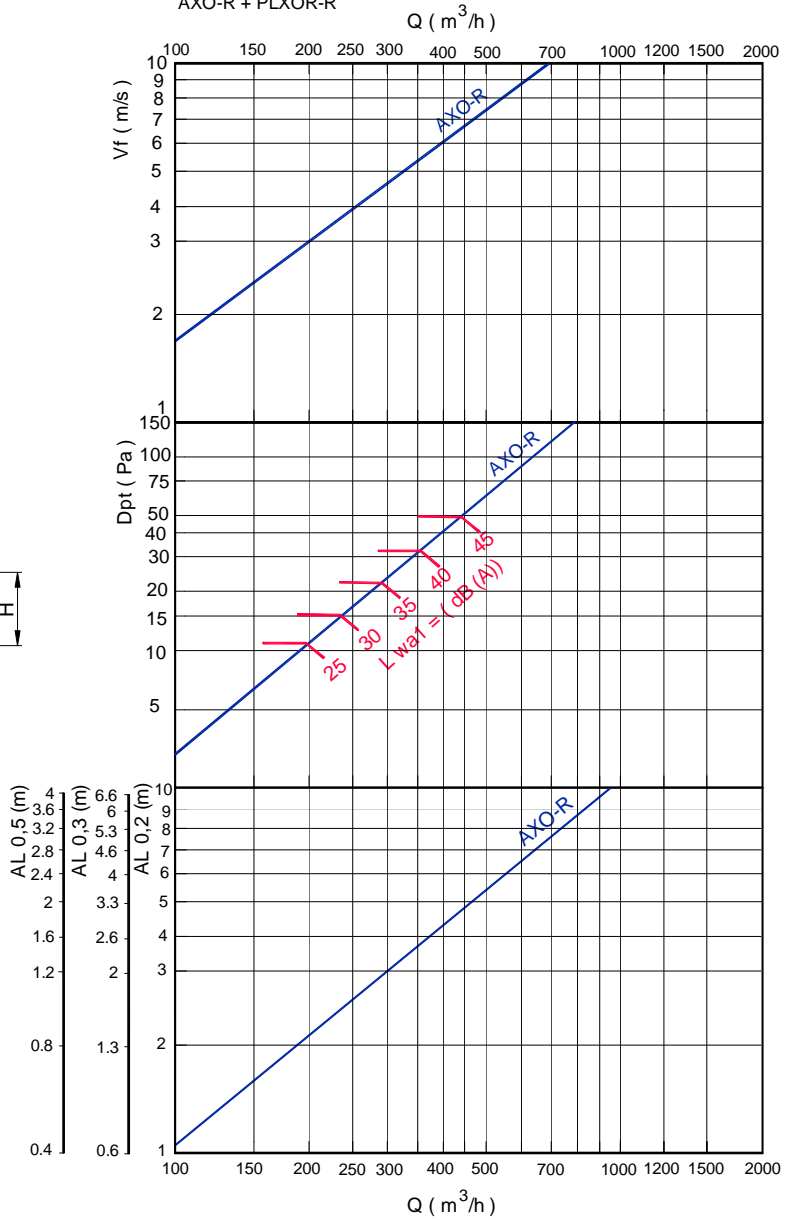
CORRECTION FACTOR FOR Dpt AND Lwa1.

PLXOR-R	100% Open		
	Dpt (Kp)	50% Open	10% Open
Dpt (Kp)	1	2	2,3
Lwa1 (Kf)	+0,8	+2,2	+1,9



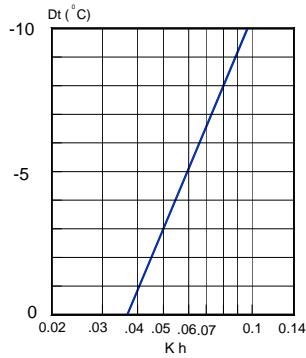
$AL_{0.2} = A$
 $AL_{0.2} = B+H$
 $AL_{0.2} = C+H$

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT. AXO-R + PLXOR-R



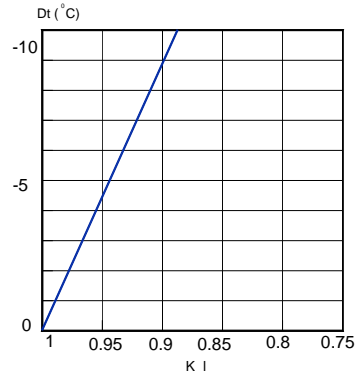
Note: In MadelMedia Octava band centre frequency in Hz.

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



Kh = Correction factor for the vertical diffusion.

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



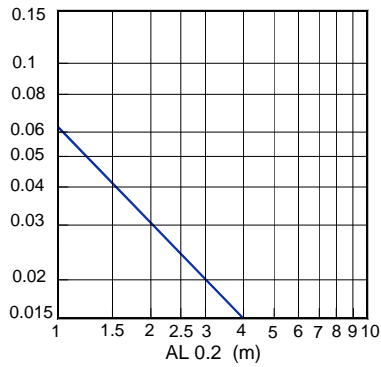
KI = Correction factor for the throw.

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

$$AL_{0.2} (Dt < 0) = KI \times AL_{0.2}$$

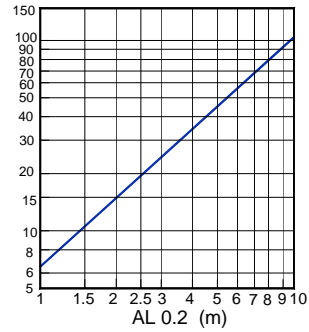
TEMPERATURE RATIO.

$$\frac{Dtl}{Dtz} = \frac{t_{room} - t_x}{t_{room} - t_{supply}}$$



INDUCTION RATIO.

$$i = \frac{Q_r}{Q_0} = \frac{Q_{total\ at\ x}}{Q\ of\ supply}$$

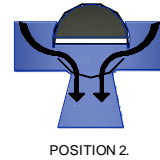


CORRECTION FACTOR FOR VERTICAL THROW (AV0,2) DT(+).

AXO-S	DT(+0)	DT(+5)	DT(+10)
310 (Kv)	0,75	0,53	0,44
400 (Kv)	0,76	0,54	0,47
500 (Kv)	0,7	0,5	0,4
600 (Kv)	0,8	0,7	0,53
625 (Kv)	0,8	0,7	0,53
800 (Kv)	0,85	0,74	0,57
825 (Kv)	0,85	0,74	0,57

AXO-SY	DT(+0)	DT(+5)	DT(+10)
310 (Kv)	0,75	0,53	0,44
400 (Kv)	0,76	0,54	0,47
500 (Kv)	0,7	0,5	0,4
600 (Kv)	0,84	0,72	0,55
625 (Kv)	0,84	0,72	0,55
800 (Kv)	0,85	0,74	0,57
825 (Kv)	0,85	0,74	0,57

VERTICAL SUPPLY.



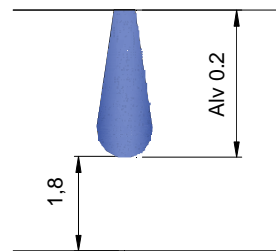
POSITION 2.

AXO-SX	DT(+0)	DT(+5)	DT(+10)
310 (Kv)	0,78	0,55	0,47
400 (Kv)	0,81	0,56	0,5
500 (Kv)	0,75	0,53	0,47
600 (Kv)	0,89	0,74	0,57
625 (Kv)	0,89	0,74	0,57
800 (Kv)	0,9	0,78	0,6
825 (Kv)	0,9	0,78	0,6

$DT(+)= T \text{ supply} - T \text{ room}$

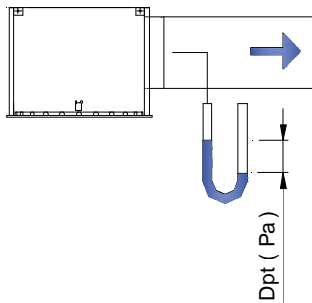
EXAMPLE:
 AXO-S-600-625
 Q = 600 m³/h
 DT(+5)
 AL0,2 = 4 m
 ALv0,2 = 0,7 * 4 = 2,8 m

TYPE C. 100% POSITION 2.

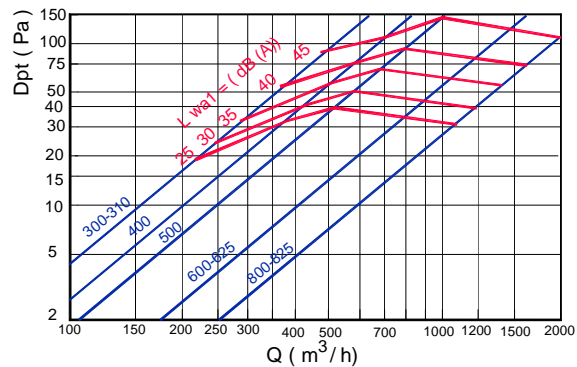


PRESSURE LOSS AND SOUND POWER LEVEL : EXTRACT.

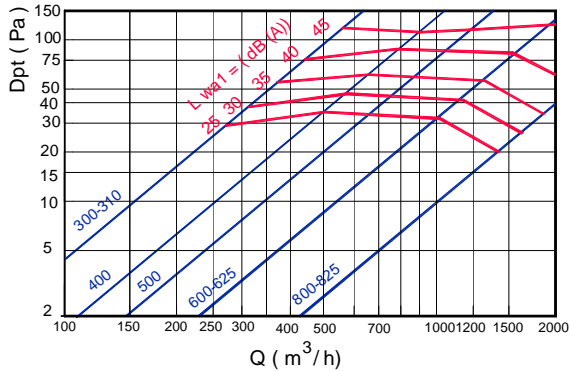
EXTRACT.



AXO-C.
 AXO-S.



AXO-SX.



AXO-CY.
 AXO-SY.

