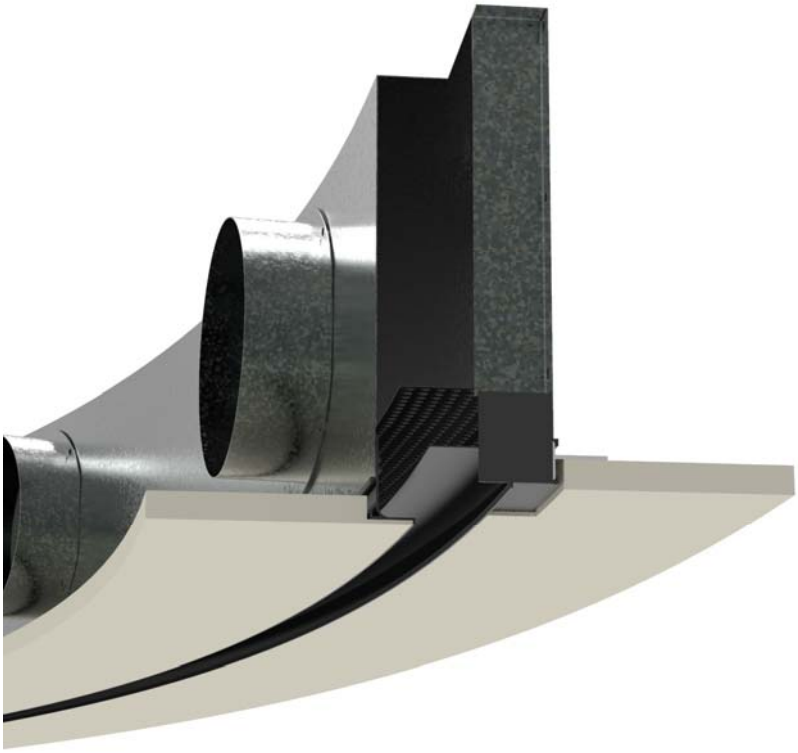


LOOK-CURVED
curved concealed linear diffusers

The **LOOK-CURVED** curved linear diffusers with concealed frame have been designed to combine aesthetics with technical performance. Its assembly is carried out suspended from the false ceiling, hiding the frame with filler and leaving visible only the slot.

- It enables the formation of continuous curved lines, with active and inactive zones, without breaking the aesthetic uniformity of the whole.
- Suitable for both supply and return.
- Minimum diameters of 2500 mm.
- Flow variation of 60% maintaining the stability of the air stream.
- For heights from 2.6 to 4 meters and with a temperature differential of up to 12º C.

Advantages **LOOK-CURVED** diffuser :

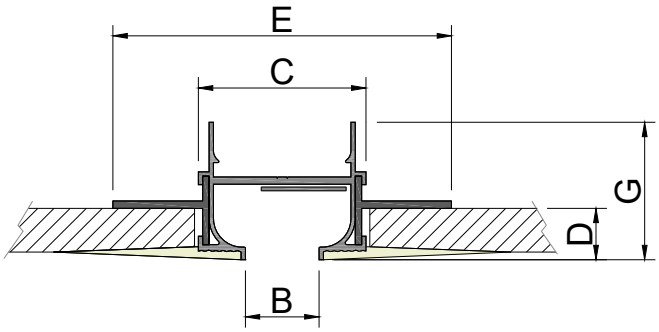
- ➢ Integration of straight and curved sections.
- ➢ Reduced minimum diameter.

Benefits of the **LOOK-CURVED** diffuser:

- ✓ Uniform and aesthetic installation.
- ✓ Unique facilities.

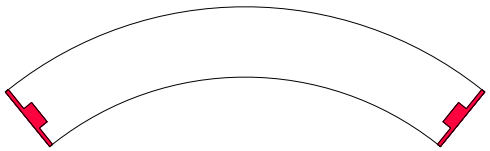
❑Homes
❑Offices
❑Hotels
❑Malls

LOOK-CURVED

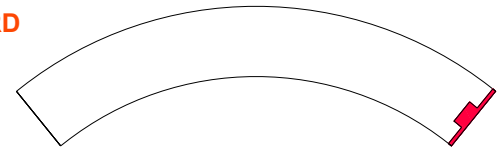


LOOK	B	C	D	G	E
20	20	47	14	38,2	94,3
30	30	76	14	45,2	123,5
40	40	86	14	45,2	133,5

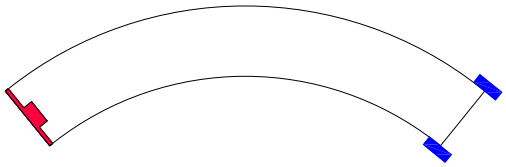
…-AR



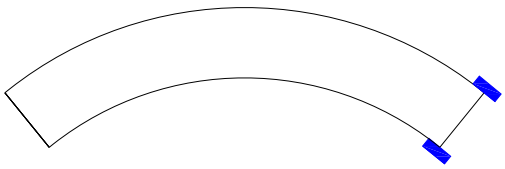
…-ARD



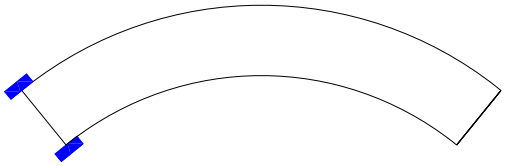
…-ARI

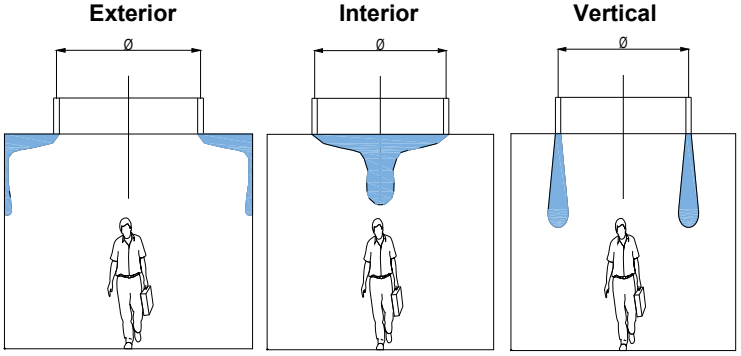


…-IND



…-INI





CLASSIFICATION

LOOK-CURVED Linear curved diffuser with short frame and brackets for suspension in false ceiling. Factory adjustable deflector for outward, inward or vertical supply.

…-AR Diffuser with cap angles at both ends for arc length ≤ 2m.

…-ARD Diffuser with a cap angle on the right side, to form curves with arc length >2m.

…-ARI Diffuser with a cap angle on the left side and union plates on the right side, to form curves with arc length >2m.

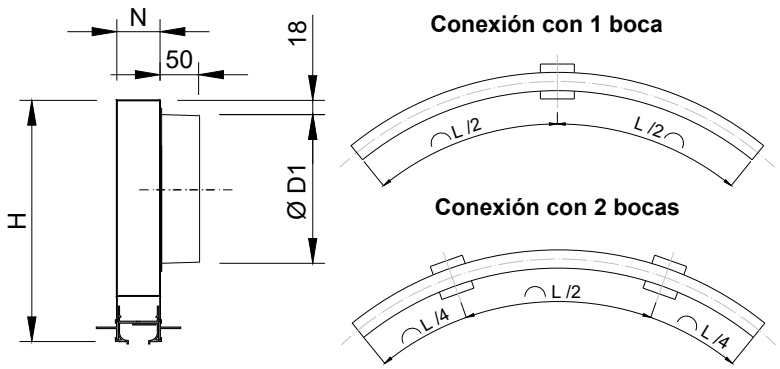
…-IND Curved diffuser without cap angles, with union plates on the right side, to form lengths of arches greater than 4m.

…-INI Curved diffuser without cap angles, with union plates on the left side, to form lengths of arches greater than 4m.

MATERIAL

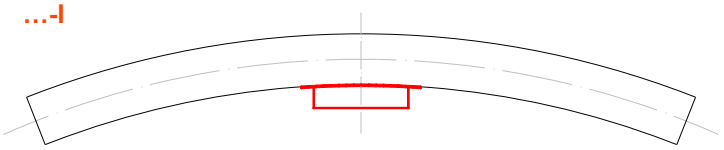
Diffusers made of aluminium. Blades and plenum in galvanized steel.

LOOK-CURVED+PLOK-CURVED

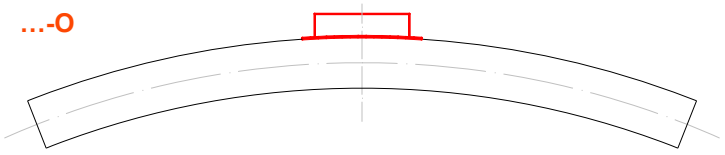


LOOK	L ⩽ 0.5		L ⩽ 1		L ⩽ 1,2		L ⩽ 1,5		L ⩽ 2		
	H	D1	H	D1	H	D1	H	D1	H	D1	N
20	240	1/158	240	1/158	240	1/158	240	1/158	240	2/158	42,5
30	240	1/158	240	1/158	240	1/158	240	1/158	240	2/158	72
40	280	1/198	280	1/198	280	1/198	280	2/198	280	2/198	82

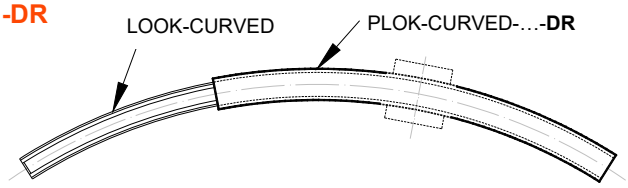
…-I



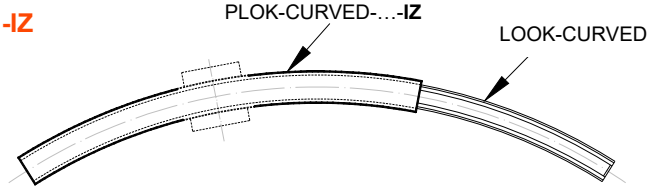
…-O



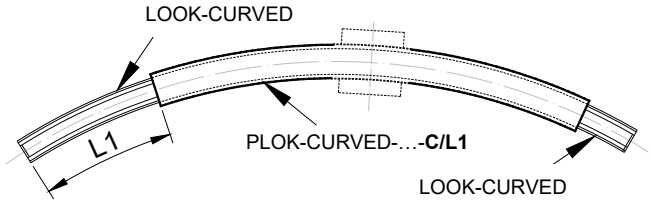
…-DR



…-IZ



…-C/L1



ACCESSORIES

PLOK-CURVED Plenum with connection to circular duct. Diffuser attached to plenum with screws.

…/AIS/ Thermally insulated plenum box with foam. Density 30 kg / m3 ISO 845. Thermal conductivity 20º C_0,040 W / mºK ISO 3386/1. Classified reaction to fire B-s2, d0 EN 13501-1.

…-I Plenum with connection on the concave side (inside)

…-O Plenum with connection on the convex side (outside)

…-DR Plenum position on the right side of the diffuser.

…-IZ Position of the plenum box on the left side of the diffuser.

…-C/L1 Position of the plenum box at distance L1 from the left side.

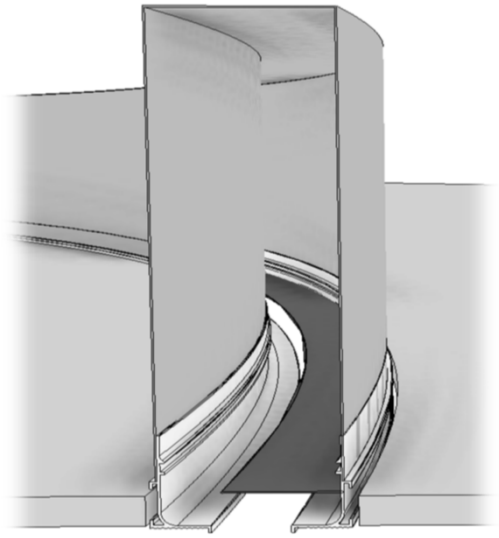
FIXING

1) False ceiling suspension brackets, with and without plenum box. The plenum incorporates some brackets for suspension by means of rods to the ceiling.

FINISHES

R9005M Painted black RAL 9005 matt (20-30% gloss)
M9016 Painted white similar to RAL 9016 (85-95% gloss)
R9016S Painted white RAL 9016 semi-matt (60-70% gloss)
R9010S Painted white RAL 9010 semi-matt (60-70% gloss)
RAL... Painted in other RAL colours

PRESCRIPTION TEXT



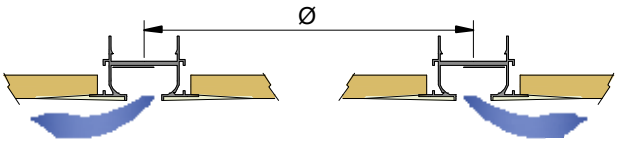
(Example)

Supply and installation of curved linear diffuser with short frame and deflector fin of the **LOOK-CURVED-AR (L) R9005M dim. 20 x 2000 x R2500 + PLOK-CURVED/AIS/-I-IZ dim. 20 x 1000** built in aluminum and steel, RAL 9005 Matt black lacquered, 20mm track width, 2000mm diffuser arc length and 2500mm radius of curvature. With brackets for suspension of the set on false ceiling. With circular connection plenum box on the concave side (interior), insulated, positioned on the left side of the diffuser. Track width of 20mm and plenum arch length of 1000mm, and necessary elements for assembly. **Madel** brand.

CODIFICATION

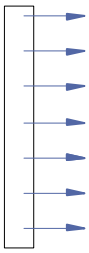
LOOK-CURVED	**- AR**	**(L)**	**R9005**	**dim. 20 x L_d x R**	**+ PLOK-CURVED /AIS/**	**- I**	**- DR**	**dim. 20 x L_p**
1	2	3	4	5	6	7	8	9

1. Diffuser
2. Diffuser type
   - **AR**
   - **ARI**
   - **ARD**
   - **IND**
   - **INI**
3. Fixing
4. Finishes
   - **R9005M**
   - **M9016**
   - **R9016S**
   - **R9010S**
   - **RAL ...**
5. Diffuser size
   - Slot width 20/30/40 x Length of the diffuser arch
   - x Radius at the center of the diffuser (mm)
6. Accessories
   - **PLOK-CURVED**
   - **/ AIS /**
7. Connexion
   - **I**
   - **O**
8. Plenum position with respect to diffuser
   - **DR**
   - **IZ**
   - **C/L1**
9. Plenum box size
   - Slot width 20/30/40 x Length of the plenum box arch



RECOMMENDED VELOCITY.

LOOK	Vmin (m/s)	Vmax (m/s)
20	2.5	4.5
30	2.5	4.5
40	2.5	4.5



FREE FACE AREA (m2).

	0.5 m	1 m	1.2 m	1.5 m	1.8 m	2 m
20	0.0067	0.0135	0.0162	0.0202	0.0243	0.0270
30	0.0099	0.0199	0.0239	0.0299	0.0358	0.0398
40	0.0112	0.0223	0.0268	0.0334	0.0401	0.0446

CORRECTION FACTOR FOR DPt AND Lwa1.

		0.5 m<x< 0.7m			0.8 m<x< 1.2m			1.3 m<x< 1.7m			1.8 m<x< 2m		
		100%	50%	25%	100%	50%	25%	100%	50%	25%	100%	50%	25%
20	Dpt	0.88	2.88	3	1	1.4	2.2	1.3	2.7	3.5	1.5	2.9	3.7
	Lwa1	-	-3	-5	-	4	7	-	3	5	-	3	7
30	Dpt	0.93	2.68	3.12	1	1.45	2.25	1	2.1	2.9	1.35	2.8	3.6
	Lwa1	-	-3.3	-4	-	2.3	3.8	2.2	3.1	4.1	0	2	4.1
40	Dpt	0.98	2.48	3.25	1	1.5	2.3	1	1.5	2.3	1.2	2.7	3.5
	Lwa1	-	-3.6	-3.1	-	0.6	0.6	2.3	3.2	3.1	0	1	1.2

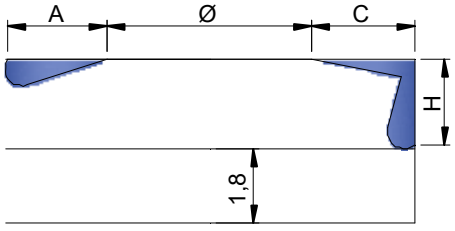
DPt1 = Kp x DPt

Lwa1 = Lwa + Kf

CORRECTON FACTOR FOR THROW KL

LOOK	0.5 m	1 m	1.2 m	1.5 m	1.8 m	2 m
20	0.8	1	1.13	1.27	1.35	1.43
30	0.76	1	1.09	1.18	1.23	1.29
40	0.73	1	1.05	1.09	1.12	1.15

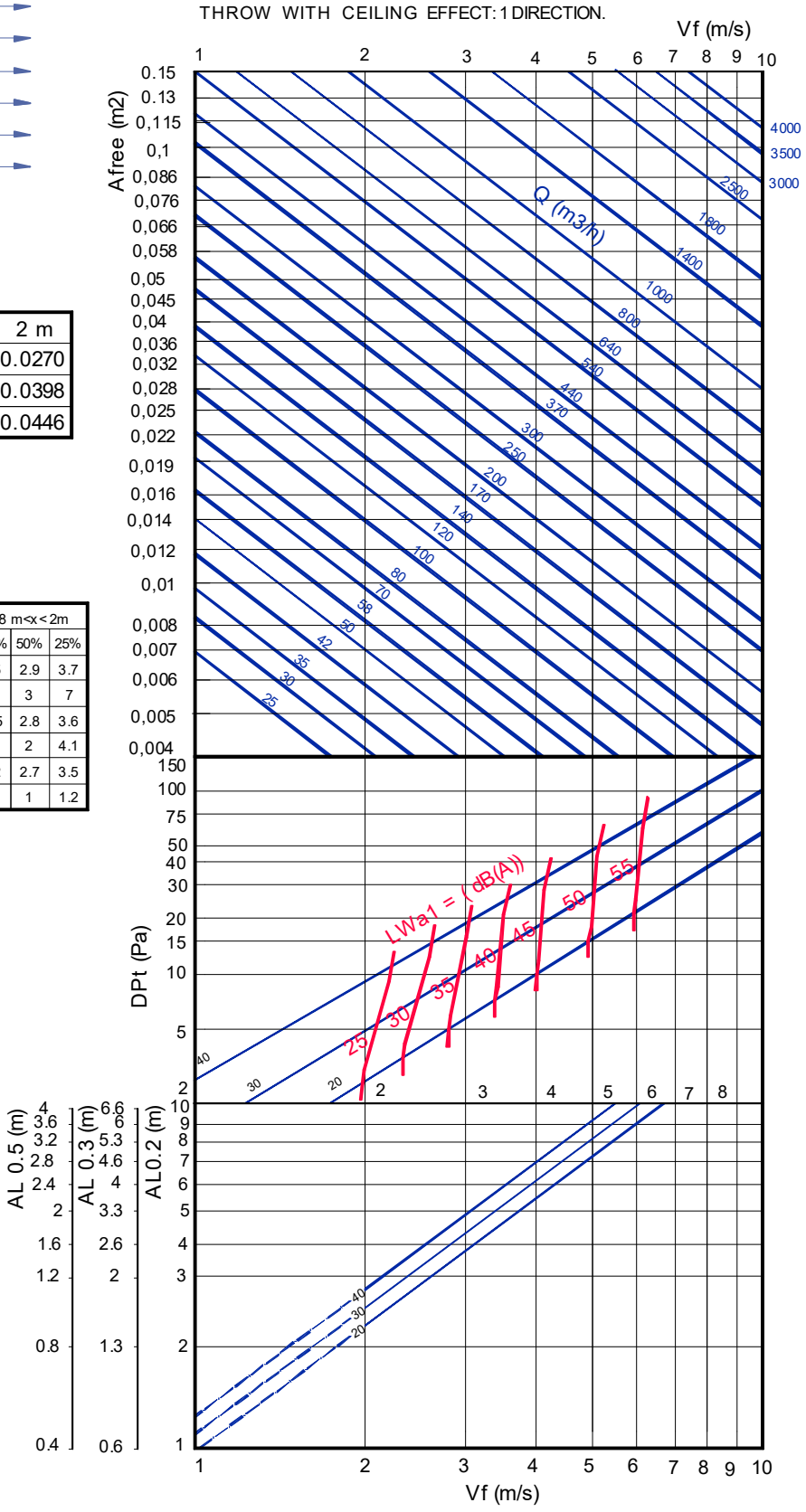
AL`02 = KI x AL02



$AL_{0.2} = A$

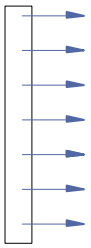
$AL_{0.2} = C+H$

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT: 1 DIRECTION.



RECOMMENDED VELOCITY.

LOOK	Vmin (m/s)	Vmax (m/s)
20	2.5	4.5
30	2.5	4.5
40	2.5	4.5



FREE FACE AREA (m2).

	0.5 m	1 m	1.2 m	1.5 m	1.8 m	2 m
20	0.0067	0.0135	0.0162	0.0202	0.0243	0.0270
30	0.0099	0.0199	0.0239	0.0299	0.0358	0.0398
40	0.0112	0.0223	0.0268	0.0334	0.0401	0.0446

CORRECTION FACTOR FOR DPt AND Lwa1.

		0.5 m<x< 0.7m			0.8 m<x< 1.2m			1.3 m<x< 1.7m			1.8 m<x<2m		
		100%	50%	25%	100%	50%	25%	100%	50%	25%	100%	50%	25%
20	Dpt	0.88	2.88	3	1	1.4	2.2	1.3	2.7	3.5	1.5	2.9	3.7
	Lwa1	-	-3	-5	-	4	7	-	3	5	-	3	7
30	Dpt	0.93	2.68	3.12	1	1.45	2.25	1	2.1	2.9	1.35	2.8	3.6
	Lwa1	-	-3.3	-4	-	2.3	3.8	2.2	3.1	4.1	0	2	4.1
40	Dpt	0.98	2.48	3.25	1	1.5	2.3	1	1.5	2.3	1.2	2.7	3.5
	Lwa1	-	-3.6	-3.1	-	0.6	0.6	2.3	3.2	3.1	0	1	1.2

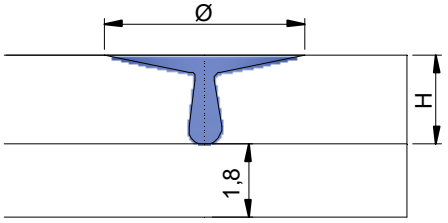
DPt1 = Kp x DPt

Lwa1 = Lwa + Kf

CORRECTON FACTOR FOR THROW KL

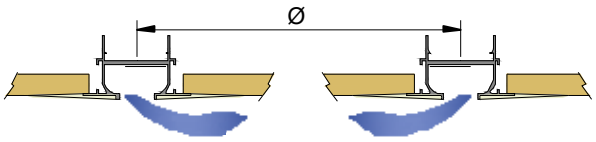
LOOK	0.5 m	1 m	1.2 m	1.5 m	1.8 m	2 m
20	0.8	1	1.13	1.27	1.35	1.43
30	0.76	1	1.09	1.18	1.23	1.29
40	0.73	1	1.05	1.09	1.12	1.15

AL`02 = KI x AL02

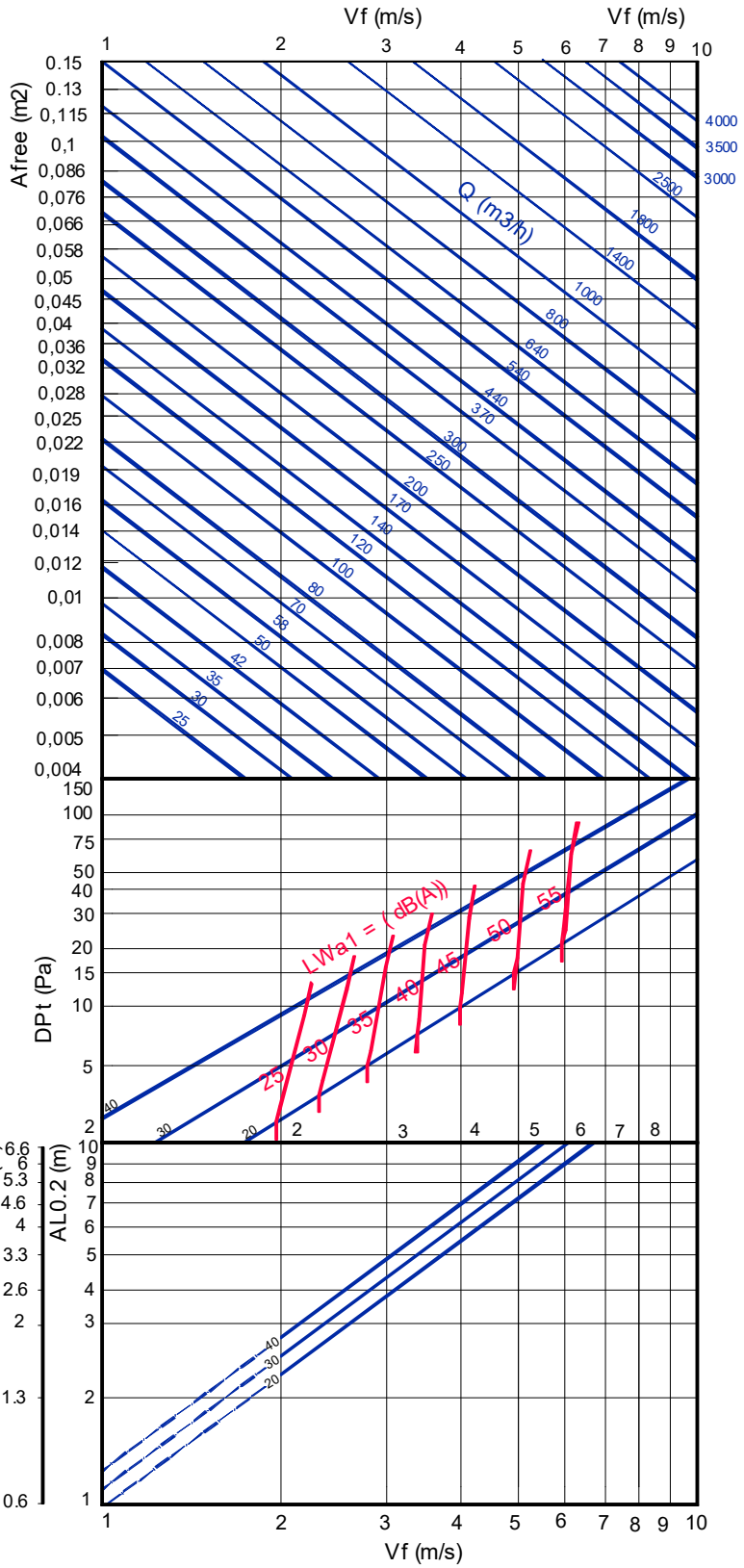


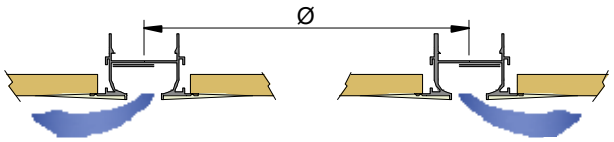
$AL_{0.2}$ = (Ø/2)+H

Ømin= a ($Al_{0.2}$ - Hmax)

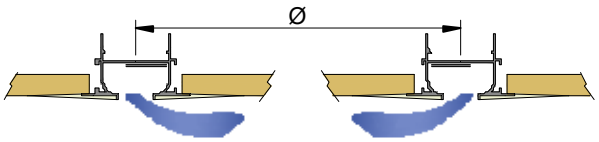


FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT: 1 DIRECTION.

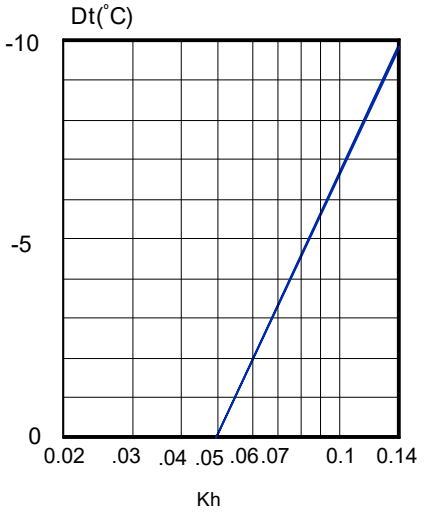


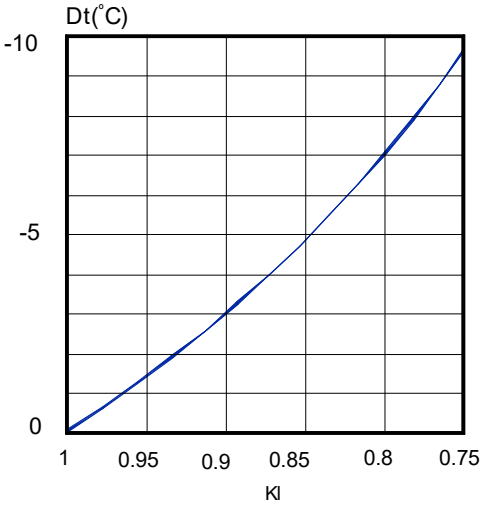


CORRECTION FACTOR FOR VERTICAL DIFFUSION (bV) FOR DT (-).

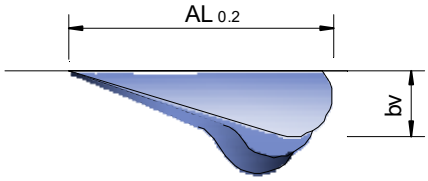


CORRECTON FACTOR FOR THROW (L0.2) DT (-).





Kh = Correction factor for the vertical diffusion.



Kl = Correction factor for the throw.

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

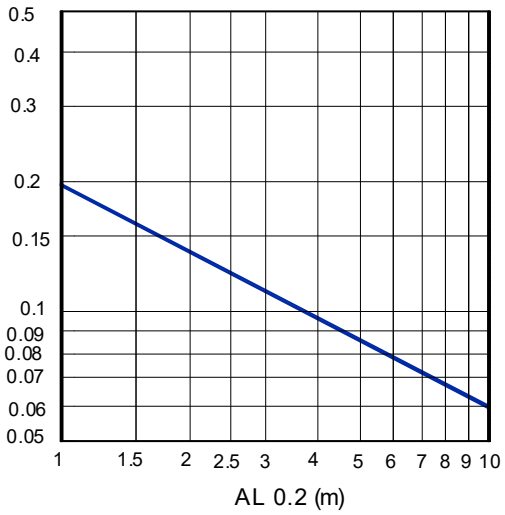
$$AL'_{0.2} \ (Dt < 0) = Kl \times AL_{0.2}$$

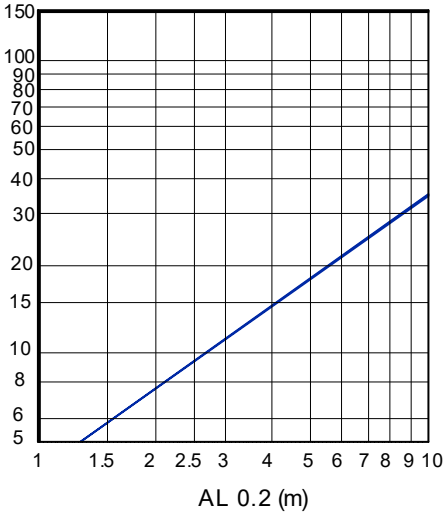
TEMPERATURE RATIO.

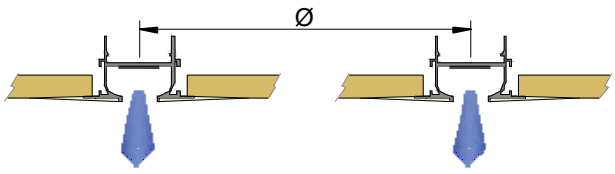
$$\frac{Dtl}{Dtz} = \frac{t\ room - t\ x}{t\ room - t\ supply}$$

INDUCTION RATIO.

$$i = \frac{Qr}{Q_0} = \frac{Q\ total\ in\ x}{Q\ supply}$$







RECOMMENDED VELOCITY.

LOOK	Vmin (m/s)	Vmax (m/s)
20	2.5	4.5
30	2.5	4.5
40	2.5	4.5

FREE FACE AREA (m2).

LOOK	0.5 m	1 m	1.2 m	1.5 m	1.8 m	2 m
20	0.0067	0.0135	0.0162	0.0202	0.0243	0.0270
30	0.0099	0.0199	0.0239	0.0299	0.0358	0.0398
40	0.0112	0.0223	0.0268	0.0334	0.0401	0.0446

CORRECTION FACTOR FOR DPt AND Lwa1.

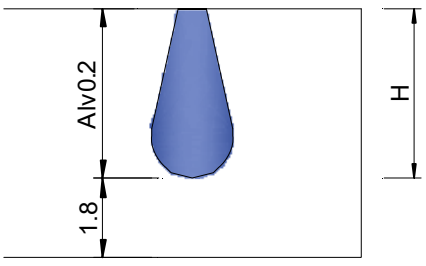
		0.5 m<x< 0.7m			0.8 m<x< 1.2m			1.3 m<x< 1.7m			1.8 m<x< 2m		
		100%	50%	25%	100%	50%	25%	100%	50%	25%	100%	50%	25%
20	Dpt	0.88	2.88	3	1	1.4	2.2	1.3	2.7	3.5	1.5	2.9	3.7
	Lwa1	-	-3	-5	-	4	7	-	3	5	-	3	7
30	Dpt	0.93	2.68	3.12	1	1.5	2.3	1	2.1	2.9	1.3	2.8	3.6
	Lwa1	-	-3.2	-4	-	2.3	3.8	-	3.2	4.1	-	2	4
40	Dpt	0.98	2.48	3.25	1	1.5	2.3	1	1.5	2.3	1.2	2.7	3.5
	Lwa1	-	-3.4	-2.9	-	0.6	0.6	-	3.3	3.2	-	0.9	1.1

DPt1 = Kp x DPt
Lwa1 = Lwa + Kf

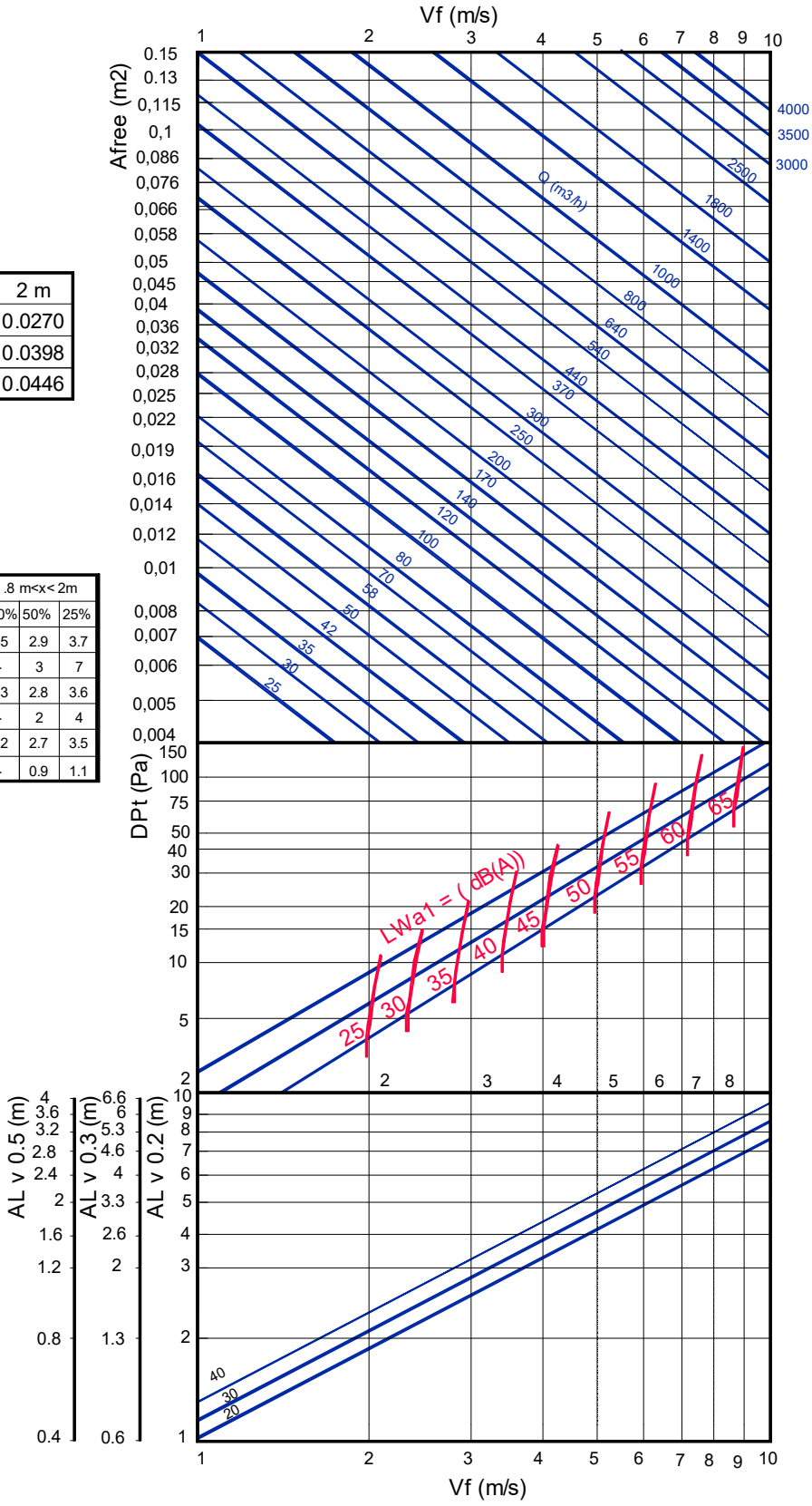
CORRECTON FACTOR FOR THROW KL

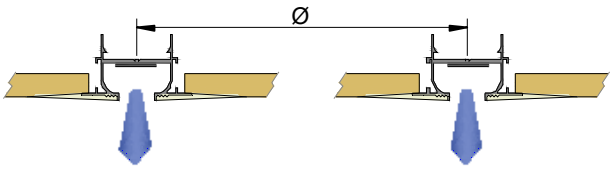
LOOK	0.5 m	1 m	1.2 m	1.5 m	1.8 m	2 m
20	0.7	1	1.02	1.04	1.07	1.1
30	0.72	1	1.03	1.07	1.08	1.1
40	0.73	1	1.04	1.09	1.1	1.15

AL`02 = Kl x AL02



FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL: VERTICAL SUPPLY.



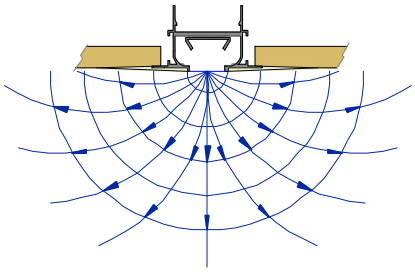


CORRECTION FACTOR FOR VERTICAL THROW (Alv0,2) DT(+).

LOOK	DT (+5)	DT (+10)
20	0.75	0.64
30	0.76	0.65
40	0.76	0.65

DT = T supply - T room.

Alv 0,2 (DT +) = Kv x Al 02



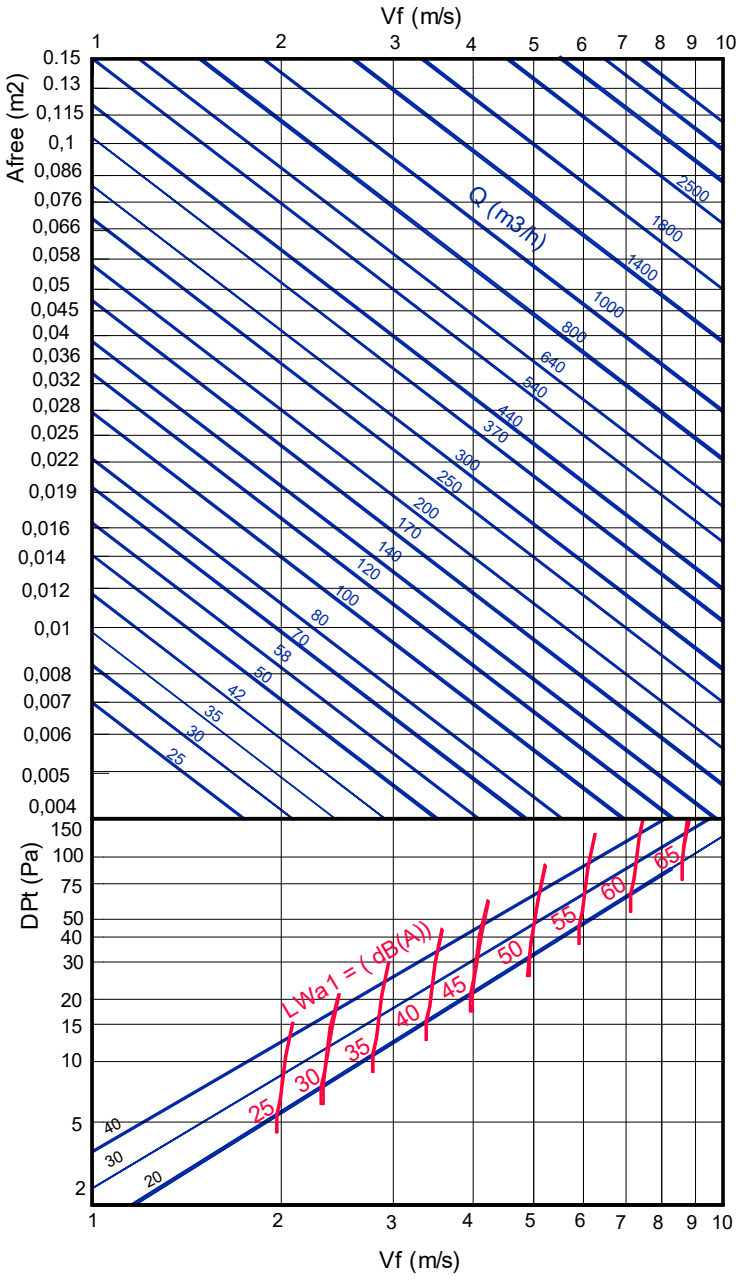
RECOMMENDED VELOCITY.

LOOK	Vmin (m/s)	Vmax (m/s)
20	2.5	3.5
30	2.5	3.5
40	2.5	3.5

FREE FACE AREA (m2).

	0.5 m	1 m	1.2 m	1.5 m	1.8 m	2 m
20	0.0067	0.0135	0.0162	0.0202	0.0243	0.0270
30	0.0099	0.0199	0.0239	0.0299	0.0358	0.0398
40	0.0112	0.0223	0.0268	0.0334	0.0401	0.0446

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL.



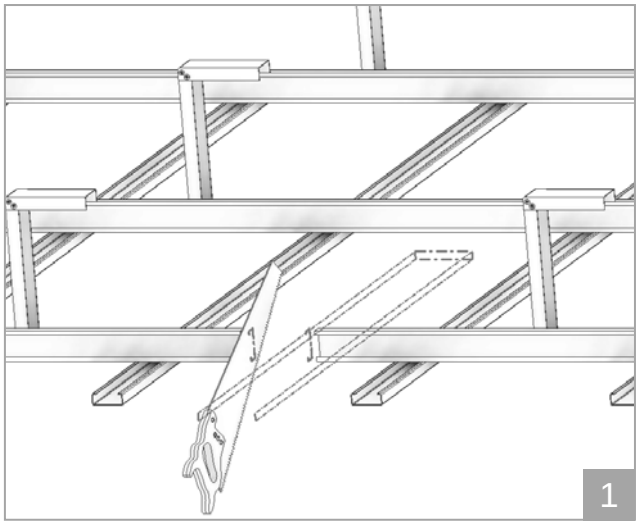
CORRECTION FACTOR FOR DPt AND Lwa1.

		0.5 m<x< 0.7m			0.8 m<x< 1.2m			1.3 m<x< 1.7m			1.8 m<x< 2m		
		100%	50%	25%	100%	50%	25%	100%	50%	25%	100%	50%	25%
20	Dpt	0.88	2.88	3	1	1.4	2.2	1.3	2.7	3.5	1.5	2.9	3.7
	Lwa1	-	3	5	-	4	7	-	3	5	-	3	7
30	Dpt	0.86	2.61	3.08	1	1.5	2.3	1.4	2.8	3.6	1.58	3.03	3.83
	Lwa1	-	3	5	-	4	7	-	4	7	-	3	8
40	Dpt	0.85	2.35	3.15	1	1.5	2.3	1.4	2.9	3.7	1.66	3.16	3.96
	Lwa1	-	3	5	-	4	7	-	4	7	-	3	8

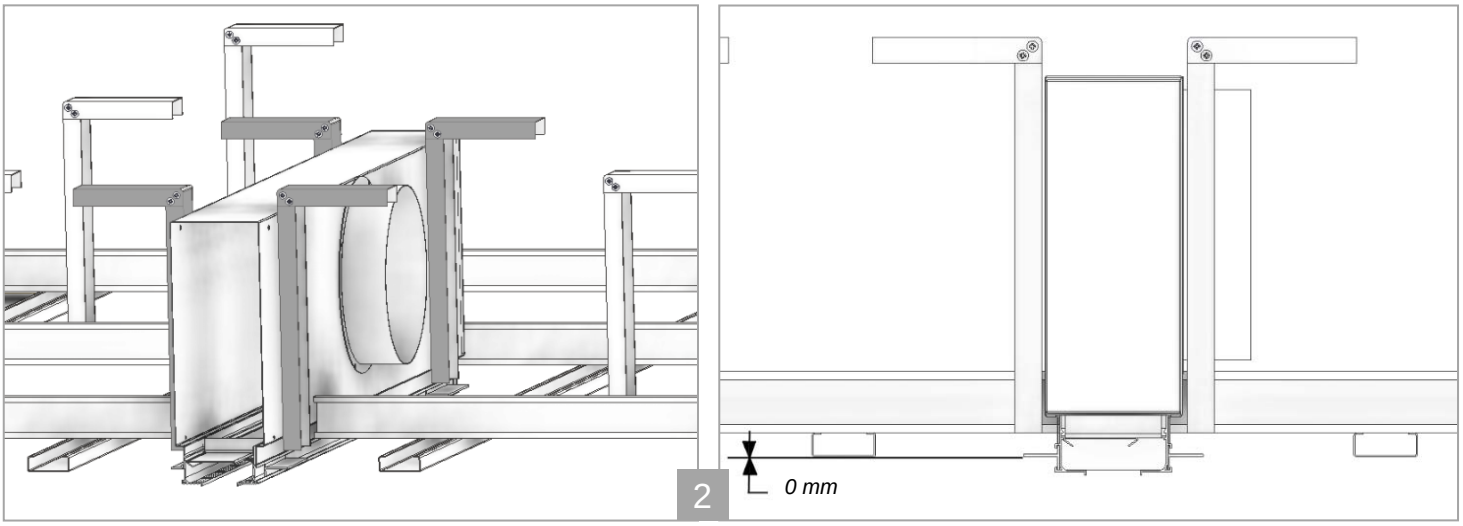
Lwa1 = Lwa + Kf

Assembly instructions

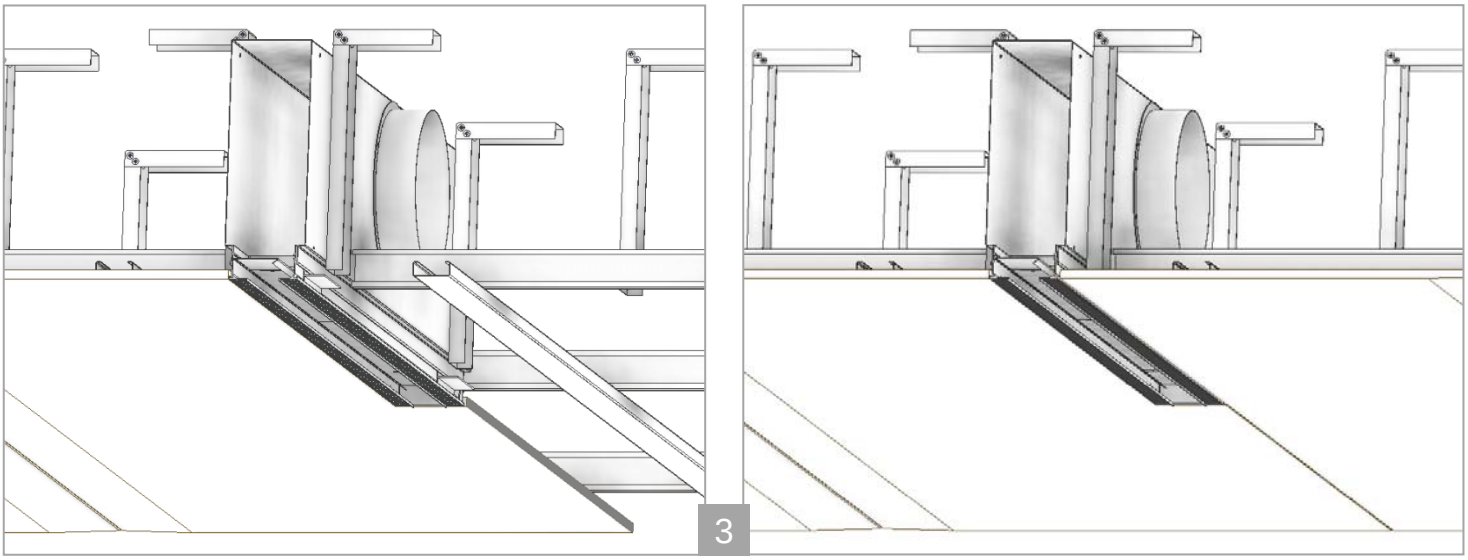
LOOK-CURVED (L) + PLOK-CURVED



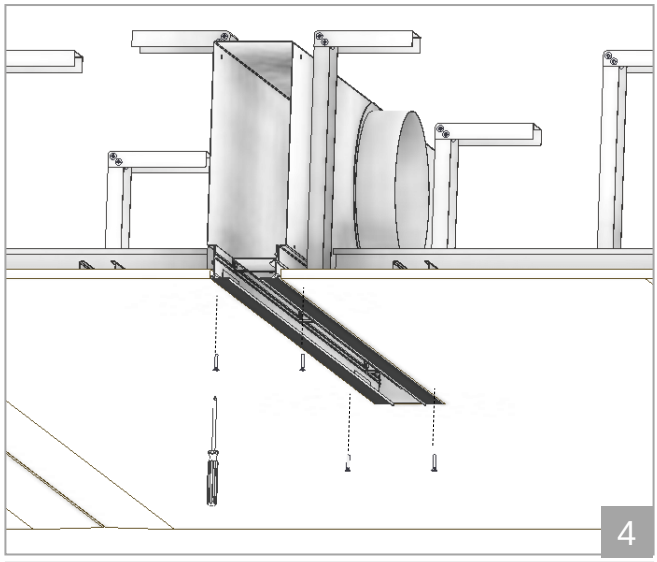
1 **Cut the ceiling structure or leave the space to introduce the plenum box with the nominal dimensions (A x L) mm.**
(*) Reinforce the structure if necessary.



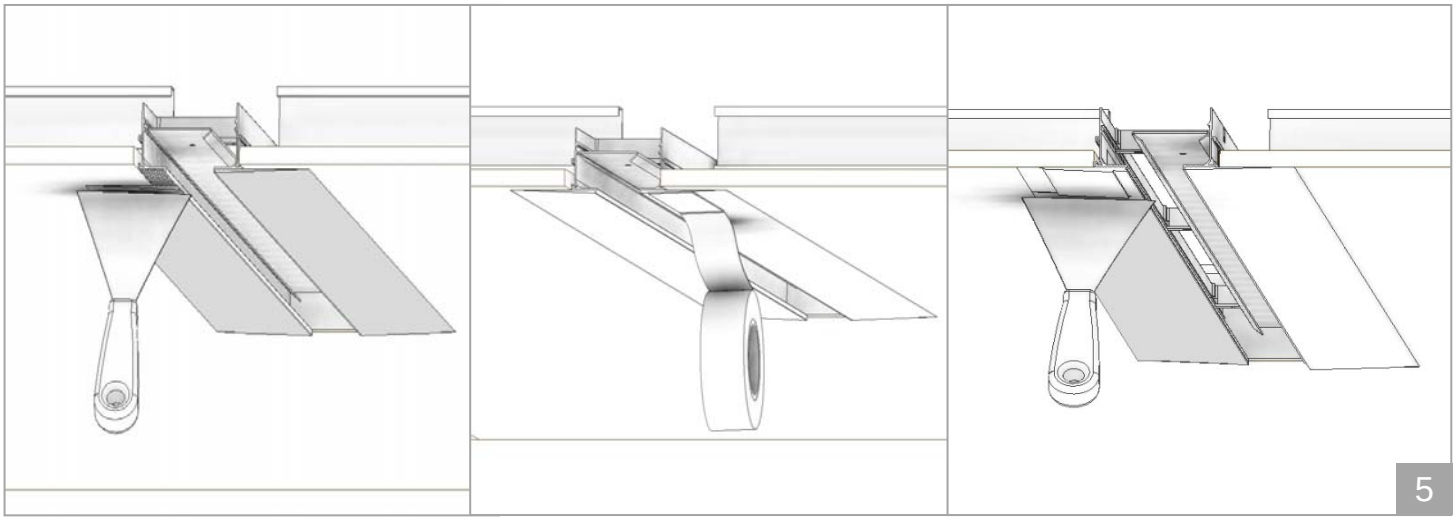
2 **Fix the plenum to the floor, using rods or any other type of fixing element used to hold the structure of the false ceiling.**
(*) The support pieces of the diffuser must be flush with the upper part of the plate.



3 **Place the false ceiling plates following the rectangular mouth of the plenum box.**



4 **Screw the diffuser to the ceiling through the diffuser support brackets**



5 **Plaster the joint surface between the diffuser and the plasterboard plates.**
Tape the plastered surface.
Smooth the diffuser-ceiling joint with fine paste.