



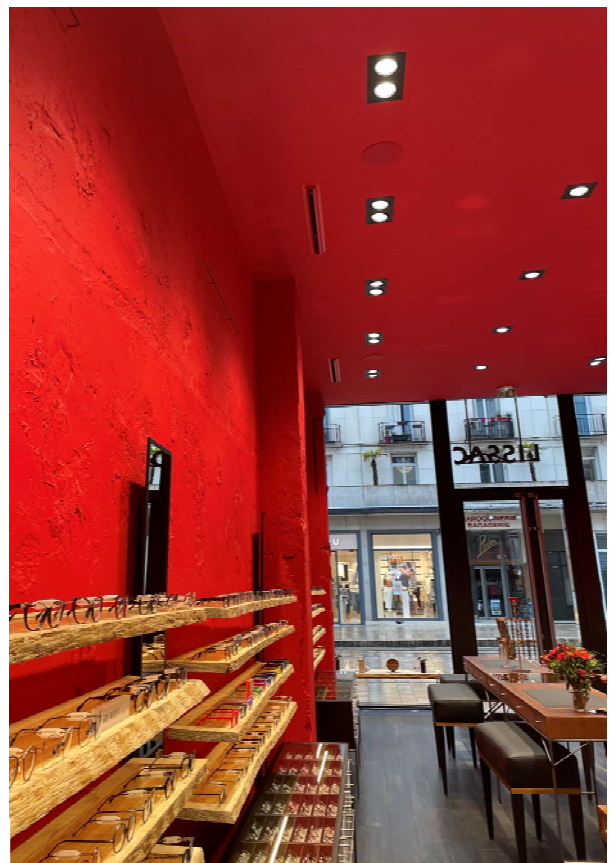
KOBE Mid-long throw linear jet nozzles

KOBE mid-long throw linear jet nozzles have been designed to combine aesthetics with technical performance in HVAC systems.

- Manually adjustable nozzle $\pm 30^\circ$ with a high induction rate.
- Wall or ceiling mounting with directional control of the air stream.
- Optimum performance both in CAV and VAV systems.
- Suitable to operate with a temperature differential of up to 12°C.

Product advantages :

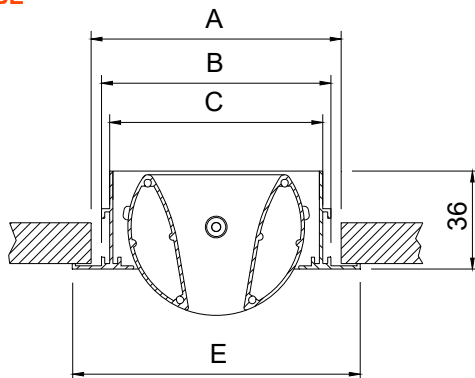
- Suitable for all types of spaces.
- Minimum air stratification in large spaces.
- Nozzle with discreet lines that favor its architectural integration.



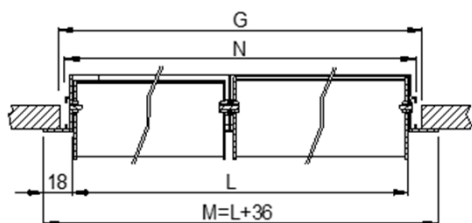
- Sport halls
- Malls
- Residences



KOBE



	A	B	C	E
15	93,5	84,5	78,5	106
20	93,5	84,5	78,5	106
25	93,5	84,5	78,5	106
30	93,5	84,5	78,5	106
40	107,5	98,5	92,5	120
50	118,5	109,5	103,5	131



L	M	N	G
500	536	509	517
1000	1036	1009	1017
1500	1536	1509	1517
2000	2036	2009	2017

CLASSIFICATION

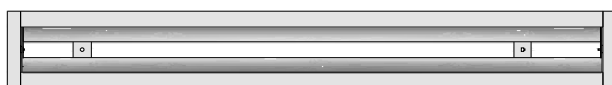
KOBE Mid-long throw linear jet nozzles.

Material

Diffusers made of aluminum with steel shafts and fastening elements.

Length (L): From 300 to 2000mm
 Nozzle with a maximum length of 1000 mm. For longer lengths the diffuser incorporates two nozzles of equal size.

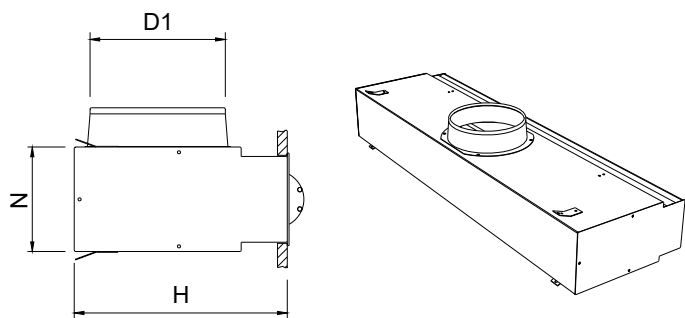
300 = L = 1000



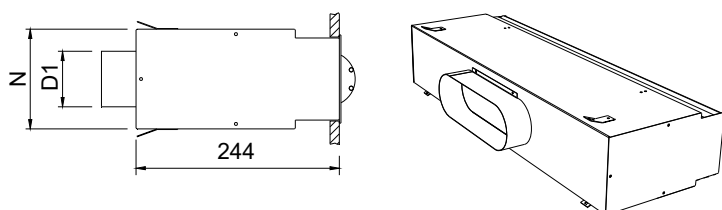
1100 = L = 2000



PLKB



PLKB /S/



ACCESSORIES

PLKB Plenum box with a lateral circular connection. It incorporates supports for wall or ceiling suspension. Made in galvanised steel.

.../S/ Plenum box with an upper elliptical connection for flexible duct.

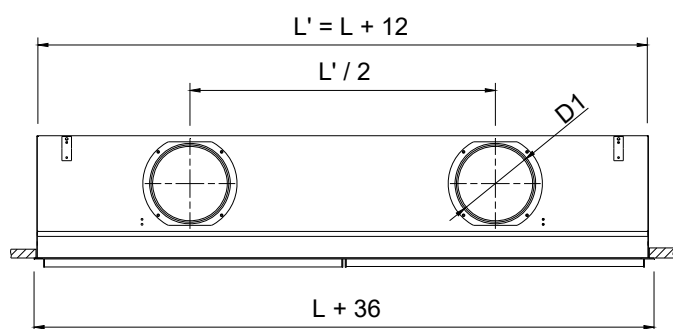
...-R Plenum box with a flow damper in the spigot (available only for lateral connection)

.../AIS/ Plenum box with thermal insulation inside.

Foam density 25 kg / m³ ISO 845. Thermal conductivity 10° C_0,040 W / m°K EN 12667.

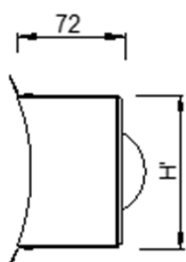
Classified reaction to fire B-s1, d0 EN 13501-1.

IOK Pressed collar saddle for mounting into a visible circular duct. (PM) fixing required.



	0,3 = L = 0,6			0,6 < L = 1			1 < L = 1,5			1,5 < L = 2		
	D1	H	N	D1	H	N	D1	H	N	D1	H	N
KOBE15	1 / 158	244	111	1 / 158	244	111	2 / 158	244	111	2 / 158	244	111
KOBE20	1 / 158	244	111	1 / 158	244	111	2 / 158	244	111	2 / 198	284*	111
KOBE25	1 / 158	244	111	1 / 198	284*	111	2 / 198	284*	111	2 / 198	284*	111
KOBE30	1 / 198	284*	111	1 / 198	284*	111	2 / 198	284*	111	2 / 198	284*	111
KOBE40	1 / 198	284*	125	1 / 198	284*	125	2 / 198	284*	125	2 / 248	334*	125
KOBE50	1 / 198	284*	135	1 / 198	284*	135	2 / 248	334*	135	2 / 248	334*	135

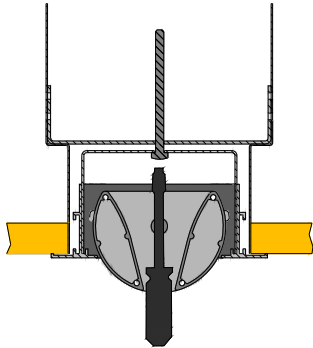
IOK



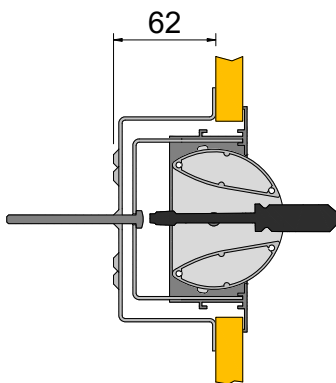
	H'
15	111
20	111
25	111
30	111
40	125
50	135



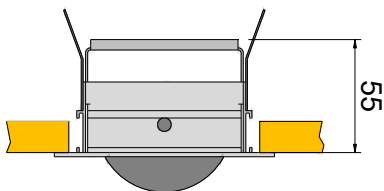
(PL)



(PM)



(D)



FIXING SYSTEMS

(PL) Nozzle to screw to plenum box and suspension of the assembly to the ceiling or wall.

(PM) Nozzle with crossbars to install in a false ceiling or wall. Fixing by screws.

(D) Nozzle with brackets for ceiling suspension using threaded rods.

FINISHES

R9016S Painted white RAL 9016 (60-70% gloss)

R9010S Painted white RAL 9010 (60-70% gloss)

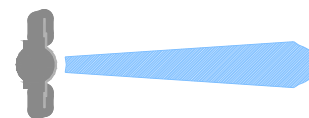
R9005M Painted black RAL 9005 (20-30% gloss)

RAL... Painted other RAL.

SPECIFICATION TEXT

Supply and mounting of medium-long throw adjustable linear nozzle **KOBE+PLKB-R (PL) R9010S 20x2000** made of aluminum, painted white RAL 9010 (60-70% gloss) with lateral circular connection plenum box with damper in the spigot and elements necessary for assembly. Brand **MADEL**.

KOBE SERIES



RECOMMENDED VELOCITY.

	Vfmin m/s	Vfmax m/s
15	2,5	14
20	2,5	14
25	2,5	12
30	2,5	12

FREE FACE AREA (m2).

L x H	Afree (m2)	Qmin (m3/h)	Qmax (m3/h)
15	0,0145	130	730
20	0,0194	175	977
25	0,0242	220	1045
30	0,0291	260	1250

L=1000mm

	Coanda efect
K_I	1,33

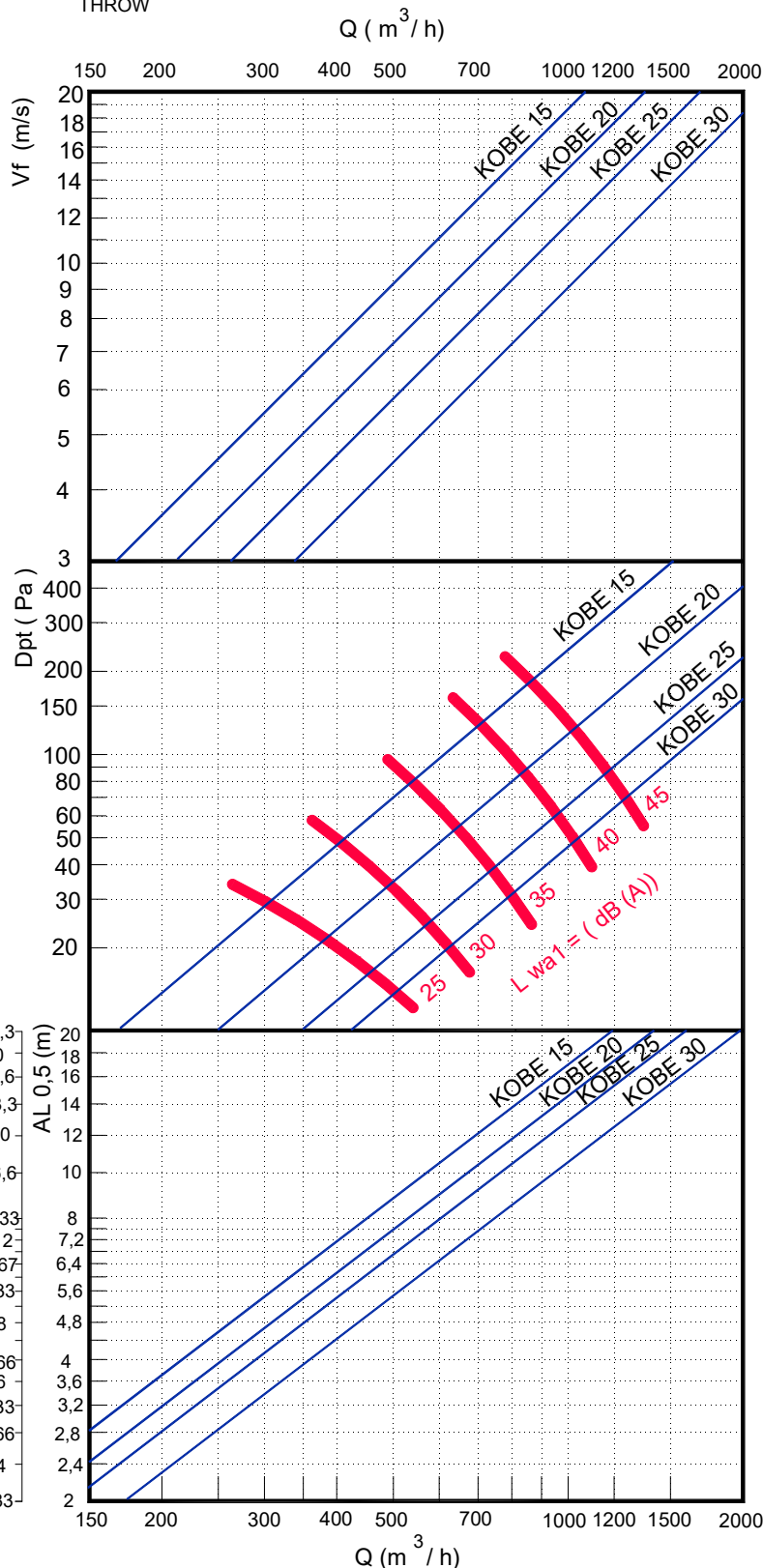
$$AL' = K_I \times AL$$

AL 0,2 (m) 50
45
40
35
30
25
20
16,6
13,33
12
10,67
9,33
8
6,66
6
5,33
4,66
4
3,33

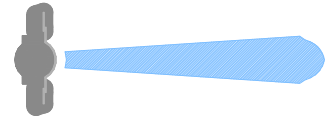
AL 0,3 (m) 33,3
30
26,6
23,3
20
16,6
13,33
12
10,67
9,33
8
6,66
6
5,33
4,66
4
3,33

AL 0,5 (m) 20
18
16
14
12
10
8
7,2
6,4
5,6
4,8
4
3,6
3,2
2,8
2,4
2

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW



KOBE SERIES



RECOMMENDED VELOCITY.

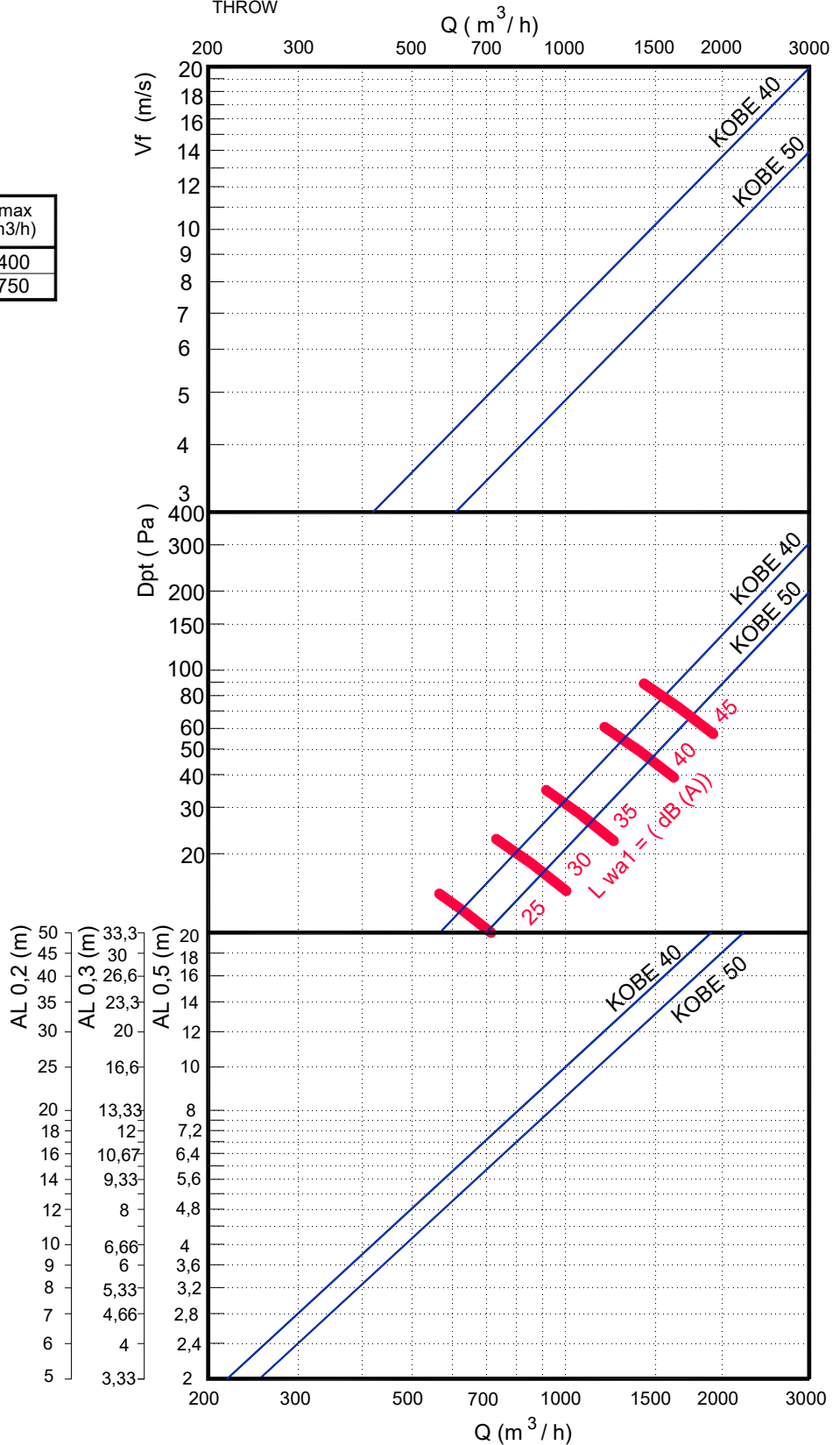
	Vfmin m/s	Vfmax m/s
40	2,5	10
50	2,5	10

FREE FACE AREA (m2).

L x H	Afree (m2)	Qmin (m3/h)	Qmax (m3/h)
40	0,0388	350	1400
50	0,0485	440	1750

L=1000mm

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW

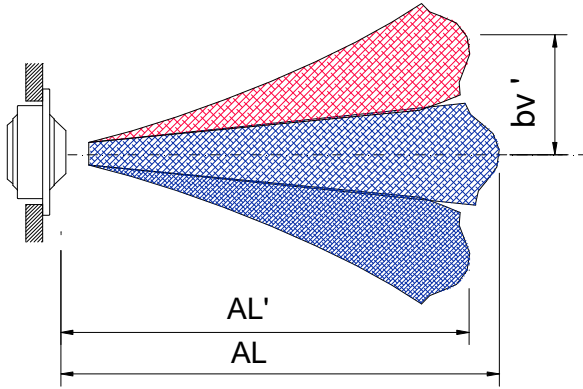


	Coanda efect
K_I	1,33

$$AL' = K_I \times AL$$

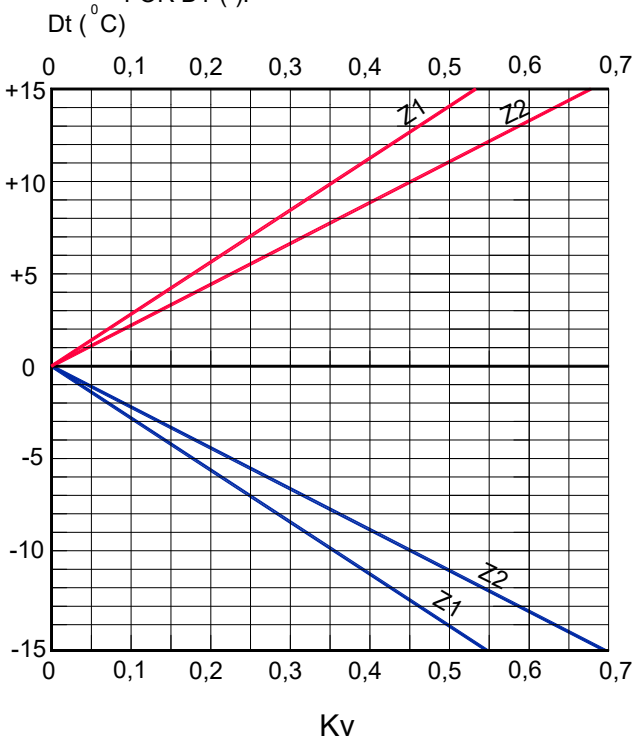
50	33,3	20
45	30	18
40	26,6	16
35	23,3	14
30	20	12
25	16,6	10
20	13,3	8
18	12	7,2
16	10,67	6,4
14	9,33	5,6
12	8	4,8
10	6,66	4
9	6	3,6
8	5,33	3,2
7	4,66	2,8
6	4	2,4
5	3,33	2

KOBE SERIES



Z1	Z2
KOBE 15	KOBE 40
KOBE 20	KOBE 50
KOBE 25	
KOBE 30	

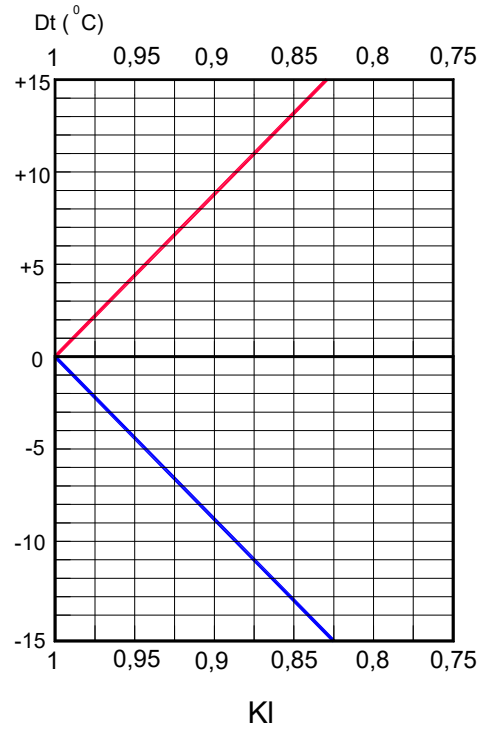
CORRECTION FACTOR FOR VERTICAL DIFFUSION (bv) FOR DT (-).



$$bv' = Kv \times AL$$

Kv = Correction factor for the vertical diffusion.

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



$$AL' = KI \times AL$$

KI = Correction factor for the throw.

KOBE SERIES



RECOMMENDED VELOCITY.

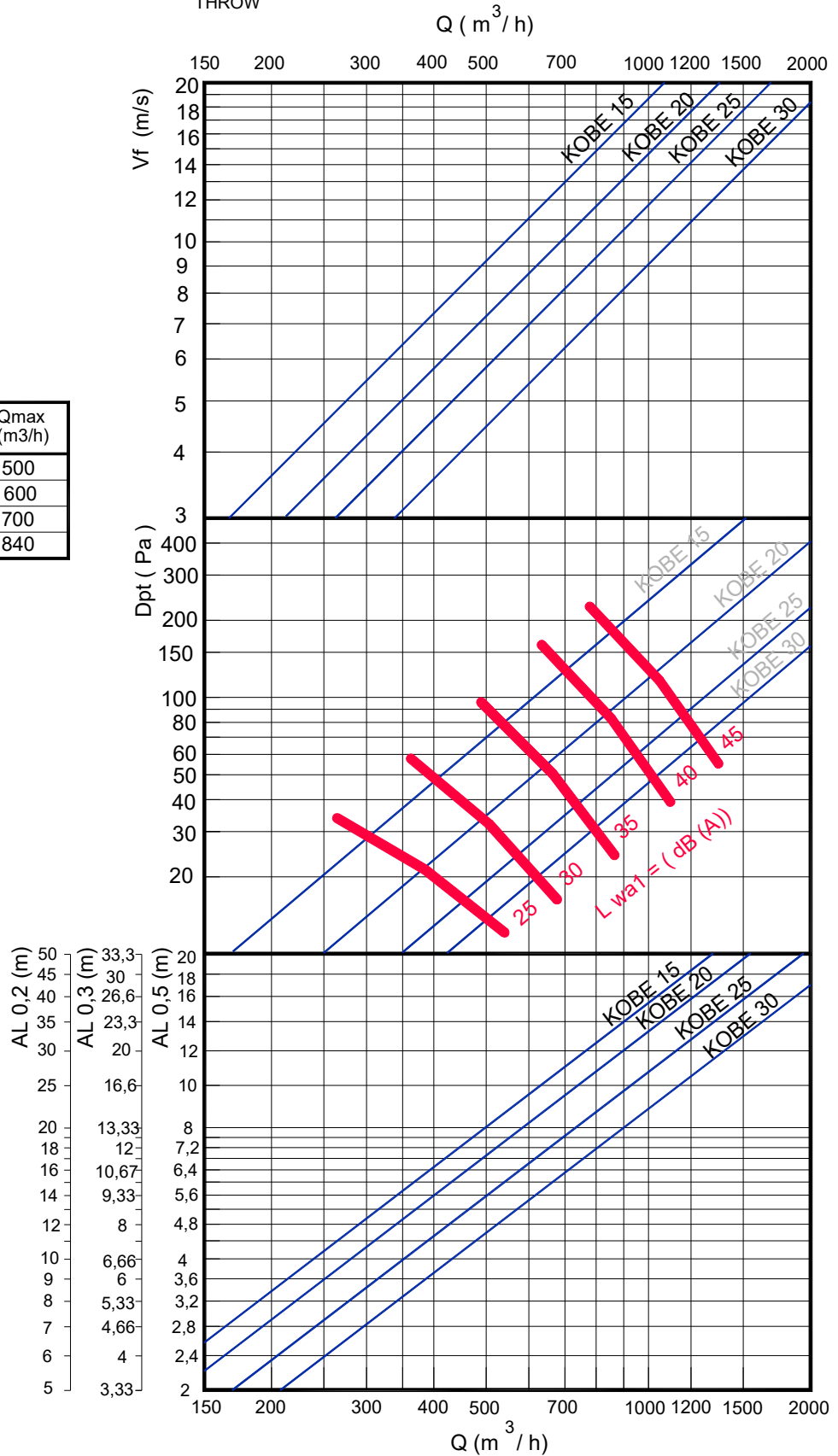
	Vfmin m/s	Vfmax m/s
15	2,5	9,5
20	2,5	8,5
25	2,5	8
30	2,5	8

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW

FREE FACE AREA (m²).

L x H	Afree (m ²)	Qmin (m ³ /h)	Qmax (m ³ /h)
15	0,0145	130	500
20	0,0194	175	600
25	0,0242	220	700
30	0,0291	260	840

L=1000mm



	Coanda efect
K _I	1,33

$$AL' = K_I \times AL$$

KOBE SERIES



RECOMMENDED VELOCITY.

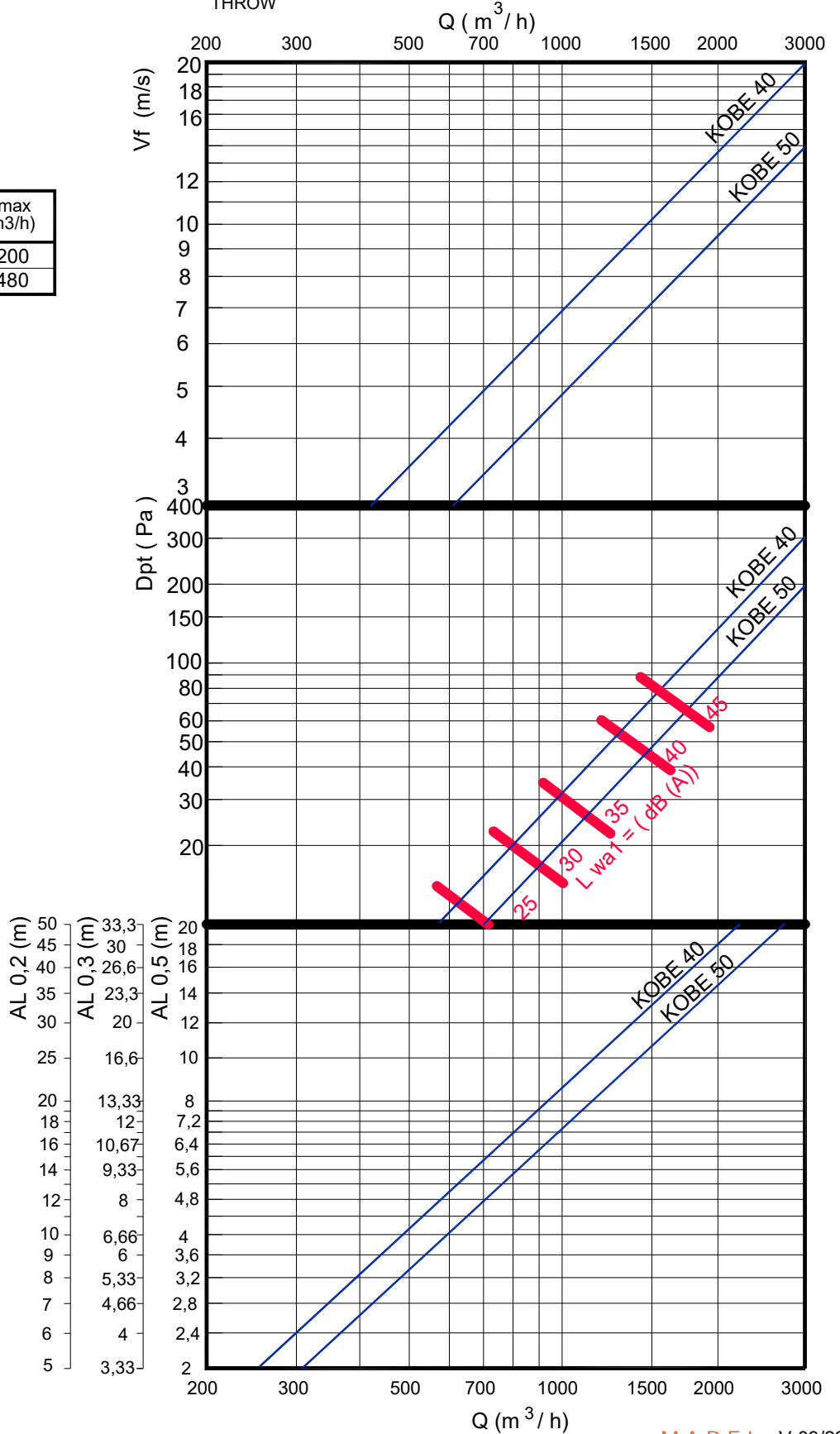
	Vfmin m/s	Vfmax m/s
40	2,5	8,5
50	2,5	8,5

FREE FACE AREA (m2).

L x H	Afree (m2)	Qmin (m3/h)	Qmax (m3/h)
40	0,0388	350	1200
50	0,0485	440	1480

L=1000mm

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW



	Coanda efect
Kj	1,33

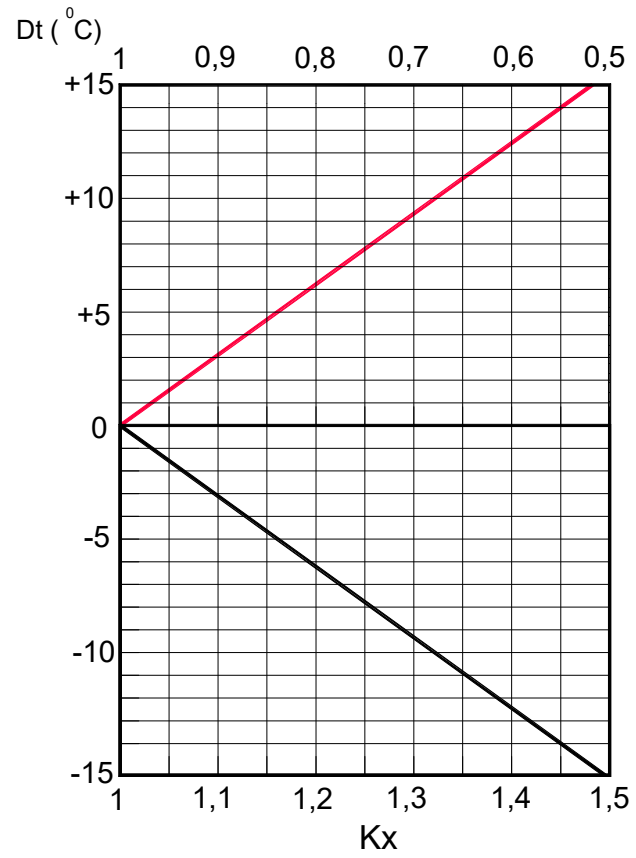
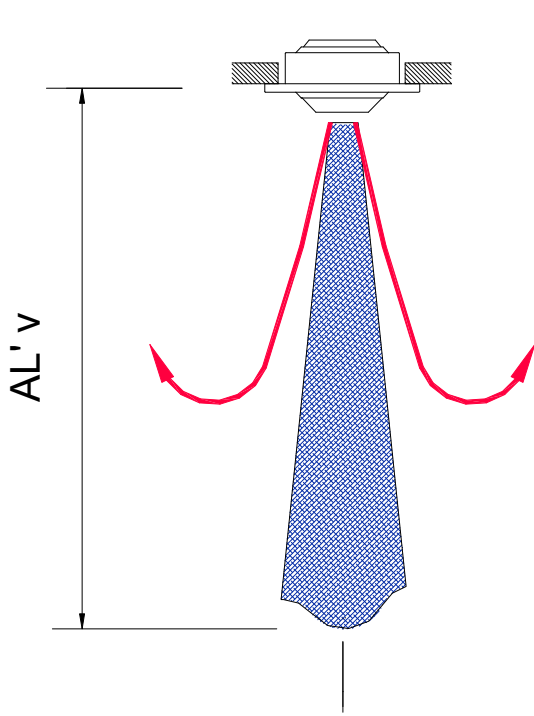
$$AL' = K_j \times AL$$



KOBE SERIES



CORRECTION FACTOR FOR VERTICAL THROW (ALv) DT



$$AL'v = Kx \times AL$$