GERHMAN

Jet Diffusers

Mini Beam

At Gerhman we are driven by a strong desire to continuously generate improvements. We do that by developing products and systems that are easy to use and energy efficient, together with industry-leading knowledge, support, logistics and efficient availability.

gerhman.com

Jet Diffusers

Mini Beam

Mini Beam jet diffusers have been designed to combine aesthetics with technical performance. Micro-jet nozzles linear diffusers, giving complete flexibility of direction, suitable for wall or ceiling mounting. The models with adjustable nozzles allow virtually unlimited settings, as the nozzles can be adjusted individually to the de- sired throw direction.

Typical Applications

They can be mounted on the wall to diffuse the air horizontally in large spaces, or the ceiling to diffuse the air downward, for instance to cover high windowed walls.

Ideal for

- **Shopping centers**
- **Airports**
- **Stations**
- **Sport halls**
- **Large spaces**

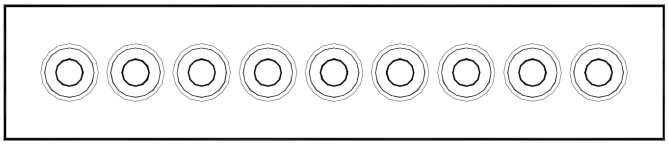
Design

- **Supply angle of ± 30°**
- **Installation on wall to diffuse the air horizontally**
- **Installation on ceiling to diffuse the air downward**
- **Operate with a temperature differential of up to up to 12°C**

NOZZLES - Plastic, similar to RAL colour 9010 white or RAL 9005 black

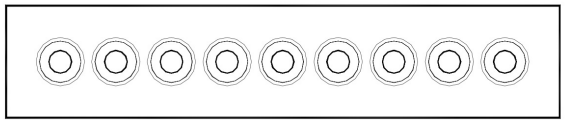
FACEPLATE - Sheet steel painted to RAL 9010 white or to a different RAL colour

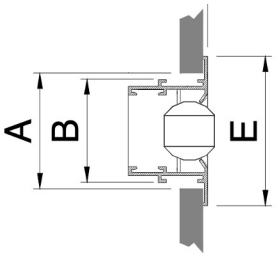
PLENUM BOX - galvanised sheet steel,



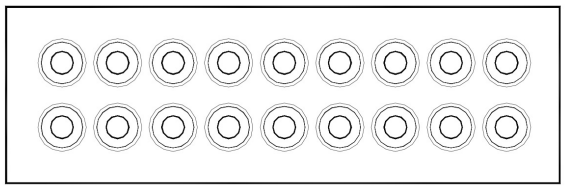
Types and sizes

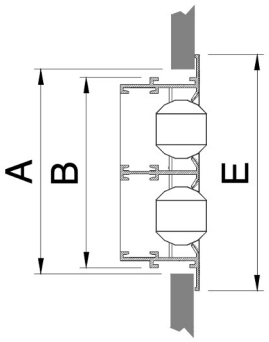
Mini Beam

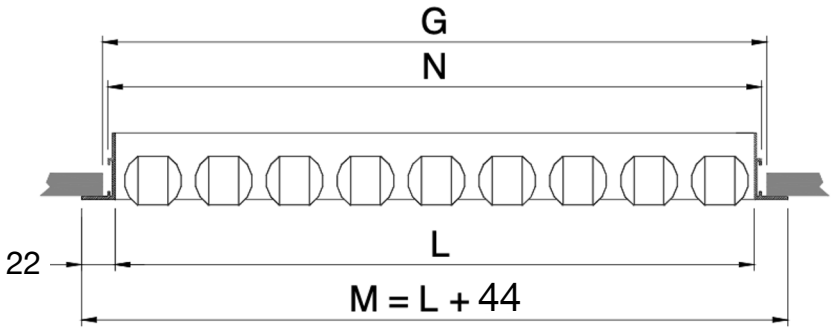




Mini Beam Double



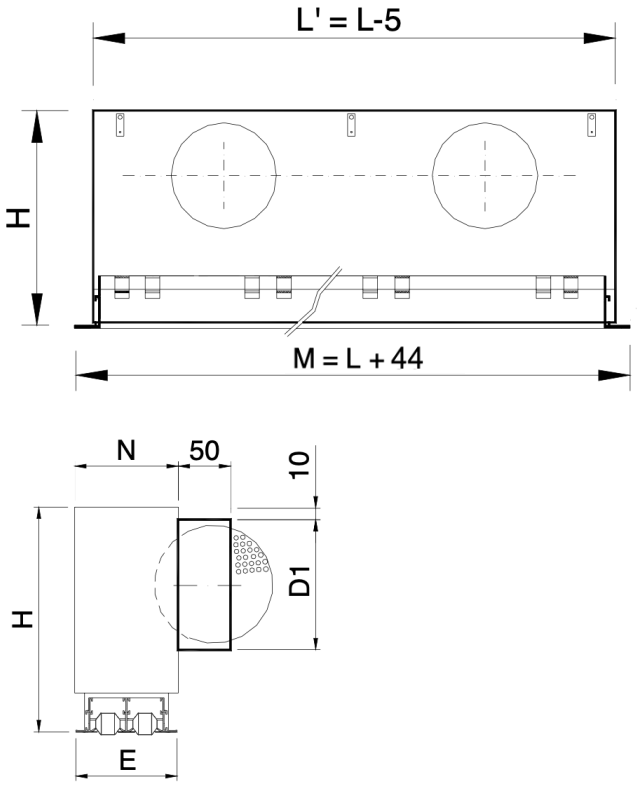




Model	E	A	B
Mini Beam 1	68	55	47
Mini Beam 2	107	95	86

L	M	N	G
500	536	507	516
1000	1036	1007	1016
1200	1236	1207	1216
1500	1536	1507	1516
2000	2036	2007	2016

Plenum box

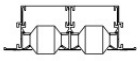


Model	0,5 < L < 1,2		1,3 < L < 1,5		1,6 < L < 2			
	H	D1	H	D1	H	D1	N	E
Mini Beam 1	256	1X158	256	1X158	256	2x158	69	68
Mini Beam 2	256	1X158	256	2X158	256	2x158	108	107

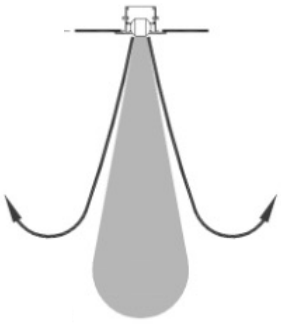
Performance

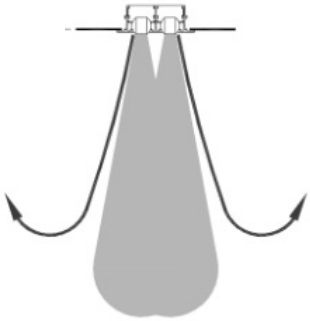
Ceiling mounted

		Vmin	Vmax	Qmin	Qmax
m	KIS 1	m/s	m/s	m3/h	m3/h
0.5	0.0024	2.5	6.5	25	57
1	0.0048	2.5	6.5	43	112
1,1	0.0053	2.5	6.5	48	125
1,2	0.0058	2.5	6.5	52	135
1,3	0.0063	2.5	6.5	56	146
1,4	0.0067	2.5	6.5	60	158
1,5	0.0072	2.5	6.5	65	169
1,6	0.0077	2.5	6.5	69	180
1,7	0.0082	2.5	6.5	74	191
1,8	0.0087	2.5	6.5	78	203
1,9	0.0092	2.5	6.5	82	215
2	0.0096	2.5	6.5	86	225



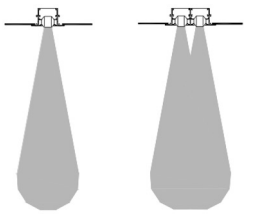
		Vmin	Vmax	Qmin	Qmax
m	KIS 2	m/s	m/s	m3/h	m3/h
0.5	0.0048	2.5	5.5	43	95
1	0.0096	2.5	5.5	86	190
1,1	0.0106	2.5	5.5	95	210
1,2	0.0116	2.5	5.5	104	229
1,3	0.0125	2.5	5.5	112	248
1,4	0.0135	2.5	5.5	122	267
1,5	0.0145	2.5	5.5	130	286
1,6	0.0154	2.5	5.5	139	305
1,7	0.0164	2.5	5.5	148	324
1,8	0.0174	2.5	5.5	157	343
1,9	0.0183	2.5	5.5	165	365
2	0.0193	2.5	7	174	382



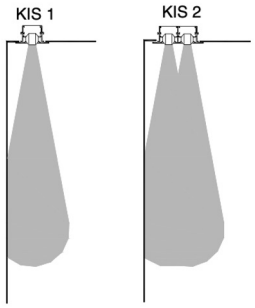


FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT: 1 DIRECTION.

Mini Beam 1 Mini Beam 2



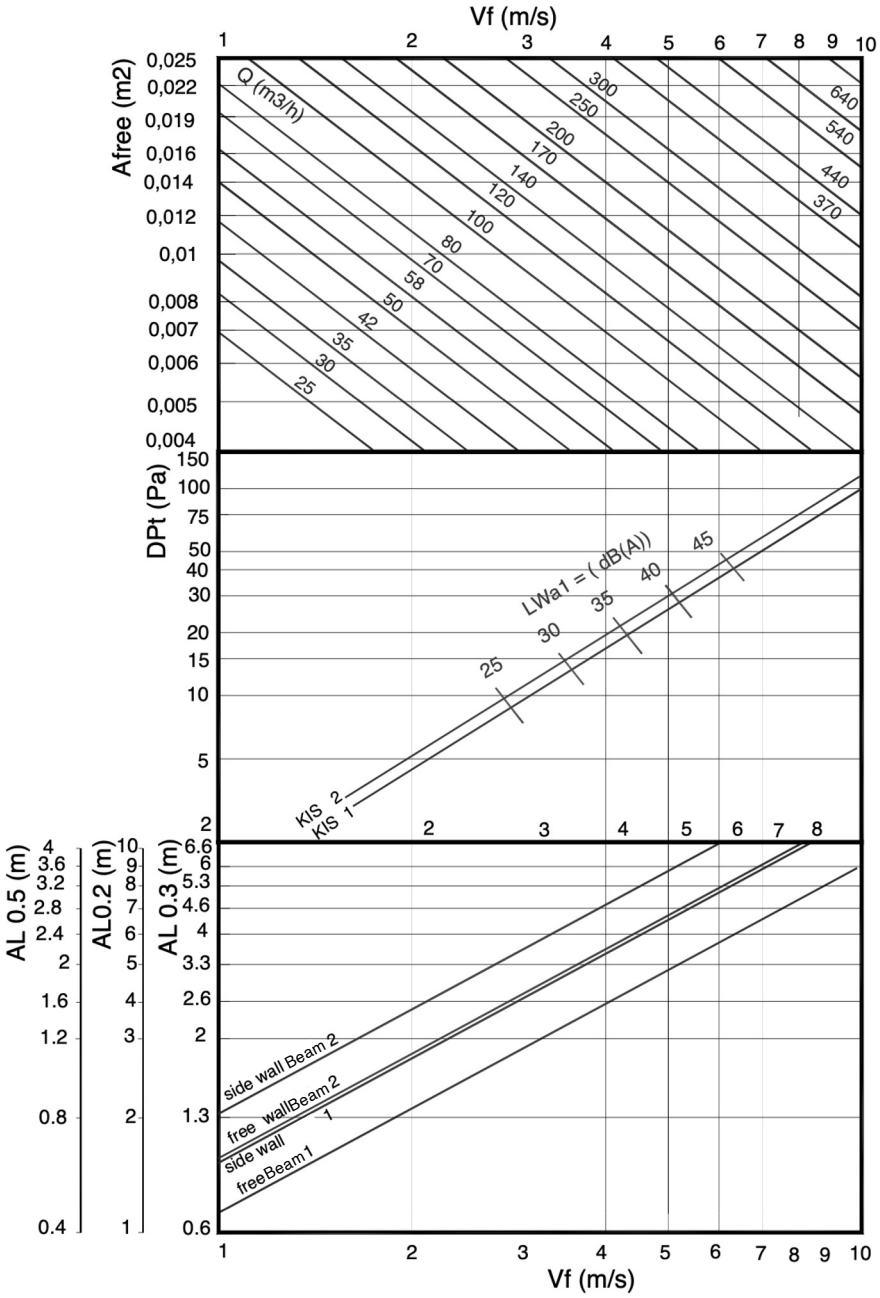
Mini Beam 1 Mini Beam 2



CORRECTON FACTOR FOR THROW KL

	0.5 m	1 m	1.5 m	2 m
1	0.71	1	1.07	1.14
2	0.73	1	1.09	1.15

AL`02 = KI x AL02

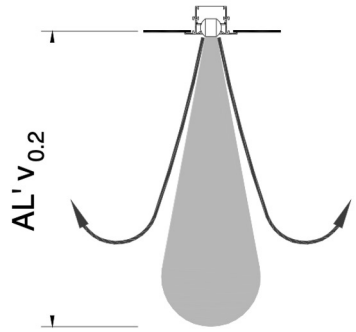


CORRECTION FACTOR FOR DPt AND Lwa1.

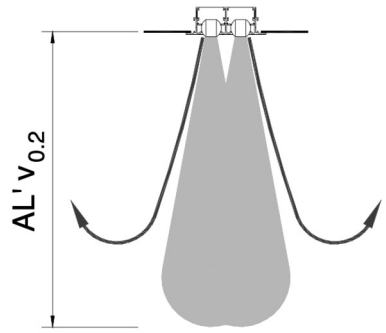
		0.5 m			1m			1.5 m			2m		
		100 %	50%	0%	100 %	50%	0%	100 %	50%	0%	100 %	50%	0%
1	Dpt	0.95	2.35	3.15	1	1.4	2.2	1	1.4	2.2	1.1	2.5	3.3
	Lwa 1	-6,1	-3,1	-3,6	0	+0,8	+0,4	+0,9	+1,6	+1	-2,1	-0,5	-1,9
2	Dpt	0.98	2.48	3.25	1	1.5	2.3	1	1.5	2.3	1.2	2.7	3.5
	Lwa 1	-3,8	-3,4	-2,9	0	+0,6 +0,6		+2,4	+3,3	+3,2	-0,3	+0,9	+1,1

DPt1 = Kp x DPt
Lwa1 = Lwa + Kf

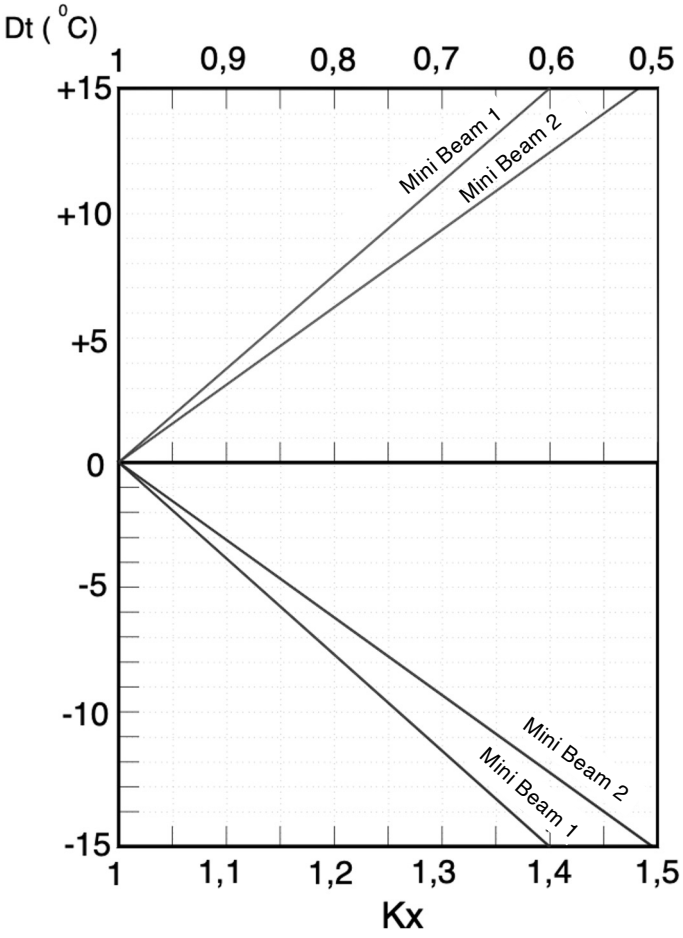
Mini Beam 1



Mini Beam 2



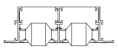
CORRECTION FACTOR FOR VERTICAL THROW (Alv0,2) DT



$$AL'_{v0.2} = Kx \times AL_{0.2}$$

Wall Mounted

		Vmin	Vmax	Qmin	Qmax
m	KIS 1	m/s	m/s	m3/h	m3/h
0.5	0.0024	2.5	6.5	25	57
1	0.0048	2.5	6.5	43	112
1,1	0.0053	2.5	6.5	48	125
1,2	0.0058	2.5	6.5	52	135
1,3	0.0063	2.5	6.5	56	146
1,4	0.0067	2.5	6.5	60	158
1,5	0.0072	2.5	6.5	65	169
1,6	0.0077	2.5	6.5	69	180
1,7	0.0082	2.5	6.5	74	191
1,8	0.0087	2.5	6.5	78	203
1,9	0.0092	2.5	6.5	82	215
2	0.0096	2.5	6.5	86	225



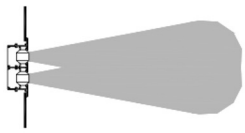
		Vmin	Vmax	Qmin	Qmax
m	KIS 2	m/s	m/s	m3/h	m3/h
0.5	0.0048	2.5	5.5	43	95
1	0.0096	2.5	5.5	86	190
1,1	0.0106	2.5	5.5	95	210
1,2	0.0116	2.5	5.5	104	229
1,3	0.0125	2.5	5.5	112	248
1,4	0.0135	2.5	5.5	122	267
1,5	0.0145	2.5	5.5	130	286
1,6	0.0154	2.5	5.5	139	305
1,7	0.0164	2.5	5.5	148	324
1,8	0.0174	2.5	5.5	157	343
1,9	0.0183	2.5	5.5	165	365
2	0.0193	2.5	7	174	382

Mini Beam 1

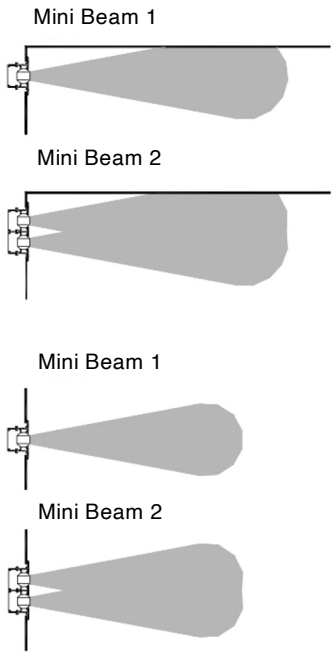
Mini Beam 2

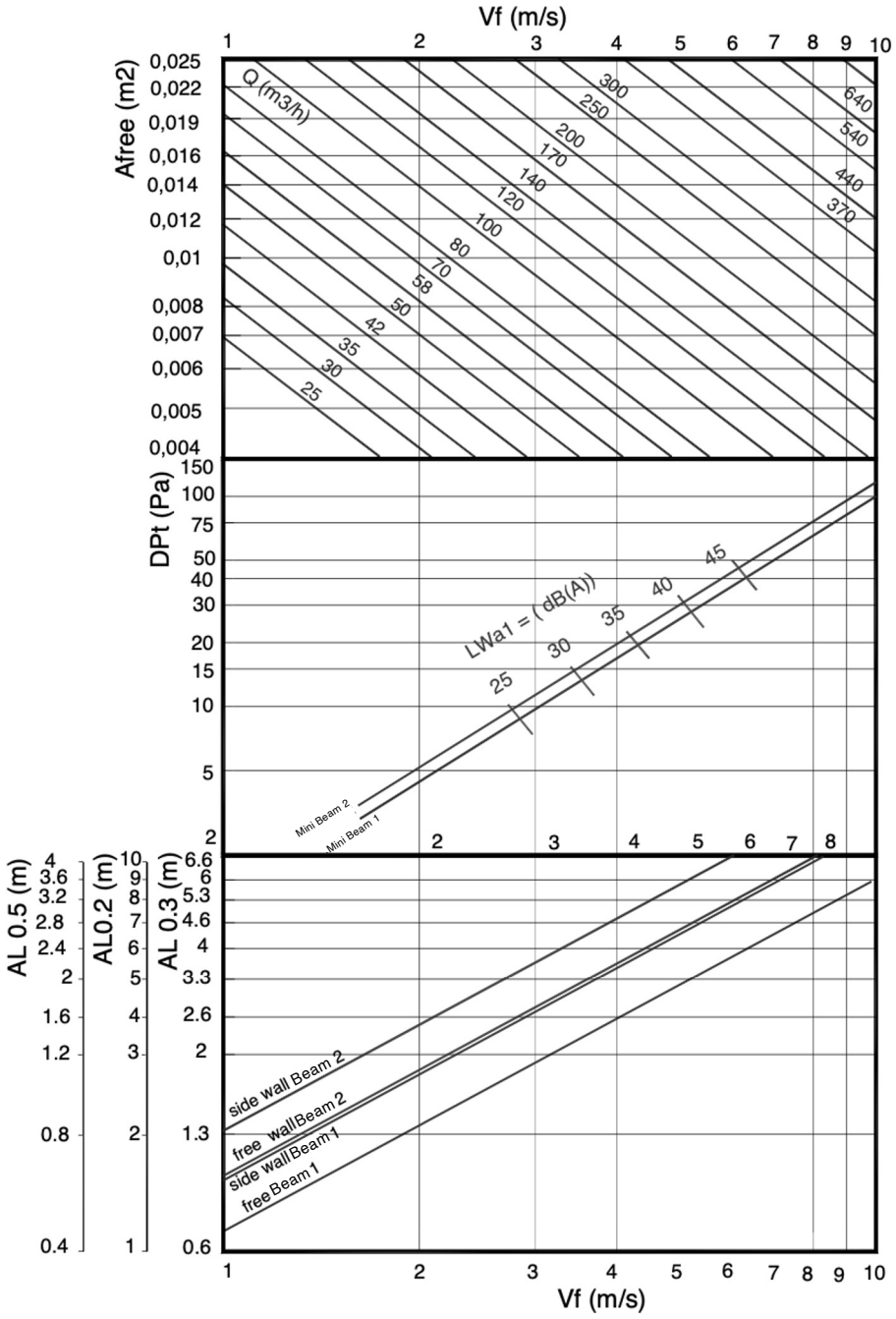
Mini Beam 1

Mini Beam 2



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





CORRECTON FACTOR FOR THROW KL

	0.5 m	1 m	1.5 m	2 m
1	0.71	1	1.07	1.14
2	0.73	1	1.09	1.15

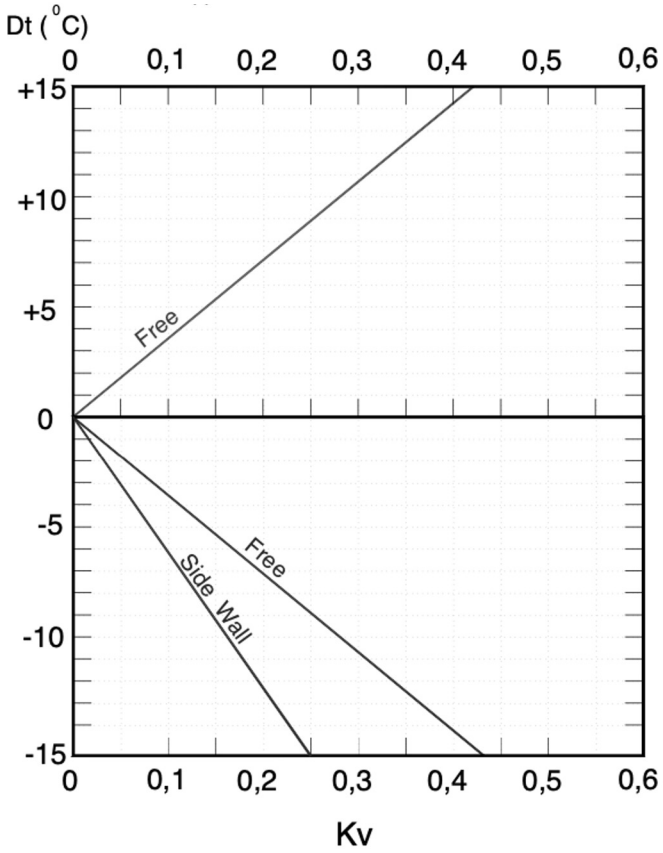
AL`02 = KI x AL02

CORRECTION FACTOR FOR DPt AND Lwa1.

		0.5 m			1m			1.5 m			2m		
		10 0%	50 %	0%	10 0%	50 %	0%	10 0%	50 %	0%	10 0%	50 %	0%
1	Dpt	0.95	2.35	3.15	1	1.4	2.2	1	1.4	2.2	1.1	2.5	3.3
	Lwa1	-6	-3	-3,6	0	0,8	0,4	+1,2	+1,9	+1,4	-2	-	-1,6
2	Dpt	0.98	2.48	3.25	1	1.5	2.3	1	1.5	2.3	1.2	2.7	3.5
	Lwa1	-4	-3,6	-3,1	0 +0,6		+0,6	+2,3	+3,2	+3,1	0	+1	+1,2

DPt1 = Kp x DPt
Lwa1 = Lwa + Kf

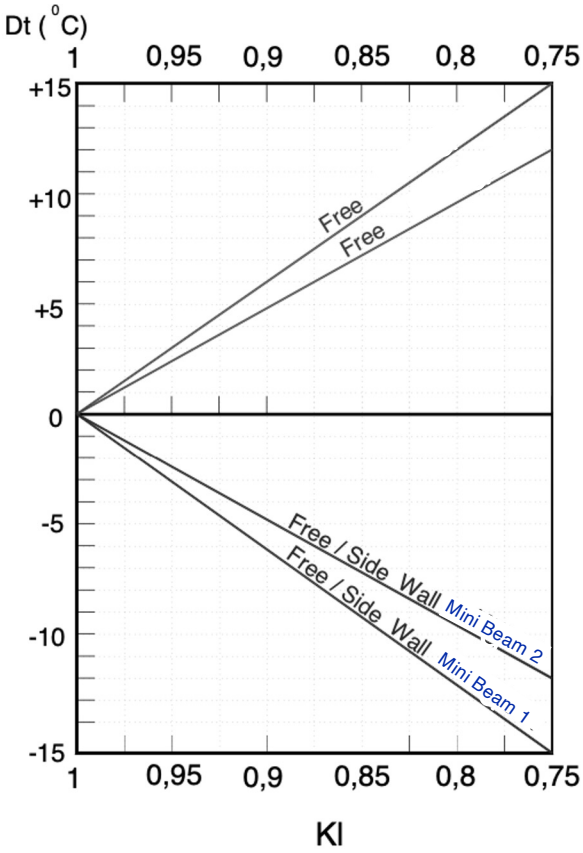
CORRECTION FACTOR FOR VERTICAL DIFFUSION (bV) FOR DT (-).



$$bv'_{0.2} = Kv \times Al_{0.2}$$

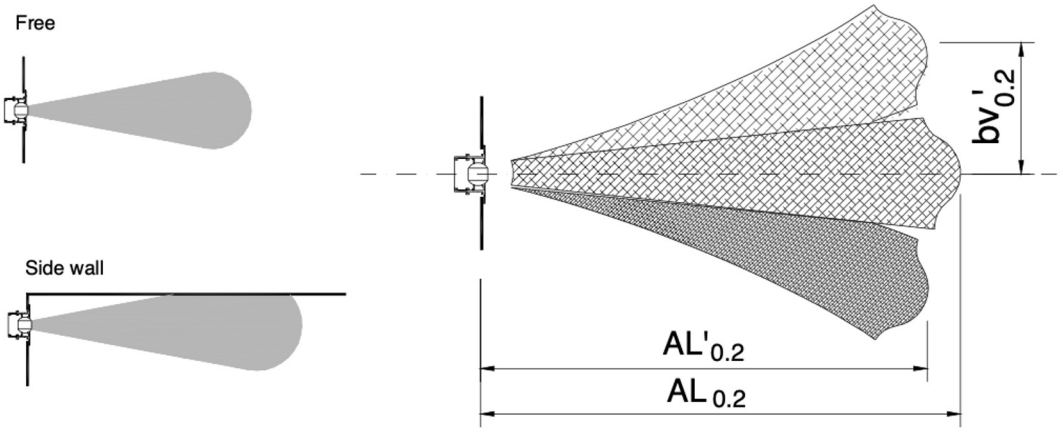
Kv = Correction factor for the vertical diffusion.

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



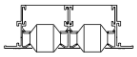
$$Al'_{0.2} = KL \times Al_{0.2}$$

Kl = Correction factor for the throw.

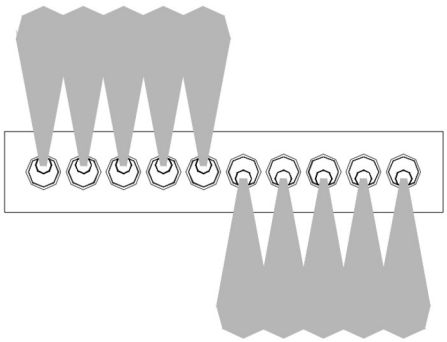


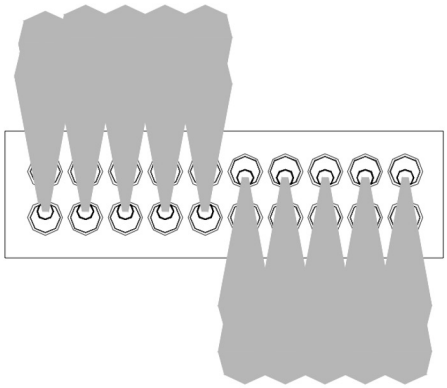
Ceiling Mounted Multiple Direction

		Vmin	Vmax	Qmin	Qmax
m	KIS 1	m/s	m/s	m3/h	m3/h
0.5	0.0024	2.5	6.5	25	57
1	0.0048	2.5	6.5	43	112
1,1	0.0053	2.5	6.5	48	125
1,2	0.0058	2.5	6.5	52	135
1,3	0.0063	2.5	6.5	56	146
1,4	0.0067	2.5	6.5	60	158
1,5	0.0072	2.5	6.5	65	169
1,6	0.0077	2.5	6.5	69	180
1,7	0.0082	2.5	6.5	74	191
1,8	0.0087	2.5	6.5	78	203
1,9	0.0092	2.5	6.5	82	215
2	0.0096	2.5	6.5	86	225

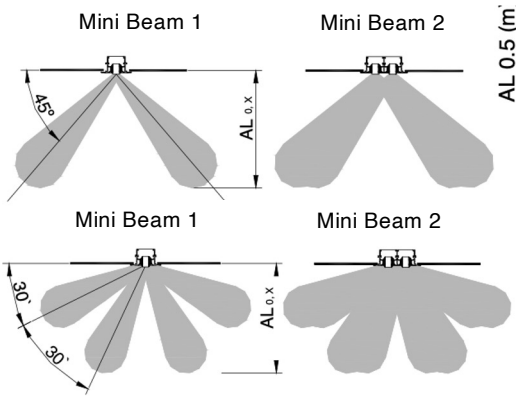


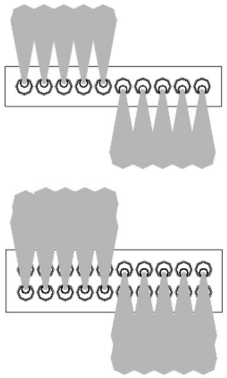
		Vmin	Vmax	Qmin	Qmax
m	KIS 2	m/s	m/s	m3/h	m3/h
0.5	0.0048	2.5	5.5	43	95
1	0.0096	2.5	5.5	86	190
1,1	0.0106	2.5	5.5	95	210
1,2	0.0116	2.5	5.5	104	229
1,3	0.0125	2.5	5.5	112	248
1,4	0.0135	2.5	5.5	122	267
1,5	0.0145	2.5	5.5	130	286
1,6	0.0154	2.5	5.5	139	305
1,7	0.0164	2.5	5.5	148	324
1,8	0.0174	2.5	5.5	157	343
1,9	0.0183	2.5	5.5	165	365
2	0.0193	2.5	7	174	382





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

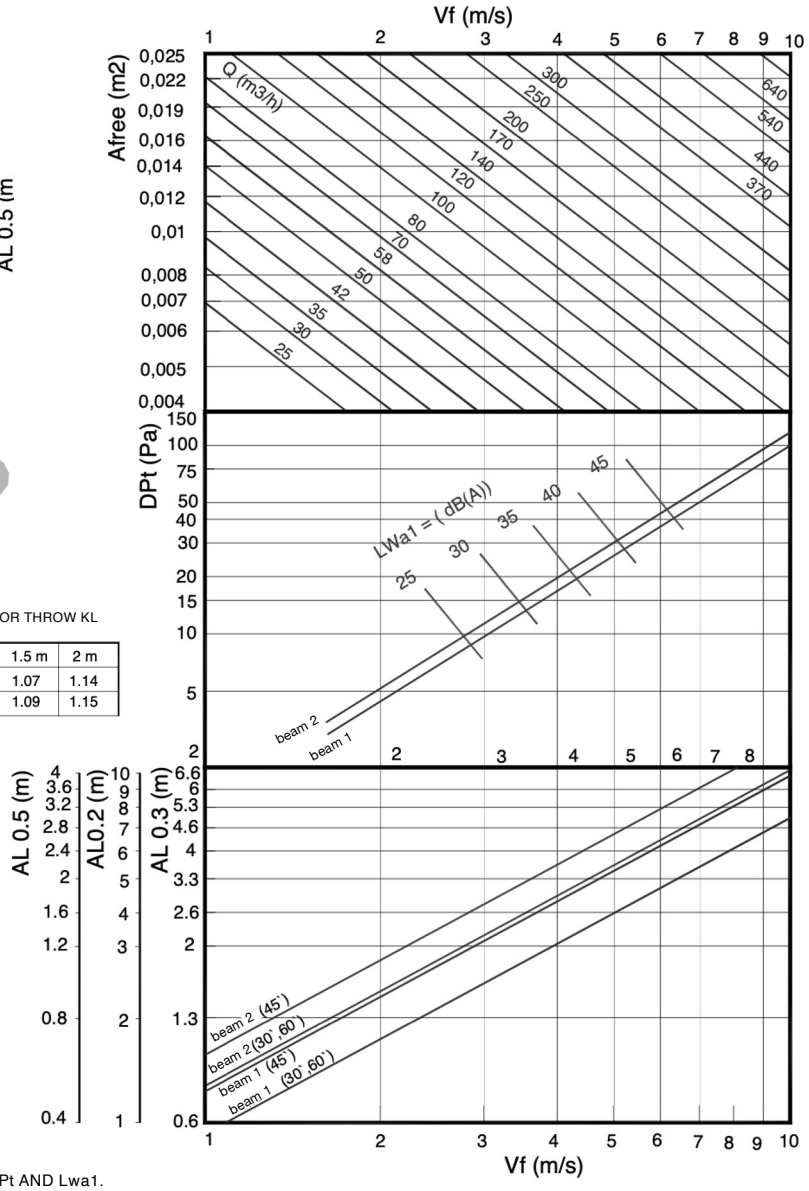




CORRECTON FACTOR FOR THROW KL

	0.5 m	1 m	1.5 m	2 m
1	0.71	1	1.07	1.14
2	0.73	1	1.09	1.15

AL`02 = Kl x AL02

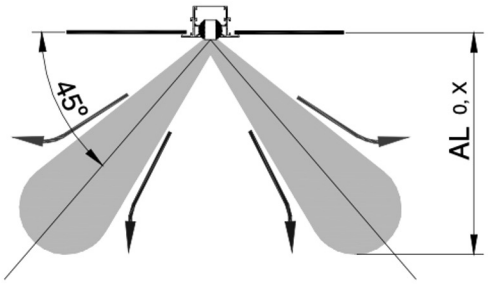


CORRECTION FACTOR FOR DPt AND Lwa1.

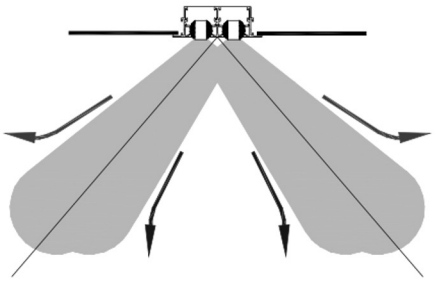
		0.5 m			1m			1.5 m			2m		
		100%	50%	0%	100%	50%	0%	100%	50%	0%	100%	50%	0%
1	Dpt	0.95	2.35	3.15	1	1.4	2.2	1	1.4	2.2	1.1	2.5	3.3
	Lwa 1	-6	-3	-3,7	0	+0,8	+0,4	+1	+1,7	+1,2	-2,1	-0,4	-1,9
2	Dpt	0.98	2.48	3.25	1	1.5	2.3	1	1.5	2.3	1.2	2.7	3.5
	Lwa 1	-3,7	-3,4	-2,9	0	+0,6	+0,6	+2,4	+3,3	+3,2	-0,5	+0,8	+0,9

DPt1 = Kp x DPt
Lwa1 = Lwa + Kf

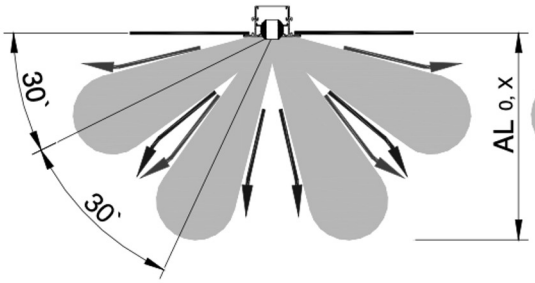
Mini Beam 1



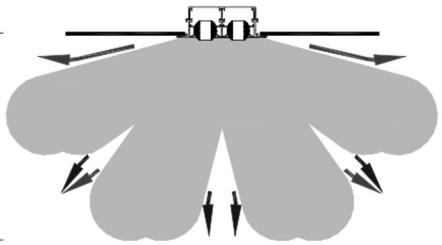
Mini Beam 2



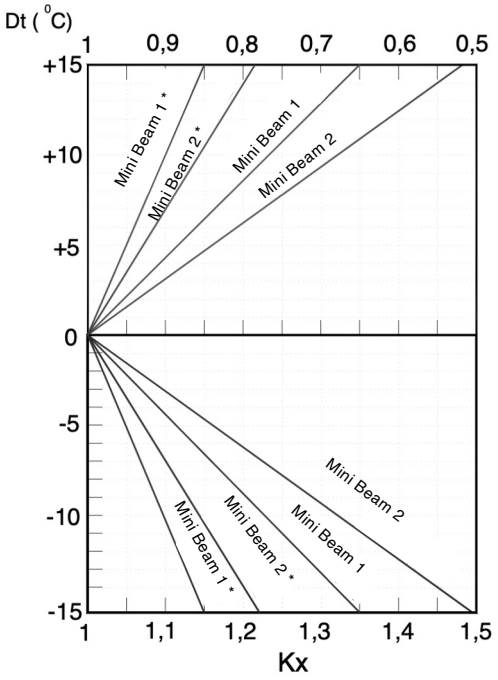
Mini Beam 1 *



Mini Beam 2 *



CORRECTION FACTOR FOR VERTICAL THROW (Alv0,2) DT



$AL'v_{0.2} = Kx \times AL_{0.2}$

GERHMAN

Jet Diffusers

Mini Beam

+90 0850 303 4766 • info@gerhman.com • gerhman.com