Jet Diffusers

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.

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Beam jet nozzle diffusers have been designed to combine aesthetics with technical performance. Outlet angle can be changed within +/- 30^0 in each direction. Air is supplied into the room space with high velocity, ensuring very long horizontal throw length and excellent mixing properties with indoor air.

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**
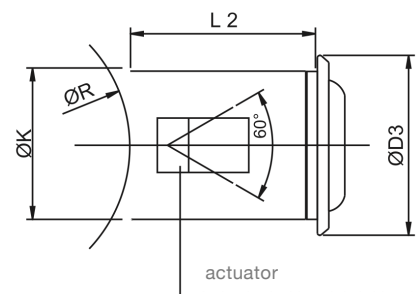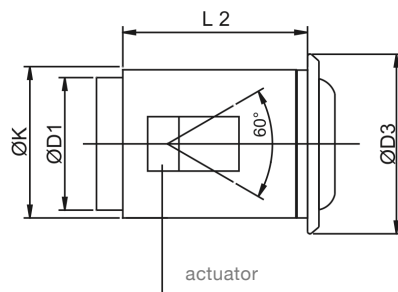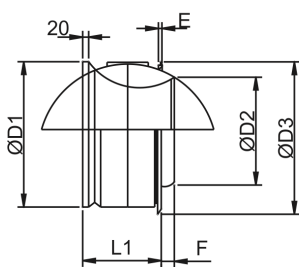- **Stations**
- **Sport halls**
- **Large spaces**

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**

Technical sizes

Models	ØD1	ØD2	ØD3	ØK	E	F	L1	L2
100	98	50	146	134	10	2	78	80
125	123	64	169	157	10	4	89	90
160	158	82	200	188	11	10	106	110
200	198	108	257	242	16	14	127	140
250	248	136	302	287	16	23	159	170
315	313	174	384	358	23	29	189	220
400	398	230	467	441	24	47	223	260

	Suitable round duct diameter					
Models	200	250	315	500	630	800
100	*					
125		*				
160			*	*	*	*
200				*	*	*
250				*	*	*
315				*	*	*
400					*	*

Quick selection

| Size	Throw									Air velocity v m/s
	10 m			20 m			30 m			
	V l/s	L_{WA} dB(A)	L_{WNC} NC	V l/s	L_{WA} dB(A)	L_{WNC} NC	V l/s	L_{WA} dB(A)	L_{WNC} NC	
100	-	-	-	26	29	23	39	41	35	0,25
125	-	-	-	34	25	22	50	36	30	
160	23	< 20	< 20	46	< 20	< 20	69	35	28	
200	29	< 20	< 20	61	< 20	< 20	85	27	20	
250	37	< 20	< 20	76	< 20	< 20	106	22	< 20	
315	50	< 20	< 20	98	< 20	< 20	150	20	< 20	
400	65	< 20	< 20	129	< 20	< 20	195	< 20	< 20	
100	26	29	23	52	50	45	-	-	-	0,5
125	34	25	22	68	46	40	-	-	-	
160	46	< 20	< 20	92	44	37	138	55	49	
200	61	< 20	< 20	121	38	31	182	50	44	
250	76	< 20	< 20	152	34	26	229	45	39	
315	98	< 20	< 20	195	28	20	293	40	32	
400	129	< 20	< 20	258	20	< 20	387	33	26	
100	52	50	45	-	-	-	-	-	-	1
125	68	46	40	-	-	-	-	-	-	
160	92	44	37	-	-	-	-	-	-	
200	121	38	31	242	-	-	-	-	-	
250	152	34	26	305	53	47	-	-	-	
315	195	28	20	390	48	41	585	-	-	
400	258	20	< 20	516	42	35	773	53	47	

Performance
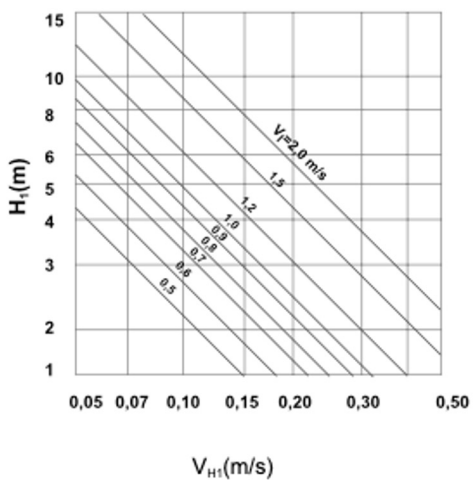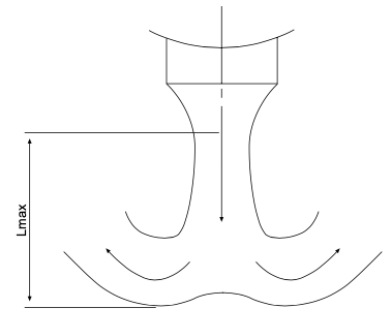
THROW LENGTH AND VELOCITY
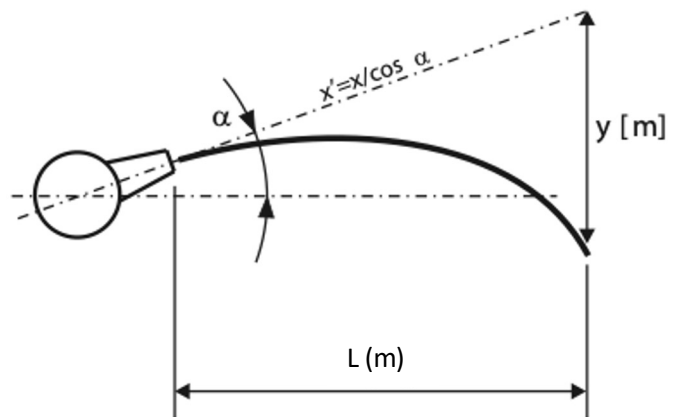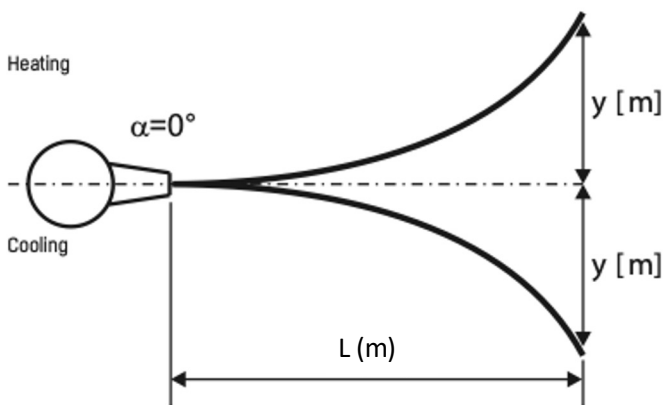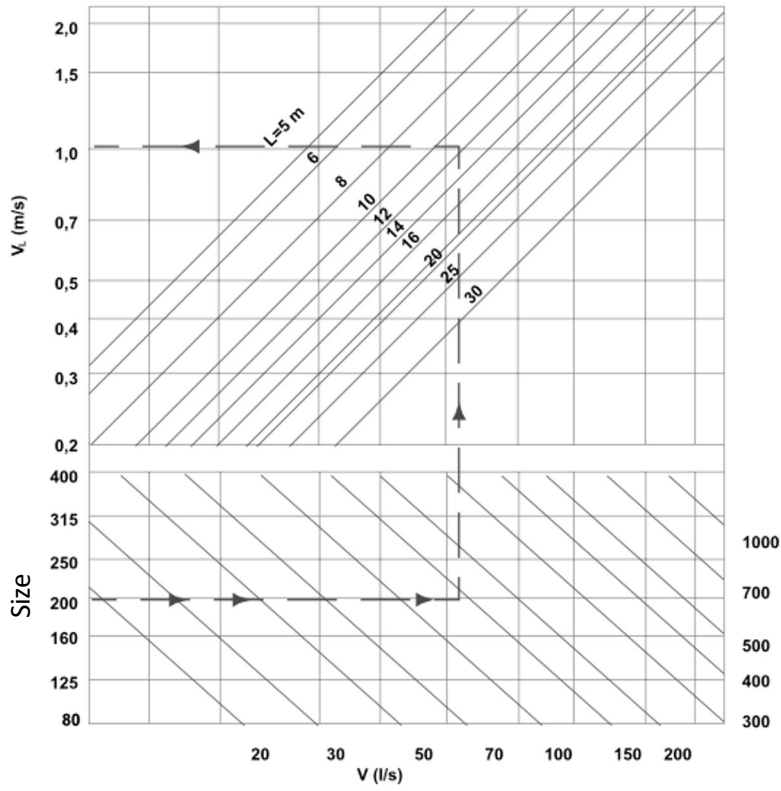
Performance

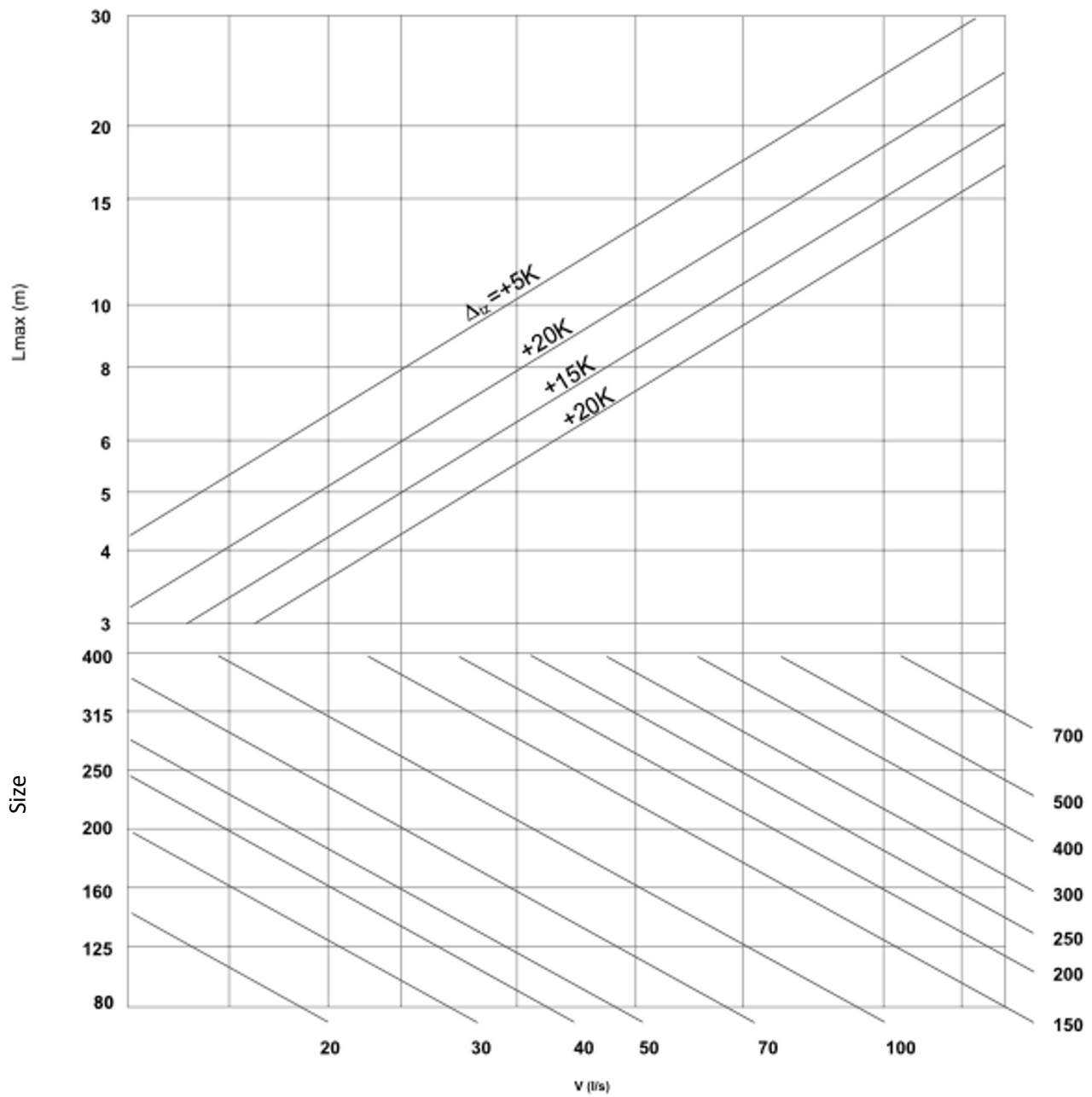## THROW LENGTH AND AIR STREAM DEVIATION
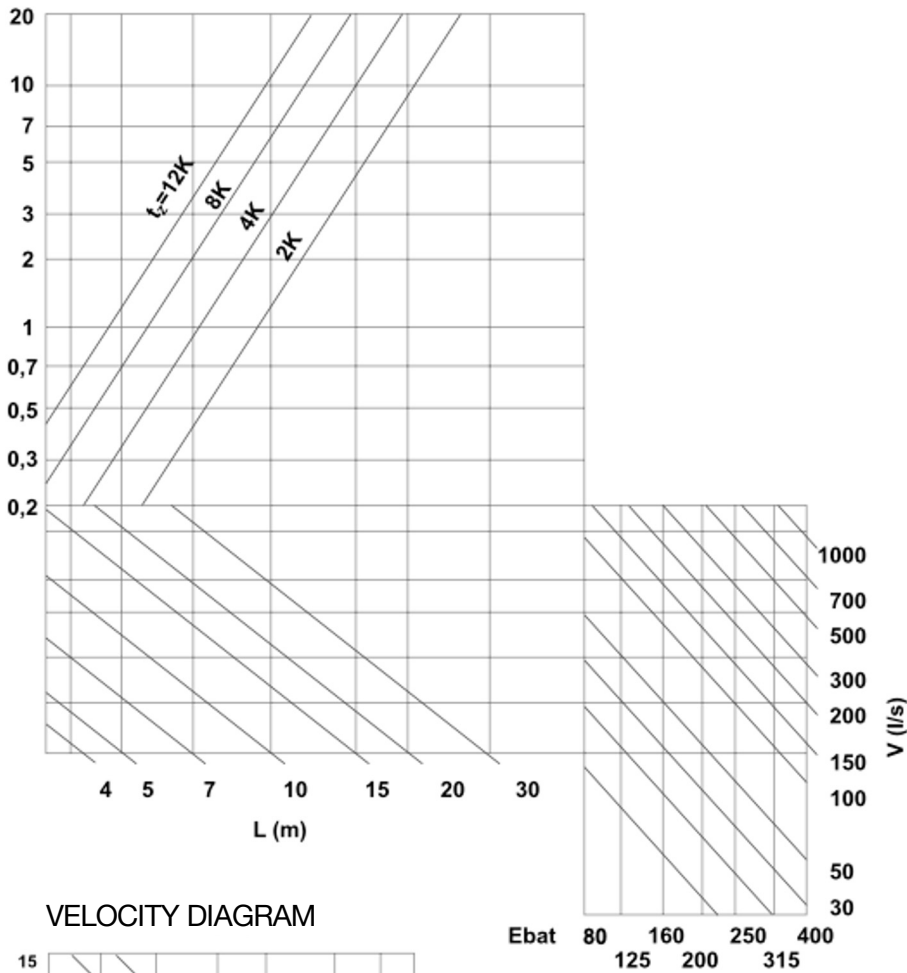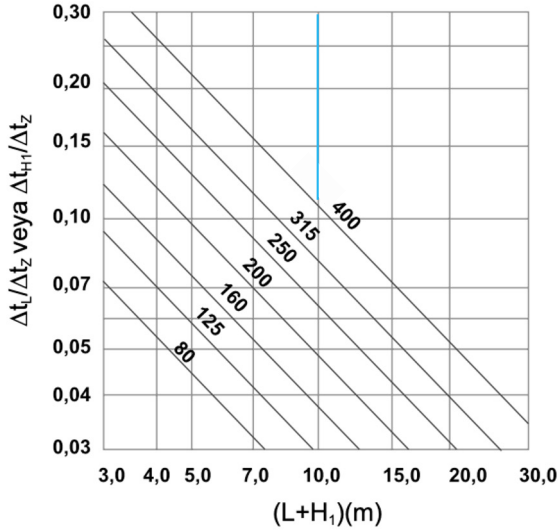

VELOCITY DIAGRAM

Performance

VERTICAL THROW LENGTH AND AIR STREAM DEVIATION

Performance

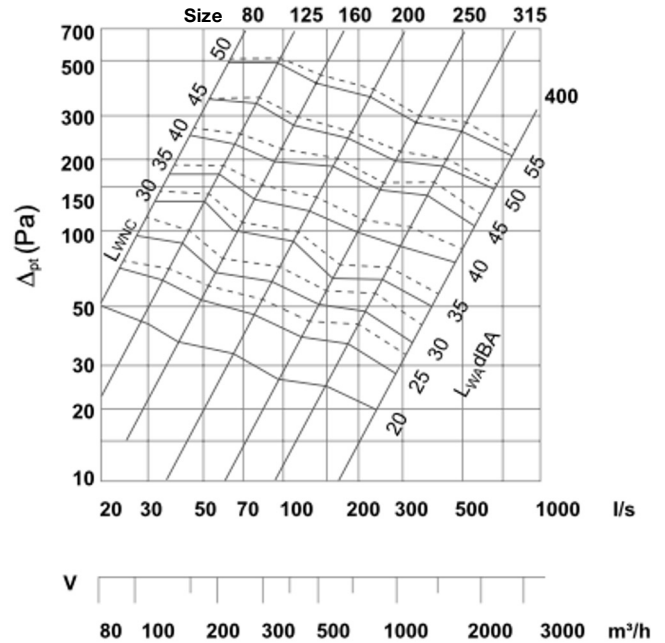TEMPERATURE CURVE

PRESSURE DROP AND SOUND LEVEL CURVE

CORRECTION FACTOR

Ebat	80	125	160	200	250	315	400
L_{WA}/L_{WNC}	+3	+5	+3	+3	+2	+2	+1

In the graph the sound pressure levels are indicated in dB(A) for a reference room with 10 m2 Sabine room absorption, equivalent to 4 dB room attenuation.

EFECTIVE AREA

Size	A_{eff} (m^2)
80	0,0019
125	0,0031
160	0,0050
200	0,0085
250	0,0135
315	0,0225
400	0,0385

EFECTIVE DISCHARGE VELOCITY

$V_{eff} = V / (1000 \times A_{eff})$ [m/s] V (l/s), A_{eff} (m2)
$V_{eff} = V / (3600 \times A_{eff})$ [m/s] V (m3/h), A_{eff} (m2)

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Technical information subject to change without notice.