



Swirl diffuser OD-19

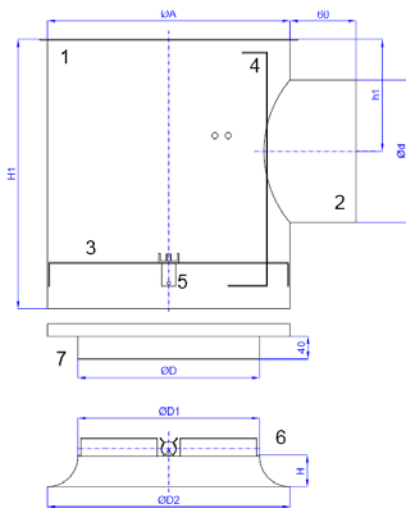
Application:

- for rooms with heights of up to 4 m,
- suitable for cooling and heating,
- between the lamellas is a perforated section that enables a more stable jet of air and a higher rate of flow,
- high induction.

Description:

- The individually adjustable air deflectors are made from plastic materials in white (RAL 9010) or black (RAL 9005).
- The rest of the unit is made from sheet steel and powder painted in RAL 9010 or in a colour on customer's request.
- The plenum box is made of galvanised sheet steel.

Dimensions and components

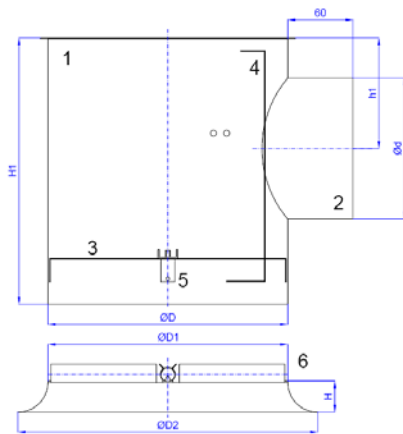


OD-19/K with adapter*

1. Plenum box
2. Inlet spigot
3. Dispersing plate
4. Volume control damper
5. Traverse
6. Swirl diffuser
7. Adapter

* In dimension 125 and 160 plenum box with adapter

Size	ØA	ØD	H1	Ød	h1	ØD1	ØD2	H
125	183	128	185	98	113	124	200	20
160	183	163	210	123	125,5	159	240	24



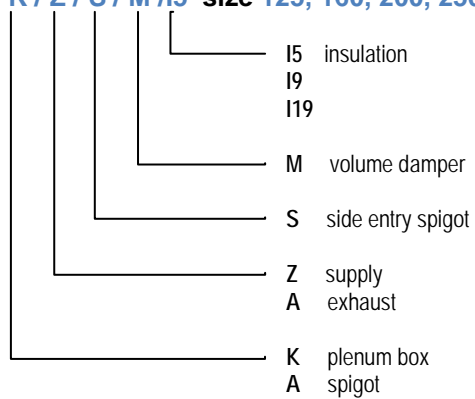
OD-19/K without adapter

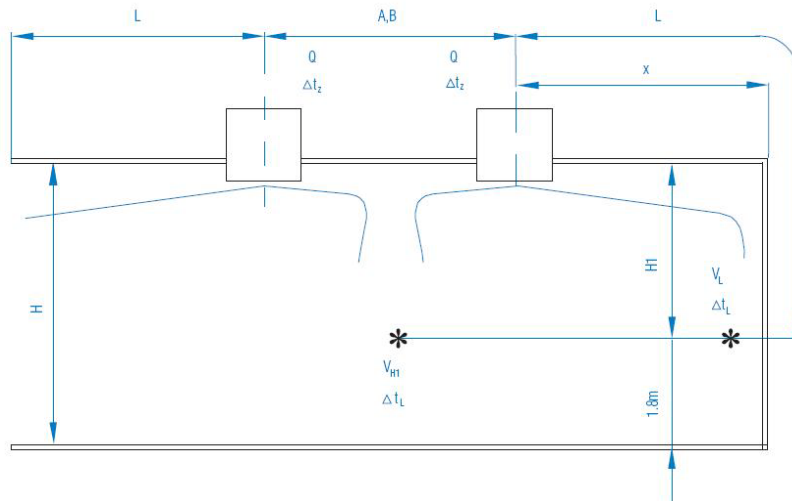
1. Plenum box
2. Inlet spigot
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4. Volume control damper
5. Traverse
6. Swirl diffuser

Size	ØD	H1	Ød	h1	ØD1	ØD2	H
200	204	210	123	125,5	199	320	44
250	254	285	198	163	249	380	54
315	319	335	248	188	315	490	75

Ordering key:

OD-19 / K / Z / S / M / I5 size 125, 160, 200, 250, 315





- Q (m³/h)** air volume per diffuser
- x (m)** horizontal distance to wall
- H (m)** room height
- H1 (m)** ceiling to living zone distance
- L (m)** throw distance ($L = H1 + x$)
- VL (m/s)** air speed on the throw distance L
- Δtz (K)** difference between room temperature and supply air temperature
- ΔtL (K)** difference between room temperature and air flow temperature on distance L
- Δpt (Pa)** pressure drop
- LWA (dB(A))** sound power level
- VH1 (m/s)** air speed on distance H1
- A, B (m)** distance between two diffusers (length and width)

Quick selection diagram: ΔT = 0 K

Size	Q (m ³ /h)	50	100	150	200	250	300	400	500	600	700	800
125	H1=1m: VH1 (m/s)	0,32	/	/	/	/	/	/	/	/	/	/
	H1=1,5m: VH1 (m/s)	0,17	/	/	/	/	/	/	/	/	/	/
	L=3m: VL1 (m/s)	/	0,38	/	/	/	/	/	/	/	/	/
	H1=3,5m: VL1 (m/s)	/	0,3	0,95	/	/	/	/	/	/	/	/
	ΔP (Pa)	37	180	420	/	/	/	/	/	/	/	/
	LWA (dB(A))	34	52	62,5	/	/	/	/	/	/	/	/
160	H1=1m: VH1 (m/s)	/	0,2	0,72	/	/	/	/	/	/	/	/
	H1=1,5m: VH1 (m/s)	/	0,1	0,36	0,88	/	/	/	/	/	/	/
	L=3m: VL1 (m/s)	/	/	0,1	0,25	0,49	0,9	/	/	/	/	/
	H1=3,5m: VL1 (m/s)	/	/	/	0,18	0,37	0,69	/	/	/	/	/
	ΔP (Pa)	/	78	180	340	510	/	/	/	/	/	/
	LWA (dB(A))	/	45	55	61	66	/	/	/	/	/	/
200	H1=1m: VH1 (m/s)	/	0,38	0,9	/	/	/	/	/	/	/	/
	H1=1,5m: VH1 (m/s)	/	0,15	0,33	0,6	0,98	/	/	/	/	/	/
	L=3m: VL1 (m/s)	/	/	/	0,13	0,18	0,27	0,48	/	/	/	/
	H1=3,5m: VL1 (m/s)	/	/	/	/	0,13	0,19	0,35	/	/	/	/
	ΔP (Pa)	/	21	61	120	190	270	500	/	/	/	/
	LWA (dB(A))	/	29	39	47	53	58	66	/	/	/	/
250	H1=1m: VH1 (m/s)	/	0,25	0,41	0,56	0,72	0,9	/	/	/	/	/
	H1=1,5m: VH1 (m/s)	/	0,13	0,21	0,28	0,35	0,44	0,61	0,8	0,99	/	/
	L=3m: VL1 (m/s)	/	/	/	/	0,11	0,14	0,19	0,25	0,3	/	/
	H1=3,5m: VL1 (m/s)	/	/	/	/	/	0,1	0,15	0,18	0,23	/	/
	ΔP (Pa)	/	4	22	47	80	120	220	350	/	/	/
	LWA (dB(A))	/	18	30	38	44	49	56	63	/	/	/
315	H1=1m: VH1 (m/s)	/	0,21	0,43	0,7	/	/	/	/	/	/	/
	H1=1,5m: VH1 (m/s)	/	/	0,19	0,31	0,46	0,65	/	/	/	/	/
	L=3m: VL1 (m/s)	/	/	/	/	0,12	0,16	0,26	0,4	0,55	0,7	0,9
	H1=3,5m: VL1 (m/s)	/	/	/	/	/	0,13	0,2	0,3	0,45	0,53	0,83
	ΔP (Pa)	/	/	3	12	25	39	78	125	190	250	335
	LWA (dB(A))	/	/	23	29	35	40	47	53	57	61	64

Quick selection diagram: ΔT = 5 K

Size	Q (m ³ /h)	50	100	150	200	250	300	400	500	600	700	800
125	Loz (m)	4	7	10	/	/	/	/	/	/	/	/
	ΔP (Pa)	37	180	420	/	/	/	/	/	/	/	/
	LWA (dB(A))	34	52	62,5	/	/	/	/	/	/	/	/
160	Loz (m)	/	4,7	6,5	8,1	9,9	11,5	/	/	/	/	/
	ΔP (Pa)	/	78	180	340	510	/	/	/	/	/	/
	LWA (dB(A))	/	45	55	61	66	/	/	/	/	/	/
200	Loz (m)	/	2,8	4,8	6,5	8,6	10,5	15	/	/	/	/
	ΔP (Pa)	/	21	61	120	190	270	500	/	/	/	/
	LWA (dB(A))	/	29	39	47	53	58	66	/	/	/	/
250	Loz (m)	/	3,5	4,8	6	7,2	8,2	10,3	12,5	14,5	/	/
	ΔP (Pa)	/	4	22	47	80	120	220	350	/	/	/
	LWA (dB(A))	/	18	30	38	44	49	56	63	/	/	/
315	Loz (m)	/	1	1,6	2,3	2,9	3,8	5,1	6,6	8,2	9,9	12
	ΔP (Pa)	/	/	3	12	25	39	78	125	190	250	335
	LWA (dB(A))	/	/	23	29	35	40	47	53	57	61	64

Quick selection diagram: $\Delta T = 10\text{ K}$

Size	Q (m ³ /h)	50	100	150	200	250	300	400	500	600	700	800
125	L ₀₂ (m)	2,8	5	7,1	/	/	/	/	/	/	/	/
	ΔP (Pa)	37	180	420	/	/	/	/	/	/	/	/
	L _{WA} (dB(A))	34	52	62,5	/	/	/	/	/	/	/	/
160	L ₀₂ (m)	/	3,2	4,5	5,9	7	8	/	/	/	/	/
	ΔP (Pa)	/	78	180	340	510	/	/	/	/	/	/
	L _{WA} (dB(A))	/	45	55	61	66	/	/	/	/	/	/
200	L ₀₂ (m)	/	1,9	3,2	4,5	6	7,4	10,5	/	/	/	/
	ΔP (Pa)	/	21	61	120	190	270	500	/	/	/	/
	L _{WA} (dB(A))	/	29	39	47	53	58	66	/	/	/	/
250	L ₀₂ (m)	/	2,2	3,1	3,9	4,7	5,3	6,8	8	9,2	/	/
	ΔP (Pa)	/	4	22	47	80	120	220	350	/	/	/
	L _{WA} (dB(A))	/	18	30	38	44	49	56	63	/	/	/
315	L ₀₂ (m)	/	0,78	1,25	1,7	2,3	2,8	3,9	5,1	6,2	7,5	8,9
	ΔP (Pa)	/	/	3	12	25	39	78	125	190	250	335
	L _{WA} (dB(A))	/	/	23	29	35	40	47	53	57	61	64

Quick selection diagram: $\Delta T = 15\text{ K}$

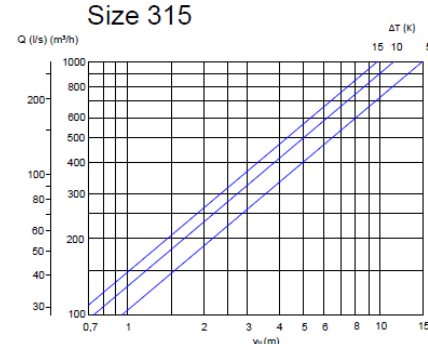
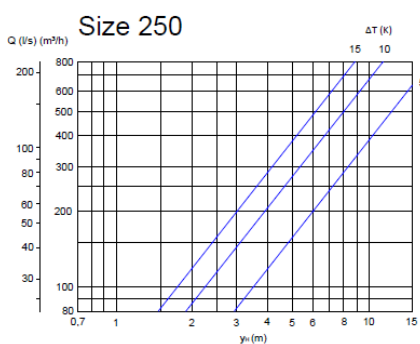
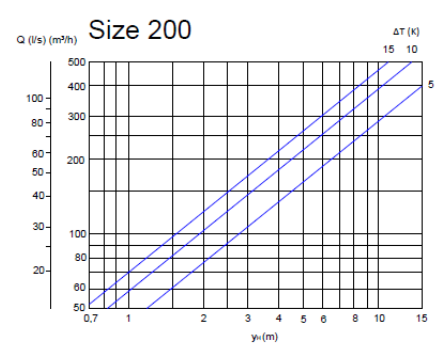
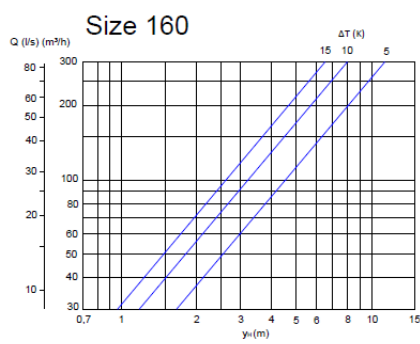
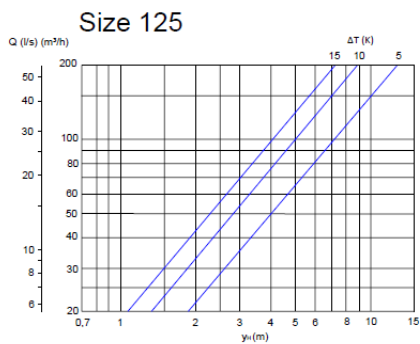
Size	Q (m ³ /h)	50	100	150	200	250	300	400	500	600	700	800
125	L ₀₂ (m)	2,3	4,1	5,8	/	/	/	/	/	/	/	/
	ΔP (Pa)	37	180	420	/	/	/	/	/	/	/	/
	L _{WA} (dB(A))	34	52	62,5	/	/	/	/	/	/	/	/
160	L ₀₂ (m)	/	2,6	3,8	4,8	5,6	6,5	/	/	/	/	/
	ΔP (Pa)	/	78	180	340	510	/	/	/	/	/	/
	L _{WA} (dB(A))	/	45	55	61	66	/	/	/	/	/	/
200	L ₀₂ (m)	/	1,6	2,6	3,7	4,8	5,9	8,4	/	/	/	/
	ΔP (Pa)	/	21	61	120	190	270	500	/	/	/	/
	L _{WA} (dB(A))	/	29	39	47	53	58	66	/	/	/	/
250	L ₀₂ (m)	/	1,75	2,4	3,1	3,6	4,1	5,2	6,2	7,2	/	/
	ΔP (Pa)	/	4	22	47	80	120	220	350	/	/	/
	L _{WA} (dB(A))	/	18	30	38	44	49	56	63	/	/	/
315	L ₀₂ (m)	/	/	1,1	1,5	1,9	2,4	3,3	4,4	5,4	6,4	7,4
	ΔP (Pa)	/	/	3	12	25	39	78	125	190	250	335
	L _{WA} (dB(A))	/	/	23	29	35	40	47	53	57	61	64

Quick selection diagram: $\Delta T = -5\text{ K}$

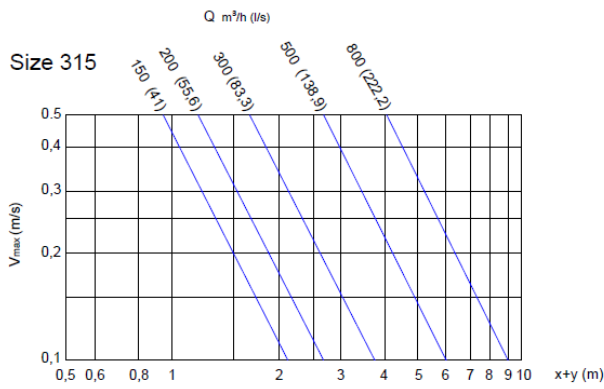
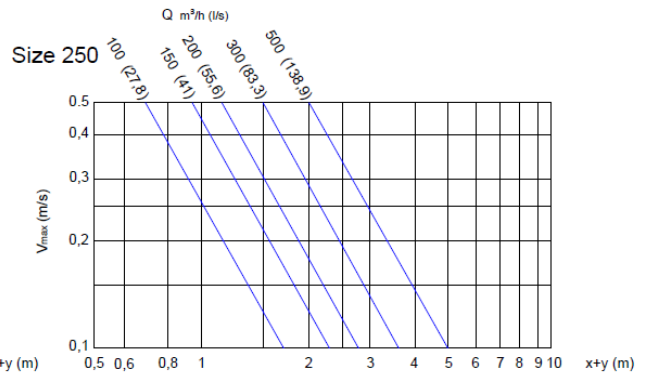
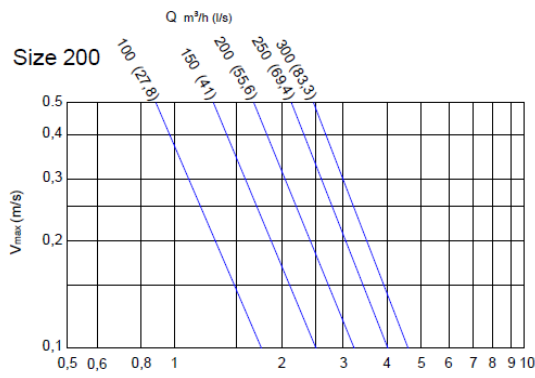
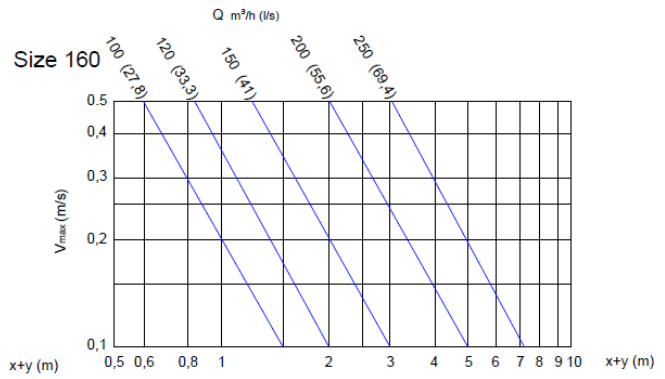
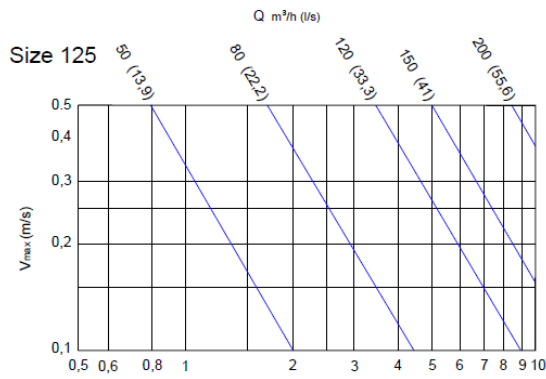
Size	Q (m ³ /h)	50	100	150	200	250	300	400	500	600	700	800
125	H1=1m: v _{H1} (m/s)	0,32	/	/	/	/	/	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	0,17	/	/	/	/	/	/	/	/	/	/
	L=3m: v _{L1} (m/s)	/	0,38	/	/	/	/	/	/	/	/	/
	H1=3,5m: v _{L1} (m/s)	/	0,3	0,95	/	/	/	/	/	/	/	/
	ΔP (Pa)	41	185	425	/	/	/	/	/	/	/	/
	L _{WA} (dB(A))	35	53	64	/	/	/	/	/	/	/	/
160	H1=1m: v _{H1} (m/s)	/	0,2	0,72	/	/	/	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	/	0,1	0,36	0,88	/	/	/	/	/	/	/
	L=3m: v _{L1} (m/s)	/	/	0,1	0,25	0,49	0,9	/	/	/	/	/
	H1=3,5m: v _{L1} (m/s)	/	/	/	0,18	0,37	0,69	/	/	/	/	/
	ΔP (Pa)	/	82	185	345	516	/	/	/	/	/	/
	L _{WA} (dB(A))	/	46	56	63	68	/	/	/	/	/	/
200	H1=1m: v _{H1} (m/s)	/	0,38	0,9	/	/	/	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	/	0,15	0,33	0,6	0,98	/	/	/	/	/	/
	L=3m: v _{L1} (m/s)	/	/	/	0,13	0,18	0,27	0,48	/	/	/	/
	H1=3,5m: v _{L1} (m/s)	/	/	/	/	0,13	0,19	0,35	/	/	/	/
	ΔP (Pa)	/	25	66	126	196	276	507	/	/	/	/
	L _{WA} (dB(A))	/	30	40	49	55	61	69	/	/	/	/
250	H1=1m: v _{H1} (m/s)	/	0,25	0,41	0,56	0,72	0,9	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	/	0,13	0,21	0,28	0,35	0,44	0,61	0,8	0,99	/	/
	L=3m: v _{L1} (m/s)	/	/	/	/	0,11	0,14	0,19	0,25	0,3	/	/
	H1=3,5m: v _{L1} (m/s)	/	/	/	/	/	0,1	0,15	0,18	0,23	/	/
	ΔP (Pa)	/	8	27	52	86	126	227	358	/	/	/
	L _{WA} (dB(A))	/	19	31	40	46	52	59	66	/	/	/
315	H1=1m: v _{H1} (m/s)	/	0,21	0,43	0,7	/	/	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	/	/	0,19	0,31	0,46	0,65	/	/	/	/	/
	L=3m: v _{L1} (m/s)	/	/	/	/	0,12	0,16	0,26	0,4	0,55	0,7	0,9
	H1=3,5m: v _{L1} (m/s)	/	/	/	/	/	0,13	0,2	0,3	0,45	0,53	0,83
	ΔP (Pa)	/	/	7	16	30	44	74	132	198	259	345
	L _{WA} (dB(A))	/	/	24	30	37	42	49	55	60	64	68

Quick selection diagram: $\Delta T = -10\text{ K}$

Size	Q (m ³ /h)	50	100	150	200	250	300	400	500	600	700	800
125	H1=1m: v _{H1} (m/s)	0,32	/	/	/	/	/	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	0,17	/	/	/	/	/	/	/	/	/	/
	L=3m: v _{L1} (m/s)	/	0,38	/	/	/	/	/	/	/	/	/
	H1=3,5m: v _{L1} (m/s)	/	0,3	0,95	/	/	/	/	/	/	/	/
	ΔP (Pa)	41	185	425	/	/	/	/	/	/	/	/
	LWA (dB(A))	35	53	64	/	/	/	/	/	/	/	/
160	H1=1m: v _{H1} (m/s)	/	0,2	0,72	/	/	/	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	/	0,1	0,36	0,88	/	/	/	/	/	/	/
	L=3m: v _{L1} (m/s)	/	/	0,1	0,25	0,49	0,9	/	/	/	/	/
	H1=3,5m: v _{L1} (m/s)	/	/	/	0,18	0,37	0,69	/	/	/	/	/
	ΔP (Pa)	/	82	185	345	516	/	/	/	/	/	/
	LWA (dB(A))	/	46	56	63	68	/	/	/	/	/	/
200	H1=1m: v _{H1} (m/s)	/	0,38	0,9	/	/	/	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	/	0,15	0,33	0,6	0,98	/	/	/	/	/	/
	L=3m: v _{L1} (m/s)	/	/	/	0,13	0,18	0,27	0,48	/	/	/	/
	H1=3,5m: v _{L1} (m/s)	/	/	/	/	0,13	0,19	0,35	/	/	/	/
	ΔP (Pa)	/	25	66	126	196	276	507	/	/	/	/
	LWA (dB(A))	/	30	40	49	55	61	69	/	/	/	/
250	H1=1m: v _{H1} (m/s)	/	0,25	0,41	0,56	0,72	0,9	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	/	0,13	0,21	0,28	0,35	0,44	0,61	0,8	0,99	/	/
	L=3m: v _{L1} (m/s)	/	/	/	/	0,11	0,14	0,19	0,25	0,3	/	/
	H1=3,5m: v _{L1} (m/s)	/	/	/	/	/	0,1	0,15	0,18	0,23	/	/
	ΔP (Pa)	/	8	27	52	86	126	227	358	/	/	/
	LWA (dB(A))	/	19	31	40	46	52	59	66	/	/	/
315	H1=1m: v _{H1} (m/s)	/	0,21	0,43	0,7	/	/	/	/	/	/	/
	H1=1,5m: v _{H1} (m/s)	/	/	0,19	0,31	0,46	0,65	/	/	/	/	/
	L=3m: v _{L1} (m/s)	/	/	/	/	0,12	0,16	0,26	0,4	0,55	0,7	0,9
	H1=3,5m: v _{L1} (m/s)	/	/	/	/	/	0,13	0,2	0,3	0,45	0,53	0,83
	ΔP (Pa)	/	/	7	16	30	44	74	132	198	259	345
	LWA (dB(A))	/	/	24	30	37	42	49	55	60	64	68

Maximum penetration – Heating mode


(Isothermal) increased horizontal multi-directional throw



Static pressure drop and sound power level

