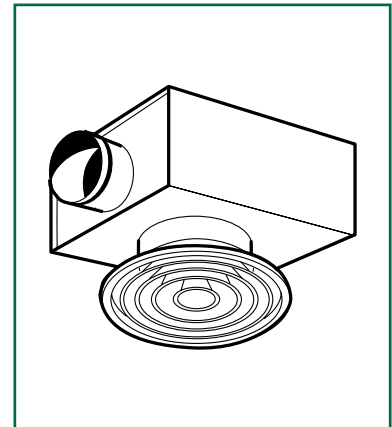


KH Conical air diffuser



The KH air diffuser is suitable for use as a supply air terminal device for commercial and industrial premises and similar. It has a 360° diffusion pattern, and it can be used both freely suspended and installed in a false ceiling. The air direction is adjustable. The diffuser is available with connection box which in combination with KH, gives a very low noise level.

Quick-selection

Diffuser Size	Connection mm			Air flow l/s (m ³ /h) at sound level		
	Diffuser	Box 1:1	Box 1:2	25dB	30 dB	35 dB
KH-100	100	100	–	40	47 (170)	54
KH-125	125	125	100	48	58 (209)	68
KH-160	160	160	125	75	88 (317)	105
KH-200	200	200	160	110	130 (468)	150
KH-250	250	250	200	162	190 (684)	225
KH-315	315	315	250	250	290 (1044)	340
KH-400	400	–	315	360	425 (1530)	495
KH-500	500	–	–	485	580 (2088)	675

Product facts

Conical air diffuser KH

Connections from 100 to 500 mm

360° diffusion pattern

The air direction is adjustable from horizontal to vertical with the help of the adjustable cone insert.

Connection box ATTA

Measurement- and adjustment dampers

Approved for cleaning of the damper

k-factors at measurement hoses.

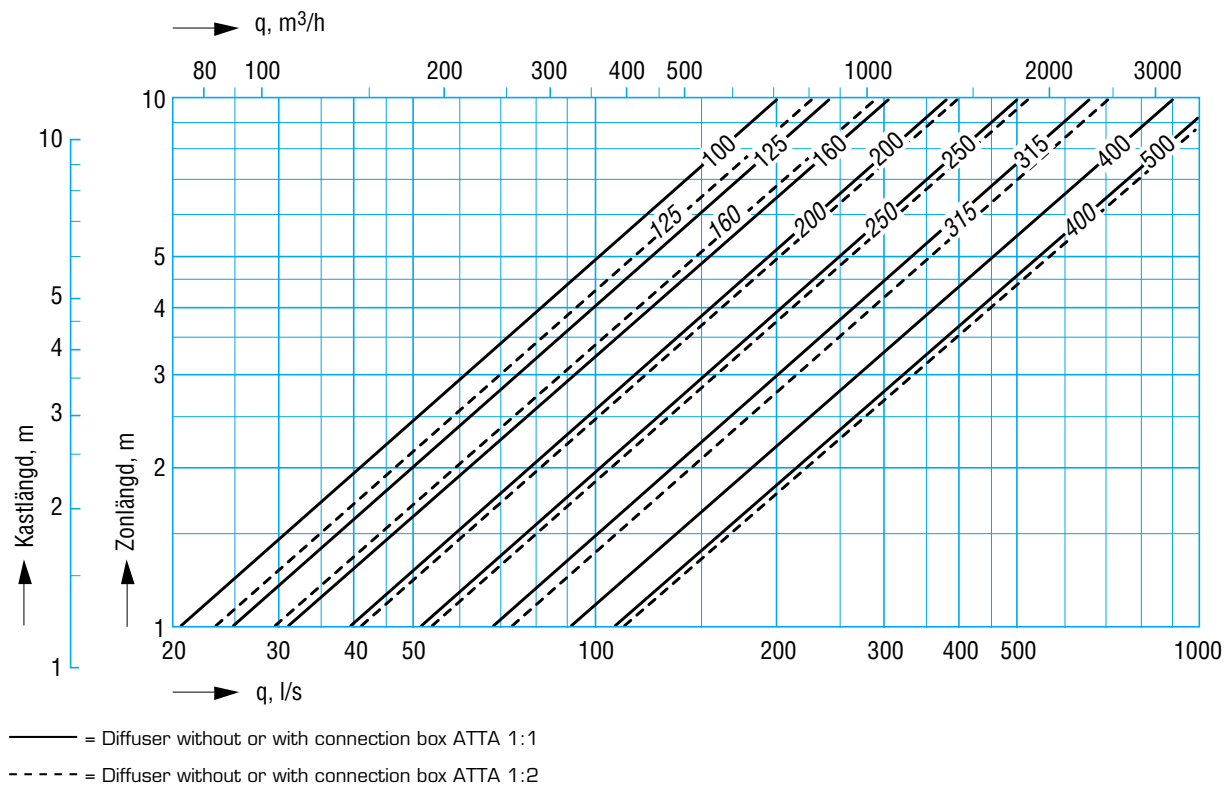
Product code example:

KH-160 + ATTA-125-160-0

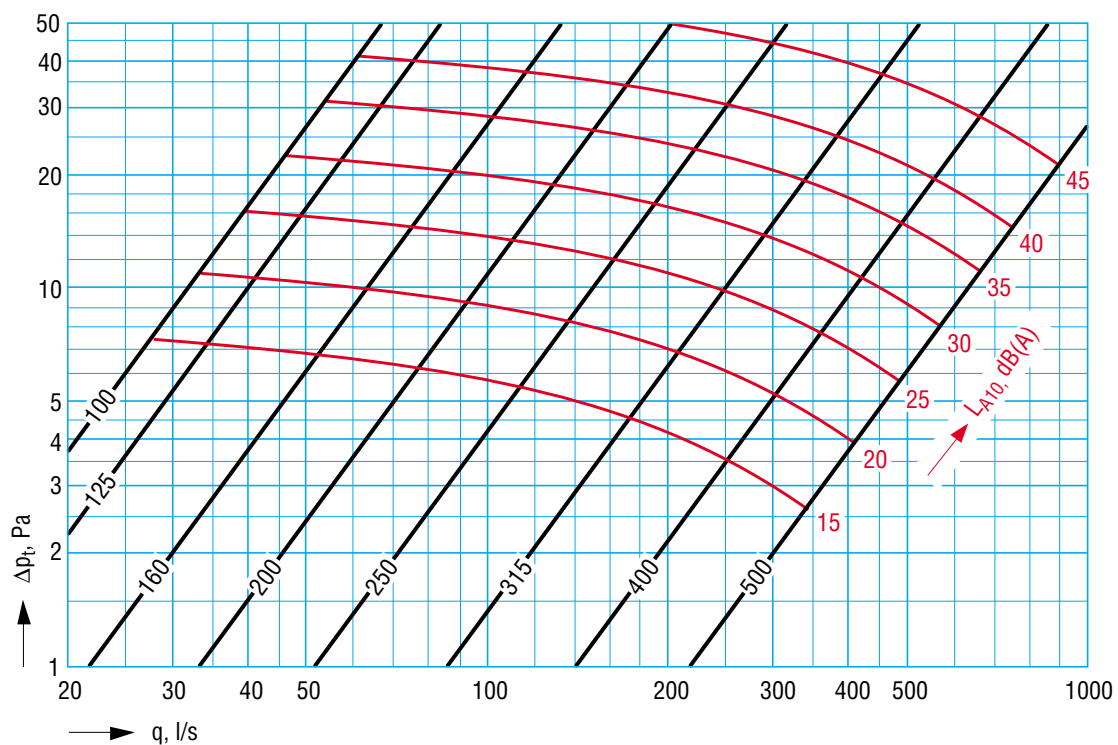
Conical air diffuser KH manufactured in size 160, including a connection box with removable measurement damper.

Air flow, zone length, throw, pressure drop, sound level

Diffuser without or with connection box ATTA



Diffuser without connection box ATTA

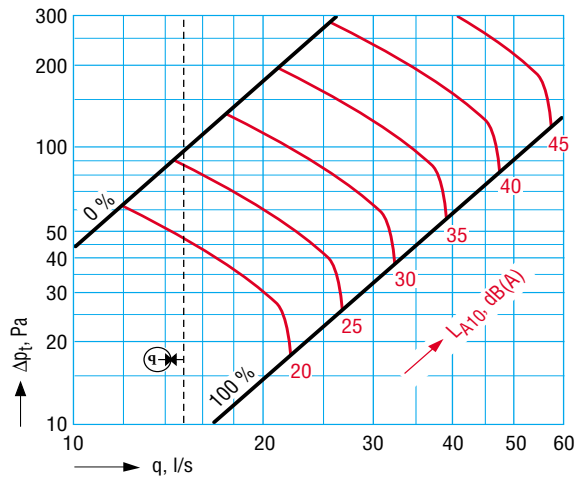


The charts apply for the cone insert in the 0 mm position, i. e. outer and inner cones at the same level.

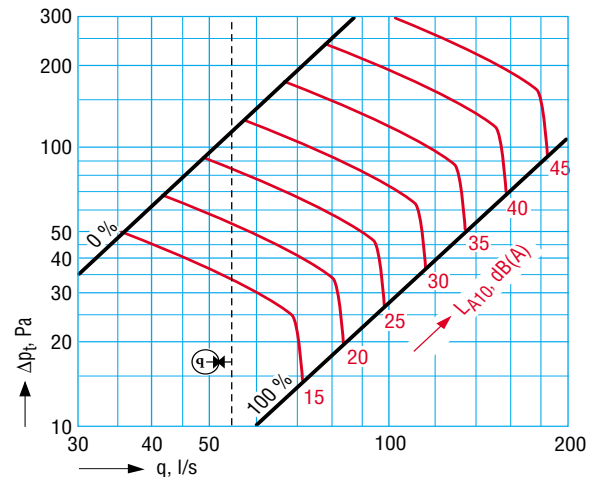
Air flow, zone length, throw, pressure drop, sound level

Diffuser with connection box ATTA 1:1

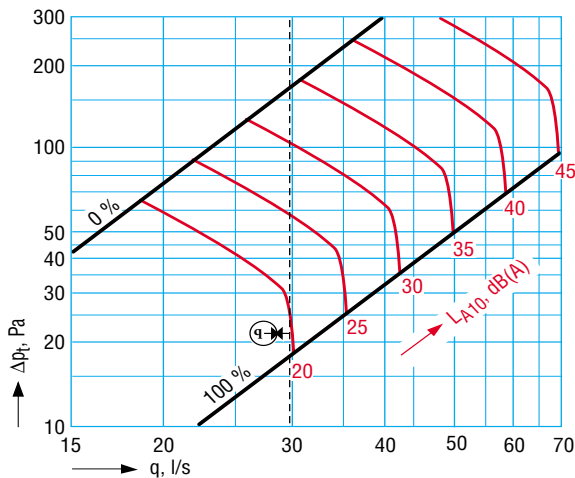
KH-100+ATTA-100-100-0



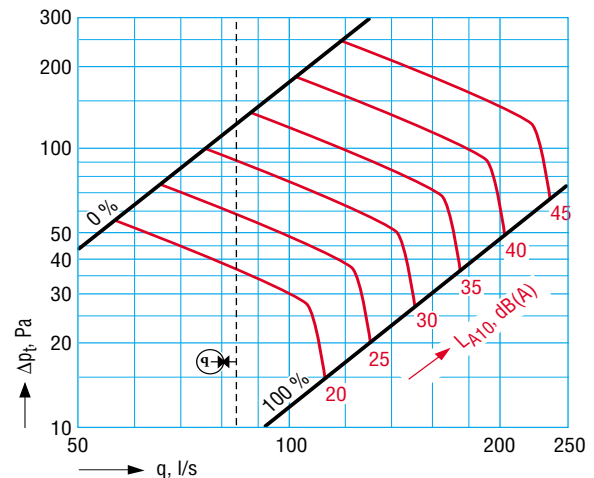
KH-200 + ATTA-200-200-0



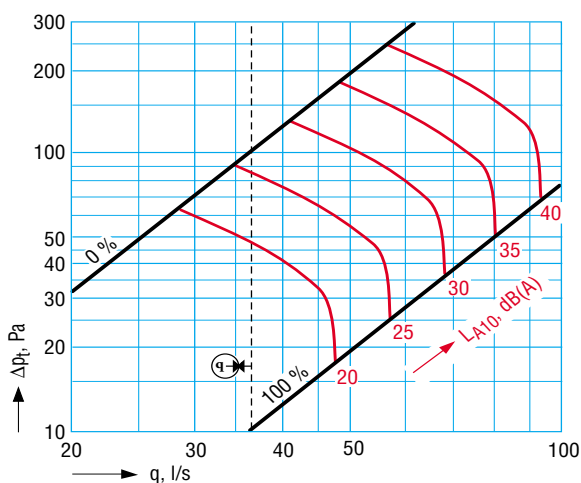
KH-125+ATTA-125-125-0



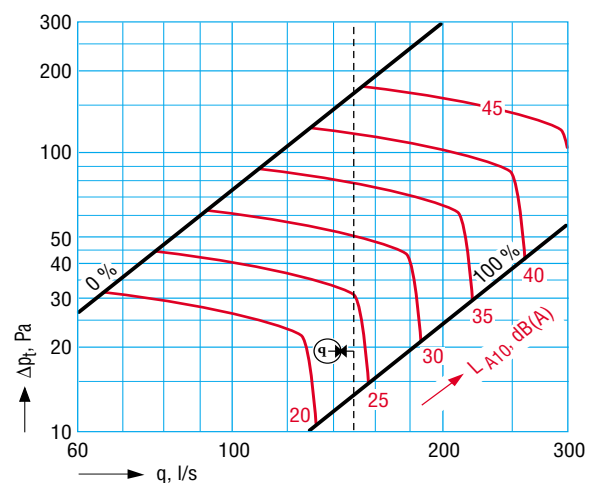
KH-250 + ATTA-250-250-0



KH-160 + ATTA-160-160-0



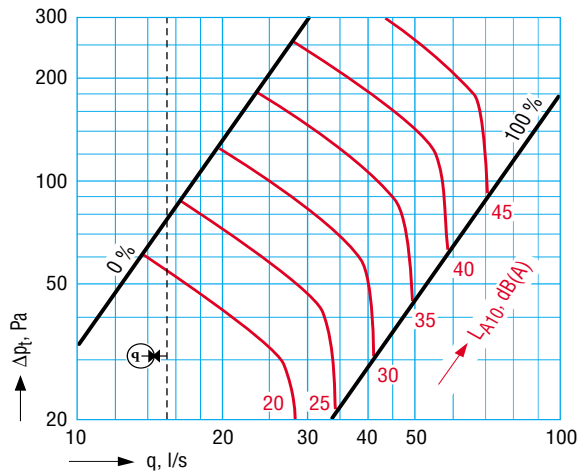
KH-315 + ATTA-315-315-0



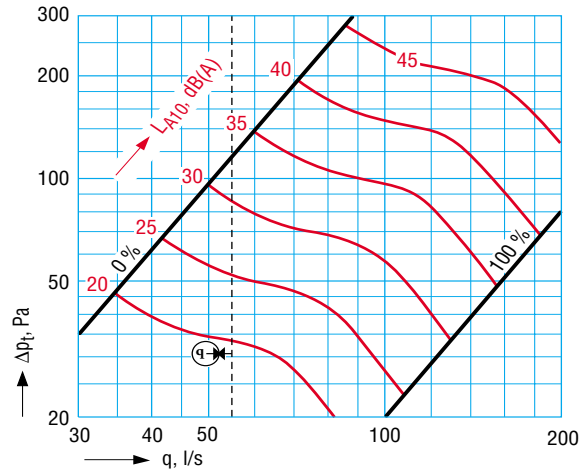
Air flow, zone length, throw, pressure drop, sound level

Diffuser with connection box ATTA 1:2

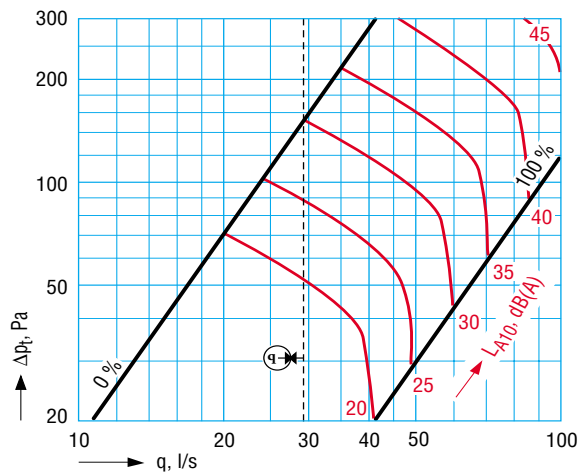
KH-125+ATTA-100-125-0



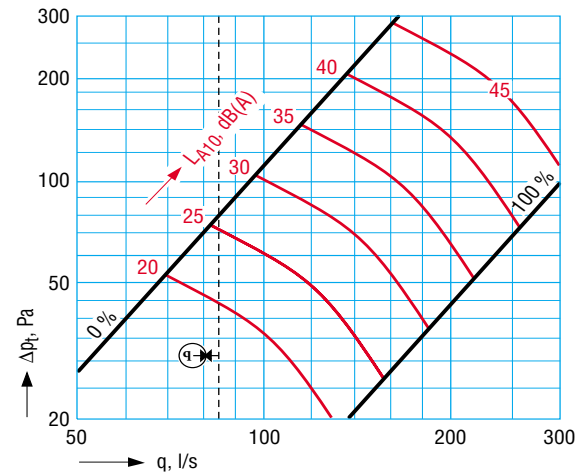
KH-250+ATTA-200-250-0



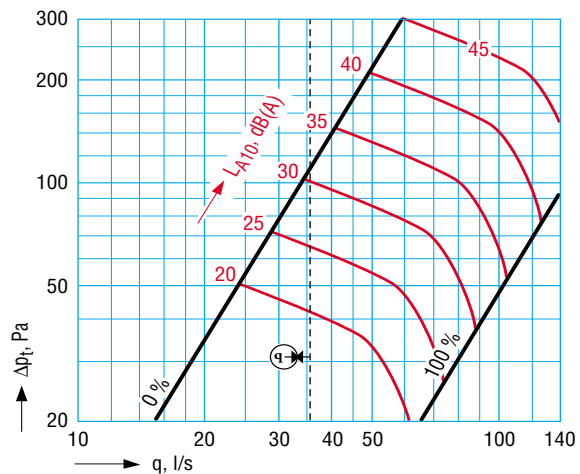
KH-160+ATTA-125-160-0



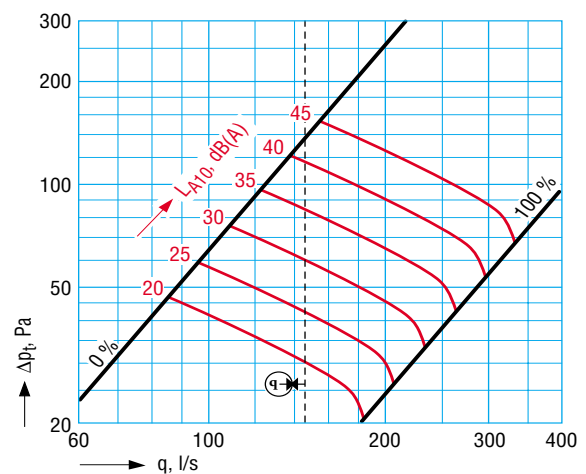
KH-315+ATTA-250-315-0



KH-200+ATTA-160-200-0

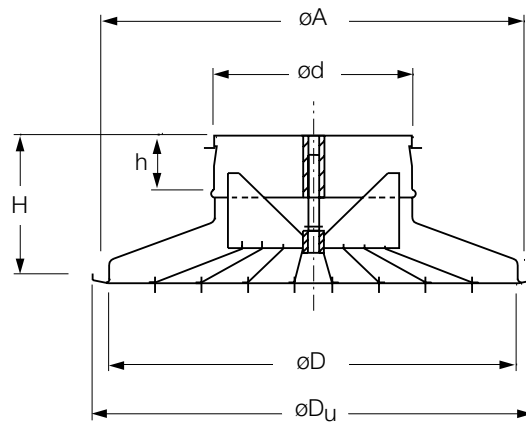


KH-400+ATTA-315-400-0



Dimensions

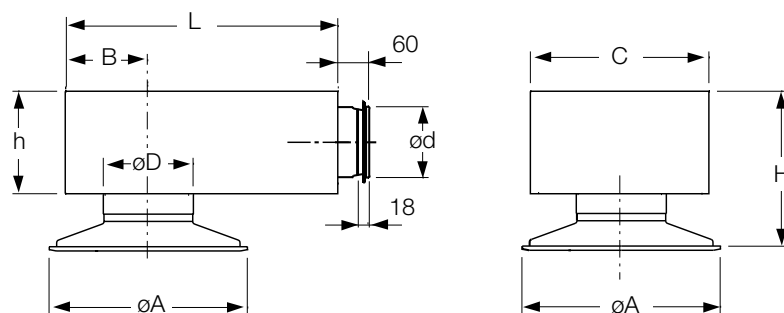
KH Conical air diffuser



Size	ød	øD	øD _u	H	øA	h
100	99	259	280	151	269	30
125	124	259	280	95	269	30
160	159	310	339	100	320	30
200	199	414	450	115	424	30
250	249	518	560	135	528	40
315	314	612	668	155	622	40
400	399	825	890	175	835	75
500	499	1008	1080	210	1018	75

øA = hole dimensions

KH Conical air diffuser + ATTA connection box



Size	ød	øD ₁ ¹⁾	øA ₁ ¹⁾	øD ₂ ²⁾	øA ₂ ²⁾	B	C	H	h	L
100	99	100	280	125	280	123	320	285	170	320
125	124	125	280	160	339	140	320	290	170	470
160	159	160	339	200	450	170	440	340	205	500
200	199	200	450	250	560	195	520	390	245	650
250	249	250	560	315	668	228	610	460	295	700
315	314	315	668	400	890	255	610	525	360	700

¹⁾ Connection box 1:1

²⁾ Connection box 1:2

Sound data

Sound power level

Air diffuser with connection box ATTA 1:1

Size	Correction of sound level K_{OK} in dB at							
	63	125	250	500	1000	2000	4000	8000 Hz
100	4	6	3	1	-2	-4	-6	-5
125	6	8	4	0	-1	-5	-8	-6
160	7	8	3	-1	-1	-4	-6	-8
200	8	8	2	-2	-1	-3	-7	-8
250	10	9	2	-3	-1	-5	-4	-8
315	13	12	3	-2	-2	-6	-5	-8
Tol. ±	6	3	2	2	2	2	2	3

Sound attenuation

Air diffuser with connection box ATTA 1:1

Size	Sound attenuation ΔL in dB at							
	63	125	250	500	1000	2000	4000	8000 Hz
100	23	17	14	15	12	9	9	10
125	20	17	11	13	9	7	8	8
160	17	12	11	12	4	4	7	9
200	17	8	9	7	5	5	6	9
250	13	6	8	7	6	5	7	9
315	8	7	9	6	5	5	8	10
Tol. ±	6	3	2	2	2	2	2	3

Air diffuser with connection box ATTA 1:2

Size	Correction of sound level K_{OK} in dB at							
	63	125	250	500	1000	2000	4000	8000 Hz
100	12	7	2	-2	-1	-3	-7	-12
125	3	3	-1	-2	-1	-3	-5	-8
160	4	3	-2	-3	-2	-3	-4	-6
200	3	7	-7	-11	-7	-3	0	7
250	12	13	-4	-8	-7	-4	-1	-8
315	12	13	-6	-10	-8	-5	0	-7
Tol. ±	6	3	2	2	2	2	2	3

Air diffuser with connection box ATTA 1:2

Size	Sound attenuation ΔL in dB at							
	63	125	250	500	1000	2000	4000	8000 Hz
100	14	14	11	14	15	14	5	9
125	19	11	12	17	10	9	5	9
160	15	10	8	14	5	8	7	8
200	14	6	7	9	7	7	8	9
250	8	6	8	7	7	5	8	9
315	8	4	7	7	7	5	8	9
Tol. ±	6	3	2	2	2	2	2	3

Air diffuser without connection box

Size	Correction of sound level K_{OK} in dB at					
	125	250	500	1000	2000	4000 Hz
100	4	-1	1	-1	-3	-11
125	5	3	2	-1	-4	-12
160	6	4	2	-1	-6	-14
200	6	4	2	-2	-4	-13
250	6	6	1	-3	-4	-14
315	7	5	1	-1	-4	-14
400	8	5	3	-3	-5	-14
500	9	5	3	-4	-7	-14
Tolerance ±	3	2	2	2	2	2

Air diffuser without connection box

Size	Sound attenuation ΔL in dB at					
	125	250	500	1000	2000	4000 Hz
100	16	10	5	3	2	2
125	15	10	5	1	0	0
160	13	9	3	1	0	0
200	12	8	3	0	0	0
250	10	6	2	0	0	0
315	9	6	2	0	0	0
400	8	5	1	0	0	0
500	7	2	0	0	0	0
Tolerance ±	3	2	2	2	2	2

The subdivision into the frequency-related sound power L_w is performed with reference to the L_{p10A} values and the correction K_{OK} in the graphs.

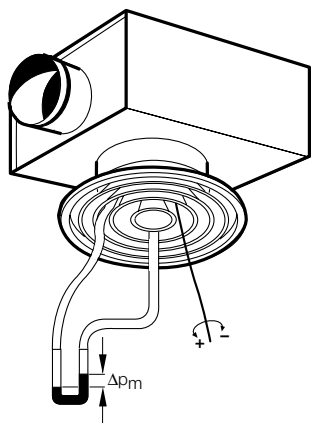
$$L_w = L_{A10} + K_{OK}$$

Correction K_{OK} is the mean value within KH's or KH + ATTA's working range.

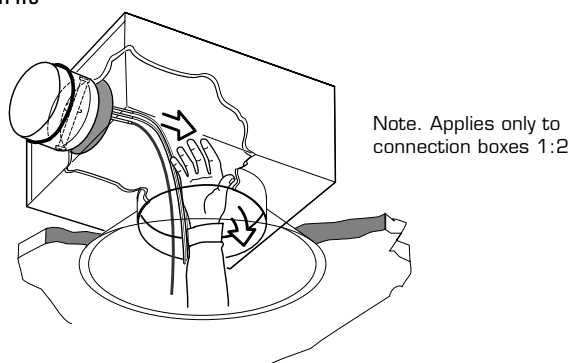
KH's or KH + ATTA's mean sound attenuation ΔL is measured from the duct to the room and includes the orifice attenuation of the adjacent duct dimension in the case of ceiling-mounting.

Adjustment, application, material, product code etc

Adjustment



Dismantling of damper and measurement unit



Application and function

The KH air diffuser is suitable for use as a supply air terminal device for commercial and industrial premises and similar. It has a 360° diffusion pattern, and it can be used both freely suspended and installed in a false ceiling. The air direction is adjustable from horizontal to vertical with the help of the adjustable cone insert.

The device inlet, from 100 to 500 mm, has a push-in dimension (male connection) fitted with a rubber seal and can be installed directly on a duct or on a connection box (diffuser size 100 - 400).

The diffuser is also available with connection box which has a patented measurement damper which, in combination with KH, gives a very low noise level.

Installation, adjustment and maintenance

Instructions for installation, adjustment and maintenance are described in detail in our technical instructions which are supplied with every product.

The instructions are also available on the Internet www.flaktwoods.com.

Material and surface finish

Conical air diffuser KH is made of hot-dip galvanized steel sheet, SS 1151, and meets the requirements for corrosivity class C2 in accordance with SS-EN ISO 12944-2.

The diffusers are powder-coated for a high surface finish and good impact and scratch resistance.

Standard colour White RAL-9010, gloss 30, equivalent to NCS S 0502-Y. Other colours on request.

Technical data and design

For complete dimensioning and for cooling requirement calculations, please refer to the WinDon product selection program.

This program with a module for cooling requirement calculations can be found on our CD or on the Internet at www.flaktwoods.com.

Descriptive text

Conical air diffuser KH manufactured by Fläkt Woods, for example in size 160, including a connection box with a removable measurement damper.

Product code

Conical air diffuser KH-aaa

Size _____

100, 125, 160, 200, 250, 315, 400, 500

Connection box 1:1

Uninsulated ATTA-aaa-bbb-0

Size _____

100-100, 125-125, 160-160,
200-200, 250-250, 315-315

These connection boxes have an inlet diameter and an outlet diameter of identical size.

The damper can be removed from the connection, but cannot be taken out of connection box 1:1.

Connection box 1:2

Insulated ATTA-aaa-bbb-0

Size _____

100-125, 125-160, 160-200,
200-250, 250-315, 315-400

(Connection diameter connection box - diffuser in mm.)

