Lindab **LKP**

Integra - Ceiling diffuser

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Integra - Ceiling diffuser LKP

Description

LKP has a square face plate for installation in ceiling systems. LKP can be used for both supply and extract air. LKP is suitable for the horizontal supply of cooled air and has a large dynamic range.
Installing an LKP diffuser in a plenum box type MB can help to achieve a stable airflow to the diffuser as well as realise the potential for individual adjustment.
Damper type B is an unique linear cone damper which allows to use the full operational area and allows to balance with a high pressure drop over the box with low sound generation. Furthermore the construction of the damper gives an accurate and reliable measurement. Damper type C and E are with rotating blade dampers for respectively supply and extract. Typically used in applications that don't require a high balancing pressure in the plenum box.

The LKP can with the plenum box MBV be used in a Pascal system. LKP can be ordered with a presence sensor (-P). The sensor is built into the Faceplate.

- Simple and stylish appearance.
- Large dynamic range
- Can be used for both supply and extract air.
- Can be adapted to most ceiling systems.
- Plenum box with several damper options.

Order code

Product	LKP	aaa	bb	(-xx)

Type
LKP

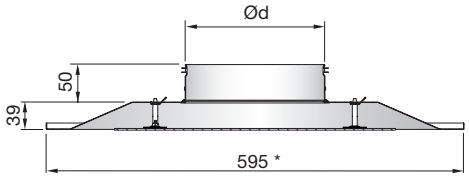
Connection dim.
Ød 125-315

Sensor type
No sensor
(-P) Presence sensor

Ceiling system
1 - 14

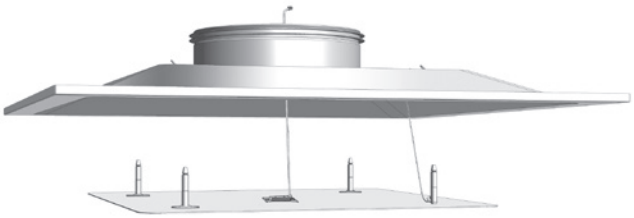
Example: LKP-200-P-1
* Only size 200-315

Dimensions



* Ceiling system 1, other ceiling systems see Integra overview.

Ød mm	m kg
125	3.2
160	3.2
200	3.3
250	3.4
315	3.5



LKP -P (Presence sensor build into the face plate).

Maintenance

The face plate can be removed to enable cleaning of internal parts or to gain access to the duct or box. The visible parts of the diffuser can be wiped with a damp cloth.

Materials and finish

Grille box:	Galvanized steel
Face plate LKP:	Galvanized steel
Face plate finish:	Powder-coated
Standard colours:	RAL 9003 or RAL 9010 gloss 30

The diffuser is available in other colours. Please contact Lindab's sales department for further information.

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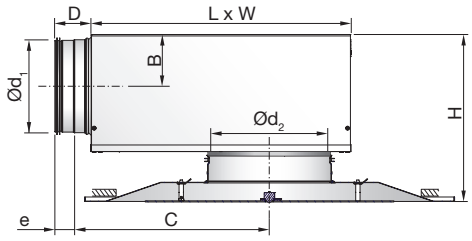
Integra - Ceiling diffuser LKP

Accessories

Plenum box MB



LKP + MB

Ød$_1$	Ød$_2$	B	C	D	e	H*	L	W
mm		mm						
100	125	62	245	78	40	206 - 246	310	260
100	160	62	245	78	40	206 - 246	310	260
125	125	75	291	78	40	231 - 271	376	310
125	160	75	291	78	40	231 - 271	376	310
125	200	75	291	78	40	231 - 271	376	310
160	160	92	352	78	40	265 - 305	459	380
160	200	92	352	78	40	265 - 305	459	380
160	250	92	352	78	40	265 - 305	459	380
200	200	112	425	78	40	306 - 346	565	460
200	250	112	425	78	40	306 - 346	565	460
200	315	112	425	78	40	306 - 346	565	460
250	250	137	514	118	60	356 - 396	698	540
250	315	137	514	118	60	356 - 396	698	540
315	315	170	675	118	60	421 - 461	858	540

* Using accessory MBZ the H dimension will increase:

Ød$_2$ = 125 - 200 mm => H +40 mm

Ød$_2$ = 250 - 315 mm => H +60 mm

Order code

Product **MB a bbb ccc d**

Type
MB

Damper
B = Linear cone damper
C = Blade damper supply
E = Blade damper extract

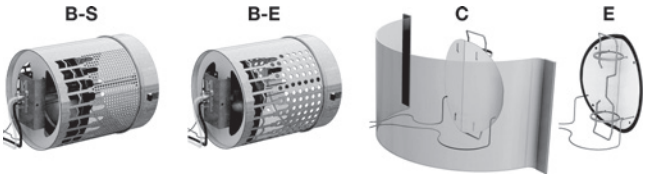
Duct connection Ød$_1$
Ø100-315

Diffuser dimension Ød$_2$
Ø125-315

Function (Only for B damper)
S = Supply air E = Extract

Example 1: LKP-200-1-MBB-160-200-S
Example 1: LKP-160-1+MBC-125-160

Damper options



LKP + MBV (Pascal)

LKP-P only fits with MBV. Because of the inside cable connection.
Go to www.lindQST.com to find details about the MBV plenum box and the pascal solutions.

Integra - Ceiling diffuser LKP

Technical data

Following LKP+plenum box data are valid for MBB-S/-E.
For MBE and MBV data, go to www.lindQST.com.

For full configuration of your LKP diffuser, go to the LindQST Airborne configurator.

Capacity

Air flow q_v [l/s] and [m³/h], total pressure Δp_t [Pa], throw $l_{0.2}$ [m] and sound power level L_{WA} [dB(A)] can be seen in the diagrams.

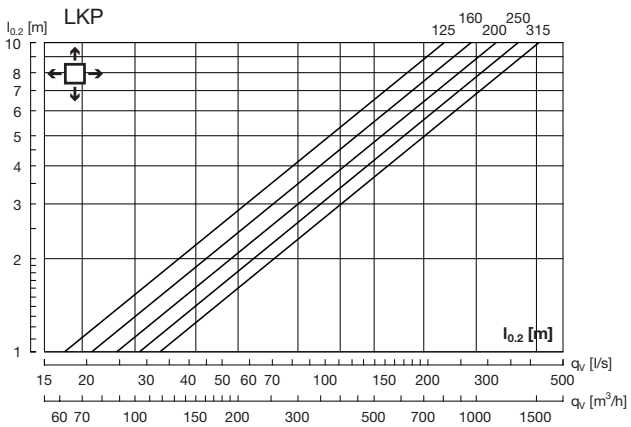
Frequency-related sound power level

The sound power level in the frequency band is defined as $L_{WA}+K_{ok}$. K_{ok} values are specified in charts beneath the diagrams on the following pages.

LKP + MBB-S		$\Delta p_t \geq 50$ Pa 30 dB(A)		$\Delta p_t \geq 50$ Pa 35 dB(A)	
$Ød_1$	$Ød_2$	l/s	m³/h	l/s	m³/h
100	125	37	133	44	158
100	160	39	140	48	173
125	125	48	173	56	202
125	160	56	202	66	238
125	200	61	220	73	263
160	160	67	241	85	306
160	200	79	284	99	356
160	250	95	342	113	407
200	200	92	331	117	421
200	250	105	378	122	439
200	315	118	425	145	522
250	250	112	403	132	475
250	315	131	472	168	605
315	315	144	518	169	608

Throw $l_{0,2}$

Throw $l_{0.2}$ [m] can be seen in the diagram for isothermal air, at a terminal velocity of 0.2 m/s.



Sound attenuation

Sound attenuation of the diffusers ΔL from duct to room, including and reflection, see table below.

LKP + MBB-S/-E		Centre frequency Hz							
$Ød_1$	$Ød_2$	63	125	250	500	1K	2K	4K	8K
100	125	17	15	10	17	15	18	19	21
100	160	17	16	6	10	18	18	18	21
125	125	17	15	10	17	15	18	19	21
125	160	15	14	10	17	16	17	18	21
125	200	13	12	7	13	13	16	17	18
160	160	17	15	12	21	19	19	21	21
160	200	17	16	10	20	17	17	19	20
160	250	16	14	7	17	15	16	19	20
200	200	13	11	10	17	18	15	19	18
200	250	14	11	8	15	19	15	18	17
200	315	14	9	7	13	18	14	17	17
250	250	15	10	9	17	18	18	19	19
250	315	15	8	9	16	18	16	18	18
315	315	8	10	10	17	18	17	18	24

Balancing

Balancing guide, see the MB installation instruction.

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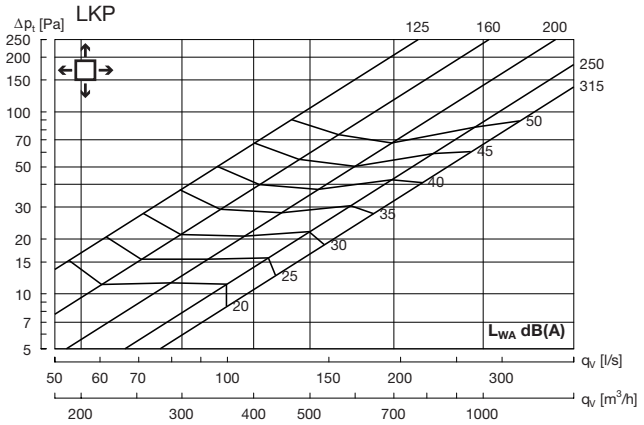
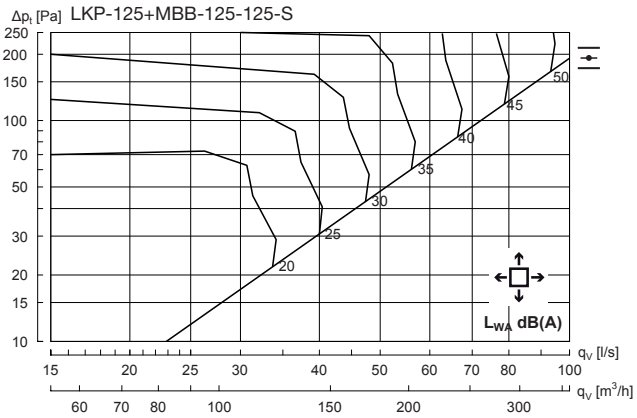
Integra - Ceiling diffuser LKP

Technical data

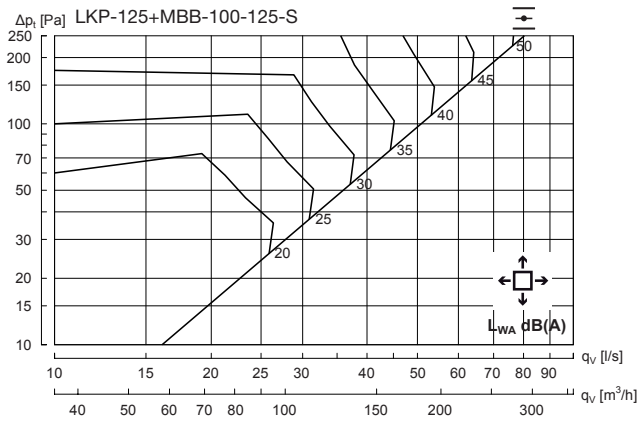
LKP without box - supply air



LKP 125 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	7	1	-2	-6	-14	-20	-25

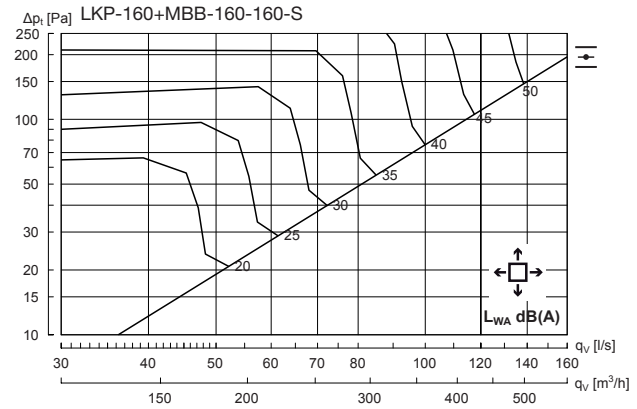


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	4	2	-2	-6	-10	-17	-23

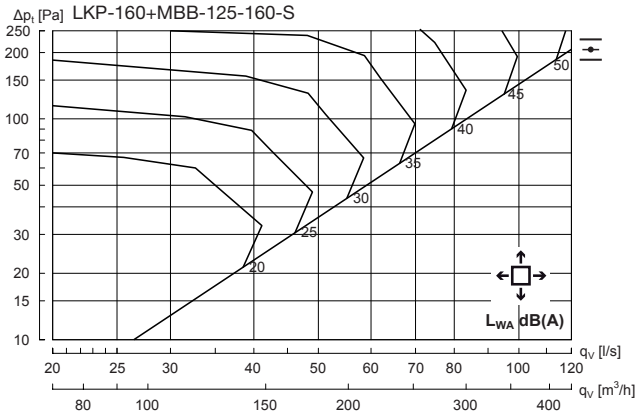
Integra - Ceiling diffuser LKP

Technical data

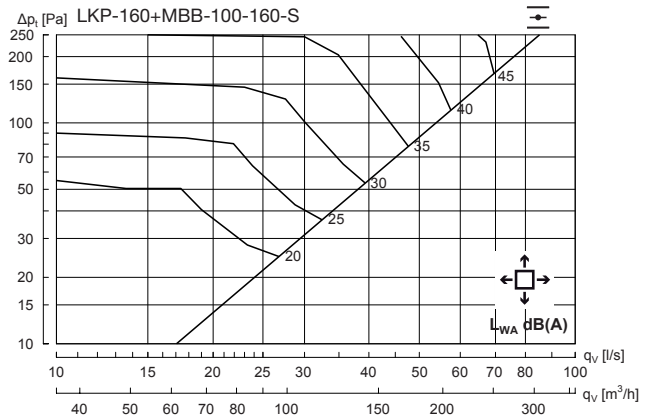
LKP 160 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	8	0	-3	-6	-10	-19	-25

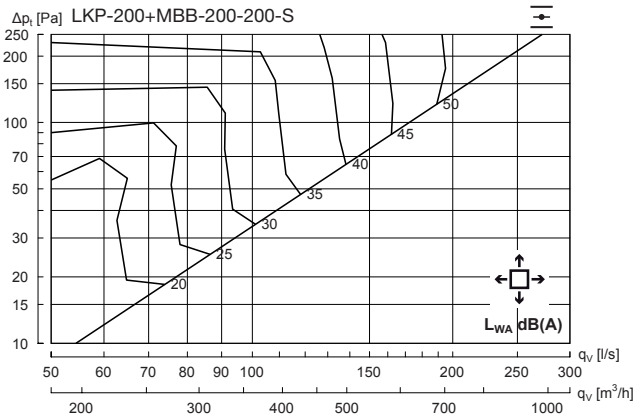


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	9	8	1	-3	-6	-11	-16	-22

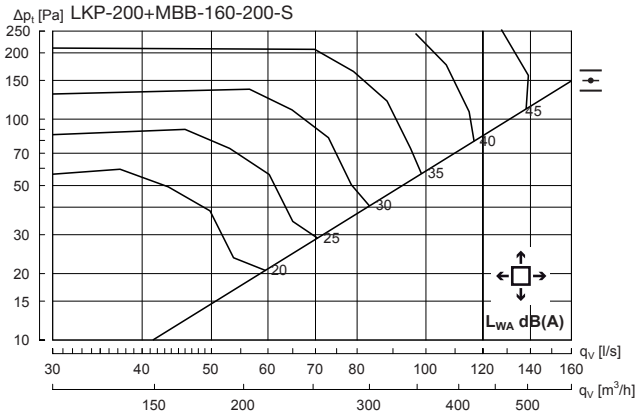


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	9	5	0	-1	-7	-10	-16	-21

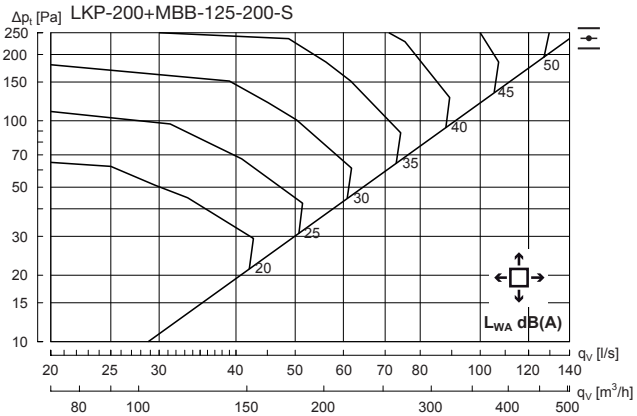
LKP 200 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	8	0	-3	-5	-14	-21	-24



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	7	-1	-3	-5	-10	-15	-21



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	6	6	0	-3	-5	-9	-16	-21

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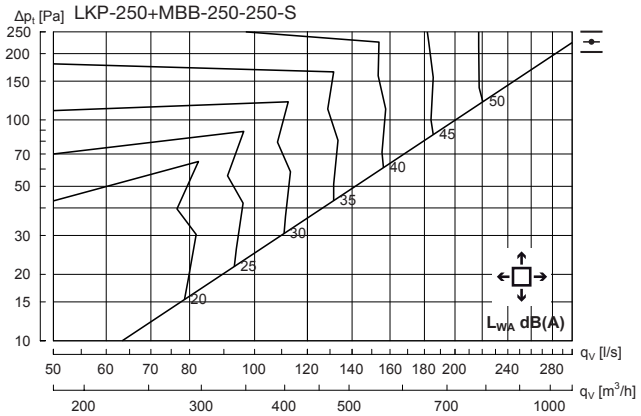
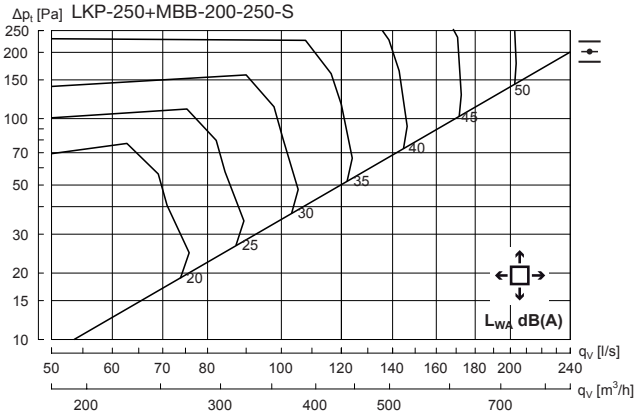
Integra - Ceiling diffuser LKP

Technical data

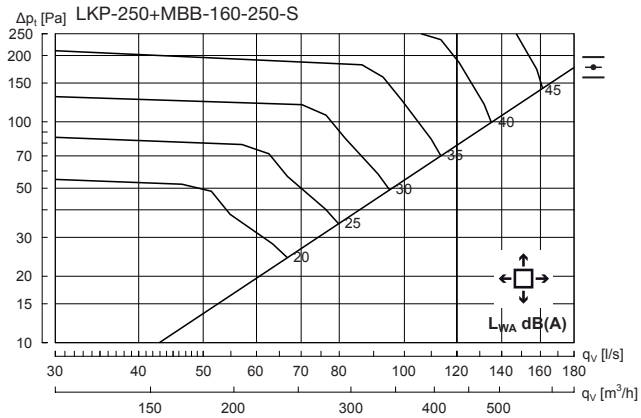
LKP 250 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	15	6	-1	-1	-5	-15	-23	-29

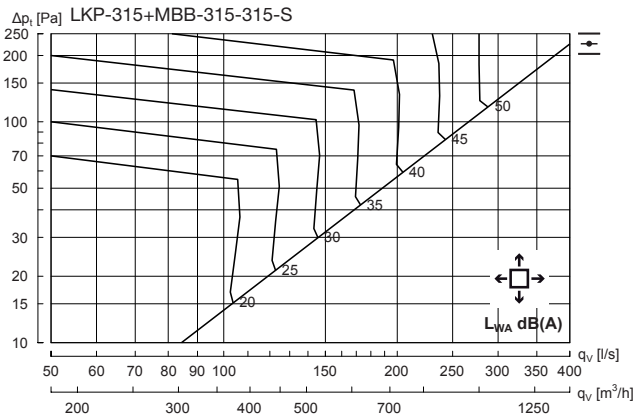


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	8	-1	-2	-5	-13	-20	-26

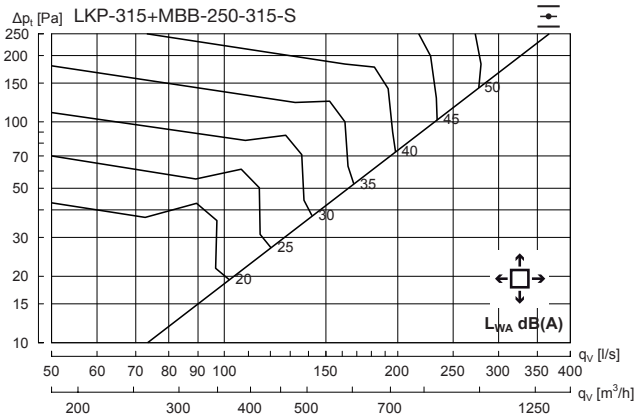


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	7	0	-4	-5	-11	-16	-22

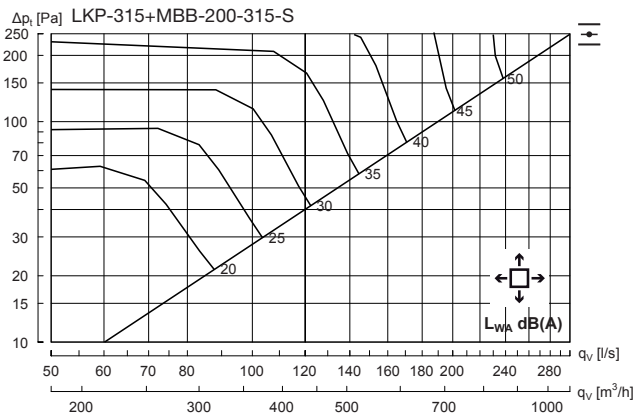
LKP 315 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	4	0	-2	-4	-14	-19	-27



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	7	0	-2	-6	-10	-17	-23

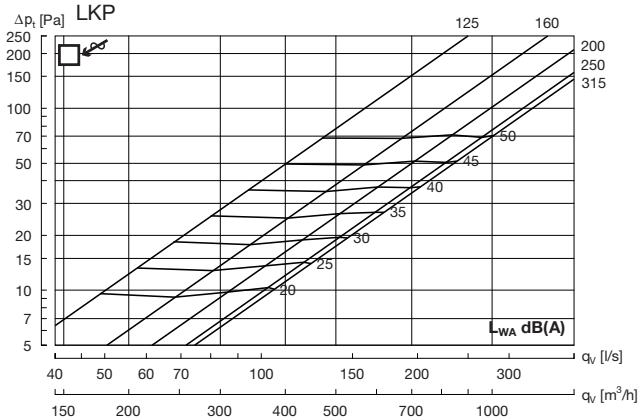


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	10	0	-3	-6	-12	-19	-24

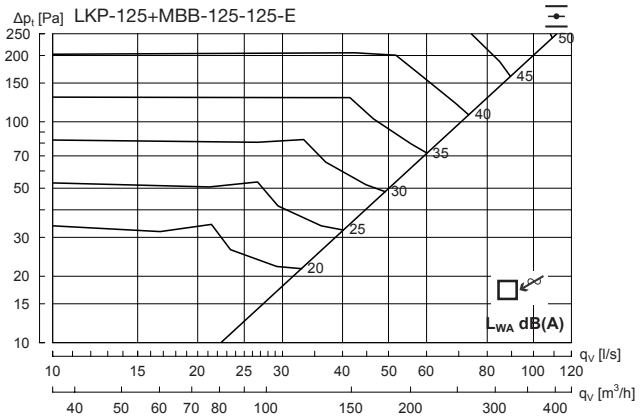
Integra - Ceiling diffuser LKP

Technical data

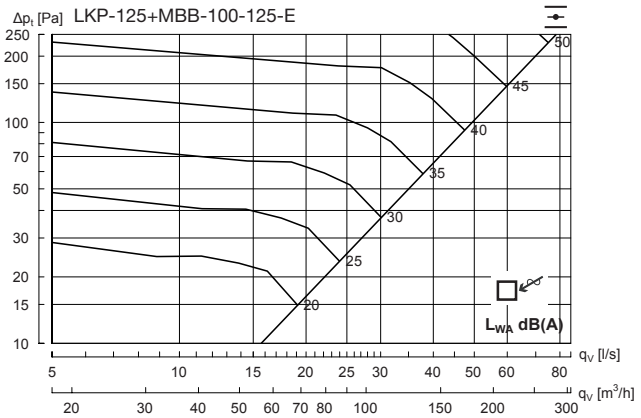
LKP without box - Extract



LKP 125 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	4	-1	-1	-6	-12	-16	-22



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	-1	3	-1	-9	-11	-17	-23

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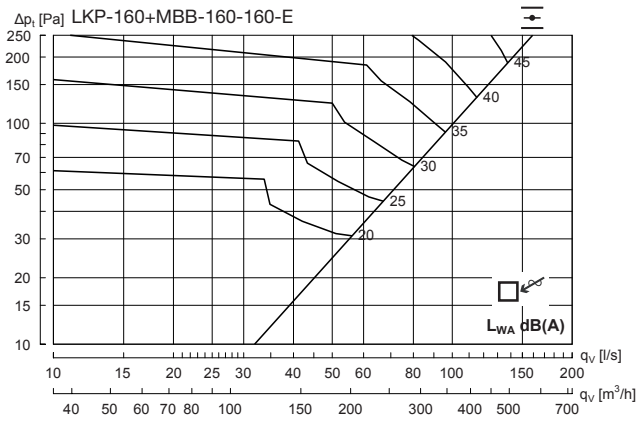
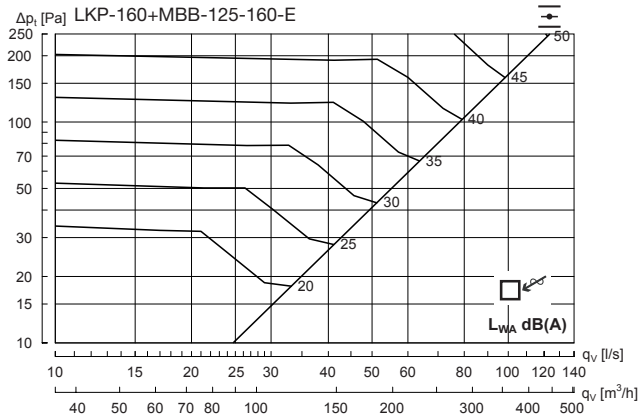
Integra - Ceiling diffuser LKP

Technical data

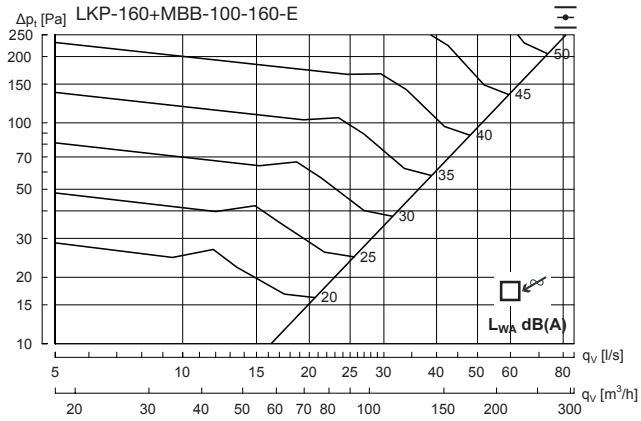
LKP 160 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	16	4	-1	-2	-5	-10	-16	-21

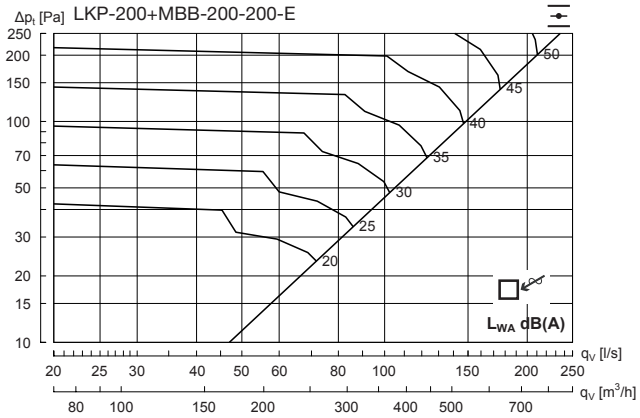


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	14	5	0	-1	-6	-11	-15	-21

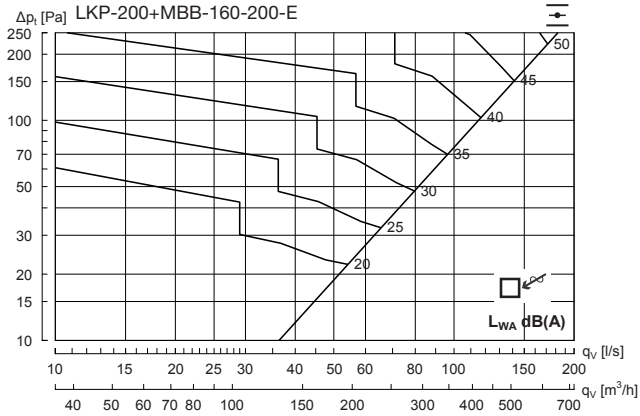


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	3	2	0	-8	-13	-17	-23

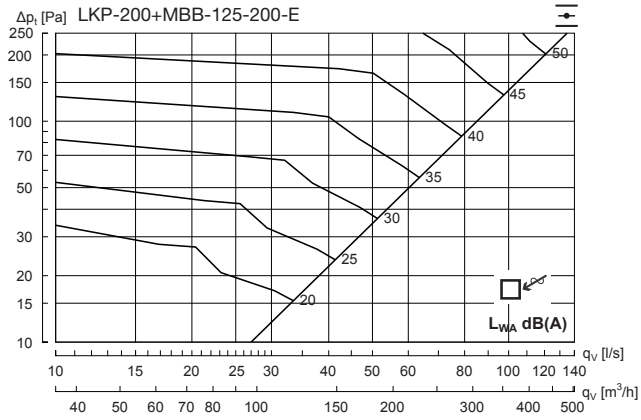
LKP 200 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	15	5	0	-2	-6	-10	-15	-23



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	16	5	-1	-3	-5	-10	-15	-21

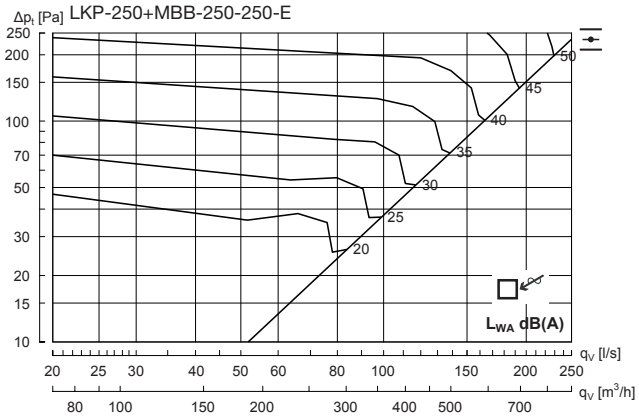


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	3	-1	-2	-5	-10	-16	-22

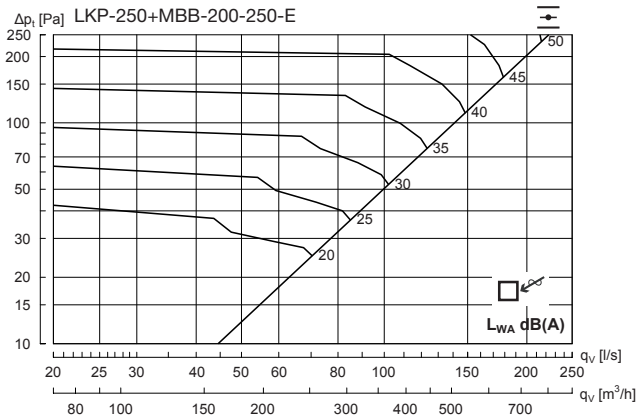
Integra - Ceiling diffuser LKP

Technical data

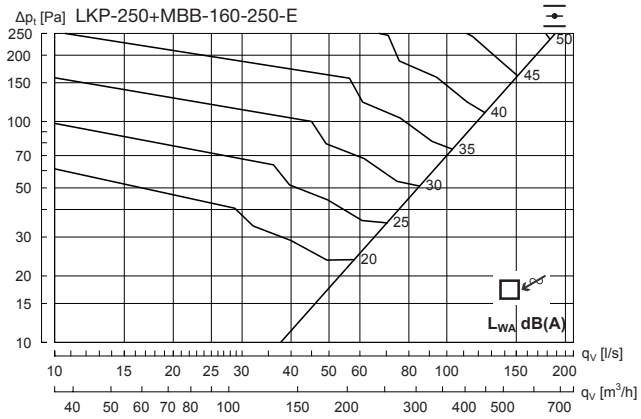
LKP 250 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	4	1	-2	-5	-11	-17	-25

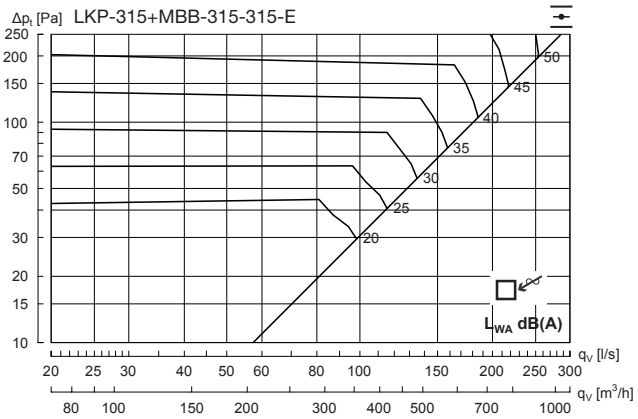


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	14	4	0	-2	-6	-11	-16	-25

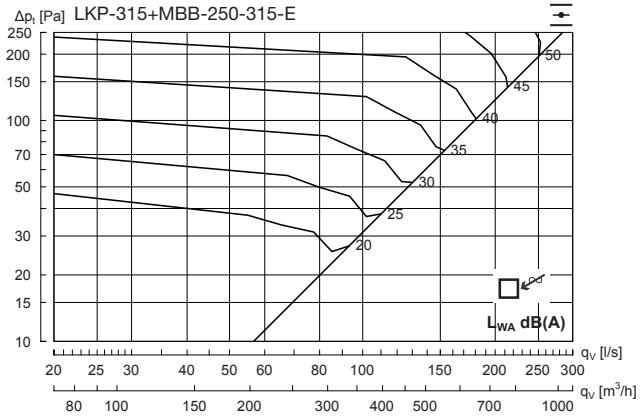


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	19	6	-1	-4	-5	-12	-18	-26

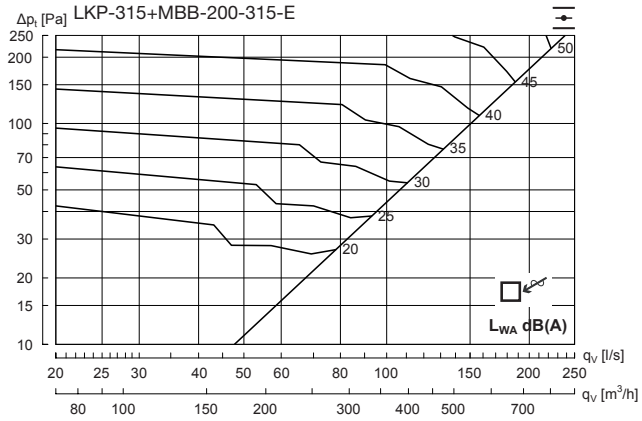
LKP 315 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	4	2	-3	-6	-9	-18	-27



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	5	2	-3	-6	-10	-17	-24



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	14	5	0	-3	-5	-10	-16	-25

Lindab reserves the right to make changes without prior notice
2022-11-04

Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

Lindab | For a better climate