

# Versio

# GS23



GS23 with grille box type V

## Description

GS23 is a square diffuser with an aluminium grid. GS23 is used for extract. Installing a GS23-V diffuser in a plenum box type MB can help to achieve a stable flow of air to the diffuser as well as achieving the option for individual adjustment of air flow.

Damper type B-E is an unique linear cone damper which allows to use the full operational area (0-100%) and allows to balance with a high pressure drop over the box with low sound generation.

Damper type E has a rotating blade damper for extract air. Used for applications that don't require a high balancing pressure in the plenum box.

- High capacity
- Can be installed with a plenum box with several damper options

## 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.

## Order code

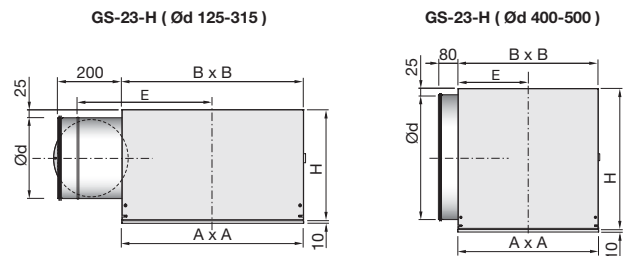
<b>Product</b>	GS	23	b	E	d	eee	f
<b>Type</b>	GS						
<b>Design</b>		23					
<b>Box type</b>			V - H - R				
<b>Functional use</b>				E = Extract			
<b>Damper</b>							
0 = No damper	(Box				: H, V)		
1 = Damper	(Box				: H, R)		
2 = Damper / Meas.outlets	(Box				: H)		
<b>Connection dim.</b>							
Ø160-315	(Box				: V)		
Ø125-500	(Box				: H)		
200x100 - 500x100	(Box				: R)		
<b>Ceiling system</b>							
1 - 14							Go to chapter Ceiling tile adaption

Example: GS-23-V-E-0-200-1



GS23 with plenum box type H

## Dimensions



GS23-H	Ød	Pattern	A mm	B mm	H mm	E mm	m kg
	125	300	**-	380	215	350	5.9
	160	400	**-	380	250	350	5.9
	200	500	**-	460	290	390	8.5
	250	600	**-	560	340	420	12.3
	315	600	**-	560	405	420	13.1

GS23-H	Ød	Pattern	A mm	B mm	H mm	E mm	m kg
	400*	600	**-	562	460	281	10,1
	500*	600	**-	562	560	281	11

\* GS23-H Ød = 400 / 500 => 0 = No damper.

\*\* Face plate dimension A x A depends on ceiling system. See "**Ceiling adjustment**" for detailed dimensions. For further details on plenum box, see "**Plenum boxes**".

## Materials and finish

### Grille box/plenum box:

Material: Galvanised steel

### Face plate:

Material: Galvanised steel

Grid: Aluminium

Standard finish: Powder-coated

Standard colours: RAL 9003 and RAL 9010, gloss 30

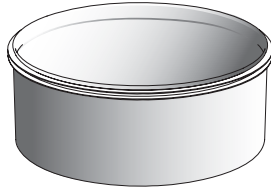
The diffuser is available in other colours. Please contact Lindab's sales department for further information.

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## Accessories

### Extension piece



**MBZ**

### Order code

**Product** \_\_\_\_\_ **MBZ** **aaa**  
 Type \_\_\_\_\_  
 Size \_\_\_\_\_

Example: MBZ-200

### Mounting bracket



**PBB**

### Suspension



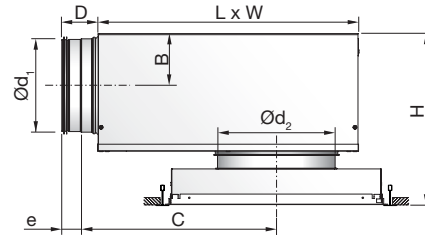
**MHS**

### Order code

**Product** \_\_\_\_\_ **aaa**  
 Type \_\_\_\_\_

Example: MHS

## GS23-V + MB plenum box



Ød <sub>1</sub> mm	Ød <sub>2</sub> mm	Pattern	B	C	D	e	H*	L	W
100	160	300	62	245	78	40	255 - 295	310	260
125	160	300	75	291	78	40	280 - 320	376	310
125	200	400	75	291	78	40	280 - 320	376	310
160	160	300	92	352	78	40	314 - 354	459	380
160	200	400	92	352	78	40	314 - 354	459	380
160	250	500	92	352	78	40	314 - 354	459	380
200	200	400	112	425	78	40	355 - 395	565	460
200	250	500	112	425	78	40	355 - 395	565	460
200	315	600	112	425	78	40	355 - 395	565	460
250	250	500	137	514	118	60	405 - 445	698	540
250	315	600	137	514	118	60	405 - 445	698	540
315	315	600	170	675	118	60	470 - 510	858	540

\* Using accessory MBZ the H dimension will increase:

Ød<sub>2</sub> = 160 - 200 mm => H +40 mm  
 Ød<sub>2</sub> = 250 - 315 mm => H +60 mm

## Damper options



## Order code

**Product** \_\_\_\_\_ **MB** **a** **bbb** **ccc** **S**  
**Type** \_\_\_\_\_  
 MB  
**Damper** \_\_\_\_\_  
 B = Linear cone damper  
 E = Blade damper extract  
**Duct connection Ød<sub>1</sub>** \_\_\_\_\_  
 Ø100-315  
**Diffuser dimension Ød<sub>2</sub>** \_\_\_\_\_  
 Ø160-315  
**Function (Only for B damper)** \_\_\_\_\_  
 E = Extract

Example 1: GS-23-V-E-0-200-1+MBB-160-200-E

Example 2: GS-23-V-E-0-200-1+MBE-160-200

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## Technical data

Following GS23-V+plenum box data are valid for MBB-E .  
**For MBE data, go to [www.lindQST.com](http://www.lindQST.com) .**

### Capacity

Air flow  $q_v$  [l/s] and [m<sup>3</sup>/h], total pressure  $\Delta p_t$  [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.

### Sound attenuation

Sound attenuation of the diffusers  $\Delta L$  from duct to room, including end reflection - see table below.

#### GS23-H-2

GS23-H Size Ød mm	Centre frequency Hz							
	63	125	250	500	1K	2K	4K	8K
125	17	16	5	9	10	4	5	5
160	16	14	3	11	11	4	4	4
200	15	9	2	11	7	4	4	6
250	14	8	3	9	4	3	4	6
315	12	6	4	10	3	3	4	6

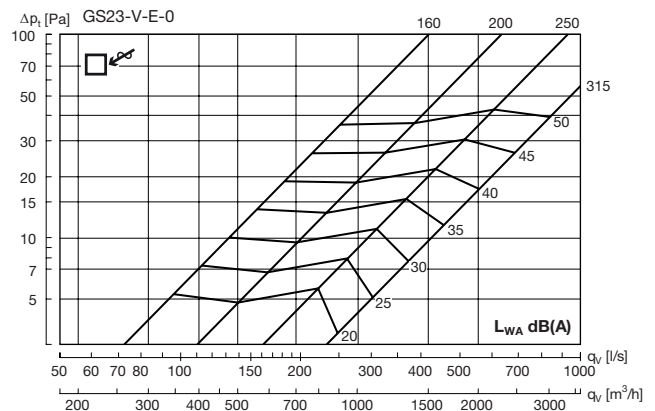
#### GS23-H-0

GS23-H Size Ød mm	Centre frequency Hz							
	63	125	250	500	1K	2K	4K	8K
160	17	11	5	6	9	4	3	3
200	18	6	3	6	7	3	4	4
250	14	6	4	11	5	4	3	3
315	10	6	6	10	4	2	4	4
400	10	4	6	6	4	3	3	3
500	9	4	5	5	3	2	3	3

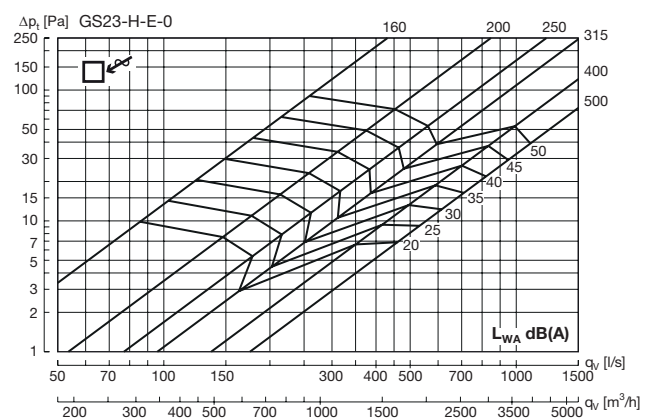
#### GS23-V + MBB-E

GS23-V + MBB-E		Centre frequency Hz							
duct Ød <sub>1</sub>	GS23-V Ød <sub>2</sub>	63	125	250	500	1K	2K	4K	8K
100	160	20	16	5	19	20	19	18	21
125	160	16	13	9	20	18	18	19	20
125	200	14	12	6	17	16	16	18	19
160	160	17	16	10	24	20	20	21	21
160	200	15	15	7	22	21	19	20	21
160	250	15	14	5	20	16	16	17	19
200	200	14	11	7	18	21	17	20	18
200	250	13	9	5	17	18	16	18	17
200	315	13	8	3	15	17	15	17	16
250	250	15	8	7	18	18	18	18	19
250	315	15	7	6	16	16	17	17	18
315	315	8	11	8	16	18	17	17	22

#### GS23-V without plenum box - Extract air



#### GS23-H without damper - Extract air



### Installation -and balancing instruction

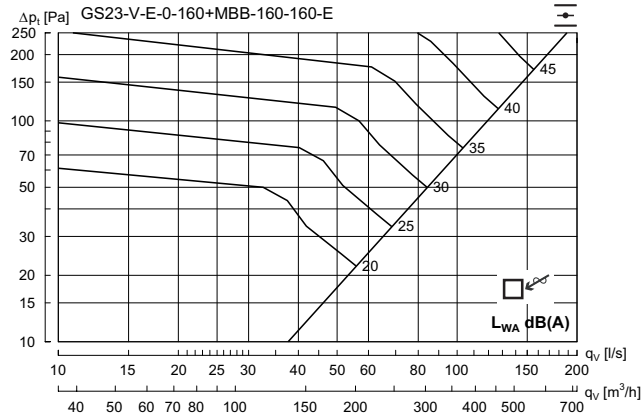
For further information go to [www.lindQST.com](http://www.lindQST.com) and installation -and balancing instruction.

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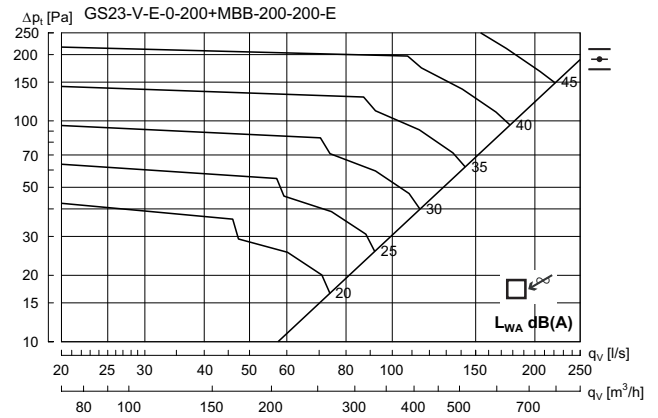
## Technical data

### GS23-V 160 + MBB-E - Extract air

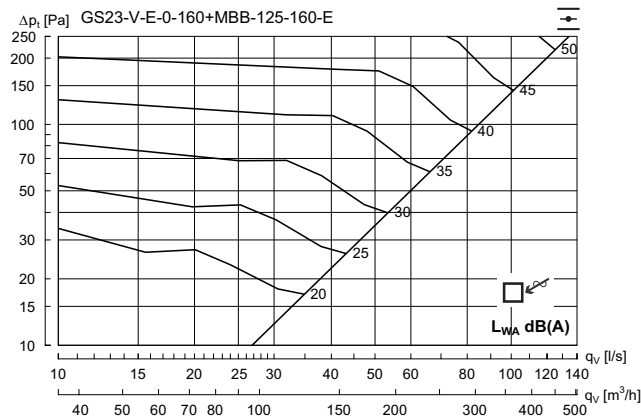


Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	15	5	0	-3	-6	-9	-14	-19

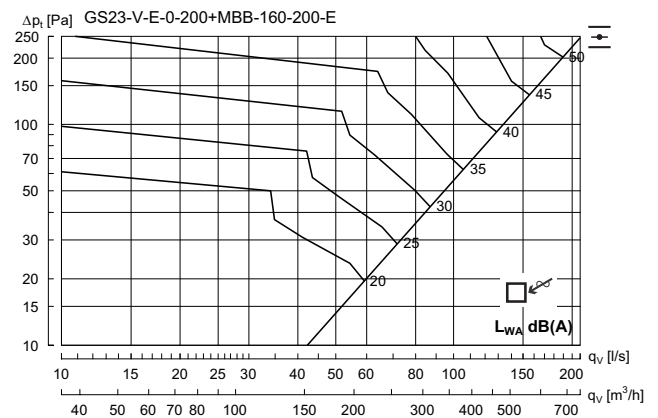
### GS23-V 200 + MBB-E - Extract air



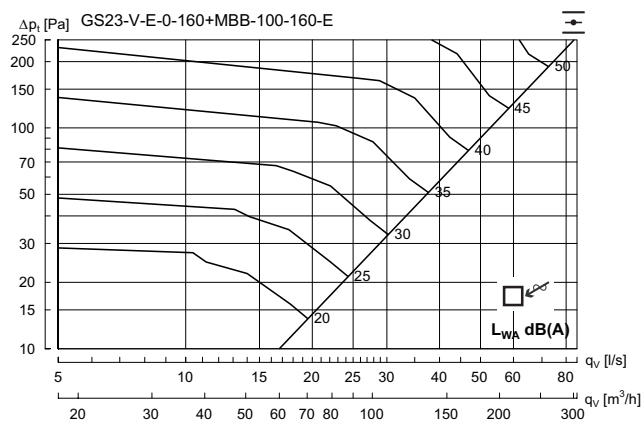
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	14	5	1	-3	-6	-9	-13	-21



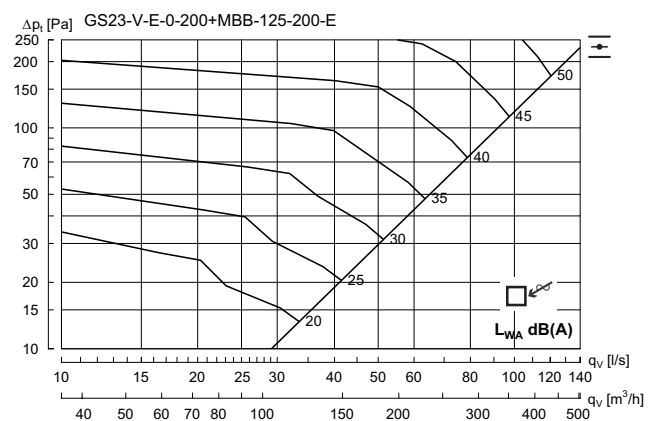
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	11	5	1	-2	-6	-11	-15	-22



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	14	5	0	-3	-6	-9	-14	-21



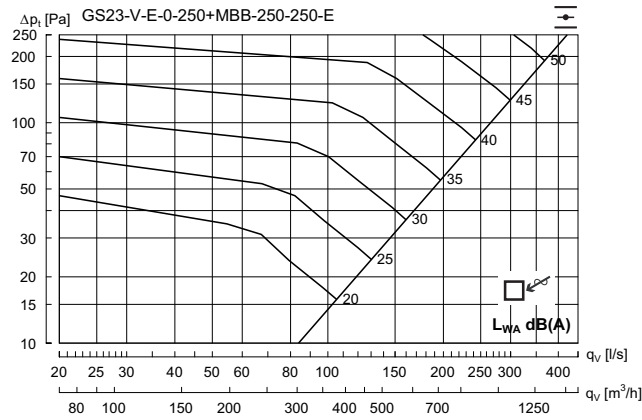
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	8	4	4	-2	-8	-12	-16	-23



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	9	4	1	-1	-6	-11	-15	-22

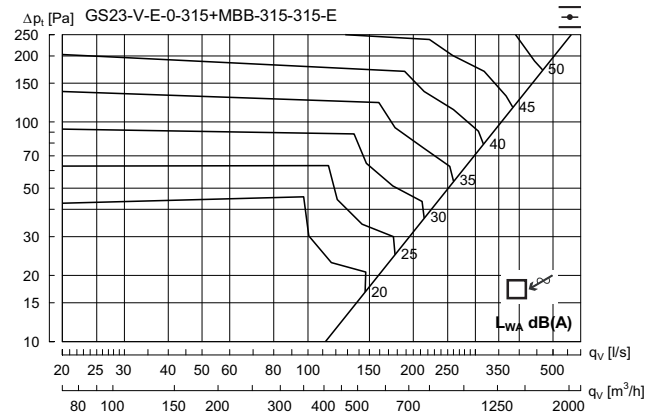
## Technical data

### GS23-V 250 + MBB-E - Extract air

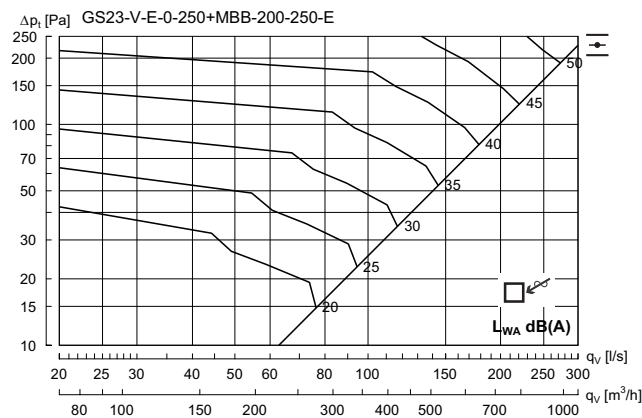


Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	10	5	2	-3	-6	-9	-15	-23

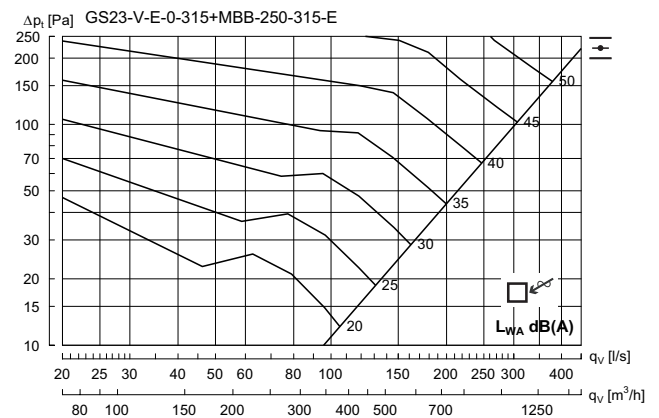
### GS23-V 315 + MBB-E - Extract air



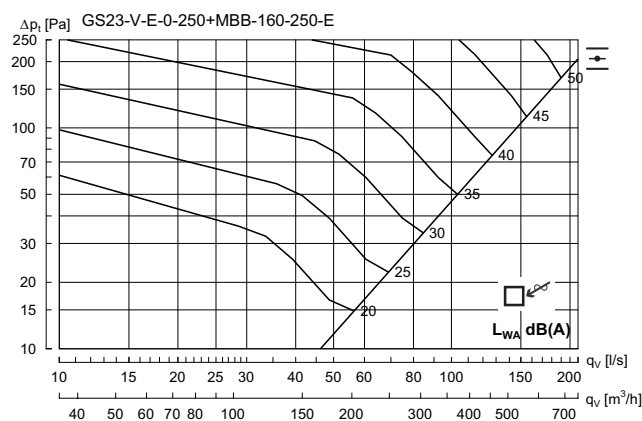
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	11	5	3	-4	-7	-9	-14	-25



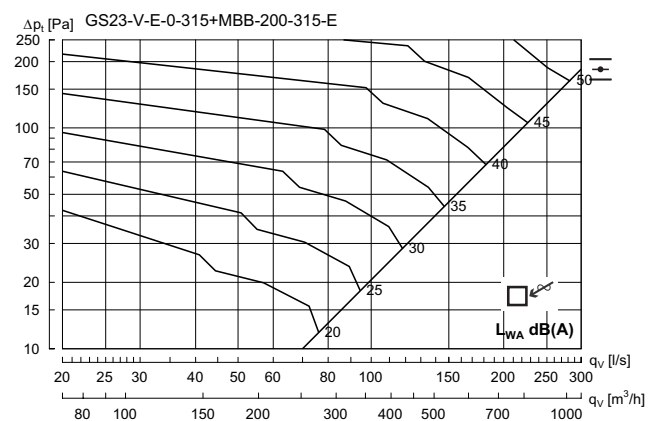
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	13	5	1	-3	-6	-10	-14	-22



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	11	5	2	-3	-6	-10	-15	-24



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	13	5	1	-3	-6	-9	-14	-22



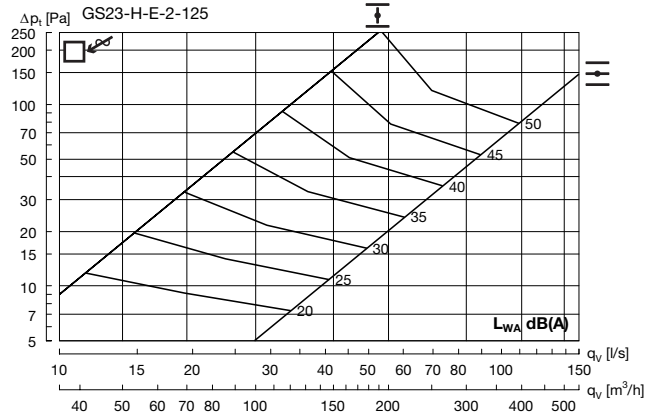
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	13	5	1	-3	-6	-9	-14	-22

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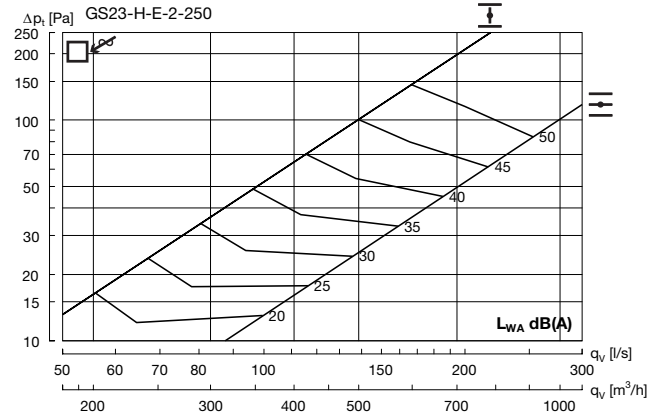
## Technical data

### Extract with plenum box type H

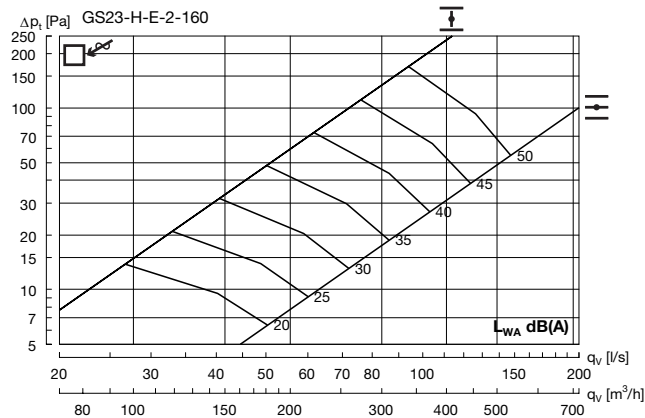


Hz	63	125	250	500	1K	2K	4K	8K
$K_{ek}$	4	4	5	-3	-9	-11	-18	-25

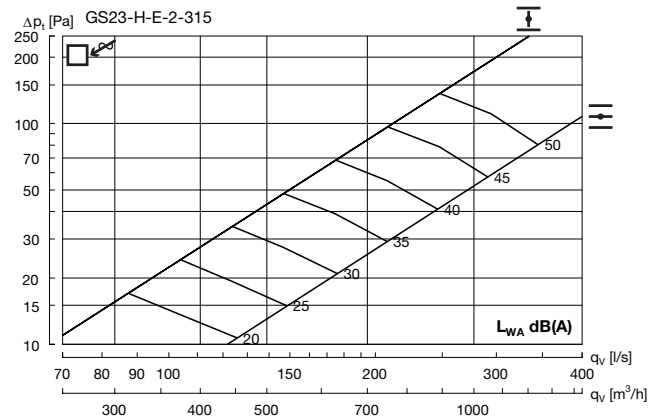
### Extract with plenum box type H



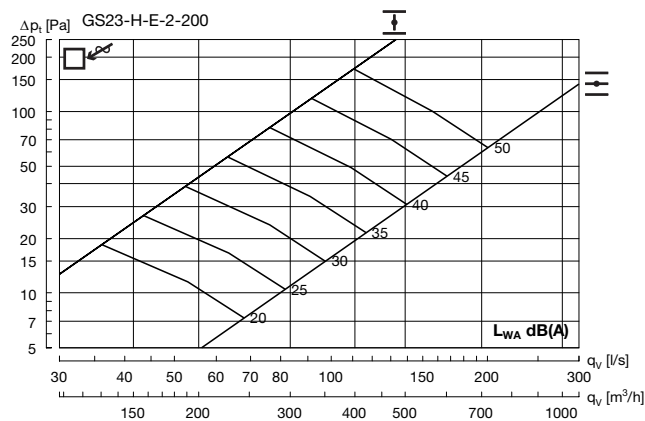
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ek}$	3	6	2	-2	-6	-12	-21	-32



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ek}$	6	4	6	-3	-10	-13	-20	-29



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ek}$	10	6	2	-3	-5	-11	-20	-31



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ek}$	8	5	4	-2	-8	-11	-19	-24