

# Plain diffuser

LCS



## Description

LCS is a circular diffuser with integrated box for visible installation. The diffuser has an unperforated face plate and can be used for both supply and extract air.

The diffuser has a built-in damper and a measuring device for individual adjustment. LCS is equipped with a M8 threaded rod at the top for suspending the diffuser.

The diffuser is suitable for the horizontal supply of cooled air, where high impulse is required.

- Can be used for both supply and extract air before the diffuser.
- Can be connected regardless of straight ducting
- Supplied with integrated M8 rivet nut for suspension
- Detachable damper for cleaning of duct
- High impulse

## Maintenance

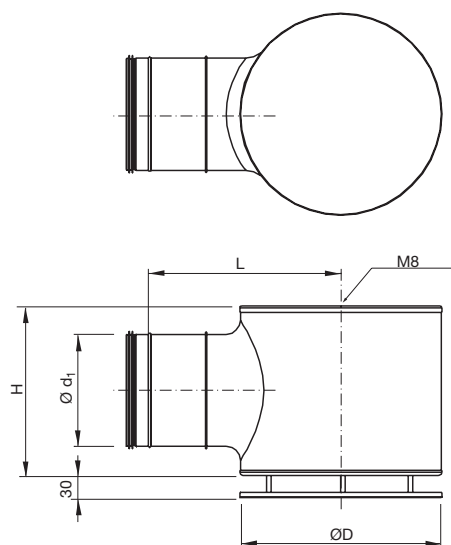
The face plate can be detached and the damper removed to enable cleaning of the internal parts or the duct. The visible parts of the diffuser can be wiped with a damp cloth.

## Order code

<b>Product</b>	<b>LCS 2</b>	<b>aaa</b>	<b>A</b>
<b>Type</b>			
LCS 2			
<b>Size</b>			
Ø125-315			
<b>Version</b>			
A			

Example: LCS 2 - 160 - A

## Dimensions



Size mm	ØD mm	Ød <sub>1</sub> mm	L mm	H mm	Weight kg
125	240	125	340	215	3.4
160	300	160	360	260	4.6
200	360	200	390	300	6.90
250	460	250	420	350	9.6
315	540	315	460	420	11.4

## Materials and finish

Material:	Galvanised steel
Standard finish:	Powder-coated
Standard colour:	White, RAL 9003 or 9010, gloss 30

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

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## Technical data

### Capacity

Volume 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 effect level

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

### Quick selection

#### Supply air

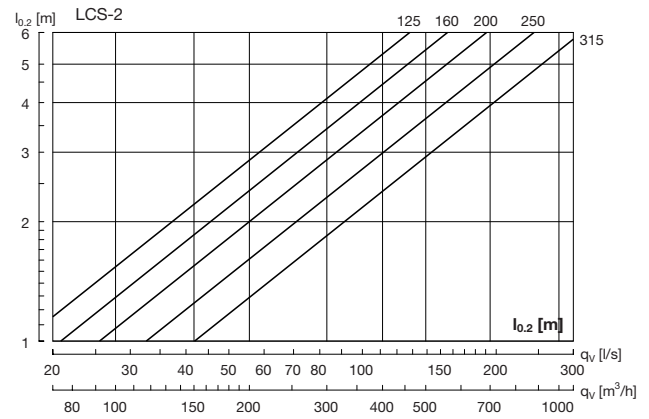
Size	Minimum $P_i=5 Pa$		$p_t=50 Pa$ $L_{WA}=30dB(A)$		$p_t=50 Pa$ $L_{WA}=35dB(A)$	
	l/s	m <sup>3</sup> /h	l/s	m <sup>3</sup> /h	l/s	m <sup>3</sup> /h
125	18	65	33	119	42	151
160	30	108	53	191	63	227
200	44	158	68	245	84	302
250	69	248	105	378	132	475
315	88	317	-	-	181	652

#### Extract

Size	Minimum $P_i=5Pa$		$P_t=50 Pa$ $L_{WA}= 30 dB(A)$		$P_t=50 Pa$ $L_{WA}= 35 dB(A)$	
	l/s	m <sup>3</sup> /h	l/s	m <sup>3</sup> /h	l/s	m <sup>3</sup> /h
125	18	66	33	117	43	156
160	30	107	43	156	65	235
200	44	157	67	242	101	362
250	69	248	125	448	147	530
315	88	316	151	543	186	668

## Throw $l_{0.2}$

The throw is specified at a terminal velocity of 0.2 m/s.



## Sound attenuation

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

Size	Centre frequency Hz							
	63	125	250	500	1K	2K	4K	8K
125	19	14	7	19	12	15	14	20
160	14	10	6	15	14	14	14	17
200	14	10	11	10	17	12	15	18
250	20	16	15	20	15	12	16	19
315	17	14	14	17	13	12	15	18

## Balancing

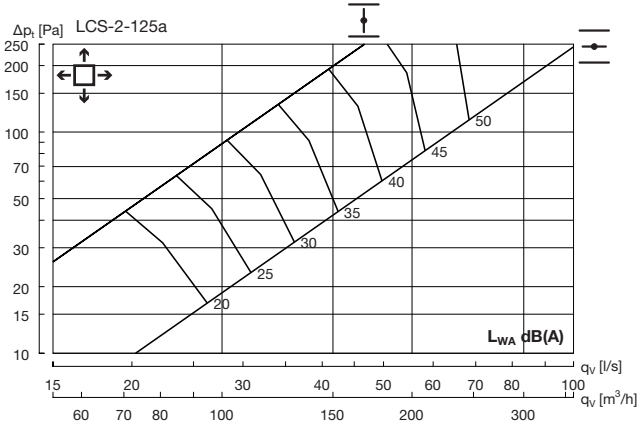
Balancing data is contained in a separate brochure.

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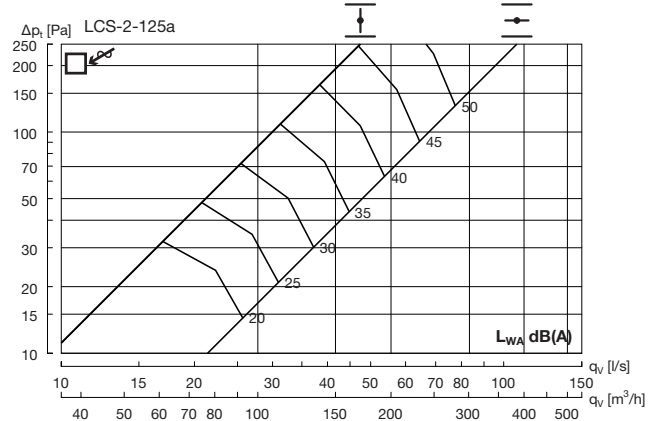
## Technical data

### Supply air

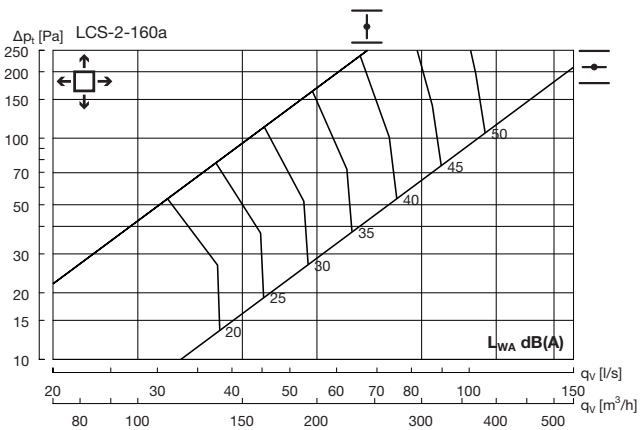


Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	7	4	1	-3	-4	-12	-17	-17

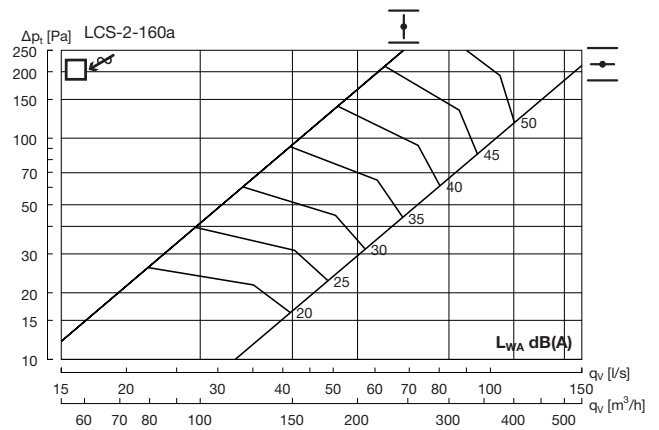
### Extract air



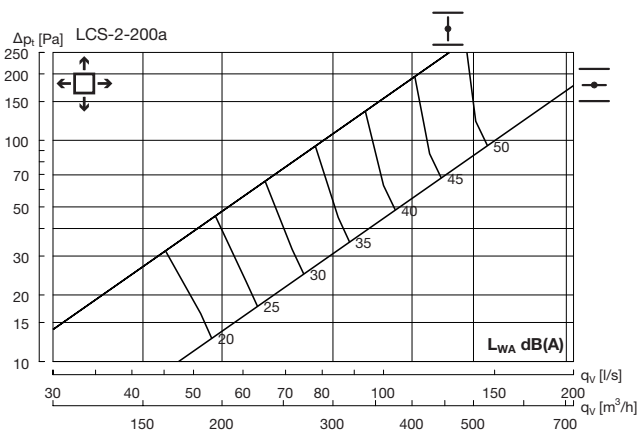
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	7	4	3	-4	-6	-11	-14	-16



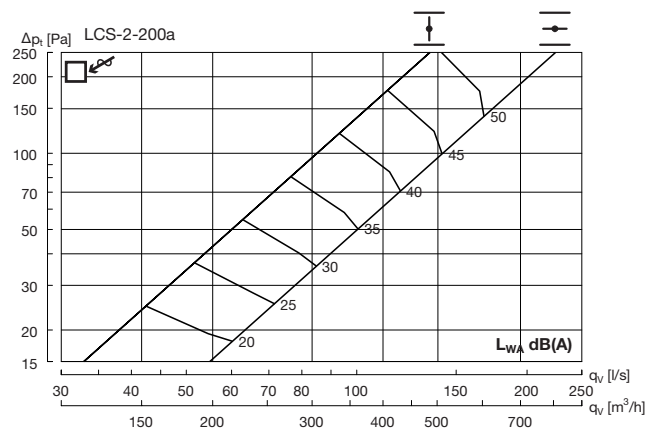
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	9	6	0	-2	-5	-12	-16	-16



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	10	7	2	-5	-6	-11	-14	-15



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	6	3	-2	-2	-4	-11	-19	-20



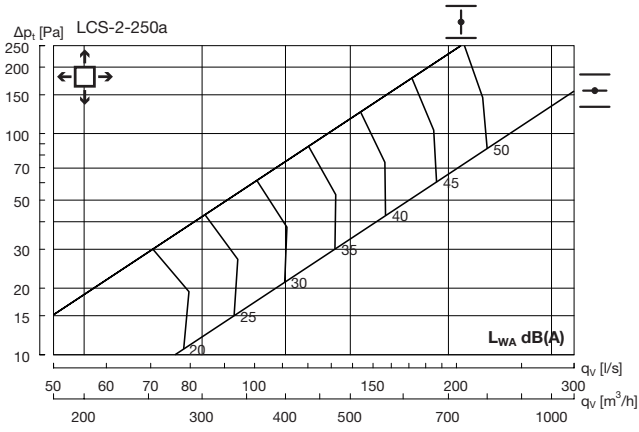
Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	7	3	-2	-3	-5	-9	-15	-20

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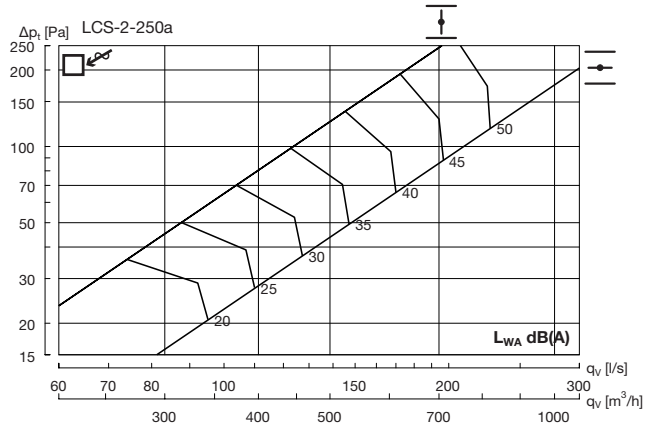
## Technical data

### Supply air

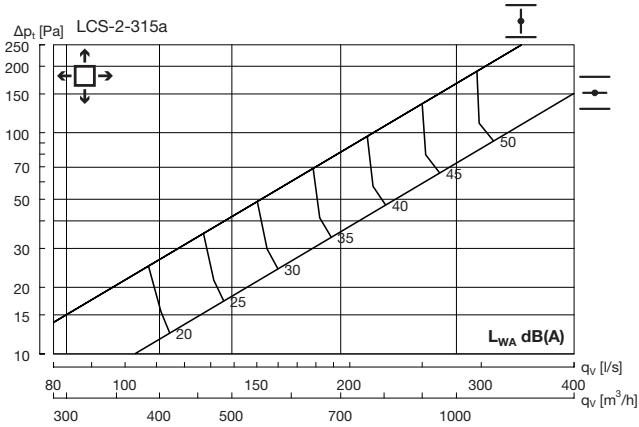


Hz	63	125	250	500	1K	2K	4K	8K
$K_{\alpha}$	5	2	-3	-2	-4	-11	-18	-19

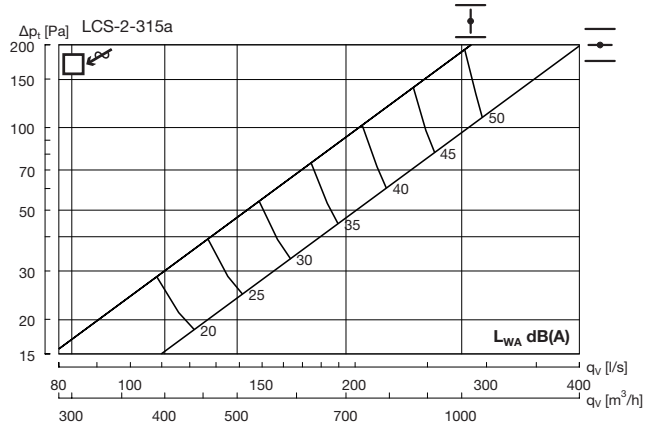
### Extract air



Hz	63	125	250	500	1K	2K	4K	8K
$K_{\alpha}$	7	4	-1	-3	-5	-10	-15	-17



Hz	63	125	250	500	1K	2K	4K	8K
$K_{\alpha}$	4	1	-3	-2	-3	-11	-19	-22



Hz	63	125	250	500	1K	2K	4K	8K
$K_{\alpha}$	6	3	-1	-2	-4	-12	-19	-18