

# Lindab **RS16**

Versio - Ceiling diffusers



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# RS16



RS16 with grille box type V.

## Description

RS16 is a square swirl diffuser with adjustable bars that can be used for both supply air and extract. The swirl pattern ensures high induction and a large dynamic range, and is therefore ideal for the horizontal supply of very cold air. For extract, the diffuser is supplied as standard without bars.

- High capacity
- Large dynamic range
- High induction
- Ideal for the supply of very cold air
- Can be used for both supply air and extract
- Plenum box with several damper options

## Order code

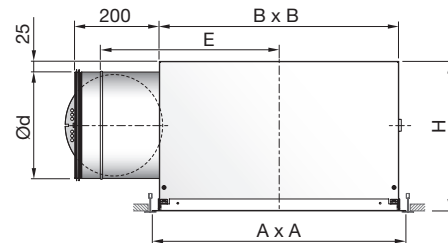
<b>Product</b>	RS	16	b	c	d	eee	f
<b>Type</b>	RS						
<b>Design</b>	16						
<b>Box type</b>	V - H - R						
<b>Functional use</b>	S = Supply air E = Extract						
<b>Damper</b>	0 = No damper (Box : H, V) 1 = Damper (Box : H, R) 2 = Damper / Meas.outlets (Box : H)						
<b>Connection dim.</b>	Ø315 (Box : V) Ø250-315 (Box : H) 500x100 (Box : R)						
<b>Ceiling system</b>	1 - 14	Ceiling systems, see <a href="#">ceiling tile adaption</a>					

Example: RS-16-V-S-0-315-1



RS16 with plenum box type H.

## Dimensions



### RS16-H

Ød mm	Pattern	A	B	H	E	m kg
250	600	*595	562	351	420	12.3
315	600	*595	562	416	420	13.1

\* Face plate dimensions A x A shown in table above are valid for ceiling type 1, T24/T15. The A x A dimension depends on ceiling system. See [Ceiling tile adjustment](#) for detailed dimensions. For further details on plenum boxes, see the following pages. Configure your RS16 in the Lindab [airborne calculator](#).

## 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/plenum box:

Material: Galvanised steel

### Face plate:

Material: Galvanised steel

Bars: Black ABS-plastic

Standard finish: Powder-coated

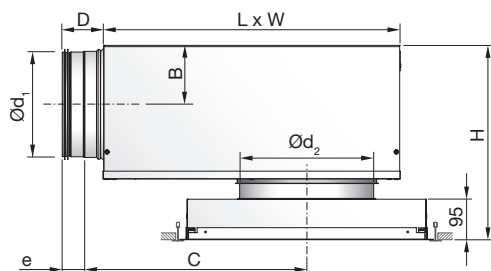
Standard colours: RAL 9003 and RAL 9010, gloss 30.

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

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## RS16-V + MB plenum box



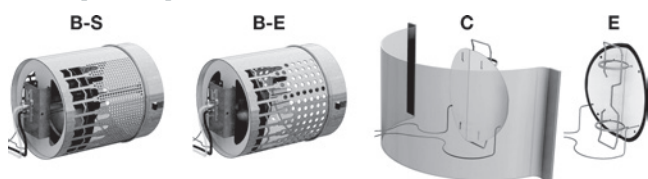
Ød <sub>1</sub> mm	Ød <sub>2</sub> mm	Pattern	B	C	D	e	H*	L	W
mm									
200	315	600	112	425	78	40	347 - 387	565	460
250	315	600	137	514	118	60	397 - 437	698	540
315	315	600	170	675	118	60	462 - 502	858	540

\* Using accessory MBZ the H dimension will increase:

Ød<sub>2</sub> = 200 mm => H +40 mm

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

## Damper options



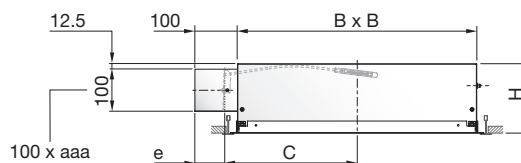
## Order code

<b>Product</b>	MB	a	bbb	ccc	d
<b>Type</b>	MB				
<b>Damper</b>					
B = Linear cone damper					
C = Blade damper supply					
E = Blade damper extract					
<b>Duct connection Ød<sub>1</sub></b>					
Ø200-315					
<b>Diffuser dimension Ød<sub>2</sub></b>					
Ø315					
<b>Function (Only for B damper)</b>					
S = Supply air					
E = Extract					

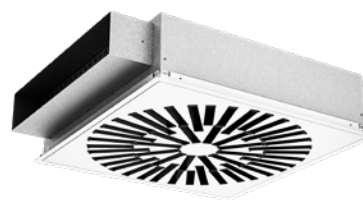
Example 1: RS-16-V-S-0-315-1+MBB-250-315-S

Example 2: RS-16-V-S-0-315-1+MBC-250-315

## RS16 + R plenum box



aaa x 100 mm	Pattern	B	C	H	e
mm					
500 x 100	600	562	311	161	70



## Accessories

### MBZ - Extension piece



## Order code

<b>Product</b>	MBZ	aaa
<b>Type</b>		
<b>Size</b>		

Example: MBZ-200

### PBB - Mounting bracket (set)



### MHS - Suspension



## Order code

<b>Product</b>	aaa
<b>Type</b>	

Example: MHS

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## Technical data

Following RS16-V+plenum box data are valid for MBB-S/-E. For MBC and MBE data, go to LindQST [airborne calculator](#) .

## 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.

## Quick selection, supply air

### RS16-V + MBB-S

RS16-V + MBB-S		$\Delta p_t \geq 50$ Pa 30 dB(A)		$\Delta p_t \geq 50$ Pa 35 dB(A)	
Duct $\varnothing d_1$	RS16-V $\varnothing d_2$	l/s	m <sup>3</sup> /h	l/s	m <sup>3</sup> /h
200	315	99	356	131	472
250	315	126	454	160	576
315	315	155	558	185	666

### RS16 + H

RS16 + H Size $\varnothing d$ mm	Minimum		$\Delta p_t \geq 50$ Pa 30 dB(A)		$\Delta p_t \geq 50$ Pa 35 dB(A)	
	l/s	m <sup>3</sup> /h	l/s	m <sup>3</sup> /h	l/s	m <sup>3</sup> /h
250	71	254	-	-	112	403
315	95	342	-	-	174	626

## Sound attenuation

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

### RS16-V + MBB-S/-E

RS16-V + MBB-S/-E		Centre frequency Hz							
Duct $\varnothing d_1$	RS16-V $\varnothing d_2$	63	125	250	500	1K	2K	4K	8K
200	315	13	9	3	16	16	15	17	16
250	315	12	7	5	17	16	17	17	18
315	315	8	10	8	17	18	17	18	23

### RS16 + H

RS16-H	Centre frequency Hz							
Size $\varnothing d$ mm	63	125	250	500	1K	2K	4K	8K
250	13	8	4	8	5	5	7	9
315	12	7	5	11	5	5	6	8

### RS16 + R

RS16 + R	Mean frequency Hz							
Size-2 mm	63	125	250	500	1K	2K	4K	8K
500x100	12	7	2	4	2	5	5	5

## Installation -and balancing instruction

For further information go to [LindQST](#) and get all related documentation, including installation -and balancing instruction.

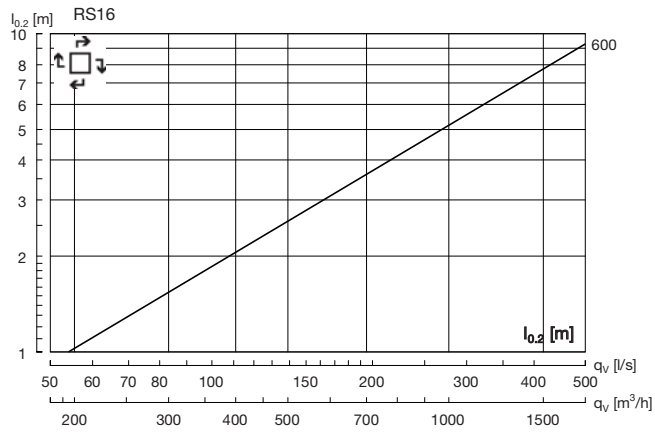
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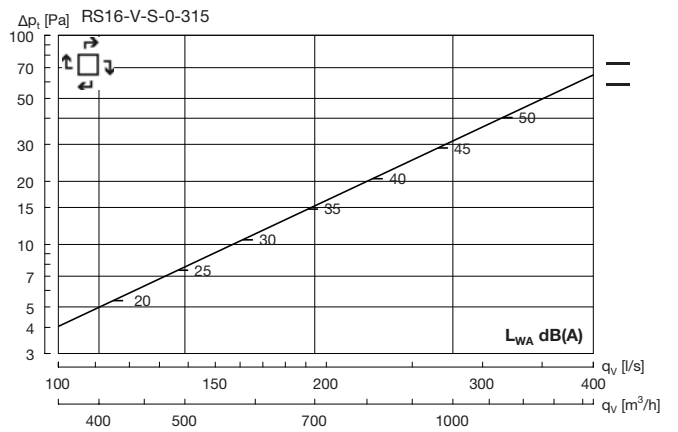
## Technical data

### Throw $l_{0.2}$

Throw  $l_{0.2}$  [m] is specified at a terminal velocity of 0.2 m/s. The designation by the lines specifies the pattern on the face plate.



### RS16-V without plenum box - supply air

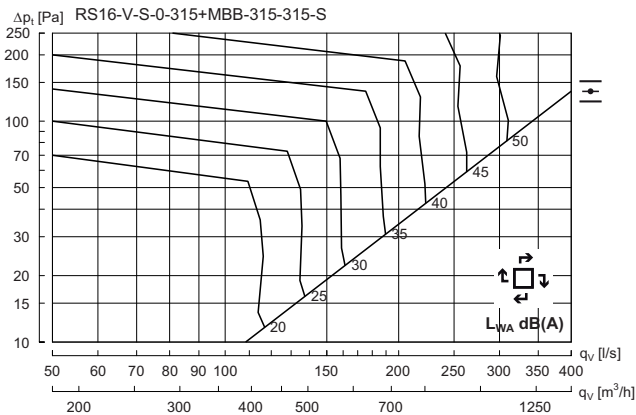


# Versio - Ceiling diffusers

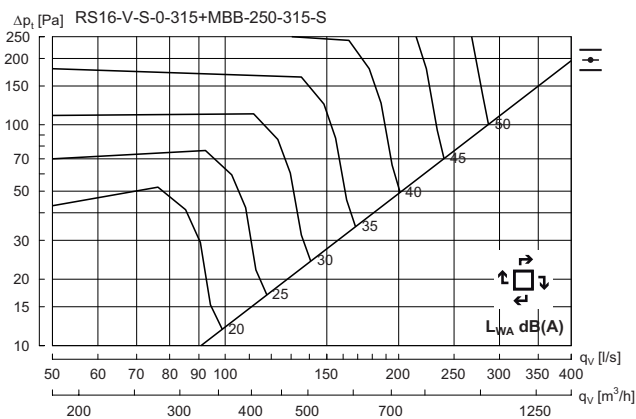
# RS16

## Technical data

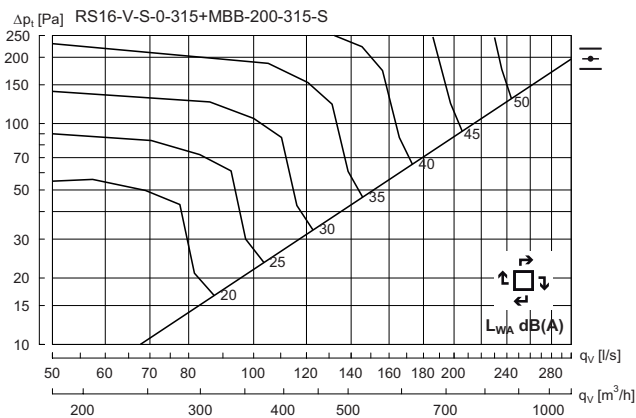
### RS16-V 315 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
$K_{\text{ox}}$	8	1	-1	0	-6	-14	-21	-30



Hz	63	125	250	500	1K	2K	4K	8K
$K_{\text{ox}}$	10	4	-1	-1	-5	-12	-19	-26



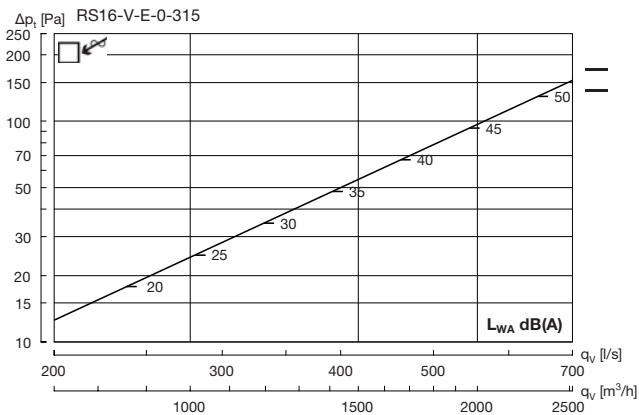
Hz	63	125	250	500	1K	2K	4K	8K
$K_{\text{ox}}$	12	7	-1	-2	-5	-12	-18	-24

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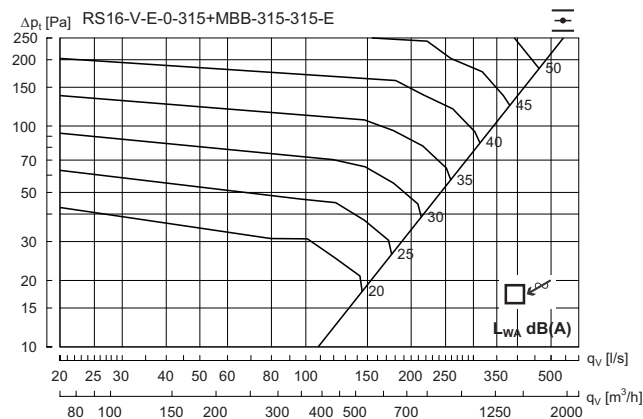
# RS16

## Technical data

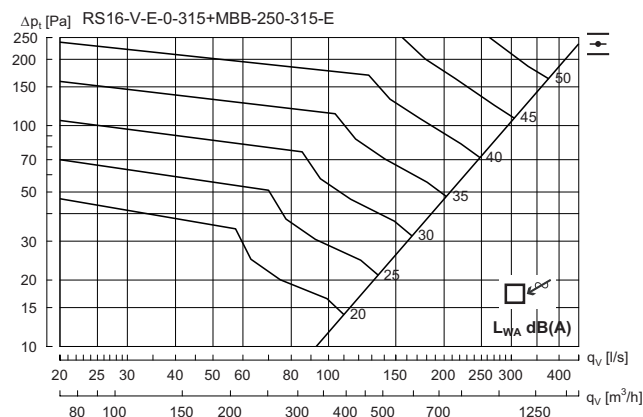
### RS16-V without plenum box-Extract air



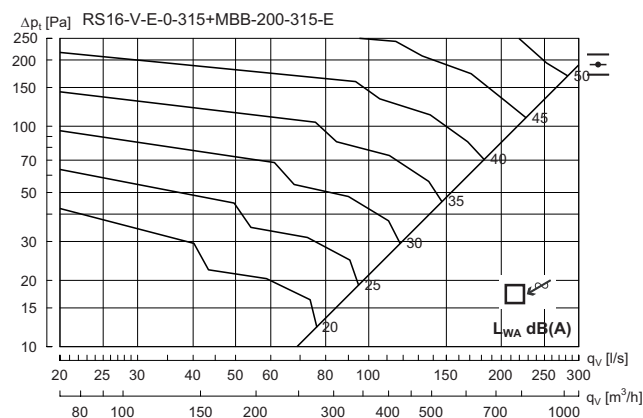
### RS16-V 315 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
$K_{\alpha}$	11	5	3	-4	-6	-9	-15	-26



Hz	63	125	250	500	1K	2K	4K	8K
$K_{\alpha}$	11	6	3	-4	-6	-11	-16	-24



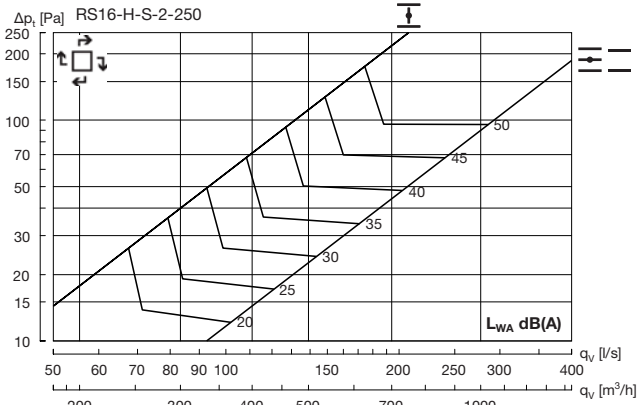
Hz	63	125	250	500	1K	2K	4K	8K
$K_{\alpha}$	14	5	1	-3	-6	-9	-13	-21

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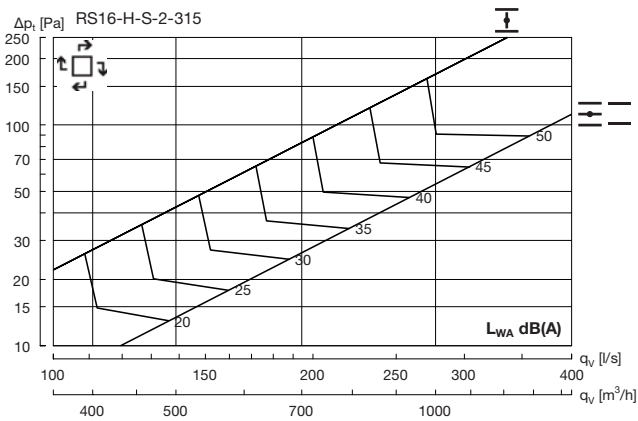
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## Technical data

### RS16 + H - Supply air

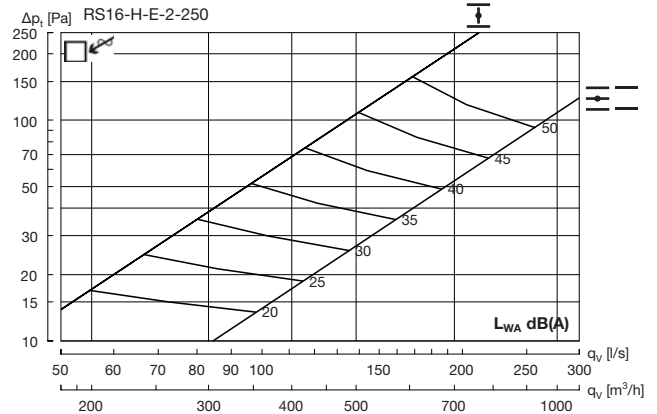


Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	5	5	2	-1	-6	-13	-19	-27

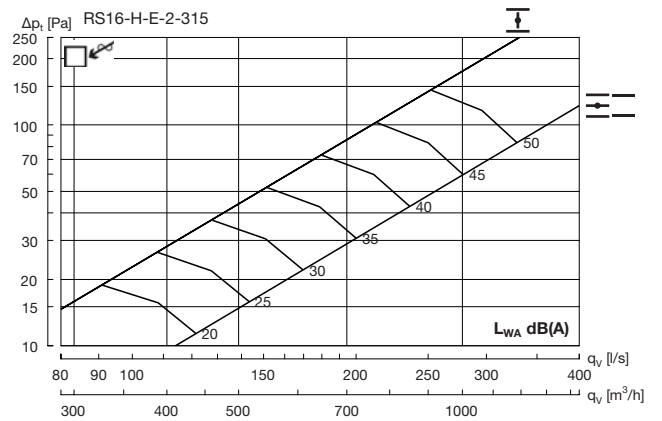


Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	8	5	1	-1	-5	-13	-21	-31

### RS16 + H - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	2	6	3	-2	-7	-12	-21	-30



Hz	63	125	250	500	1K	2K	4K	8K
$K_{ok}$	8	5	2	-2	-5	-12	-21	-32

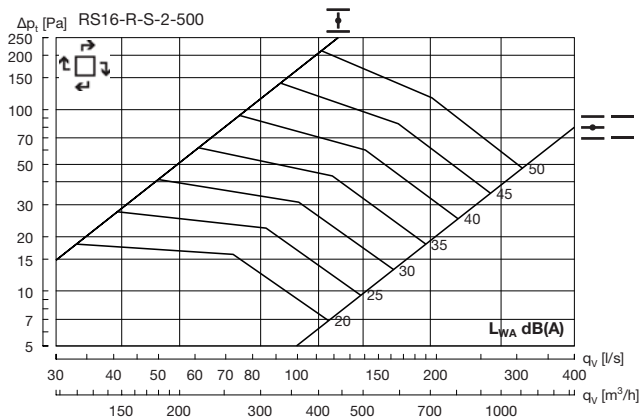


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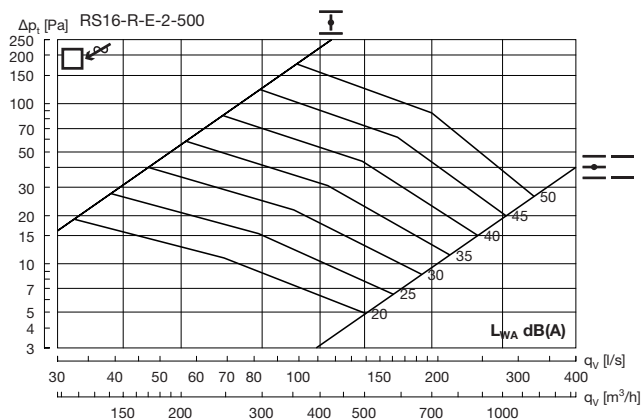
## Technical data

### RS16 + R - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
$K_{sk}$	9	2	3	-1	-8	-12	-21	-28

### RS16 + R - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
$K_{sk}$	8	0	0	-3	-5	-8	-18	-26



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](#)