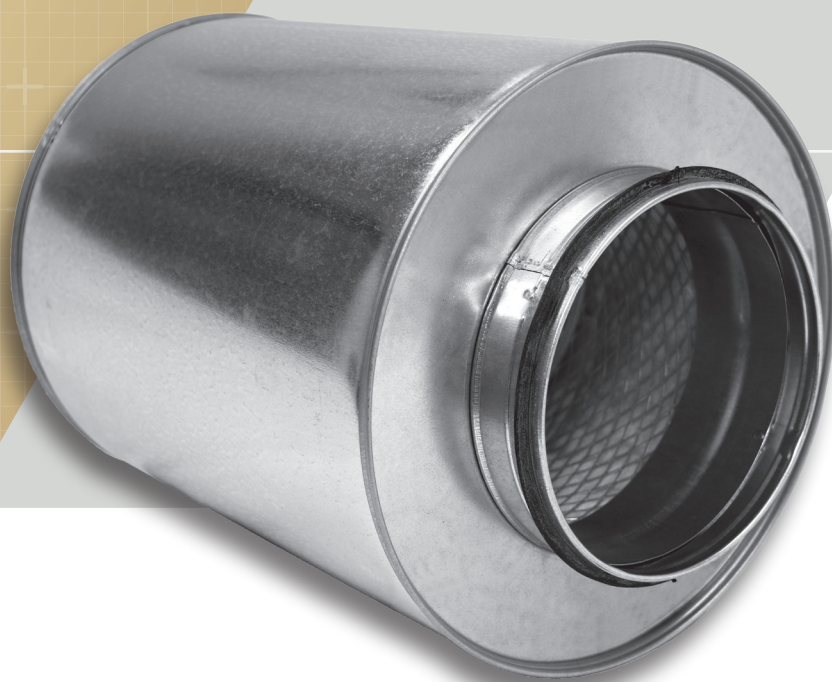


# Round sound absorber BDER

TECHNICAL DATA

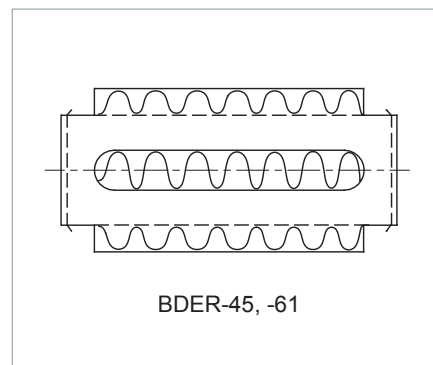
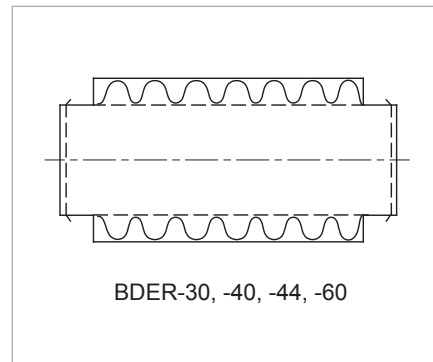




## ROUND SOUND ABSORBER FOR ROUND DUCTS BDER

The sound absorber BDER is used in round general ventilation ducts.

The maximum air velocity through absorbers BDER-30, -40, -44 and -60 is approx. 10 m/s, the recommended velocity rate being less than 5 m/s. With baffle-equipped absorbers BDER-45 and -61, the maximum air velocity before the absorber is 6 m/s (size 031) or 7 m/s (sizes 040 - 063), and the recommended velocity rate through the absorber is 3 or 3.5 m/s respectively.



## SPECIFICATIONS

- Tightness class C (EN 1751)
- Acoustic performance in accordance with ISO 7235
- Polyester absorbers certified for cleanliness class M1
- Made of hot-dip galvanized sheet metal with a Z275 coating, corrosion category C2 (EN-ISO 12944-2)
- Absorbing materials polyester and mineral wool

## PRODUCT CODE EXAMPLE

Sound absorber BDER-30-016-060

## GENERAL AND PRODUCT CODE

### DESCRIPTION

The sound absorber BDER is used in round general ventilation ducts.

<b>BDER-40</b>	straight M1-certified sound absorber with 50 mm polyester fibre filling
<b>BDER-44</b>	straight M1-certified sound absorber with 100 mm polyester fibre filling
<b>BDER-45</b>	straight M1-certified sound absorber with 100 mm polyester fibre filling and a 100 mm baffle
<b>BDER-30</b>	straight sound absorber with 50 mm mineral wool filling, fire resistance class EI 30 *) (RISE 2525/80)
<b>BDER-60</b>	straight sound absorber with 100 mm mineral wool filling, fire resistance class EI 60 *) (RISE 2525/80)
<b>BDER-61</b>	straight sound absorber with 100 mm mineral wool filling and a 100 mm baffle, fire resistance class EI 60 *) (RISE 2525/80)

\*) provided that the safety distance to an escape route and combustible material is at least that specified in the dimension tables (Swedish Fire Regulation BBR 5:6213).

### INSTALLATION, HANDLING AND STORAGE

BDER is a Veloduct component. Please see the installation, handling and storage instructions for the Veloduct / Ekoduct ducting system.

### OPERATION AND MAINTENANCE

The product can be used without any maintenance other than cleaning, which should be done with a nylon brush as part of normal duct cleaning. The frequency of cleaning should be the same as that specified for the entire ventilation system.

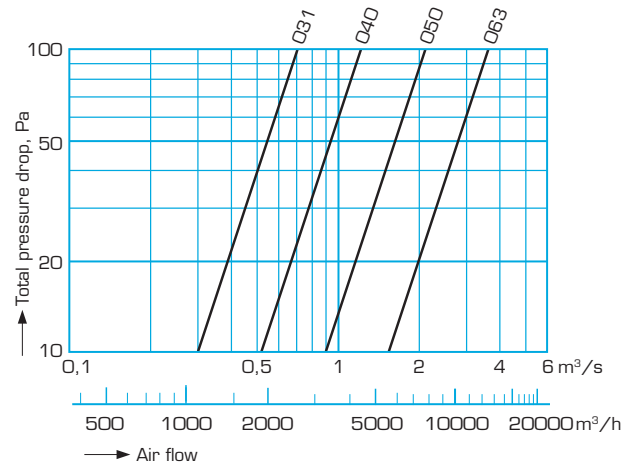
### PACKAGING

Normally packed in cardboard, with the ends covered in plastic. The packaging may vary depending on the number and size of the products ordered.

### DISPOSAL

The metal casings can be recycled as metal, the fillings are landfill waste.

### PRESSURE DROP BDER-45, BDER-61



The pressure drop across other sound absorbers is the same as that of an equivalent length of ducting.

### PRODUCT CODE

Sound absorber

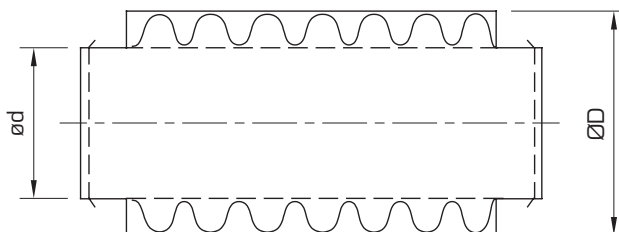
**BDER-aa-bbb-ccc**

Model (aa)

30, 40, 44, 45, 60, 61

Size, cm (bbb)

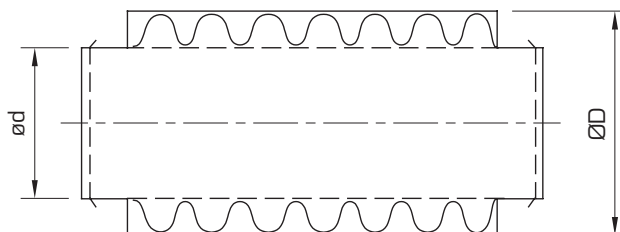
Length, cm (ccc)

**BDER-30****DIMENSIONS AND WEIGHTS**

BDER-30 size - length		Dimensions (mm)			Weight (kg)	EI 30 2,5 kW safety distance
		ød	L	øD		
008	-030	80	300	200	1,7	60
	-060	80	600	200	3,0	60
010	-030	100	300	200	2,0	60
	-060	100	600	200	3,8	60
	-090	100	900	200	5,7	60
	-120	100	1200	200	7,0	80
012	-030	125	300	225	2,1	80
	-060	125	600	225	4,5	80
	-090	125	900	225	6,3	80
	-120	125	1200	225	8,7	80
016	-030	160	300	260	2,9	80
	-060	160	600	260	5,1	80
	-090	160	900	260	7,8	80
	-120	160	1200	260	10,5	100
020	-060	200	600	300	6,2	100
	-090	200	900	300	10,0	100
	-120	200	1200	300	12,0	100
025	-060	250	600	355	7,8	100
	-090	250	900	355	11,5	100
	-120	250	1200	355	14,5	200
031	-060	315	600	415	9,1	200
	-090	315	900	415	13,1	200
	-120	315	1200	415	17,2	220
040	-090	400	900	500	18,3	220
	-120	400	1200	500	23,5	220
050	-090	500	900	630	24,7	220
	-120	500	1200	630	31,2	220

**BDER-30****SOUND ATTENUATION**

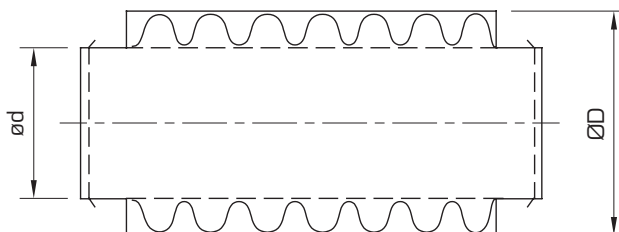
BDER-30 size - length		Attenuation (dB) at octave bands, middle frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
008	-030	6	4	9	20	24	28	35	17
	-060	9	5	13	31	38	41	41	23
010	-030	4	5	8	17	20	26	30	16
	-060	11	7	12	29	37	45	42	23
	-090	11	9	17	39	44	47	45	29
	-120	11	11	21	40	49	48	46	31
012	-030	3	5	6	14	16	21	21	14
	-060	4	7	10	25	30	39	36	19
	-090	6	8	13	35	44	47	45	24
	-120	5	9	17	40	47	48	47	31
016	-030	1	2	4	11	13	20	16	12
	-060	3	5	7	21	24	35	27	17
	-090	6	6	9	30	36	46	33	21
	-120	6	6	12	33	42	45	40	25
020	-060	3	3	6	19	22	30	20	16
	-090	7	5	9	26	29	42	27	20
	-120	7	6	11	34	37	50	33	23
025	-060	7	2	4	15	18	25	17	16
	-090	6	3	6	21	26	34	21	19
	-120	6	4	8	28	34	41	25	22
031	-060	1	2	4	12	16	19	15	14
	-090	3	3	5	18	24	25	17	16
	-120	3	3	7	20	26	30	20	17
040	-090	2	2	6	20	22	21	18	15
	-120	3	2	7	25	29	25	21	17
050	-090	3	1	5	19	19	13	15	11
	-120	3	2	7	23	24	17	17	12
Tolerance ±		6	3	2	2	2	2	2	3

**BDER-40****DIMENSIONS AND WEIGHTS**

BDER-40 size - length		Dimensions (mm)			Weight (kg)
		$\varnothing d$	L	$\varnothing D$	
008	-030	80	300	200	1,4
	-060	80	600	200	2,5
010	-030	100	300	200	2,1
	-060	100	600	200	3,3
	-090	100	900	200	3,7
	-120	100	1200	200	4,7
012	-030	125	300	225	1,9
	-060	125	600	225	3,7
	-090	125	900	225	4,9
	-120	125	1200	225	5,5
016	-030	160	300	260	2,6
	-060	160	600	260	3,6
	-090	160	900	260	5,9
	-120	160	1200	260	6,4
020	-060	200	600	300	5,2
	-090	200	900	300	7,7
	-120	200	1200	300	10,0
025	-060	250	600	355	6,5
	-090	250	900	355	9,9
	-120	250	1200	355	11,9
031	-060	315	600	415	7,6
	-090	315	900	415	10,8
	-120	315	1200	415	14,2
040	-090	400	900	500	15,0
	-120	400	1200	500	18,8
050	-090	500	900	630	20,6
	-120	500	1200	630	25,9

**BDER-40****SOUND ATTENUATION**

BDER-40 size - length		Attenuation (dB) at octave bands, middle frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
008	-030	6	4	9	14	18	22	17	15
	-060	8	7	14	21	27	36	29	22
010	-030	3	5	9	10	14	20	15	13
	-060	12	9	13	18	25	37	27	21
	-090	14	12	18	24	32	43	34	26
	-120	15	14	23	30	39	45	40	30
012	-030	4	5	7	9	13	19	11	12
	-060	3	8	11	16	21	29	18	17
	-090	7	10	15	23	30	39	25	23
	-120	7	11	20	29	37	45	32	27
016	-030	1	2	4	8	12	17	10	11
	-060	3	5	8	13	19	25	16	16
	-090	6	7	11	19	26	32	20	20
	-120	8	8	15	24	32	38	25	22
020	-060	2	4	7	13	16	21	14	16
	-090	7	6	10	18	24	27	17	19
	-120	8	7	13	21	29	32	21	22
025	-060	7	3	5	10	14	17	13	15
	-090	7	4	7	15	21	23	16	19
	-120	7	5	9	20	27	26	19	22
031	-060	1	2	4	9	15	13	10	13
	-090	3	3	6	13	20	18	14	16
	-120	3	4	8	15	24	21	16	17
040	-090	3	3	5	14	18	15	15	15
	-120	3	3	6	18	22	18	17	17
050	-090	4	2	3	13	14	10	13	11
	-120	4	3	5	17	17	12	14	13
Tolerance ±		6	3	2	2	2	2	2	3

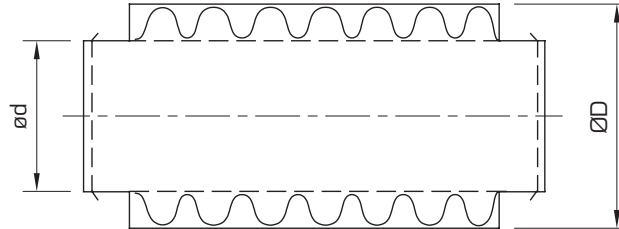
**BDER-44****DIMENSIONS AND WEIGHTS**

BDER-44 size - length		Dimensions (mm)			Weight (kg)
		$\varnothing d$	L	$\varnothing D$	
010	-030	100	300	300	2,6
	-060	100	600	300	4,3
	-090	100	900	300	6,3
	-120	100	1200	300	9,7
012	-030	125	300	315	3,3
	-060	125	600	315	5,6
	-090	125	900	315	7,9
	-120	125	1200	315	10,4
016	-030	160	300	355	3,9
	-060	160	600	355	6,4
	-090	160	900	355	9,4
	-120	160	1200	355	12,0
020	-060	200	600	400	7,5
	-090	200	900	400	10,6
	-120	200	1200	400	13,8
025	-060	250	600	450	8,9
	-090	250	900	450	12,4
	-120	250	1200	450	16,4
031	-060	315	600	515	10,2
	-090	315	900	515	14,4
	-120	315	1200	515	19,1
040	-090	400	900	630	22,4
	-120	400	1200	630	28,0
050	-090	500	900	711	26,0
	-120	500	1200	711	42,6
063	-090	630	900	812	30,5
	-120	630	1200	812	21,4



**BDER-44****SOUND ATTENUATION**

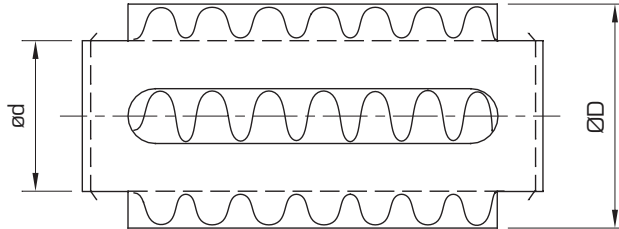
BDER-44 size - length		Attenuation (dB) at octave bands, middle frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
010	-030	13	10	16	19	26	22	23	14
	-060	18	14	20	27	34	34	35	21
	-090	20	19	27	36	45	46	44	27
	-120	17	23	28	36	42	46	45	32
012	-030	3	8	12	18	23	19	16	13
	-060	8	12	16	24	31	30	29	19
	-090	10	16	25	33	43	41	39	25
	-120	12	20	28	36	47	46	44	29
016	-030	2	6	10	17	20	16	13	11
	-060	6	10	13	22	28	25	22	18
	-090	10	13	20	30	39	35	29	21
	-120	11	16	24	36	47	43	37	25
020	-060	8	8	12	22	26	21	18	16
	-090	11	11	18	29	36	29	24	20
	-120	11	14	20	34	43	34	28	22
025	-060	9	6	9	20	21	18	17	17
	-090	10	8	13	27	28	23	20	20
	-120	11	10	15	31	35	27	23	22
031	-060	2	5	9	18	19	14	14	13
	-090	5	7	13	22	25	19	17	16
	-120	5	8	15	20	26	21	19	17
040	-090	4	5	10	24	19	17	18	15
	-120	4	6	12	26	22	19	20	18
050	-090	5	4	8	25	16	12	15	12
	-120	5	6	10	29	18	14	18	14
063	-090	4	3	6	20	12	9	7	6
	-120	5	4	8	23	14	10	8	8
Tolerance ±		6	3	2	2	2	2	2	3

**BDER-60****DIMENSIONS AND WEIGHTSIGHTS**

BDER-60 size - length		Dimensions (mm)			Weight (kg)	EI 30 2,5 kW safety distance	EI 60 2,5 kW safety distance
		ød	L	øD			
010	-030	100	300	300	3,4	0	0
	-060	100	600	300	6,0	0	0
	-090	100	900	300	9,8	0	0
	-120	100	1200	300	12,7	0	100
012	-030	125	300	315	4,1	0	100
	-060	125	600	315	7,9	0	100
	-090	125	900	315	11,6	0	100
	-120	125	1200	315	13,3	0	100
016	-030	160	300	355	4,8	0	100
	-060	160	600	355	8,5	0	100
	-090	160	900	355	12,8	0	100
	-120	160	1200	355	16,0	0	100
020	-060	200	600	400	10,2	0	100
	-090	200	900	400	14,8	0	100
	-120	200	1200	400	19,5	0	100
025	-060	250	600	450	11,7	0	100
	-090	250	900	450	16,8	0	100
	-120	250	1200	450	21,4	0	200
031	-060	315	600	515	13,8	0	200
	-090	315	900	515	21,1	0	200
	-120	315	1200	515	25,8	0	370
040	-090	400	900	630	29,8	0	370
	-120	400	1200	630	35,3	0	370
050	-090	500	900	711	34,5	0	370
	-120	500	1200	711	44,2	0	370
063	-090	630	900	812	38,7	0	370
	-120	630	1200	812	47,7	0	370

**BDER-60****SOUND ATTENUATION**

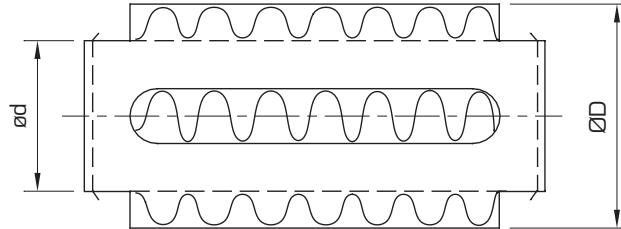
BDER-60 size - length		Attenuation (dB) at octave bands, middle frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
010	-030	10	8	11	14	17	24	29	17
	-060	16	12	20	27	33	43	44	24
	-090	18	16	27	35	44	47	46	27
	-120	18	21	30	36	43	47	45	32
012	-030	3	7	8	12	15	20	22	14
	-060	8	11	15	23	29	38	37	21
	-090	10	14	21	33	42	49	45	26
	-120	13	17	27	39	49	49	48	32
016	-030	2	5	6	9	12	19	17	13
	-060	5	7	13	17	22	33	28	18
	-090	9	10	21	28	34	47	34	21
	-120	11	13	24	34	43	49	42	26
020	-060	7	6	13	17	20	29	21	16
	-090	9	9	20	23	29	43	26	19
	-120	11	11	25	31	36	48	33	23
025	-060	9	4	10	12	15	25	19	17
	-090	8	7	15	19	24	34	22	20
	-120	10	8	19	25	30	38	26	22
031	-060	2	5	8	12	16	19	15	14
	-090	4	6	12	17	23	26	18	16
	-120	5	7	16	19	27	30	21	17
040	-090	4	7	11	19	22	21	19	15
	-120	5	9	15	24	27	25	21	17
050	-090	4	6	8	16	18	15	16	11
	-120	4	8	11	21	23	18	18	13
063	-090	3	3	6	13	13	12	7	7
	-120	5	5	8	16	16	14	9	9
Tolerance ±		6	3	2	2	2	2	2	3

**BDER-45****DIMENSIONS AND WEIGHTS**

BDER-45 size - length		Dimensions (mm)			Weight (kg)
		$\varnothing d$	L	$\varnothing D$	
031	-060	315	600	515	13,0
	-090	315	900	515	18,4
	-120	315	1200	515	24,4
040	-090	400	900	630	27,6
	-120	400	1200	630	34,4
050	-090	500	900	711	32,0
	-120	500	1200	711	40,0
063	-090	630	900	812	35,2
	-120	630	1200	812	44,3

**SOUND ATTENUATION**

BDER-45 size - length		Attenuation (dB) at octave bands, middle frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
031	-060	4	6	11	22	28	25	26	22
	-090	6	10	15	25	34	33	33	26
	-120	8	12	19	22	32	38	39	32
040	-090	5	7	12	29	33	29	27	21
	-120	6	9	16	33	38	32	31	25
050	-090	6	7	10	29	30	24	22	17
	-120	7	8	13	31	30	23	24	19
063	-090	5	4	7	20	21	15	11	11
	-120	5	6	9	24	23	16	13	13
Tolerance $\pm$		6	3	2	2	2	2	2	3

**BDER-61****DIMENSIONS AND WEIGHTS**

BDER-61 size - length		Dimensions (mm)			Weight (kg)	EI 30 2,5 kW safety distance	EI 60 2,5 kW safety distance
		ød	L	ØD			
031	-060	315	600	515	16,6	0	180
	-090	315	900	515	20,5	0	180
	-120	315	1200	515	31,3	180	360
040	-090	400	900	630	33,9	180	360
	-120	400	1200	630	42,7	180	360
050	-090	500	900	711	39,6	180	360
	-120	500	1200	711	53,7	180	360
063	-090	630	900	812	47,2	180	360
	-120	630	1200	812	57,5	180	360

**SOUND ATTENUATION**

BDER-61 size - length		Attenuation (dB) at octave bands, middle frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
031	-060	4	6	12	21	28	36	33	23
	-090	5	9	18	25	35	41	41	27
	-120	7	11	24	25	34	43	44	32
040	-090	5	8	16	27	32	40	28	22
	-120	6	11	20	34	42	44	34	24
050	-090	5	8	11	25	29	30	23	17
	-120	5	10	15	28	32	34	26	18
063	-090	4	4	8	18	21	21	12	11
	-120	5	6	10	21	26	25	15	14
Tolerance ±		6	3	2	2	2	2	2	3

## **EXCELLENCE IN SOLUTIONS**

FläktGroup is the European market leader for smart and energy efficient Indoor Air and Critical Air solutions to support every application area. We offer our customers innovative technologies, high quality and outstanding performance supported by more than a century of accumulated industry experience. The widest product range in the market, and strong market presence in 65 countries worldwide, guarantee that we are always by your side, ready to deliver Excellence in Solutions.

### **PRODUCT FUNCTIONS BY FLÄKTGROUP**

Air Treatment | Air Movement | Air Diffusion | Air Distribution | Air Filtration  
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