

## DSA – FLAT BAFFLE SOUND ATTENUATORS



### Description

- Designed for noise level reduction on the air ducts in ventilation and air-conditioning installations.
- Combustibility – class 0
- The data is in accordance with EN 7235

### Construction

- Corpus of galvanized metal sheets with incorporated baffles placed parallel to the air flow.
- Baffles are made of plates of fiber-glass, wrapped in glass material to prevent atomization, protected by a safety metal grid and frame of galvanized metal sheets.

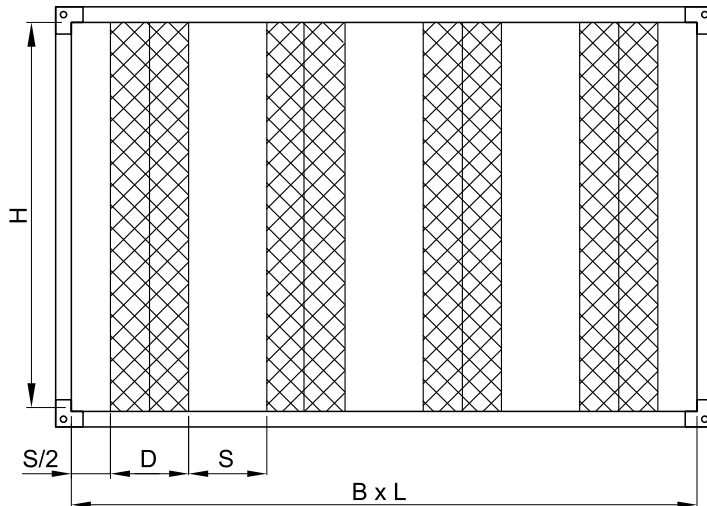
### Installation

- Construction allows incorporation in air-duct system or ventilation equipment with rectangular shape with flange type connectors (Europrofile).

### Flat baffle sound attenuator modifications

- **DSA 10/10** – baffles with thickness  $D=100$  mm and distance between baffles  $S=100$  mm – effective middle range frequency - from 500 to 4000 Hz. Sound attenuators are designed as standard elements for in-line systems.
- **DSA 10/6** - baffles with thickness  $D=100$  mm and distance between baffles  $S=60$  mm – effective high range frequency.
- **DSA 20/12** - baffles with thickness  $D=200$  mm and distance between baffles  $S=120$  mm – effective low range frequency.

## Technical characteristics



## Legend:

B – width

H – height

L – length – 500, 1000, 1500 и 2000 mm

D – baffle thickness

S – distance between baffles

## Standard sound attenuators – elements of in-line system - PKS

D=100 mm; S=100 mm

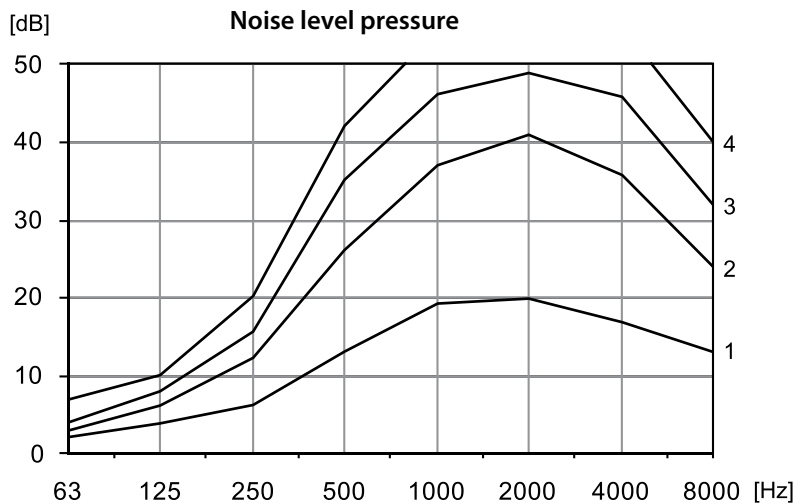
	Model	B [mm]	H [mm]	Weight [kg]	Noise level reduction [dB] by frequency bands [Hz]							
					63	125	250	500	1000	2000	4000	8000
Length L = 500 mm	DSA 200	400	200	10.6	2	3	4	9	12	12	9	7
	DSA 225	500	250	12.4	2	3	4	7	8	8	5	4
	DSA 250	500	300	13.4	2	3	4	7	8	8	5	4
	DSA 285	600	300	16.9	2	3	4	10	13	13	10	7
	DSA 315	600	350	18.2	2	3	4	10	13	13	10	7
	DSA 355	700	400	20.8	3	3	4	8	8	12	10	7
	DSA 400	800	500	27.7	2	3	4	10	13	13	10	7
	DSA 450	1000	500	33.2	2	3	4	10	13	13	10	7
Length L = 1000 mm	DSA 200	400	200	19.3	3	4	8	16	24	25	19	13
	DSA 225	500	250	22.6	3	4	8	13	14	15	11	8
	DSA 250	500	300	24.4	3	4	8	13	14	15	11	8
	DSA 285	600	300	30.7	4	5	9	18	26	28	21	14
	DSA 315	600	350	33.1	4	5	9	18	26	28	21	14
	DSA 355	700	400	37.8	4	5	9	15	17	18	15	11
	DSA 400	800	500	50.3	4	5	9	18	26	28	21	14
	DSA 450	1000	500	60.4	4	5	9	18	26	28	21	14
Length L = 1500 mm	DSA 200	400	200	30.9	5	6	12	25	36	34	26	17
	DSA 225	500	250	36.2	4	5	11	21	26	25	17	10
	DSA 250	500	300	39.1	4	5	11	21	26	25	17	10
	DSA 285	600	300	49.2	5	6	12	26	38	36	27	18
	DSA 315	600	350	53.0	5	6	12	26	38	36	27	18
	DSA 355	700	400	60.5	5	6	11	20	22	23	19	16
	DSA 400	800	500	80.5	5	6	12	26	38	36	27	18
	DSA 450	1000	500	96.7	5	6	12	26	38	36	27	18
Length L = 2000 mm	DSA 200	400	200	39.6	6	7	15	32	46	49	37	23
	DSA 225	500	250	46.4	6	7	14	28	36	35	25	16
	DSA 250	500	300	50.0	6	7	14	28	36	35	25	16
	DSA 285	600	300	63.0	6	7	15	33	48	52	39	24
	DSA 315	600	350	67.9	6	7	15	33	48	52	39	24
	DSA 355	700	400	77.5	6	7	14	27	32	39	31	22
	DSA 400	800	500	103.2	6	7	15	33	48	52	39	24
	DSA 450	1000	500	123.9	6	7	15	33	48	52	39	24

**Type DSA 10/6 – with random dimensions B and H – better noise reduction in high frequency range**

D=100 mm; S=60 mm; L=500, 1000, 1500, 2000 mm

Recommended width  $B = n \cdot (D+S)$  [mm], where  $n$  is whole number

Length L [mm]	Noise level reduction [dB] by frequency bands [Hz]							
	63	125	250	500	1000	2000	4000	8000
500	2	4	6	13	19	17	15	13
1000	5	6	12	26	37	43	36	24
1500	4	8	15	35	46	49	46	32
2000	7	10	20	42	54	58	55	40



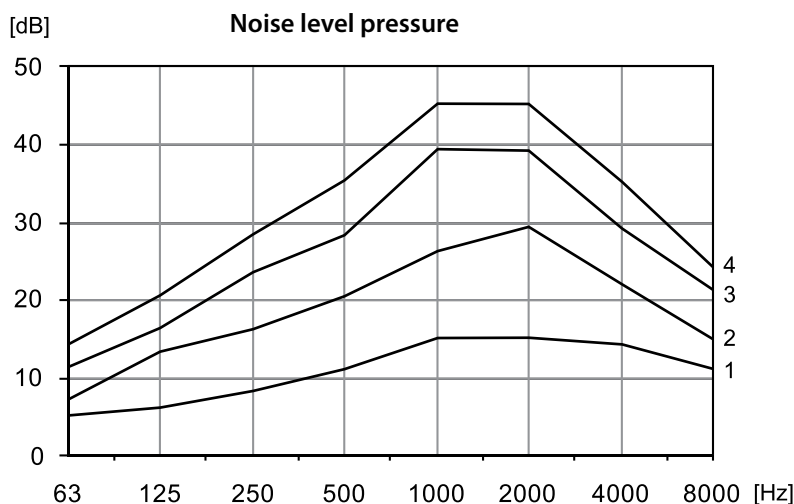
- 4. L=2000 mm
- 3. L=1500 mm
- 2. L=1000 mm
- 1. L=500 mm

**Type DSA 20/12 – with random dimensions B и H – better noise reduction in low frequency range**

D=200 mm; S=120 mm; L=500, 1000, 1500, 2000 mm

Recommended width  $B = n \cdot (D+S)$  [mm], where  $n$  is whole number

Length L [mm]	Noise level reduction [dB] by frequency bands [Hz]							
	63	125	250	500	1000	2000	4000	8000
500	5	6	8	11	15	15	14	11
1000	7	13	16	20	26	29	22	15
1500	11	16	23	28	39	39	29	21
2000	14	20	28	35	45	45	35	24



- 4. L=2000 mm
- 3. L=1500 mm
- 2. L=1000 mm
- 1. L=500 mm

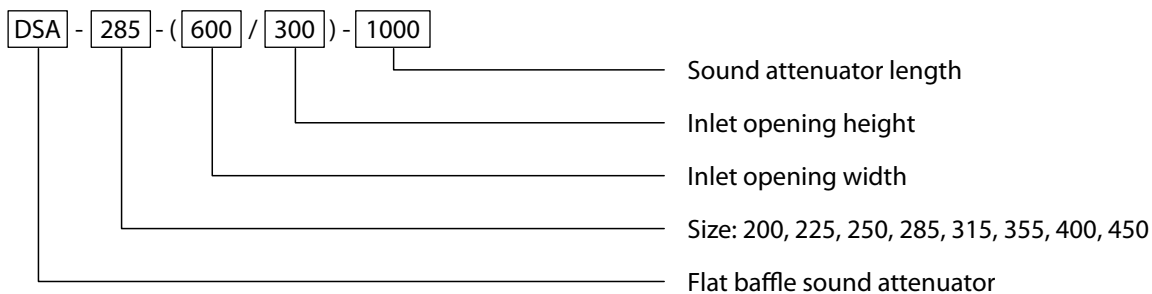
Pressure drop  $\Delta p$ , (Pa) of sound attenuators with lengths L=500, 1000, 1500, 2000 mm

$W_0$ [m/s]	DSA 10/10				DSA 10/6				DSA 20/12			
	500	1000	1500	2000	500	1000	1500	2000	500	1000	1500	2000
2	6	7	8	9	10	12	15	17	9	10	11	12
3	14	16	18	20	23	28	33	39	20	23	25	28
4	24	28	32	36	40	50	60	69	36	40	45	50
5	38	44	50	56	63	78	93	108	56	63	71	78
6	54	63	71	80	Very high velocity in the effective area				Very high velocity in the effective area			
7	74	85	97	109								

**Note:**

$W_0$  – velocity in the inlet section of sound attenuator BxH, [m<sup>2</sup>]

For sound attenuators for standard in-line system, use the data in blue.

**Order designation****Standard sound attenuators (Type DSA 10/10):****Sound attenuators type DSA 10/6 and DSA 20/12:**