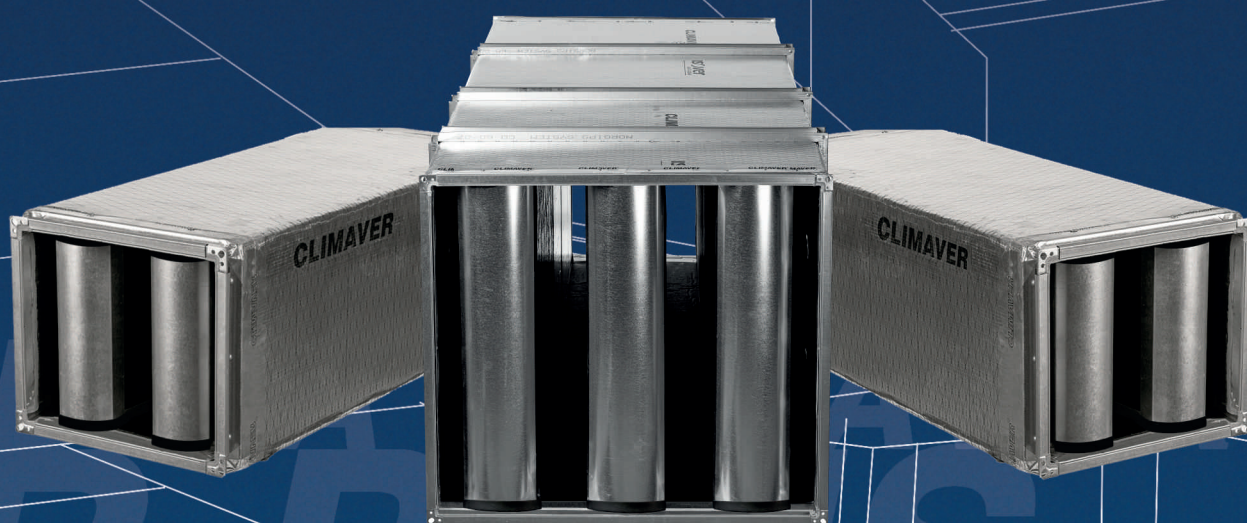


SILENCERS CATALOG

SILENTVER



2023

▼ Area of application

CLV-B and CLV-BP silencers and CLVK-B and CLVK-BP silencers baffles are used to reduce noise generated by ventilation and air-conditioning devices and other installation components, e.g. regulators or throttles.

They are also used to lower cross noise between rooms through duct installation.

▼ Construction

The baffles are made of lower and upper troughs and rounded front profiles made of steel galvanized sheet. Wherever sound-absorbing material is in direct contact with the flowing air Climaver A2 Black 25 mm and Climaver A2 Plus 25 mm duct boards were used. As a filling between the duct boards glass mineral wool was used. **Unlike other manufacturers, also the housing of the silencer is made of sound-absorbing material, i.e. Climaver A2 Black duct boards.** As a standard, they are finished with a 20 or 30 metal frame, depending on the dimensions. The use of rounded front profiles significantly reduces flow resistance.

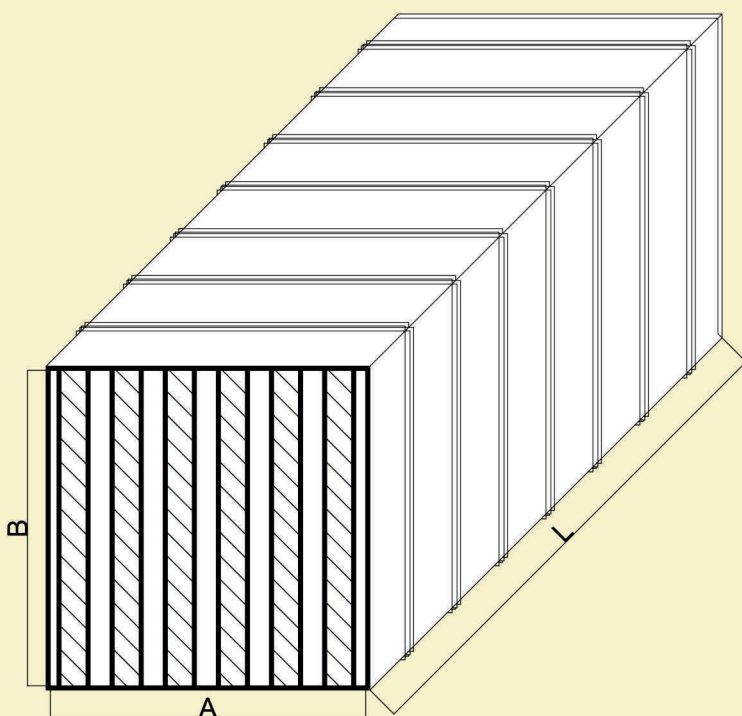


Fig. 1 3D view of the muffler

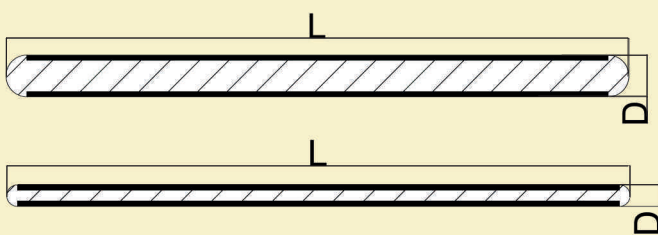


Fig. 4 Longitudinal cross section of the baffles

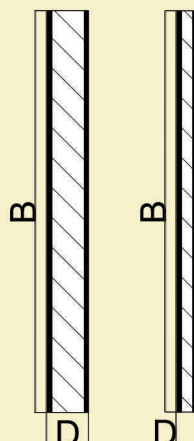


Fig. 5 Cross section of the baffles

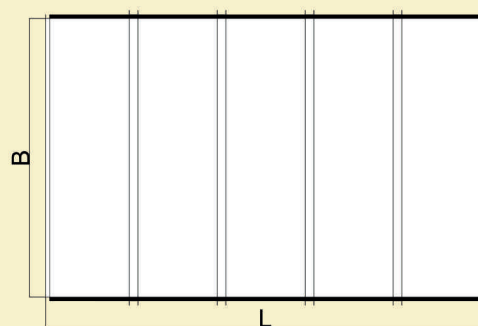


Fig. 2 Longitudinal cross section of the silencer

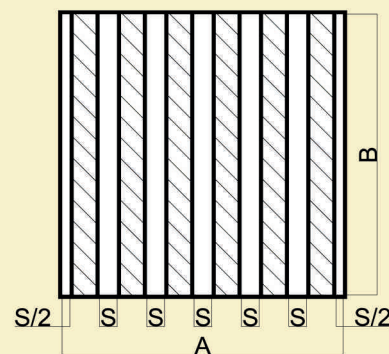


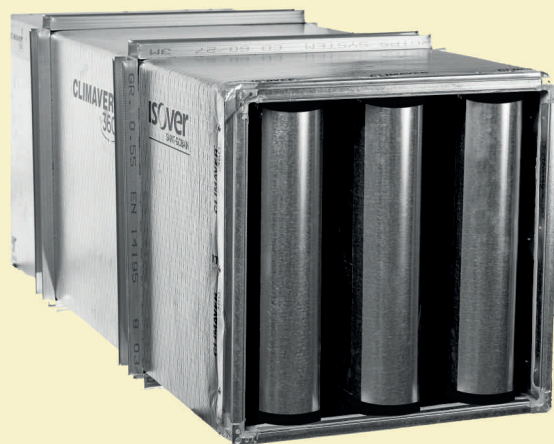
Fig. 3 Cross section of the muffler

Legend:

- A** – muffler internal width [mm]
- B** – muffler internal height [mm]
- L** – muffler length/baffle length [mm]
- S** – distance between baffles [mm]
- D** – baffle thickness [mm]

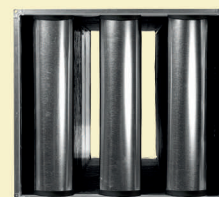
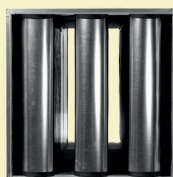
▼ Parameters

- **Acceptable operating pressures:** -800 Pa to +800 Pa
- **Maximum flow velocity between the baffles:** 20 m/s
- **Working temperature:** to 100° C
- **Casing:** from Climaver A2 Black 25 mm or 40 mm boards
- **Tightness class:** B
- **Acceptable dimensions:**
 - **Width:** 200-2800 mm
 - **Height:** 200-2800 mm
 - **Length:** 500-2000 mm
 - **Distance between the baffles:** 60-200 mm



If the total weight of the silencer exceeds 200 kg, it is shipped in parts. Separate baffles and housing.

Due to the use of Climaver duct boards, the silencers are resistant to mechanical cleaning.



▼ Baffles variants

The damping baffles are produced in two thicknesses: 100 and 200 mm. The standard ending is made of rounded profiles made of galvanized steel sheet.

▼ Baffles types

B – absorption baffles made of Climaver A2 Black 25 mm duct boards on both sides are recommended for damping in the medium and high frequencies.

BP – absorption and resonance baffles made of Climaver A2 Black 25 mm duct boards on one side and Climaver A2 Plus 25 mm duct boards on other side are recommended for damping in the low and medium frequency range.

▼ Remarks

In cases the tests showed the acoustic attenuation exceeding 50 dB, the value, in accordance with PN-EN ISO 7235, was limited to 50 dB in the tables. The graphs show the actual measurement results without correction.

Silentver silencers should not be used outdoors without additional protection.

▼ Baffle thickness 100 mm with a length of 500 mm – Black

	Distance		
Frequency	60 mm	80 mm	100 mm
63 Hz	2	1	1
125 Hz	4	4	3
250 Hz	8	7	6
500 Hz	20	17	16
1000 Hz	30	25	22
2000 Hz	36	29	26
4000 Hz	37	25	18
8000 Hz	24	17	13

Table 1. Damping the Black type baffle with 100 mm thickness and 500 mm lenght in [dB]

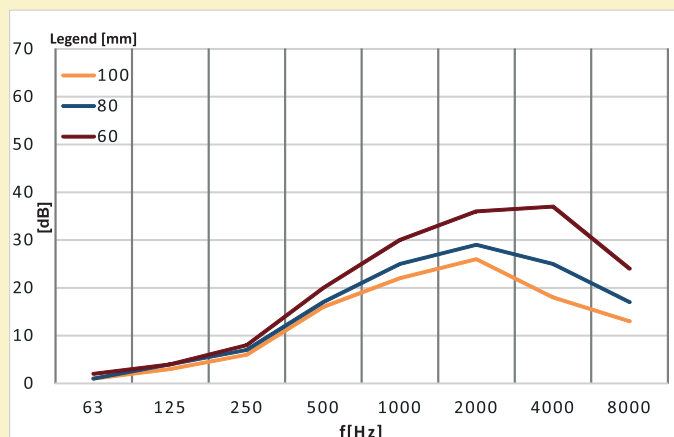


Diagram 1. Damping the Black type baffle with 100 mm thickness and 500 mm lenght

▼ Baffle thickness 100 mm with a length of 1000 mm – Black

	Distance		
Frequency	60 mm	80 mm	100 mm
63 Hz	4	3	2
125 Hz	6	5	5
250 Hz	15	13	12
500 Hz	31	27	25
1000 Hz	48	45	43
2000 Hz	50	50	50
4000 Hz	50	43	39
8000 Hz	31	25	21

Table 2. Damping the Black type baffle with 100 mm thickness and 1000 mm lenght in [dB]

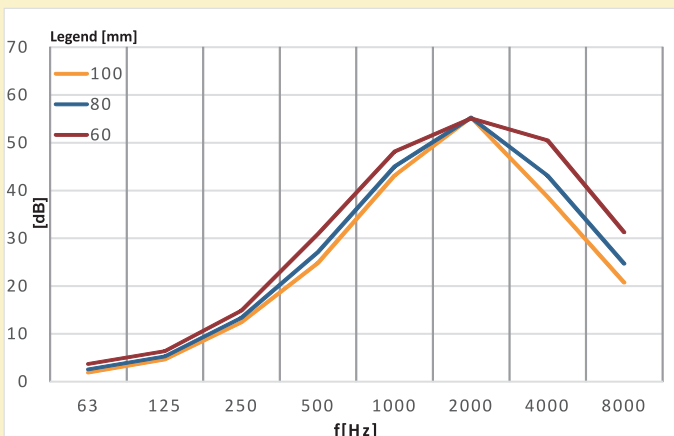


Diagram 2. Damping the Black type baffle with 100 mm thickness and 1000 mm lenght

▼ Baffle thickness 100 mm with a length of 1500 mm – Black

	Distance		
Frequency	60 mm	80 mm	100 mm
63 Hz	4	3	3
125 Hz	9	8	7
250 Hz	24	20	18
500 Hz	45	41	39
1000 Hz	50	50	50
2000 Hz	50	50	50
4000 Hz	50	50	50
8000 Hz	50	38	26

Table 3. Damping the Black type baffle with 100 mm thickness and 1500 mm lenght in [dB]

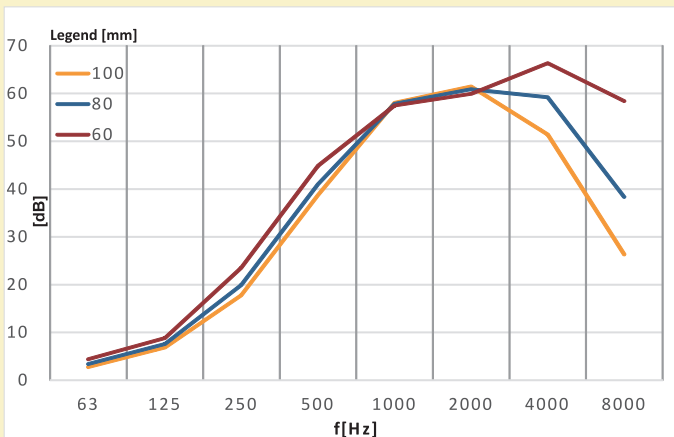


Diagram 3. Damping the Black type baffle with 100 mm thickness and 1500 mm lenght

▼ Baffle thickness 100 mm with a length of 2000 mm – Black

	Distance		
Frequency	60 mm	80 mm	100 mm
63 Hz	6	5	4
125 Hz	10	9	8
250 Hz	32	28	25
500 Hz	50	50	48
1000 Hz	50	50	50
2000 Hz	50	50	50
4000 Hz	50	50	50
8000 Hz	50	45	33

Table 4. Damping the Black type baffle with 100 mm thickness and 2000 mm length in [dB]

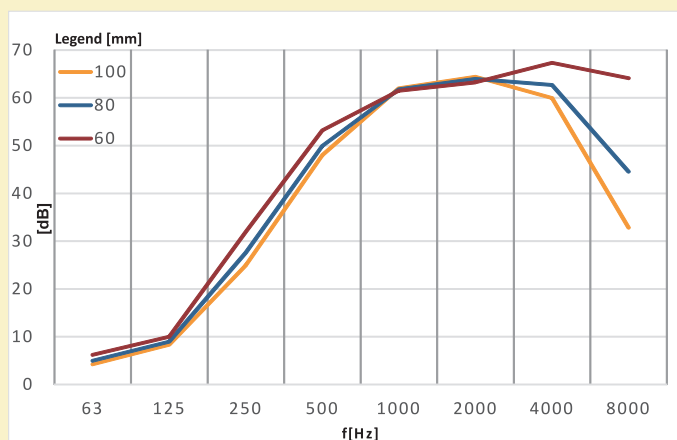


Diagram 4. Damping the Black type baffle with 100 mm thickness and 2000 mm length

▼ Baffle thickness 100 mm with a length of 500 mm – Black\Plus

	Distance		
Frequency	60 mm	80 mm	100 mm
63 Hz	1	1	1
125 Hz	5	4	4
250 Hz	9	8	7
500 Hz	20	17	15
1000 Hz	25	21	18
2000 Hz	25	19	16
4000 Hz	19	13	10
8000 Hz	14	12	11

Table 5. Damping the Black\Plus type baffle with 100 mm thickness and 500 mm length in [dB]

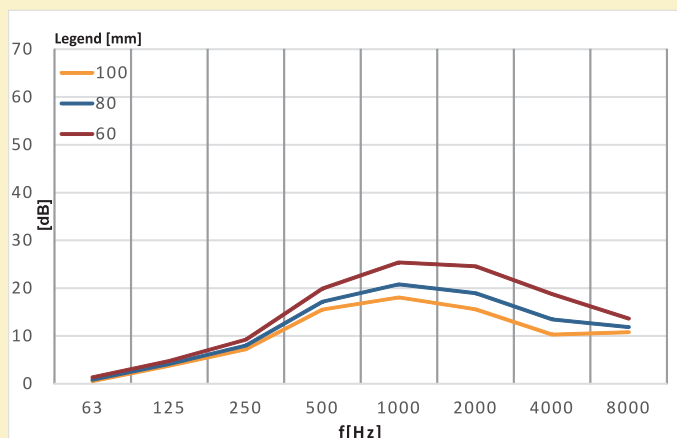


Diagram 5. Damping the Black\Plus type baffle with 100 mm thickness and 500 mm length

▼ Baffle thickness 100 mm with a length of 1000 mm – Black\Plus

	Distance		
Frequency	60 mm	80 mm	100 mm
63 Hz	3	3	2
125 Hz	7	6	5
250 Hz	17	15	13
500 Hz	31	28	25
1000 Hz	45	39	36
2000 Hz	47	35	28
4000 Hz	30	21	15
8000 Hz	20	14	10

Table 6. Damping the Black\Plus type baffle with 100 mm thickness and 1000 mm length in [dB]

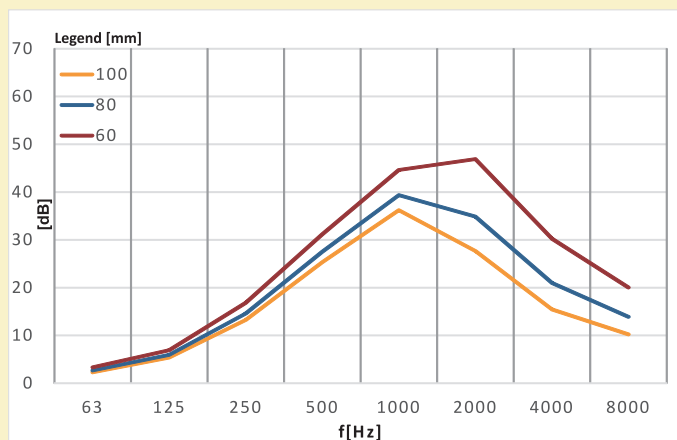


Diagram 6. Damping the Black\Plus type baffle with 100 mm thickness and 1000 mm length

▼ Baffle thickness 100 mm with a length of 1500 mm – Black\Plus

	Distance		
Frequency	60 mm	80 mm	100 mm
63 Hz	5	4	3
125 Hz	9	8	8
250 Hz	25	22	20
500 Hz	48	43	40
1000 Hz	50	50	50
2000 Hz	50	50	42
4000 Hz	45	31	22
8000 Hz	27	19	15

Table 7. Damping the Black\Plus type baffle with 100 mm thickness and 1500 mm length in [dB]

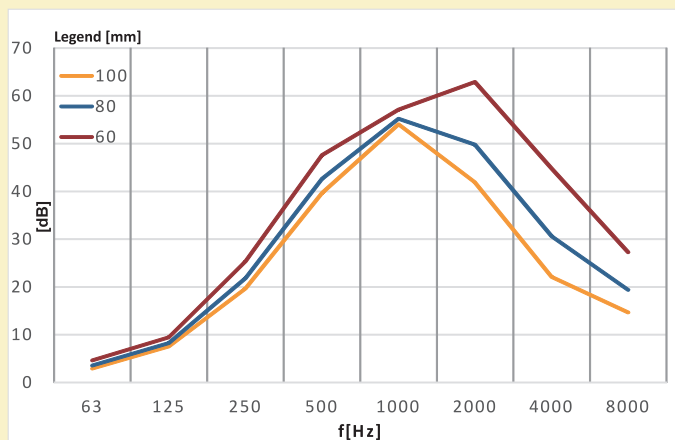


Diagram 7. Damping the Black\Plus type baffle with 100 mm thickness and 1500 mm length

▼ Baffle thickness 100 mm with a length of 2000 mm – Black\Plus

	Distance		
Frequency	60 mm	80 mm	100 mm
63 Hz	6	5	5
125 Hz	10	10	9
250 Hz	36	31	28
500 Hz	50	50	47
1000 Hz	50	50	50
2000 Hz	50	50	50
4000 Hz	50	38	26
8000 Hz	34	24	18

Table 9. Damping the Black\Plus type baffle with 100 mm thickness and 2000 mm length in [dB]

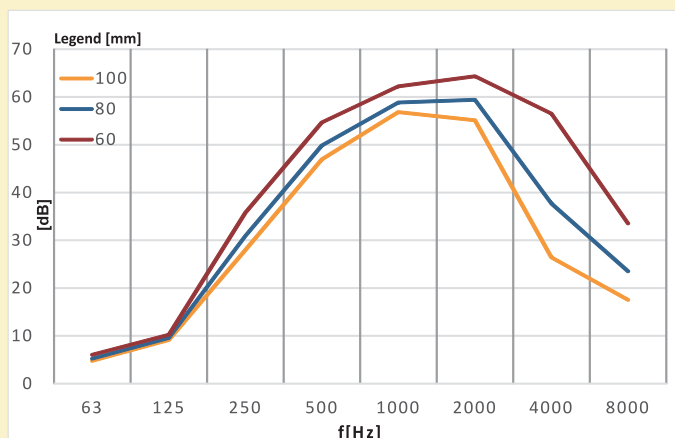
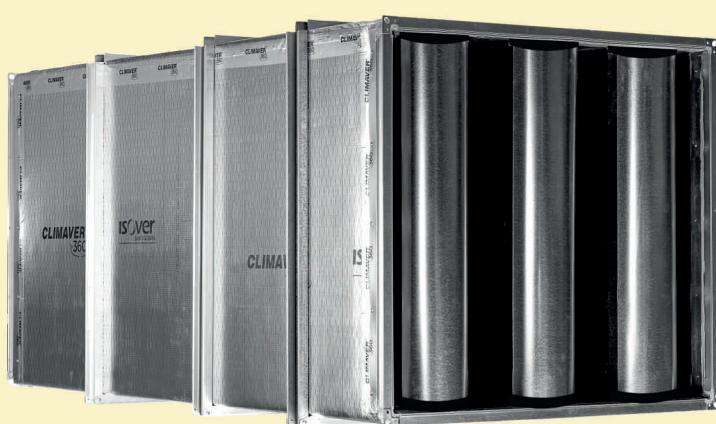


Diagram 8. Damping the Black\Plus type baffle with 100 mm thickness and 2000 mm length



▼ Baffle thickness 200 mm with a length of 500 mm – Black

	Distance			
Frequency	60 mm	80 mm	100 mm	120 mm
63 Hz	4	3	3	2
125 Hz	8	7	6	6
250 Hz	15	12	11	10
500 Hz	25	21	18	17
1000 Hz	26	23	21	19
2000 Hz	33	28	24	22
4000 Hz	33	24	19	15
8000 Hz	21	16	13	10
	140 mm	160 mm	180 mm	200 mm
63 Hz	2	1	1	1
125 Hz	5	5	4	4
250 Hz	9	9	8	8
500 Hz	14	14	13	12
1000 Hz	17	17	16	16
2000 Hz	17	15	14	13
4000 Hz	13	11	10	9
8000 Hz	10	9	8	7

Table 9. Damping the Black type baffle with 200 mm thickness and 500 mm length in [dB]

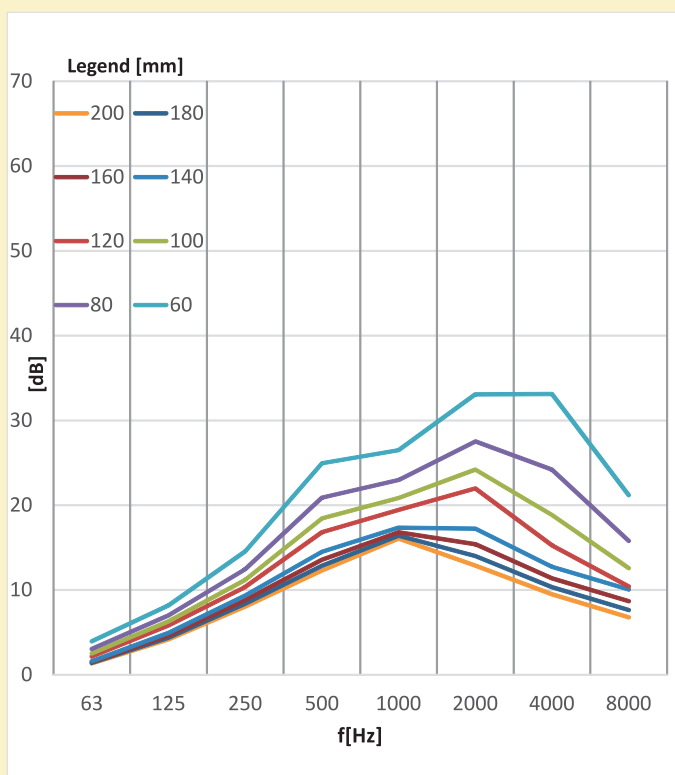


Diagram 9. Damping the Black type baffle with 200 mm thickness and 500 mm length

▼ Baffle thickness 200 mm with a length of 1000 mm – Black

	Distance			
Frequency	60 mm	80 mm	100 mm	120 mm
63 Hz	10	8	7	6
125 Hz	14	12	11	10
250 Hz	26	23	19	18
500 Hz	40	33	29	26
1000 Hz	50	41	37	32
2000 Hz	50	50	46	42
4000 Hz	50	49	34	26
8000 Hz	48	31	21	14
	140 mm	160 mm	180 mm	200 mm
63 Hz	5	4	4	4
125 Hz	9	9	8	8
250 Hz	16	15	15	14
500 Hz	22	20	19	17
1000 Hz	28	26	25	24
2000 Hz	35	29	24	20
4000 Hz	19	17	16	14
8000 Hz	12	10	9	8

Table 10. Damping the Black type baffle with 200 mm thickness and 1000 mm length in [dB]

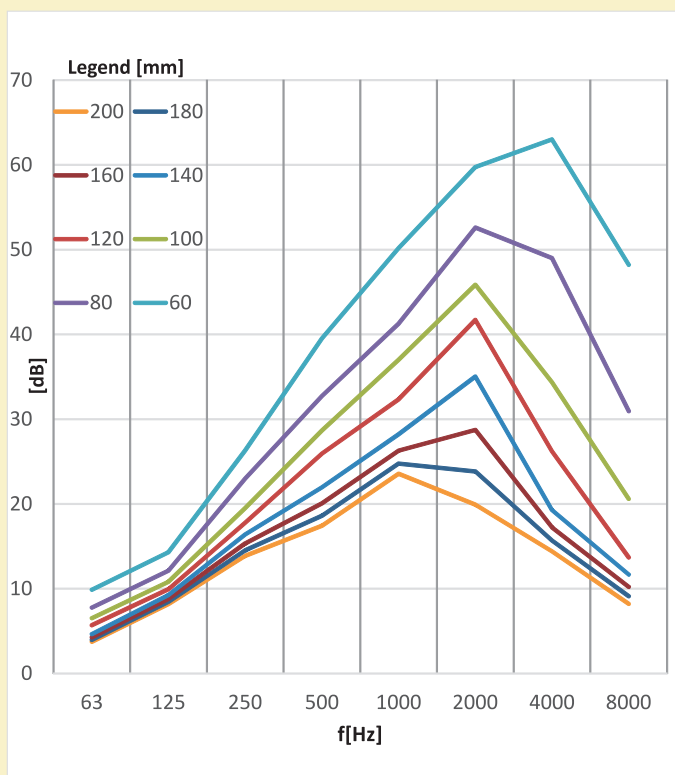


Diagram 10. Damping the Black type baffle with 200 mm thickness and 1000 mm length

▼ Baffle thickness 200 mm with a length of 1500 mm – Black

	Distance			
Frequency	60 mm	80 mm	100 mm	120 mm
63 Hz	10	9	8	8
125 Hz	15	14	14	13
250 Hz	33	29	26	25
500 Hz	50	49	47	46
1000 Hz	50	50	50	50
2000 Hz	50	50	50	50
4000 Hz	50	50	49	41
8000 Hz	50	39	28	21
	140 mm	160 mm	180 mm	200 mm
63 Hz	6	5	5	5
125 Hz	12	11	10	9
250 Hz	23	21	20	19
500 Hz	38	35	34	32
1000 Hz	47	44	42	40
2000 Hz	49	40	33	27
4000 Hz	29	24	21	18
8000 Hz	17	15	13	12

Table 11. Damping the Black type baffle with 200 mm thickness and 1500 mm length in [dB]

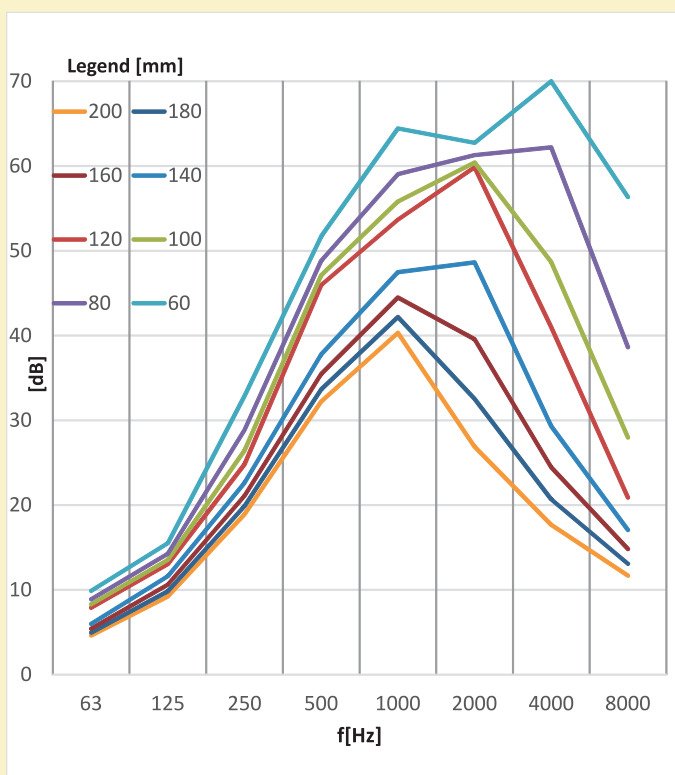
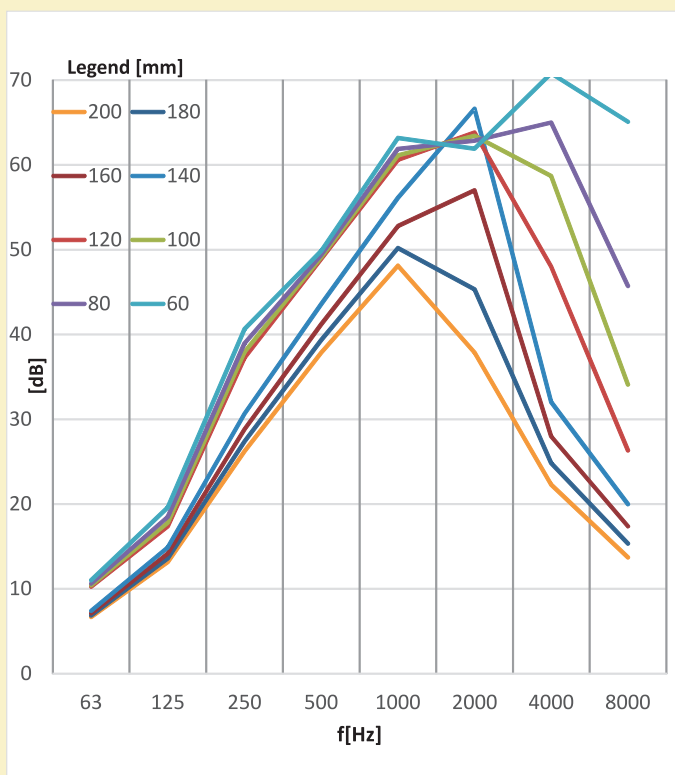


Diagram 11. Damping the Black type baffle with 200 mm thickness and 1500 mm length

▼ Baffle thickness 200 mm with a length of 2000 mm – Black

	Distance			
Frequency	60 mm	80 mm	100 mm	120 mm
63 Hz	11	11	10	10
125 Hz	20	18	18	17
250 Hz	41	39	38	37
500 Hz	50	49	49	49
1000 Hz	50	50	50	50
2000 Hz	50	50	50	50
4000 Hz	50	50	50	48
8000 Hz	50	46	34	26
	140 mm	160 mm	180 mm	200 mm
63 Hz	7	7	7	7
125 Hz	15	14	14	13
250 Hz	31	29	27	26
500 Hz	44	41	39	38
1000 Hz	50	50	50	48
2000 Hz	50	50	45	38
4000 Hz	32	28	25	22
8000 Hz	20	17	15	14



▼ Baffle thickness 200 mm with a length of 500 mm – Black\Plus

	Distance			
Frequency	60 mm	80 mm	100 mm	120 mm
63 Hz	4	3	3	2
125 Hz	9	8	7	7
250 Hz	17	14	13	12
500 Hz	20	17	15	13
1000 Hz	22	20	18	17
2000 Hz	25	20	17	15
4000 Hz	18	15	12	11
8000 Hz	15	12	10	9
	140 mm	160 mm	180 mm	200 mm
63 Hz	2	2	2	2
125 Hz	6	6	5	5
250 Hz	10	9	9	8
500 Hz	12	11	10	10
1000 Hz	16	15	14	14
2000 Hz	13	11	11	10
4000 Hz	10	9	8	8
8000 Hz	8	7	7	6

Table 13. Damping the Black\Plus type baffle with 200 mm thickness and 500 mm length in [dB]

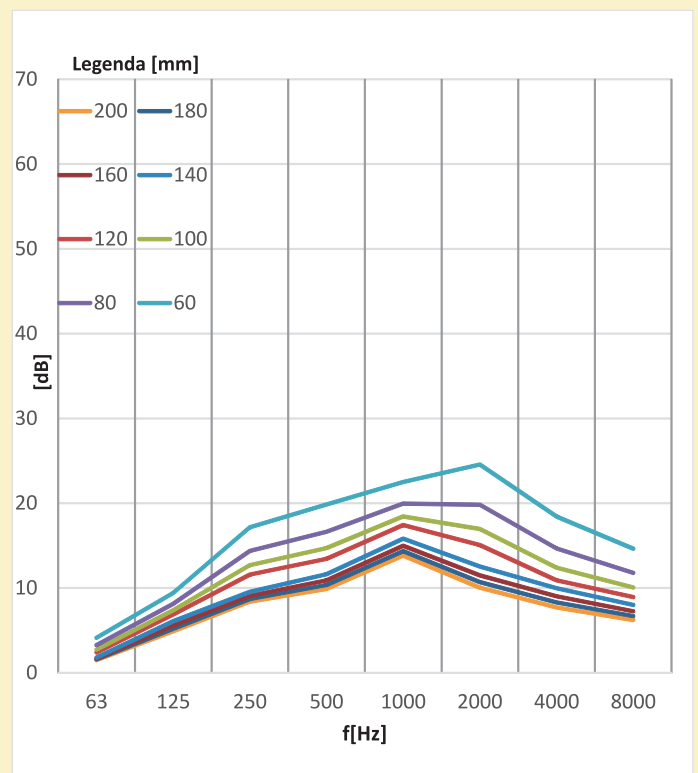


Diagram 13. Damping the Black\Plus type baffle with 200 mm thickness and 500 mm length

▼ Baffle thickness 200 mm with a length of 1000 mm – Black\Plus

	Distance			
Frequency	60 mm	80 mm	100 mm	120 mm
63 Hz	11	8	7	5
125 Hz	15	13	12	11
250 Hz	32	26	23	20
500 Hz	32	27	24	22
1000 Hz	40	34	31	29
2000 Hz	50	44	29	23
4000 Hz	38	31	20	15
8000 Hz	24	18	15	13
	140 mm	160 mm	180 mm	200 mm
63 Hz	4	4	4	4
125 Hz	10	10	10	9
250 Hz	18	16	15	14
500 Hz	18	16	15	14
1000 Hz	26	24	22	21
2000 Hz	16	13	11	9
4000 Hz	12	11	11	11
8000 Hz	9	8	8	7

Table 14. Damping the Black\Plus type baffle with 200 mm thickness and 1000 mm length in [dB]

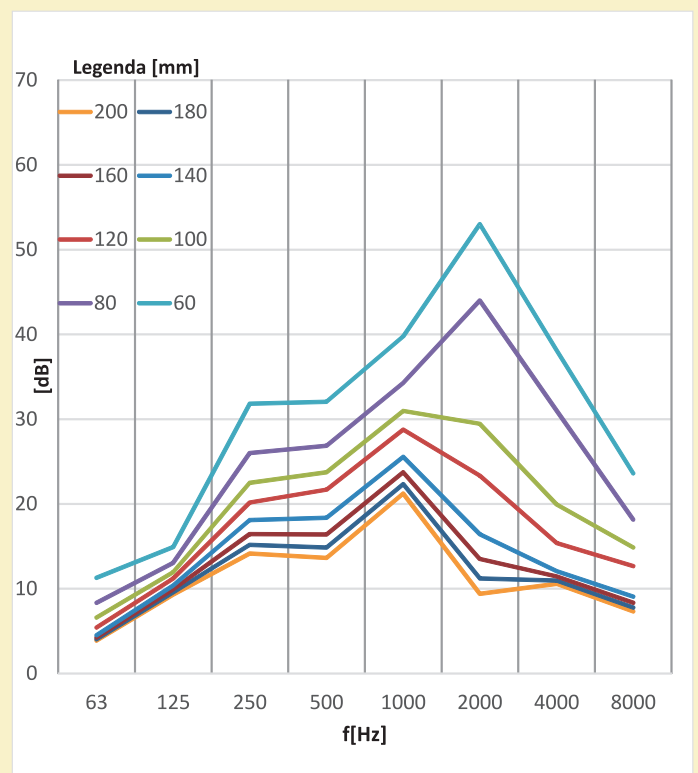


Diagram 14. Damping the Black\Plus type baffle with 200 mm thickness and 1000 mm length

▼ Baffle thickness 200 mm with a length of 1500 mm – Black\Plus

	Distance			
Frequency	60 mm	80 mm	100 mm	120 mm
63 Hz	10	9	8	7
125 Hz	15	14	14	14
250 Hz	36	32	30	28
500 Hz	47	40	36	34
1000 Hz	50	50	48	45
2000 Hz	50	48	39	33
4000 Hz	43	32	25	20
8000 Hz	29	20	15	11
	140 mm	160 mm	180 mm	200 mm
63 Hz	6	5	5	5
125 Hz	13	12	11	11
250 Hz	26	24	23	22
500 Hz	29	27	26	25
1000 Hz	40	38	36	34
2000 Hz	23	20	17	14
4000 Hz	16	15	13	12
8000 Hz	11	11	10	10

Table 15. Damping the Black\Plus type baffle with 200 mm thickness and 1500 mm length in [dB]

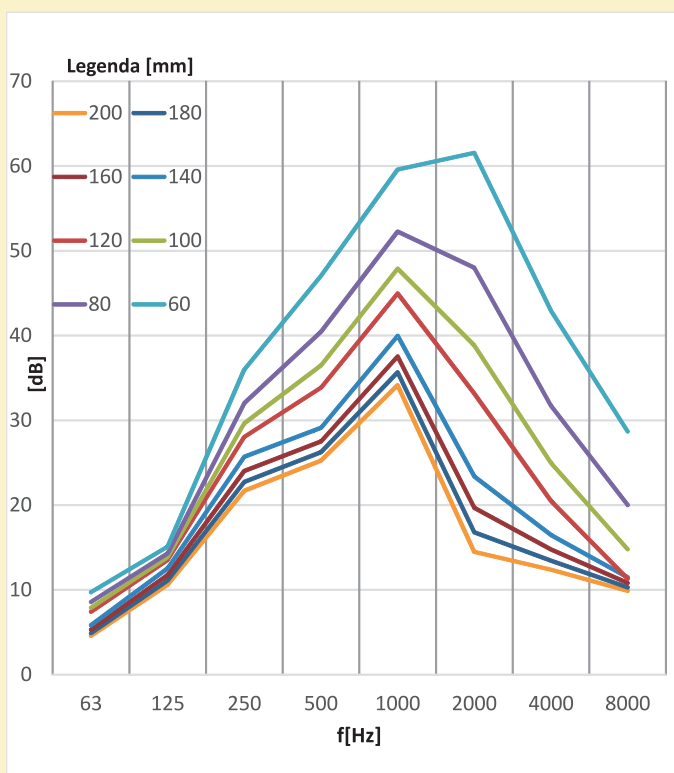


Diagram 15. Damping the Black\Plus type baffle with 200 mm thickness and 1500 mm length

▼ Baffle thickness 200 mm with a length of 2000 mm – Black\Plus

	Distance			
Frequency	60 mm	80 mm	100 mm	120 mm
63 Hz	11	11	10	10
125 Hz	20	19	18	18
250 Hz	42	40	39	39
500 Hz	48	43	40	37
1000 Hz	50	50	50	50
2000 Hz	50	50	50	44
4000 Hz	50	41	30	23
8000 Hz	34	24	19	15
	140 mm	160 mm	180 mm	200 mm
63 Hz	9	8	8	7
125 Hz	16	16	15	15
250 Hz	32	31	29	28
500 Hz	33	31	30	29
1000 Hz	47	45	44	42
2000 Hz	33	27	22	18
4000 Hz	18	16	15	14
8000 Hz	15	14	13	13

Table 16. Damping the Black\Plus type baffle with 200 mm thickness and 2000 mm length in [dB]

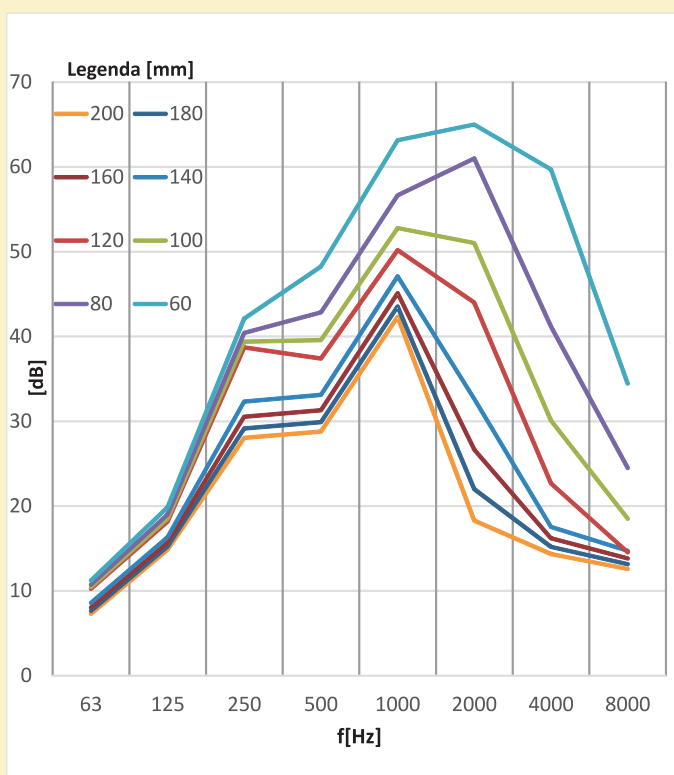
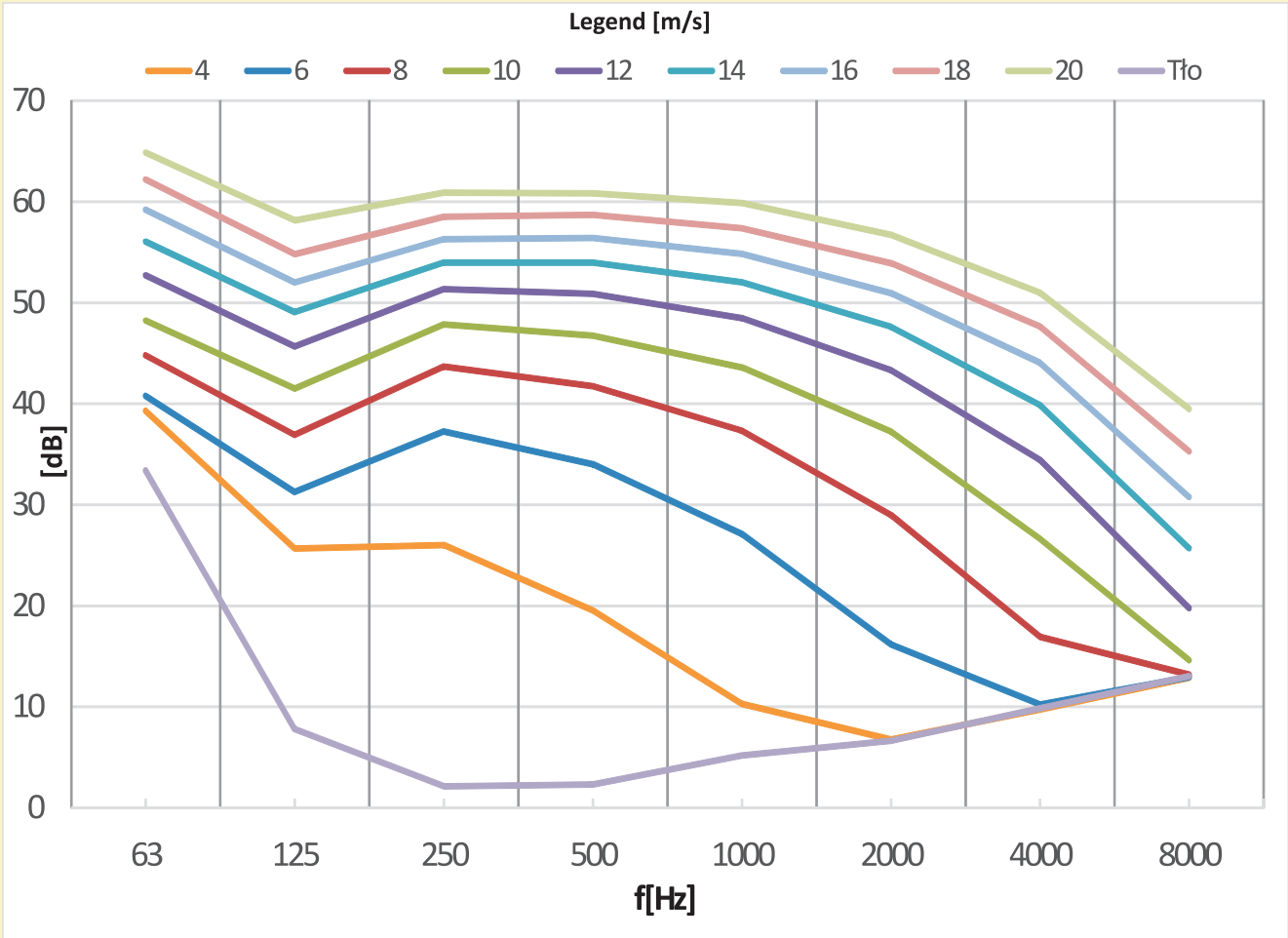


Diagram 16. Damping the Black\Plus type baffle with 200 mm thickness and 2000 mm length

▼ Baffle thickness 100 mm – Black

	Flow speed								
Frequency	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
63 Hz	39	41	45	48	53	56	59	62	65
125 Hz	26	31	37	42	46	49	52	55	58
250 Hz	26	37	44	48	51	54	56	59	61
500 Hz	20	34	42	47	51	54	56	59	61
1000 Hz	10	27	37	44	49	52	55	57	60
2000 Hz	7	16	29	37	43	48	51	54	57
4000 Hz	10	10	17	27	35	40	44	48	51
8000 Hz	13	13	13	15	20	26	31	35	40

Table 17. Flow noise for Black type baffless with 100 mm thickness in [dB]

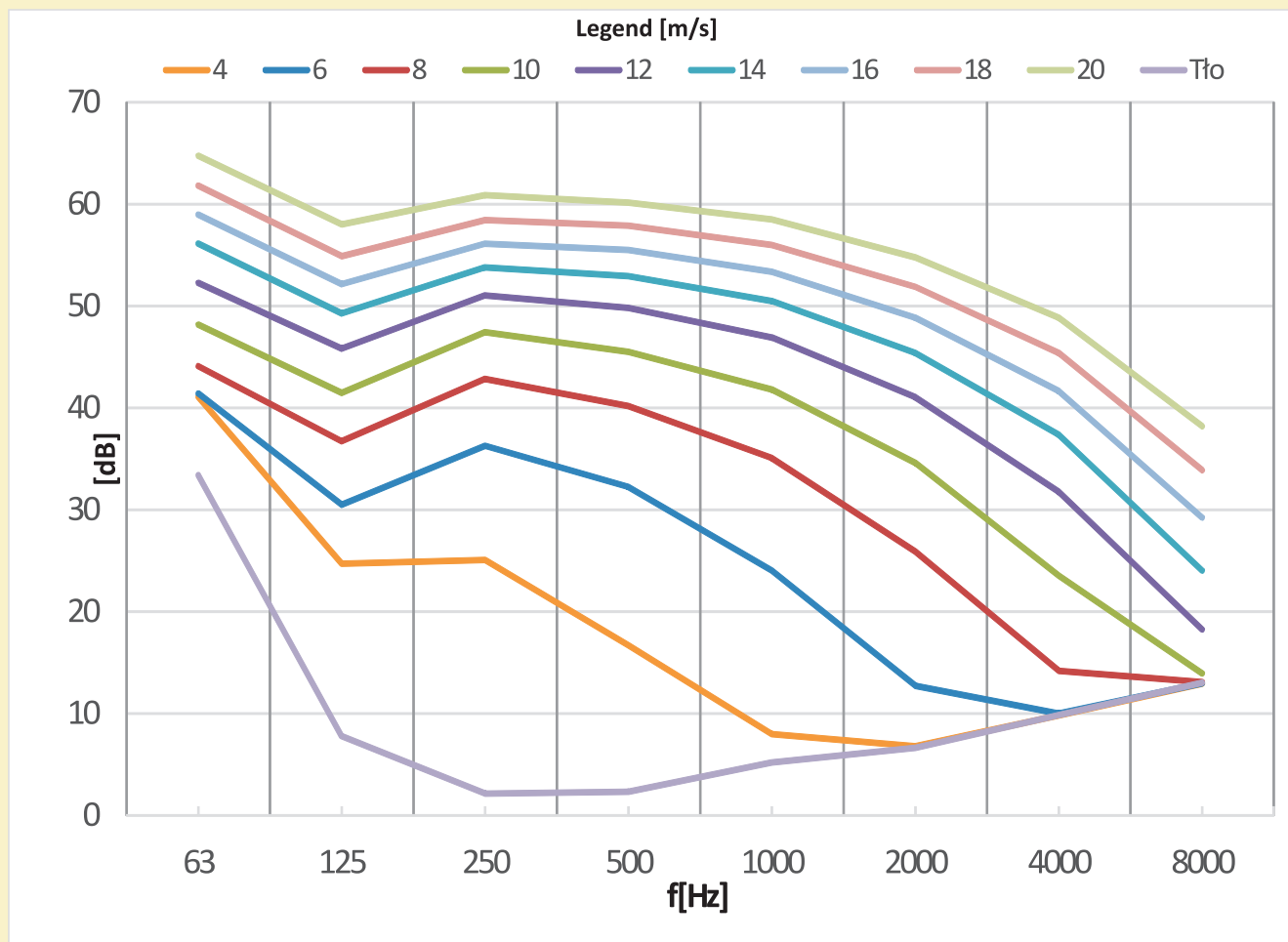


Graph 17. Flow noise for Black type baffless with 100 mm thickness

▼ Baffle thickness 100 mm – Black\Plus

	Flow speed								
Frequency	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
63 Hz	41	41	44	48	52	56	59	62	65
125 Hz	25	31	37	42	46	49	52	55	58
250 Hz	25	36	43	47	51	54	56	58	61
500 Hz	17	32	40	46	50	53	56	58	60
1000 Hz	8	24	35	42	47	51	53	56	59
2000 Hz	7	13	26	35	41	45	49	52	55
4000 Hz	10	10	14	24	32	37	42	45	49
8000 Hz	13	13	13	14	18	24	29	34	38

Table 18. Flow noise for Black\Plus type baffles with 100 mm thickness in [dB]

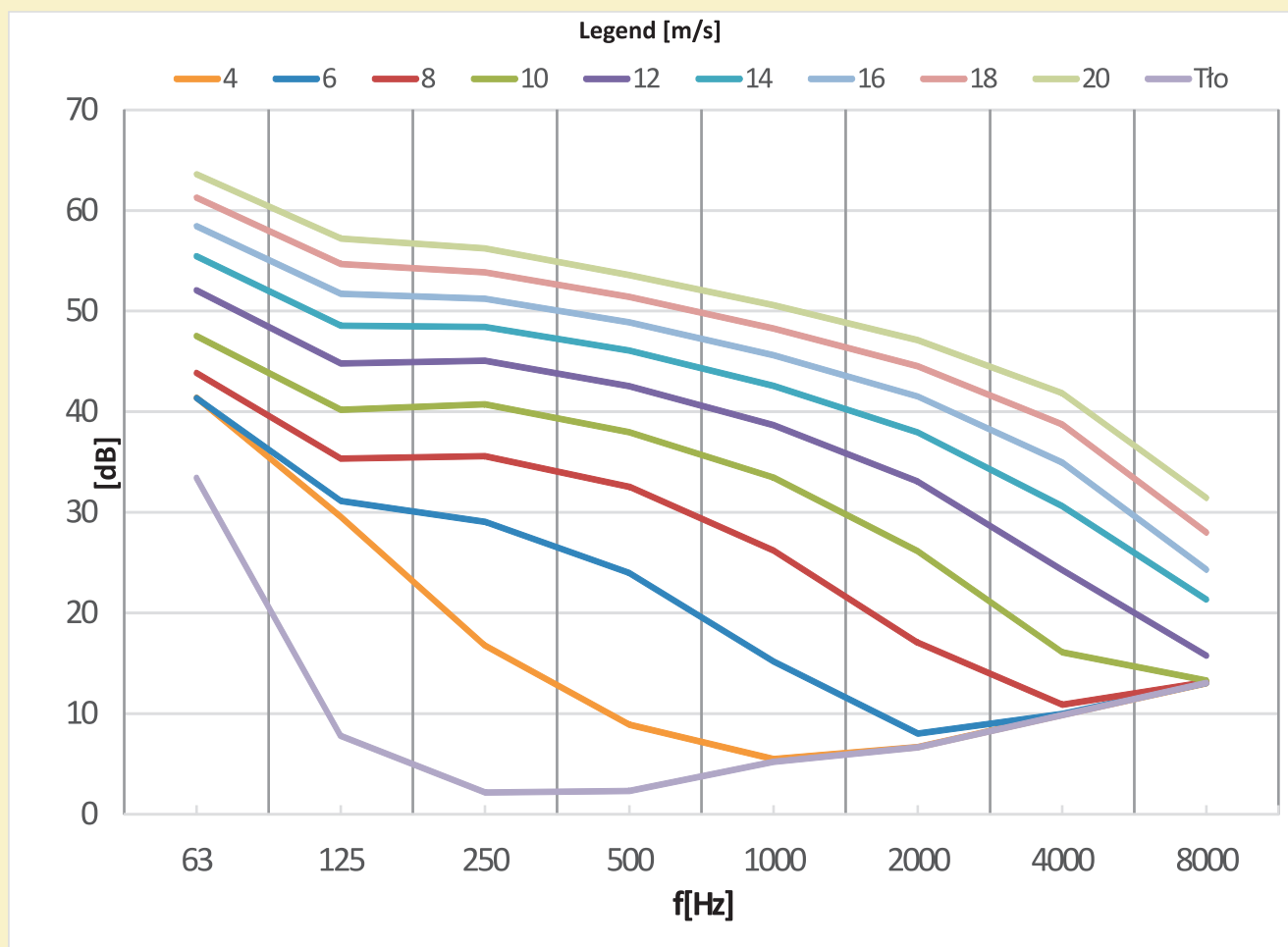


Graph 18. Flow noise for Black\Plus type baffles with 100 mm thickness

▼ Baffle thickness 200 mm – Black

	Flow speed								
Frequency	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
63 Hz	41	41	44	48	52	55	58	61	64
125 Hz	30	31	35	40	45	49	52	55	57
250 Hz	17	29	36	41	45	48	51	54	56
500 Hz	9	24	33	38	43	46	49	51	54
1000 Hz	6	15	26	33	39	43	46	48	51
2000 Hz	7	8	17	26	33	38	42	45	47
4000 Hz	10	10	11	16	24	31	35	39	42
8000 Hz	13	13	13	13	16	21	24	28	31

Table 19. Flow noise for Black type baffless with 200 mm thickness in [dB]

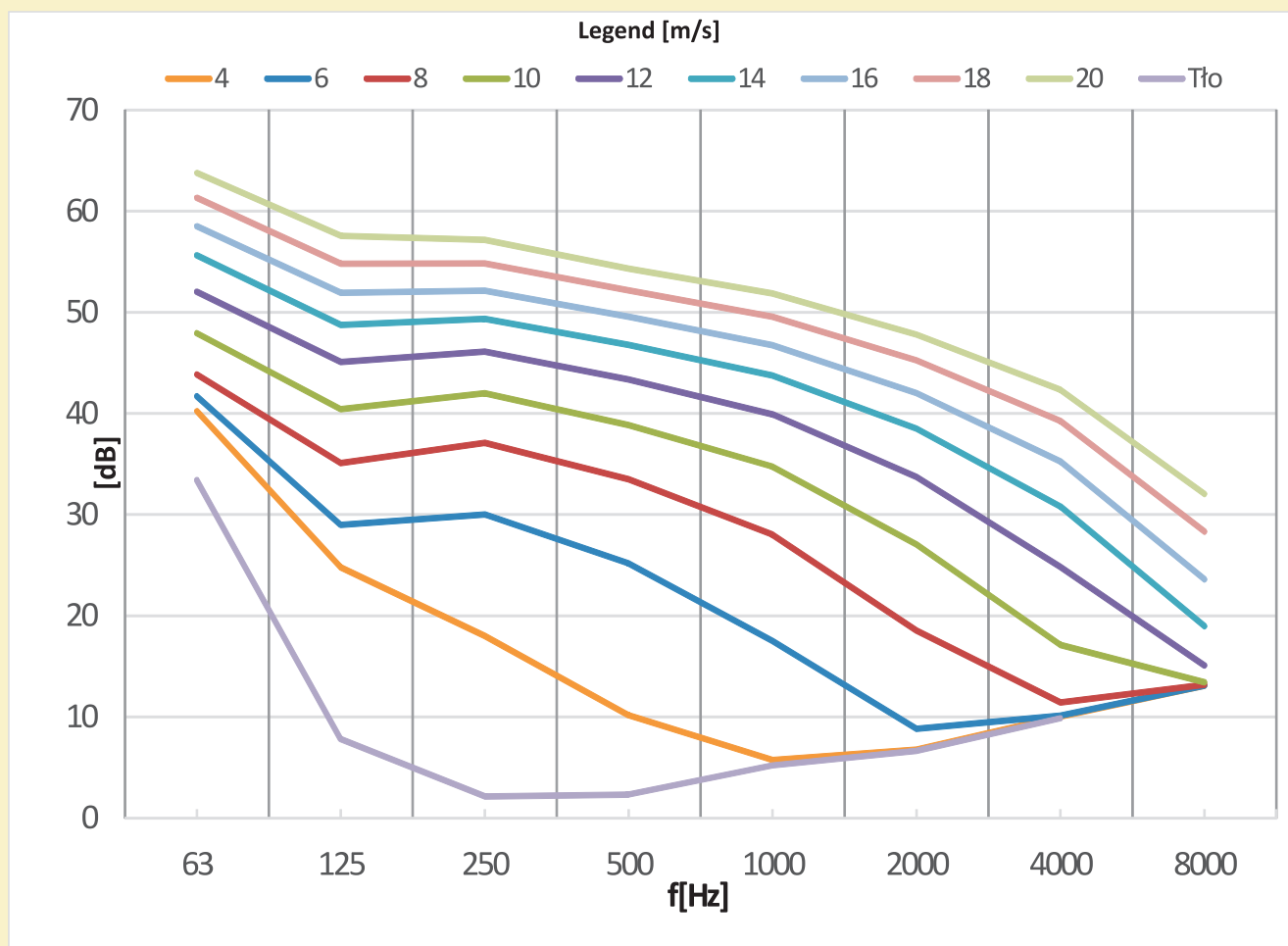


Graph 19. Flow noise for Black type baffless with 200 mm thickness

▼ Baffle thickness 200 mm – Black\Plus

	Flow speed								
Frequency	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
63 Hz	40	42	44	48	52	56	59	61	64
125 Hz	25	29	35	40	45	49	52	55	58
250 Hz	18	30	37	42	46	49	52	55	57
500 Hz	10	25	34	39	43	47	50	52	54
1000 Hz	6	18	28	35	40	44	47	50	52
2000 Hz	7	9	19	27	34	39	42	45	48
4000 Hz	10	10	11	17	25	31	35	39	42
8000 Hz	13	13	13	13	15	19	24	28	32

Table 20. Flow noise for Black\Plus type baffles with 200 mm thickness in [dB]



Graph 20. Flow noise for Black\Plus type baffles with 200 mm thickness

▼ Baffle with 100 mm thickness and 500 mm length – Black

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	6	12	20	32	48	61	78	99	120
80 mm	4	9	16	25	35	48	61	74	93
100 mm	3	7	12	18	25	24	43	55	68

Table 21. Flow resistance for the Black type baffle with 100 mm thickness and 500 mm length in [Pa]

▼ Baffle with 100 mm thickness and 1000 mm length – Black

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	5	12	22	37	55	73	93	119	148
80 mm	4	11	19	30	43	57	72	95	115
100 mm	3	10	18	26	39	50	62	70	90

Table 22. Flow resistance for the Black type baffle with 100 mm thickness and 1000 mm length in [Pa]

▼ Baffle with 100 mm thickness and 1500 mm length – Black

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	9	19	33	54	73	102	128	155	196
80 mm	7	14	29	40	52	82	102	123	156
100 mm	5	11	19	27	40	54	68	86	105

Table 23. Flow resistance for the Black type baffle with 100 mm thickness and 1500 mm length in [Pa]

▼ Baffle with 100 mm thickness and 2000 mm length – Black

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	8	17	32	52	68	93	116	147	179
80 mm	6	14	27	42	58	73	89	112	145
100 mm	4	11	20	31	43	57	72	82	109

Table 24. Flow resistance for the Black type baffle with 100 mm thickness and 2000 mm length in [Pa]

▼ Baffle with 100 mm thickness and 500 mm length – Black\Plus

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	5	12	20	32	47	62	78	97	119
80 mm	4	9	17	26	38	50	63	77	98
100 mm	3	7	13	19	27	37	46	57	71

Table 25. Flow resistance for the Black\Plus type baffle with 100 mm thickness and 500 mm length in [Pa]

▼ Baffle with 100 mm thickness and 1000 mm length – Black\Plus

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	6	13	23	38	54	73	92	117	144
80 mm	4	11	17	27	41	53	66	85	98
100 mm	3	10	18	26	39	50	62	70	90

Table 26. Flow resistance for the Black\Plus type baffle with 100 mm thickness and 1000 mm length in [Pa]

▼ Baffle with 100 mm thickness and 1500 mm length – Black\Plus

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	7	17	29	44	61	83	107	130	157
80 mm	5	12	26	34	54	72	94	112	127
100 mm	4	9	18	26	37	49	62	77	96

Table 27. Flow resistance for the Black\Plus type baffle with 100 mm thickness and 1500 mm length in [Pa]

▼ Baffle with 100 mm thickness and 2000 mm length – Black\Plus

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	8	16	29	45	61	84	105	129	158
80 mm	6	14	26	40	54	70	84	108	136
100 mm	4	11	18	29	41	55	68	75	99

Table 28. Flow resistance for the Black\Plus type baffle with 100 mm thickness and 2000 mm length in [Pa]

▼ Baffle with 200 mm thickness and 500 mm length – Black

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	6	14	27	42	60	88	104	127	147
80 mm	6	14	24	36	50	72	90	115	140
100 mm	4	10	16	26	37	49	65	85	103
120 mm	4	9	16	24	36	47	63	84	102
140 mm	3	8	12	21	33	40	56	68	78
160 mm	3	6	11	17	24	36	39	51	60
180 mm	3	6	11	17	25	32	39	51	59
200 mm	3	6	11	17	28	32	39	60	74

Table 29. Flow resistance for the Black type baffle with 200 mm thickness and 500 mm length in [Pa]

▼ Baffle with 200 mm thickness and 1000 mm length – Black

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	8	18	35	56	79	112	145	180	221
80 mm	7	14	27	41	61	82	111	142	168
100 mm	5	12	22	34	52	70	93	114	139
120 mm	5	10	20	30	46	59	81	98	120
140 mm	5	9	19	26	38	53	73	83	102
160 mm	4	8	13	22	29	38	49	59	75
180 mm	3	7	13	20	28	38	48	59	74
200 mm	3	7	12	19	28	36	46	58	71

Table 30. Flow resistance for the Black type baffle with 200 mm thickness and 1000 mm length in [Pa]

▼ Baffle with 200 mm thickness and 1500 mm length – Black

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	8	19	32	48	70	95	118	154	185
80 mm	7	18	32	48	70	95	114	152	183
100 mm	6	13	24	39	55	68	90	113	138
120 mm	6	13	23	38	52	73	90	112	136
140 mm	5	11	19	29	44	55	68	82	105
160 mm	3	8	14	21	30	40	48	58	74
180 mm	3	7	13	20	28	38	47	57	72
200 mm	3	6	12	19	26	35	46	55	66

Table 32. Flow resistance for the Black type baffle with 200 mm thickness and 1500 mm length in [Pa]

▼ Baffle with 200 mm thickness and 2000 mm length – Black

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	9	21	36	55	77,5	107	132	162	195
80 mm	9	23	36	54	78	105	126	161	192
100 mm	6	15	23	40	56	74	93	117	144
120 mm	6	13	22	39	54	70	90	113	139
140 mm	5	12	20	29	41	55	68	88	108
160 mm	4	9	16	24	34	55	57	67	82
180 mm	4	9	15	22	33	43	54	66	78
200 mm	4	8	15	22	29	36	47	58	71

Table 33. Flow resistance for the Black type baffle with 200 mm thickness and 2000 mm length in [Pa]

▼ Baffle with 200 mm thickness and 500 mm length – Black\Plus

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	6	15,2	27	40	60	85	103	132	156
80 mm	6	15	26	40	60	79	99	132	148
100 mm	5	11	19	29	44	56	74	92	117
120 mm	4	9	17	29	40	58	73	72	113
140 mm	4	8	14	21	32	42	56	71	84
160 mm	3	6	11	16	24	32	42	51	67
180 mm	3	6	11	16	24	32	42	51	63
200 mm	3	6	11	16	24	32	42	51	60

Table 33. Flow resistance for the Black\Plus type baffle with 200 mm thickness and 500 mm length in [Pa]

▼ Baffle with 200 mm thickness and 1000 mm length – Black\Plus

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	9	19	36	55	80	108	147	185	223
80 mm	8	15	25	42	61	82	113	140	175
100 mm	6	12	21	35	50	69	92	119	142
120 mm	4	9	17	27	41	50	70	90	107
140 mm	4	9	16	25	36	45	62	80	103
160 mm	3	8	13	20	27	37	49	60	77
180 mm	3	7	12	20	27	37	49	60	77
200 mm	3	7	12	20	27	37	47	60	74

Table 34. Flow resistance for the Black\Plus type baffle with 200 mm thickness and 1000 mm length in [Pa]

▼ Baffle with 200 mm thickness and 1500 mm length – Black\Plus

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	8	18	30	48	69	96	116	139	179
80 mm	8	19	30	47	65	86	107	139	171
100 mm	5	12	22	36	52	72	90	110	134
120 mm	5	12	21	35	49	70	88	108	131
140 mm	5	10	18	27	40	55	68	86	108
160 mm	3	8	16	22	31	38	51	64	81
180 mm	3	7	14	21	29	38	50	63	79
200 mm	3	6	12	20	27	35	50	57	71

Table 35. Flow resistance for the Black\Plus type baffle with 200 mm thickness and 1500 mm length in [Pa]

▼ Baffle with 200 mm thickness and 2000 mm length – Black\Plus

	Flow speed								
Distance	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s	16 m/s	18 m/s	20 m/s
60 mm	10	23	41	55	78	103	132	160	192
80 mm	10	22	38	53	76	99	123	156	188
100 mm	7	16	30	43	60	79	99	125	150
120 mm	7	16	28	42	57	76	95	123	145
140 mm	5	12	20	31	42	54	73	92	110
160 mm	4	10	17	25	35	46	61	72	85
180 mm	4	9	16	24	35	45	58	71	82
200 mm	4	8	15	23	33	41	50	66	75

Table 36. Flow resistance for the Black\Plus type baffle with 200 mm thickness and 2000 mm length in [Pa]

▼ Baffle with 100 mm thickness and 500 mm length

	Width						
	400 mm	800 mm	1200 mm	1600 mm	2000 mm	2400 mm	2800 mm
	Number of baffles						
Height	2	4	6	8	10	12	14
200 mm	7	13	20	26	32	38	44
400 mm	10	18	27	34	42	50	57
600 mm	13	22	33	42	52	61	70
800 mm	16	27	39	50	61	72	83
1000 mm	19	31	46	58	71	83	96
1200 mm	24	38	52	66	80	94	109
1400 mm	27	43	59	74	90	106	121
1600 mm	30	48	65	82	100	117	134
1800 mm	33	52	71	90	109	128	147
2000 mm	37	57	78	98	119	139	160
2200 mm	40	62	84	106	128	151	173
2400 mm	43	67	90	114	138	162	186
2600 mm	46	71	97	122	148	173	199
2800 mm	49	78	103	130	157	184	211

Table 37. Approximate weight for a silencer with a baffle with 100 mm thickness and 500 mm length in [kg]

▼ Baffle with 100 mm thickness and 1500 mm length

	Width						
	400 mm	800 mm	1200 mm	1600 mm	2000 mm	2400 mm	2800 mm
	Number of baffles						
Height	2	4	6	8	10	12	14
200 mm	16	31	46	60	74	88	102
400 mm	22	42	62	80	99	117	135
600 mm	31	54	78	101	123	146	168
800 mm	38	65	94	121	148	174	201
1000 mm	51	82	114	146	177	208	240
1200 mm	61	96	132	167	203	238	274
1400 mm	69	109	149	188	228	268	308
1600 mm	77	121	166	210	254	298	342
1800 mm	86	134	182	231	279	328	376
2000 mm	94	147	199	252	305	357	410
2200 mm	102	159	216	273	330	387	444
2400 mm	111	172	233	294	356	417	478
2600 mm	119	184	250	316	381	447	512
2800 mm	127	197	267	337	407	477	546

Table 39. Approximate weight for a silencer with a baffle with 100 mm thickness and 1500 mm length in [kg]

▼ Baffle with 200 mm thickness and 500 mm length

	Width						
	400 mm	800 mm	1200 mm	1600 mm	2000 mm	2400 mm	2800 mm
	Number of baffles						
Height	1	2	3	4	5	6	7
200 mm	7	12	18	24	29	34	40
400 mm	9	15	23	30	36	43	49
600 mm	12	19	28	36	44	51	59
800 mm	14	23	33	42	51	60	69
1000 mm	17	26	38	48	58	68	78
1200 mm	21	32	43	55	66	77	88
1400 mm	24	36	48	61	73	85	98
1600 mm	26	40	53	67	80	94	107
1800 mm	29	44	58	73	88	102	117
2000 mm	32	48	63	79	95	111	127
2200 mm	34	51	68	85	102	119	136
2400 mm	37	55	73	92	110	128	146
2600 mm	40	59	78	98	117	136	156
2800 mm	42	63	83	104	124	145	165

Table 41. Approximate weight for a silencer with a baffle with 200 mm thickness and 500 mm length in [kg]

▼ Baffle with 100 mm thickness and 1000 mm length

	Width						
	400 mm	800 mm	1200 mm	1600 mm	2000 mm	2400 mm	2800 mm
	Number of baffles						
Height	2	4	6	8	10	12	14
200 mm	12	22	33	43	53	63	73
400 mm	16	30	44	57	70	83	96
600 mm	22	38	55	71	87	103	119
800 mm	27	46	67	85	104	123	142
1000 mm	35	56	80	102	124	146	168
1200 mm	42	67	92	117	142	166	191
1400 mm	48	76	104	131	159	187	215
1600 mm	54	84	115	146	177	207	238
1800 mm	59	93	127	161	194	228	262
2000 mm	65	102	138	175	212	248	285
2200 mm	71	110	150	190	229	269	308
2400 mm	77	119	162	204	247	289	332
2600 mm	82	128	173	219	264	310	355
2800 mm	88	136	185	233	282	330	379

Table 38. Approximate weight for a silencer with a baffle with 100 mm thickness and 1000 mm length in [kg]

▼ Baffle with 100 mm thickness and 2000 mm length

	Width						
	400 mm	800 mm	1200 mm	1600 mm	2000 mm	2400 mm	2800 mm
	Number of baffles						
Height	2	4	6	8	10	12	14
200 mm	20	40	59	77	95	113	131
400 mm	28	55	80	103	127	151	174
600 mm	41	69	100	130	159	188	217
800 mm	50	84	121	156	191	226	261
1000 mm	67	107	149	190	230	271	312
1200 mm	79	125	172	218	264	310	356
1400 mm	90	142	194	245	297	349	401
1600 mm	101	158	216	273	331	388	446
1800 mm	112	175	238	301	364	427	490
2000 mm	123	191	260	329	398	466	535
2200 mm	133	208	282	357	431	505	580
2400 mm	144	224	304	384	464	544	625
2600 mm	155	241	327	412	498	584	669
2800 mm	166	257	349	440	531	623	714

Table 40. Approximate weight for a silencer with a baffle with 100 mm thickness and 2000 mm length in [kg]

▼ Baffle with 200 mm thickness and 1000 mm length

	Width						
	400 mm	800 mm	1200 mm	1600 mm	2000 mm	2400 mm	2800 mm
	Number of baffles						
Height	1	2	3	4	5	6	7
200 mm	10	19	30	38	47	55	64
400 mm	14	25	38	48	59	70	80
600 mm	19	31	46	59	71	84	97
800 mm	23	37	54	69	84	98	113
1000 mm	30	46	65	82	98	115	132
1200 mm	36	55	74	93	111	130	149
1400 mm	41	62	83	108	124	145	166
1600 mm	46	69	91	114	137	160	182
1800 mm	51	75	100	125	150	175	199
2000 mm	55	82	109	136	163	189	216
2200 mm	60	89	118	147	175	204	233
2400 mm	65	96	127	157	188	219	250
2600 mm	70	102	135	168	201	234	267
2800 mm	74	109	144	179	214	249	284

Table 42. Approximate weight for a silencer with a baffle with 200 mm thickness and 1000 mm length in [kg]

APPROXIMATE WEIGHT

SILENTVER

▼ Baffle with 200 mm thickness and 1500 mm length

	Width						
	400 mm	800 mm	1200 mm	1600 mm	2000 mm	2400 mm	2800 mm
	Number of baffles						
Height	1	2	3	4	5	6	7
200 mm	14	27	40	52	64	76	88
400 mm	19	35	52	67	82	96	111
600 mm	27	44	63	81	99	117	134
800 mm	32	52	75	95	116	137	157
1000 mm	43	66	92	115	139	162	186
1200 mm	52	78	104	131	157	183	210
1400 mm	58	88	117	146	175	204	234
1600 mm	65	97	129	161	194	226	258
1800 mm	72	107	142	177	212	247	282
2000 mm	79	117	155	192	230	268	306
2200 mm	86	127	167	208	248	289	330
2400 mm	93	136	180	223	267	310	354
2600 mm	100	146	192	239	285	331	378
2800 mm	106	156	205	254	303	353	402

Table 43. Approximate weight for a silencer with a baffle with 200 mm thickness and 1500 mm length in [kg]

▼ Baffle with 200 mm thickness and 2000 mm length

	Width						
	400 mm	800 mm	1200 mm	1600 mm	2000 mm	2400 mm	2800 mm
	Number of baffles						
Height	1	2	3	4	5	6	7
200 mm	17	35	51	67	82	97	113
400 mm	24	45	66	85	104	123	142
600 mm	34	56	81	104	126	149	172
800 mm	41	67	96	122	149	175	201
1000 mm	56	86	118	148	179	209	239
1200 mm	67	101	135	169	202	236	270
1400 mm	76	113	151	189	226	264	301
1600 mm	85	126	167	209	250	291	333
1800 mm	94	139	184	229	274	319	364
2000 mm	103	151	200	249	298	346	395
2200 mm	112	164	216	269	321	374	426
2400 mm	120	177	233	289	345	401	458
2600 mm	129	189	249	309	369	429	489
2800 mm	138	202	266	329	393	456	520

Table 44. Approximate weight for a silencer with a baffle with 200 mm thickness and 2000 mm length in [kg]

ORDER KEY

SILENTVER

▼ Order key

CLV-B-200-100-4-1200x400x1500-25-30-0

- CLV – rectangular silencer,
- B – baffles on both sides made of Climaver A2 Black 25 mm duct boards,
- BP – baffles made of Climaver A2 Black duct boards on one side and Climaver A2 Plus duct boards on the other side,
- 200 – baffle thickness in [mm] (possible thickness 100 and 200 mm),
- 100 – distance between the baffles in [mm] (range from 60 to 200 mm),
- 4 – number of baffles [pcs.],
- 1200 – internal width in [mm] (range from 200 to 2800 mm),
- 400 – internal height in [mm] (range from 200 to 2800 mm),
- 1500 – silencer length “from frame to frame” in [mm] (range from 500 to 2000 mm),
- 25 – silencer casing type (25 - Climaver A2 Black 25 mm, 40 - Climaver A2 Black 40 mm),
- 30 – frame type (possible type 20 and 30),
- 0 – baffle ending with a rounded profile.

CLVK-BP-100-400-500-0

- CLVK – damping baffle,
- B – baffles on both sides made of Climaver A2 Black 25 mm duct boards,
- BP – baffles made of Climaver A2 Black duct boards on one side and Climaver A2 Plus duct boards on the other side,
- 100 – baffle thickness in [mm] (possible thickness 100 and 200 mm),
- 400 – internal height in [mm] (range from 200 to 2800 mm),
- 500 – silencer length in [mm] (range from 500 to 2000 mm),
- 0 – baffle ending with a rounded profile.



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