

- Circular
- Galvanized steel



Circular sound attenuators type SAR-G

Circular sound attenuator in galvanized steel with insulation shell thickness of 50 or 100 mm enveloped in a glass film for air speeds up to 20 m / s
Attenuation values according to DIN EN ISO 7235 (63, 125, 250, 500, 1k, 2k, 4k, 8k [Hz])

Application

- For noise reduction in round air ducts
- Reducing noise produced by fans
- Reducing flow noises from flow regulators or other channel components
- Can be used as a damper to prevent sound transfer trough the ducting between rooms

Composition

- Circular silencers are designed with an external galvanised duct system
- Insulation with thickness 50 mm (SAR-G50) or 100 mm (SAR-G100)
- Inner casing is made of perforated sheet steel
- The void between the two is filled with sound-absorbing non-combustible mineral wool according to DIN4102 A2, specific mass > 20 kg / m³, building material class A2
- Mineral wool certified according to RAL GZ 388
- Connection to circular air ducts according to DIN EN 1506 or DIN EN 13180
- Class D airtight connection with EPDM rubber according to DIN EN 12237
- Airtight connection class D with EPDM rubber according to DIN EN 12237

Mounting

- The attenuators should be mounted using duct suspension clamps, type **OBMC**, around the duct connection DN

Order example

SAR-G50 100 (200 mm) L=300mm

Explanation:

SAR-G = Type of sound attenuator

50 = Thickness of insulation in mm

100 = Connection diameter in mm

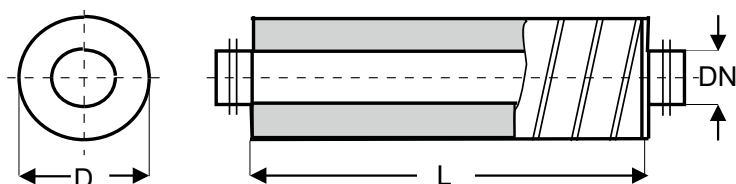
200 = Outer diameter (insulation shell included) in mm

300 = Length in mm

Sound attenuation values												Δ P _L [ζ / m]
l = 50 mm												
DN	D [mm]	L [mm]	[dB]								[kg]	
			63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
80	180	300	4	6	5	13	15	16	12	15	1.7	0.374
80	180	600	4	9	13	26	30	32	25	24	2.9	
80	180	900	4	11	22	39	45	48	37	33	4.1	
80	180	1200	4	13	31	50	50	50	50	42	5.2	
100	200	300	3	8	7	10	25	37	36	12	2	0.286
100	200	600	4	9	11	19	33	45	40	19	3.3	
100	200	900	4	10	15	28	40	50	44	27	4.6	
100	200	1200	4	10	20	37	48	50	48	34	5.9	
125	224	300	3	4	7	11	15	14	16	11	2.3	0.22
125	224	600	4	6	10	19	28	33	25	18	3.8	
125	224	900	4	9	14	27	42	50	35	24	5.3	
125	224	1200	4	11	17	36	46	50	46	31	6.8	
140	250	300	3	4	7	11	16	14	15	10	2.7	0.163
140	250	600	4	7	9	18	34	32	24	16	4.5	
140	250	900	4	9	12	26	41	48	34	21	6.2	
140	250	1200	5	12	20	44	50	50	50	27	8	
150	250	300	2	3	6	11	16	14	15	9	2.7	0.176
150	250	600	3	6	9	17	30	29	24	13	4.5	
150	250	900	4	7	12	25	38	44	32	17	6.2	
150	250	1200	5	9	18	37	47	50	44	21	8	
160	250	300	1	2	5	11	15	14	14	8	2.7	0.163
160	250	600	2	5	8	16	26	26	23	10	4.5	
160	250	900	3	5	11	23	35	39	30	12	6.2	
160	250	1200	4	6	15	30	44	50	38	14	7.9	
180	280	300	1	2	5	11	13	12	12	8	3.1	0.14
180	280	600	1	4	8	16	24	23	18	10	5.1	
180	280	900	3	5	11	21	33	35	23	12	7.1	
180	280	1200	3	6	14	26	43	46	29	14	9	
200	300	300	0	2	5	12	11	10	10	8	3.4	0.123
200	300	600	0	3	7	16	22	20	13	10	5.5	
200	300	900	2	5	10	19	30	31	16	11	7.6	
200	300	1200	2	6	12	22	42	41	20	13	9.8	
224	315	300	1	2	4	10	11	9.5	7	6	3.8	0.108
224	315	600	1	3	7	15	21	18	11	8	6.4	
224	315	900	2	4	10	18	28	26	15	10	8.9	
224	315	1200	2	5	12	22	38	34	19	12	11.4	
250	355	300	1	1	3	8	10	9	4	4	4.8	0.095
250	355	600	1	2	6	13	19	15	8	6	7.7	
250	355	900	2	3	9	17	26	21	13	8	10.6	
250	355	1200	2	4	12	21	34	27	17	10	13.5	
280	400	300	1	1	3	7	9	7	3	3	5.5	0.081
280	400	600	1	2	6	12	18	14	8	5	8.9	
280	400	900	2	3	9	16	25	20	12	7	12.2	
280	400	1200	2	4	12	21	41	26	16	10	15.6	
300	400	600	0	2	5	11	15	11	6	5	8.7	0.074
300	400	900	2	3	8	16	23	18	10	7	12	
300	400	1200	2	4	10	21	34	24	15	10	15.3	
315	400	600	0	1	4	10	12	7	4	4	9.2	0.069
315	400	900	1	2	6	15	21	15	8	7	12.6	
315	400	1200	1	3	7	21	27	22	13	10	16	

			I = 100 mm									
DN	D [mm]	L [mm]	[dB]								[kg]	$\Delta P_L [\zeta / m]$
			63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
80	280	300	4	13	13	16	36	50	50	24	3.1	0.374
80	280	600	4	15	21	33	47	50	50	50	5.2	
80	280	900	4	18	30	50	50	50	48	50	7.2	
80	280	1200	5	20	39	50	50	50	50	50	9.2	
100	300	300	3	12	14	22	33	48	44	21	3.5	0.286
100	300	600	4	14	18	29	39	50	48	46	5.7	
100	300	900	5	17	23	36	46	50	50	50	7.9	
100	300	1200	6	19	28	43	50	50	50	50	10.1	
125	315	300	2	12	18	22	25	22	19	12	4	0.22
125	315	600	3	13	17	31	33	34	29	19	6.6	
125	315	900	4	14	20	34	43	50	39	25	9.2	
125	315	1200	5	14	21	37	50	50	50	32	11.9	
140	355	300	2	10	15	21	22	20	18	11	4.8	0.163
140	355	600	3	11	15	29	35	33	29	17	7.9	
140	355	900	4	13	19	32	41	49	41	23	11	
140	355	1200	5	13	21	36	50	50	50	30	14	
150	355	300	2	9	11	21	19	18	16	10	4.8	0.176
150	355	600	3	10	14	26	28	31	30	15	7.9	
150	355	900	4	11	17	30	39	49	43	19	10.9	
150	355	1200	5	12	20	39	50	50	50	22	14	
160	355	300	2	7	8	20	16	16	15	9	4.8	0.163
160	355	600	3	8	12	24	26	30	30	10	7.9	
160	355	900	4	10	16	28	37	48	45	13	10.9	
160	355	1200	5	11	19	33	47	50	50	16	14	
180	400	300	2	6	8	20	14	15	14	9	5.6	0.14
180	400	600	3	8	12	21	25	26	22	11	9.2	
180	400	900	4	10	16	26	38	42	31	13	12.7	
180	400	1200	5	12	19	30	47	50	39	19	16.3	
200	400	300	1	5	7	19	12	14	12	9	5.6	0.123
200	400	600	2	7	11	17	23	22	14	11	9.1	
200	400	900	3	9	15	23	32	35	17	13	12.6	
200	400	1200	4	12	18	26	46	45	28	22	16.2	
224	400	300	1	5	7	14	12	12	9	8	5.6	0.108
224	400	600	3	6	11	17	22	19	12	9	9	
224	400	900	4	8	15	24	36	30	16	12	12.5	
224	400	1200	5	10	18	29	46	36	23	18	16	
250	450	300	1	4	6	8	12	10	5	4	6.6	0.095
250	450	600	3	5	10	16	20	16	9	7	10.7	
250	450	900	4	6	14	24	30	24	14	10	14.7	
250	450	1200	5	7	17	31	45	32	18	13	18.8	
280	500	600	3	5	10	15	19	15	9	7	12.2	0.081
280	500	900	3	6	14	23	28	23	13	10	16.9	
280	500	1200	4	7	17	30	44	31	17	13	21.5	
300	500	600	2	4	10	13	18	15	8	6	12.1	
300	500	900	3	5	13	21	27	22	12	9	16.7	0.074
300	500	1200	4	7	17	28	37	29	16	12	21.2	
315	500	600	2	4	10	12	17	14	8	6	12.8	
315	500	900	2	5	13	20	25	21	11	9	17.4	
315	500	1200	3	7	17	27	33	28	15	12	22.1	0.069
355	560	600	1	3	9	11	12	7	5	4	15	
355	560	900	2	5	11	16	19	14	8	7	20.4	
355	560	1200	3	6	14	22	26	20	11	9.5	25.7	
400	600	600	1	4	10	12	14	7	6	5	16.2	0.052
400	600	900	2	5	12	19	20	14	8	8	22	
400	600	1200	3	6	13	23	27	18	11	10	27.8	
450	630	600	1	4	8	12	14	7	5	5	19.1	
450	630	900	2	5	11	16	16	8	6	5	26.3	0.048
450	630	1200	3	6	12	21	23	13	8	8	33.4	
500	710	600	1	4	6	12	13	6	4	4	22.8	
500	710	900	3	6	12	20	18	8	6	5	31.1	
500	710	1200	3	7	12	23	25	11	8	7	39.4	0.039
560	800	600	1	3	7	13	11	5	4	4	26.6	
560	800	900	3	5	11	20	15	7	5	4	36.3	
560	800	1200	3	6	11	20	18	8	6	5	46	
600	800	900	3	4	9	17	10	5	4	4	35.2	0.031
600	800	1200	3	4	11	20	15	6	5	4	44.6	
630	800	900	2	3	8	16	6	3	3	3	38	
630	800	1200	2	3	10	19	10	4	3	3	47.6	
710	900	900	2	3	9	13	5	2	3	2	44.5	
710	900	1200	2	3	10	17	9	3	3	3	55.6	
800	1000	1200	3	3	10	15	7	3	3	4	70	0.023

- I = Insulation jacket thickness in mm
- DN = Nominal connection diameter of silencer in mm
- D = Outside diameter in mm
- L = Length in mm
- $\Delta P_{tot} = \Delta PL \times [(\rho \times v^2) / 2] \times L$
 - ΔP_{tot} = Total pressure loss in Pascal
 - ΔPL = Average total pressure loss coefficient ζ/m
 - P = Specific weight = 1.2041 kg/m³
 - v = Air velocity in m/s
 - L = Length in meters



Pressure loss

