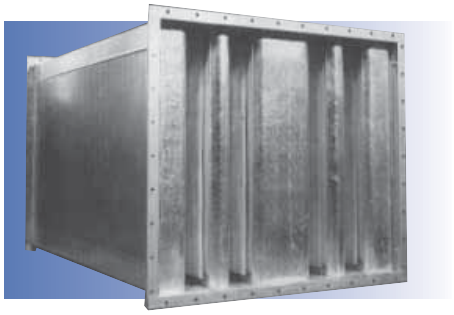


RAS

Rectangular attenuators

RAS series attenuators are products with top level acoustic performances, great manufacturing features and low pressure drops. All the models have a series of aerodynamic profiles on the splitters to limit the resistance of the air flow and the regeneration of noise as much as possible.
Acoustic insulation panels are constructed of mineral fiber with high acoustic absorption features; in the standard version they are coated with a sheet of reinforced glass. The RAS-LF version is made of panels protected by prforated sheet.

They are set inside galvanized steel bearing frames, fixed to the surface of the structure. The attenuators have flanges on the two ends used to connect them to the air ducts. A special model is made of perforated sheet and polyester protective membrane (HOSP suffix) for special applications (for ex. hospitals, food and electronic industries).

Applications RAS attenuators are suitable for installation in air conditioning and ventilation systems to attenuate the noise produced by the fans and transported by the air flow.

They comply with both the requirements for civil, industrial and special systems and assure high noise attenuation performances.

Installation RAS attenuators are normally installed on ducts. They are assembled using the flanges they are fitted with which match the ones on the ducts. The position of the attenuators must be carefully studied so as to avoid a noise return through the duct at the end of the attenuator itself.

Acoustic performance

module 300

	Length (mm) L	octave (Hz) 63	125	250	500	1 k	2 k	4 k	8 k
		Loss of static insertion (dB)							
RAS - 2A	600	5	10	15	20	30	28	19	17
RAS - 3A	900	7	13	19	27	41	41	30	22
RAS - 4A	1200	9	16	24	35	50	49	35	26
RAS - 5A	1500	10	18	29	41	50	50	43	30
RAS - 6A	1800	12	20	34	46	50	50	46	32
RAS - 7A	2100	13	23	39	48	50	50	50	34
RAS - 8A	2400	14	25	43	50	50	50	50	35

module 350

	Length (mm) L	octave (Hz) 63	125	250	500	1 k	2 k	4 k	8 k
		Loss of static insertion (dB)							
RAS - 2L	600	4	6	11	16	21	19	15	14
RAS - 3L	900	5	8	16	24	29	26	18	16
RAS - 4L	1200	6	10	20	31	37	32	21	17
RAS - 5L	1500	6	12	24	37	43	38	24	19
RAS - 6L	1800	7	14	27	42	49	43	28	20
RAS - 7L	2100	8	16	31	49	50	47	31	21
RAS - 8L	2400	9	18	36	50	50	50	33	22

module 400

	Length (mm) L	octave (Hz) 63	125	250	500	1 k	2 k	4 k	8 k
		Loss of static insertion (dB)							
RAS - 2M	600	3	4	8	13	15	12	10	10
RAS - 3M	900	5	7	12	19	22	16	12	11
RAS - 4M	1200	5	8	16	25	29	21	14	13
RAS - 5M	1500	6	9	19	30	36	25	16	14
RAS - 6M	1800	7	11	24	36	43	29	18	15
RAS - 7M	2100	7	13	27	41	50	33	19	16
RAS - 8M	2400	8	14	30	47	50	37	21	17

Note: The numbers placed before the letters A, L, M indicate the length of the attenuator in feet (1 foot = 300 mm), 2 = 600 - 3 = 900 - 4 = 1200 etc.

RAS

rectangular attenuators

Aeraulics performances

After choosing the type of attenuator according to the acoustic performances on page ..., you need to determine the front sizes according to the air flow rate and the pressure drop of the attenuator chosen (i.e. according to its front sizes and air flow rate).

These are the tables for the three models:
RAS - 4A
RAS - 4L
RAS - 4M
that will help you determine the:
the **perdite di carico***
the **dimensioni frontali**,
the **portata d'aria**.
(one in relation with the other two values).

model RAS - 4A (module 300)	Pressure drop Pa	Front sizes (mm) 300 x 300	600 x 300	600 x 600	900 x 600	900 x 900	1500 x 900	1200 x 1200	1500 x 1200
		Air flow (m³/s)							
	10	0,15	0,30	0,60	0,90	1,35	2,25	2,40	3,00
	15	0,18	0,37	0,74	1,11	1,66	2,77	2,96	3,70
	30	0,27	0,54	1,08	1,62	2,43	4,05	4,32	5,40
	50	0,34	0,69	1,38	2,07	3,10	5,17	5,52	6,90

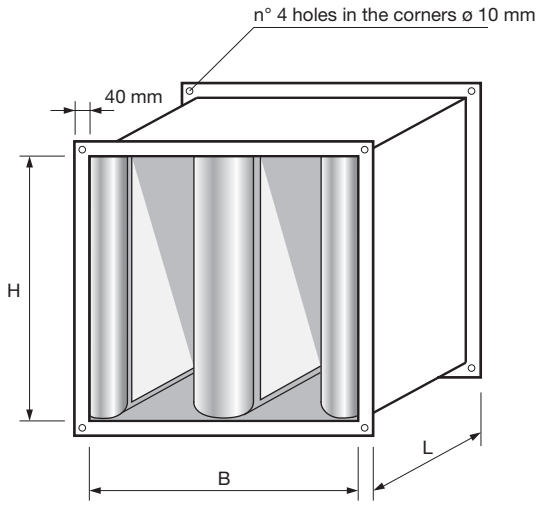
model RAS - 4L (module 350)	Pressure drop Pa	Front sizes (mm) 350 x 300	350 x 600	700 x 500	700 x 700	1050 x 800	1400 x 1000	1400 x 1200	1750 x 1100
		Air flow (m³/s)							
	10	0,28	0,56	0,93	1,31	2,24	3,73	4,48	5,13
	20	0,40	0,80	1,33	1,87	3,20	5,33	6,40	7,33
	30	0,48	0,96	1,59	2,23	3,82	6,37	7,64	8,76
	40	0,55	1,09	1,82	2,55	4,37	7,28	8,74	10,01

model RAS - 4M (module 400)	Pressure drop Pa	Front sizes (mm) 400 x 300	400 x 600	800 x 500	800 x 800	1200 x 800	1200 x 1200	1600 x 1200	1600 x 1500
		Air flow (m³/s)							
	10	0,46	0,92	1,54	2,46	3,70	5,54	7,39	9,24
	20	0,65	1,31	2,18	3,49	5,23	7,85	10,46	13,08
	30	0,78	1,56	2,60	4,16	6,24	9,36	12,48	15,6

** These values refer to a 1200 m long attenuator installed between two ducts.*

For different types, performances and conditions see our technical catalogue or visit our web site www.sagicofim.com

Size



How to determine the price and how to order

1. Choose the table corresponding to the chosen length **(L)**
2. Determine the number of the modules dividing the width or base (B) of the attenuator by the value of the module of the relevant model.
   - Module **A = 300**
   - Module **L = 350**
   - Module **M = 400**
3. Position yourself on the line that matches the height (H) of the attenuator and choose the price between tfe one of the standard version (RAS) and the one with perforated sheet (RAS/LF)

Example: **RAS - 2L 1050 x 900 x 600**

module **L** is equal to 350 so **1050 : 350 = 3**;
so this attenuator has 3 modules
and the price is 600,00 € for the standard version
and 674,00 € for the perforated sheet version