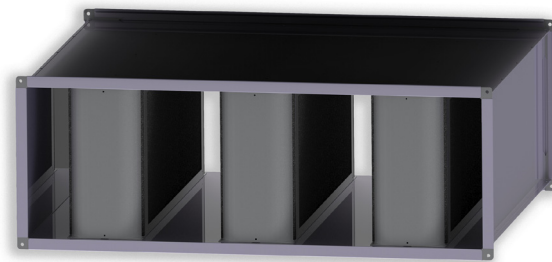


# RECTANGULAR SILENCERS WITH SOUND-ABSORBING



## Series ESRS

Rectangular silencer with sound-absorbing splitters to control noise in air conditioning, heating and ventilation systems. The splitters, with an aerodynamic profile at the inlet and outlet, allow low pressure drops with excellent attenuation performances.

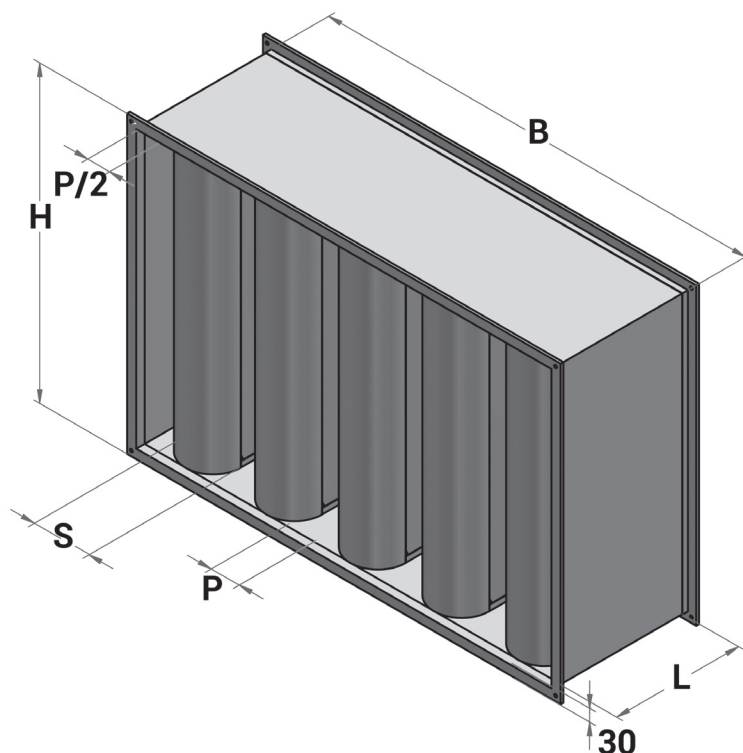
### CHARACTERISTICS

External structure: 0.8 m thick galvanised steel frame, 30 mm flange for lengths up to 6 m, 40 mm flange for longer lengths.

Splitters: sound-absorbing splitters with 0.8 m thick galvanised steel frame, 50 kg/m<sup>3</sup> density rock wool with anti-flaking surface and micro-extended mesh.

### ON REQUEST

AISI 304 or AISI 316 stainless steel version.  
Hygienic version with VDI 60/22 certified insulation.



## OPERATING DATA AND PRICE LIST

S: splitter thickness 200 mm  
P: air passages 100 mm

Pa: pressure drop in Pascal for  
length 1200 mm.  
all dimensions are expressed in  
mm

| dimension<br>BxH | frontal<br>surface | free sur-<br>face | no. of<br>splitters | front speed(m/s)            |       |       |
|------------------|--------------------|-------------------|---------------------|-----------------------------|-------|-------|
|                  |                    |                   |                     | 2,5                         | 3,5   | 4     |
|                  |                    |                   |                     | flow rate m <sup>3</sup> /h |       |       |
| mm               | mq                 | mq                |                     | 33 Pa                       | 63 Pa | 78 Pa |
| 300x300          | 0,09               | 0,03              | 1                   | 810                         | 1135  | 1300  |
| 300x450          | 0,135              | 0,05              | 1                   | 1215                        | 1705  | 1945  |
| 300x600          | 0,18               | 0,06              | 1                   | 1620                        | 2270  | 2595  |
| 600x300          | 0,18               | 0,06              | 2                   | 1620                        | 2270  | 2595  |
| 600x450          | 0,27               | 0,09              | 2                   | 2430                        | 3405  | 3890  |
| 600x600          | 0,36               | 0,12              | 2                   | 3240                        | 4540  | 5185  |
| 600x900          | 0,54               | 0,18              | 2                   | 4860                        | 6805  | 7780  |
| 900x300          | 0,27               | 0,09              | 3                   | 2430                        | 3405  | 3890  |
| 900x450          | 0,405              | 0,14              | 3                   | 3645                        | 5105  | 5835  |
| 900x600          | 0,54               | 0,18              | 3                   | 4860                        | 6805  | 7780  |
| 900x900          | 0,81               | 0,27              | 3                   | 7290                        | 10210 | 11665 |
| 900x1050         | 0,945              | 0,32              | 3                   | 8505                        | 11910 | 13610 |
| 900x1200         | 1,08               | 0,36              | 3                   | 9720                        | 13610 | 15555 |
| 1200x450         | 0,54               | 0,18              | 4                   | 4860                        | 6805  | 7780  |
| 1200x600         | 0,72               | 0,24              | 4                   | 6480                        | 9075  | 10370 |
| 1200x750         | 0,9                | 0,3               | 4                   | 8100                        | 11340 | 12960 |
| 1200x900         | 1,08               | 0,36              | 4                   | 9720                        | 13610 | 15555 |
| 1200x1050        | 1,26               | 0,42              | 4                   | 11340                       | 15680 | 18145 |
| 1200x1200        | 1,44               | 0,48              | 4                   | 12960                       | 18145 | 20740 |
| 1200x1500        | 1,8                | 0,6               | 4                   | 16200                       | 22680 | 25920 |
| 1500x600         | 0,9                | 0,3               | 5                   | 8100                        | 11340 | 12960 |
| 1500x750         | 1,125              | 0,38              | 5                   | 10125                       | 14175 | 16200 |
| 1500x900         | 1,35               | 0,45              | 5                   | 12150                       | 17010 | 19440 |
| 1500x1200        | 1,8                | 0,6               | 5                   | 16200                       | 22680 | 25920 |
| 1500x1500        | 2,25               | 0,75              | 5                   | 20250                       | 28350 | 32400 |
| 1500x1800        | 2,7                | 0,9               | 5                   | 24300                       | 34020 | 38880 |
| 1800x600         | 1,08               | 0,36              | 6                   | 9720                        | 13610 | 15555 |
| 1800x750         | 1,35               | 0,45              | 6                   | 12150                       | 17010 | 19440 |
| 1800x900         | 1,62               | 0,54              | 6                   | 14580                       | 20415 | 23330 |
| 1800x1200        | 2,16               | 0,72              | 6                   | 19440                       | 27220 | 31105 |
| 1800x1500        | 2,7                | 0,9               | 6                   | 24300                       | 34020 | 38880 |
| 1800x1800        | 3,24               | 1,08              | 6                   | 29160                       | 40825 | 46660 |
| 1800x2100        | 3,78               | 1,26              | 6                   | 34020                       | 47630 | 54435 |
| 2100x900         | 1,89               | 0,63              | 7                   | 17010                       | 23815 | 27220 |
| 2100x1200        | 2,52               | 0,84              | 7                   | 22680                       | 31755 | 36290 |
| 2100x1500        | 3,15               | 1,05              | 7                   | 28350                       | 39690 | 45360 |
| 2100x1800        | 3,78               | 1,26              | 7                   | 34020                       | 47630 | 54435 |

## SOUND ATTENUATION

| silencer length | octave bands (Hz) |     |     |     |     |     |     |     |
|-----------------|-------------------|-----|-----|-----|-----|-----|-----|-----|
| mm              | 63                | 125 | 250 | 500 | 1 K | 2 K | 4 K | 8 K |
| 600             | 3                 | 4   | 9   | 16  | 20  | 21  | 13  | 7   |
| 900             | 4                 | 6   | 14  | 25  | 31  | 34  | 20  | 11  |
| 1200            | 6                 | 9   | 19  | 34  | 43  | 46  | 27  | 15  |
| 1500            | 7                 | 11  | 24  | 43  | >50 | >50 | 32  | 18  |
| 1800            | 9                 | 14  | 29  | >50 | >50 | >50 | 36  | 20  |
| 2100            | 10                | 16  | 34  | >50 | >50 | >50 | 39  | 22  |

## PRESSURE DROPS AND NOISE GENERATED

| Front section speed | Pressure drops | Noise generated |
|---------------------|----------------|-----------------|
| V (m/s)             | Dpt Pa         | Lwa dB(A)       |
| 1                   | 5              | <20             |
| 2                   | 21             | 32              |
| 3                   | 47             | 44              |
| 4                   | 78             | 52              |
| 5                   | 125            | 57              |

## WEIGHTS (KG)

| dimensions<br>BxH | length (mm)  |              |              |              |
|-------------------|--------------|--------------|--------------|--------------|
|                   | 600          | 900          | 1200         | 1500         |
| mm                | Peso<br>(Kg) | Peso<br>(Kg) | Peso<br>(Kg) | Peso<br>(Kg) |
| 300x300           | 12           | 18           | 24           | 29           |
| 300x450           | 16           | 23           | 29           | 36           |
| 300x600           | 19           | 27           | 36           | 44           |
| 600x300           | 21           | 31           | 40           | 50           |
| 600x450           | 26           | 38           | 49           | 61           |
| 600x600           | 32           | 45           | 59           | 73           |
| 600x900           | 42           | 60           | 78           | 96           |
| 900x300           | 30           | 43           | 57           | 70           |
| 900x450           | 37           | 53           | 69           | 86           |
| 900x600           | 44           | 63           | 82           | 101          |
| 900x900           | 59           | 83           | 107          | 132          |
| 900x1050          | 65           | 93           | 120          | 147          |
| 900x1200          | 73           | 102          | 132          | 162          |
| 1200x450          | 48           | 69           | 89           | 110          |
| 1200x600          | 57           | 81           | 105          | 129          |
| 1200x750          | 66           | 93           | 212          | 149          |
| 1200x900          | 75           | 106          | 117          | 168          |
| 1200x1050         | 84           | 118          | 152          | 187          |

| dimensions<br>BxH | length (mm)  |              |              |              |
|-------------------|--------------|--------------|--------------|--------------|
|                   | 600          | 900          | 1200         | 1500         |
| mm                | Peso<br>(Kg) | Peso<br>(Kg) | Peso<br>(Kg) | Peso<br>(Kg) |
| 1200x1200         | 93           | 130          | 168          | 206          |
| 1200x1500         | 110          | 155          | 200          | 144          |
| 1500x600          | 69           | 99           | 128          | 158          |
| 1500x750          | 80           | 114          | 147          | 181          |
| 1500x900          | 91           | 129          | 166          | 204          |
| 1500x1200         | 112          | 158          | 204          | 249          |
| 1500x1500         | 134          | 188          | 242          | 195          |
| 1500x1800         | 155          | 217          | 279          | 341          |
| 1800x600          | 82           | 117          | 151          | 186          |
| 1800x750          | 95           | 134          | 173          | 213          |
| 1800x900          | 107          | 151          | 195          | 240          |
| 1800x1200         | 132          | 186          | 240          | 293          |
| 1800x1500         | 158          | 221          | 284          | 347          |
| 1800x1800         | 183          | 255          | 328          | 400          |
| 1800x2100         | 208          | 290          | 372          | 453          |
| 2100x900          | 124          | 174          | 225          | 276          |
| 2100x1200         | 152          | 214          | 275          | 337          |
| 2100x1500         | 181          | 253          | 326          | 398          |
| 2100x1800         | 210          | 293          | 376          | 459          |