KSO-P Fire damper

KSO-P is developed for use as a fire damper in exhaust ventilation systems. KSO-P has a low sound level and good natural sound attenuation.

Quick-selection

<table>
<thead>
<tr>
<th>Valve Size</th>
<th>Air flow l/s [m³/h] at sound level</th>
<th>25 dB</th>
<th>30 dB</th>
<th>35 dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSO-P-100</td>
<td></td>
<td>28</td>
<td>34</td>
<td>40</td>
</tr>
<tr>
<td>KSO-P-125</td>
<td></td>
<td>43</td>
<td>50</td>
<td>59</td>
</tr>
<tr>
<td>KSO-P-160</td>
<td></td>
<td>61</td>
<td>73</td>
<td>80</td>
</tr>
<tr>
<td>KSO-P-200</td>
<td></td>
<td>69</td>
<td>82</td>
<td>99</td>
</tr>
</tbody>
</table>

Product facts

**KSO-P Fire damper**

Manufactured of sheet steel
Vertical and horizontal ducting
Access hole not needed
Springloaded fuse can be changed

**Product code example:**
Fire damper KSO-P-160.
Air flow, pressure drop, sound level

KSO-P-100

KSO-P-160

KSO-P-125

KSO-P-200

Specifications are subject of alteration without further notice.
Acoustical data, dimensions and weights, installation

Sound power level $L_W$

<table>
<thead>
<tr>
<th>Size</th>
<th>Correction of sound level $K_{oct}$ in dB at 125 250 500 1000 2000 4000 8000 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>2 -1 -1 -1 -4 -8 -22</td>
</tr>
<tr>
<td>125</td>
<td>-3 -3 -3 -2 -7 -11 -24</td>
</tr>
<tr>
<td>160</td>
<td>0 -3 -1 2 -7 -11 -25</td>
</tr>
<tr>
<td>200</td>
<td>1 -3 -4 3 -8 -12 -29</td>
</tr>
</tbody>
</table>

Tolerance ±3 ±2 ±2 ±1 ±2 ±2 ±2 ±3

Sound power levels by octave bands are obtained by adding to total sound pressure level $L_{p10A}$ dB(A) the corrections $K_{oct}$ presented in the table according to the following formula:

$$L_{Woct} = L_{p10A} + K_{oct}$$

Correction $K_{oct}$ is average value in frequency range (Hz).

Sound attenuation $\Delta L$

<table>
<thead>
<tr>
<th>Size</th>
<th>Adjustment (mm)</th>
<th>Sound attenuation in dB at 63 125 250 500 1000 2000 4000 8000 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>-10 0 +10</td>
<td>22 19 16 16 16 18 9 9</td>
</tr>
<tr>
<td>125</td>
<td>-10 0 +10</td>
<td>21 18 15 14 15 14 10 7</td>
</tr>
<tr>
<td>160</td>
<td>-10 0 +10</td>
<td>19 17 12 11 11 10 6 5</td>
</tr>
<tr>
<td>200</td>
<td>-10 0 +10</td>
<td>20 16 10 9 9 8 5 5</td>
</tr>
</tbody>
</table>

Tolerance ±3 ±2 ±2 ±1 ±2 ±2 ±2 ±3

The average sound attenuation $\Delta L$ from duct to room including the end reflection of the connecting duct in ceiling installation, is obtained in the table above.

Dimensions and weights

Installation

Valve is supplied complete with spring loaded fuse and fixed by a “screwing action” to locate the valve lugs into indents in the mounting ring.

Regulation and measurement of air flow

Measurement of air flow is achieved by measuring the pressure difference with a separate test probe. Regulation of air flow is achieved by turning the control disc to change adjustment dimension $s$ (mm). Measuring data sheets are supplied in the folder “Measurement and regulation of air flow”.

Installation, adjustment and maintenance

Instructions for installation, adjustment and maintenance are described in detail in our technical instructions which are supplied with every product. The instructions are also available on the Internet at: www.flaktwoods.com

Technical data and dimensioning

For complete dimensioning, please refer to the WinDon product selection program.

This program can be found on our CD or on the Internet at: www.flaktwoods.com

$\text{Definitions}$

- $q_v$ air volume (l/s), (m$^3$/h)
- $\Delta p_{tot}$ total pressure drop (Pa)
- $L_{p10A}$ sound pressure level with 4 dB room attenuation (10 m$^2$sab) [dB(A)]
- $L_{Woct}$ sound power level by octave bands (dB)
- $\Delta L$ sound attenuation (dB)
- $K_{oct}$ correction (dB)
Application, material, product code

Application
Fire damper KSO-P is an exhaust valve, used to prevent spreading of fire and smoke to duct systems. The valve is approved in fire class E 60.

KSO-P emits a low sound level and has good natural sound attenuation.

A springloaded fuse will close the valve when temperature in the immediate vicinity reaches the fusible link rating, +70°C.

The springloaded fuse can be changed.

Material and surface finish
The valve is manufactured from hot galvanized steel sheet SS 1151 and meets the requirements of environmental class M2 according to VVS AMA 98.

KSO-P is powder coated for a high surface finish and good impact and scratch resistance. Standard colour White RAL-9010, gloss 70, equivalent to NCS S 0502-Y.

Other colors on demand.

The valve body is supplied with a cellular plastic gasket to form an airtight seal against the mounting frame.

The separate mounting frame is manufactured from galvanized steel sheet. Each valve is delivered with mounting ring according to the country specific approvals.

Descriptive text
Fire damper valve KSO-P manufactured by Fläkt Woods.

Product code
Fire damper (including mounting ring) KSO-P-aaa

Connection dimensions in mm 100, 125, 160, 200

Accessories
Fuses with link rating +50°C resp. +70°C.