



Damper

BSE-K90-18017
Test certificate Z-41.3-332

Resistance class K90-18017

Ordering example:

BSE-W-K90-18017/100/MS-E

Accessories (optional)

- MS-E** - electrical limit switch
- RT** - tee for cleaning
- SNP-S** - male sleeve connection
- NP** - male-male connector

NW 100, 125, 160 and 200 (NW 80 only for the insertion into WFR)

W = installation into walls, optionally with a mounting frame type:

- ER**
 - ER-I**
 - ER-T**
 - WS**
 - WP**
 - WP-Z**
- steel mounting frame for the embedding with mortar (wet mounting)
- steel mounting frame with a fastening plate and dowels, without the embedding with mortar (dry mounting)
- steel mounting frame with a square fastening plate, without the embedding with mortar (dry mounting)
- as above, however for the installation of classified or system-tested shafts, optionally with a connecting collar, type ÜG
- without a mounting frame for the insertion into spirally wound ducting

D = Floor installation along with ceiling sleeve

Essential advantages

- The STRULIK BSE dampers ideally fulfill the functioning of a K90-18017 resistance class damper.
- The dampers can be mounted into walls and floors..
- No special fixing arrangements are required (duct insertion), i.e. saving of time and high economy.
- The dampers are allowed to be used in ventilation systems in accordance with DIN 18017-3 for supply and exhaust air inside and outside of F90/F30 shaft partition walls, L90/L30 classified of system-tested shafts with or without mortar (wet and dry installation).
- The dampers are allowed to be used in domestic kitchens.
- Ventilation hoods (hoods without an own fan), which are part of a central ventilation system in accordance with DIN 18017-3, are allowed to be connected to these dampers.

Essential features

1/ Safety classification.

- Official classification:
Resistance class K90-18017
- 72 °C release temperature
- Maximum sealing between the body and the blades

2/ Low noise level

- Insignificant reduction of cross-sectional area
- The damper can be combined with a disk valve without disturbing the through-flow of air (ideal relation between the air volume and noise level).

3/ Sizes available

- NW 80 (only for the insertion into spirally wound ducting)
- NW 100
- NW 125
- NW 160
- NW 200



Please note: The installation examples and the dimensions are the same as for WBE-K90-18017 – see page 6 to 10.

DEUTSCHES INSTITUT FÜR BAUTECHNIK

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Allgemeine bauaufsichtliche Zulassung

Zulassungsnummer:

Antragsteller: Strulik GmbH
 Neesbächer Straße 13
 65567 Hürfel-Dauborn

Zulassungsgegenstand: Abgabemrichtungen gegen Brandübertragung in Lüftungsleitungen entsprechend DIN 18 017-3 Typ BSE K 90-18017

Geltungsdauer bis: 31. Januar 2002

Der obengenannte Zulassungsgegenstand wird hiermit allgemein bauaufsichtlich zugelassen.
 Diese allgemeine bauaufsichtliche Zulassung umfasst sieben Seiten und 15 Anlagen.

Safety

The Strulik BSE dampers have been submitted to many test series in Germany and abroad. These test series did not only include the effectiveness of FIRE PROTECTION and FLAME TIGHTNESS, but also the STABILITY OF FLAMES and the correct functioning of the FUSIBLE LINK. In Germany the damper has been tested against fire and smoke in accordance with the principles of construction and testing of the "Deutsches Institut für Bautechnik" in Berlin. The expert opinion for a K90-18017 resistance class has been prepared by the "Institut für Haustechnik" of the Technical University of Munich.

VdS in Cologne has prepared the test report on the release mechanism for an activation temperature of 72 °C in accordance with DIN 4102.



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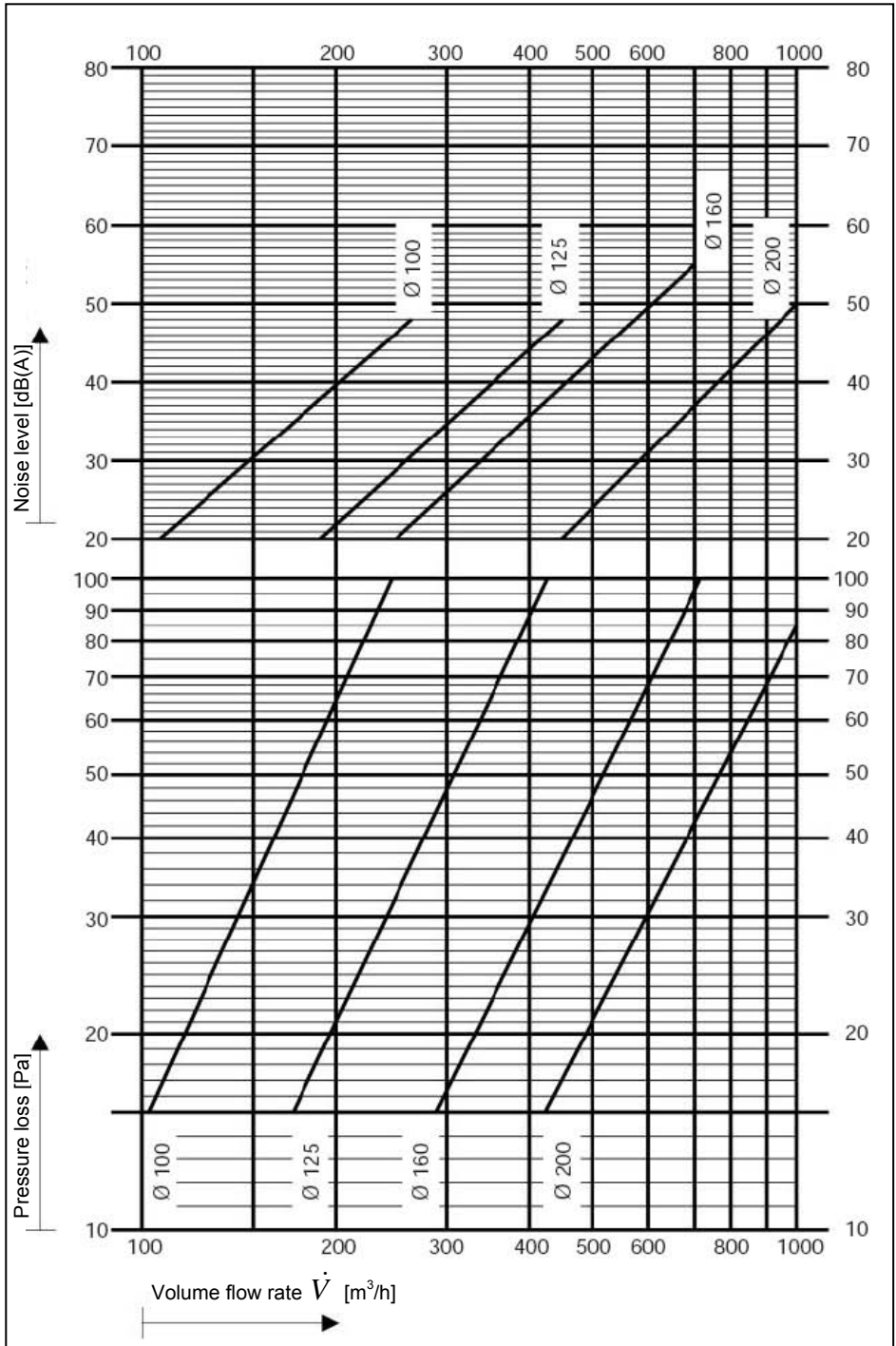
Design diagrams

Pressure loss and noise level

Note

For aerodynamic reasons the airflow velocity shall not exceed ≤ 8 m/s.

The BSE-W and BSE-D dampers can be used for all directions of airflow.





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Technical data, maintenance

Technical data

Length of the damper

NW 80 \triangleq L= 57 mm

NW 100, 125, 160 and 200 \triangleq L= 72,5 mm

Largest outside diameter of the frame
(only for BSE-D)

NW 100 = 131 + 3 mm

NW 125 = 156 + 3 mm

NW 160 = 191 + 3 mm

NW 200 = 232 + 3 mm

Weight in kg

| NW | Type | BSE-W only the element | BSE-D complete |
|-----|------|------------------------|----------------|
| 80 | | ~ 0,14 | – |
| 100 | | ~ 0,24 | ~ 2,5 |
| 125 | | ~ 0,3 | ~ 3 |
| 160 | | ~ 0,48 | ~ 3,7 |
| 200 | | ~ 0,62 | ~ 5 |

Functioning

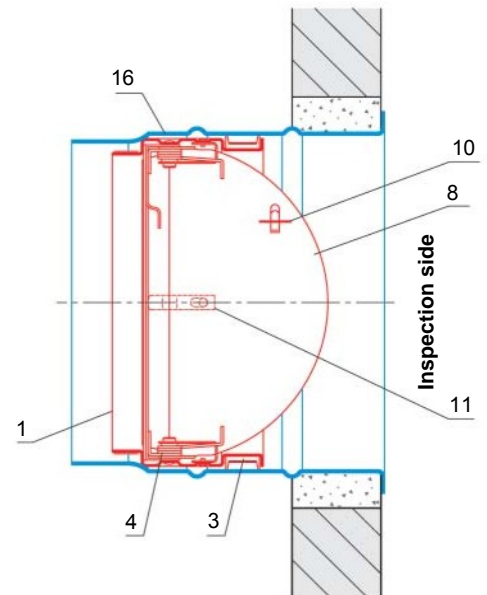
Strulik dampers for supply and exhaust air ventilation can be used in such cases, where the safety regulations require a K90-18017 resistance class for the installation into a wall or floor. In the event of a fire or the like, the integral fusible link releases at 72 °C the tension path of the release spring and the damper blades close abruptly.

After actuation, the damper is put into operation again by simply tensioning the release spring again and inserting a new fusible link.

BSE-W (drawing with the ER mounting frame)

Technical details

- 1 Housing
- 3 Profile washer
- 4 Locking spring
- 8 Damper blade
- 10 Fusible link
- 11 Locking plate
- 13 Retaining spring
- 15 BSE-D mounting frame
- 16 BSE-W mounting frame
- 18 Retaining clip (only BSE-D or if in the design with an electrical limit switch)
- 21 Wall clamp (only BSE-D)



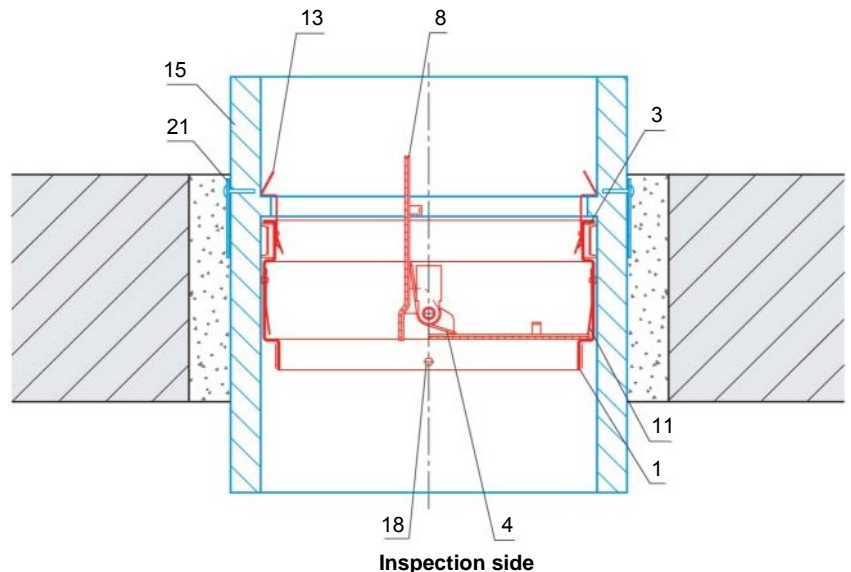
Maintenance of the damper

Polluted and humid air can affect the permanent fail-safe functioning. Therefore, after commissioning of the ventilation system, all dampers shall be serviced twice a year.

If two consecutive examinations show no malfunctions, then the dampers only have to be serviced once a year.

If maintenance contracts are placed for the ventilation systems, it is recommended that the maintenance of the dampers is included in the contract.

BSE-D



See also our separate operating instructions!

Testing

Testing of the integrity of the dampers.

After removing the connecting duct, check if the fusible link is in a faultless condition. Take the damper out of the mounting frame (15 or 16), remove the fusible link (10), close the damper a few times; **before opening it again, the locking plates (11) shall be released**; the bearing shall be free-moving. Observe the fusible link for faults. If no faults are apparent, then insert the fusible link and put the damper back into the mounting frame (15 or 16). Assemble the connection piece.

Clearing of faults

If faults have been located, then these have to be cleared immediately. Only original parts shall be used for exchange.

Tender Text

| Item | Description | Unit Piece | Unit price EUR | Total EUR |
|------|--|---------------|-------------------|--------------|
| | <p>Installation into walls</p> <p>Damper with test certificate Z-41.3-332 for ventilation systems in accordance with DIN 18017, with a K90-18017-3 fire resistance class. Installation inside and outside of F90/F30 shaft partition walls, L90/L30 classified or system-tested shafts with or without a mortar embedding (wet or dry installation). Minimum thickness 24 mm for F30 Minimum thickness 40 mm for F90 The housing consists of a steel cylinder, with two eccentrically arranged butterfly blades of sheet steel. For the installation into a wall, the damper is simply inserted into the spirally wound ducting.</p> <p>Technical data</p> <p>Diameters: 80 mm (only for the insertion into standard spirally wound ducting) 100 mm 125 mm 160 mm 200 mm</p> <p>Total length including mounting frame: 120 mm</p> <p>Release temperature: 72 °C</p> <p>Air volume: m³/h</p> <p>Noise level L_{WA}: dB[A]</p> <p>Manufacturer: Strulik</p> <p>Type: BSE-W-K90-18017 + ER including mounting frame</p> <p>Accessories</p> <p>Electrical limit switch Type: MS-E Male sleeve connection Type: SNP-S Male-male connection Type: NP</p> <p>Special mounting frames</p> <p>Type: WP including fastening plate, without mortar embedding Type: WS including fastening clip and steel dowels, without mortar embedding Type: ER-I for the direct connection with a bend or sound-absorbing bend Type: ER-T as above, however in telescopic design</p> | | | |

Tender Text

| Item | Description | Unit Piece | Unit price EUR | Total EUR |
|------|--|------------|----------------|-----------|
| | <p>Installation into floors</p> <p>Damper with test certificate Z-41.3-332 for ventilation systems in accordance with DIN 18017, with a K90-18017-3 fire resistance class. Installation into concrete floors, minimum thickness 100 mm. The housing consists of a steel cylinder with two eccentrically arranged butterfly blades of sheet steel. For the installation into a floor, a special mounting frame is used that has a bar, which takes up the two mounting springs that are staggered by 180°.</p> <p>Technical data</p> <p>Diameters: 100 mm 125 mm 160 mm 200 mm</p> <p>Total length including mounting frame: 210 mm</p> <p>Release temperature: 72 °C</p> <p>Air volume: m³/h</p> <p>Noise level L_{WA}: dB[A]</p> <p>Manufacturer: Strulik</p> <p>Type: BSE-D-K90-18017 including mounting frame</p> <p>Accessories</p> <p>Electrical limit switch Type: MS-E Inspection tee Type: RT Male sleeve connection Type: SNP-S Male-male connection Type: NP</p> | | | |