Technical Documentation
"Installation, Mounting and Operating In-

Fig.: SVA-FS

SVA-FS

Fire Damper Disc Valve

USABILITY CERTIFICATE

- **General building supervisory approval (abZ) / general type approval (aBG)**
  Z-41.3-312

CLASSIFICATION AND STANDARD

- **Classification**
  K90
- **Application**
  For installation in fire-resistant solid walls and ceilings in connection with a connected ventilation duct.

PERFORMANCE DATA

- For automatic locking of fire lobbies

SPECIAL FEATURES

- Fire prevention
- Low pressure loss
- Low volume level
- Sheet steel design with epoxy resin powder coating (standard colour: RAL 9010 pure white; other RAL colours are possible)

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DESCRIPTION

The fire damper poppet valve SVA-FS **for supply and return air, with thermal trigger** (72 °C) and adjustable valve plate for air volume regulation has, according to **approval certificate Z-41.3-312** with one-sided connected ventilation ducts made of non-flammable building materials, the **resistance class K 90** (resistant for 90 min.), in which the opening in the non-flammable ventilation ducts must be distanced from the damper housing by at least 1.5 times the internal ventilation duct diameter. Otherwise the fire damper poppet valve only has the resistance class K 30. When connected to flammable ventilation ducts, the fire damper poppet valve SVA-FS has the resistance class K 30 (resistant for 30 minutes). However, the connected ventilation ducts must only be of the type which according to its construction or installation does not exert a considerable stress on the shut-off damper or walls when warming up during a fire. The fire damper poppet valve type SFA-FS **may be fitted in walls made of masonry to DIN 1053 with a thickness of ≥ 115 mm or concrete with a thickness of ≥ 100 mm and in ceilings made of concrete with a thickness of ≥ 100 mm. This also applies to shaft walls and walls of vertical ventilation ducts made of concrete and masonry to DIN 1053 having the above-mentioned dimensions.**
The distance between the housing walls of fire damper poppet valves must be at least 150 mm. Parts made of flammable materials must have a least a distance of 50 mm to the fire damper poppet valve surface.
Not proven is the use of the locking device in ventilation ducts, where a particular high degree of decontamination through grease is expected. Nor has the suitability of the fire damper poppet valve SVA-FS been proven for ventilation ducts which can transmit cold smoke to other floors or fire compartments.

CONSTRUCTION

Locking plate
- Silicate structural panel made of non-combustible material
  (EN 13501-1)

Housing, shut-off plate and wall sleeve
- Sheet steel painted to RAL 9010 (white, standard)

- Optionally (at an extra charge)
  Other RAL colours available on request

ACCESSORIES

Extension spigot (at an extra charge)

FASTENING

Valve fastening
- at the wall sleeve with bayonet catch

FUNCTIONAL TEST

The function of all fire damper poppet valves must be checked every six months after commissioning of the ventilation system.
If two consecutive functional checks do not show any defects, the fire damper poppet valves only have to be tested once a year.
The fire damper poppet valve must be installed in a way to allow internal inspections, checks and cleanings are possible at any time.
For this purpose, the fire damper poppet valve can be removed from the wall sleeve.

USE AND APPLICATION

The fire damper poppet valve (shut-off device) is intended for vertical or horizontal installation in ventilation systems in accordance with the national regulations on ventilation systems (in Germany, for example, LüAR).
The fire damper poppet valve has fire resistance class K90 when installed
- in fire-resistant solid walls made of masonry, with a minimum thickness of 115 mm, or
- in fire-resistant solid walls or ceilings made of concrete, with a minimum thickness of 100 mm,

when connected on one side to the ventilation system via a ventilation duct made of non-flammable building materials. For this, any openings in these ventilation ducts must be distanced from the fire damper poppet valve by at least 1.5 times the internal ventilation duct diameter.
The solid walls and solid ceilings must comply with the Technical Construction Regulations.
The fire damper poppet valve may also be installed in solid walls or solid ceilings of a lower fire resistance class. In this case, the fire damper poppet valve has the same fire resistance duration in its relevant fire resistance class "K" as the fire-resistant wall or ceiling to be protected.

MODELS AND DIMENSIONS

DIMENSIONS

SVA-FS

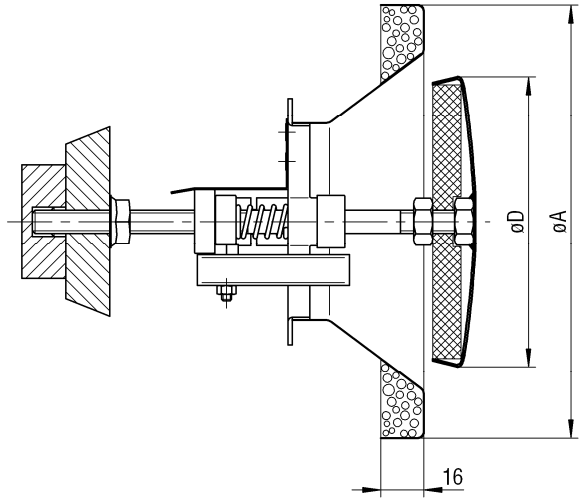

Figure 1: Dimensions SVA-FS

Wall sleeve

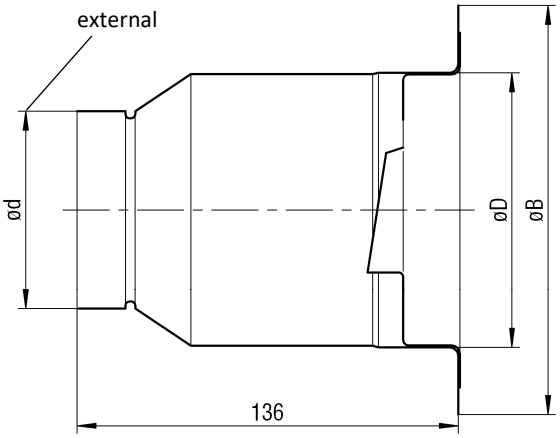

Figure 2: Wall sleeve

Accessories

Extension spigot

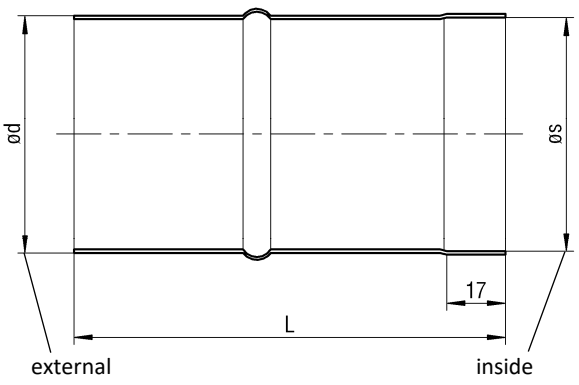

Figure 3: Extension spigot

Available sizes

Nominal size NG	øA [mm]	øB [mm]	øD [mm]	ød [mm]	øs [mm]	L [mm]
100	150	145	100	69	71	125
150	200	190	150	123	125	205

Table 1: Available sizes SVA-FS

INSTALLATION DETAILS

The cavities between the shut-off device and the solid wall or ceiling to be protected must be completely filled with mortar of mortar class M2.5; M5; M10 or M15 according to DIN EN 998-2 (building components at least 100 mm thick), with concrete or with plaster mortar.

Mounting situation for resistance class K 30

When connected to ventilation ducts made of flammable building materials.

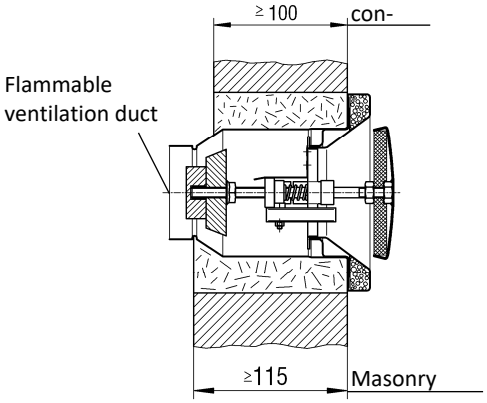

Figure 4: Mounting situation for resistance class K 30

Mounting situation for resistance class K 60 / 90

The shut-off devices of resistance class K 60 and K 90 (resistant for 60 / 90 minutes) must be connected to ventilation ducts made of non-flammable building materials whose openings are distanced from the fire damper poppet valve housing by at least 1.5 times the internal ventilation duct diameter. Otherwise the shut-off dampers only have the resistance class K 30.

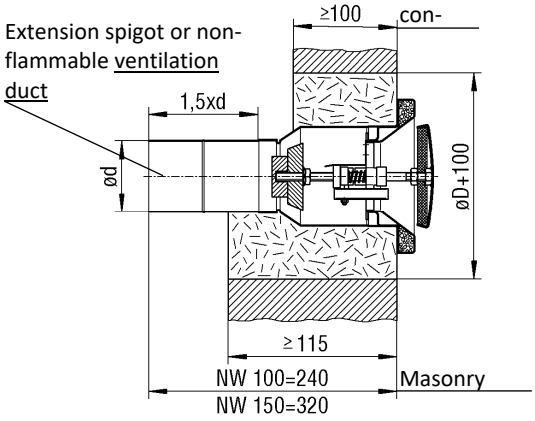

Figure 5: Mounting situation for resistance class K 60 / 90

TECHNICAL DATA

Pressure loss and noise level

SVA-FS 150

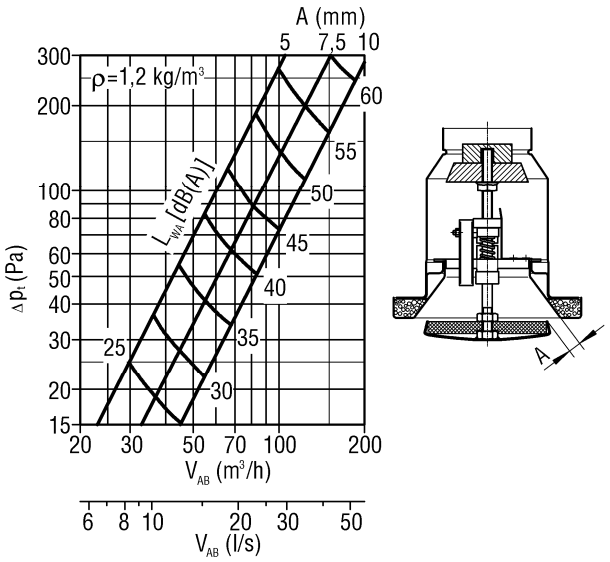

Diagram 1: Pressure loss and noise level SVA-FS 150

Legend

V_{AB}	[m³/h] [l/s]	= Return air volume
P	[kg/m³]	= Density
Δp_t	[Pa]	= pressure loss
L_{WA}	[dB(A)]	= A-weighted sound power level
A	[mm]	= Gap width
NG	[mm]	= Nominal size

SPECIFICATION TEXTS

Fire damper poppet valve (shut-off device) for supply and return air, with thermal trigger (72 °C) and adjustable valve plate for air volume regulation.
Resistance class K90, with ventilation duct made of non-flammable building materials connected on one side.
When connected to flammable ventilation ducts, its resistance class is K 30.
The fire damper poppet valve may be fitted in walls made of masonry to DIN 1053 with a thickness of ≥ 115 mm or concrete with a thickness of ≥ 100 mm and in ceilings made of concrete with a thickness of ≥ 100 mm. This is also valid for duct walls and walls from vertical ventilation ducts.
Housing, shut-off plate and wall sleeve made of painted sheet steel, colour RAL 9010 (white).
Manual trigger on valve disc. Valve fixing at the wall sleeve with bayonet fixing.

Approval certificate number: Z-41.3-312
Product: SCHAKO **type SVA-FS**

- NG 100
- NG 150

Accessories:
- Extension spigot made of galvanised sheet steel

Alternative model (upon request and at an extra charge)
RAL colours

ORDER CODE

ORDER CODE SVA-FS

01	02	03	04
Type	Nominal size	Paint	Accessories
Example			
SVAFS	-100	-9010	-Z00

EXAMPLE
SVAFS-100-9010-Z00
Type **SVAFS** = Fire damper poppet valve SVA-FS | Nominal size = **100** mm | **9010** = Paint RAL9010| Accessories **Z00** = without accessories

ORDER DETAILS

01 - TYPE

SVAFS = fire damper poppet valve SVA-FS

02 - NOMINAL SIZE

100 - 150
in mm - always with three digits

03 – PAINT

9010 = RAL colour white (standard)
xxxx = RAL colour on request (always with 4 digits)

04 - ACCESSORIES

Z00 = without accessories (standard)
ZVS = extension spigot

SERVICE

Functional checking, cleaning, repair

Polluted and damp air can impair the permanent operational safety. This is why, after commissioning the ventilation system, all shut-off devices must be checked for proper function at six-month intervals, according to section 4 of the general building supervisory approval/general type approval Z-41.3-312.
If two consecutive functional tests show no defects, the shut-off devices only have to be checked at a yearly interval.

There is a risk of injury during functional tests. Therefore, to avoid any cutting, crushing, impact or other possible injuries, personal protective equipment (PPE) must be worn.

1. Functional test

Carefully perform the required cleaning work, for example in order to avoid damage to the sealings, etc. If defects have been detected during functional check, they must be eliminated immediately.

- Carefully remove the fire damper poppet valve from the wall sleeve (pos. 1) by turning it to the left.
- Check for possible damages.
- Mark the setting of the shut-off plate (pos. 2) or remeasure using a setting tool.
- Check the gap between the shut-off plate (pos. 2) and the housing (pos. 4) for soiling.
- Check fusible link (pos. 6) for damage. If it is damaged, it must be replaced (replacement fusible link type III 72 °C).
- Check the connection opening and the wall sleeve (pos. 1) for soiling and clean them, if necessary.
- Check the sealing (circumferential, pos. 3) on the valve for soiling and damage.
- Check the valve plate (pos. 2) setting once again before mounting; if necessary, adjust the gap size using the counter nut (pos. 5).
- Insert the fire damper poppet valve back into the wall sleeve (pos. 1) by turning it to the right.

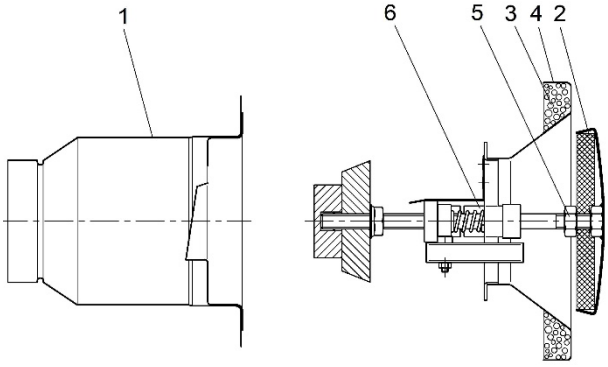

Figure 6: Wall sleeve and SVA-FS

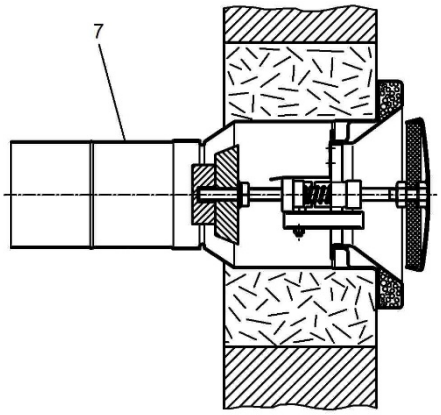

Figure 7: SVA-FS with extension spigot (pos. 7) installed

SAMPLE OF FUNCTIONAL TEST PROTOCOL

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Sample
Functional test protocol for_____

Cons. No. _____

Usability certificate: _____

Series: _____

Release device: _____

The following functional steps have been carried out according to the documents installation, mounting and operating instructions	Prior to commissioning	Next functional check in: _____	Next functional test in: _____	Next functional test in: _____	Next functional test in: _____
External check: System: _____ Item: _____					
Internal check: System: _____ Item: _____					
Additional check: System: _____ Item: _____					
without defects Date / tester					
with defects (see back) Date / tester					
without defects Date / tester					

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Sample
Functional test protocol for_____

Cons. No. _____

Defects found during the test on: _____

Sluggishness due to soiling.

Defects found during the test on: _____

Defects found during the test on: _____

Defects found during the test on: _____

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