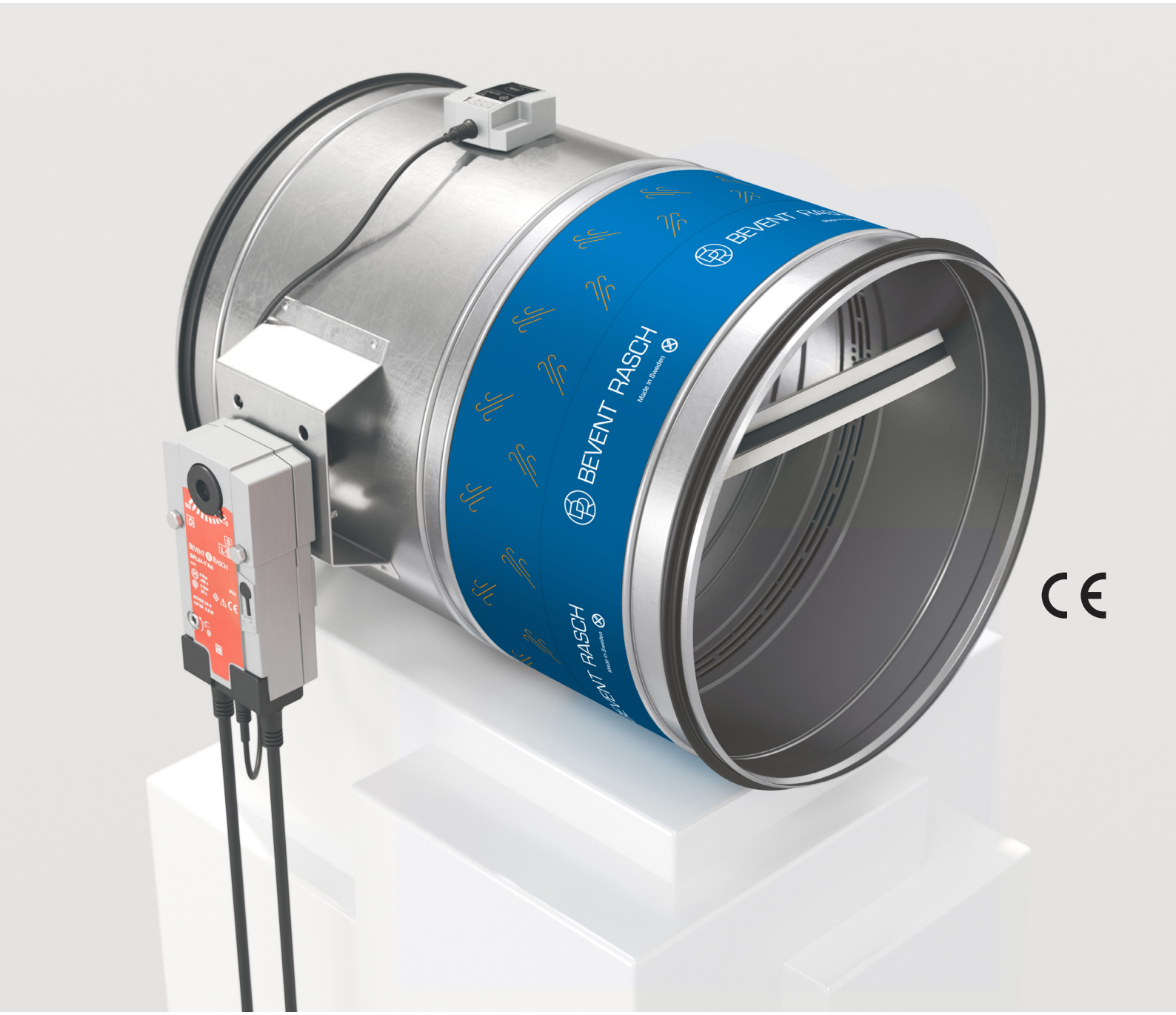
OPTIMUS 90®

Circular fire damper

FIRE SAFETY

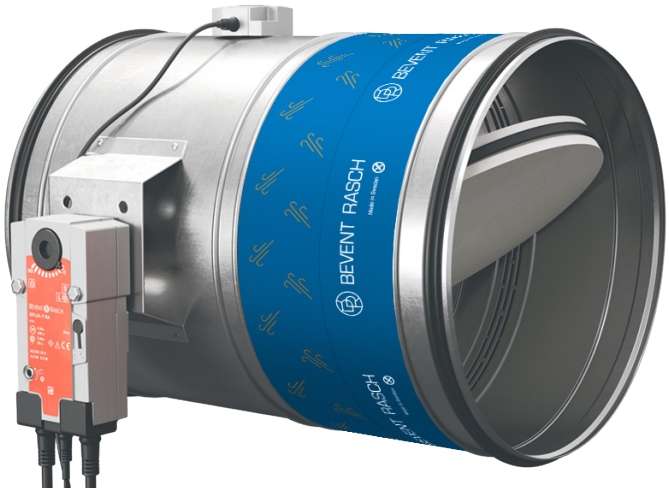


CE

20/11/2026

www.bevent-rasch.com

BEVENT RASCH



Quick facts

- Fire class EI90 / EI90S
- Sizes from 100 mm to 630 mm
- Fitted safety actuator 24 V or 230 V
- Low weight
- Easy installation from one side of the building part
- CE-marked building product in acc. with EN 15650:2010
- Available in MagiCAD

Use

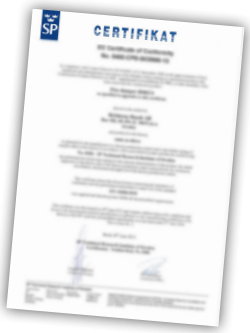
Dampers in combination with walls or floors for fire-sectioning of heating, ventilation and air conditioning installations in buildings. In accordance with the harmonised European Standard EN 15650:2010. In designs according to associated documents, installation instructions and when the damper is used in combination with smoke detectors and monitoring system (MRB, SIOX, FENIX), or the like, the spread of fire/combustion gases is prevented. No further action against the spread of fire/combustion gases is required.

Performance

CoCP (Certificate of Constancy of Performance) EN 15650:2010
0402-CPR-SC0051-19

Classification of fire resistance in accordance with EN 13501-3
EI90 (ve ho i <–> o) S

For complete classification, refer to the Performance Declaration.



Installation

OPTIMUS 90 is mounted on fire cell separating walls or floors, alternatively in horizontal insulated ducts running through fire cell separating building part, according to extensive installation instructions. Should not be installed outdoors, in damp or humid areas.

Actuator

OPTIMUS 90 is always supplied with an electric safety actuator with spring return complete with thermal sensor equipped with push button for local manual operating test. The sensor breaks the power supply to the actuator device if the temperature exceeds 72°C inside or outside the damper. 24 V actuators are always used with the MRB, SIOX, FENIX monitoring systems. The damper can also be supplied with 230 V electric actuator.
Note that the damper is always supplied with a safety actuator.

Activation

The Boverket Building Regulations state a requirement for smoke detectors verified in accordance with SS-EN 54-7 for activation of dampers. The obligatory thermal sensor closes the damper at 72°C in accordance with ISO 10294-4.

Control and monitoring

When the damper is used to prevent the spread of fire and smoke it must be closed via inputs from the smoke detector. This must be fitted in the ventilation duct near the damper or in another suitable location. Smoke detectors are monitored by means of Bevent Rasch's monitoring system or the like. The system also performs automatic function tests on the damper every 48 hours and is designed so that faults are indicated immediately and the damper closes. See www.bevent-rasch.se for further details.

Size Ø100-630 mm.

Design
OPTIMUS 90 is supplied complete with a factory mounted, maintenance-free, 24 V electric safety actuator with thermal sensor featuring built-in contacts to indicate the damper position. The damper comes as standard with spiral duct connections.

Material and surface finish
- Casing and details of galvanized steel sheet according of environmental class C3
- EPDM duct seals
- Blade seal of PE/PP
- Blade of Calcium Silicate

Accessories

BRTO	Wire mesh grille
RCKB	Junction box
RCDU	MRB-system, max 2 dampers
RCBK4	MRB-system, max 4 dampers
RCMU8	MRB-system, max 8 dampers
RCKD/-RD	Smoke detectors
SX:UNO/SX:ACCESS	SIOX-system, max 236 dampers
FENIX2	max 2 dampers
FENIX4 / FENIX+	max 16 dampers

Specification

Example: **Fire damper OPTIMUS 90 - 400 - 1 - 1**

Size, nom. diameter ØD mm

Material
Galvanized sheet steel = 1
Stainless EN 1.4404 = 3

Actuator
Electric 24V with thermal sensor = 1
Electric 230V with thermal sensor = 3
Electric 24V incl. SX:UNO = 6

Note Factory-fitted actuator device is always included.

Installation options for OPTIMUS 90

Size	Fire class	Wall of drywall EI90 Group A, SS-EN1363-1	Solid wall	Solid floor*	Duct
Ø400 - Ø630	EI90S	√	√	√	
Ø100 - Ø315	EI90S	√	√	√	√

*125 mm lightweight concrete

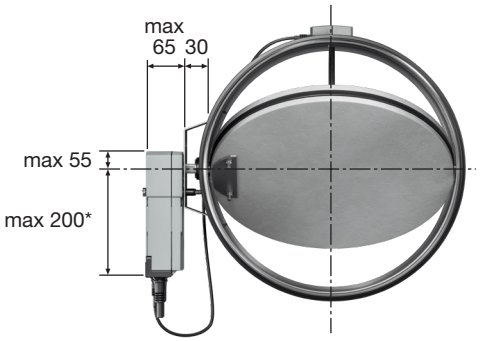
Product data for OPTIMUS 90

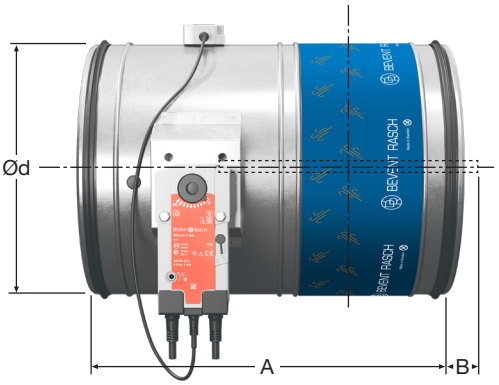
Size	Pressure class	Casing tightness SS-EN1751	Tightness over damper blades SS-EN1751	2-position actuator On-Off	Regulating actuator 0°-90°	Actuator type
Ø400 - Ø630	B	C	3	√	√	Belimo BFN-T
Ø100 - Ø315	B	C	3**	√	√	Belimo BFL-T

Pressure class B: 2500Pa

**Size Ø100-Ø125: 2

Dimensions and weight

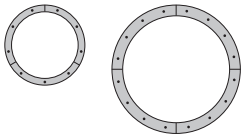




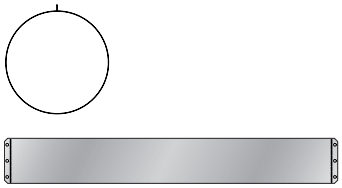
Size Ø mm	A	B	Weight, kg
100	450	–	3,0
125	450	–	3,2
160	450	–	3,5
200	450	–	4,0
250	450	30	4,5
315	450	60	5,5
400	550	60	10,5
500	550	110	13,0
630	550	180	17,0

Installation kit (sleeve rings)

Ø100-315 = 3 parts with 3 screws in each
Ø400-630 = 4 parts with 4 screws in each



Union piece



** If necessary, the actuator can be rotated 90°.*

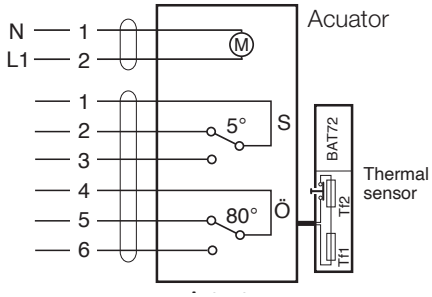
Actuator - damper size

Actuator BFL-T, supplied for dampers in size Ø100-315 mm.
Actuator BFN-T, supplied for dampers in size Ø400-630 mm.

Electrical data (values in brackets refer to 230V)

Actuator type	BFL...	BFN...
Sizing, max	4 VA	6 VA
Running time. – motor opening, max; – spring return, max	60 s approx. 20 s	60 s 20 s at -10 to +55°C < 60 s at -30 to -10°C
Protection class	IP 54 in all installation positions	
Supply voltage	24V~ ±20%, 50/60Hz 24V= ±10% (220-240V~, 50/60Hz)	
Design	Imax 8,3A @ 5ms	
Ambient temperature	-30° to +50°C	
Thermal sensor tripping temperature	72°C	
Mode contacts (Load)	1mA...3 (0,5 inductive) A, AC250V	
Sound level when opening	< 43 dB (A)	
Closing noise level	< 62 dB (A)	
Maintenance	Maintenance-free	

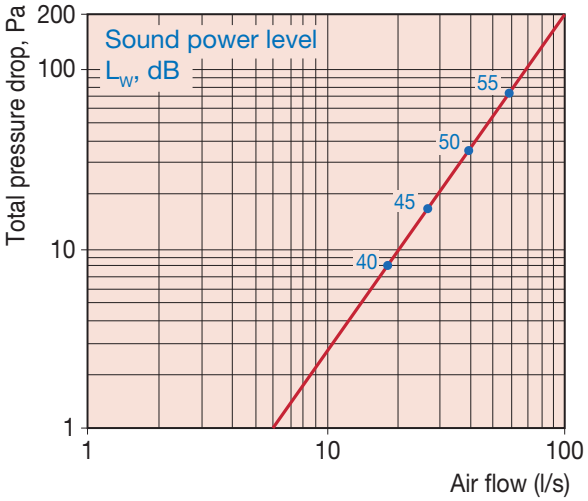
Wiring diagram



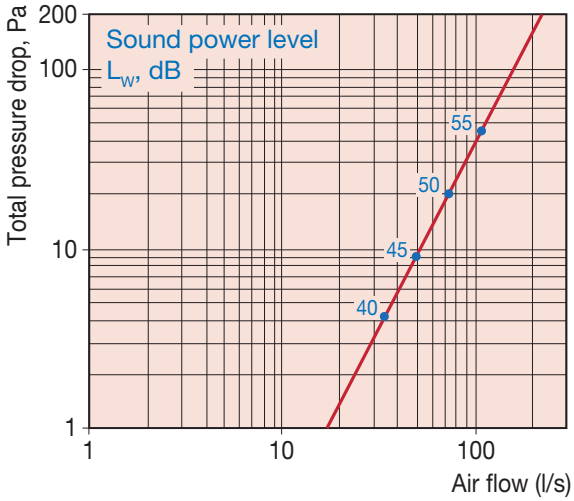
Illustrated in de-energised state

Dimensioning diagram

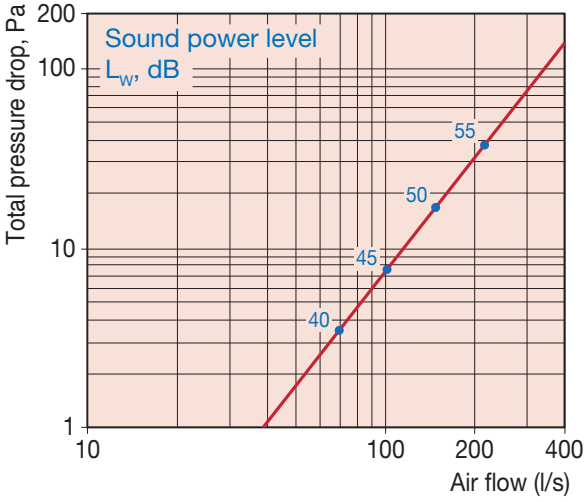
Size - 100



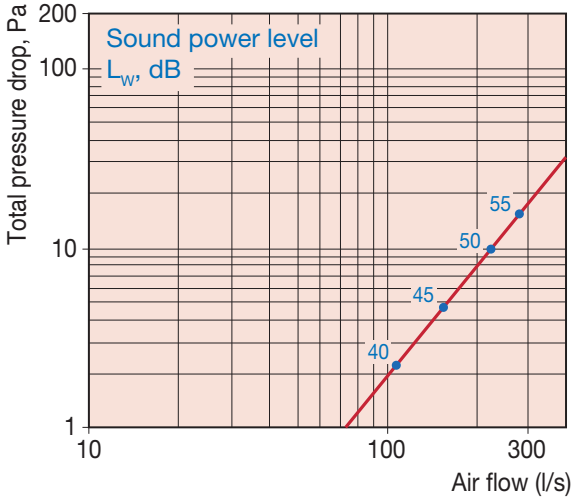
Size - 125



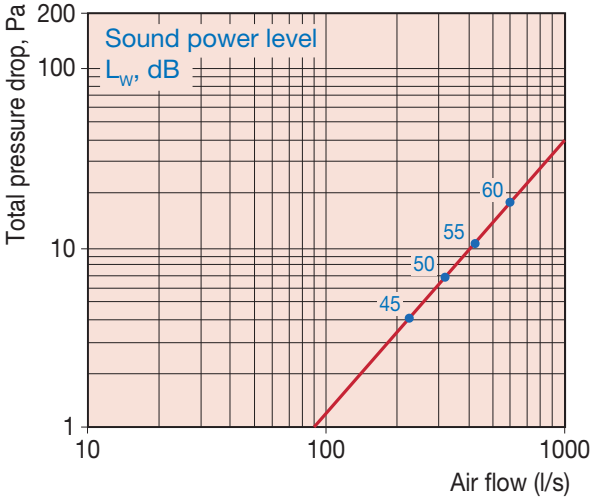
Size - 160



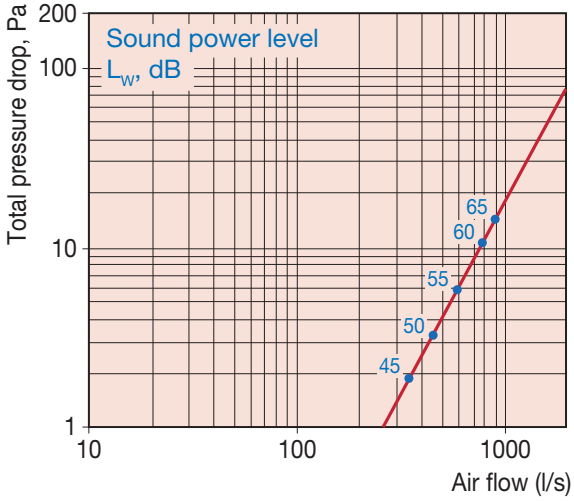
Size - 200



Size - 250

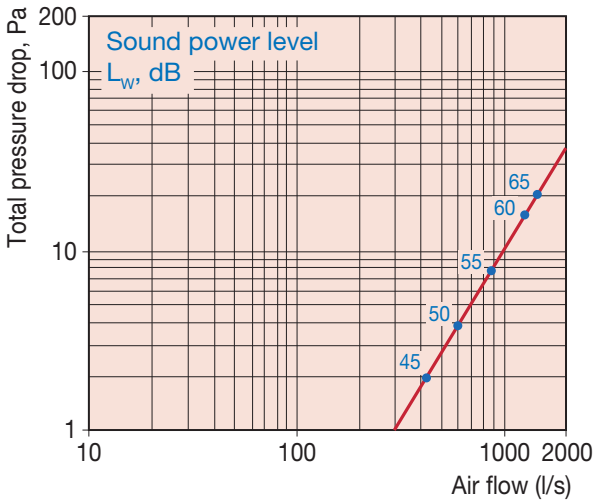


Size - 315

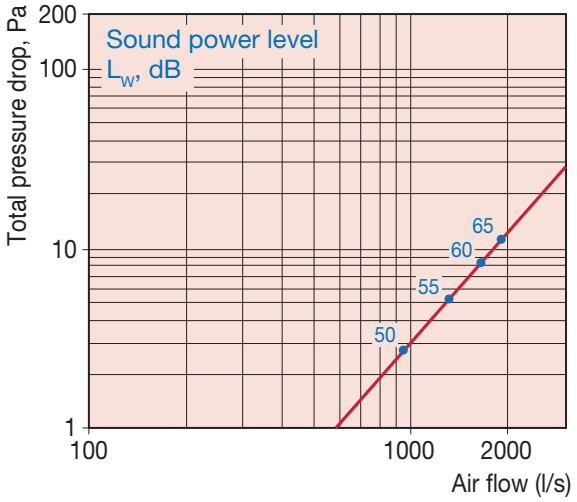


Dimensioning diagram contd.

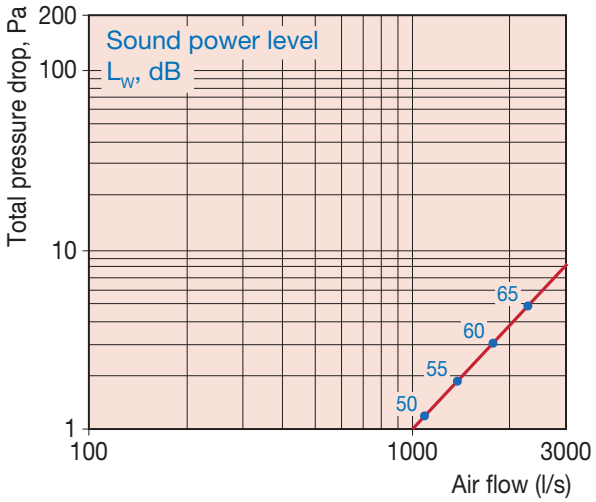
Size - 400



Size - 500



Size - 630



Sound data

Correction of sound power level, L_{Wok}, in octave band

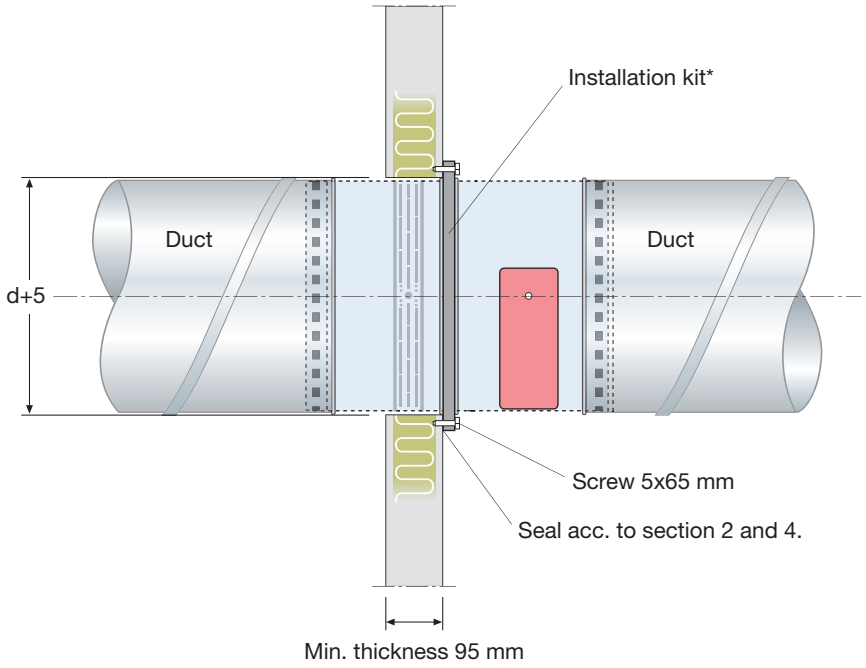
$L_{wok} = L_w + K_{ok}$

Correction, K_{ok}

Size Ø mm	Centre Frequency Hz							
	63	125	250	500	1000	2000	4000	8000
100	-4	-9	-10	-10	-10	-15	-18	-22
125	-4	-8	-8	-9	-10	-15	-21	-22
160	-4	-7	-9	-11	-14	-16	-20	-25
200	-2	-8	-11	-14	-15	-18	-23	-25
250	-2	-11	-11	-14	-14	-21	-27	-28
315	-1	-12	-14	-16	-15	-23	-29	-29
400	-2	-10	-13	-15	-15	-21	-28	-29
500	-1	-11	-14	-17	-18	-24	-31	-32
630	-1	-11	-15	-17	-17	-25	-28	-31
Tol. ± dB	1	2	5	6	6	4	3	4

Installation instructions

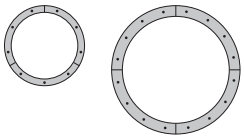
Installation in wall, fire resistance class EI90
Damper's fire resistance class: EI90 (ve ho i <–> o) S.
EG-certificate 0402-CPR-SC0051-19





*** Installation kit (sleeve rings)**

Ø100-315 = 3 parts with 3 screws in each
Ø400-630 = 4 parts with 4 screws in each

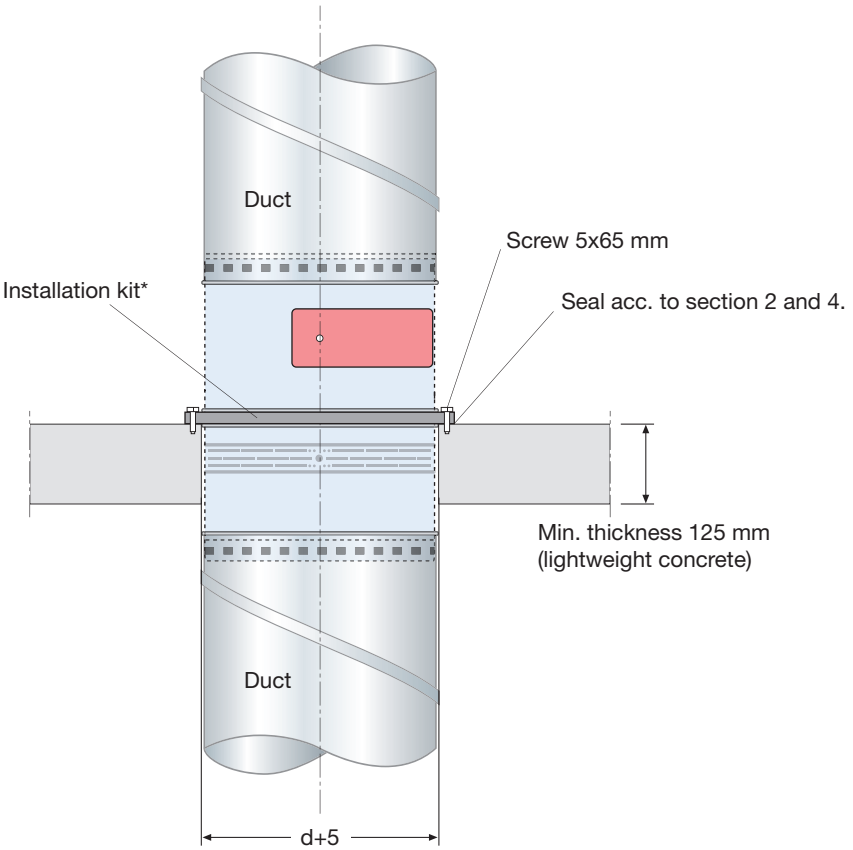


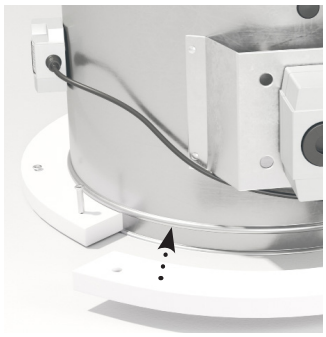
1. Make a hole for size in question (d + 5mm).
2. Apply fire sealant on the wall, 20 mm around the periphery of the hole.
3. Secure the damper flat and tight with the installation kit placed in the groove as shown in the photo. Make sure that the shape of the damper is not impacted when mounting.
4. Seal joints between the installation kit and damper casing with fire sealant.
5. When installing without a duct connection, the damper should be fitted with an incombustible grille. The minimum distance between the open damper blade and grille should be 50 mm.
6. The duct system is fitted in accordance with current requirements. Ensure that suspension and duct systems do not affect the movement of the damper blade.

- *Damper for installation in walls and floors with fire resistance class EI90.*
- *The shortest distance between dampers must be 200 mm.*
- *The minimum distance to the connecting structure should be 75 mm.*
- *Free position on damper spindle.*

Installation instructions

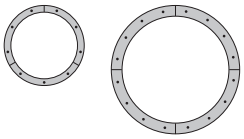
Installation in floor or joist systems, fire resistance class EI90.
Damper's fire resistance class: EI90 (ve ho i <–> o) S.
EC certificate 0402-CPR-SC0051-19





*** Installation kit (sleeve rings)**

Ø100-315 = 3 parts with 3 screws in each
Ø400-630 = 4 parts with 4 screws in each

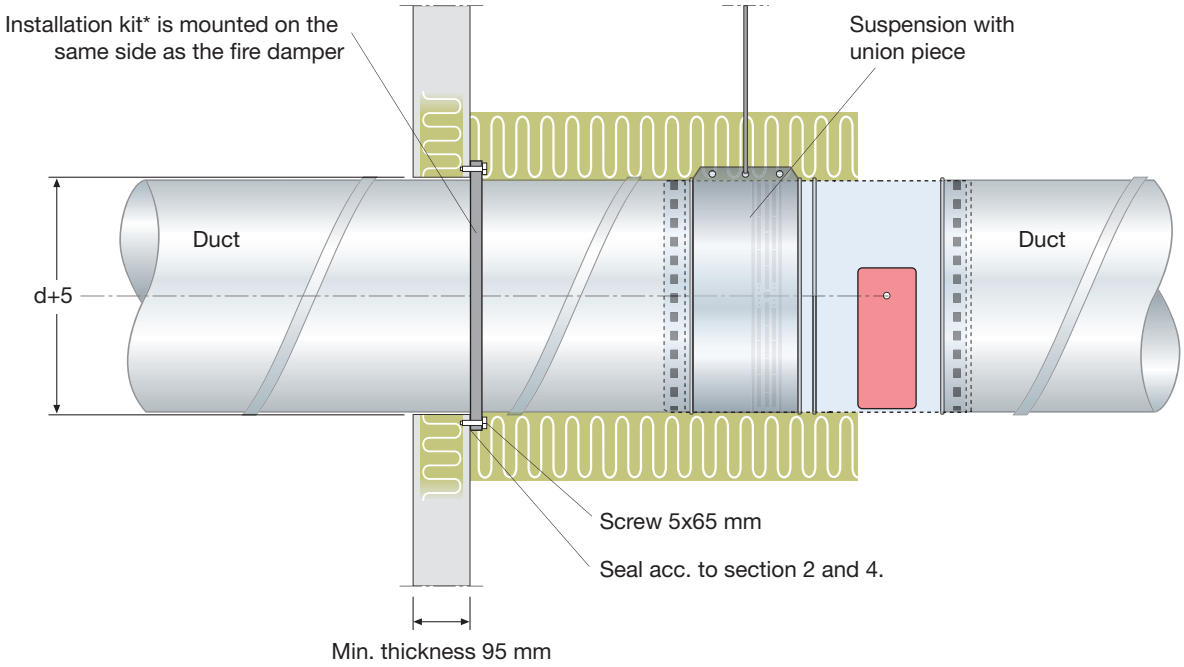


1. Make a hole for size in question (d + 5 mm).
2. Apply fire sealant on the floor, 20 mm around the periphery of the hole.
3. Secure the damper flat and tight with the installation kit placed in the groove as shown in the photo. Make sure that the shape of the damper is not impacted when mounting.
4. Seal joints between the installation kit and damper casing with fire sealant.
5. When installing without a duct connection, the damper should be fitted with an incombustible grille. The minimum distance between the open damper blade and grille should be 50 mm.
6. The duct system is fitted in accordance with current requirements. Ensure that suspension and duct systems do not affect the movement of the damper blade.

- *Damper for mounting in floors or joist systems of at least 125 mm lightweight concrete.*
- *The shortest distance between dampers must be 200 mm.*
- *The minimum distance to the connecting structure should be 75 mm.*

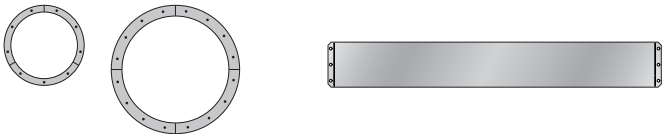
Installation instructions

Installation in horizontal ducts for size up to Ø315. Damper's fire resistance class: EI90 (ve ho i <–> o) S. EC certificate 0402-CPR-SC0051-19



*** Installation kit (sleeve rings and union piece)**

Ø100-315 = 3 parts with 3 screws in each
Ø400-630 = 4 parts with 4 screws in each



1. Make a hole for size in question (d + 5 mm).
2. Apply fire sealant on the wall, 20 mm around the periphery of the hole.
3. Secure the installation kit flat and tight to the wall.
4. Seal joints between the installation kit and duct with fire sealant.
5. Fit the metal union piece over the blue decal on the cover of the damper.
6. When installing without a duct connection, the damper should be fitted with an incombustible grille. The minimum distance between the open damper blade and grille should be 50 mm.
7. Insulate the duct, from the hole in the wall to the actuator of the damper. Insulate the duct system EI90 according to the supplier's instructions.
8. The duct system is fitted in accordance with current requirements. Ensure that suspensions and duct systems do not affect the shape of the damper or impede the movement of the damper blade.

- *Dampers for installation in duct systems, size Ø100 - Ø315.*
- *The shortest distance between dampers must be 200 mm.*
- *The minimum distance to the connecting structure should be 75 mm.*
- *Free position on damper spindle.*

190121.0001_ENG / Nov. 2025 hydria.se