

# SC+

Circular fire damper cartridge.



CE  
0749



UK  
CA



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## Explanation of the abbreviations and pictograms

Dn = nominal diameter	o -> i = meets the criteria from the outside (o) to the inside (i)	OP = option (delivered with the product)
E = integrity	GKB (type A) / GKF (type F): "GKB"	KIT = kit (delivered separately for repair or upgrade)
I = thermal insulation	stands for standard plasterboards (type A according to EN 520) while "GKF"	DAS MOD = modular product
S = smoke leakage: max. 200 m <sup>3</sup> /(h m <sup>2</sup> ) according to EN 1366-2	plasterboards offer a higher fire resistance for a similar plate thickness (type F according to EN 520)	dB(A) = A-weighted decibel value
Pa = pascal	Sn = free air passage	Lw oct = sound power level per octave midband
ve = vertical wall penetration	ζ [-] = pressure loss coefficient	ΔL = correction factor
ho = horizontal floor penetration	Q = airflow	
i <-> o = fire side not important	ΔP = static pressure drop	
	v = air speed in the duct	
	Lwa = A-weighted sound power level	



fast installation

# Declaration of performance

## DECLARATION OF PERFORMANCE

UKCA DoP Rf-t S3 EN - J-01/03/2025



1. Unique identification code of the product-type: SC+

2. Intended use /es: Circular fire damper to be used in conjunction with partitions to maintain fire compartments in heating, ventilating and air conditioning installations.

3. Manufacturer: Rf-Technologies NV, Lange Ambachtstraat 40, B-9860 Oosterzele

4. System/s of AVCP: System 1

5. Designated standard / Approved body; certificate of constancy of performance: BS EN 15650:2010, BCCA with identification number 0749; 2822-UKCA-CPR-0062

6. Declared performance according to (Fire resistance according to BS EN 1366-2 and classifications according to BS EN 13501-3)

### Essential characteristics

Range	Type	Construction	Sealing	Installation	Performance
SC+60 Ø 100-200 mm	Rigid wall	Aerated concrete $\geq 100$ mm	Mortar	1	EI 60 (V <sub>e</sub> , i ↔ o) S - (300Pa)
			Gypsum	2	EI 60 (V <sub>e</sub> , i ↔ o) S - (300Pa)
			Stone wool + coating $\geq 140$ kg/m <sup>3</sup>	2	EI 60 (V <sub>e</sub> , i ↔ o) S - (300Pa)
			Insulated duct (ArmaFlex EVO, ArmaFlex Protect – up to 13 mm) + stone wool + coating $\geq 140$ kg/m <sup>3</sup>	1	EI 60 (V <sub>e</sub> , i ↔ o) S - (300Pa)
	Rigid floor	Aerated concrete $\geq 150$ mm	Mortar	1	EI 60 (V <sub>e</sub> , i ↔ o) S - (300Pa)
	Flexible wall	Metal studs: gypsum plasterboard Type A (EN 520) $\geq 100$ mm	Stone wool $\geq 40$ kg/m <sup>3</sup> + cover plates	1	EI 60 (V <sub>e</sub> , i ↔ o) S - (300Pa)
SC+90 Ø 100-200 mm			Gypsum	2	EI 60 (V <sub>e</sub> , i ↔ o) S - (300Pa)
			Stone wool + coating $\geq 140$ kg/m <sup>3</sup>	2	EI 60 (V <sub>e</sub> , i ↔ o) S - (300Pa)
			Insulated duct (ArmaFlex EVO, ArmaFlex Protect – up to 13 mm) + stone wool + coating $\geq 140$ kg/m <sup>3</sup>	1	EI 60 (V <sub>e</sub> , i ↔ o) S - (300Pa)
	Rigid wall	Aerated concrete $\geq 100$ mm	Mortar	1	EI 90 (V <sub>e</sub> , i ↔ o) S - (300Pa)
			Gypsum	2	EI 90 (V <sub>e</sub> , i ↔ o) S - (300Pa)
			Gypsum + 2 x 12.5 mm gypsum plasterboard Type F (EN520)	2	EI 90 (V <sub>e</sub> , i ↔ o) S - (300Pa)
SC+120 Ø 100-200 mm			Stone wool + coating $\geq 140$ kg/m <sup>3</sup> + coated duct	1	EI 90 (V <sub>e</sub> , i ↔ o) S - (300Pa)
	Rigid floor	Aerated concrete $\geq 150$ mm	Mortar	1	EI 90 (V <sub>e</sub> , i ↔ o) S - (300Pa)
	Flexible wall	Metal studs: gypsum plasterboard Type F (EN 520) $\geq 100$ mm	Stone wool $\geq 40$ kg/m <sup>3</sup> + gypsum + cover plates	1	EI 90 (V <sub>e</sub> , i ↔ o) S - (300Pa)
			Gypsum + 2 x 12.5 mm gypsum plasterboard Type F (EN520)	2	EI 90 (V <sub>e</sub> , i ↔ o) S - (300Pa)
			Stone wool + coating $\geq 140$ kg/m <sup>3</sup> + coated duct	1	EI 90 (V <sub>e</sub> , i ↔ o) S - (300Pa)
	Rigid wall	Reinforced concrete $\geq 110$ mm	Mortar	1	EI 120 (V <sub>e</sub> , i ↔ o) S - (300Pa)

Designated standard  
EN 15650:2010

1	Type of installation: built-in inside a duct, 0-360°	360°	Type of installation: built-in inside a duct, 0-360°. Minimal distances authorised.	360°
2				

Nominal activation conditions/sensitivity:	Pass	Integrity (E)	60, 90 and 120 minutes
Response delay (response time): closure time	Pass	Insulation (EI)	60, 90 and 120 minutes
Operational reliability: cycling	50 cycles	Smoke leakage (EIS)	60, 90 and 120 minutes
Durability of response delay:	Pass	Mechanical stability (under E)	n/a
Durability of operational reliability:	NPD (no performance determined)	Maintenance of cross section (under E)	n/a
Protection against corrosion according to EN 60068-2-52:	NPD (no performance determined)		
Damper casing leakage according to EN 1751:	NPD (no performance determined)		

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Duchan Laplace, R&amp;D Manager

Oosterzele, 01/03/2025



## Product presentation SC+

Circular fire damper cartridge with a fire resistance up to 120 minutes. The circular fire damper cartridges are equipped with a fusible link that holds the two parts of the blade in the open position. When the temperature in the duct rises above 72°C, the fusible link melts and releases the two semi circular blades. The damper is now closed and two blocking hooks keep the blades in their safety position, which prevents any smoke or flames from passing through. The cartridge is inserted in a metal ventilation duct of the same diameter and stays in place thanks to its rubber sealing ring.

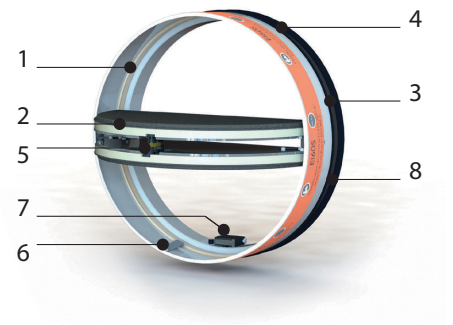
The circular fire damper cartridge is a compact fire resistant product for ducts with a small diameter. It is inserted inside ventilation ducts that cross walls in order to stop the propagation of fire. It is characterised by its easy installation. Two versions are available: the standard fire damper cartridge (technical datasheet S3) and the cartridge equipped with a finishing ventilation valve 'V' (technical datasheet S5) for installation at duct ends.

- ✓ easy to install
- ✓ no space is lost at the wall crossing
- ✓ minimal distance allowed



- lightweight
- tested according to EN 1366-2 up to 300 Pa
- suitable for rigid wall, rigid floor and light wall (metal stud gypsum plasterboard wall)
- maintenance-free
- for indoor use
- ambient temperature below 50°C

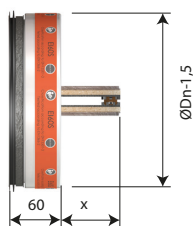
1. steel tunnel
2. two semi-circular blades
3. intumescent strip
4. rubber sealing ring
5. fusible link 72°C
6. 2 blocking hooks
7. end of range switch (option)
8. product identification



## Range and dimensions SC+60

Circular fire damper cartridge with a fire resistance of 60 minutes.

ØDn [mm]	100	125	150	160	200
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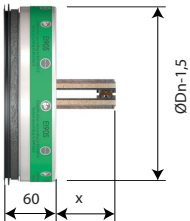
Exceeding blade: X

ØDn [mm]	100	125	150	160	200
x	18	31	40	49	69
y	-	-	-	-	-

### Range and dimensions SC+90

Circular fire damper cartridge with a fire resistance of 90 minutes.

ØDn [mm]	100	125	150	160	200
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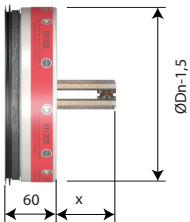
Exceeding blade: X

ØDn [mm]	100	125	150	160	200
x	20	33	42	51	71
y	-	-	-	-	-

### Range and dimensions SC+120

Circular fire damper cartridge with a fire resistance of 120 minutes.

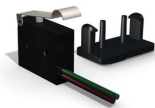
ØDn [mm]	100	125	160	200
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Exceeding blade: X

ØDn [mm]	100	125	160	200
x	20	33	51	71
y	-	-	-	-

### Evolution - kits



KIT FCU SC

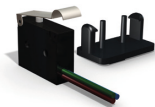
Unipolar end of range switch



KIT FT SC

Fusible link 72°C (per set of 5 pieces)

### Options - at the time of order



FCU SC

Unipolar end of range switch (pre-mounted)

## Storage and handling

As this product is a safety element, it should be stored and handled with care.

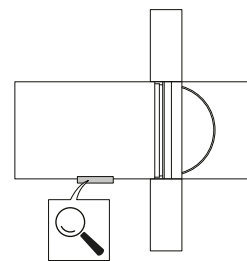
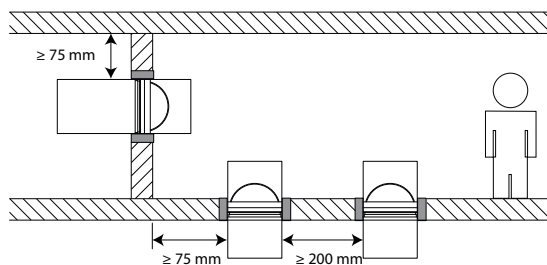
### Avoid:

- any kind of impact or damage
- contact with water
- deformation of the casing

## Installation

### General points

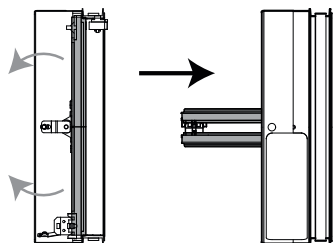
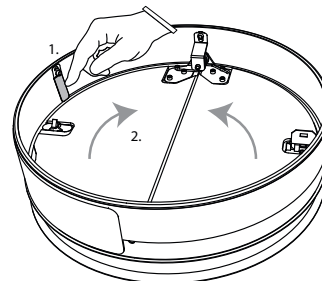
- Verify if the blade can move freely.
- The fire damper cartridge must remain accessible for inspection and maintenance.
- Please observe safety distances with respect to other construction elements.



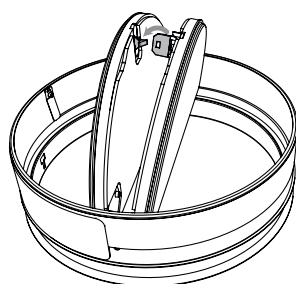
### Product specific

- The installation must comply with the installation manual and the classification report.
- The results obtained in standardised supporting structures according to EN 1366-2 also apply to similar supporting structures with a fire resistance, thickness and density equal to or greater than the supporting structure of the test. More information on standardised supporting structures: <https://www.rft.eu/en-gb/page/legal-context/european-regulations/standardised-constructions>
- Mounting direction: mounting possible with the axis in any position (0-360°)
- Direction of the airflow: discretionary
- If the product is manipulated in any other way than described in this manual, Rf-Technologies will decline any responsibility and the guarantee will expire!

## Operation: manual opening

**1****2**

2. Press the two blocking hooks carefully to unlock the blades.

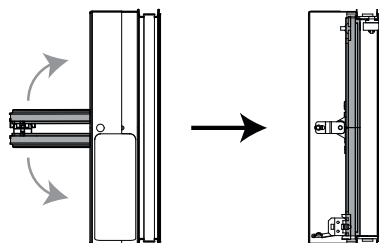
**3**

3. Click the fusible link into the holder to lock the blades.

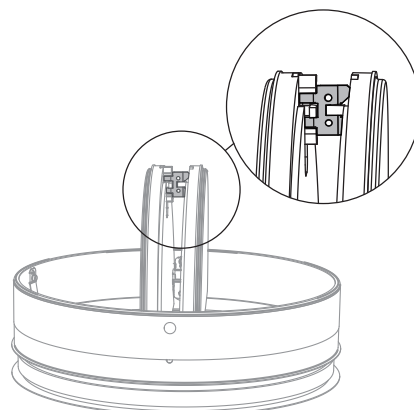


## Operation: manual closing

1

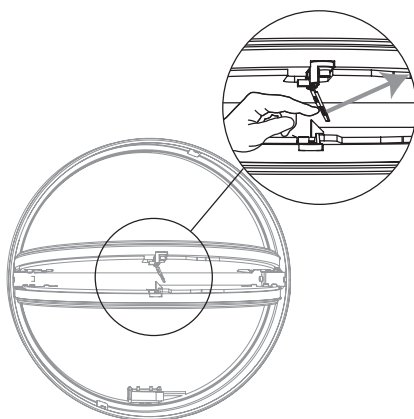


2



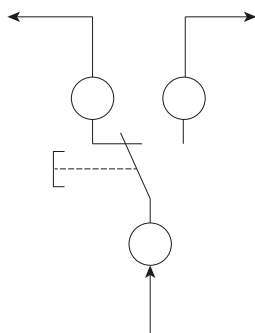
2. Unlock (close) the damper blades by pushing them towards each other. Carefully unlock the fusible link by pushing it sideways.

3



## Electrical wiring

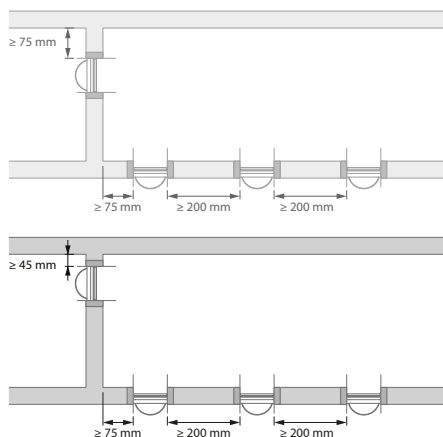
1



1. An end of range switch (FCU) can be mounted on the metal body. The purpose is to determine the position of the circular fire damper cartridge from a distance. 1mA...6A DC 5V....AC250V. COM: black; NF: grey; NO: blue.  
Power supply: Max 250V; Power consumption : Max 6A; Degree of protection: IP65; Length of cable: 500 mm.

## Installation at a minimal distance from another damper or from an adjacent supporting construction

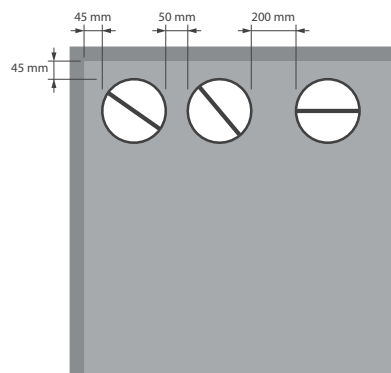
1



1. According to the European test standard, a fire damper must be installed at a minimum distance of 75 mm from an adjacent wall and 200 mm from another damper, unless the solution was tested at a shorter distance.

This range of Rf-t fire dampers has been successfully tested and in several installation methods can be installed in a vertical supporting construction, at a distance below the minimum set by the standard - see below.

2



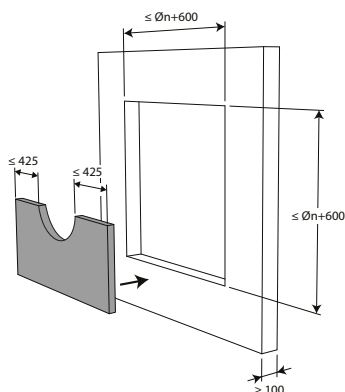
2. If installation at a shorter distance (only possible for certain installation methods) take in account following restriction: A maximum of 2 circular dampers can be installed horizontally at a minimum distance from one another.

## Installation in rigid wall, sealing with rigid stone wool boards with coating - SC+60

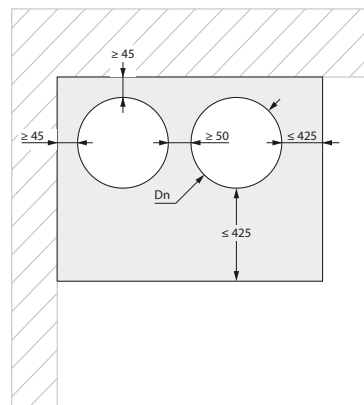
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+60 Ø 100-200 mm	Rigid wall	Aerated concrete $\geq 100$ mm	Stone wool + coating $\geq 140$ kg/m <sup>3</sup>

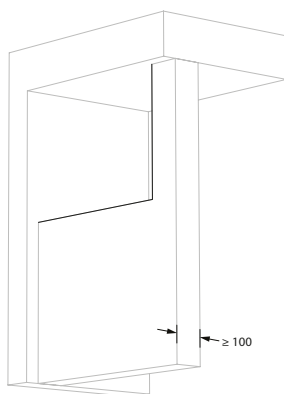
1



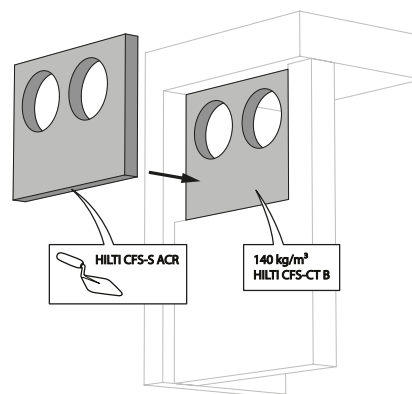
2



3



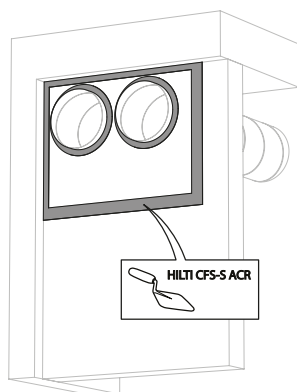
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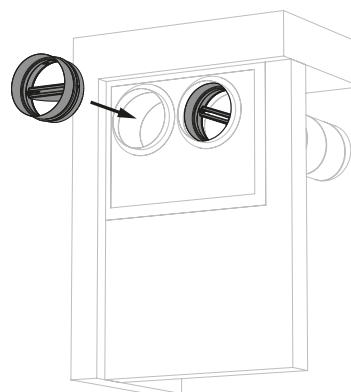
3. The opening in the wall around the duct in which the fire damper cartridge is mounted, is sealed with 2 layers of 50 mm-thick stone wool panels with fire resistant coating on one side (type HILTI CFS-CT B).

4. The joints on these 2 layers must be installed staggered and covered all around the edge with coating (type HILTI CFS-S-ACR).

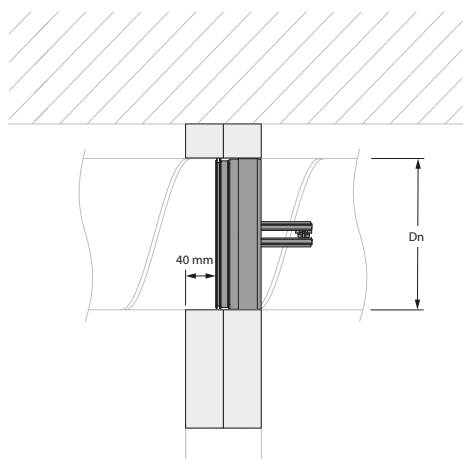
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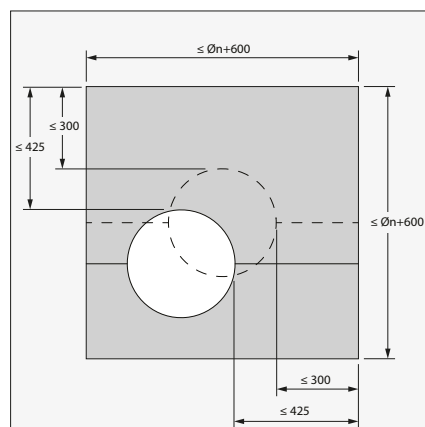
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7



8



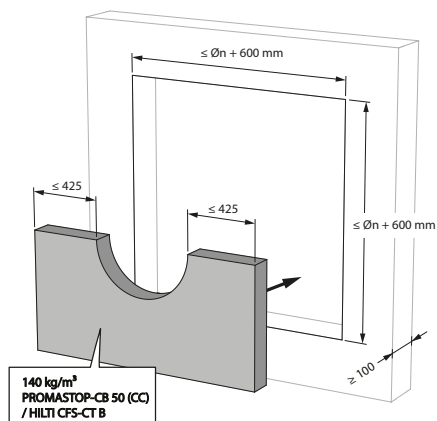
8. The duct in which the damper is inserted doesn't need be centered in the opening (with max dimensions duct + 600 mm). The maximal distance between the damper and the edge of the opening is 425 mm.

## Installation in rigid wall, insulated duct, sealing with rigid stone wool boards with coating - SC+60

The product was tested and approved in:

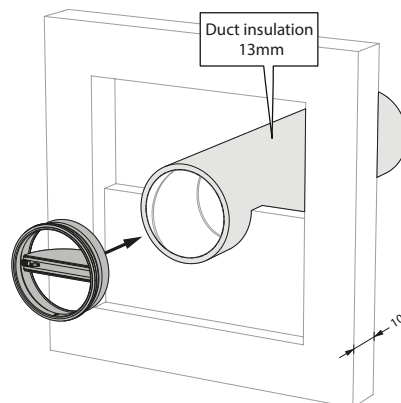
Range	Wall type	Sealing	Classification
SC+60 Ø 100-200 mm	Rigid wall	Aerated concrete $\geq 100$ mm	Insulated duct (ArmaFlex EVO, ArmaFlex Protect – up to 13 mm) + stone wool + coating $\geq 140$ kg/m <sup>3</sup>
			El 60 ( $v_e$ i $\leftrightarrow$ o) S - (300Pa)

1

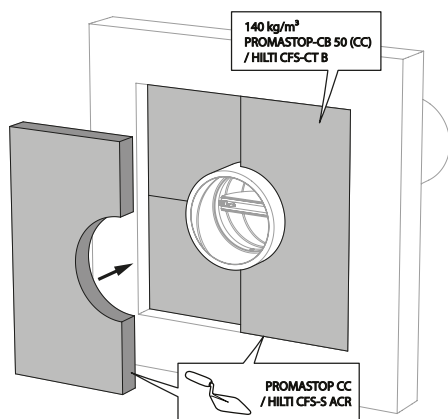


1. The fire batt type Hilti CFS-CT B may be replaced by a similar type of fire batt with at least the same fire reaction class, density and thickness (tested according to EN 1366-3), for example PROMASTOP-CB 50 (CC).

2

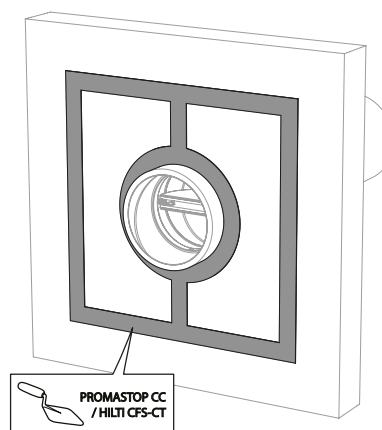


3

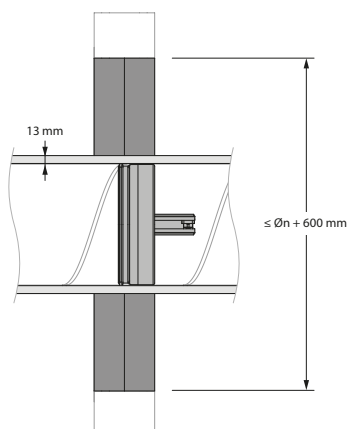


3. The opening in the wall around the insulated duct, is sealed with 2 rigid stone wool boards of 50 mm with fire-resistant coating on one side (type Promastop CB50 / Hilti CFS-CT W).

4



4. The joints on these 2 layers must be installed staggered and covered all around the edge with coating (type PROMASTOP-CC / HILTI CFS-S-ACR).

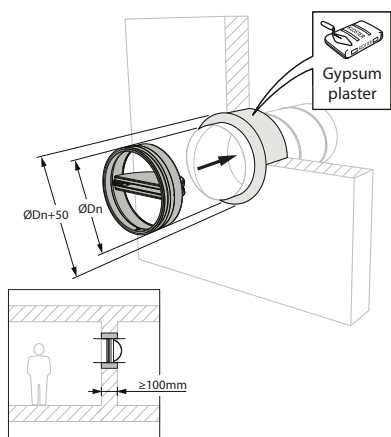
**5**

## Installation in rigid wall with gypsum sealing - SC+60

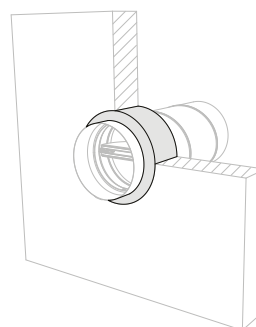
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+60 Ø 100-200 mm	Rigid wall	Aerated concrete $\geq 100$ mm	Gypsum
			El 60 ( $v_e$ i $\leftrightarrow$ o) S - (300Pa)

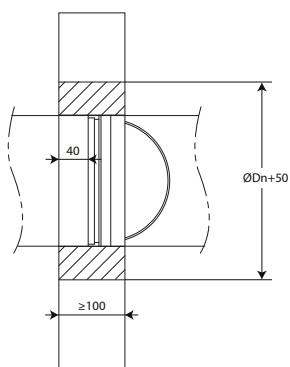
1



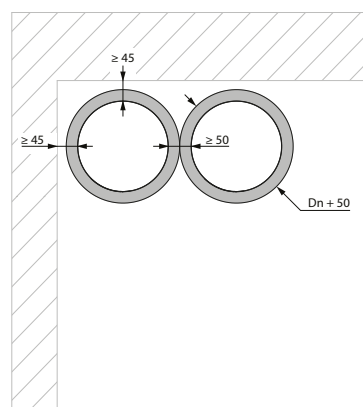
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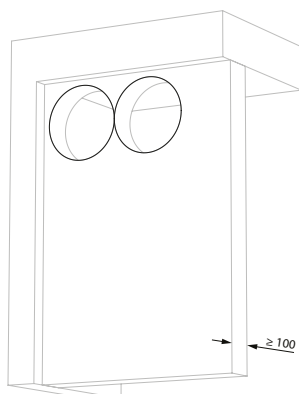
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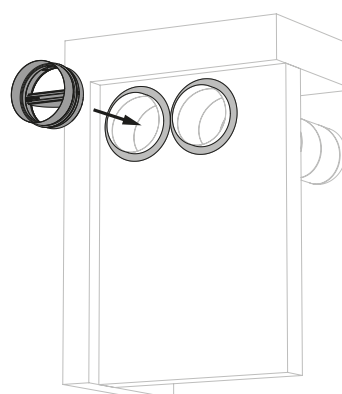
4



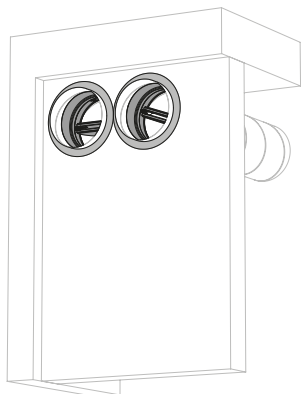
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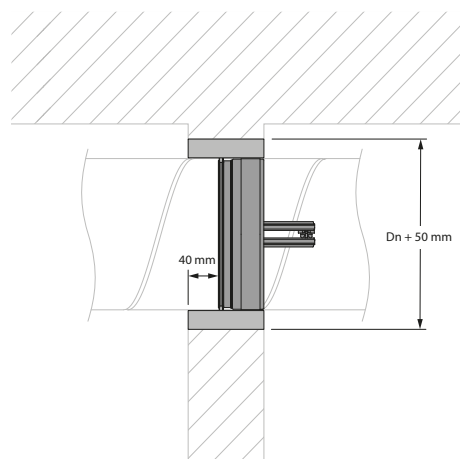
6



7



8



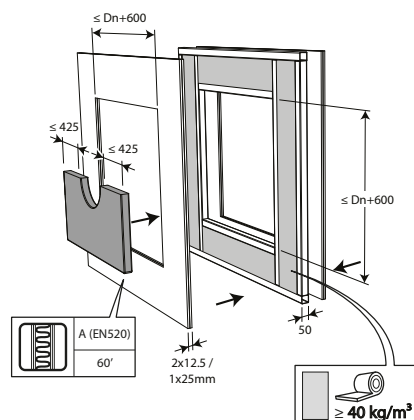


## Installation in flexible wall, sealing with rigid stone wool boards with coating - SC+60

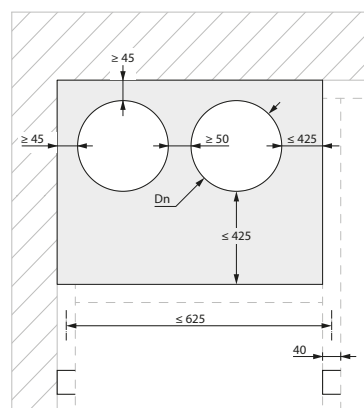
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+60 Ø 100-200 mm	Flexible wall	Metal studs gypsum plasterboard Type A (EN 520) $\geq 100$ mm	Stone wool + coating $\geq 140$ kg/m <sup>3</sup> EI 60 ( $v_e$ i $\leftrightarrow$ o) S - (300Pa)

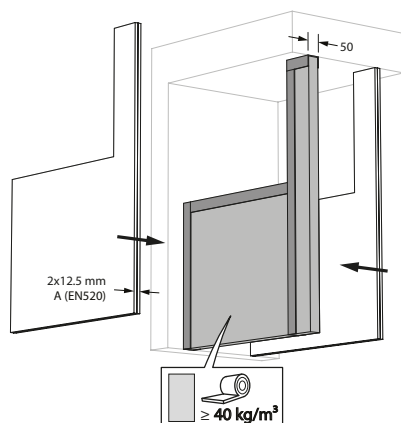
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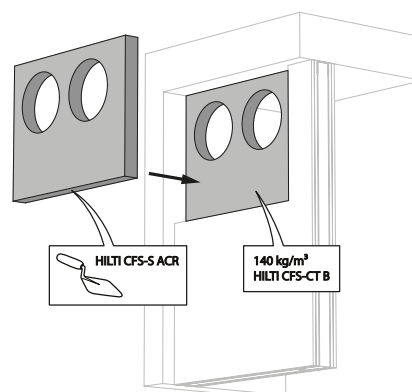
2



3



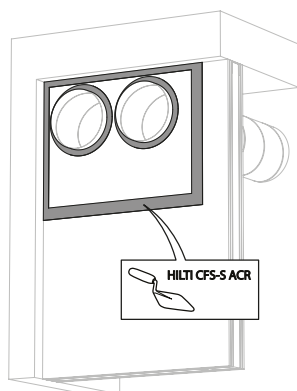
4



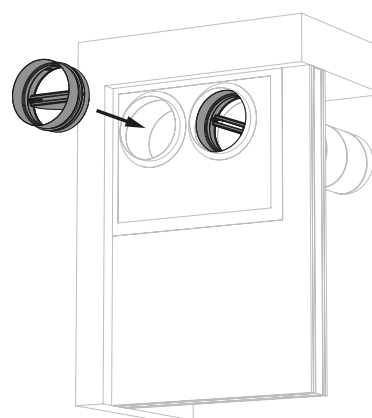
3. The opening in the wall around the duct in which the fire damper cartridge is mounted, is sealed with 2 layers of 50 mm-thick stone wool panels with fire resistant coating on one side (type HILTI CFS-CT B).

4. The joints on these 2 layers must be installed staggered and covered all around the edge with coating (type HILTI CFS-S-ACR).

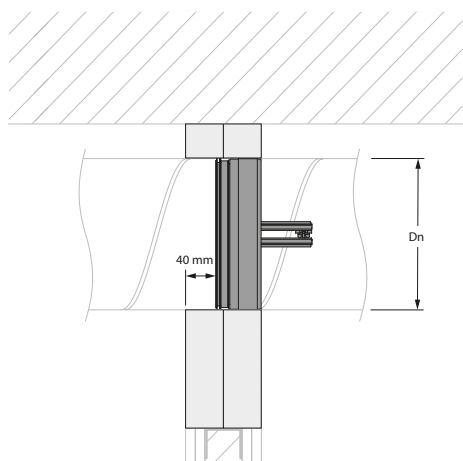
5



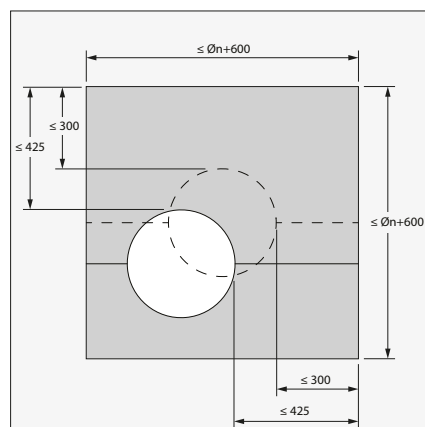
6



7



8

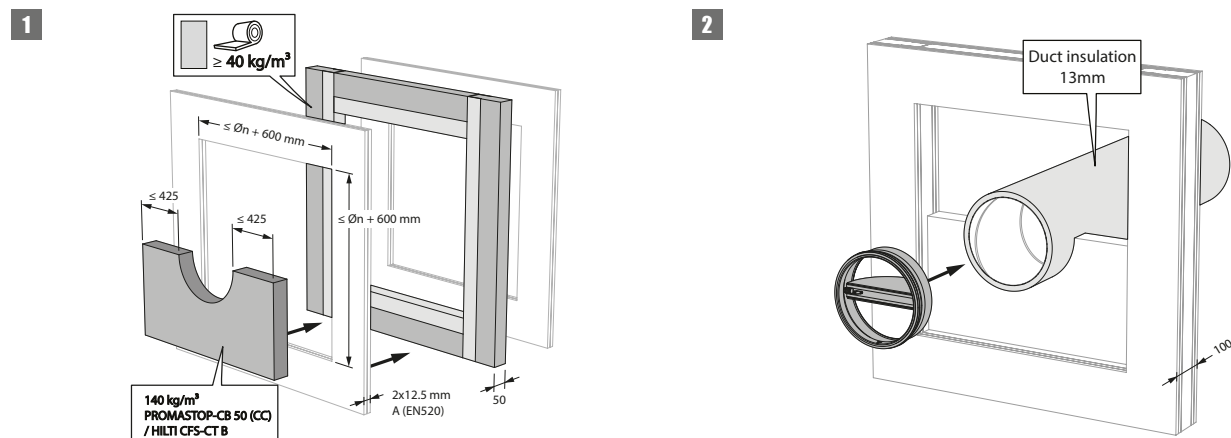


8. The duct in which the damper is inserted doesn't need be centered in the opening (with max dimensions duct + 600 mm). The maximal distance between the damper and the edge of the opening is 425 mm.

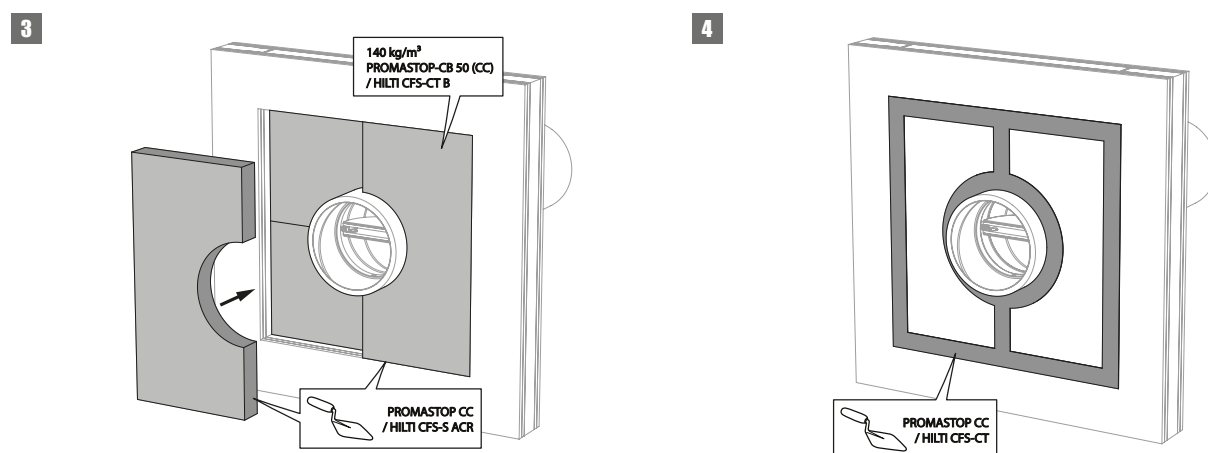
## Installation in flexible wall, insulated duct, sealing with rigid stone wool boards with coating - SC+60

The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+60 Ø 100-200 mm	Flexible wall	Insulated duct (ArmaFlex EVO, ArmaFlex Protect – up to 13 mm) + stone wool + coating $\geq 140 \text{ kg/m}^3$	El 60 ( $v_e \leftrightarrow o$ ) S - (300Pa)



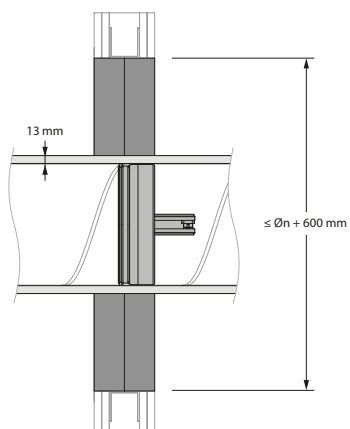
1. The fire batt type Hilti CFS-CT B may be replaced by a similar type of fire batt with at least the same fire reaction class, density and thickness (tested according to EN 1366-3), for example PROMASTOP-CB 50 (CC).



3. The opening in the wall around the insulated duct, is sealed with 2 rigid stone wool boards of 50 mm with fire-resistant coating on one side (type Promastop CB50 / Hilti CFS-CT W).

4. The joints on these 2 layers must be installed staggered and covered all around the edge with coating (type PROMASTOP-CC / HILTI CFS-S-ACR).

5

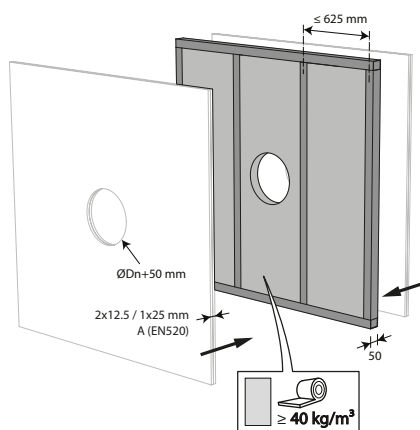


## Installation in flexible wall with gypsum sealing - SC+60

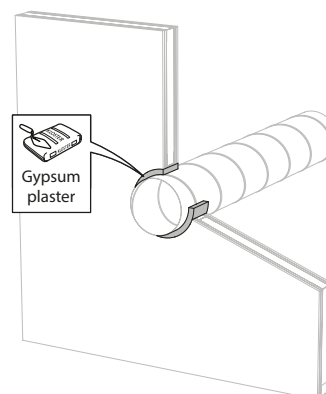
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+60 Ø 100-200 mm	Flexible wall	Gypsum	El 60 ( $v_e$ i $\leftrightarrow$ o) S - (300Pa)

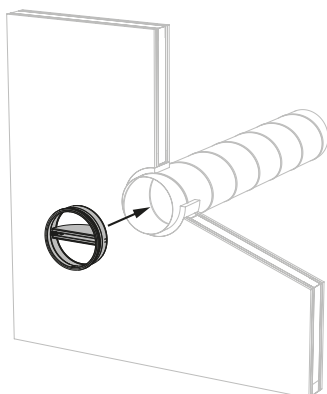
1



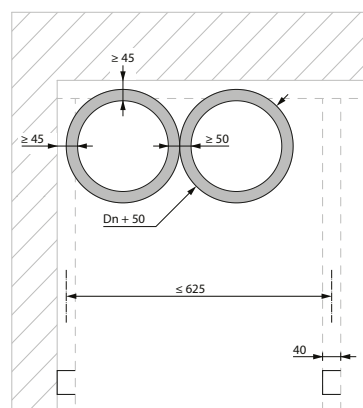
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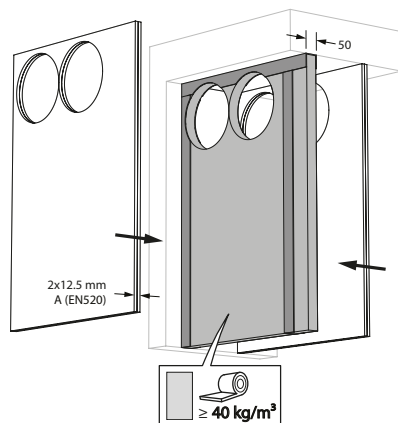
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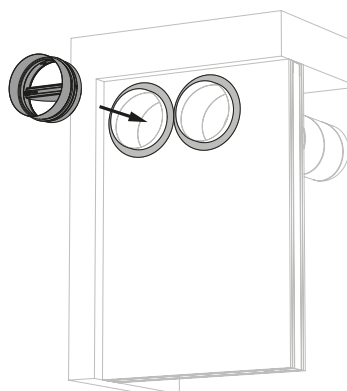
4



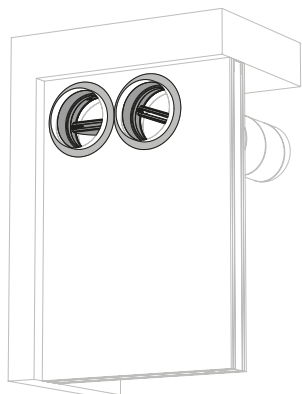
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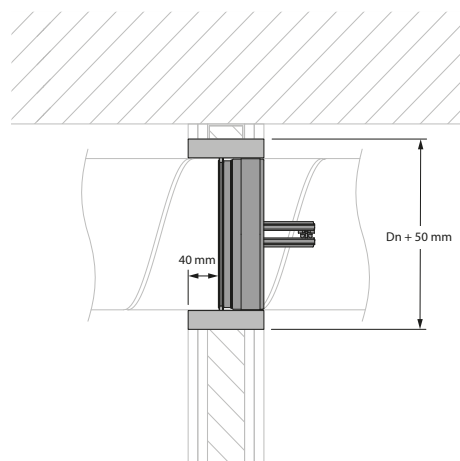
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7



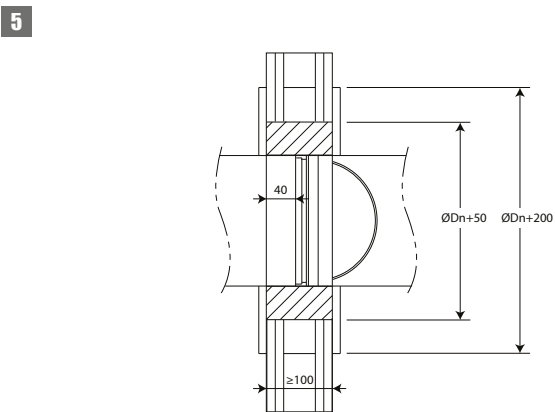
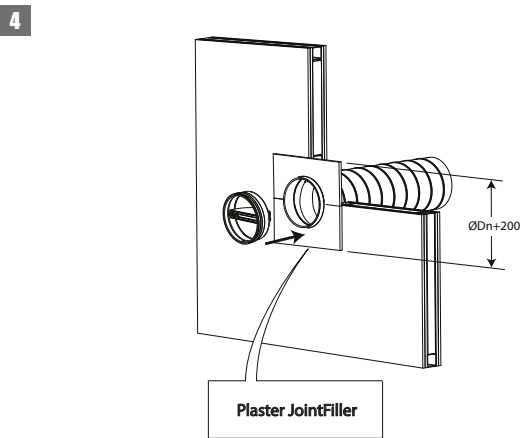
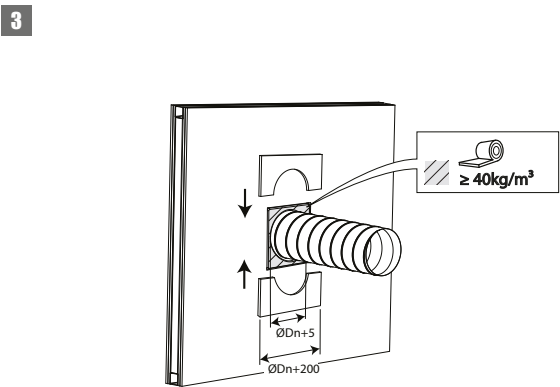
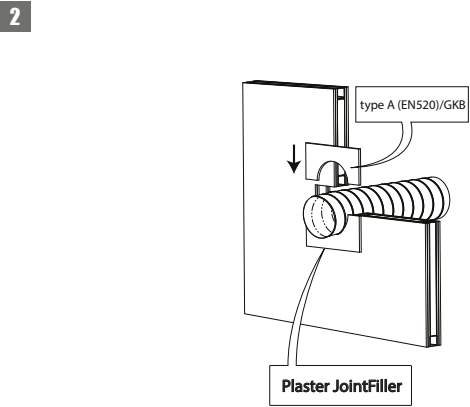
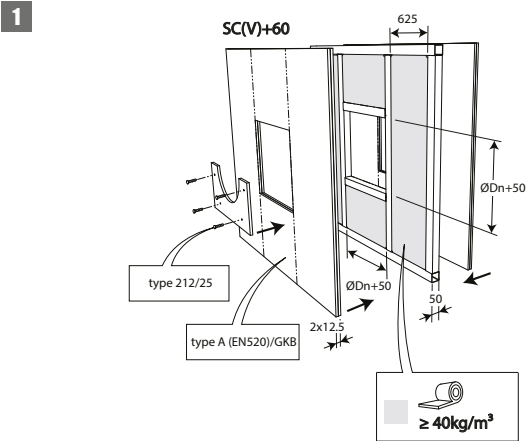
8



Installation in flexible wall, sealing with stone wool and cover plates - SC+60

The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+60 Ø 100-200 mm	Flexible wall	Metal studs gypsum plasterboard Type A (EN 520) ≥ 100 mm	Stone wool ≥ 40 kg/m³ + cover plates

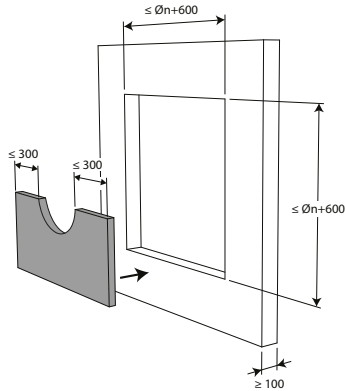


## Installation in rigid wall, sealing with rigid stone wool boards with coating - SC+90

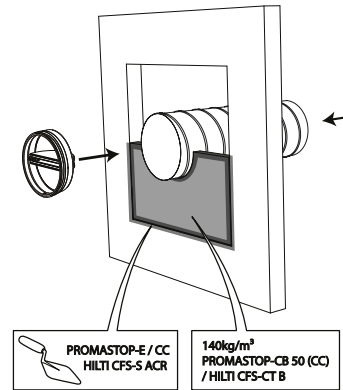
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+90 Ø 100-200 mm	Rigid wall	Stone wool + coating $\geq 140 \text{ kg/m}^3$ + coated duct	El 90 ( $v_e i \leftrightarrow o$ ) S - (300Pa)

1

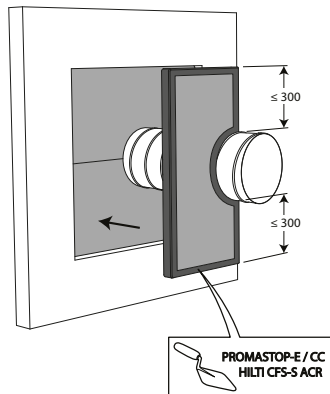


2



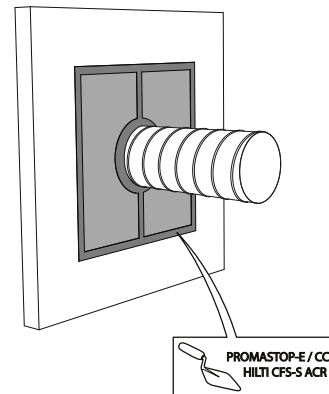
2. The opening in the wall around the duct in which the fire damper cartridge is mounted, is sealed with 2 layers of 50 mm-thick stone wool panels with fire resistant coating on one side (type PROMASTOP-CB 50 / PROMASTOP-CB/CC 50 / HILTI CFS-CT B).

3



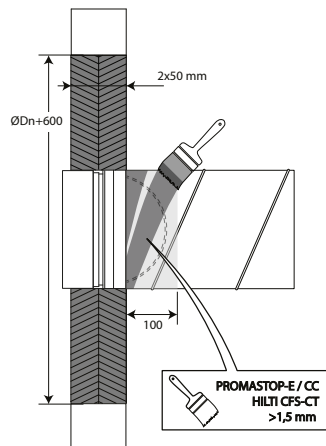
3. The joints on these 2 layers must be installed staggered and covered all around the edge with coating (type PROMASTOP-CC / HILTI CFS-S-ACR).

4



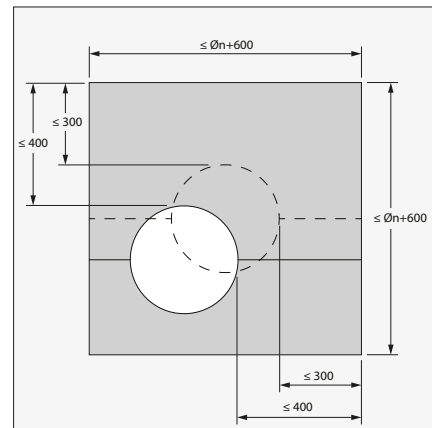


5



5. The duct is coated with a layer (>1,5 mm) of endothermic coating (type PROMASTOP-CC / HILTI CFS-CT) on a width of 100 mm at the side the open damper blade exceeds.

6



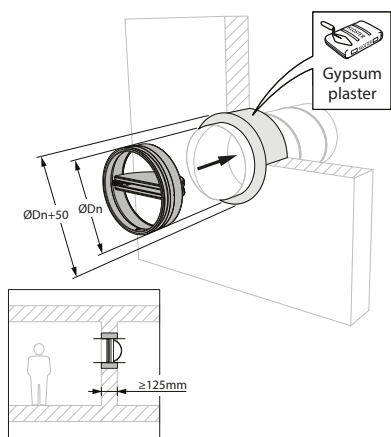
6. The duct in which the damper is inserted doesn't need be centered in the opening (with max dimensions duct + 600 mm). The maximal distance between the damper and the edge of the opening is 400 mm.

## Installation in rigid wall with gypsum sealing - SC+90

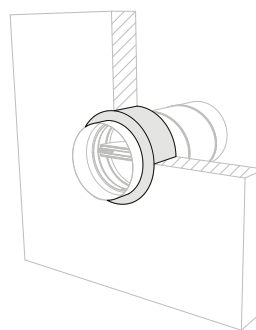
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+90 Ø 100-200 mm	Rigid wall	Aerated concrete $\geq 125$ mm	Gypsum
			El 90 ( $v_e$ i $\leftrightarrow$ o) S - (300Pa)

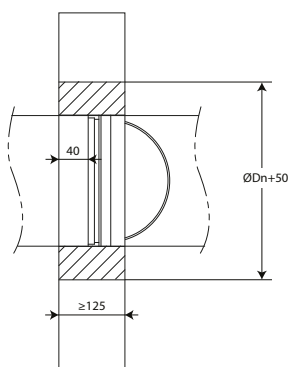
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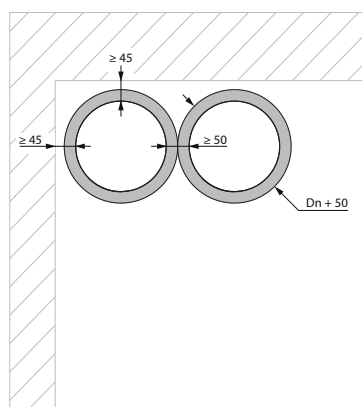
2



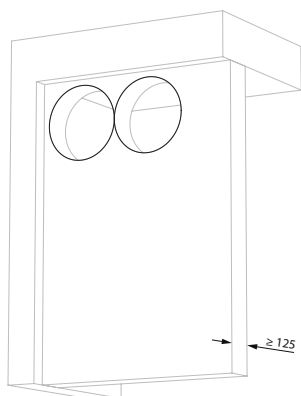
3



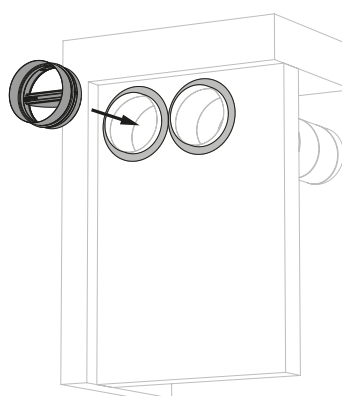
4



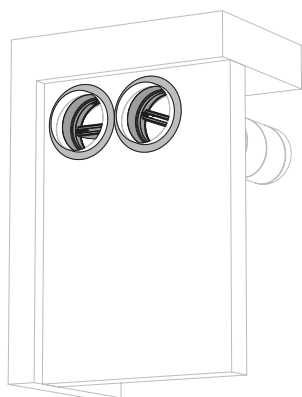
5



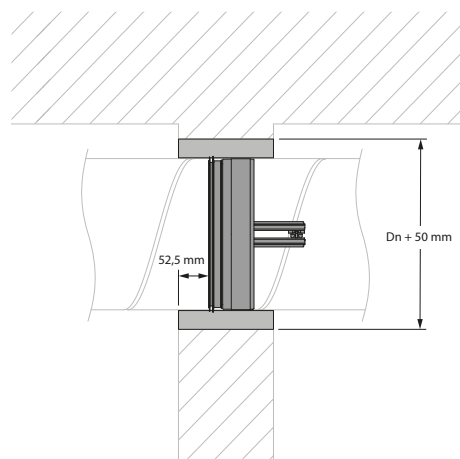
6



7



8

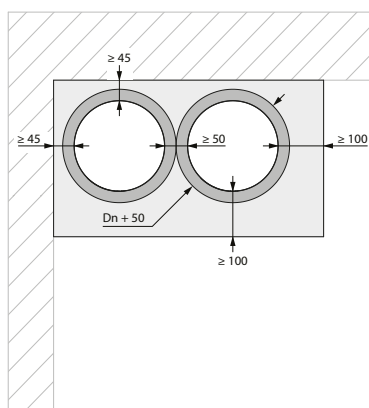


## Installation in rigid wall with gypsum sealing + 2 x 12.5 mm gypsum plasterboard type F - SC+90

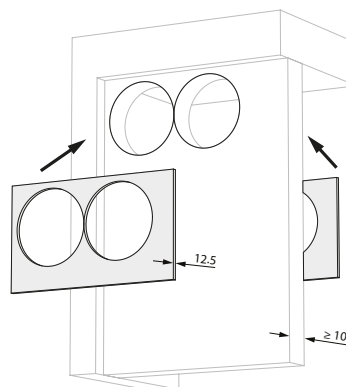
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+90 Ø 100-200 mm	Rigid wall	Aerated concrete $\geq 100$ mm	Gypsum + 2 x 12.5 mm gypsum plasterboard Type F (EN520)
			El 90 ( $v_e$ i $\leftrightarrow$ o) S - (300Pa)

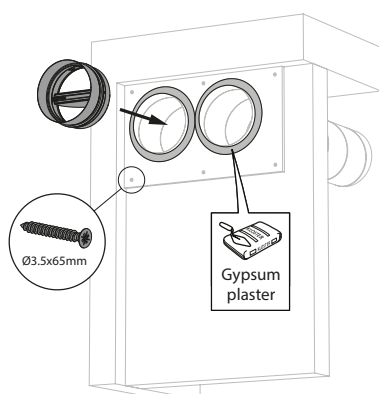
1



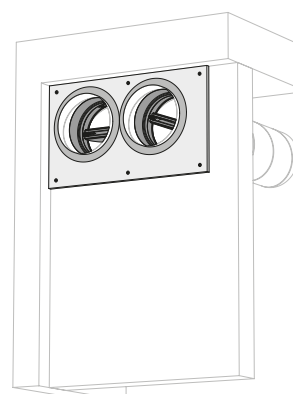
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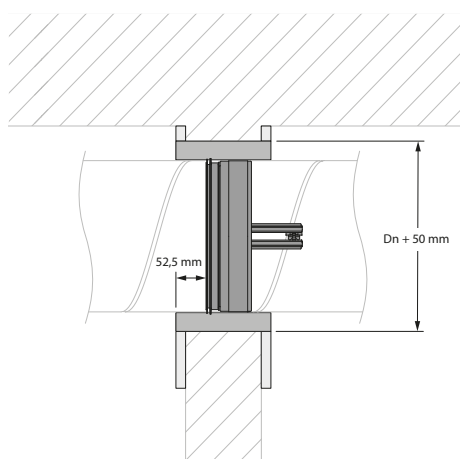
3



4



5

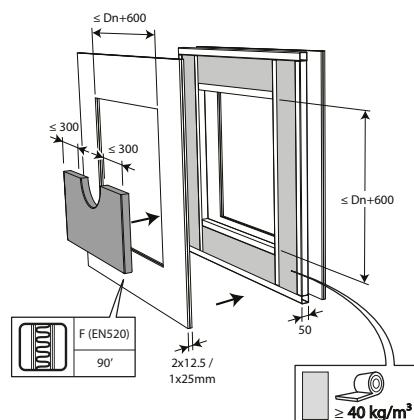


## Installation in flexible wall, sealing with rigid stone wool boards with coating - SC+90

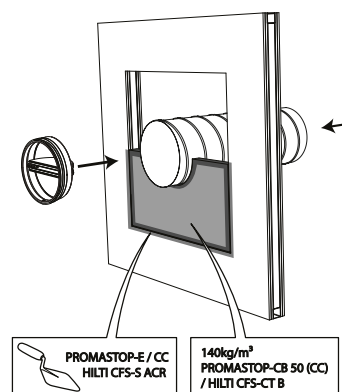
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+90 Ø 100-200 mm	Flexible wall	Stone wool + coating $\geq 140 \text{ kg/m}^3$ + coated duct	El 90 ( $v_e i \leftrightarrow o$ ) S - (300Pa)

1

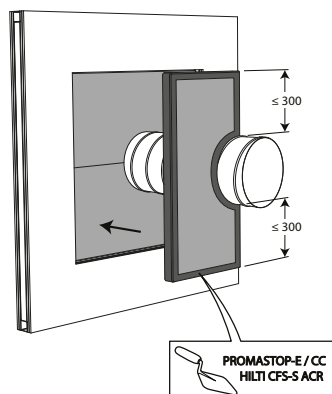


2



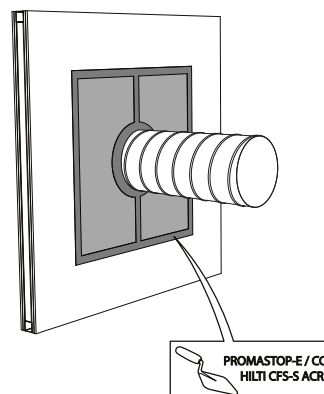
2. The opening in the wall around the duct in which the fire damper cartridge is mounted, is sealed with 2 layers of 50 mm-thick stone wool panels with fire resistant coating on one side (type PROMASTOP-CB 50 / PROMASTOP-CB/CC 50 / HILTI CFS-CT B).

3

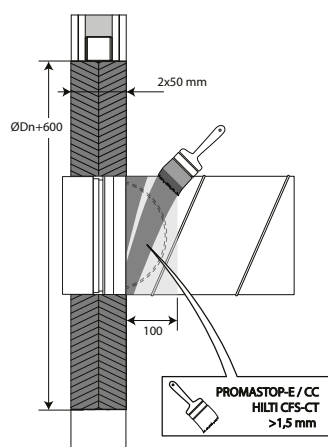


3. The joints on these 2 layers must be installed staggered and covered all around the edge with coating (type PROMASTOP-CC / HILTI CFS-S-ACR).

4

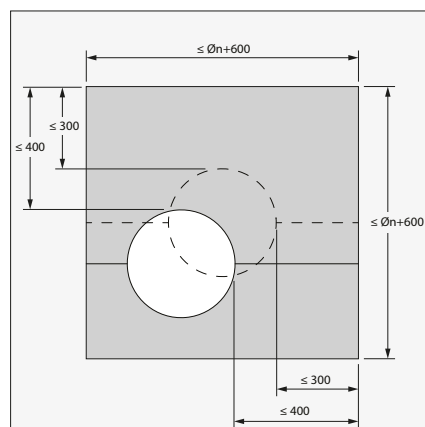


5



5. The duct is coated with a layer ( $>1,5 \text{ mm}$ ) of endothermic coating (type PROMASTOP-CC / HILTI CFS-CT) on a width of 100 mm at the side the open damper blade exceeds.

6



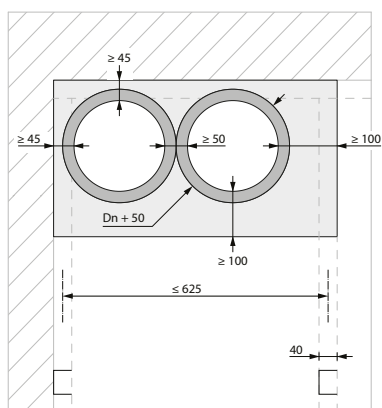
6. The duct in which the damper is inserted doesn't need be centered in the opening (with max dimensions duct + 600 mm). The maximal distance between the damper and the edge of the opening is 400 mm.

## Installation in flexible wall with gypsum sealing + 2 x 12.5 mm gypsum plasterboard type F - SC+90

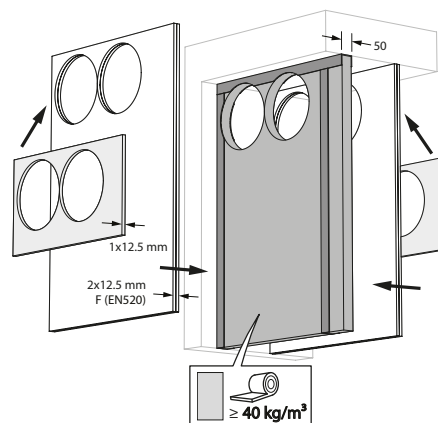
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC+90 Ø 100-200 mm	Flexible wall	Gypsum + 2 x 12.5 mm gypsum plasterboard Type F (EN 520)	El 90 (v <sub>e</sub> i ↔ o) S - (300Pa)

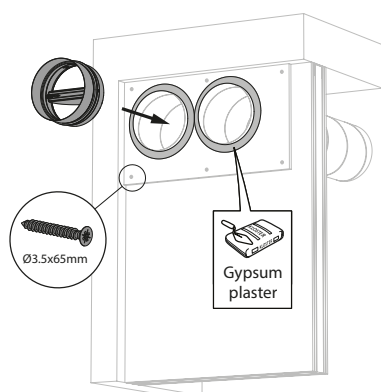
1



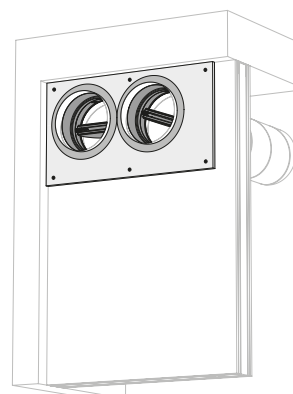
2



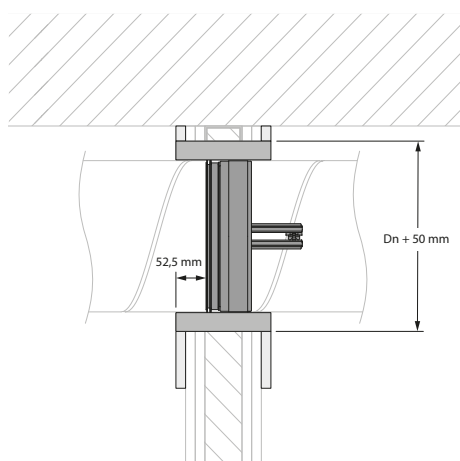
3



4



5



The product was tested and approved in:

The diagrams illustrate the installation of a door frame with a glass insert, showing various components and dimensions.

**Diagram 1:** Shows the door frame assembly with dimensions. The frame is labeled **SC(V)+90**. The glass insert is labeled **type 212/25**. The frame is labeled **type F (EN520)/GKF**. The dimensions are:  $625$  (width),  $\varnothing Dn+40$  (height),  $2 \times 12.5$  (thickness),  $\varnothing Dn+50$  (width),  $50$  (height), and  $\geq 40 \text{ kg/m}^3$  (density).

**Diagram 2:** Shows the door frame assembly with dimensions. The frame is labeled **type F (EN520)/GKF**. The dimensions are:  $2 \times$  (thickness),  $\varnothing Dn+5$  (width),  $\varnothing Dn+120$  (height), and **Plaster JointFiller**.

**Diagram 3:** Shows the door frame assembly with dimensions. The frame is labeled **Gypsum plaster**. The dimensions are:  $\varnothing Dn+120$  (height).

**Diagram 4:** Shows the door frame assembly with dimensions. The frame is labeled **Plaster JointFiller**. The dimensions are:  $\varnothing Dn+120$  (height).

**Diagram 5:** Shows the door frame assembly with dimensions. The frame is labeled **Plaster JointFiller**. The dimensions are:  $\varnothing Dn$  (width),  $\varnothing Dn+40$  (height), and  $\varnothing Dn+120$  (height).

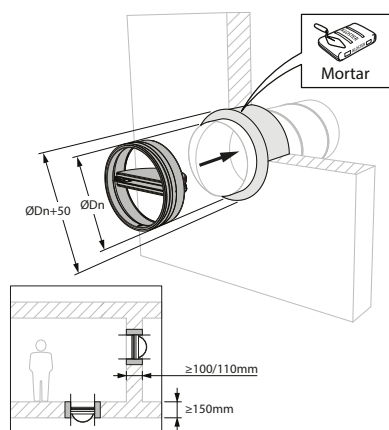


## Installation in rigid wall and floor with mortar sealing - SC+60, SC+90 and SC+120

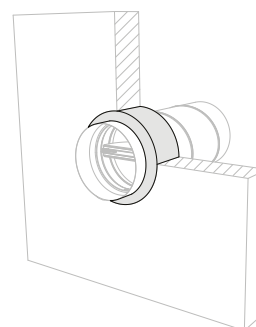
The product was tested and approved in:

Range	Wall type		Sealing	Classification
SC+60 Ø 100-200 mm	Rigid floor	Aerated concrete $\geq 150$ mm	Mortar	El 60 ( $h_o$ i $\leftrightarrow$ o) S - (300Pa)
SC+90 Ø 100-200 mm	Rigid floor	Aerated concrete $\geq 150$ mm	Mortar	El 90 ( $h_o$ i $\leftrightarrow$ o) S - (300Pa)
SC+60 Ø 100-200 mm	Rigid wall	Aerated concrete $\geq 100$ mm	Mortar	El 60 ( $v_e$ i $\leftrightarrow$ o) S - (300Pa)
SC+90 Ø 100-200 mm	Rigid wall	Aerated concrete $\geq 100$ mm	Mortar	El 90 ( $v_e$ i $\leftrightarrow$ o) S - (300Pa)
SC+120 Ø 100-200 mm	Rigid wall	Reinforced concrete $\geq 110$ mm	Mortar	El 120 ( $v_e$ i $\leftrightarrow$ o) S - (300Pa)

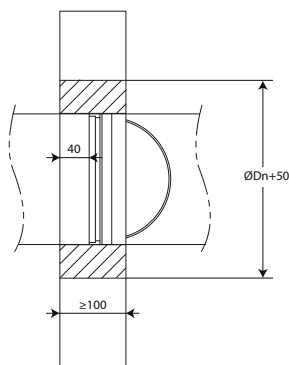
1



2



3



## Maintenance

- No specific maintenance required.
  - Schedule at least 2 visual checks each year.
  - Remove dust and all other particles before use.
  - Follow local maintenance regulations (i.e. BS9999 Annex V; NF S 61-933) and EN13306.
- ⚠ Warning: butterfly dampers, in their closed position, can move in the duct when placed under too high pressure.

## Weights

## SC+60

ØDn [mm]	100	125	150	160	200					
kg	0,2	0,3	0,4	0,5	0,6					

## SC+90

ØDn [mm]	100	125	150	160	200					
kg	0,3	0,4	0,5	0,5	0,7					

## SC+120

ØDn [mm]	100	125	160	200						
kg	0,3	0,4	0,5	0,8						

## Selection data

## SC+

$$\Delta p \text{ [Pa]} = \zeta^* v^2 \cdot 0,6$$

## SC+60

ØDn [mm]	100	125	150	160	200					
ζ [-]	2,31	1,48	1,09	1,02	0,8					

## SC+90

ØDn [mm]	100	125	150	160	200					
ζ [-]	2,31	1,48	1,11	1,04	0,81					

## SC+120

ØDn [mm]	100	125	160	200						
ζ [-]	2,31	1,48	1,04	0,81						

## Example

## Data

Dn= 125 mm (SC+60), v= 5 m/s

## Calculation

$\Delta p = 1.48 \cdot (5 \text{ m/s})^2 \cdot 0.6 = 22.2 \text{ Pa}$

**SC+60 - A-weighted sound power level Lwa in the duct**

<b>ØDn [mm]</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>160</b>	<b>200</b>						
Sn [m <sup>2</sup> ]	0,0035	0,0067	0,0109	0,0129	0,0223						
Sn [%]	44,02	54,49	61,52	63,81	70,78						
Q [m <sup>3</sup> /h]	287	505	801	934	1.597						
Δp [Pa]	143,00	116,00	104,00	102,00	96,00						<b>60 dB</b>
Q [m <sup>3</sup> /h]	204	358	568	662	1.132						
Δp [Pa]	72,00	58,00	52,00	51,00	48,00						<b>55 dB</b>
Q [m <sup>3</sup> /h]	144	254	402	469	802						
Δp [Pa]	36,00	29,00	26,00	26,00	24,00						<b>50 dB</b>
Q [m <sup>3</sup> /h]	102	180	285	332	569						
Δp [Pa]	18,00	15,00	13,00	13,00	12,00						<b>45 dB</b>
Q [m <sup>3</sup> /h]	73	127	202	236	403						
Δp [Pa]	9,00	7,00	7,00	6,00	6,00						<b>40 dB</b>
Q [m <sup>3</sup> /h]	51	90	143	167	286						
Δp [Pa]	5,00	4,00	3,00	3,00	3,00						<b>35 dB</b>

Every air flow lower than the above mentioned maximum value, will meet the listed A-weighted sound power level for the respective dimension.

**SC+90 - A-weighted sound power level Lwa in the duct**

<b>ØDn [mm]</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>160</b>	<b>200</b>						
Sn [m <sup>2</sup> ]	0,0029	0,0060	0,0100	0,0119	0,0211						
Sn [%]	37,13	48,77	56,62	59,21	67,02						
Q [m <sup>3</sup> /h]	287	505	796	928	1.590						
Δp [Pa]	143,00	116,00	105,00	102,00	96,00						<b>60 dB</b>
Q [m <sup>3</sup> /h]	204	358	564	658	1.127						
Δp [Pa]	72,00	58,00	53,00	51,00	48,00						<b>55 dB</b>
Q [m <sup>3</sup> /h]	144	254	400	466	799						
Δp [Pa]	36,00	29,00	26,00	26,00	24,00						<b>50 dB</b>
Q [m <sup>3</sup> /h]	102	180	283	330	566						
Δp [Pa]	18,00	15,00	15,00	13,00	12,00						<b>45 dB</b>
Q [m <sup>3</sup> /h]	73	127	201	234	401						
Δp [Pa]	9,00	7,00	7,00	7,00	6,00						<b>40 dB</b>
Q [m <sup>3</sup> /h]	51	90	142	166	284						
Δp [Pa]	5,00	4,00	4,00	3,00	3,00						<b>35 dB</b>

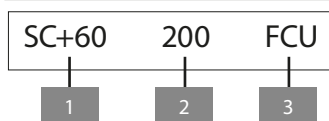
Every air flow lower than the above mentioned maximum value, will meet the listed A-weighted sound power level for the respective dimension.

## SC+120 - A-weighted sound power level Lwa in the duct

ØDn [mm]	100	125	160	200							
Sn [m <sup>2</sup> ]	0,0029	0,0060	0,0119	0,0211							
Sn [%]	37,13	48,77	59,21	67,02							
Q [m <sup>3</sup> /h]	287	505	928	1.590							60 dB
Δp [Pa]	143,00	116,00	102,00	96,00							
Q [m <sup>3</sup> /h]	204	358	658	1.127							55 dB
Δp [Pa]	72,00	58,00	51,00	48,00							
Q [m <sup>3</sup> /h]	144	254	466	799							50 dB
Δp [Pa]	36,00	29,00	26,00	24,00							
Q [m <sup>3</sup> /h]	102	180	330	566							45 dB
Δp [Pa]	18,00	15,00	13,00	12,00							
Q [m <sup>3</sup> /h]	73	127	234	401							40 dB
Δp [Pa]	9,00	7,00	7,00	6,00							
Q [m <sup>3</sup> /h]	51	90	166	284							35 dB
Δp [Pa]	5,00	4,00	3,00	3,00							

Every air flow lower than the above mentioned maximum value, will meet the listed A-weighted sound power level for the respective dimension.

## Sample order



1. product
2. diameter
3. option: unipolar end of range switch

## Approvals and certificates

All our products are submitted to a number of tests by official test institutes. Reports of these tests form the basis for the approvals of our dampers.



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