

SCV+

Fire damper cartridge with finishing valve.



CE
0749



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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" stands for standard plasterboards (type A according to EN 520) while "GKF" plasterboards offer a higher fire resistance for a similar plate thickness (type F according to EN 520)	KIT = kit (delivered separately for repair or upgrade)
I = thermal insulation	Sn = free air passage	DAS MOD = modular product
S = smoke leakage	ζ [-] = pressure loss coefficient	dB(A) = A-weighted decibel value
Pa = pascal	Q = air flow	Lw oct = sound power level per octave midband
ve = vertical wall penetration	ΔP = static pressure drop	ΔL = correction factor
ho = horizontal floor penetration	v = air speed in the duct	
i <-> o = fire side not important	Lwa = A-weighted sound power level	



fast installation

DECLARATION OF PERFORMANCE

CE_DoP_Rf-t_S5_EN - B-12/2017

1. Unique identification code of the product type:	SCV+
2. Intended use/s:	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. Harmonised standard / European Assessment Document; notified body / European Technical Assessment, Technical Assessment Body, notified body; certificate of constancy of performance:	EN 15650:2010, BCCA with identification number 0749; BCCA-0749-CPR-BC1-606-0464-15650.09-2517
6. Declared performance according to	(Fire resistance according to EN 1366-2 and classifications according to EN 13501-3)

Essential characteristics	Sealing			Performance Classification
	Wall type	Wall	Installation	
Range SC(V)+60 Ø 100-200 mm	Rigid wall	Aerated concrete ≥ 100mm	Mortar	EI 60 (V _e , I ↔ 0) S - (300Pa)
	Rigid floor	Aerated concrete ≥ 150mm	Mortar	EI 60 (h _o , I ↔ 0) S - (300Pa)
	Flexible wall	Metal studs gypsum plasterboard Type A (EN 520) ≥ 100mm	Stone wool ≥ 40 kg/m ³ + cover plates	EI 60 (V _e , I ↔ 0) S - (300Pa)
SC+60L Ø 100-200 mm	Rigid wall	Aerated concrete ≥ 100mm	Gypsum	EI 60 (V _e , I ↔ 0) S - (300Pa)
	Rigid floor	Aerated concrete ≥ 150mm	Mortar	EI 60 (h _o , I ↔ 0) S - (300Pa)
	Flexible wall	Metal studs gypsum plasterboard Type A (EN 520) ≥ 100mm	Stone wool ≥ 40 kg/m ³ + cover plates	EI 60 (V _e , I ↔ 0) S - (300Pa)
SC(V)+90 Ø 100-200 mm	Rigid wall	Aerated concrete ≥ 100mm	Gypsum	EI 90 (V _e , I ↔ 0) S - (300Pa)
	Rigid floor	Aerated concrete ≥ 150mm	Mortar	EI 90 (h _o , I ↔ 0) S - (300Pa)
	Flexible wall	Metal studs gypsum plasterboard Type A (EN 520) ≥ 100mm	Stone wool + coating ≥ 150 kg/m ³ + coated duct	EI 90 (V _e , I ↔ 0) S - (300Pa)
SC(V)Ø 100-200 mm	Rigid wall	Reinforced concrete ≥ 110mm	Mortar	E 120 (V _e , 0 → I) S - (300Pa)
	Rigid floor	Reinforced concrete ≥ 150mm	Mortar	E 120 (h _o , 0 → I) S - (300Pa)
	1	Type of installation: built-in inside a duct, 0-360°		

Nominal activation conditions/sensitivity:	Pass
Response delay (response time): closure time	Pass
Operational reliability: cycling	50 cycles
Durability of response delay:	Pass
Durability of operational reliability:	Pass
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 performances⁶. 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:
Frank Verlinden, Product Manager



W. Verlinden
 Oosterzele, 12/2017

Product presentation SCV+

Circular fire damper cartridge with a finishing valve for installation at duct's end. Fire resistance up to 120 minutes. The SC+L features an extended casing to allow the installation of a valve of your choice, also in galvanised or stainless steel (not included). The SCV0 variant has a classification only for fire integrity and smoke leakage (ES). 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 S2/S3) and the cartridge equipped with a finishing ventilation valve 'V' (technical datasheet S4/S5) for installation at duct ends.

- ☑ easy to install
- ☑ no space is lost at the wall crossing



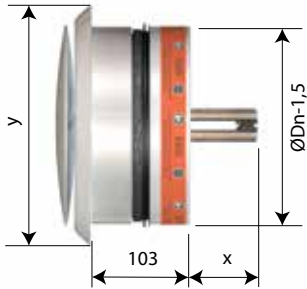
- lightweight
- tested according to EN 1366-2 up to 300 Pa
- suitable for rigid wall, rigid floor and light wall (metal stud gypsum plasterboard wall)
- maintenance-free
- for indoor use
- ambient temperature below 50°C

1. SC+ fire damper cartridge
2. ventilation valve V



Range and dimensions SCV+60

Circular fire damper cartridge with ventilation valve with a fire resistance of 60 minutes. exceeding blade: X



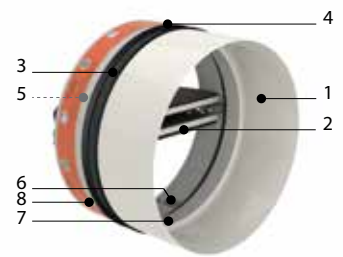
ØDn (mm)	100	125	150	160	200
x	18	31	40	49	69
y	145	170	185	195	235

ØDn (mm)	100	125	150	160	200
ØDn (mm)	100	125	150	160	200

Variant SC+60L

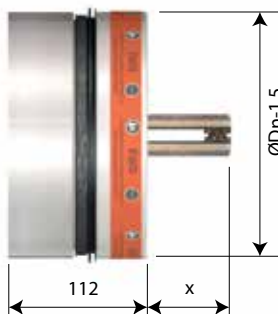
Fire damper cartridge with an extended casing to allow the installation of a valve of your choice, also in galvanised or stainless steel (not included) for installation at duct's end.

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+60L

exceeding blade: X



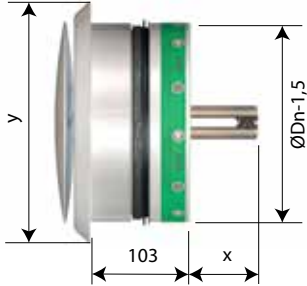
ØDn (mm)	100	125	150	160	200
x	18	31	40	49	69
y	-	-	-	-	-

ØDn (mm)	100	125	150	160	200
ØDn (mm)	100	125	150	160	200

6 Range and dimensions SCV+

Range and dimensions SCV+90

Circular fire damper cartridge with ventilation valve with a fire resistance of 90 minutes. exceeding blade: X

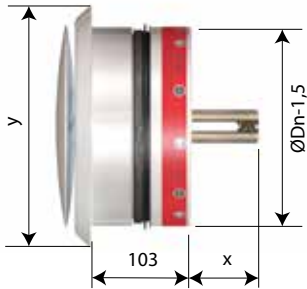


ØDn (mm)	100	125	160	200
x	20	33	51	71
y	145	170	195	235

ØDn (mm)	100	125	160	200
100	125	160	200	

Range and dimensions SCV+120

Circular fire damper cartridge with ventilation valve with a fire resistance of 120 minutes. exceeding blade: X



ØDn (mm)	100	125	160	200
x	20	33	51	71
y	145	170	195	235

ØDn (mm)	100	125	160	200
100	125	160	200	

Evolution - kits



KITS FT SC

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

Storage and handling

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

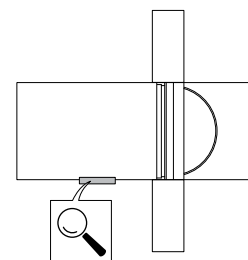
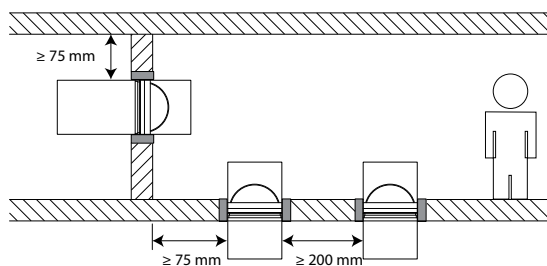
Avoid:

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

Installation

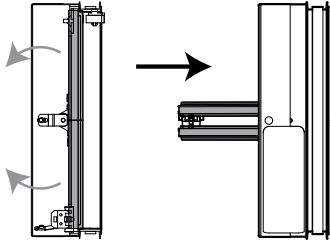
General points

- The installation must comply with the installation manual and the classification report.
- Verify if the blade can move freely.
- Mounting direction: mounting possible with the axis in any position (0-360°)
- Direction of the air flow: discretionary
- Rf-t fire damper cartridges are always tested in standardised constructions according to EN 1366-2. The achieved results are valid for similar supporting constructions with a fire resistance, thickness and density equal or superior to the supporting construction used during the test.
- The fire damper cartridge must remain accessible for inspection and maintenance.
- Please observe safety distances with respect to other construction elements.

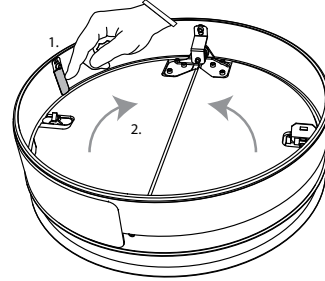


Operation: manual opening

1

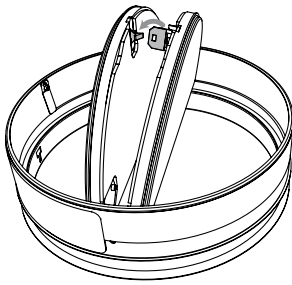


2



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

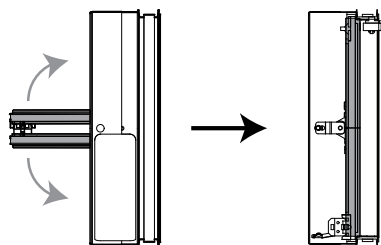
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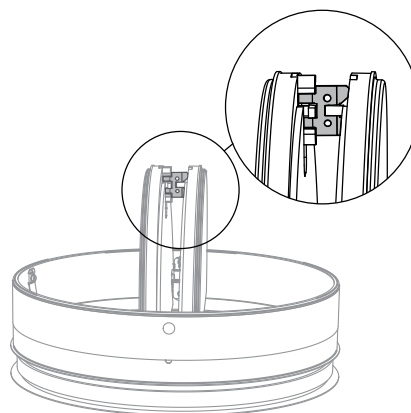
3. Click the fusible link into the holder to lock the blades.

Operation: manual closing

1

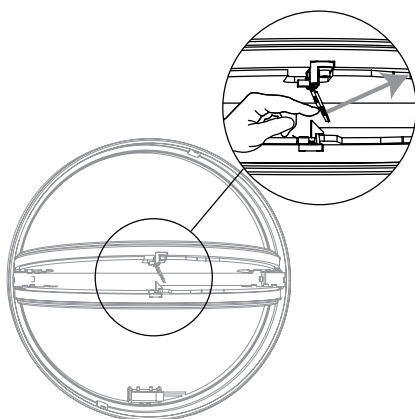


2



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

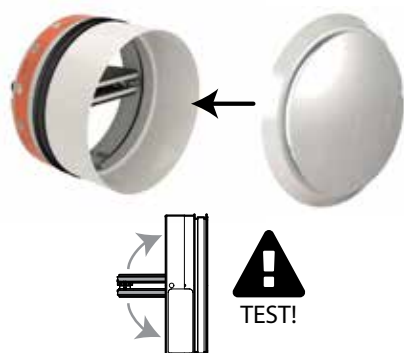
3



Installation: SC+60L selection of the ventilation valve

1

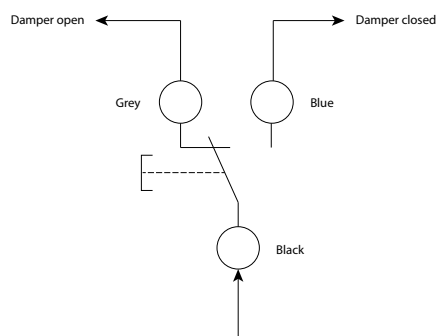
SC+60L



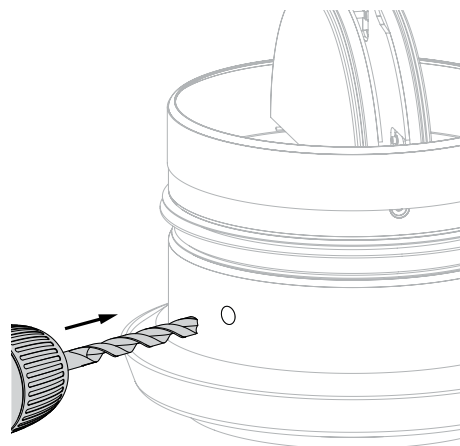
1. Make sure that the selected valve does not prevent the damper blade from closing (for example if rod is too long in case of a valve with adjustable core).

Electrical connection

1



2



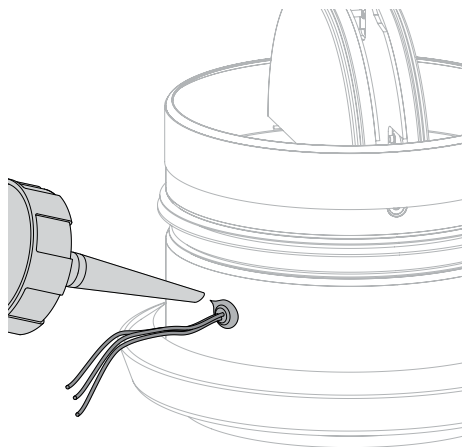
1. An end of range switch (FCU) can be mounted on the metal body. The purpose is to determine the position of the circular fire damper cartridge from a distance. 1mA...6A DC 5V... AC250V.

COM: black; NF: grey; NO: blue.

Power supply: Max 250V; Power consumption : Max 6A; Degree of protection: IP65; Length of cable: 500 mm.

2. Drill a hole at the indicated location in the tunnel.

3



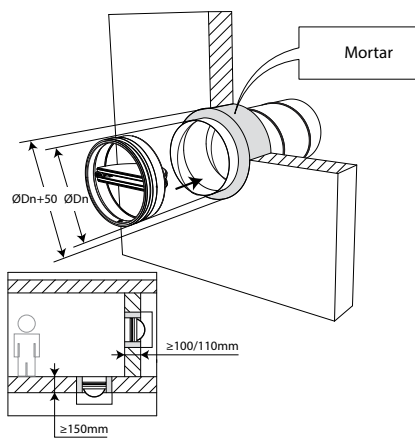
3. Bring the FCU contact cables through the hole outside the tunnel. Seal the opening with silicone.

Installation in rigid wall and floor

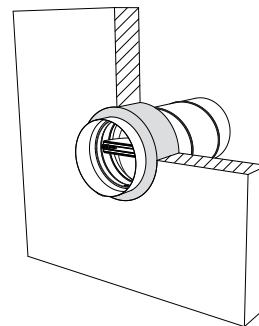
The product was tested and approved in:

Range	Wall type		Sealing	Classification
SC(V)+60 Ø 100-200 mm	Rigid wall	Aerated concrete ≥ 100 mm	Mortar	EI 60 (v _e i ↔ o) S - (300Pa)
SC(V)+60 Ø 100-200 mm	Rigid floor	Aerated concrete ≥ 150 mm	Mortar	EI 60 (h _o i ↔ o) S - (300Pa)
SC+60L Ø 100-200 mm	Rigid wall	Aerated concrete ≥ 100 mm	Mortar	EI 60 (v _e i ↔ o) S - (300Pa)
SC+60L Ø 100-200 mm	Rigid floor	Aerated concrete ≥ 150 mm	Mortar	EI 60 (h _o i ↔ o) S - (300Pa)
SC(V)+90 Ø 100-200 mm	Rigid wall	Aerated concrete ≥ 100 mm	Mortar	EI 90 (v _e i ↔ o) S - (300Pa)
SC(V)+90 Ø 100-200 mm	Rigid floor	Aerated concrete ≥ 150 mm	Mortar	EI 90 (h _o i ↔ o) S - (300Pa)
SC(V)0 Ø 100-200 mm	Rigid wall	Reinforced concrete ≥ 110 mm	Mortar	E 120 (v _e o → i) S - (300Pa)
SC(V)0 Ø 100-200 mm	Rigid floor	Reinforced concrete ≥ 150 mm	Mortar	E 120 (h _o o → i) S - (300Pa)

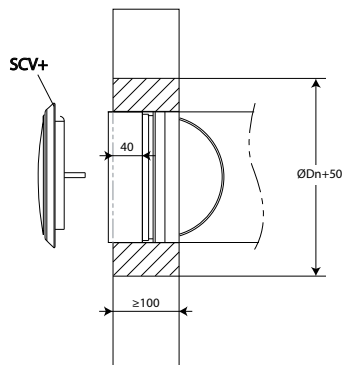
1



2



3

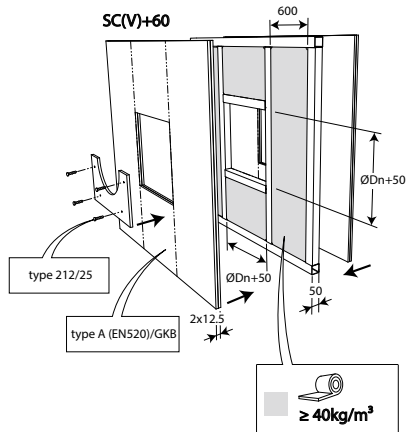


Installation in flexible wall applicable for SCV+60, SC+60L

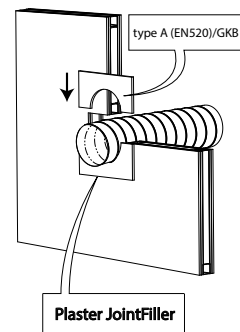
The product was tested and approved in:

Range	Wall type	Sealing	Classification	
SC(V)+60 Ø 100-200 mm	Flexible wall	Metal studs gypsum plasterboard Type A (EN 520) ≥ 100 mm	Stone wool $\geq 40 \text{ kg/m}^3$ + cover plates	El 60 (v_e i \leftrightarrow o) S - (300Pa)
SC+60L Ø 100-200 mm	Flexible wall	Metal studs gypsum plasterboard Type A (EN 520) ≥ 100 mm	Stone wool $\geq 40 \text{ kg/m}^3$ + cover plates	El 60 (v_e i \leftrightarrow o) S - (300Pa)

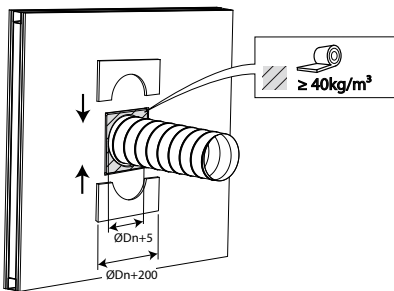
1



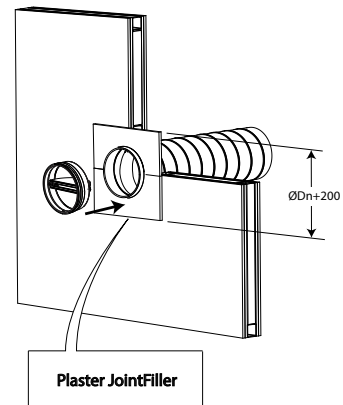
2



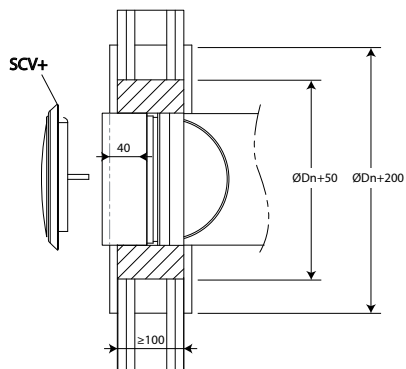
3



4



5

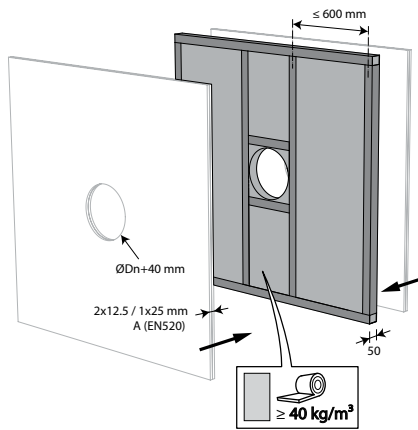


Installation in flexible wall with gypsum sealing applicable for SC(V)+60

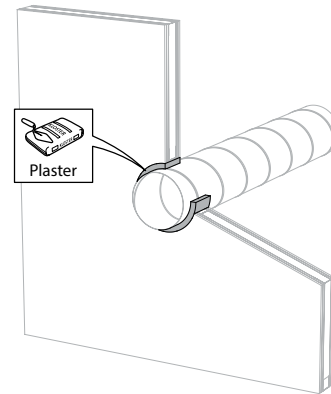
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC(V)+60 Ø 100-200 mm	Flexible wall	Metal studs gypsum plasterboard Type A (EN 520) ≥ 100 mm	El 60 (v _e i ↔ o) S - (300Pa)
SC+60L Ø 100-200 mm	Flexible wall	Metal studs gypsum plasterboard Type A (EN 520) ≥ 100 mm	El 60 (v _e i ↔ o) S - (300Pa)

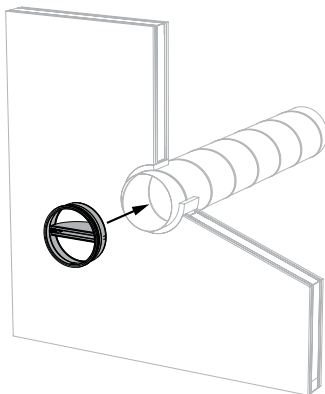
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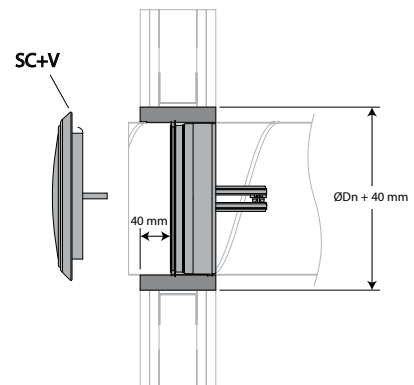
2



3



4

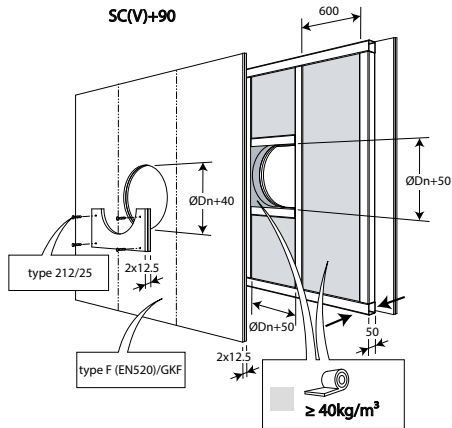


Installation in flexible wall applicable for SC(V)+90

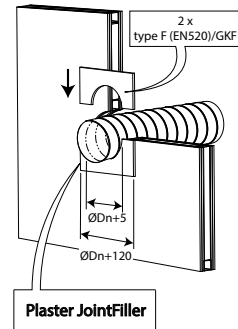
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC(V)+90 Ø 100-200 mm	Flexible wall	Stone wool $\geq 40 \text{ kg/m}^3$ + gypsum + cover plates	El 90 ($v_e i \leftrightarrow o$) S - (300Pa)

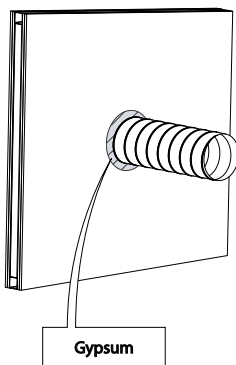
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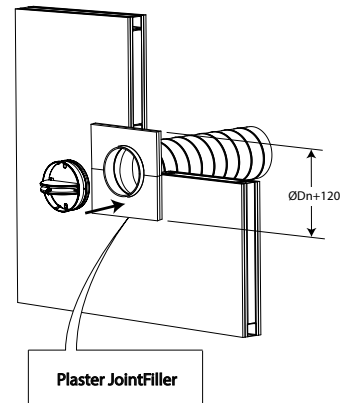
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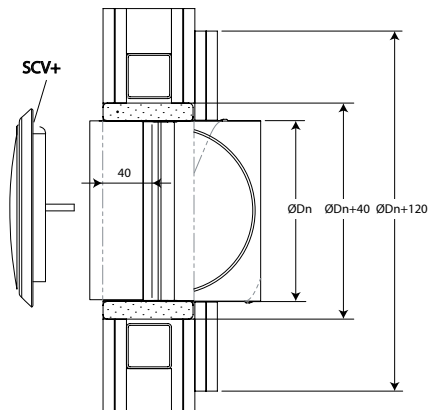
3



4



5

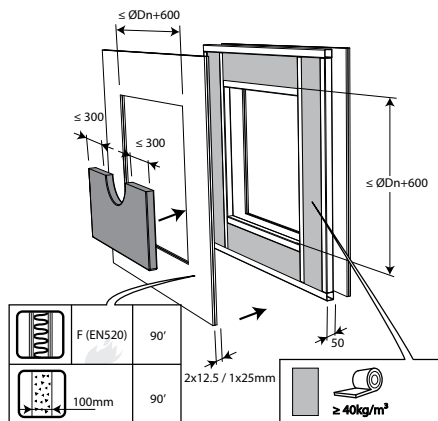


Installation in flexible and rigid wall, sealing with rigid rock wool boards with coating

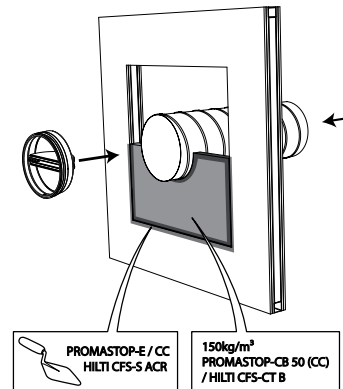
The product was tested and approved in:

Range	Wall type	Sealing	Classification
SC(V)+90 Ø 100-200 mm	Rigid wall	Aerated concrete ≥ 100 mm	EI 90 (v_e i \leftrightarrow o) S - (300Pa)
SC(V)+90 Ø 100-200 mm	Flexible wall	Metal studs gypsum plasterboard Type F (EN 520) ≥ 100 mm	EI 90 (v_e i \leftrightarrow o) S - (300Pa)

1

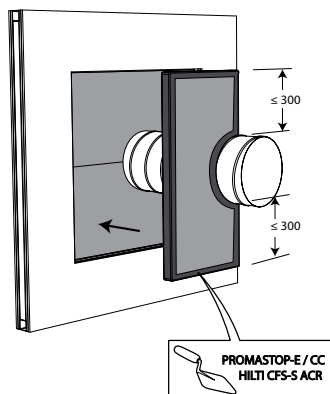


2



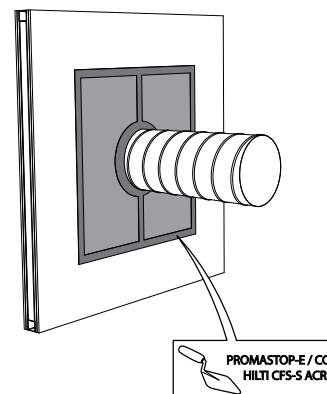
2. The opening in the wall around the duct in which the fire damper cartridge is mounted, is sealed with 2 layers of 50 mm-thick stone wool panels with fire resistant coating on one side (type PROMASTOP-CB 50 / PROMASTOP-CB/CC 50 / HILTI CFS-CT B).

3

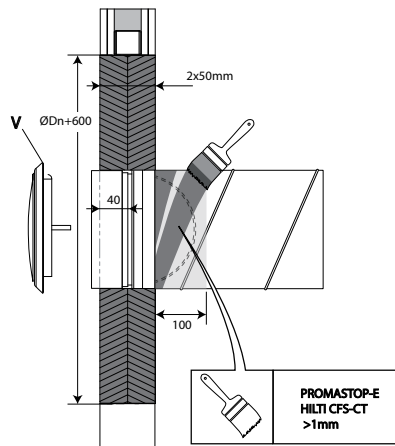


3. The joints on these 2 layers must be installed staggered and covered all around the edge with coating (type PROMASTOP-E / PROMASTOP-CC / HILTI CFS-S-ACR).

4

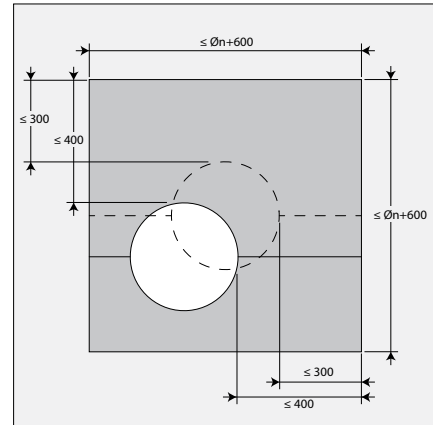


5



5. The duct is coated with a layer (>1,5 mm) of endothermic coating (type PROMASTOP-E / 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.

Maintenance

- No specific maintenance required.
- Schedule at least two running visual checks each year.
- Remove dust and all other particles before start-up.
- Follow the 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

SCV+60

ØDn [mm]	100	125	150	160	200					
kg	0,5	0,6	0,7	0,8	1,1					

SC+60L

ØDn [mm]	100	125	150	160	200					
kg	0,3	0,4	0,5	0,6	0,9					

SCV+90

ØDn [mm]	100	125	160	200						
kg	0,5	0,6	0,8	1,2						

SCV+120

ØDn [mm]	100	125	160	200						
kg	0,5	0,6	0,8	1,2						

Selection graphs

a = number of complete revolutions of the valve. a = 0 = closed valve

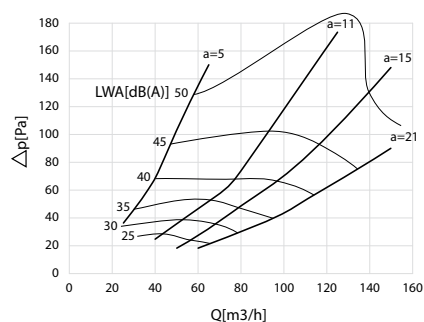
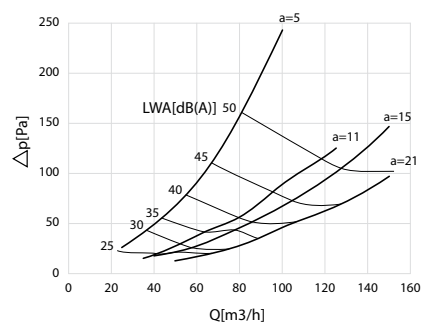


air exhaust

Ø 100



air supply

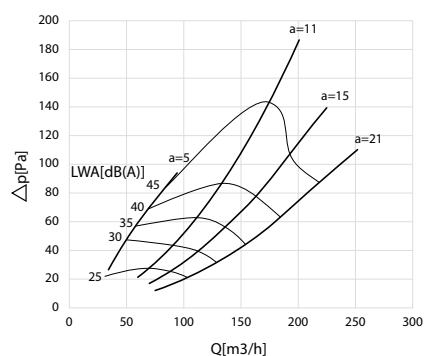
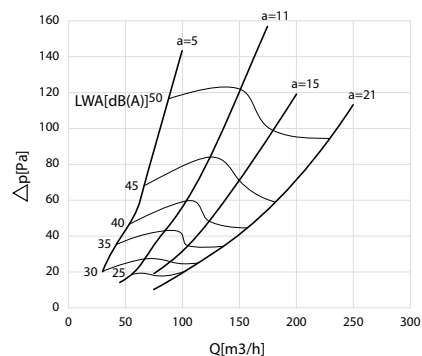


air exhaust

Ø 125



air supply



Selection graphs

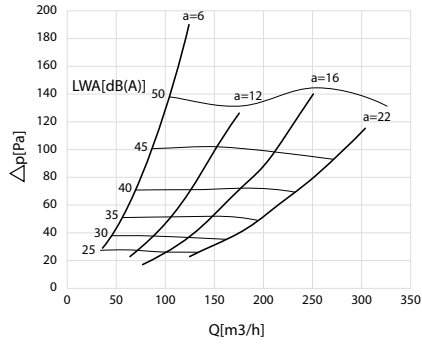
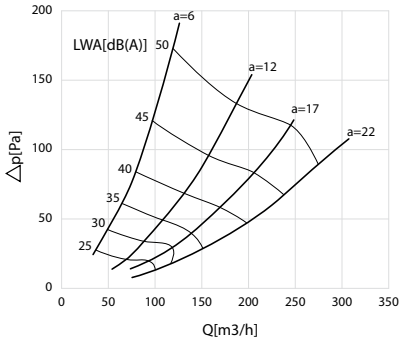


air exhaust

Ø 150



air supply

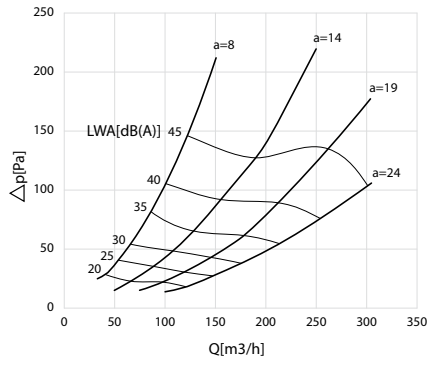
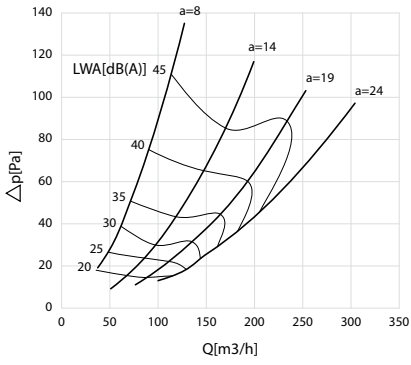


air exhaust

Ø 160



air supply

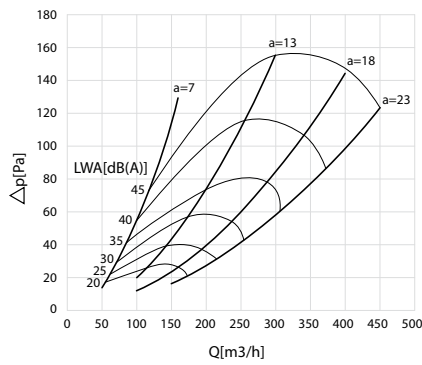
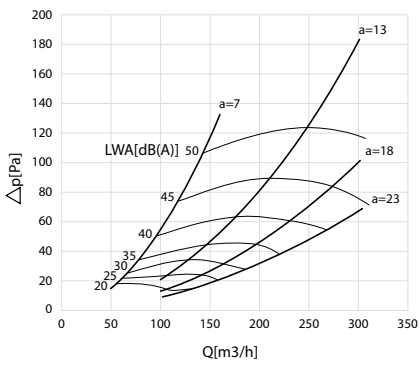


air exhaust

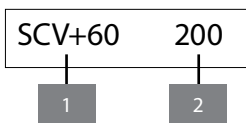
Ø 200



air supply



Sample order



1. product
2. diameter

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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