Installation guide

NCA Series 100 fire damper c/w plate frame

Prior to installation

- If damper is to be stored on site, ensure it is stored in a clean and dry environment.
- Immediately prior to fitment, remove all packaging from the unit. Take particular care inspecting the inside of the unit for any packing materials which may disrupt damper operation.

Installation

- Fire damper installation should only be carried out by competant persons.
- Appropriate PPE should be used throughout the installation.
- Dampers can be heavy, ensure suitable lifting methods are used to help prevent injury.
- Provision for access to both sides of the damper (inside the duct) must be made.
- Breakaway joints should be used where ductwork connects to a damper spigot, for example through the use of aluminium rivets.
- Remove the safety cable tie around the fusible link. Failure to remove this will render the damper inoperable.
- There should be a minimum of 200mm of supporting construction between fire dampers installed in separate ducts.
- There should be a minimum of 75mm of supporting construction between the fire damper and any adjacent construction element, e.g. a wall or ceiling.
- An increase of the gap (area) between the damper and supporting construction of up to 50% is permitted (as per EXAP report, EN 15882-2:2015, clause X.45).
- A decrease of the gap (area) between the damper and supporting construction is permitted (as per EXAP report, EN 15882-2:2015, clause X.46).

Recommended spares: Fusible links

Installation S100-2VP (formerly FD-2VP)

Drywall partition installation

Installation classified to (in accordance with BS EN 13501-3):
E 120 (ve i↔o)
120 minute rated vertical installation
Air permitted to flow in either direction through damper
Permitted for single and multiple section assemblies

Installation procedure

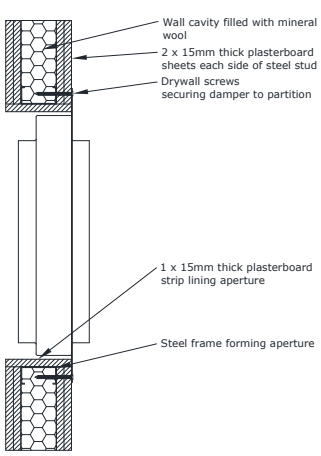
- Construct drywall partition steel frame incorporating a rectangular aperture for the damper 45mm larger than damper case overall size.
- Fill wall cavity with mineral wool (optional, see note below) and fix two layers of plasterboard to both sides of partition.
- Line aperture with one layer of plasterboard (lined aperture should be 15mm larger than damper case overall size).
- Offer damper into aperture and using 7.5mm thick spacers if necessary to ensure correct positioning, affix damper into partition by screwing through the plate frame and plasterboard into the steel studwork
- Screws to be 10mm in from outer edge of plate frame, and pitch to be not more than 125mm. Ensure the screws gain a positive fix on the steelwork.

Material specifications

Wall: Minimum 'EI 120 group A' spec as per EN 1363-1:2020
Fixing screws: Minimum spec 4.2mm x 65mm drywall screws

Notes

- No backfilling, sealing or pattress frame is required.
- Damper must be installed so blades fall downwards when released.
- The steel aperture frame must be joined to vertical frame members which are themselves fixed to the supporting construction.
- Mineral wool infill is optional (as per EN 1366-2:2015, clause 13.7).



Installation S100-2VM (formerly FD-2VM)

Masonry wall installation

Installation classified to (in accordance with BS EN 13501-3):
E 120 (ve i↔o)
120 minute rated vertical installation
Air permitted to flow in either direction through damper
Permitted for single and multiple section assemblies

Installation procedure

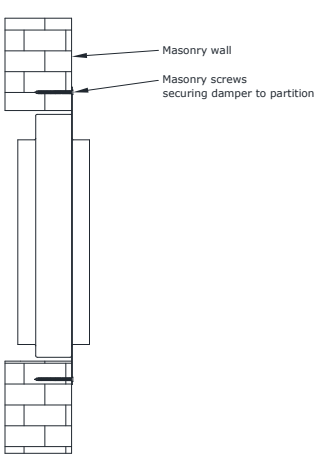
- Construct wall incorporating a rectangular aperture for the damper 15mm larger than damper case overall size.
- Offer damper into aperture and using 7.5mm thick spacers if necessary to ensure correct positioning, affix damper into partition by screwing through the plate frame into the wall.
- Screws to be 10mm in from outer edge of plate frame, and pitch to be not more than 125mm. Ensure the screws gain a positive fix on the concrete/masonry.

Material specifications

Wall: Rigid standard wall as per EN 1363-1:2020
Minimum thickness 130mm
Fixing screws: Minimum spec 6mm x 60mm masonry screws

Notes

- No backfilling, sealing or pattress frame is required.
- Damper must be installed so blades fall downwards when released.



Installation S100-2HC (formerly FD-2HC)

Concrete floor installation

Installation classified to (in accordance with BS EN 13501-3):
E 120 (ho i↔o)
120 minute rated horizontal installation
Air permitted to flow in either direction through damper
Permitted for single section assemblies only

Installation procedure

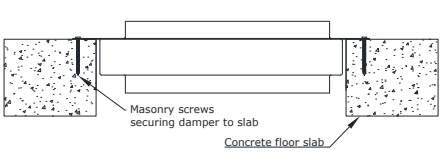
- Construct floor slab incorporating a rectangular aperture for the damper 15mm larger than damper case overall size.
- Offer damper into aperture and using 7.5mm thick spacers if necessary to ensure correct positioning, affix damper into partition using fixings as detailed below, through the plate frame into the floor.
- Fixings to be 10mm in from outer edge of plate frame, and pitch to be not more than 125mm. Ensure the fixings gain a positive fix on the concrete.

Material specifications

Floor: Concrete slab (aerated or normal)
Minimum thickness 150mm
Minimum density 600kg/m^3
Fixing screws: Minimum spec 6mm x 60mm masonry screws.

Notes

- No backfilling, sealing or pattress frame is required.
- The damper must sit on top of the floor, not be hung from below.



IMPORTANT NOTE

It is a legal requirement that fire dampers are installed in the way instructed by the manufacturer. Any other installation is untested and therefore illegal.

Responsibility for ensuring correct installation lies with all parties in the supply chain.

Installation declaration overleaf →

Fire damper installation declaration

Installation record, check-list and sign-off

Damper type:	NCA Series 100 fire damper c/w plate frame
Thermal link rated temperature:	72°C
Damper reference (if applicable):	
Damper location (within site):	
Installation type used (see overleaf):	
Installation address:	

Installation company:	
Installation company contact telephone number:	
Installation company contact email address:	
Installation company address:	

No.	Question	*Notes*	Yes/No
1	Is the damper correct for the installation?	*Are S100 fire dampers c/w plate frame what the installation requires?*	
2	Is the damper installed correctly?	*Has the damper been installed in accordance with the appropriate method shown overleaf?*	
3	Is the penetration solely used by the damper?	*Other services running through the same penetration is a violation of the installation method.*	
4	Is access sufficient?	*Can someone access the inside of the duct and damper safely to perform ongoing inspections and maintenance?*	
5	Is the damper in good working condition?	*Check specifically for cleanliness, damage to blades and the presence of foreign objects which might obstruct the damper's operation.*	
6	Has a successful drop test and reset been carried out?	*See drop test procedure in operation and maintenance manual.*	
7	Do you have any concerns about the installation?	*Is there anything that does not look correct, do you have any doubts etc.?*	

If any of questions 1 - 6 is answered 'no', or if the answer to question 7 is 'yes', it must be reported to the relevant persons on site and acted upon.

Print name: **Date:**

Signature:

Installation guide overleaf →