

RECTANGULAR FIRE DAMPER

Halton FDR



The Halton FDR is a fire damper for rectangular or large circular ducts. It's designed to prevent fire and smoke from spreading in ventilation ducts in case of a fire.

The FDR was designed with ease of installation and maintenance in mind. The fire damper comes complete with a telescopic installation frame. This makes installing a FDR considerably faster than most other fire dampers on the market. The external damper position indicator makes testing and servicing the damper easy and fast, and means that no inspection hatch is required.

Once the fire damper has closed, the double sealing closes the duct tightly, effectively preventing the spreading of flue gases in the ventilation ductwork. The flexible seal of the double sealing system operates at lower temperatures, while the graphite mass seal expands to insulate the system at temperatures above 150 °C.

The FDR is equipped with either a motorised spring-return actuator or manual spring-actuated arrangement. For ease of use both means of actuation have a visual position indicator.

If the power in the motorised actuator system is switched off, the blade closes automatically.

With both means of actuation options, a fuse reacts to a rise in temperature, causing the blade to close. The motorised fire damper is delivered complete with a Belimo spring-return actuator and a fuse that is activated at 72 °C.

The FDR fire damper can also be connected to other common building automation systems.

The Halton FDR rectangular fire damper offers the following advantages:

- Suitable for concrete/masonry walls and floors as well as plasterboard walls
- External indication of damper position
- Easy and fast to test from outside
- Fuse easy to check and replace from the outside
- No need for an inspection or access hatch
- Manual operation or optional Belimo actuator
- Available also for round ducts (dia 630, 800 and 1000 mm)
- Manufactured in accordance with an ISO 9001 quality management system
- Can be used as a Smoke or combined Fire/Smoke damper when fitted with Belimo actuator

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SIZES

The FDR for rectangular ducts is available from 200 to 300 mm in 50 mm increments and there after in 100 mm increments up to 1000 mm.

The FDR for circular ducts is available in 630, 800 and 1000 mm diameters.

MATERIAL AND FINISHING

The FDR fire damper casing, installation flange, and installation frame are made of galvanised steel. The closing blade is made of calcium silicate and equipped with a flexible silicone seal as well as a graphite mass seal that expands at high temperatures.

INSTALLATION

Installation in masonry walls and masonry floors

When the fire damper is installed in concrete and masonry walls and floors between fire compartments, the blade shaft is always horizontal. An opening is always left in the separating element for the fire damper, and the product is subsequently grouted into this.

To make installation easier, all products come with an installation flange, which is used to fasten the fire damper to the concrete surface with screws before grouting.

When the damper is installed for concrete and masonry walls and floors, the size of the installation hole is $W/H + 100$ mm.

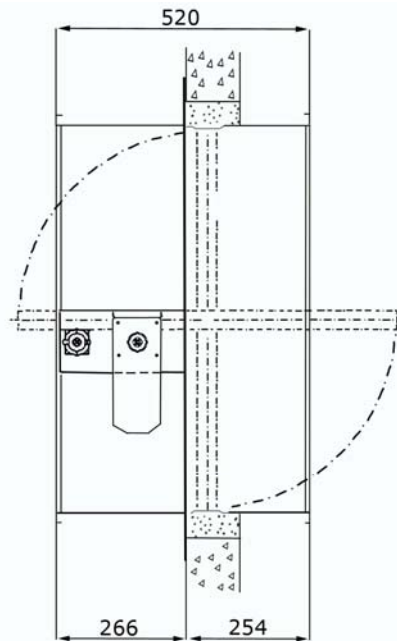
Installation in lightweight plasterboard walls

When the fire damper is installed in lightweight plasterboard walls between fire compartments, an opening for the fire damper must be left in the plasterboard in which the installation frame (included in the delivery) is first mounted. The blade shaft must always be horizontal.

To make installation easier, the fire damper comes with an installation flange, which is used to fasten the fire damper to, e.g., the steel frame of the panel wall. The space between the fire damper and the installation frame is filled with a fire prevention mastic.

For lightweight walls, the size of the installation hole is $W/H + 110$ mm; consult the section Documents / Installation Instructions for the size of the installation holes.

Detailed installation instructions, as well as an installer's installation certificate form, are supplied with each product.



APPROVAL

Complies with the Australian & NZ Building codes as an acceptable solution (incorporating AS1682 as a guide line).

Verification as follows:
BRANZ Technical Opinion FAR4516-TO [2015] issued 18 January 2016.

The fire resistance in accordance with AS 1530.4-2005 of Halton FDR fire dampers up to a maximum size of 1,000 x 1,000mm would be at least 120 minutes for Integrity and Insulation.

Halton FDR fire dampers are suitable for installation in 110mm thick concrete walls, 150mm thick concrete floors, 116mm thick steel framed or timber framed plasterboard lined walls. They can also be installed in other types of construction such as lightweight concrete or hollow masonry blocks that have an equivalent fire resistance rating.

The FDR fire dampers have a Fire Resistance Level (FRL) -/120/120

Accessories

- Electric actuator
- Safety mesh for one or two sides
- Choice of thermal fuses (50, 72 or 100 °C)