

DUCT 14

LVH54 INSTALLATION FOR RECTANGULAR STEEL DUCT

DESCRIPTION

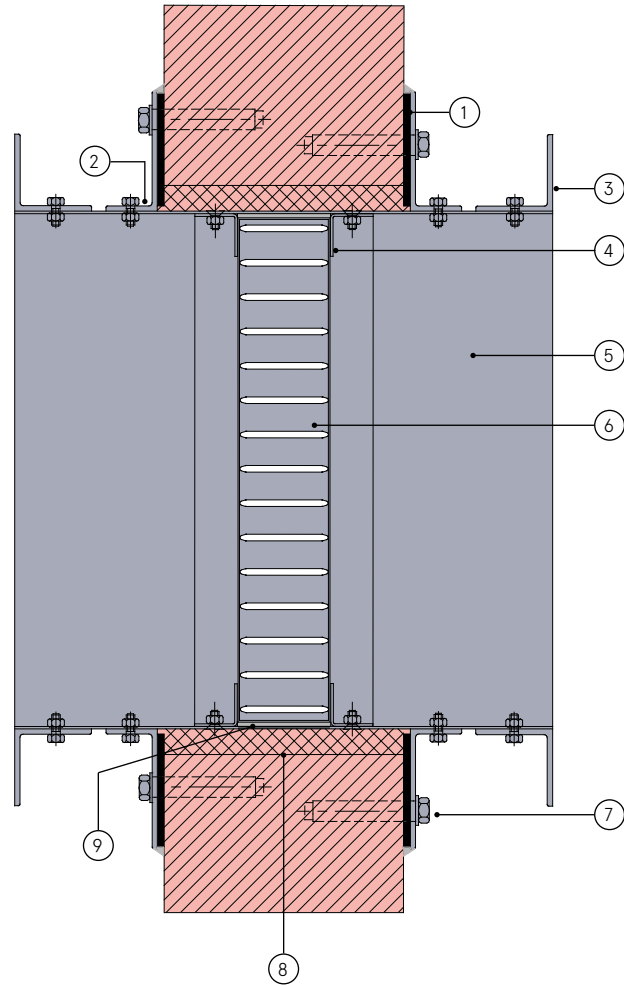
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| 1 | 4 x 65mm wide graphite based intumescent backing pad |
| 2 | 70 x 30 x 3mm steel clamping plates fixed to duct with M5 nuts and bolts |
| 3 | 45 x 45 x 3mm standard steel flanges |
| 4 | 25 x 25 x 1.5mm steel LVH54 retaining frames fixed with M3 counter sunk bolts and nuts |
| 5 | 1.4 mm thick galvanised steel stub duct with continuous welded seam |
| 6 | LVH54 air transfer grille bedded in Lorient intumescent sealant |
| 7 | 65mm anchor bolts |
| 8 | Mineral fibre packing between duct and blockwork |
| 9 | Using Lorient intumescent sealant, bed the LVH54 into the position into stub duct against the pre-fitted retaining flange. |

CONTENTS

- LVH54 air transfer grille

TOOLS REQUIRED

- Graphite based intumescent backing pad
- 70 x 30 x 3mm steel clamping plates
- M5 nuts and bolts
- M3 nuts and bolts
- 65mm anchor bolts
- 45 x 45 x 3mm standard steel flanges
- 25 x 25 x 1.5mm steel LVH54 retaining frames
- Lorient intumescent sealant



LVH54 installation for rectangular steel duct.

E240 EI30

Fire Resistance in accordance with

ISO 10294-5

Approval Ref

BRE 227730

Max single cell size

600mm x 600mm

LVH54 air transfer grilles are supplied 2mm less than the nominal size e.g. a 300mm x 300mm is actually 298mm x 298mm.

INSTALLATION INSTRUCTIONS

- ▶ Prepare a short piece of duct at least 200mm longer than the thickness of the wall to be penetrated. (100mm wall thickness will require a minimum stub duct length of 300mm).
- ▶ Position a LVH54 retaining flange square within the stub duct and fix so that the LVH54 will be in the mid position of the duct length. It is imperative that the LVH54 must be located within the thickness of the wall regardless of the position of the stub duct.
- ▶ Fit a clamping plate to the stub duct exterior, offset from the mid point by half the thickness of the wall.
- ▶ Cut to size 8 no. pieces of Lorient intumescent sheet material and fix 4 no. to the flange of the pre-fitted clamping plate using self adhesive tape in order to provide a continuous seal between the clamping plate flange and the wall.
- ▶ Using Lorient intumescent sealant, bed the LVH54 into the position into stub duct against the pre-fitted retaining flange. Fit the second retaining flange ensuring all gaps around the edge of the LVH54 are filled with intumescent sealant.
- ▶ Cut an aperture in the wall at least 30mm bigger than the outside duct dimension. (If the aperture has been cut more than 60mm greater than the duct external dimension, then the wall must be made good to the appropriate size before attempting to fit the stub duct assembly).
- ▶ Position the stub duct assembly into the aperture and tightly pack around with mineral wool and seal exposed wool with intumescent sealant. Press the pre-fitted clamping plate and intumescent sheet seal hard against the wall. Fix the pre-fitted clamping plate flange to the wall ensuring the intumescent sheet seal is deployed satisfactorily.
- ▶ Fix the 4 remaining sheet seals with self adhesive tape to the flange of the second clamping plate and position over stub duct up to wall and fix in place making sure that the duct is positioned square to the wall in both planes. Seal over all exposed mineral wool with intumescent sealant.
- ▶ Fit standard jointing flanges to each end of the stub duct and complete the installation by connecting the stub duct to the main duct, sealing joints with appropriate gasket materials.