

# FIRE DOOR 8

## LVN20S NON-VISION FIRE + SMOKE AIR TRANSFER GRILLE INTO TIMBER FIRE DOOR

### DESCRIPTION

- |   |                                                                          |
|---|--------------------------------------------------------------------------|
| 1 | 54mm thick timber fire door                                              |
| 2 | Mounting flange                                                          |
| 3 | Horizontal intumescent louvred slats                                     |
| 4 | Air transfer grille to door fasteners - 40mm wood screws                 |
| 5 | Hit + miss smoke control plates. Central plate moves, outer plates fixed |
| 6 | Servo driven actuator                                                    |
| 7 | Intumescent liner (LX5402) between the air transfer grille and the door  |
| 8 | Drop seal (optional)                                                     |

In order to comply with CF564, the upper edge of the grille shall be no higher than 800mm from floor level. Consult door manufacturer before cutting out in relation to permissible aperture sizes and locations

If the door leaf core does not comprise a solid timber lamel core (i.e. a core of chipboard, flaxboard etc.), the aperture provided in the leaf should be lined to full width using hardwood, with a minimum density of 650kg/m<sup>3</sup> and a thickness of at least 6mm. This hardwood liner may be omitted should the leaf have been tested.

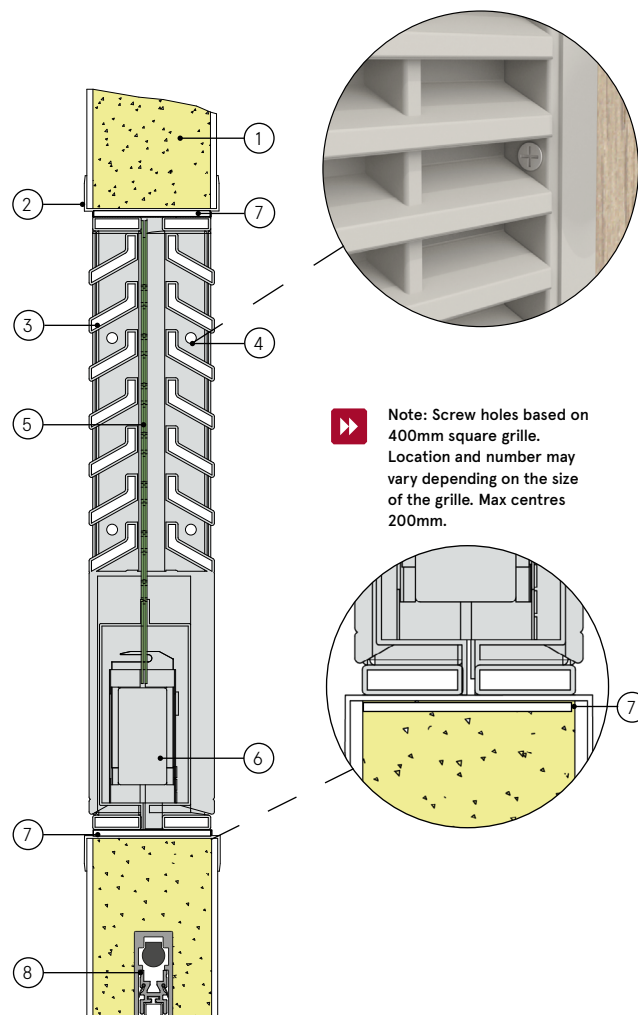
### CONTENTS

- LVN20S fire + smoke resistant air transfer grille

- Lorient intumescent liner (LX5402)
- Mounting flange
- Wiring instructions

### TOOLS REQUIRED

- 40mm wood screws
- Power drill
- Screw driver



**Note:** Screw holes based on 400mm square grille. Location and number may vary depending on the size of the grille. Max centres 200mm.

### LVN20S into a timber fire door

### FD60S

### Fire Resistance in accordance with

BS 476-22:1987

### Approval Ref

Applus-19-19940-1428\*  
CF564\*\*

### Max single cell size

350x350mm at up to 1350mm above FFL\*  
400x400mm / 0.16m<sup>2</sup> at up to 800mm above FFL\*\*

Requires an aperture 9mm over size. e.g. a 300mm x 300mm needs an aperture 309mm x 309mm to accommodate the flange.

### INSTALLATION INSTRUCTIONS

- ▶ Ensure that cutting an aperture in the door will not detract from the fire integrity of the door. Contact the manufacturer to establish the maximum size and optimum position.
- ▶ The initial installation of this type of air transfer grille is best carried out with the door dismantled. If a rebated threshold seal is to be fitted this should be done temporarily before fitting the LVN20S assembly and then removed.
- ▶ Cut the aperture to the required size with a maximum gap all around the outside of the flange of 9mm.
- ▶ Check that the two halves of the air transfer grille fit into the aperture without twisting jamming or in any way distorting. Remove LVN20S sub assemblies from aperture.
- ▶ Drill vertical outer frames of each air transfer grille and flange sub assembly to accept fixing screws if not pre-drilled when supplied.
- ▶ Drill and rebate door to provide wiring route to conductor hinges or loop connection (refer to conductor hinge datasheet).
- ▶ Fit intumescent liner (LX5402) to the inside faces of the aperture.
- ▶ Fit the LVN20S sub assembly that incorporates the actuator into the aperture, ensuring that the actuator is at the bottom of the aperture. Route the wiring in to the required connection (hinge or loop) ensuring that it lies tidily and does not cause any distortion of the damper or is likely to become trapped.
- ▶ Fit retaining wood screws through pre-drilled holes in LVN20S vertical outer uprights into door.
- ▶ Refer to wiring instructions.
- ▶ Carry out a function check of the air transfer grille by activation from the control unit whilst actuator is visible and wiring accessible, before fitting the remaining half of the LVN20S.
- ▶ After satisfactorily completing function check, fit the remaining half LVN20S assembly ensuring that the smoke control sliding plates do not become squeezed between the two air transfer grille halves or wiring becomes trapped.
- ▶ Repeat the function check on complete installation.