

SCOPE

These installation instructions are applicable to the following Portaro® Secured By Design (PAS 24 and BS 6375), Fire Rated (BS476 Part 22) and smoke check (BS476 Part 22) doorkits:

Product Reference	SBD FD30 S	Inverse SBD FD30 S	SBD FD60 S
Secured by Design Certificate	Q-Mark Certificate number: 050/031		
Fire Rating / Certificate	30 minute FEA/F99112	30 minute BMT/FEP/F15075	60 minute Chilt/A13193

LABELING

A Q-Mark fire door plug is inserted to the top rail and an Enhanced Security Door Q-Mark label is attached to the stile, on the hinge side. All doors have the rail stamped with product identification and traceability data.

Similar information is printed to the frame package and this must be maintained throughout the installation.

Information on product identification, traceability and Q-Mark door plug process is available at Vicaima website under Technical Information.

HANDLING AND STORAGE

Being a fully finished product for internal applications, Portaro® SBD assembly should not be started before the completion of all the exterior and interior decorating, namely fixing the roof, fitting of windows, glass, floor and wall painting; and the internal fabric of the building is fully dry.

Doors are heavy. Handling should be done with care by two or more people, using protecting gloves. Likewise, no modifications are permitted to the product.

The door and frame packages should be stored in a horizontal position, on a levelled surface, using a minimum of 3 supports underneath, evenly spaced at length and full width. The should be stored and installed in environmental conditions where the moisture content is between 40% and 60% and where there is good air circulation. Temperatures must remain under 25°C.

The packaging protects the product. Remove it only when necessary and dispose of any waste material in the correct manner.

When using an electric screwdriver, ensure care is taken to avoid over-tightening fixings. Pilot holes must always be pre-drilled.

Failure to adhere to these requirements may cause damage and material degradation.

FRAME ASSEMBLY

Unpack the frame head and jambs and place them over the cardboard base making sure the components are perfectly aligned and levelled.

Fix the metallic clips into the holes of the fixed architraves and tighten with a screwdriver.

Fit the supplied screws and tighten the head frame to the jamb ensuring the correct alignment.

IMMOBILIZING THE FRAME

The supporting construction must provide the required level of fire resistance designated for the doorset design and be a suitable medium to permit adequate fixing.

Portaro® SBD is supplied with screws and rawl plug for installation in masonry supporting construction.

In case of supporting construction other than masonry or where justified, alternative steel fixings may be used provided they have a minimum of 5mm diameter, are of the appropriate type for the supporting construction, penetrate to a minimum depth of 50mm and the guidance given on BS 8214 is followed.

Position the frame into the opening, keeping the jambs plumb and begin with fixing the hanging jamb. Pre-drill the frame and supporting construction as appropriate for receiving the fixings. Use packers to adjust the frame position (refer to *Fire Stopping Requirements* section).

Hang the door into the secured hanging frame and use it as the template for adjusting the closing jamb position, whilst keeping the required gaps (see *Gaps* section). Fit the screw fitting into the hanging and head frame.

Each vertical jamb requires a minimum of 4 screw fixings, staggered at a maximum of 150mm from the top and bottom and the remainder evenly spaced. The head frame requires 1 screw fixing placed at mid width.

In the case of Portaro® Inverse SBD FD30 the screw fixing should be positioned as shown in Figure 1. The intumescent seal may be temporary removed and repositioned in order to hide the screw head. Alternatively, the screw fixing may be positioned by the side of the intumescent seal, towards the hinge side.

In the case of Portaro® SBD FD30 and SBD FD60 the screw fixing should be positioned as shown in Figure 2. The doorstop is fixed afterwards and hides the screw head. Alternatively, the screw fixing may be positioned further towards the hinge side.

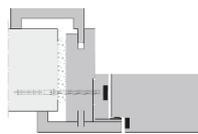


Figure 1

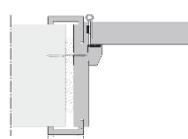


Figure 2

GAPS

Adjust the packers and tighten the screw fittings in order to ensure the door opens and closes correctly and the gaps between the door and the frame reveal are kept within the required tolerances: these are a minimum of 2mm and a maximum of 4mm.

Leaves must not be proud from the door frame by more than 1mm.

The recommended gap between the bottom of the door leaf and the top of floor covering is 6mm but this may be increased to a maximum of 8mm (Inverse SBD) or 10mm (remaining products).

FIXING DOORSTOP

Apply wood glue to the back of the doorstop and, with the door shut and the lock engaged, place the door stops ensuring there is only a slight pressure against the door. Next, fix the door stops in the frame by means of small head screws or a nail gun (not supplied with the product) ensuring the fixings are positioned at maximum 200mm from extremities and maximum 400mm centres. Start with the head doorstops.

Note: this section does not apply to Portaro® Inverse SBD FD30 since the door stop is factory fixed.

HARDWARE

Portaro® SBD is supplied with the essential hardware.

In all cases, the hardware manufacturer installation instructions must be followed for installation and setting of the hardware. This is the case for hardware such as the Astra concealed door closer, face mounted door closers and the automatic drop seal.

MODIFICATIONS

Portaro® SBD SBD is supplied complete. No modifications to the doorset are permitted.

FIRE STOPPING REQUIREMENTS

Please find noted below the approved methods for sealing the frame to structural opening. It's imperative that any fire resistant sealants or fire foams used have been previously tested for this purpose in conjunction with the site configuration concerning the wall make-up and the gaps behind the frame to also be compliant. Concerning the use of fire foam products, it's particularly important to ensure the suitability of these products concerning the fire test evidence of FD30 and FD60 in conjunction with the site wall make-up and the associated gaps behind the frame. If there are any doubts concerning the fire certification of the fire stopping products we would advise using an alternative, certified product, or using one of the other approved methods noted below.

Approved fire stopping materials must meet the following requirements and this must be supported by appropriately documented test evidence:

- **Mineral fibre/ceramic fibre:** Euroclass A1 or A2 to EN 13501-1 and heat resistant $\geq 1000^{\circ}\text{C}$.
- **Intumescent mastic:** Tested to EN 1366 part 4, BS 476 part 22, BS 476 part 20 or EN 1364-1 with test duration at least the same or higher than the integrity period of the fire doorset being fitted.
- **Expanding foam:** This is not the recommended option due to the difficulty in assessing the suitability of the test evidence. However, where there is test evidence to EN 1366 part 4, BS 476 part 22, BS 476 part 20 or EN 1364-1, with the test duration being at least the same or higher than the integrity period of the fire doorset being fitted, then expanding foam may be used.

Softwood packers can be used for 30 min fire resistance period only. Hardwood packers can be used for up to 60 min. Packers made from non-combustible or limited combustibility material (e.g. calcium silicate or plasterboard) can be used for any fire resistance period. None of the above mentioned packers needs to be cut back or capped with intumescent mastic.

Plastic packers can be used but only for 30 min fire resistance period and only if cut back 10mm and capped with appropriate intumescent mastic (see above in this section).

It is permitted to use alternative packer arrangements and materials providing they are directly supported for use with the type of doorset being installed. Supporting evidence must be test evidence generated at an accredited laboratory to BS 476: Part 22: 1987 or BS EN 1634-1 for the required period of fire resistance. Assessments for different packer materials and arrangements are acceptable providing they have been written by Warringtonfire. Other assessments may be acceptable but must be submitted to BM TRADA for review and approval prior to use.

Additional information may be sourced from BS 8214:2016 "Code of practice for fire door assemblies".

OPERATION INSTRUCTIONS

Locking from the inside / outside: shut the door, insert the key and rotate two revolutions to throw both the central, top and bottom deadbolts.

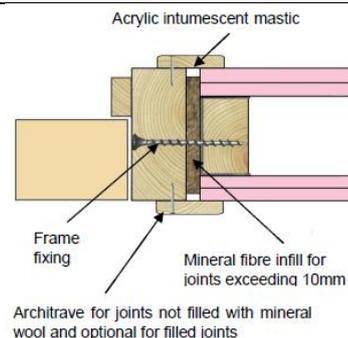
Unlocking from the inside / outside: insert the key and rotate to retract both the central, top and bottom deadbolts. Depress the handle to open the door.

Sealing to Structural Opening,

The door frame to structural opening gap must be protected using one of the following methods:

1. GAPS UP TO 10MM

Gaps up to 10mm must be sealed on both sides with a 10mm depth of acrylic intumescent mastic, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1: 2000 or 2008. Joint must be fitted with 15mm thick architraves overlapping at least 15mm each side.

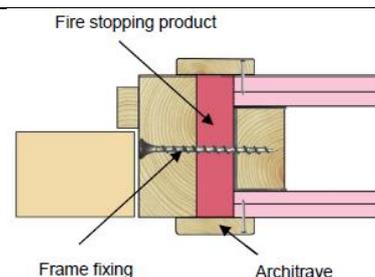


2. GAPS BETWEEN 10 AND 20 MM

Gaps between 10mm and 20mm must be tightly packed with mineral fibre capped on both sides with a 10mm depth of acrylic intumescent mastic, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1: 2000 or 2008. Architraves are optional.

3. GAPS UP TO 20MM (PU FOAM)

Gaps up to 20mm filled with proprietary fire stopping product (e.g. expanding PU foam or preformed compressible intumescent foam). Products must be tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1: 2000 or 2008. Joint must be fitted with 15mm thick architraves overlapping at least 15mm each side.



4. GAPS UP TO 10MM (SUB-FRAME)

Timber based or non-combustible subframe up to 50mm thick, with no gaps between the components. Joint must be fitted with 15mm thick architraves overlapping at least 15mm each side.

