

# STEEL PERSONNEL DOORS

## SPECIFICATION

### DOOR LEAF

Constructed from 2 skins of 1.2mm thick galvanised steel, folded to form a 45mm thick door leaf. The vertical edges of the 2 skins are folded and punched to create a full-height seam, with a unique "tab & slot" inter-connection at 115mm max centres, to increase panel strength and rigidity. A horizontal channel is located within the leaf, projection-welded to the inner and outer skins, to close off the top of the leaf.

An additional deep horizontal channel is installed within the top edge of the leaf as standard, to take all conventional surface-mounted door closers.

The bottom edge of the door contains a 2.5mm thick steel reinforcing channel welded to both skins, for maximum strength at this position of abuse. It is probably the strongest reinforcing member utilised within the industry on doors of this type.

Finally a patented bottom rail is inserted into this reinforcing channel to close off the base of the door and to provide adjustment of up to 16mm to suit existing or future changes in floor finish thickness.

The void between the two skins is infilled with a bonded honeycomb core material, selected for its compression/torsional load performance and reinforcing pads are fitted within the leaf, to suit hardware options. The hinging edge is reinforced by 4.5mm thick hinge mounting plates welded within the leaf and the lock mechanism is installed within an inner enclosure, to facilitate its removal for future maintenance or replacement. On double doors, a "T" section astragal can be fitted to one leaf to ensure positive sealing at the centre, when required.

### FRAME

Pressed from 1.6mm thick galvanised steel to form a double-rebate profile. Headers are profiled to form a smooth, butt-joint with the full height vertical posts and include "tab & slot" locators for positive engagement. Uprights are reinforced with 4.5mm thick steel plate at all hinge and lock points and headers include 2.5mm thick galvanised reinforcing to suit door closers.

Thresholds are available at extra cost, either as a shallow-depth extruded aluminium profile, or a steel member, to match the frame profile, producing a full four-sided frame, when required.

Frame for steel personnel doors are arranged for bolt-fixing to any suitable opening structure.

### SEALS

A tubular, silicone-rubber seal can be supplied, bonded into the frame rebate, which, in conjunction with the threshold, ensures accurate sealing of the door/frame gap, for smoke protection in the initial stages of fire, if required.

### HARDWARE

As standard, doors can be supplied with an Assa steel mortice latch, operated by a pair of lever handles and hung from 1½ pairs of 3.4mm thick, polished chrome-plates, full ball-bearing hinges, for smooth operation. (ANSI A.156.1 Grade 2 – 1,500,000 cycles).

On double doors, lever action flush bolts can be installed within the leading edge of the 'passive' door leaf.

Numerous alternative lock & handle arrangements can be catered for, in addition to panic bars, overhead closers, etc. and whatever hardware is selected. (All items can be factory-prepared, requiring no additional preparation work on site).

\*Choice of ironmongery can greatly effect fire performance and we therefore recommend the use of our tested ironmongery, as laid down in B.S.5588. However, your choice of ironmongery can be submitted to the Fire Test Centres for assessment, should you wish to select alternative items of hardware. (Subject to extra cost)

Doors can also be provided with the following window sizes:-

1. 500 mm x 400 mm Rectangular
2. 700 mm x 200 mm Rectangular
3. 500 mm Dia. Circular

in the following materials:-

6 mm Georgian wired polished plate glass	60 minute rating.
6 mm "Pyran" glass – Class B toughness B.S.6206	90 minute rating.
5 mm "Firelite" glass – Class C toughness B.S.6206	240 minute rating.

### FINISH

As standard, all door leaves & frames receive one coat of self-etching Primer, prior to despatch.

Alternatively, doors can be supplied factory-finished in any standard B.S. 4800 or R.A.L. colour.

(Specialist paint systems are also available to suit "Coastal/Chemical" environments, anti-graffiti applications, etc).