ROBUST®
Steel Door Solutions

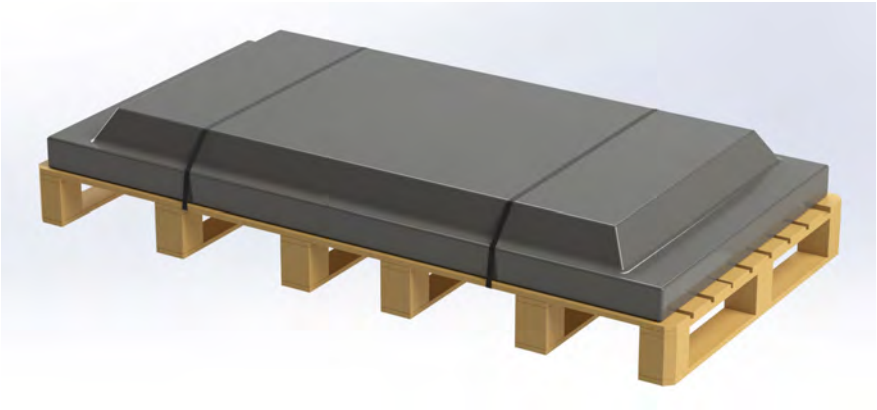
TUFF-DOR

INSTALLATION MANUAL

MDR-002
Rev A

1) PACKAGING

TUFF-DOR single and double doorset frames are dispatched/supplied as fully welded goalpost frames, wrapped in cardboard and clingfilm Door leaves are dispatched/supplied on pallets (generally 3no. pallets) which will be poly wrapped and banded accordingly.



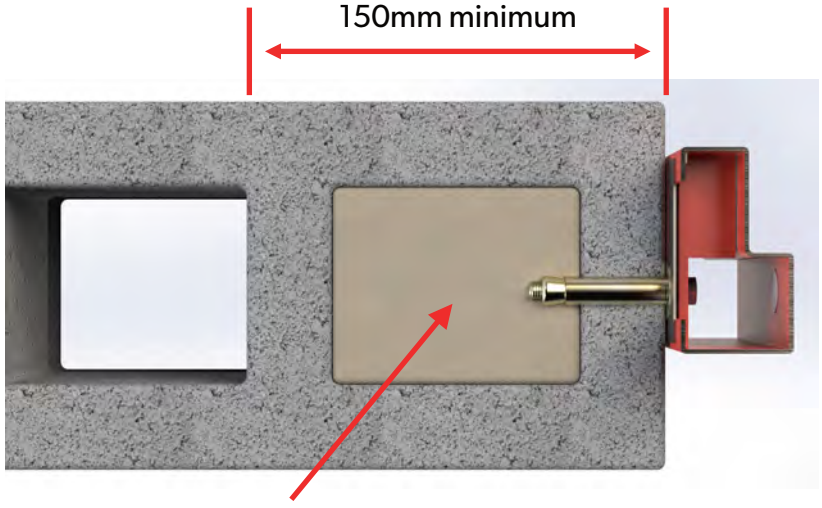
2) HANDLING

While the TUFF-DOR 2 leaves (weighing approx 100kg) can be manually handled with a minimum of 4 operatives on site, all other doors in the range require mechanical means to distribute and install.

Site work is essential to ensuring the stability and longevity of this product.

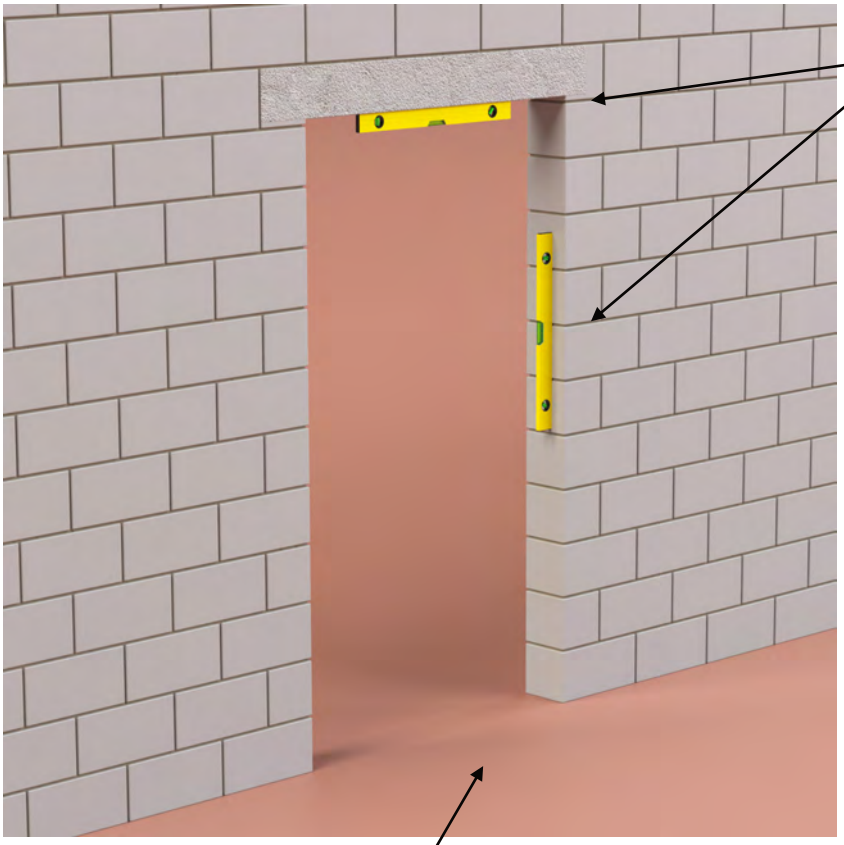
3) OPENING

This must be fully formed from a material with sufficie composition strength to withstand a minimum load/fixin of 7N/nm² (such as concrete or brick). Aerated concete is NOT RECOMMENDED and hollow brick/block should only be consisdered if suitably backfill d with materials that will provide adequate strength (7N/nm²) to take the frame fixings



Void to be backfill d with suitable materials to a depth of at least 150mm.

If the doors are to be installed and operate as design intended then it is vital that all openings are dimensionally correct to the schedule/drawings. They should also be plumb, square and have a suitably level finish d floo in place that is consistent throughout the doors opening radius (arc). It should also be constructed from a material that is able to withstand the loads to be imposed upon it.



IMPORTANT

Failure to adhere to the aforementioned guidelines/criteria will invariably lead to operational failings/issues arising in the future. This would in turn invalidate the certifi ation, rendering all warranties/guarantees o ered with this product null and void.

4) INSTALLATION

TUFF-DOR doors and frames can be installed by the clients personnel using this guide.

4.1) IMPORTANT GENERAL NOTES

It is important that all frame fixing are used and in the positions determind by the pre-drilled frame.

Frames should never sit proud of the external structure.

When fixin into steel it is important you avoid the use of Tek-Screws and adopt the recognised and proven method of drilling and tapping.

Selection of the correct and appropriate fixing is of primary importance in ensuring the door is installed in line with its certifi ation. To assist with this selection process, we have drawn up the following schedule which shows the compatibility of the structure in relation to each door type, and the appropriate fixing to be used in each application.

On doorsets with access control, the gap between the frame and substrate should be fully packed with steel packers in the location where the access control cable leaves the frame.

	BRICKWORK / BLOCKWORK	REINFORCED BRICKWORK / BLOCKWORK	REINFORCED CONCRETE	STEELWORK
TUFF-DOR2	✓	✓	✓	✓
TUFF-DOR3	✓	✓	✓	✓
TUFF-DOR4		✓	✓	✓
	M12 FISCHER	M12 FISCHER	M12 FISCHER	DRILLED & TAPPED M10 HEX HD BOLT

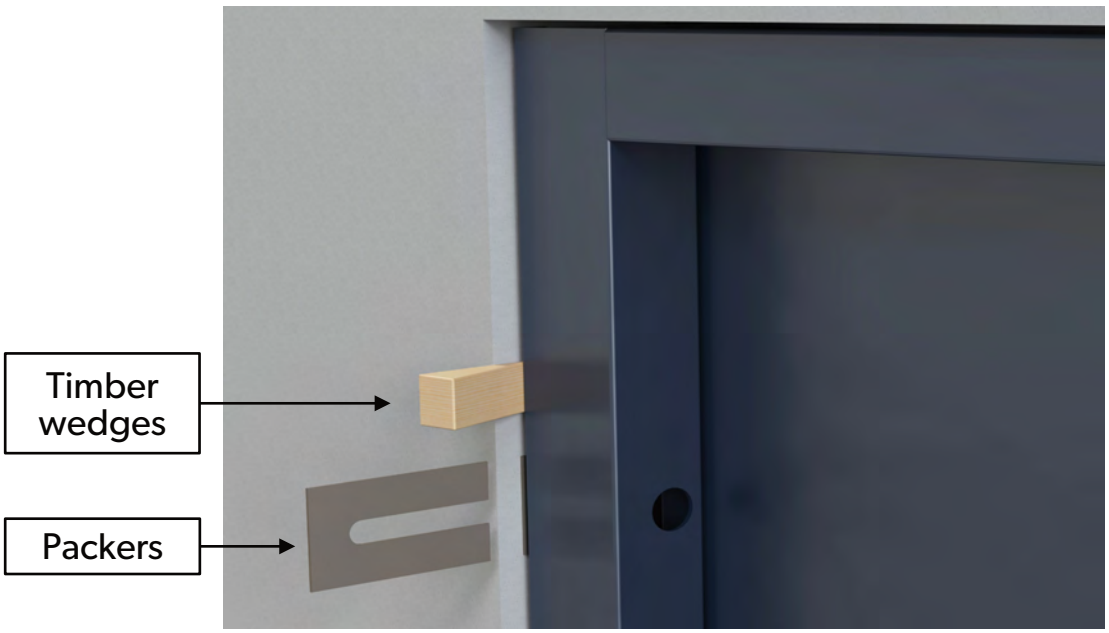
4.2) OPENING

Before you start the installation of any doorset, always survery the opening to ensure it is square, vertical and plumb, and refl ct the dimensions given on the drawings/schedule.

4.3) FIXING THE FRAME (HINGE SIDE)

Position the welded frame within the opening and temporarily secure using timber wedges. Position/manoeuvre the frame until the jambs are plumb and aligned and the header is horizontal using packers between the frame and structure as required.

NOTE: THE MAXIMUM PERMISSIBLE GAP BETWEEN FRAME AND STRUCTURE SHOULD NOT EXCEED 10MM

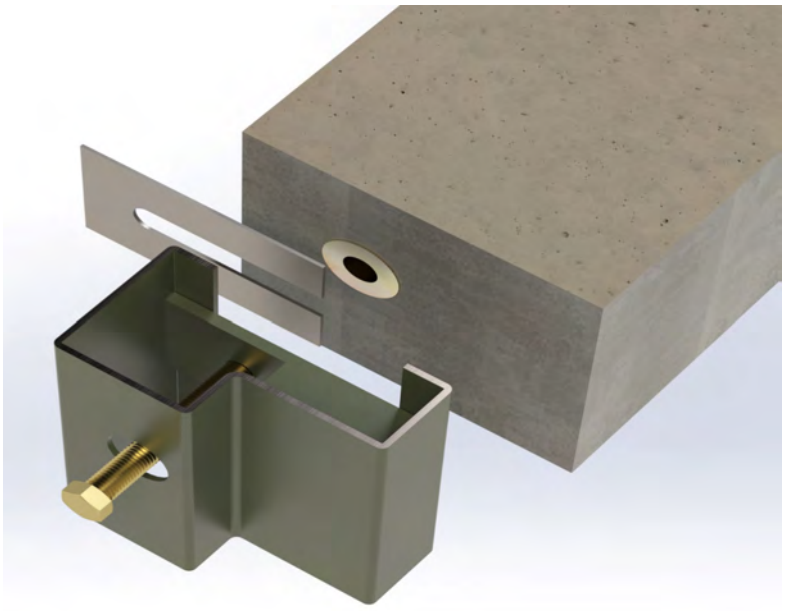


Drill through the top fixin port of the hinged jamb into the masonry/steelwork to accommodate the required fixing (the latter into steelwork will also require the steel work to be tapped prior to applying the fixing)

Clear any debris from around the fixin hole and install the fixing using steel packing shims supplied with the doorset where necessary.

The fixin should be "finge tight" only to allow adjustment when required.

Check that the door frame is still plumb & square and install remaining fixing to this jamb, adding shims at each fixin point as required.



4.4) HANGING THE DOOR LEAF

Loosely fi the hinges to the door using appropriate fixing as provided. Position the door leaf in the opening and secure the hinges to the frame.

As all these doors are test hung in the factory, then assuming your frame is lined and levelled correctly there should be no need to adjust the door doors to fi the frame.

However, if there is a need to adjust the door leaf then given there is no adjustment in the hinges, the only adjustment available will be re-positioning/tweaking the frame.

Once happy that the door leaf/s are positioned correctly, check the perimeter clearances are no greater than detailed in the table below. Check the door operation, ensuring that when returned to the closed position the gaps around the door remain constant.

When checking the operation of the door, it is also important to make sure it is clearing the F/F

4.4) FIXING THE STRIKE SIDE OF THE FRAME

With the doors in the closed position, check that the strike jamb is in line with the leading edge of the door and the header is parallel to the top edge of the door.

Once this has been achieved install the fixin and shims as required to permanently fi this jamb.

NOTE: For the doors to operate correctly, it is imperative that the clearance at both the strike side on single doorsets and meeting stile on double doors is achieved and maintained as detailed in the table below.

	STRIKE	HINGE	MEETING STILE	HEAD	FLOOR
TUFF-DOR2	4mm	4mm	5mm	3mm	7mm
TUFF-DOR3	3mm	13mm	5mm	3mm	5mm
TUFF-DOR4	3mm	13mm	5mm	3mm	5mm

If adjustment is required then slacken o the frame xings and remove /add shims as required.

5) HARDWARE

While all doors will be supplied with the hardware already factory fi ted. It is still necessary to check the operation of the door hardware once the doors are hung.

6) FINISHING WORKS

Fit the grommets into all frame fixin ports as supplied.

Using one of the following products apply primary weather seals, and/or perimeter seals to the gap between the frame and structure (which should not exceed 10mm).

External doors - Standard Weather Resistant Mastic
Fire doors - Lorient Intumescent Mastic
General purpose doors - Standard Mastic

These doors are a quality product, manufactured to strict tolerances with continuous monitoring via a computerised process to ensure that all aspects of the design and test specifi ation are adhered to. No responsibility will be accepted by Robust UK for the failure of, or damage to the product as a result of incorrect/poor installation by contractors/sub-contractors not employed by ourselves.

Each door leaf supplied has a serial number at the top of the closing edge which provides a discrete identifi ation number for future use/reference. The reference being used/quoted when obtaining any replacement parts for a particular door.

The installation should be subject to QA control/checks throughout with the fina inspection recorded by way of a COI (Certifi ate Of Incorporation). A copy of which should be retained by the client.

7) SERVICING & MAINTENANCE

Service inspections in line with the O&M Manual should be arrange every 3-4 months (more frequently if the doors are subjected to heavy foot traffic/ age).

This is to ensure that both the doors operate as intended and the long-term anticipated lifespan of the product is achieved.

Failure to implement the recommended and recognised maintenance regime will not only result in the doors failing to operate as they should, but will also negate any warranties/ guarantees given with the product.