



**TACAM STEEL PTE LTD** (199401694Z)

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Tel: (65) 6665 7555 Fax: (65) 6665 9555 Website: [www.tacamsteel.com](http://www.tacamsteel.com)



# INSTALLATION GUIDE FOR METAL DOORS



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## Congratulations on being the proud owner of a Tacam Steel door!

### Why Steel instead of timber ?

#### Superior Durability

Steel doors, unlike timber doors, do not retain or absorb moisture and therefore will not twist or warp when exposed to humidity of the environment. This also guarantees that steel doors are free from termites, fungus and other pests. Steel is also significantly more resistant to physical damage than timber. Steel doors can last a lifetime

#### Enhanced Fire Protection

With a melting point well over 1000 degrees Celsius, steel offers much better protection against fire than timber, which is itself a fuel for the fire. Why use something flammable to protect yourself from a fire?

#### Unlimited Aesthetic Options





With modern powder coating and laminate techniques, Tacam Steel can provide all the durability and fire protection benefits of steel with the aesthetics of a variety of surfaces, even timber grain. The strength of our steel doors even allows you to clad them with stylish tiles, stone or glass, something which timber doors cannot do.

For any technical support or enquiries, pls contact us at 6665 7555



**Required Tools and Equipment**

**For panel installation only:**

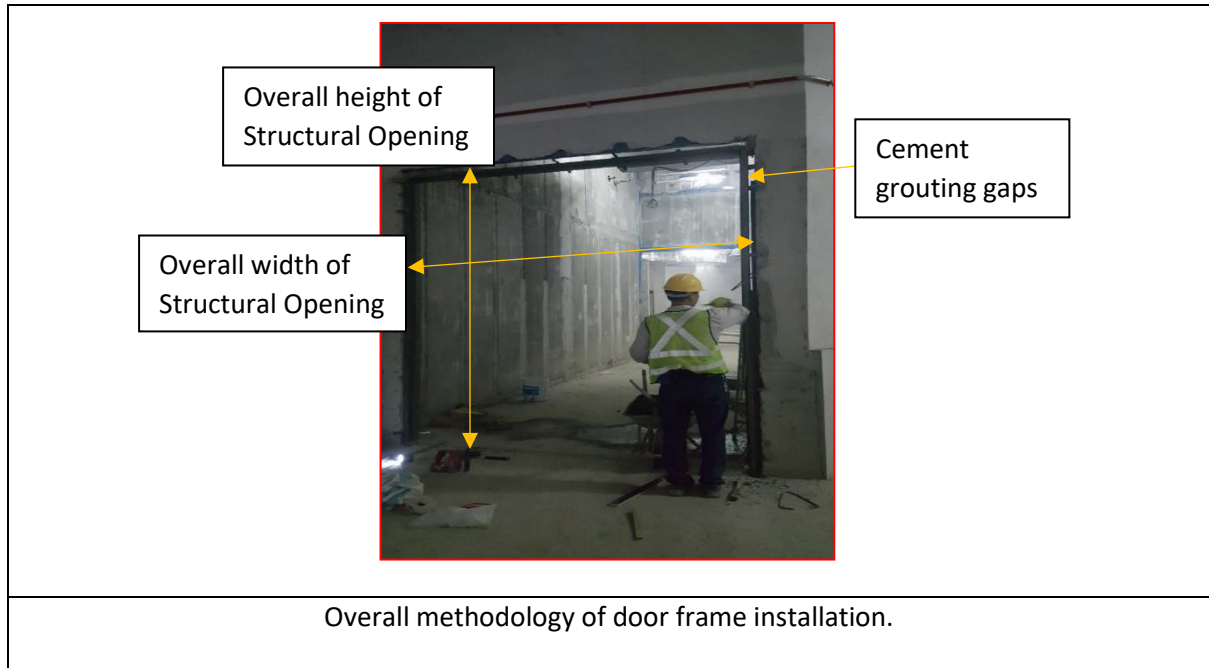
			
Battery Operated Hand Drill	Platform Ladder	Measuring Tape	Timber Shims

**For frame installation only:**

			
Laser Levelling Device	Plumb Bobs	Spirit Level Ruler	Platform Ladder
			
Battery Operated Impact Drill	Measuring Tape	Timber Shims	Pail/Bucket
			
Hoe	Grouting gun for cement		



## Installation Methodology





### **Installation of Frame (Step 1):**

#### **a) Preparation of Masonry / Structural openings to receive steel door frames**

- Check the structural openings before installation of frames.
- Check the frame size.
- Ensure that there is a given allowance of approximately 20 – 30mm gap between the intended frame and the structural opening.

#### **b) Alignment and levelling**

- Check for Finishing Floor Level (FFL) reference line.
- Check if there are other finishes to the structural wall and door frame.

Left: Use of laser levelling device mounted on tripod.

Right: Checking of door's 1m reference line.





### Installation of Frame (Step 2):

#### c) Installation of steel frames

- Position the frame in the opening with timber shims (temporary support) if necessary.
- Ensure that frame is straight. Use plumb bobs, attached to the site and front of the frame to confirm frame's verticality.
- Once the frame is aligned properly, frame is secured to the structural wall provision.
- Frame with metal strap, secure the metal strap using plastic anchors or impact anchors for RC walls.

Left: Positing of frame in the opening.

Right: Checking of frame's verticality using plumb bob and plumb lines.



Depending on design, the frames are secured using metal straps.



**Installation of Frame (Step 3):**

**d) Filling of Voids using Cement**

- Allow 24hrs for the cement to set.

Grouting of voids between door frame and wall. Usage of timber strips to ensure that cement is compacted properly.



Timber strips at the other end during grouting of cement.

**Installation of panel (Step 4):**

**e) Handling of Doors Panel**

- Door panel shall be installed once the cement for the frame had set.
- Secure hinges to the panel before installation.

Left: Align door panels to frame. Secure the hinges to frame using 1-2 screws per hinges.

Right: Door panels shall be adjusted to ensure that panel are installed properly. Secure all screws once alignment is achieved.







**f) Lockset**

The lockset shall be installed after the installation of the door panel. Operate the lock a few times with lever handle or key to ensure that the latch and the deadbolt are functioning smoothly. Ensure that the level handle returns to its original position smoothly.



**g) Door Closers**

Adjust the speed of the closing and back-check of the door closure after installation. Ensure that the door close at an appropriate speed and this action is able to engage the latch upon closing.



**Congratulations!**