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MADE & OWNED



Since 1979

by

FORTRESS GATES Pty Ltd

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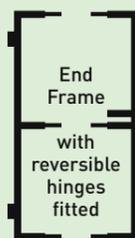
Manufactured under one or more of the following Patents nos: 953 959 & 569 703. And other Patents pending.

Available from:

Powerhouse Design 07/16

FIRST Frame Height

Hinges included with E Frames



E1850

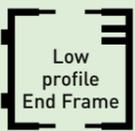
1.85 metre high frame

E1650

1.65 metre high frame

E1400

1.40 metre high frame



E1050

1.05 metre high frame

E840

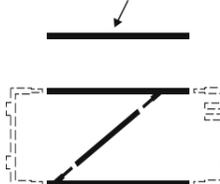
840mm high frame

E710

710mm high frame

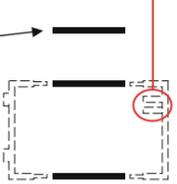
TIPS

NOTE: this rail not required when using Low Profile E840 & E710 End Frames



Latch bars used to fit latch or pad bolt

NOTE: this rail not required when using Low Profile E1050, E840 & E710 End Frames

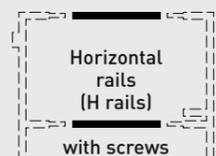


CAUTION

Angle of diagonal brace requires HD products to be used with an End Frame with SAME COLOUR labeling

Use	HD1.3	with	E1650	✓
Or	HD1.3	with	E1050	✓
NOT	HD1.3	with	E1050	✗

THEN Frame Width



100mm H width 100mm
Gate width = H rail width + 200mm

STANDARD GATE

H700

Up to 900mm wide gate

H800

Up to 1.0 metre wide gate

H900

Up to 1.1 metre wide gate

H1000

Up to 1.2 metre wide gate

WIDE BRACED GATE

HD1.3

HD1.3

HD1.3

HD1.3

1.2 to 1.5 metre wide gate with diagonal brace

WIDE BRACED GATE

HD1.6

HD1.6

HD1.6

1.45 to 1.8 metre wide gate with diagonal brace

EXTRA WIDE BRACED GATE

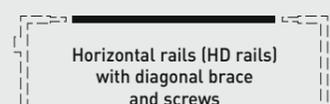
HDD1.9

HDD1.9

HDD1.9

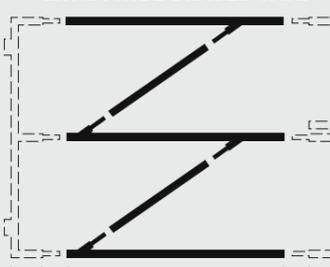
1.75 to 2.1 metre extra wide gate with diagonal braces

WIDE BRACED GATE

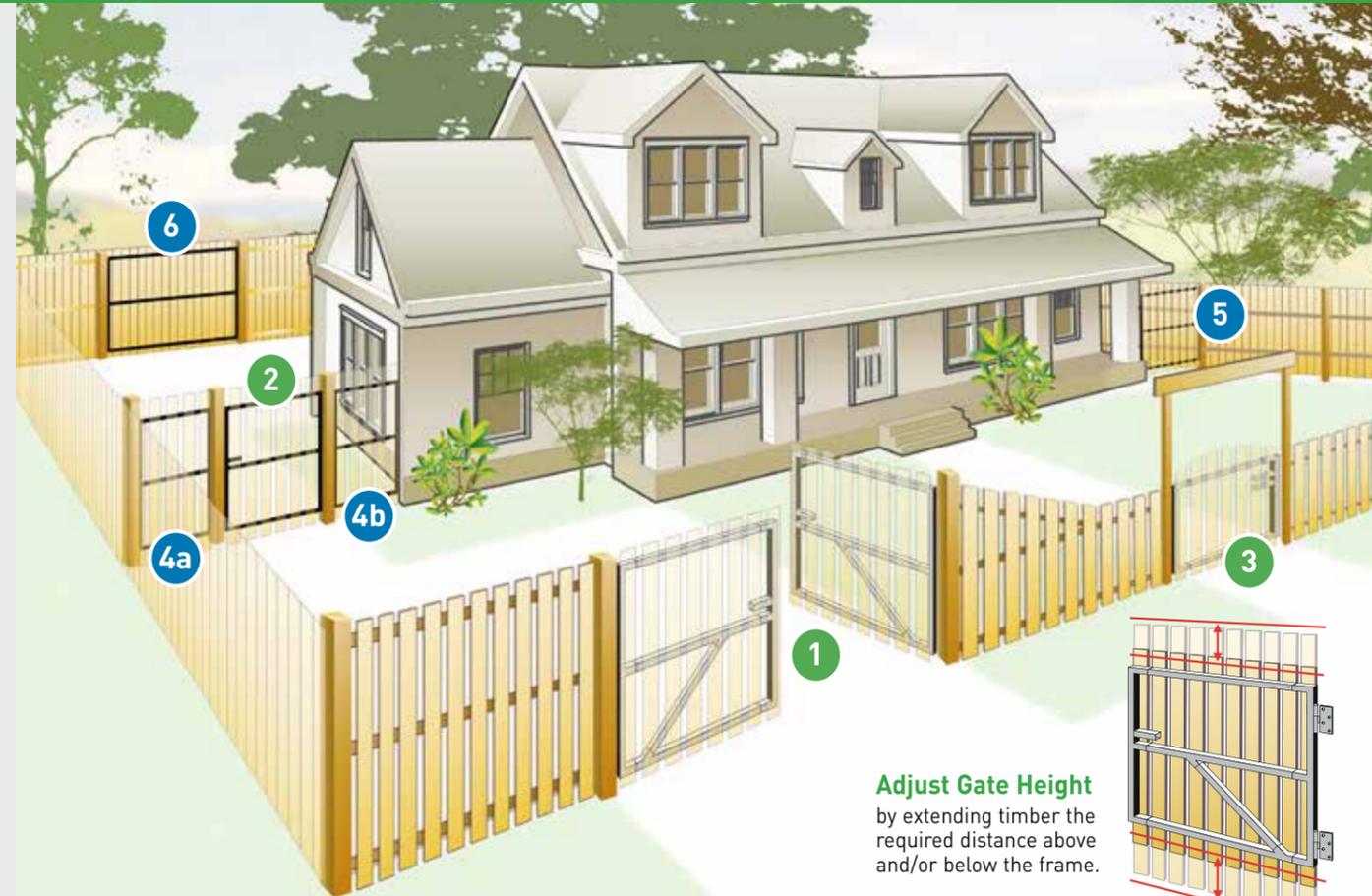


100mm HD width 100mm
Gate width = HD rail width + 200mm

EXTRA WIDE BRACED GATE

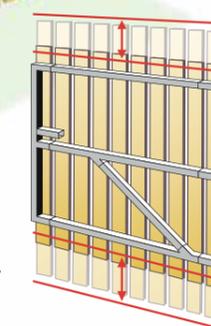


100mm HDD width 100mm



Adjust Gate Height

by extending timber the required distance above and/or below the frame.



FENCE PANELS

4 Braces Gate Post...

- a) Between gate post and existing side fence rails.
- b) Between gate post and house wall.

5 Fence Panels

eg: Between house and side fence.

6 Removable Fence Panel

Eg: Complete panel can be unscrewed and replaced for occasional wide access to back yard.

GATES

1 Double Gate.

eg: Driveway - up to 2.1 meters high and 3.6 meters wide.

2 Single Gate.

eg: Pedestrian gate beside the house - up to 2.1 meters wide.

3 Feature Gate.

eg: Pathway.

FORTRESS GATE FRAME & FENCE PANELS
GALVANISED TUBULAR STEEL



NOW AVAILABLE. PLINTH ADAPTORS



STRONG • GALVANISED • EASY

YOUR NEW FORTRESS GATE

Designed by Peter Wills, Fortress Gates and Panels are fully Australian made and owned.

Fortress Gates are committed to quality and reliability to ensure your gate meets with the requirements of the discerning buyer.

Manufactured from 25mm x 25mm square galvanised steel tubing with sturdy welded joints, these frames won't rot or warp. Your Fortress Gate Frame will allow for different cladding to be added at a later date if trends should change.

Fortress Gates offer a variety of sizes and options to choose from, one of which is sure to suit your needs.

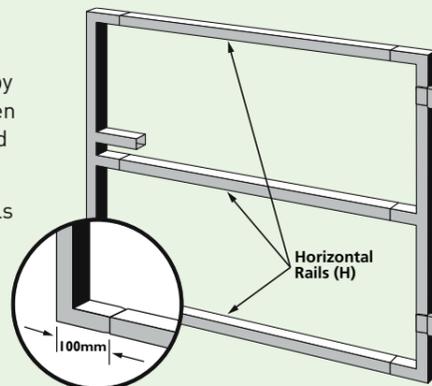
ALL YOU NEED



- **Hexagon drill socket** $\frac{5}{16}$ or 8mm
- $\frac{7}{32}$ or 5.5mm **drill bit**
- **Electric drill** (Preferably variable speed & reversible)
- **Self drilling screws** (See chart)
- **Mallet** (or timber block and hammer)
- **Choose your own Cladding**
- **Hacksaw** (if cutting required)
- **Tape Measure**

STEP 1

- Determine width by measuring between gate posts, top and bottom.
- Horizontal "H" rails should be 200mm less than gate width (to allow for 100mm each side of "E" frame).



- Cut "H" rails to suit if your gate is TOO WIDE. Eg: H700, cut to 650 = 850mm wide gate.

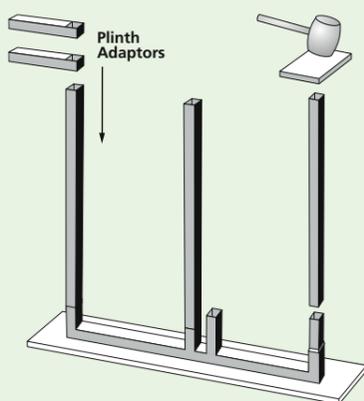
Note: Allow for clearance

SINGLE GATE - should be 10-15mm less than opening

DOUBLE GATE - should be 30-35mm less than opening

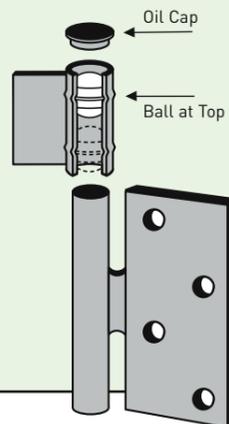
STEP 2 BEFORE ASSEMBLY:

- Determine the front of the gate, the hinge side (Hinges are fully reversible), left or right opening and placement of the latch.
- Place the latch side on firm level ground, then bump horizontal rails ("H" rails) on with a mallet or heavy piece of wood. (Hammer must not be used directly onto frame).
- Add plinth adaptors (if required).
- Place hinge side on top of "H" rails and bump into position.
- Now check for correct width, top, centre and bottom.



STEP 3

- "E" frames are fitted with **reversible ball-bearing hinges**. This means the hinge pin can be inserted from either end depending on position of the oil cap and ball.
- Oil cap and ball **MUST** be at the top of both hinges. If they are not then **reverse** them as shown.



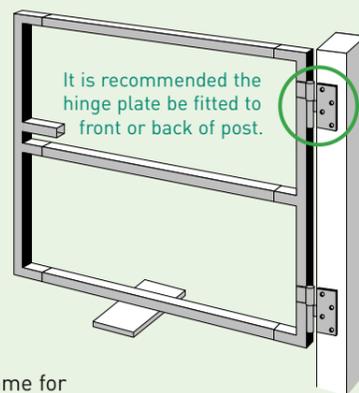
HOW TO REVERSE HINGE

To reverse hinge remove oil cap, then use hinge pin and hammer to GENTLY dislodge the ball from its retaining groove. It will then slide up the barrel and snap into place in retaining groove at opposite end. Ball moves from end to end but cannot come out.

CAUTION: Do not install with one hinge upside down, i.e. ball at bottom and pin inserted from top. This will allow water to fill hinge barrel and possibly cause the hinge to seize.

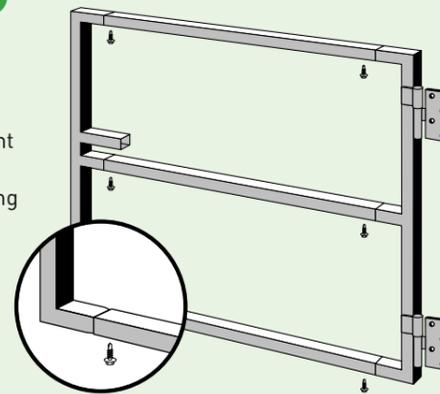
STEP 4

- Place the gate frame into position using a chock to gain the correct height.
- Screw hinge pin plate to the post using one screw only in each plate. When satisfied gate swings properly insert rest of screws.
- Check the swing of the frame for clearance between the post and the ground.
- Ensure the frame is at the correct height for cladding.
- If fancy pickets are used, allow adequate space above the frame.



STEP 5

Now screw your frame together with the screws supplied to prevent frame joint from moving while fitting cladding.



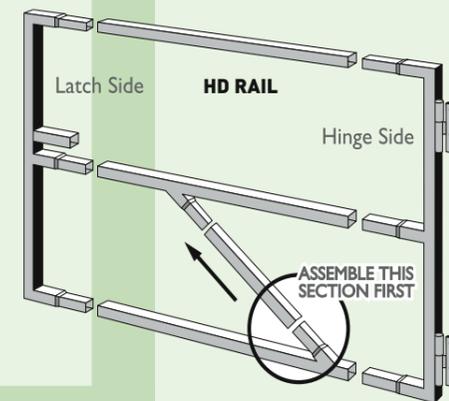
STEP 6

BRACED GATES

- The "HD" rail (horizontal with diagonal brace) is used for wide gates.
- Make sure you use the correct "HD" for the "E" frame as the length and the angle of the brace is pre-set for the height.
- "HD" labels are colour coded to the corresponding "E" frame.

IMPORTANT

Diagonal should point upwards towards the latch side (not down).



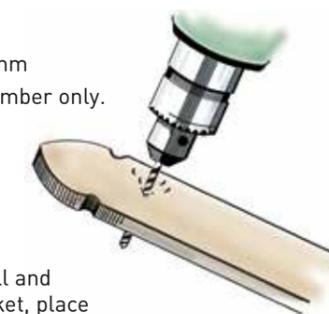
"HD" rails may be cut back on the latch side only.

Fixing timber cladding to steel frame

You can select from a wide range of timbers at all leading hardware/timber merchants to fix to the steel frame by using **SELF DRILLING** screws.

1

Mark and drill a 5.5mm (or $\frac{7}{32}$) hole in the timber only.



2

Using an electric drill and an 8mm (or $\frac{5}{16}$) socket, place **SELF-DRILLING** screw in the hole in timber cladding - then screw **SELF-DRILLING** screw directly into steel frame.



SELF-DRILLING SCREW READY RECKONER

	SIZE	USE
	No. 10-16 x16mm	For drop bolt, gothic latch, accessories
	No. 12-14 x35mm	Pickets or decking 20-22mm thick
	No. 12-14 x45mm	1" (25mm) boards, e.g. 6"x1" pine
	No. 14 x22mm	For fixing hinges to tubular steel posts - up to 6mm wall thickness

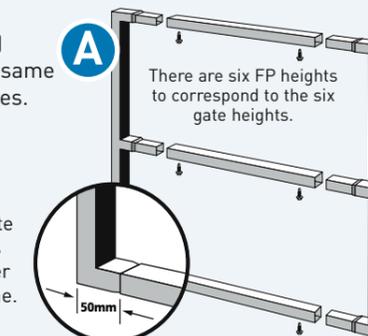
FENCE PANELS

Fence Panels are used in conjunction with Gates to:

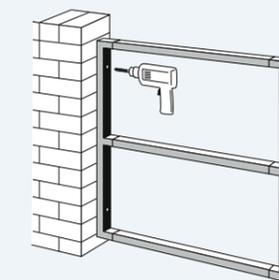
- Brace a gate post to a fence or wall (see diagram C below)
- Fill a gap between a gate post and a fence
- Reduce an extra wide gap to a more practical size for a gate
- Allow a gate post to be positioned away from pipes or footings
- Build short sections of fence

ASSEMBLY

The Fence Panel (FP) is constructed in the same way as the gate frames. (see step 1 & 2).

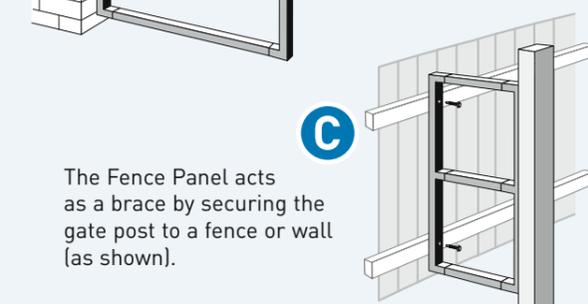


Note: unlike the gate frame, the FP takes up only **50mm** either side of the "E" frame.



B

Drill a hole sized for the self-drilling screw or dynabolt directly through the "E" frame.



The Fence Panel acts as a brace by securing the gate post to a fence or wall (as shown).

HEIGHT: there are six FP frame heights identical to the gate frame heights

WIDTH: choose from horizontal rails 1.2m, 2.0m, and 2.4m wide or cut to length.