

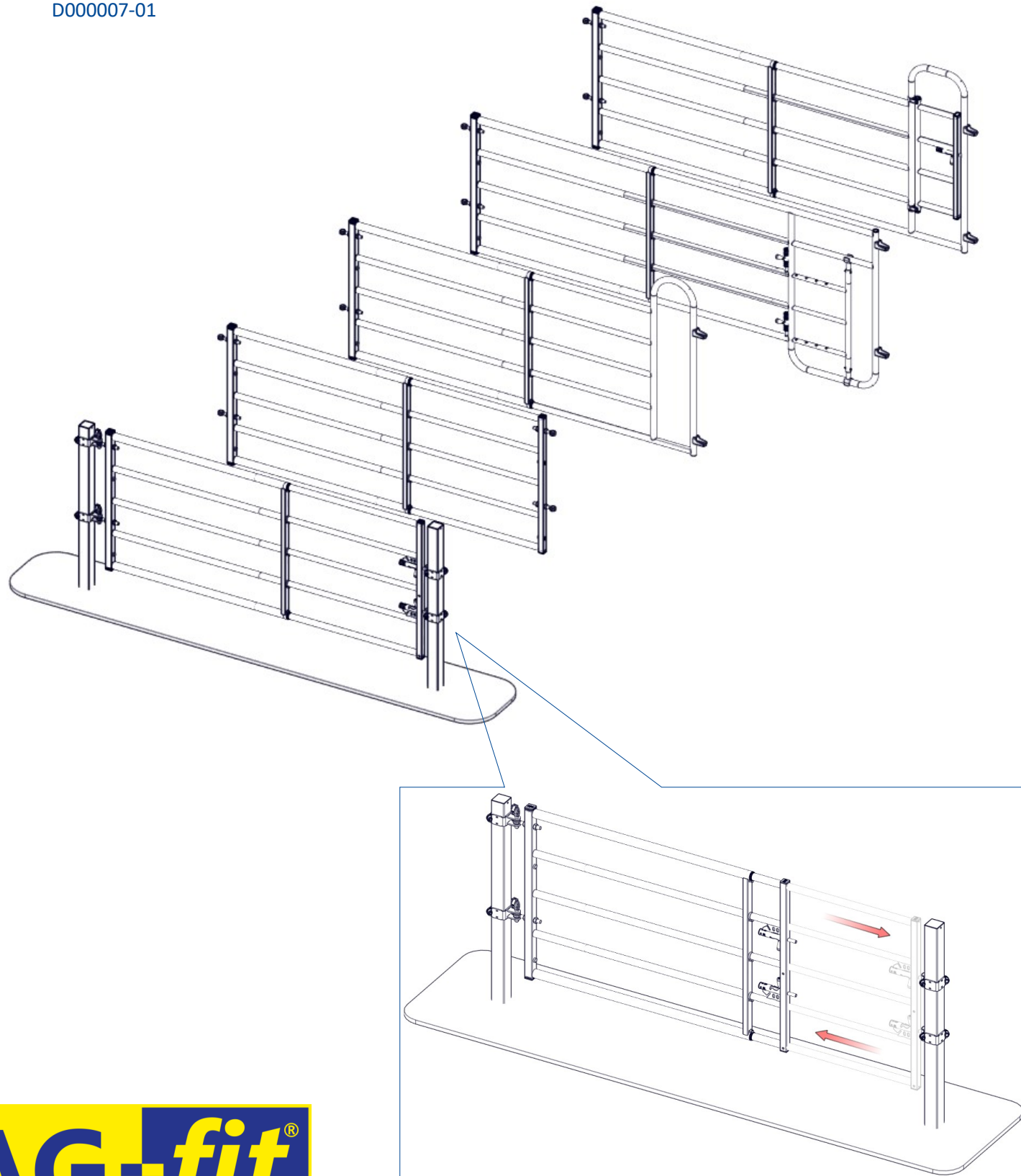


<https://iae.co.uk/>

## ***AG-fit Gates/Panels/Posts & Bracketry***

### **Installation, Operation & Maintenance Manual**

D000007-01



**the solution that fits**

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# Health & Safety

PLEASE TAKE NOTE OF THE FOLLOWING SAFETY PRECAUTIONS BEFORE USE FOR THE WELLBEING OF ALL ANIMALS AND PERSONNEL. ANY HARM OR INJURY WHICH OCCURS FROM THE LACK OF COMPLIANCE WITH THESE HEALTH AND SAFETY MEASURES WILL BE THE RESPONSIBILITY OF THE OPERATOR.

- **IMPORTANT** Read these instructions carefully before use and keep them for future reference. The safety of your animals may be affected if you do not follow these instructions.
- Personal protection may be required for some stages of installation.
-  **CAUTION** When handling heavy equipment, some stages of installation may require at least two people.
- **DO NOT** lean on or exert undue pressure on partially assembled or loose equipment.
-  **CAUTION, CHECK POSTURE** when lifting/moving the equipment
- **ALWAYS** Check all parts are present before use.

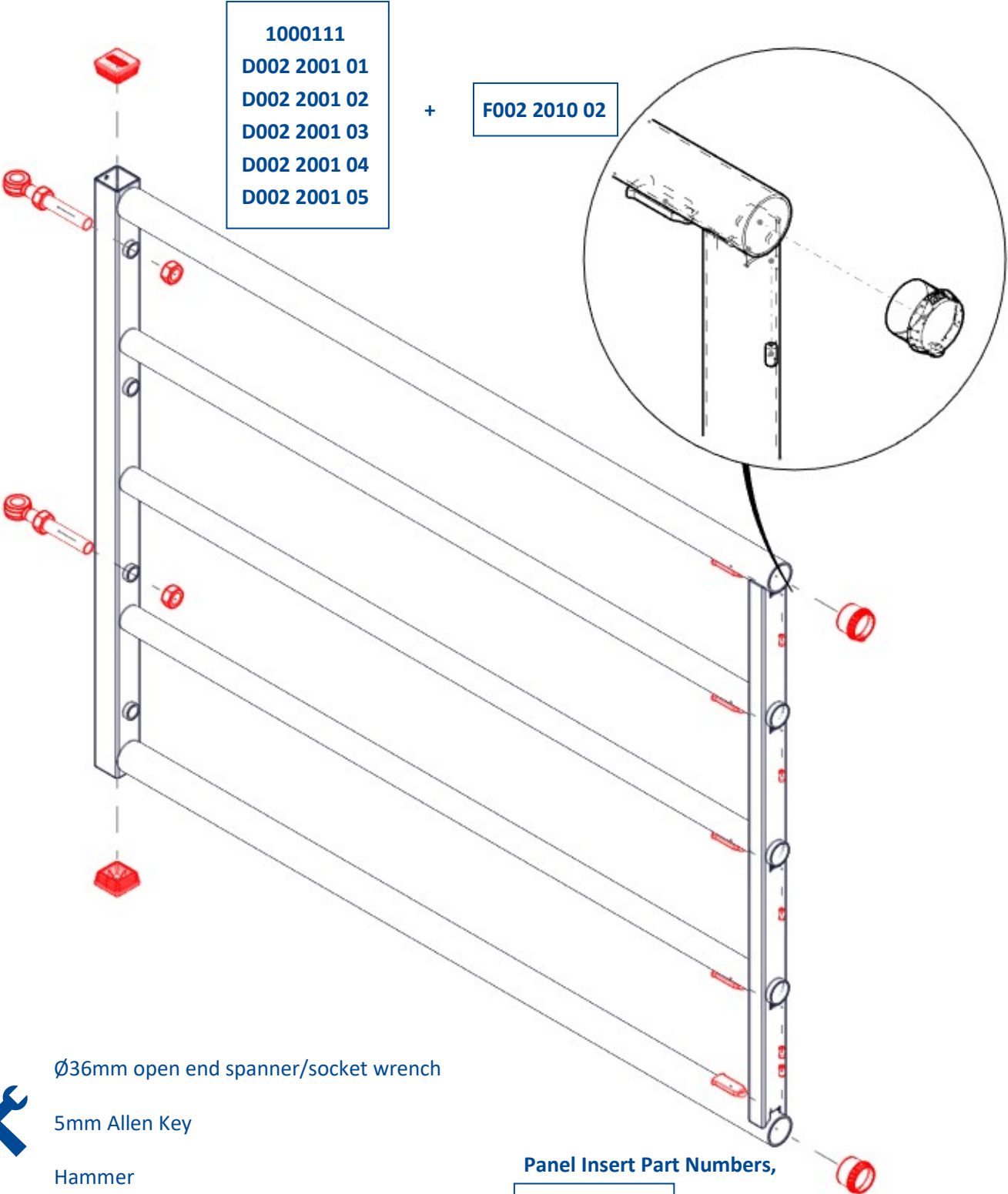
If you have any questions or comments regarding AG-fit, we will be glad to hear them either through our website [www.iae.co.uk](http://www.iae.co.uk) or by contacting your local IAE dealership.



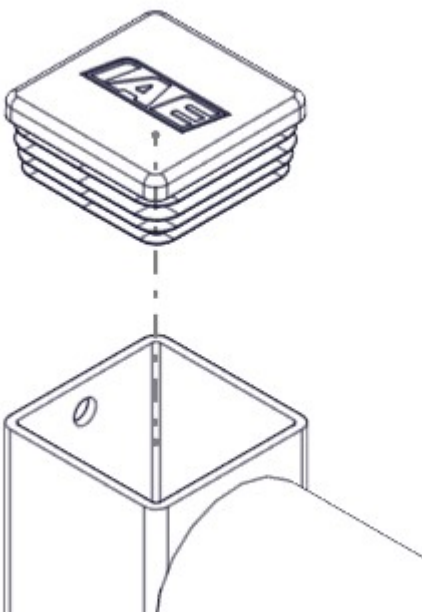
# Products Assembly

## Primary & Panel Insert

⚠ AG-fit Primary & panel insert will be supplied with an additional fitting kit containing items to be assembled on site. Personnel will need to complete this assembly before combining with an insert to make a gate or panel (*continue to next page for 'Primary & Panel Insert Assembly Guide'*).

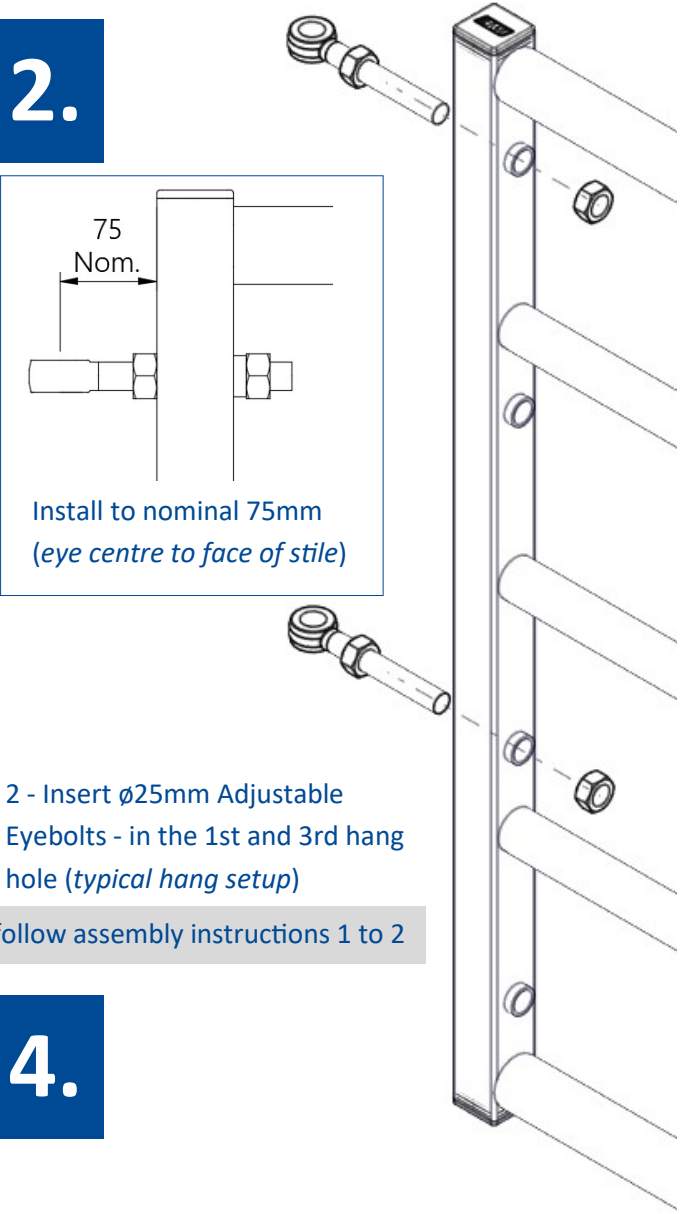


1.



1 - Fit blue plastic inserts into the primary hang stile (top and bottom)

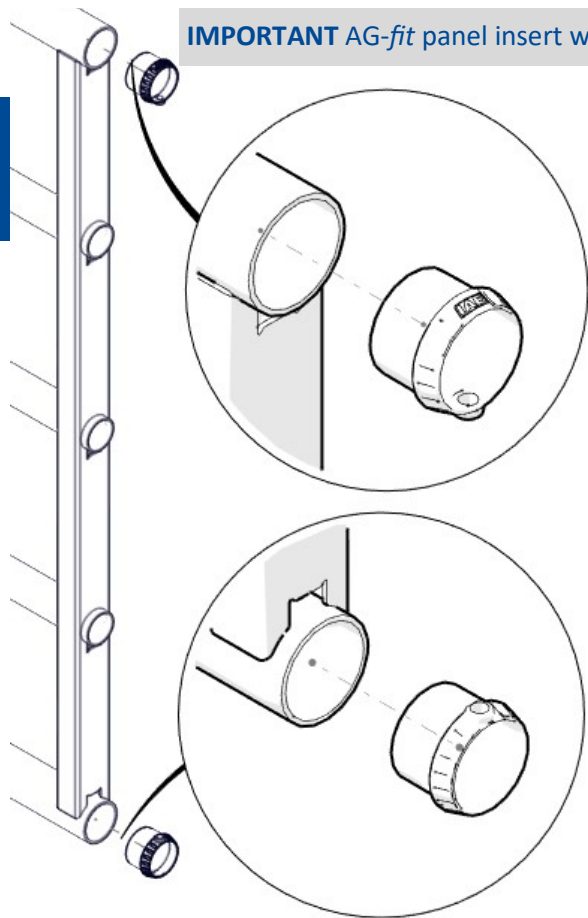
2.



2 - Insert ø25mm Adjustable Eyebolts - in the 1st and 3rd hang hole (typical hang setup)

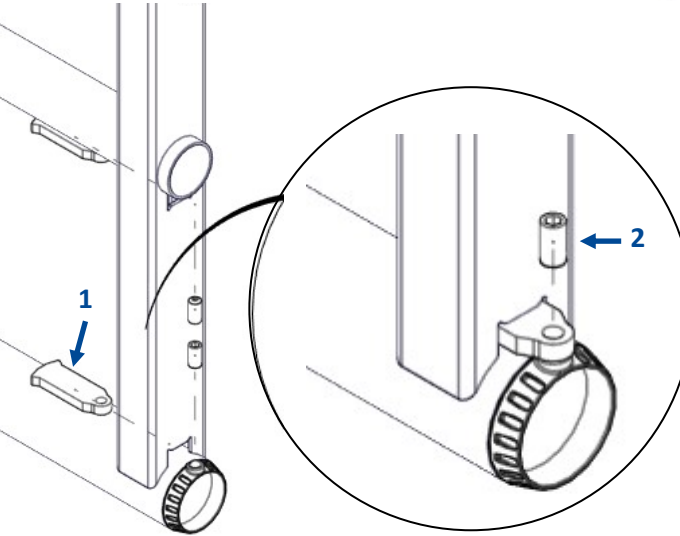
IMPORTANT AG-fit panel insert will follow assembly instructions 1 to 2

3.



3 - Fit plastic locking sleeves into the primary open end rails (top and bottom) - Pay attention to the alignment of the hole for fastening grub screw

4.



4 - Insert x5 fishplates into the locator cut outs in the vertical brace (1)  
Fasten grub screws to each fish plate (2)

⚠ DO NOT fully tighten grub screws at this stage

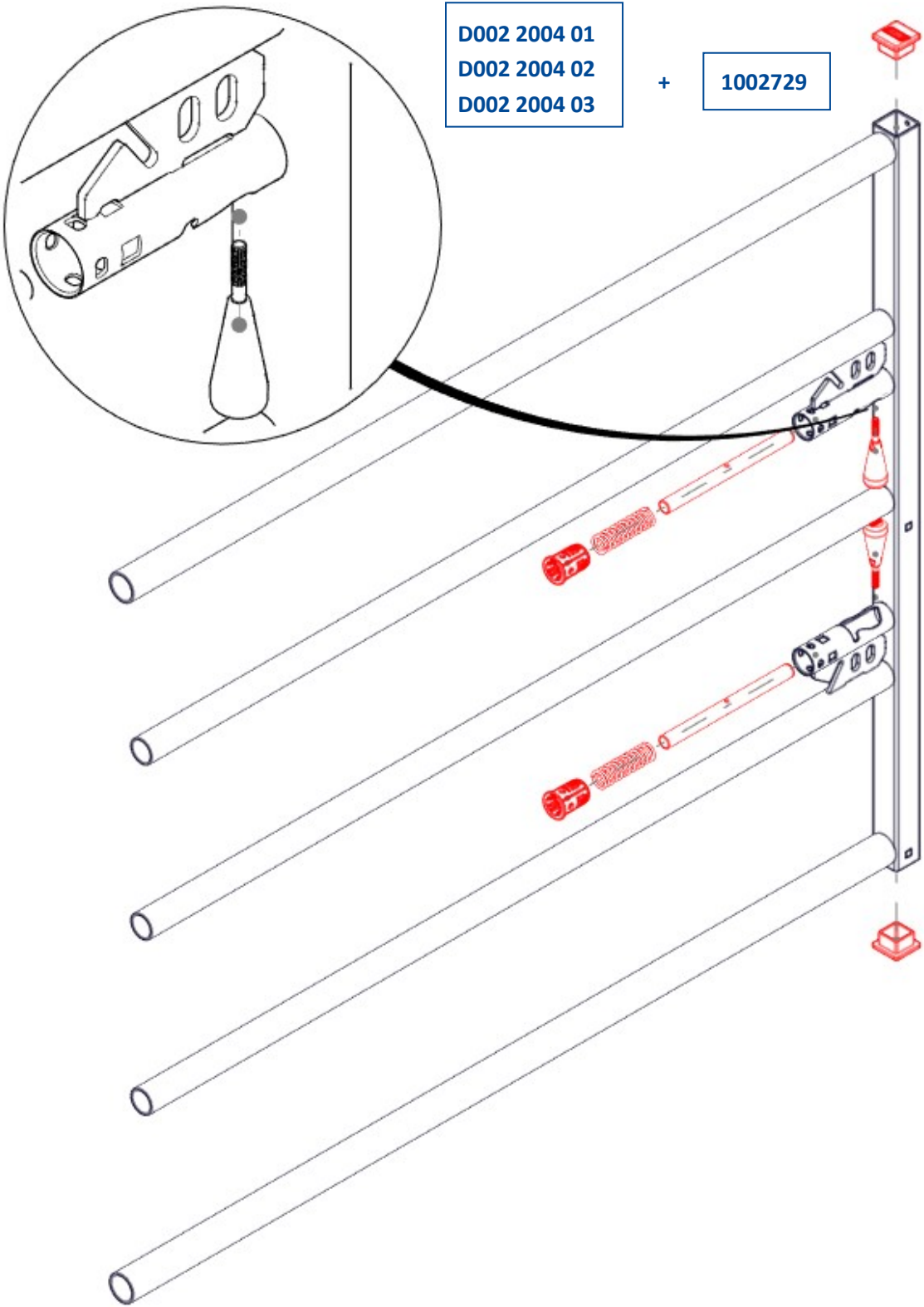




# Gate Insert

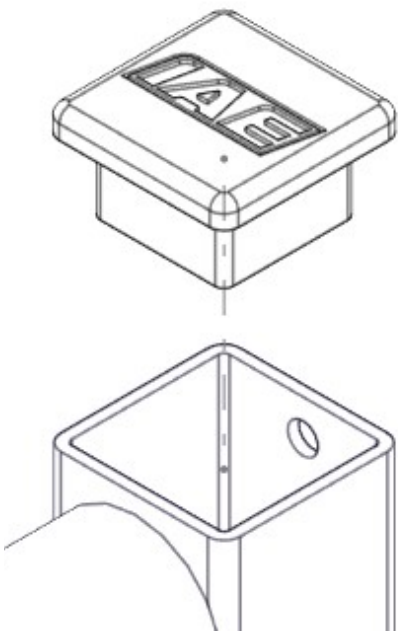
⚠ AG-fit Gate Insert will be supplied with an additional fitting kit containing items to be assembled on site.

Personnel will need to complete this assembly before combining with an insert to make a gate or panel (continue to next page for 'Spring Bolt Assembly Guide')



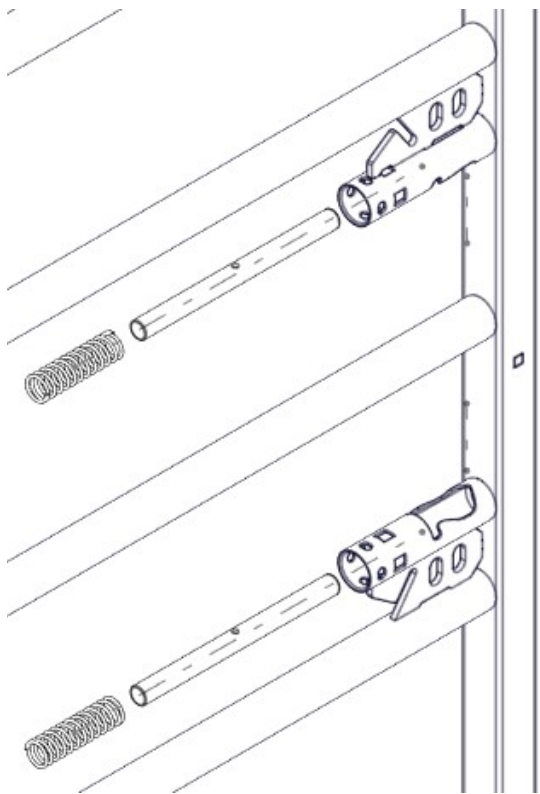
Hammer

1.



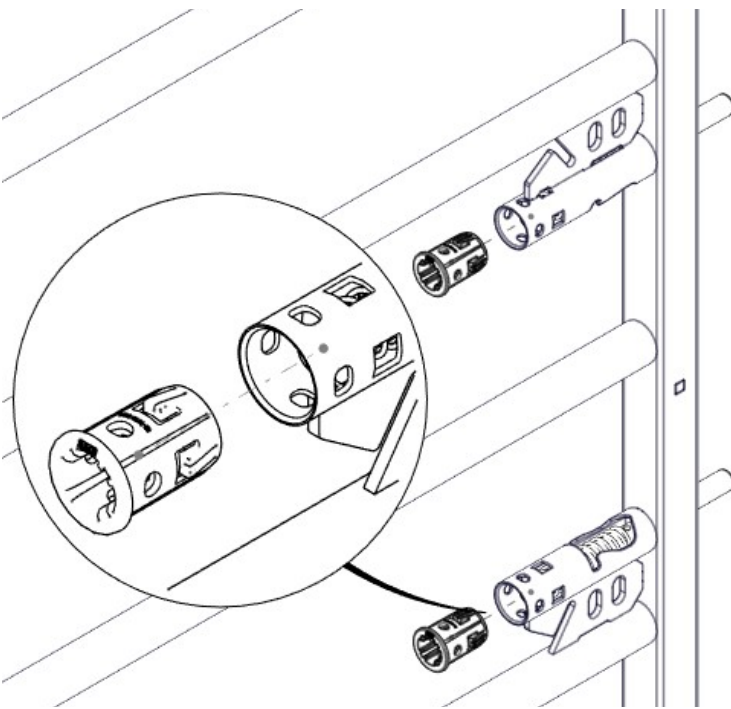
1 - Fit blue plastic inserts into the gate insert slam stile (top and bottom)

2.



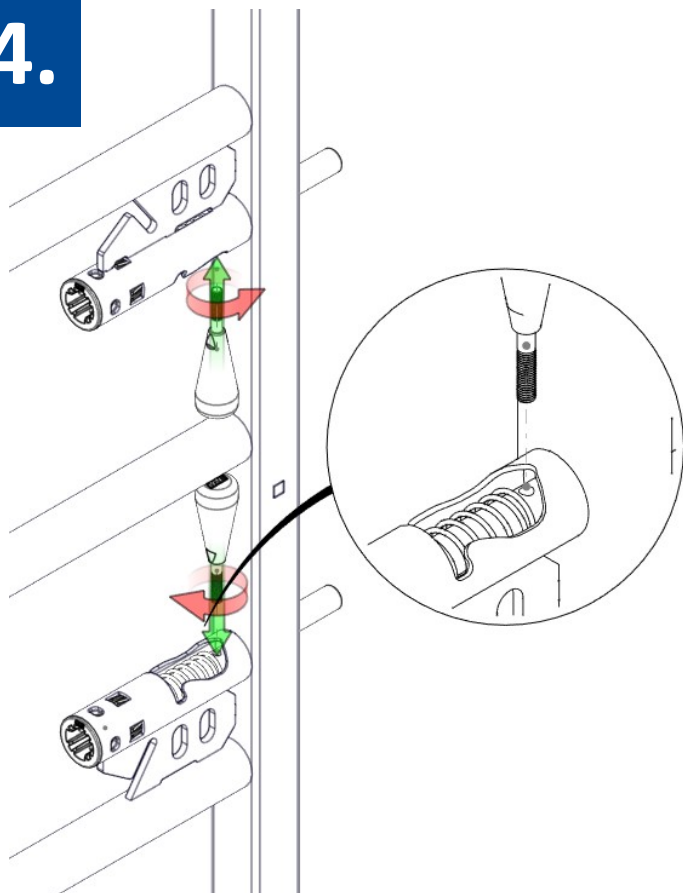
2 - Insert ø20mm slide bolts and compression springs into bolt cages

3.



3 - Fit spring bolt end caps into the bolt cages - **Pay attention to the alignment of the square holes for locking**

4.



4 - To complete this stage of assembly screw the bolt handles through the hole in the slide bolt  
Bolt cage features an eyelet for a padlock if required (padlock not supplied).

# Products Setup

## Post Selecting & Installation

Information To Assess Prior To Post Installation,

- **Gates and panels without a rise** hang at 1525mm as standard - use 2135mm post length to hang/slam, posts set 610mm into concrete slab
- **Gates and panels with 305mm rise** hang at 1525mm as standard and at 1830mm when flipped - use 2400mm post length to prevent head traps between the gates or panels when raised (see page 13 for more information), post set 610mm into concrete slab

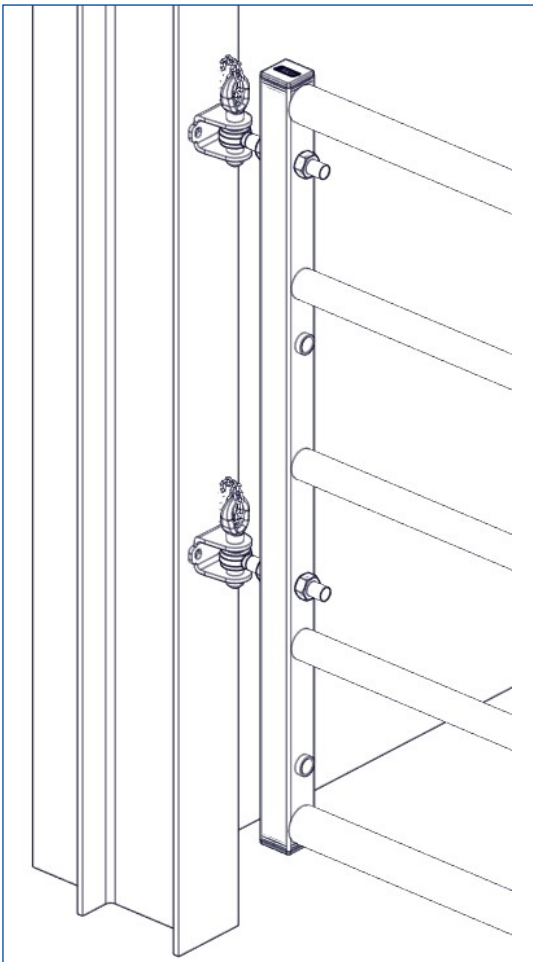
-  **Caution - For posts setup in ground sockets ONLY**  
Maximum of 2 metres in length should be used in regards to AG-fit gates hinged from post in ground socket

- Table for selecting suitable sized post for setup,

Post Type	Gate / Panel Length					
	1M	2M	3M	4M	5M	6M
Slam Post	100 x 100	100 x 100	100 x 100	100 x 100	100 x 100	100 x 100
Single Hang Post	100 x 100	100 x 100	100 x 100	100 x 100	120 x 120	120 x 120
Double Hang Post 90°	100 x 100	100 x 100	100 x 100	120 x 120	120 x 120	150 x 150
Double Hang Post Inline	100 x 100	100 x 100	100 x 100	120 x 120	150 x 150	150 x 150
Triple Hang Post	100 x 100	120 x 120	150 x 150	150 x 150	150 x 150	150 x 150
Quad Hang Post	100 x 100	120 x 120	150 x 150	150 x 150	150 x 150	150 x 150




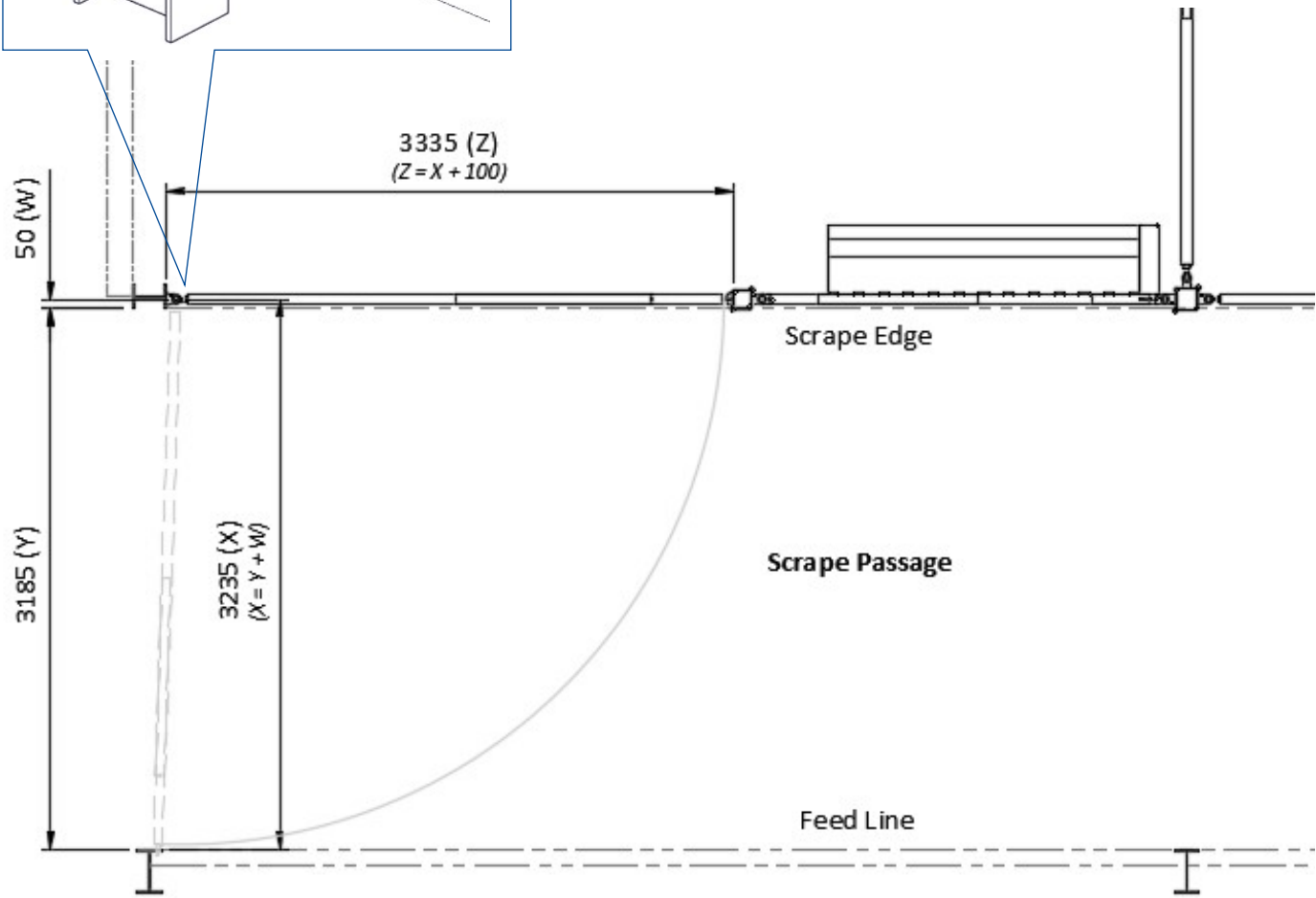
# Post Setup From Scrape Line To Feedline



**Example Multi-functional Gate Setup,**  
Closing Off Bedding Area (primary function) & Scrape Passage (secondary function), includes bolt on hang brackets to fit to RSJ flange

### Dimensions,

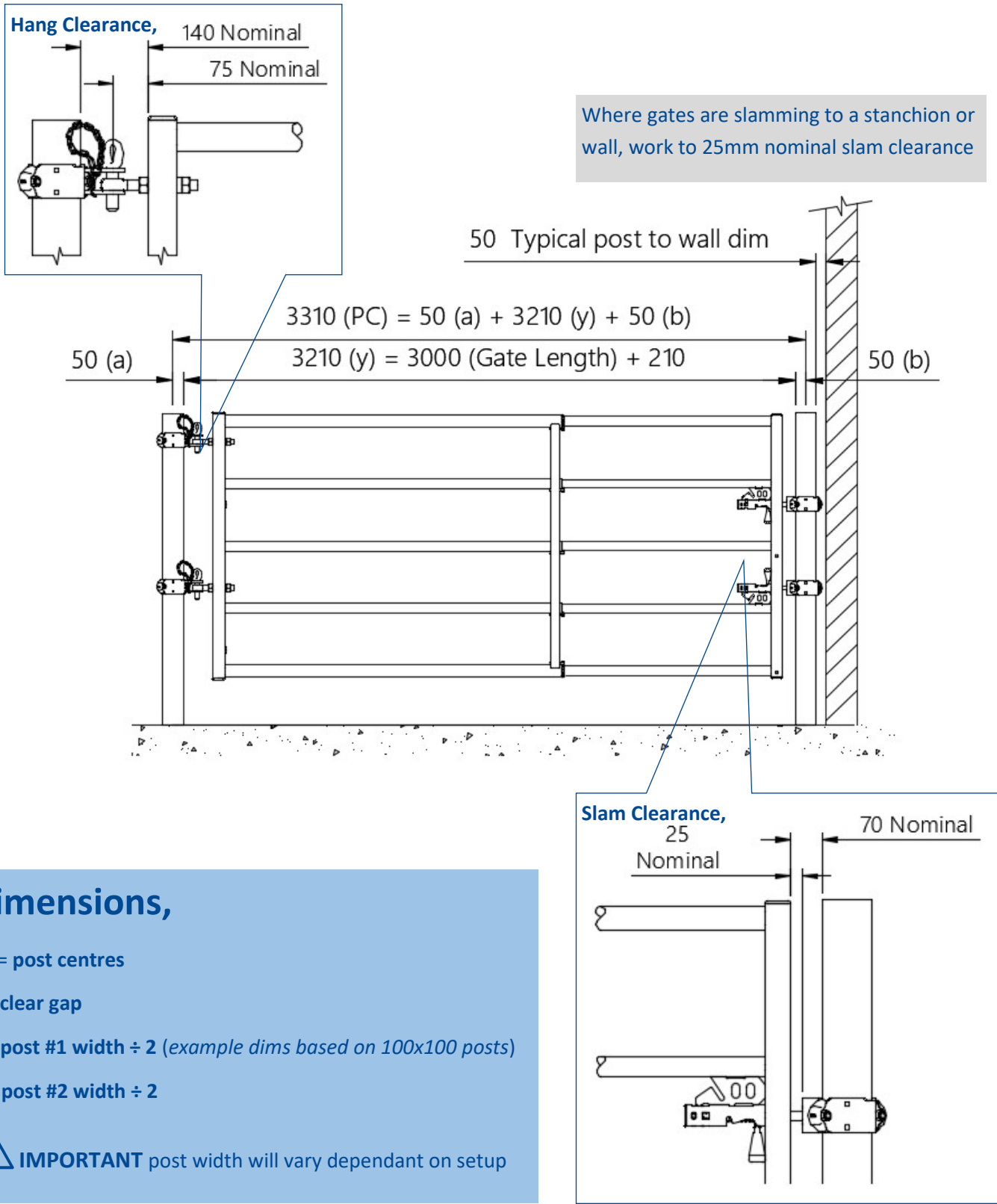
- W = RSJ edge to hinge eye centre
  - X = Face of RSJ/wall to hinge eye centre
  - Y = Clear gap (driven dimension/scrape passage opening)
  - Z = Face of RSJ to face of post (gate opening)
-  **IMPORTANT** all dimensions shown are to be used as a reference ONLY, driven dimension (Y) and the hinge eye centres (W) will vary depending on setup



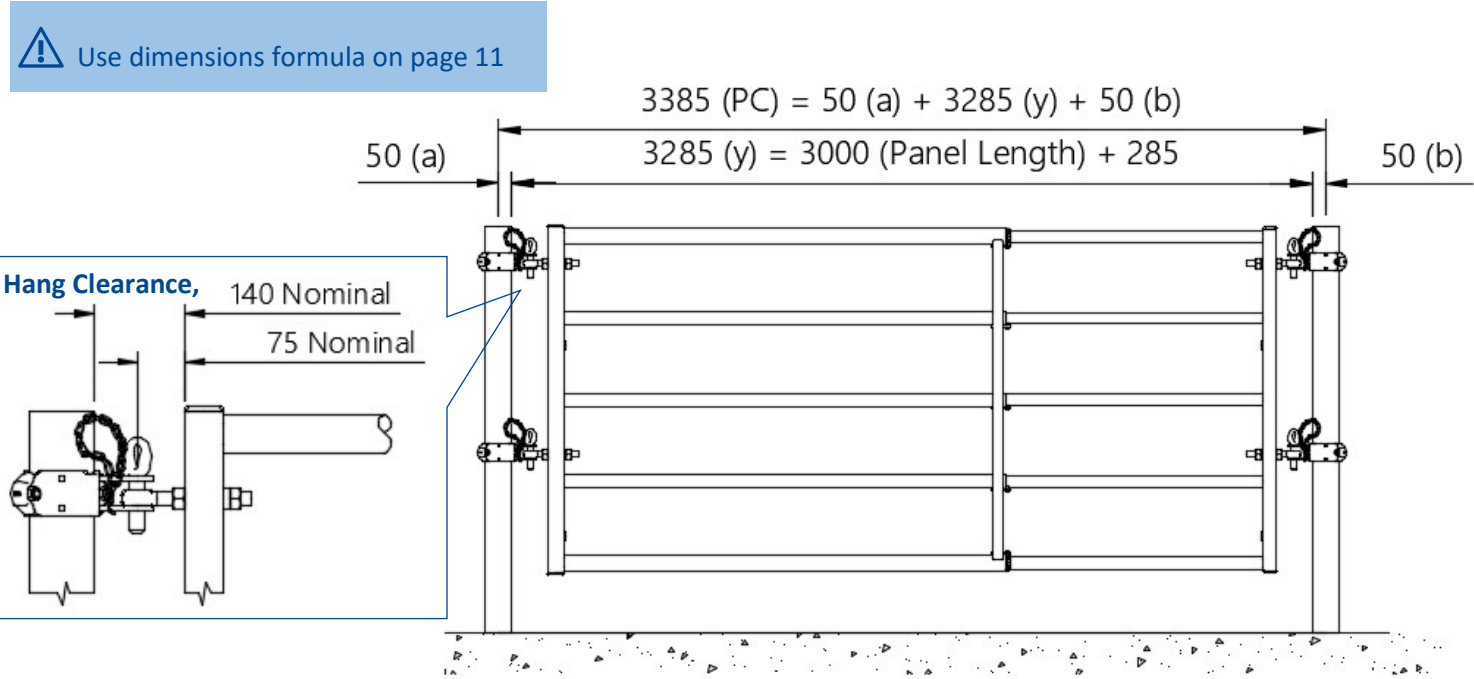
# Setup Between Posts Guide

⚠ IAE recommend personnel plan the layout using the details in this section before inserting posts into ground

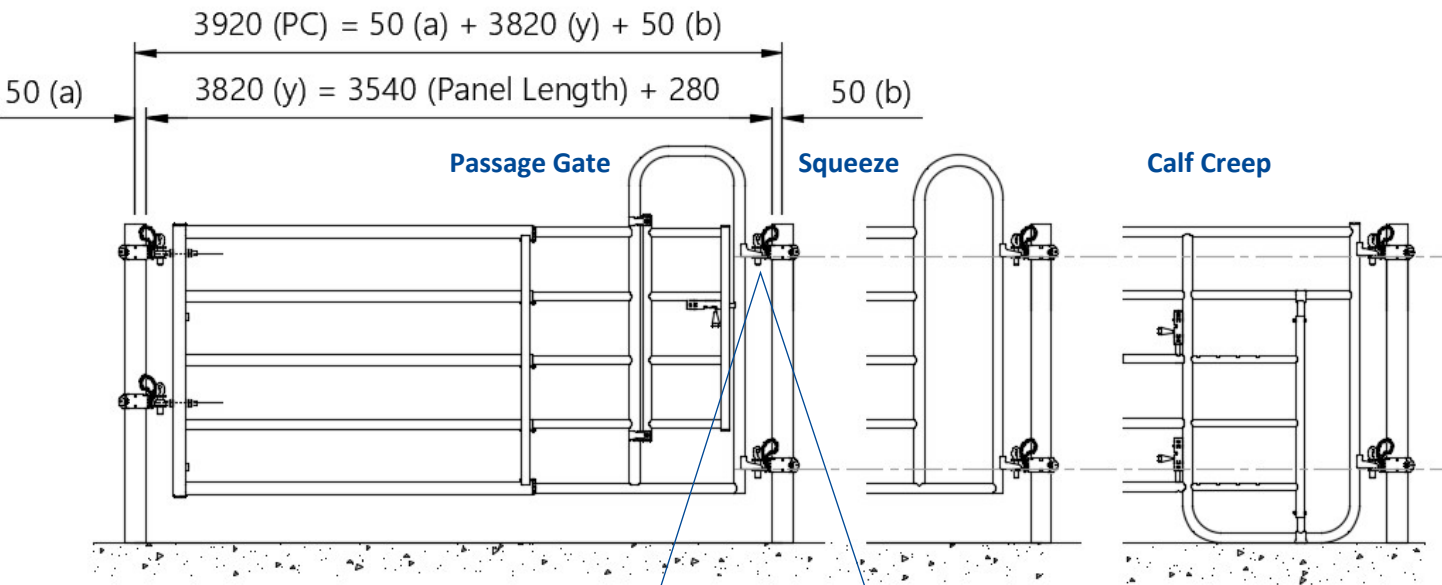
## Example Gate Setup,



## Example Panel Setup,



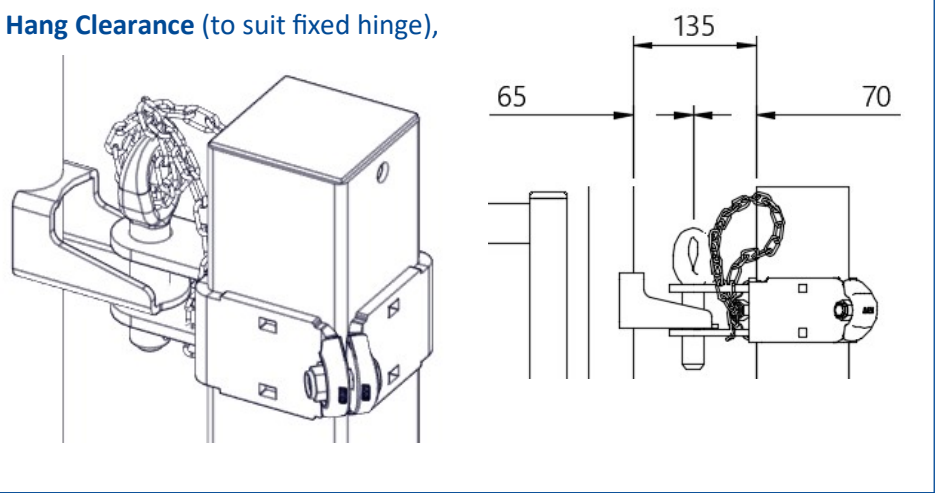
## Example Panel Variants Setup,



## Fixed hinge feature,

All variant panel inserts feature fixed hinges for hanging onto posts

Bracket positions are exactly alike for all 3 variants;  
calf creep | squeeze gap | passage gate





# Flip To Rise Feature

Before...

Hanging at 1525mm above ground level

**CAUTION...Head-Trap Prevention**

Install longer posts, set to 1830mm above ground on setups intending to use the rise feature to avoid the risk of potential head-trapping

Technically it is possible to flip to rise on posts set to 1525mm above ground (see detail above)

**IAE DO NOT RECOMMEND THIS SETUP**

## How To Flip

- 1 - Remove the hinge pins
- 2 - Gates or panels are flipped over, without moving the hang brackets

After

Hanging at 1830mm (including 305mm rise) above ground level

**Extra set of slam brackets required to suit 305mm rise**

# Building Brackets

Bracket sizes available to suit variable post sizes 100x100 | 120x120 | 150x150

1.

Pick two brackets to suit the required setup.

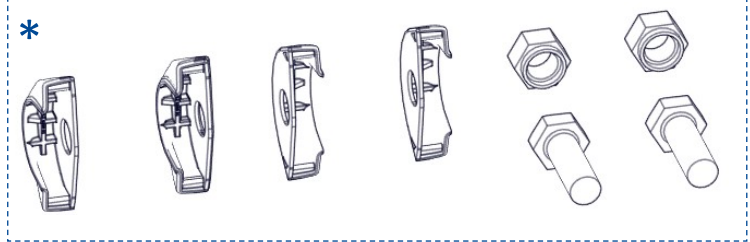
\* Example \* to build a single hang post bracket will require,

- 1 single hang bracket
- 1 plain bracket
- 1 Post bracket fitting kit

*  Single Hang	 Single Slam	*  Plain
 Double Hang	 Double Slam	 Hang Slam
 Single Offset Hang	 Double Offset Hang	 Offset Hang Backplate

2.

Gather parts for fitting bracket to post, found in fitting kit code F002 2010 13 (each fitting kit to suit a single bracket instance)



Ø19mm open end spanner/socket wrench

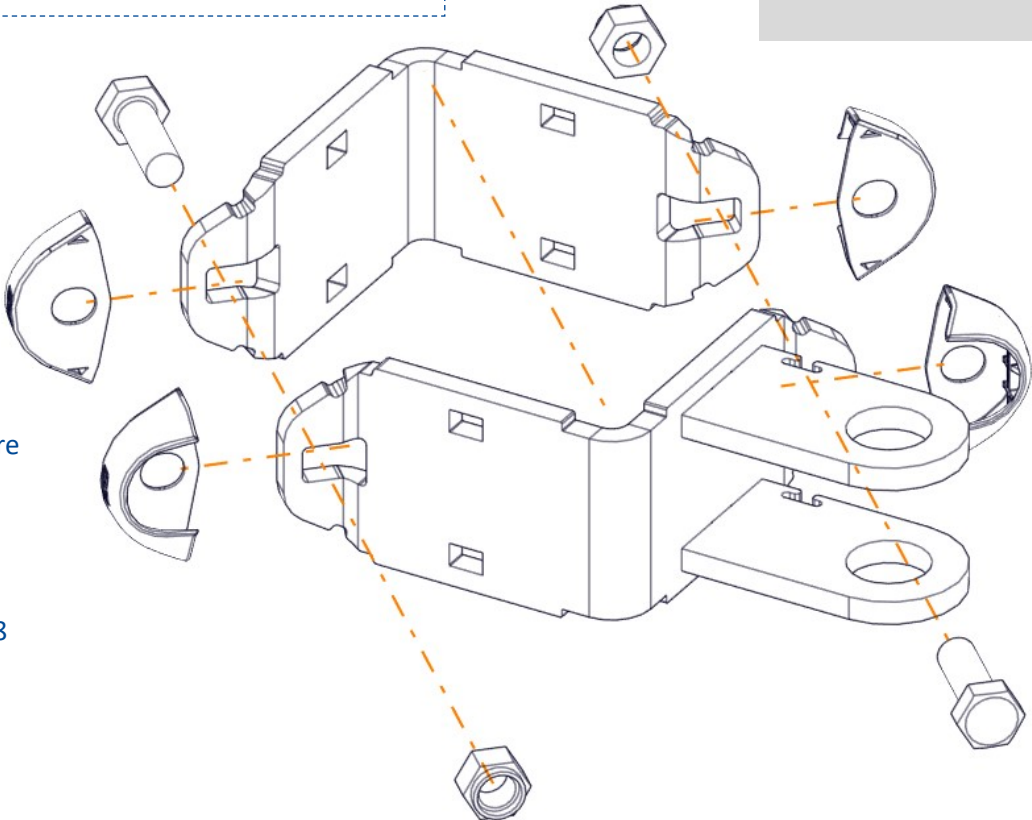
**TORQUE SETTINGS -**  
40Nm for ALL post clamps

3.

Clamp onto post,

**ALWAYS** fit the polymer protectors before fitting bolts and nuts

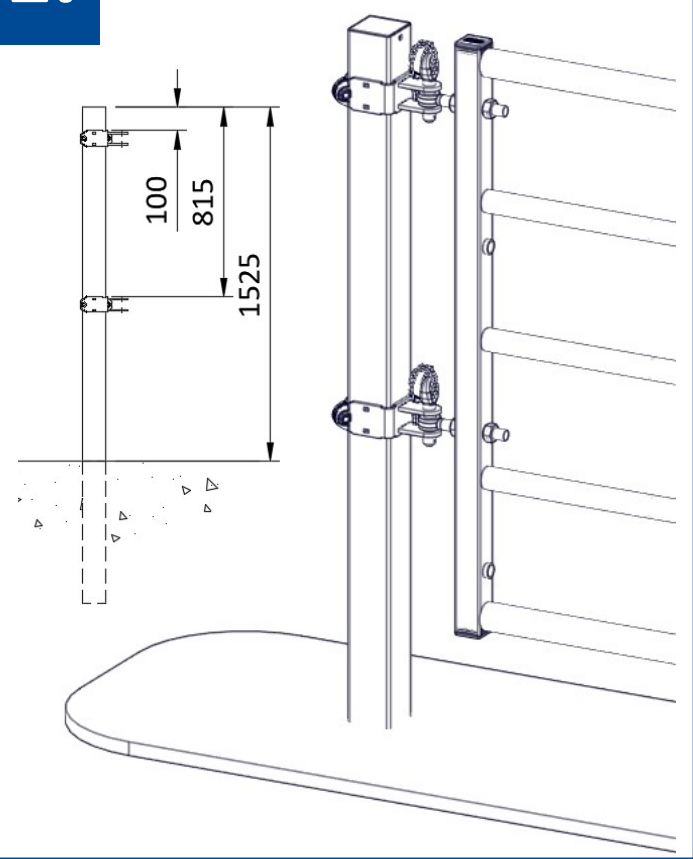
See 'Bracket Positions & Post Configurations' section on pages 15 to 18 for setup dimensions.



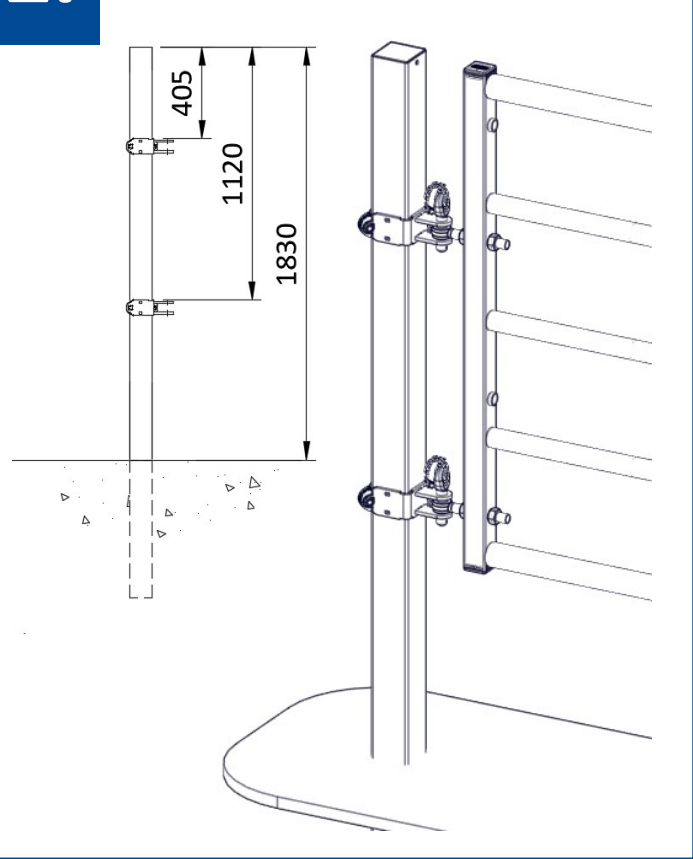
# Bracket Positions & Post Configurations

Bracket Positions - Dimensions are from top of post to upper face of brackets

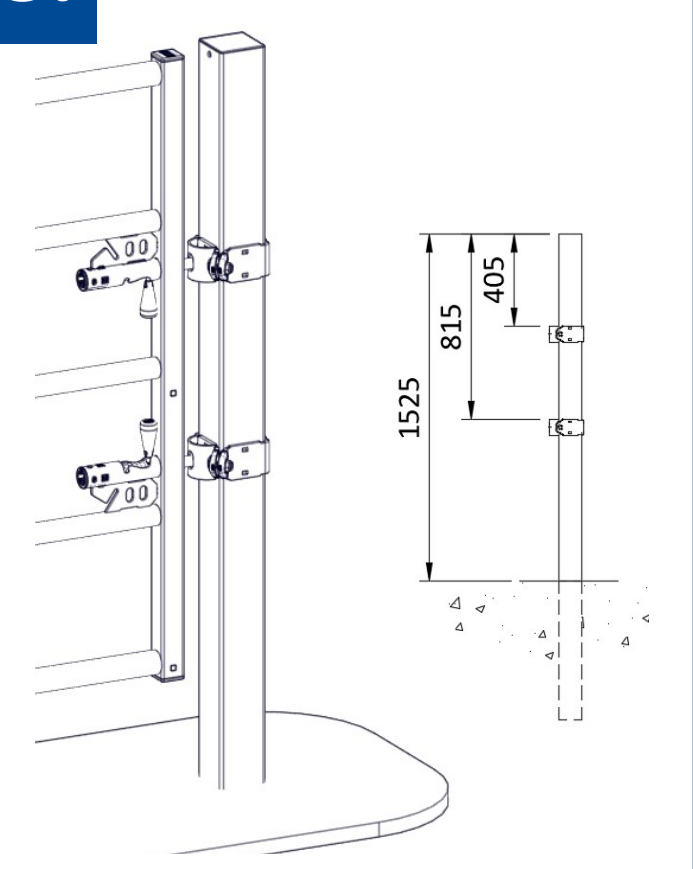
1. Post Type; Hang (NO RISE)



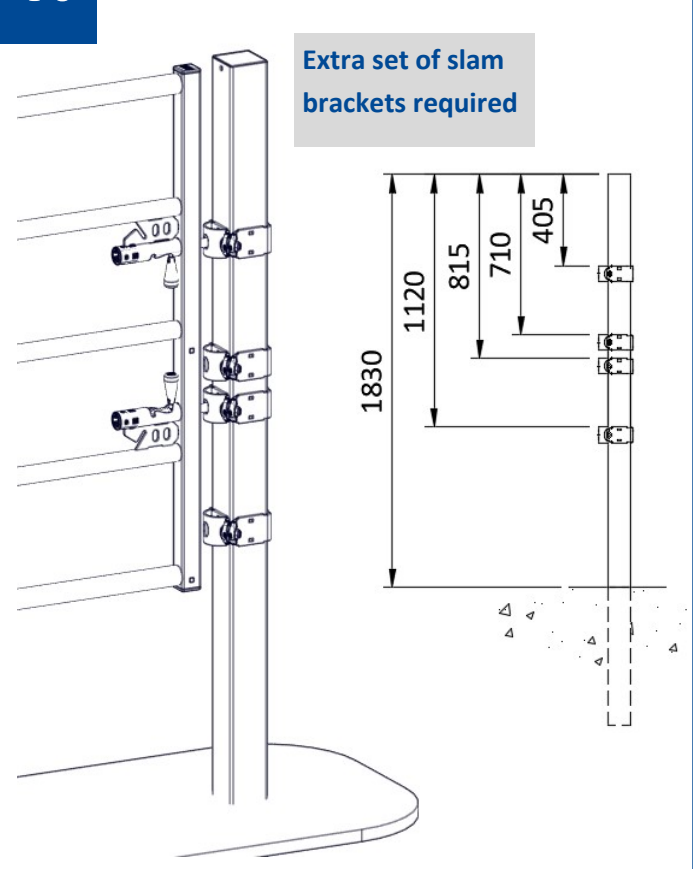
2. Post Type; Hang (+305 RISE)



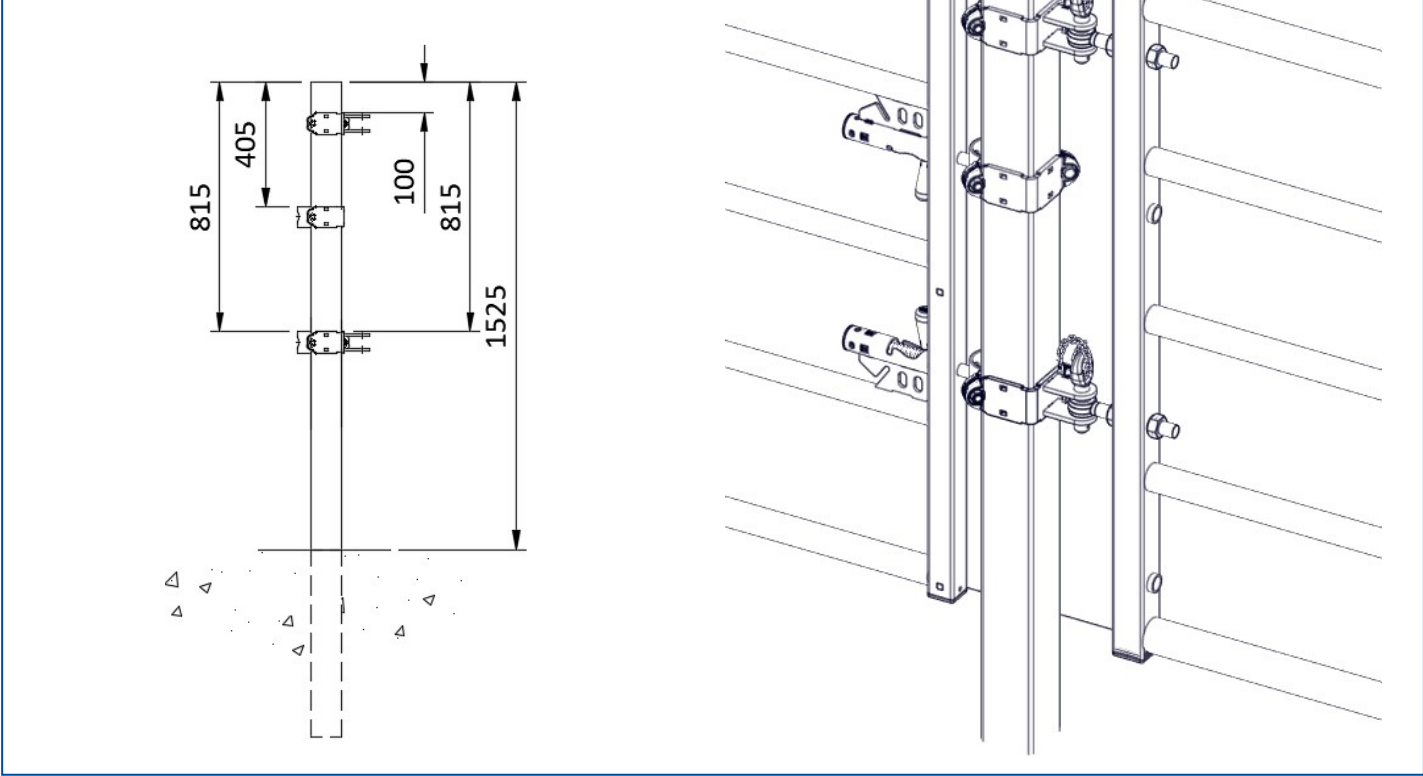
3. Post Type; Slam (NO RISE)



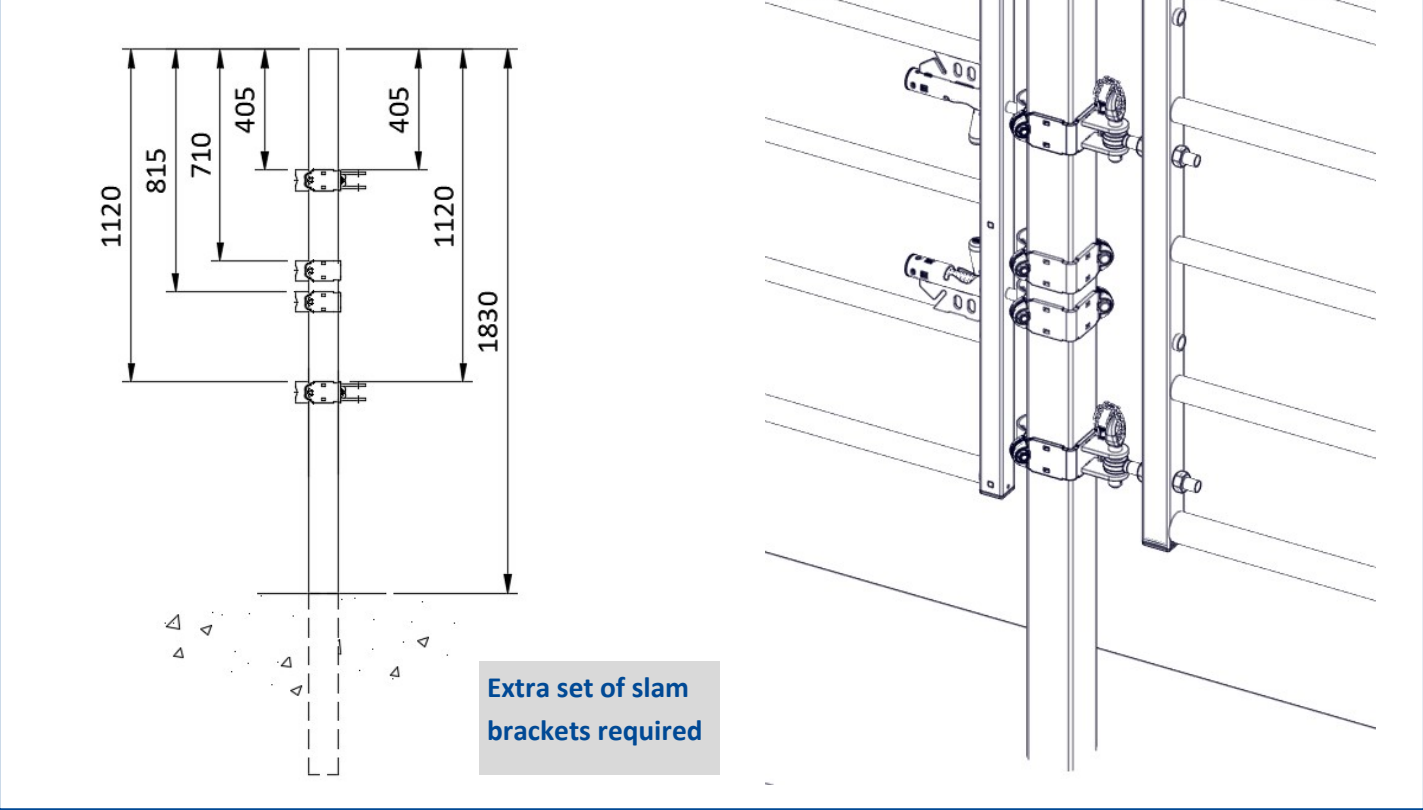
4. Post Type; Slam (+305 RISE)



5. Post Type; Slam/Hang (NO RISE)



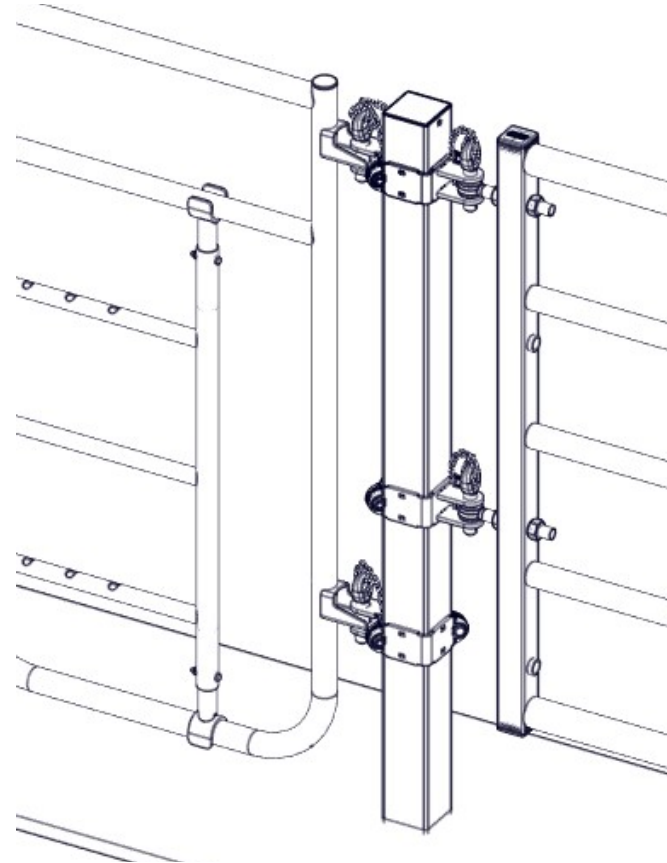
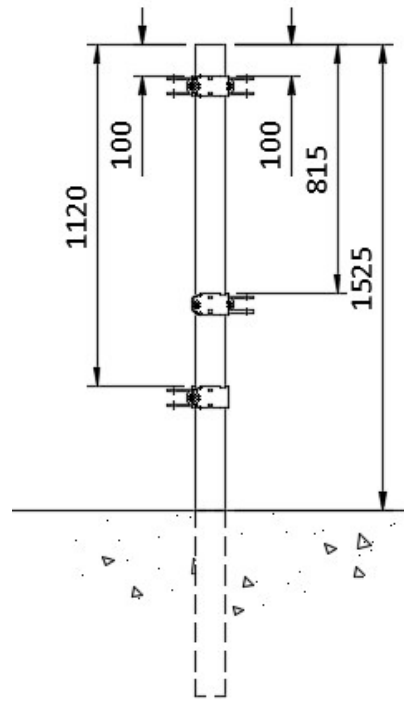
6. Post Type; Slam/Hang (+305 RISE)





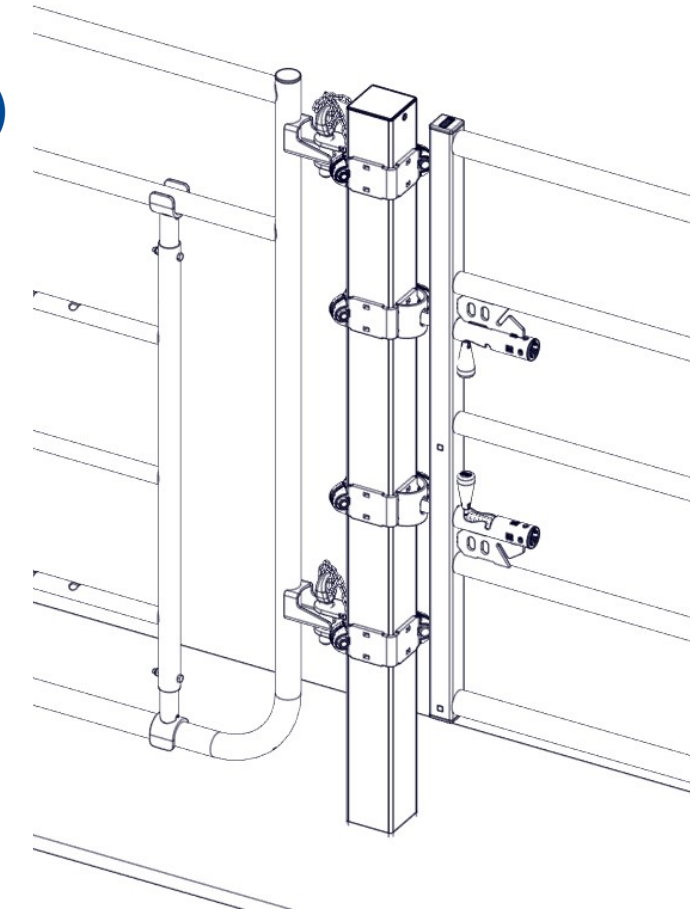
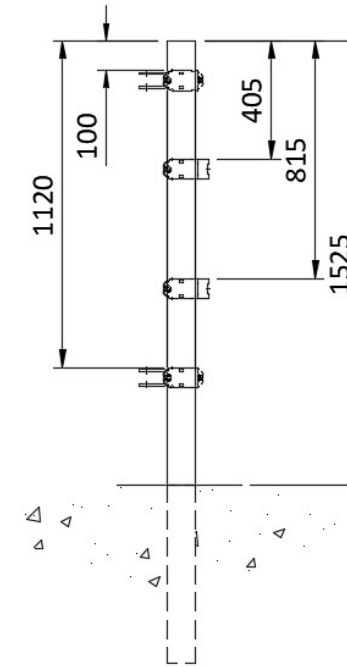
7.

**Post Type;  
Fixed Hinges/Hang (NO RISE)**



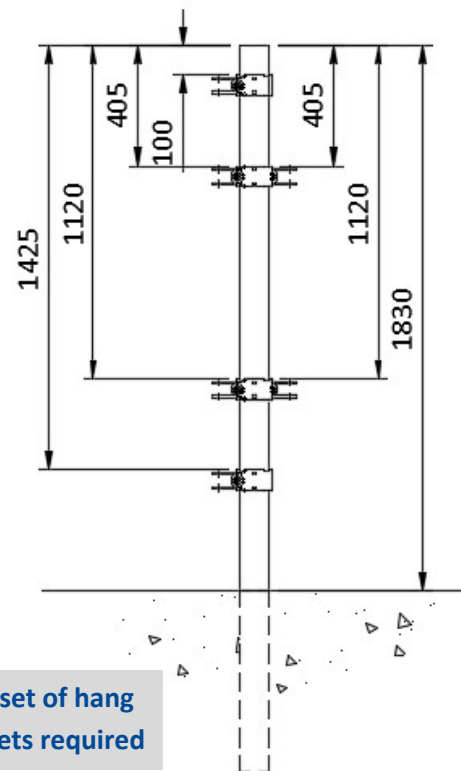
9.

**Post Type;  
Fixed Hinges/Slam (NO RISE)**

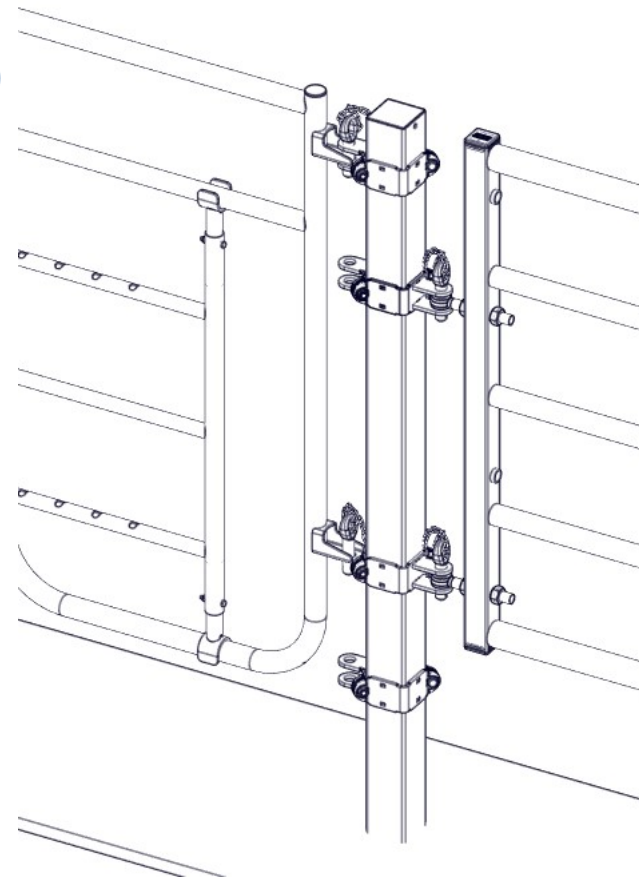


8.

**Post Type;  
Fixed Hinges/Hang (+305 RISE)**

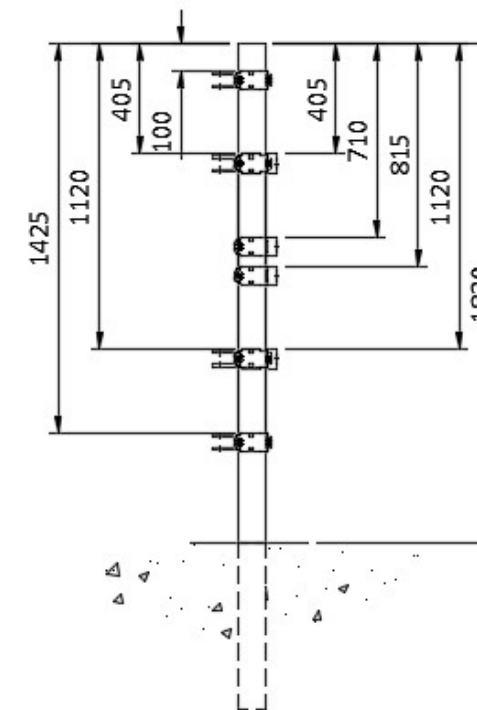


Extra set of hang  
brackets required

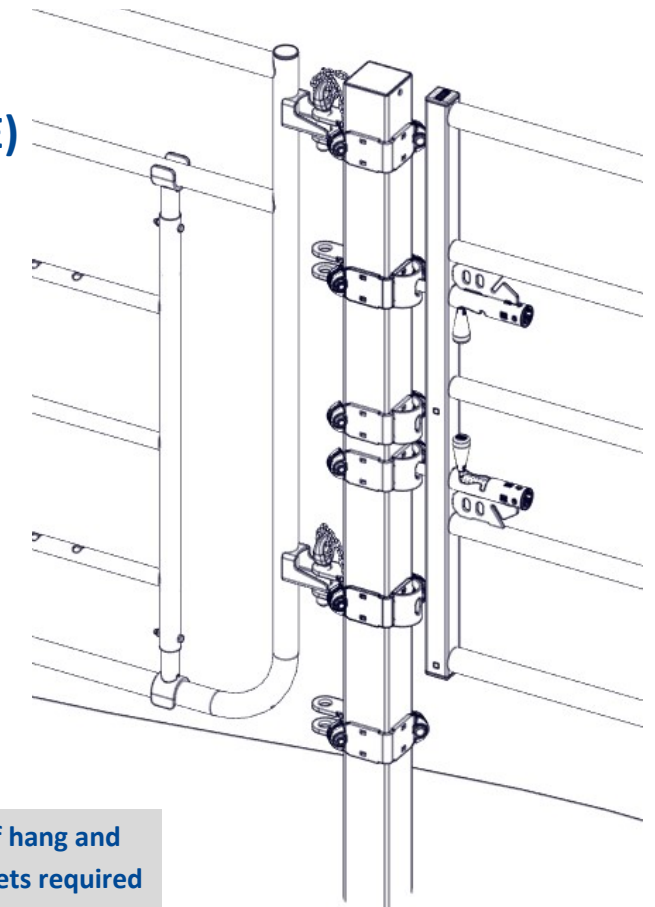


10.

**Post Type;  
Fixed Hinges/Slam (+305 RISE)**



Extra set of hang and  
slam brackets required



# Primary Hanging Onto Post Guide

1.

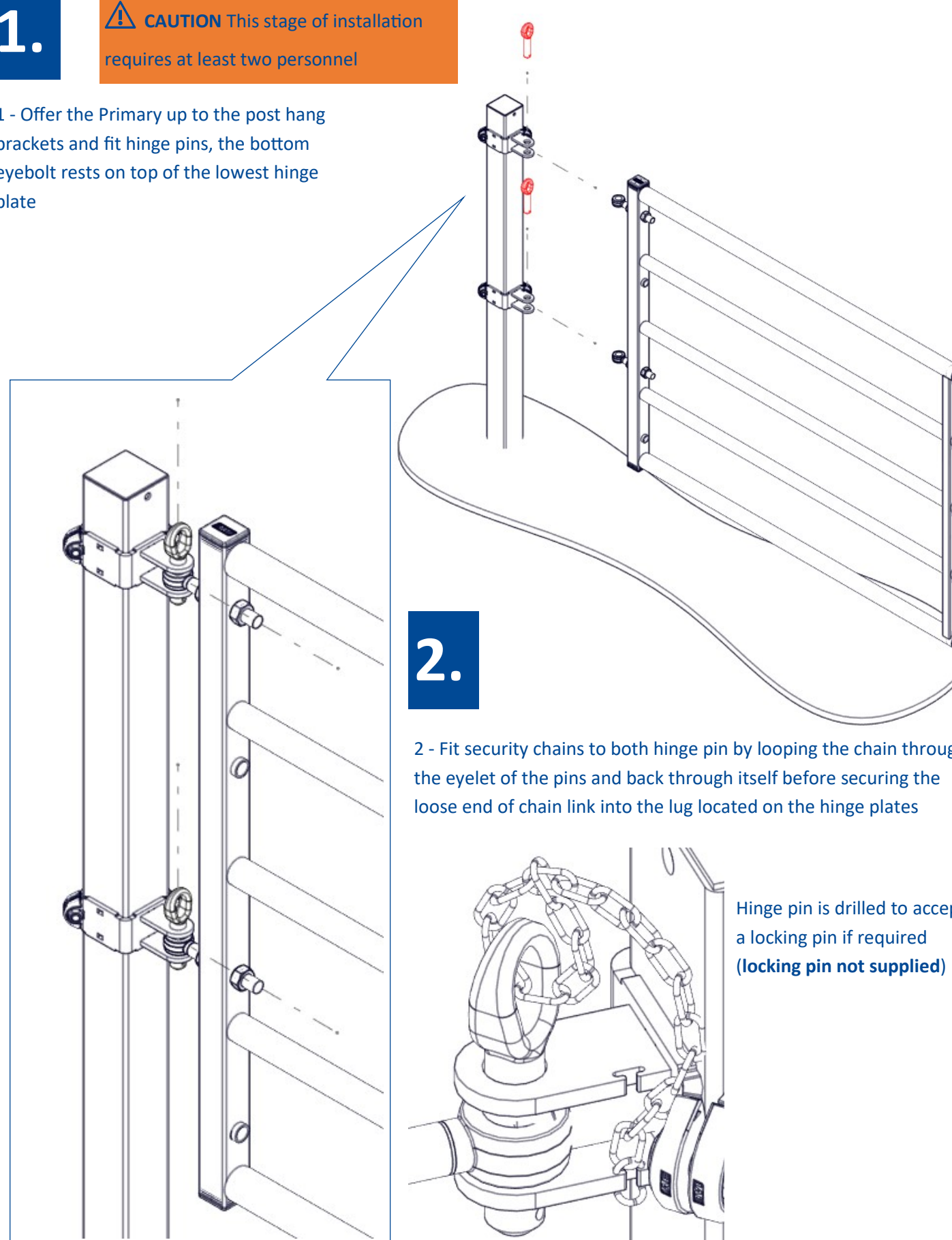
**CAUTION** This stage of installation requires at least two personnel

1 - Offer the Primary up to the post hang brackets and fit hinge pins, the bottom eyebolt rests on top of the lowest hinge plate

2.

2 - Fit security chains to both hinge pin by looping the chain through the eyelet of the pins and back through itself before securing the loose end of chain link into the lug located on the hinge plates

Hinge pin is drilled to accept a locking pin if required (locking pin not supplied)



# Combining Insert To Make Gate or Panel

1.

1 - Slide Insert into Primary **⚠** same methodology is used for inserting all types of Insert panels

**⚠** Insert requires minimum 305mm insertion into Primary Element

2.

2 - **⚠** Set desired combined length

For recommended combinations for gates and panels see pages 21—22

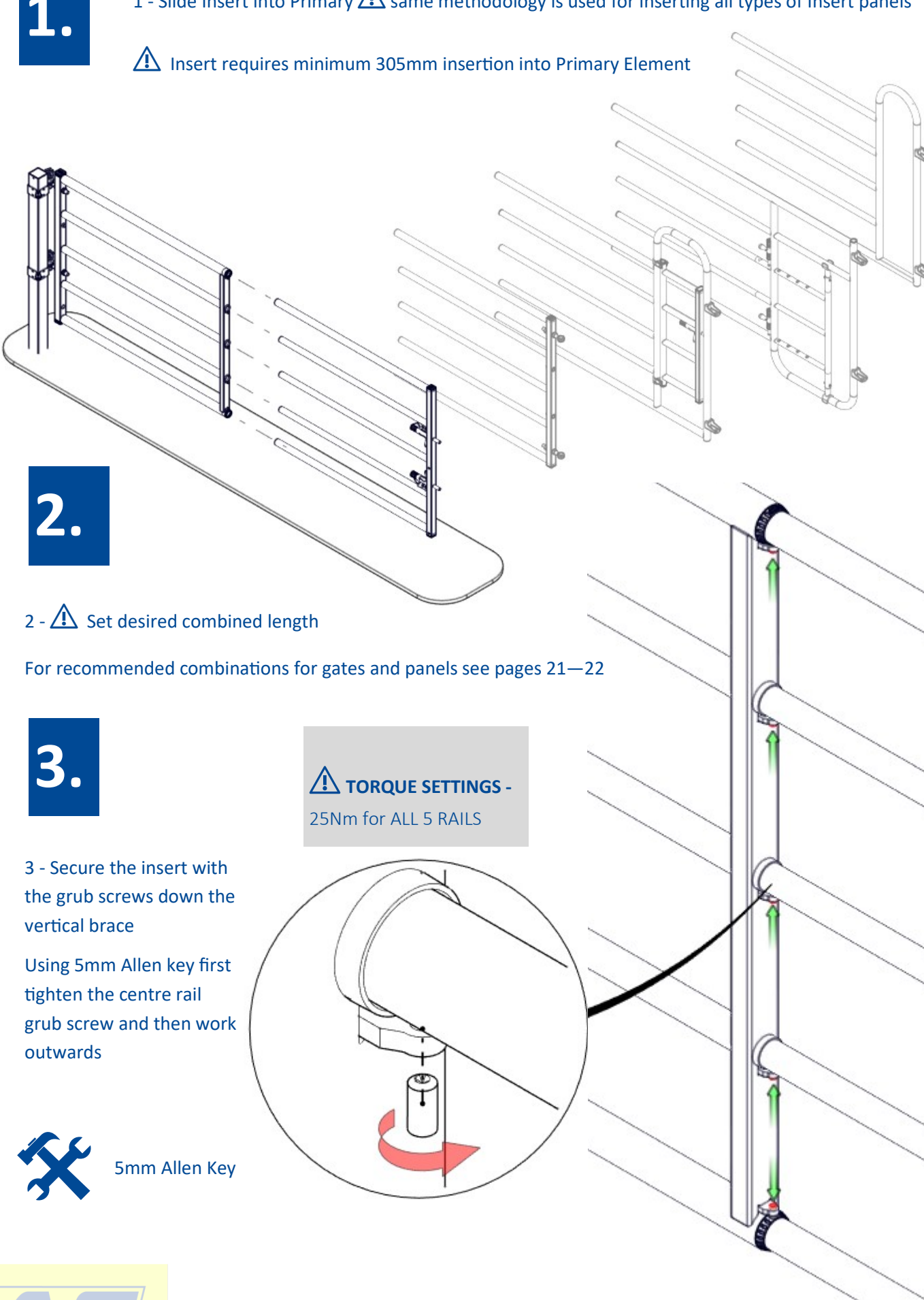
3.

3 - Secure the insert with the grub screws down the vertical brace

Using 5mm Allen key first tighten the centre rail grub screw and then work outwards

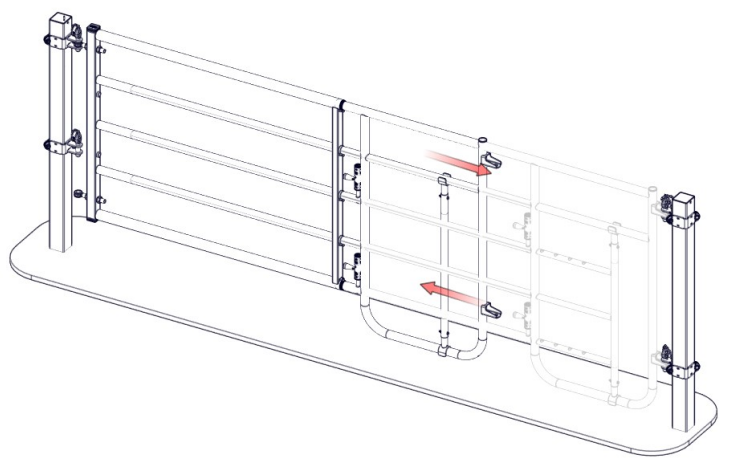
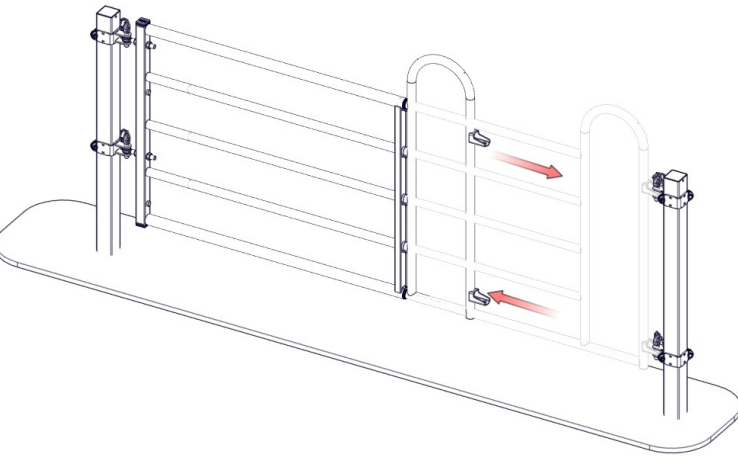
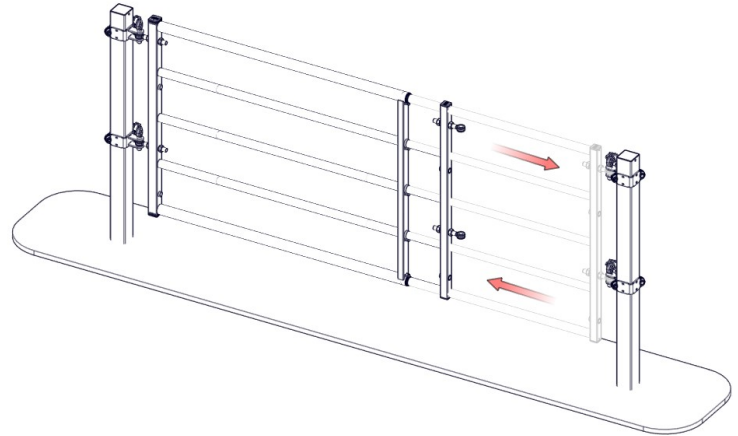
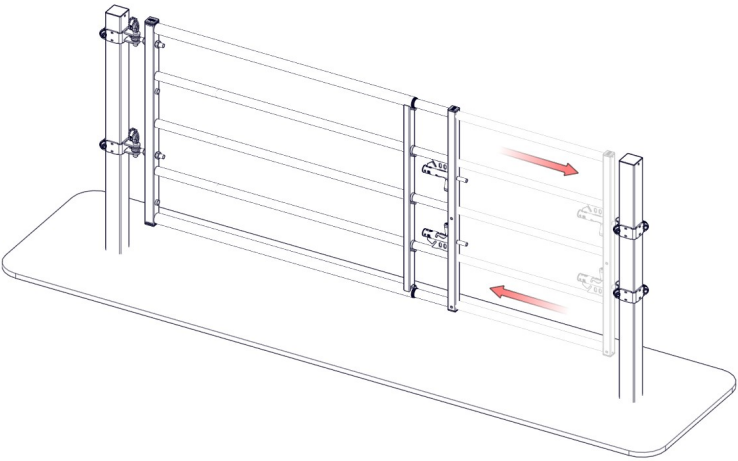
**⚠ TORQUE SETTINGS - 25Nm for ALL 5 RAILS**

5mm Allen Key





# AG-fit Recommended Combinations Calculator

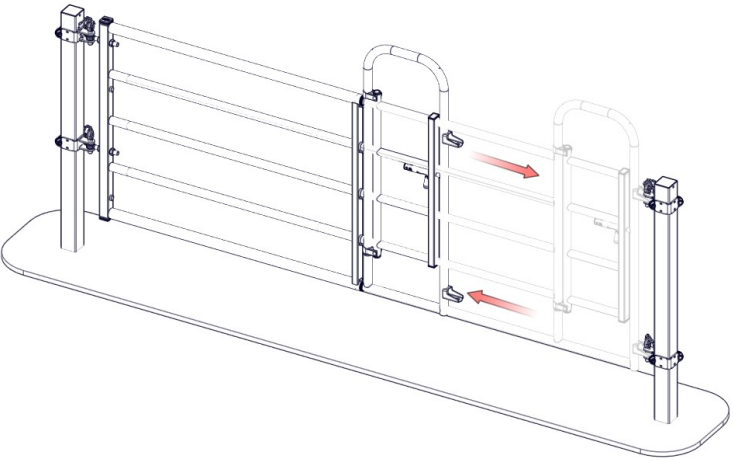


Gate Insert			
Combined Gate Length (mm)	To Suit Nominal Opening** (mm)	Primary Product Code	Gate Insert Product Code
550 - 999	761 - 1210	1000112-01	F002 2004 01*
1000 - 1339	1211 - 1550	F002 2001 01	F002 2004 01
1340 - 1644	1551 - 1855	F002 2001 01	F002 2004 02
1645 - 1999	1856 - 2210	F002 2001 01	F002 2004 03
2000 - 2999	2211 - 3210	F002 2001 02	F002 2004 03
3000 - 3999	3211 - 4210	F002 2001 03	F002 2004 03
4000 - 4999	4211 - 5210	F002 2001 04	F002 2004 03
5000 - 6000	5211 - 6211	F002 2001 05	F002 2004 03

Panel Insert			
Combined Gate Length (mm)	To Suit Nominal Opening** (mm)	Primary Product Code	Panel Insert Product Code
550 - 999	836 - 1285	100112 - 01	F002 2003 01*
1000 - 1339	1286 - 1625	F002 2001 01	F002 2003 01
1340 - 1644	1626 - 1930	F002 2001 01	F002 2003 02
1645 - 1999	1931 - 2285	F002 2001 01	F002 2003 03
2000 - 2999	2286 - 3285	F002 2001 02	F002 2003 03
3000 - 3999	3286 - 4285	F002 2001 03	F002 2003 03
4000 - 4999	4286 - 5285	F002 2001 04	F002 2003 03
5000 - 6000	5286 - 6286	F002 2001 05	F002 2003 03

Squeeze Gap Insert			
Combined Panel Length (mm)	To Suit Nominal Opening* (mm)	Primary Product Code	Squeeze Gap Insert** Product Code
746 - 1872	1011 - 2137	1000112 - 01	F002 2007 02
1154 - 2280	1419 - 2280	F002 2001 01	F002 2007 02
2154 - 3280	2419 - 3545	F002 2001 02	F002 2007 02
3154 - 4280	3419 - 4545	F002 2001 03	F002 2007 02
4154 - 5280	4419 - 5545	F002 2001 04	F002 2007 02
5154 - 6280	5419 - 6545	F002 2001 05	F002 2007 02

Calf Creep Insert			
Combined Panel Length (mm)	To Suit Nominal Opening* (mm)	Primary Product Code	Calf Creep Insert** Product Code
1290 - 2445	1555 - 2710	1000112-01	F002 2005 01
1698 - 2853	1963 - 3118	F002 2001 01	F002 2005 01
2698 - 3853	2963 - 4118	F002 2001 02	F002 2005 01
3698 - 4853	3963 - 5118	F002 2001 03	F002 2005 01
4698 - 5953	4963 - 6118	F002 2001 04	F002 2005 01
5698 - 6853	5963 - 7118	F002 2001 05	F002 2005 01



Passage Gate Insert			
Combined Panel Length (mm)	To Suit Nominal Opening* (mm)	Primary Product Code	Passage Gate Insert** Product Code
846 - 2145	1111 - 2410	1000112-01	F002 2006 01
1254 - 2553	1519 - 2818	F002 2001 01	F002 2006 01
2254 - 3553	2519 - 3818	F002 2001 02	F002 2006 01
3254 - 4553	3519 - 4818	F002 2001 03	F002 2006 01
4254 - 5553	4519 - 5818	F002 2001 04	F002 2006 01
5254 - 6553	5519 - 6818	F002 2001 05	F002 2006 01





# AG-fit Back-to-Back Primary Setup

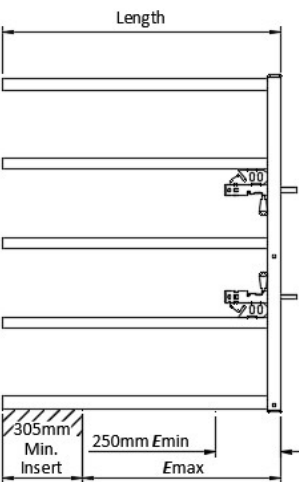
Personnel can create a multitude of panel variations using the Back-to-Back primary (double sided panel), combined with two insert (one on each side), compatible insert include,

Gate | Panel | Creep | Squeeze | Passage Gate

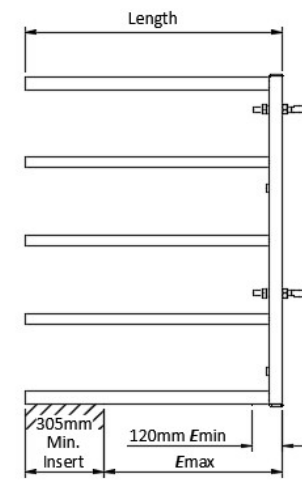
To calculate the min. or max. length of a double sided panel, use the *Emin* and *Emax* dimensions for the select two inserts (see below), plus add the Back-to-Back primary length.

Back-to Back Primary lengths available,  
1660mm + 2660mm (overall horizontal rail length)

⚠️ Insert requires minimum 305mm insertion into Primary

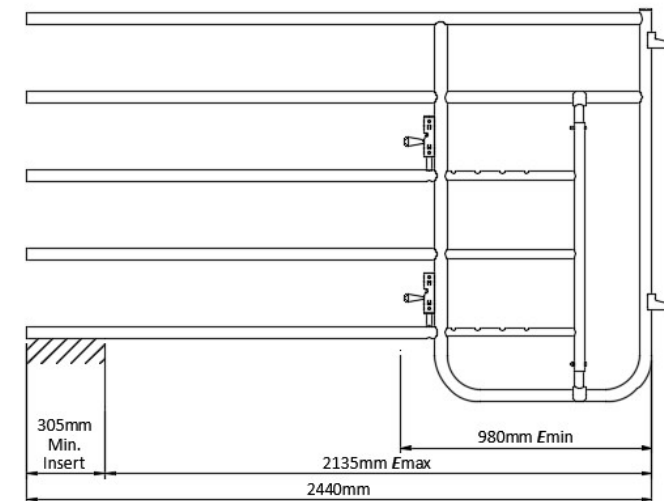
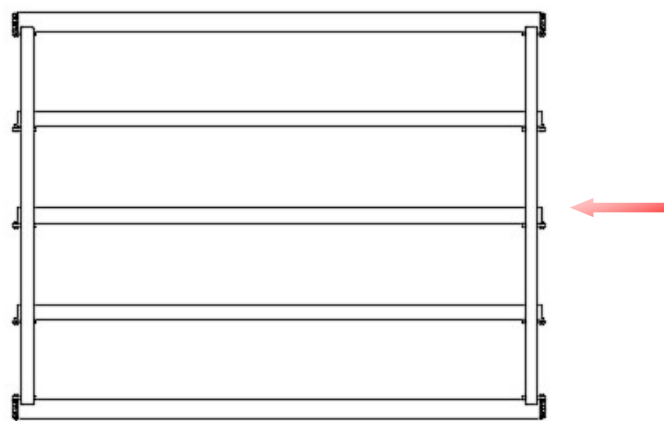


Gate Insert Variants

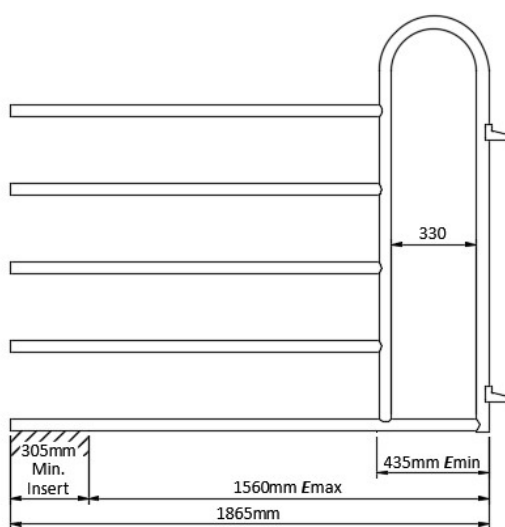


Panel Insert Variants

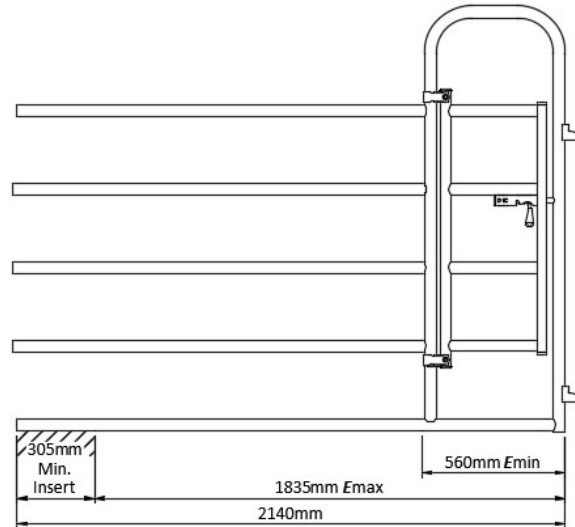
Length	Emax
920	615
1200	895
1585	1280



Creep Insert Variants



Squeeze Insert Variants



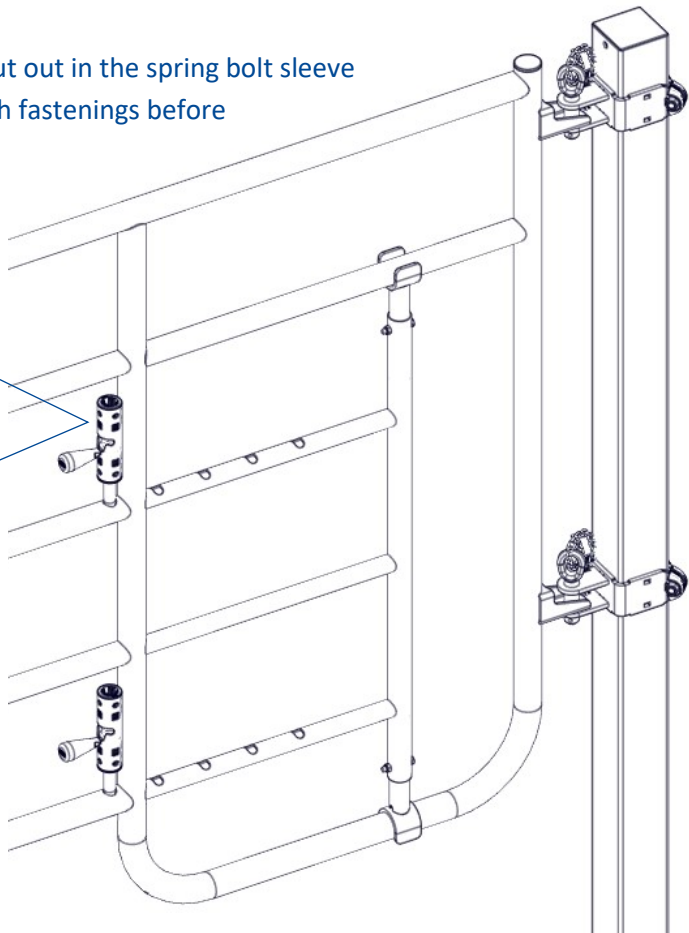
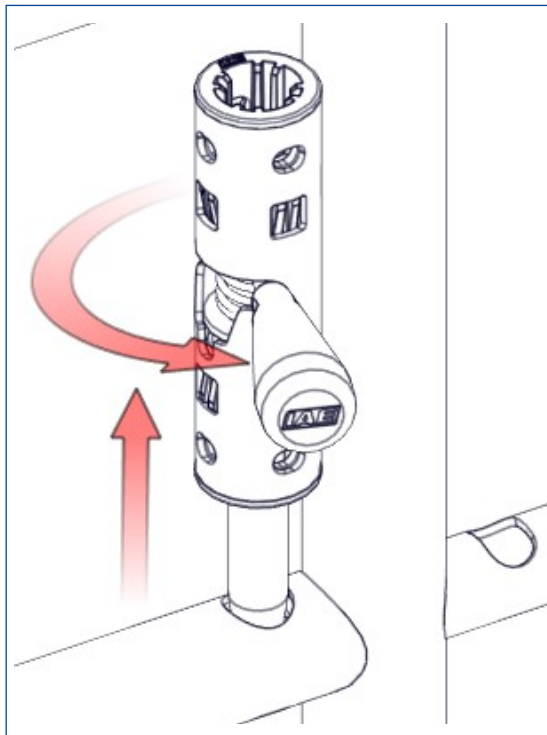
Passage Gate Insert Variants

# Adjusting Aperture Of Calf Creep Insert

⚠️ AG-fit Calf Creep Insert aperture ranges between 595mm and 120mm, follow the instructions below to adjust...

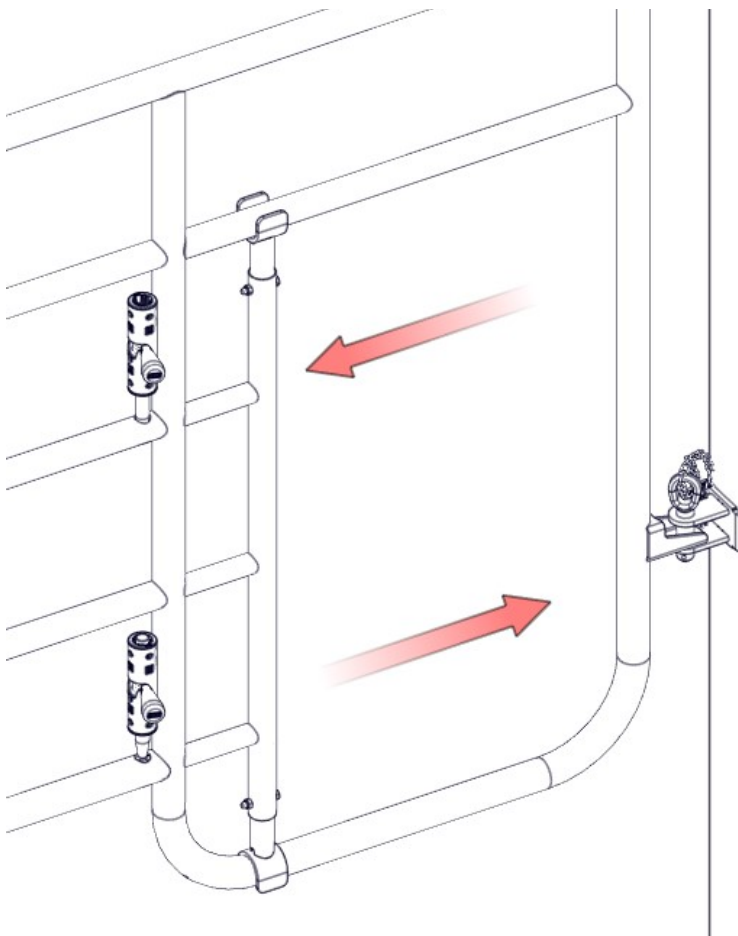
1.

Lift up and rotate spring bolt handle, use guide cut out in the spring bolt sleeve for holding bolt in unlocked position (release both fastenings before proceeding)



2.

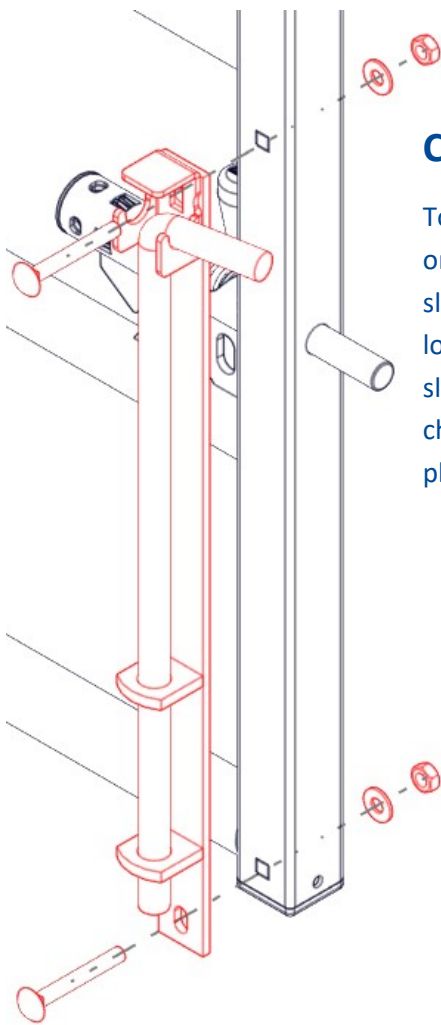
Holding the restrictor bar, slide to increase or decrease the aperture as required and lock the spring bolts back into the nearest bolt position - bolt positions set to 95mm increments



# Options To Fit Assembly

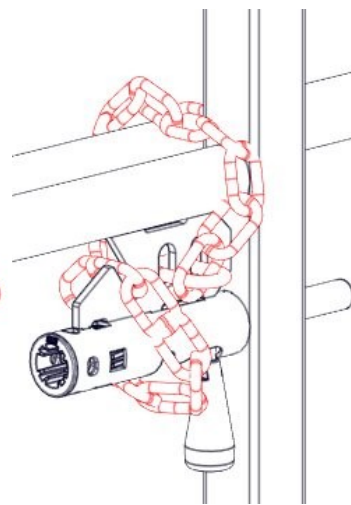
## Heavy Duty Drop Bolt

To assemble, simply tap out the steel inside the bolt hole locators on the slam stile of the gate insert and fit the drop bolt components as shown below (*bolt and nuts supplied fastened to the drop bolt fixing plate*)



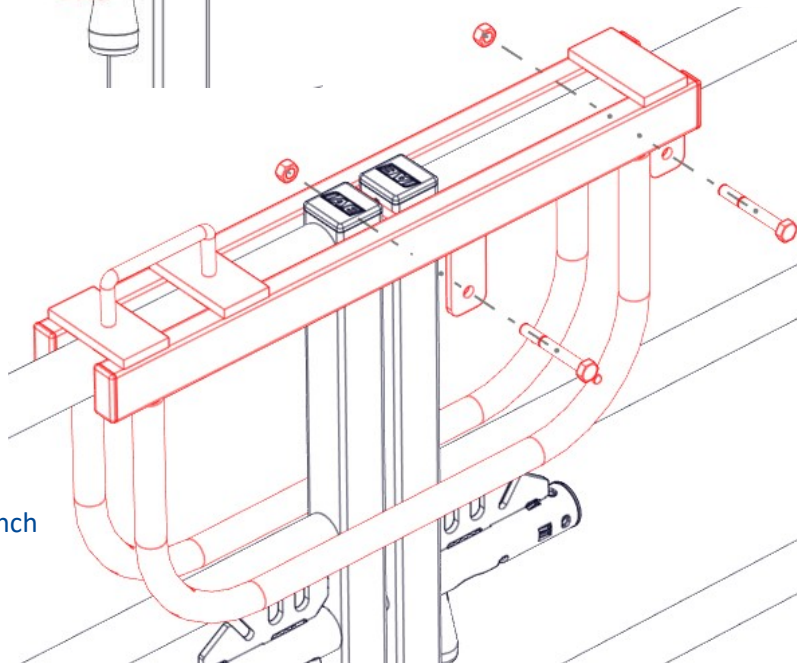
## Chain Lashing

To assemble, attach D shackle (at one end of the chain) through the slotted plate built-in the bolt cage, loop chain around adjacent gate slam stile, to secure, locate end chain link into cut in the bolt cage plate



## Sliding Type Gate Frame

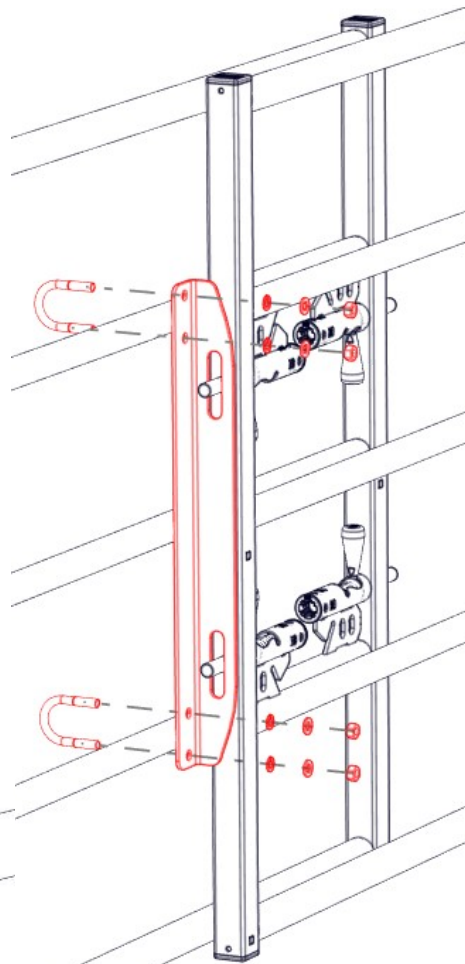
To assemble, loosely place the sliding gate frame over the slam ends of the gate pair, use bolts and nuts (*supplied*) to secure - *the central brace plate should sit in the gap between the two slam stiles*



Ø17mm open end spanner/socket wrench  
Hammer and punch

## Clamp On Gate Spring Bolt Receiver

To assemble, use the U-bolts (*supplied*) to clamp receiver onto the 2nd and 4th rail of the gate

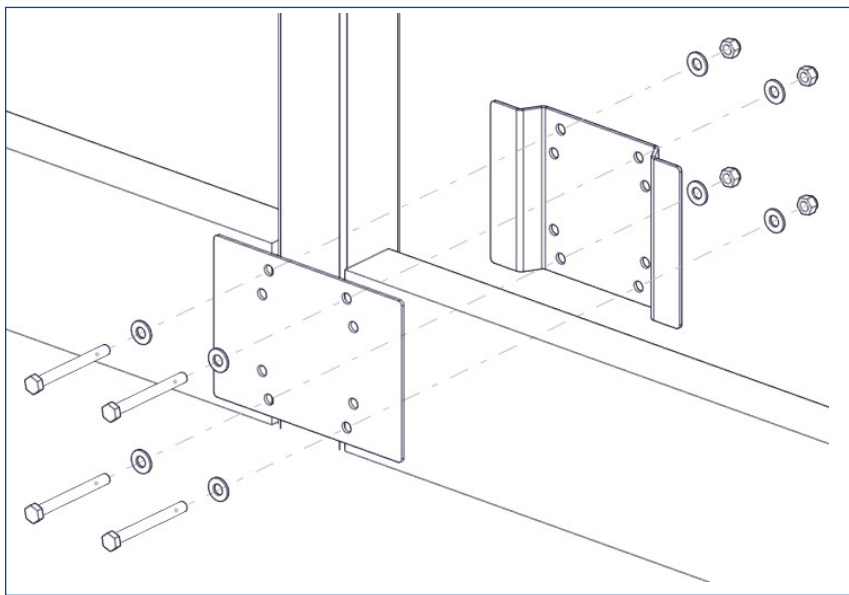
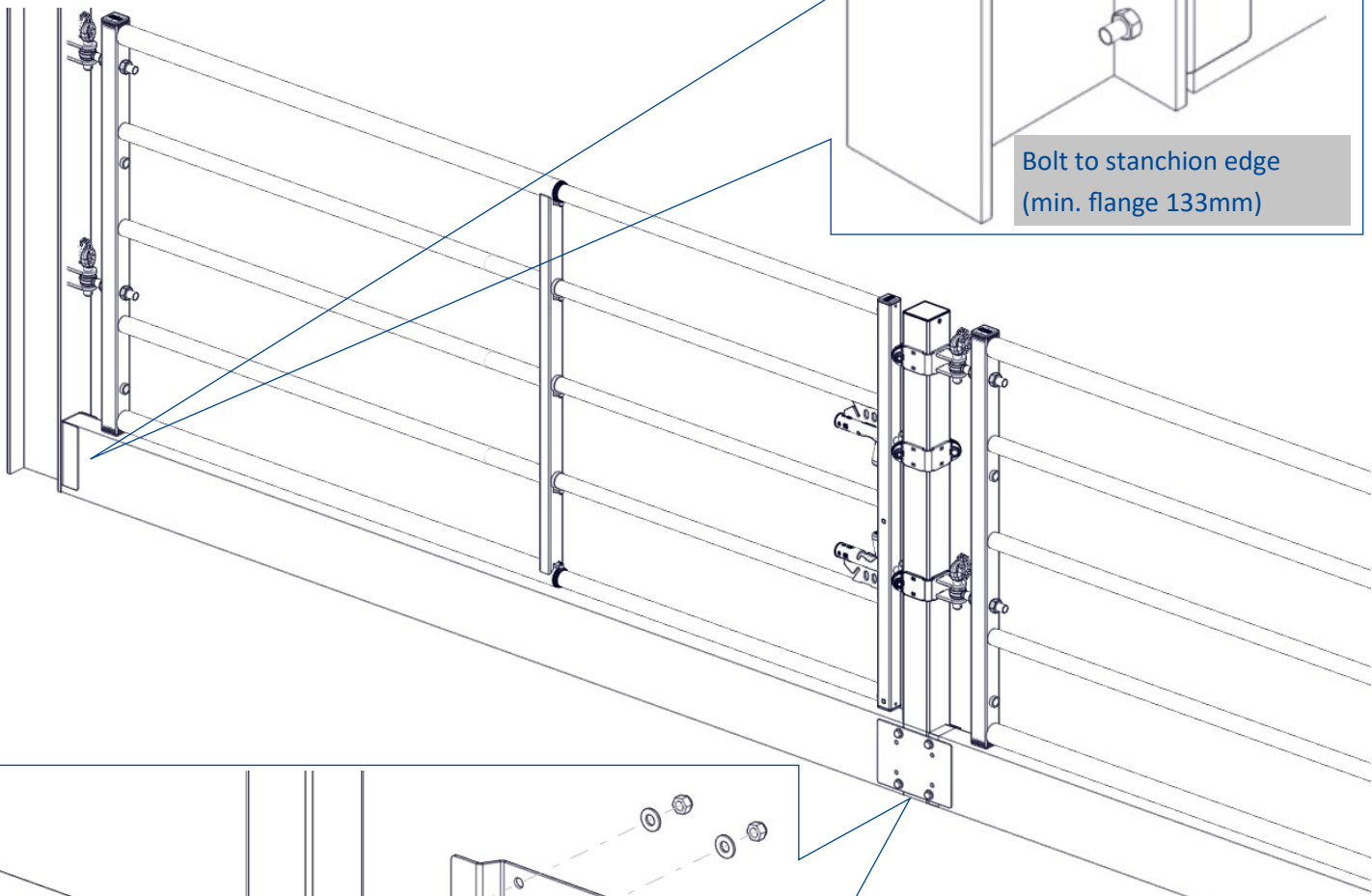


# Timber Boards Holding Back Bedding Setup

Where timber boards are required to hold back bedding bolt on timber brackets can be supplied to fix 225mm x 75mm timber flush with post edge (to form scrape edge)

## Timber Channel Bracket

Bracket to be bolted direct to stanchion or end post (bolting to post on centreline)



## Timber Board Post Bracket Kit

Brackets are supplied with M12 fittings for bolting 225 x 75 timber boards to either 100x100 or 120x120 posts

Flat board plate on the scrape side (flush to post edge) and the formed board plate on the bedded side (as shown)

⚠ Allow 25mm clearance from floor level to underside of bracket



Ø19mm open end spanner/socket wrench

# Maintenance & Storage

## General Guidance

Although IAE equipment is designed to withstand adverse weather conditions and to withstand prolonged heavy usage, monthly inspections and regular maintenance will help to extend the longevity of the product. The following checklist may be useful:

- Check steel framework for any signs of corrosion, distortion or wear. Replace or repaired; Any damage to steelwork (i.e. exposed bare metal) should be made good by rubbing down and applying 1 no coat of Galvafroid and 1 no coat of oil based paint.
- Pressure wash or steam wash all equipment after each usage.
- Lubricate all moving parts at regular intervals.
- Check all nuts, bolts & set screws, pay particular attention to the nyloc nuts, over time the nylon contained can de-grade - replace nylocs if required.

## Hot Dip Galvanising

All IAE products (unless stated otherwise) are Hot Dip Galvanised to the standard of BS EN ISO 1461

## Paint & Protective Systems

The Galvanizers Association ([www.hdg.org.uk](http://www.hdg.org.uk)) have conducted field tests with galvanised steel samples throughout the U.K. and identified localised corrosion rates within 10 mile squares.

The results of their tests indicate that steelwork of 3mm and 5mm thick. Hot Dip Galvanized to BS EN 1461: 1999 giving a coating thickness of 55 and 70 microns respectively, typically provides protection against corrosion in excess of 25 years.