

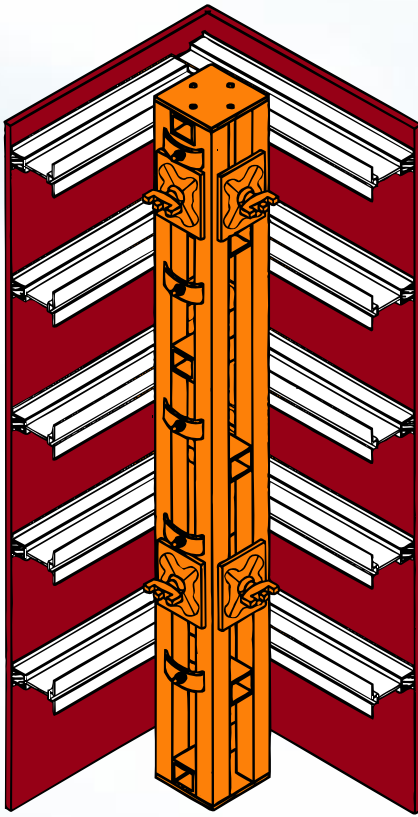


**K H K SCAFFOLDING  
& FORMWORK L.L.C.**

# **Wall Formwork**



## Corner Soldier

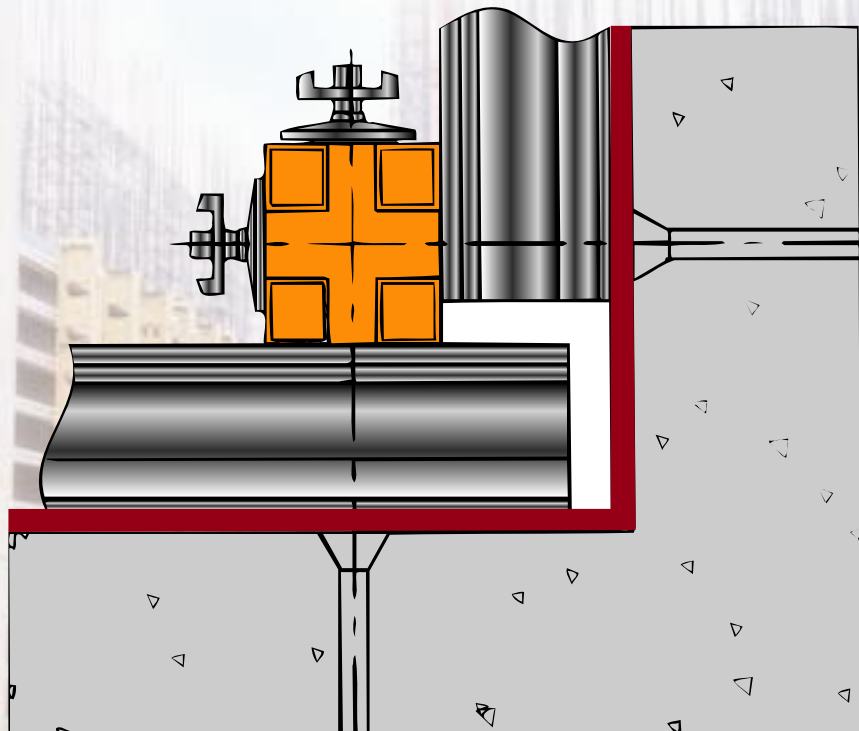


### Corner Soldier

Designed to be used in conjunction with standard soldiers, they simplify the construction of corners.

By allowing ties to pass through in both direction, each corner soldier replace two standard soldiers.

They permit the tie to be closer to the corner which in turn reduce the loading on external corner.



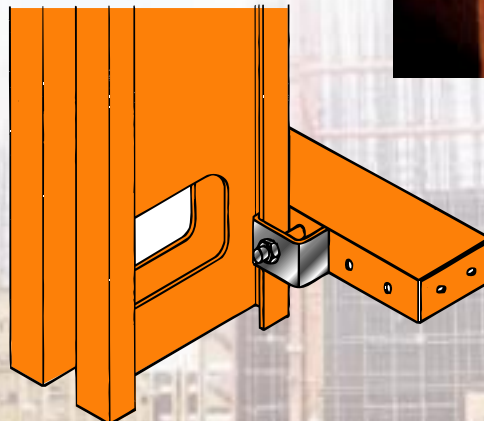
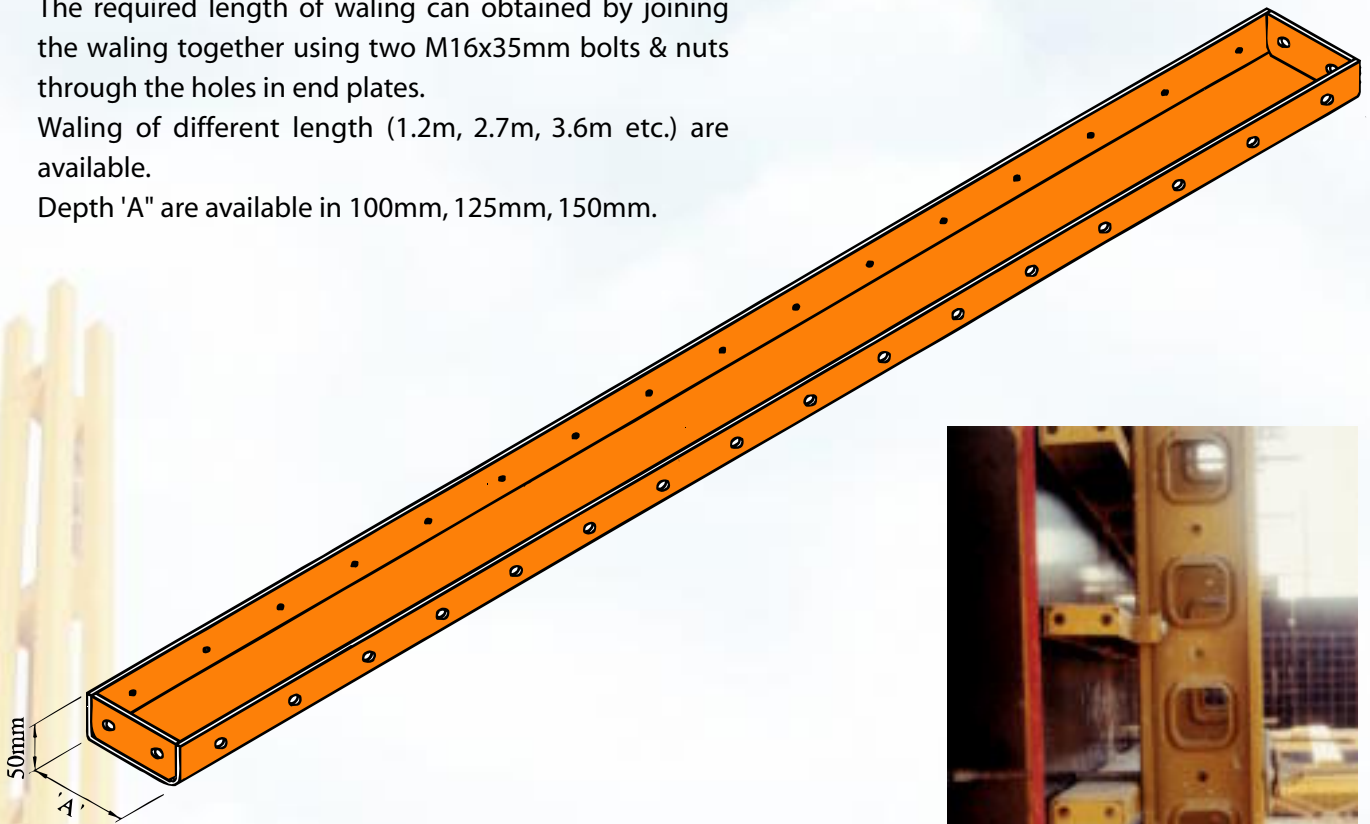
# Soldier & Steel Waling System

## Steel Waling

The required length of waling can be obtained by joining the waling together using two M16x35mm bolts & nuts through the holes in end plates.

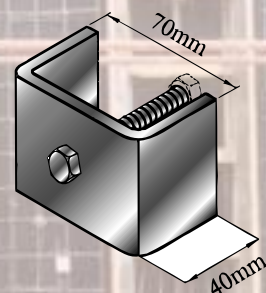
Waling of different length (1.2m, 2.7m, 3.6m etc.) are available.

Depth 'A' are available in 100mm, 125mm, 150mm.



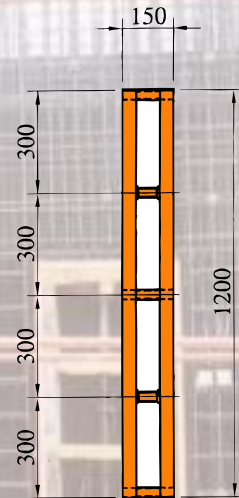
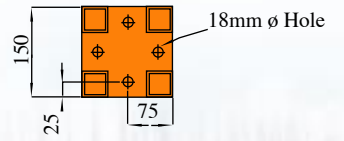
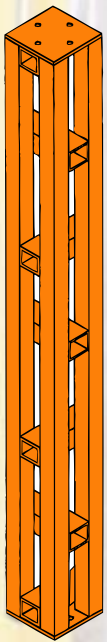
## Steel Waling Clamp

It is used to fasten the steel waling to the face of the soldier at any height using one M16x75mm bolt and nut.



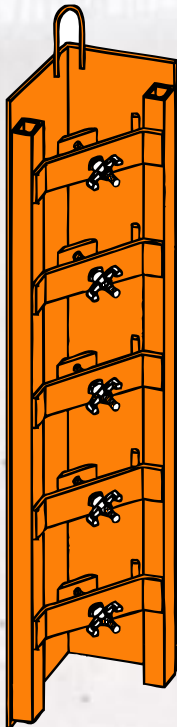
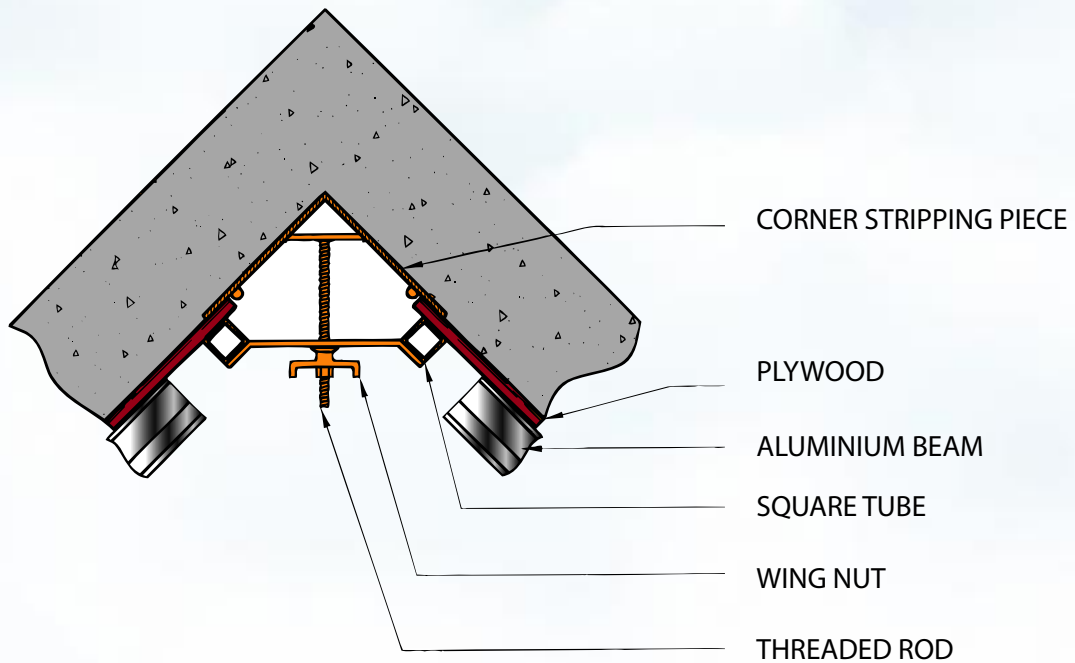
# Corner Soldier

1.80m CORNER SOLDIER



<b>LENGTH:</b>	<b>3.60m</b>	<b>3.0m</b>	<b>2.70m</b>	<b>1.80m</b>	<b>1.20m</b>
<b>WEIGHT</b>	<b>65.5kg</b>	<b>55.5kg</b>	<b>49.5kg</b>	<b>33.8kg</b>	<b>23.5kg</b>

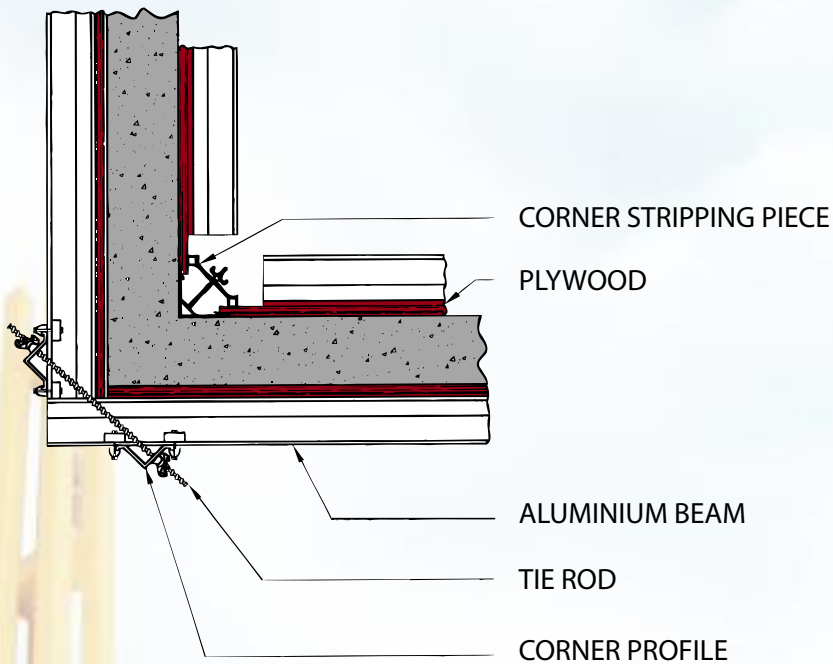
## Right Angle Wall Form System



### b) Corner Stripping Piece

It is used to support the shutter from the inside face of the wall corner. It consists of a right angle bend sheet, two square tubes, and the required number of thread rods and wing nuts. While assembling, the plywood of the shutter is placed between the bend sheet and square tube as shown in the figure.

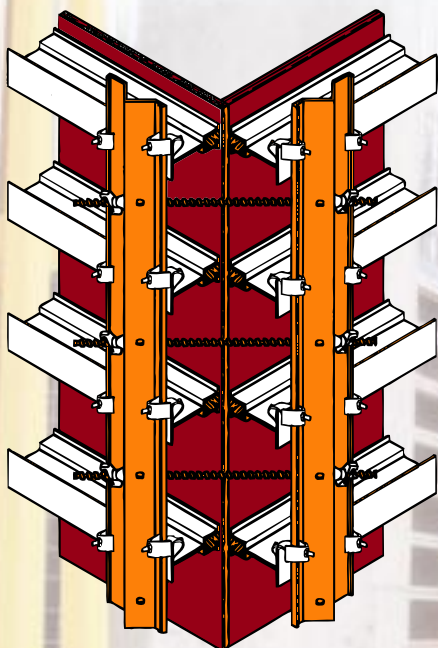
## Right Angle Wall Form System



### Right angle wall form

The shutter at the corner of the walls are fixed using:

- a) corner profile
- b) corner stripping piece



### a) Corner Profile

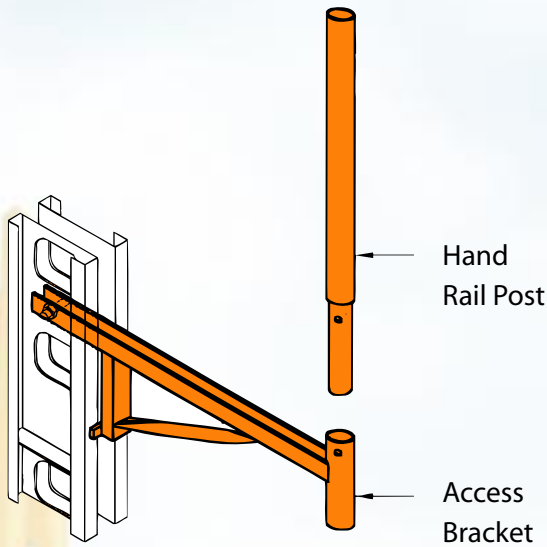
It is used to support the shutter at the corner as shown in the fig..

Two corner profile of different shutter are tied together using tie bar & wing nut. The aluminium beam are fitted to the profile using universal clamp.

The corner profile consist of a right angled bend sheet with holes at specified intervals. It is assembled as shown in fig..



## Access And Levelling of the System

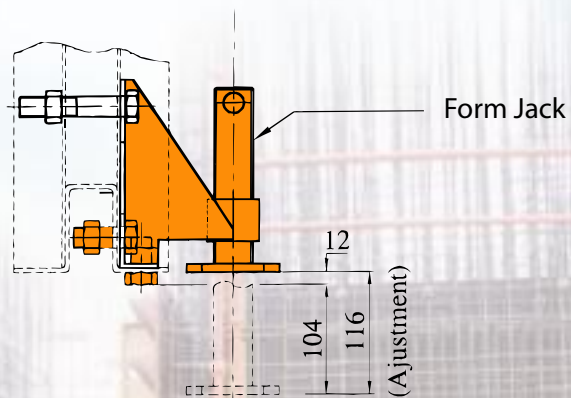


### Hand Rail Post

It is used to hold the hand rails of 48.3 $\phi$  scaffold tube. The hand rail post is fitted into the socket of the access bracket and is fastened using M16 x 75mm bolt and nut.

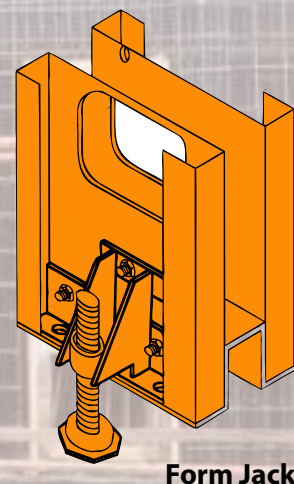
### Access Bracket

Access bracket support three standard steel plank and a toe board which provide a safe working platform. The bracket has a vertical pipe for fixing the hand rail post & a horizontal channel designed to carry timber or steel plank. The access bracket is fitted into the hollow web of the soldier using one 16 x 75 mm bolt and nut.



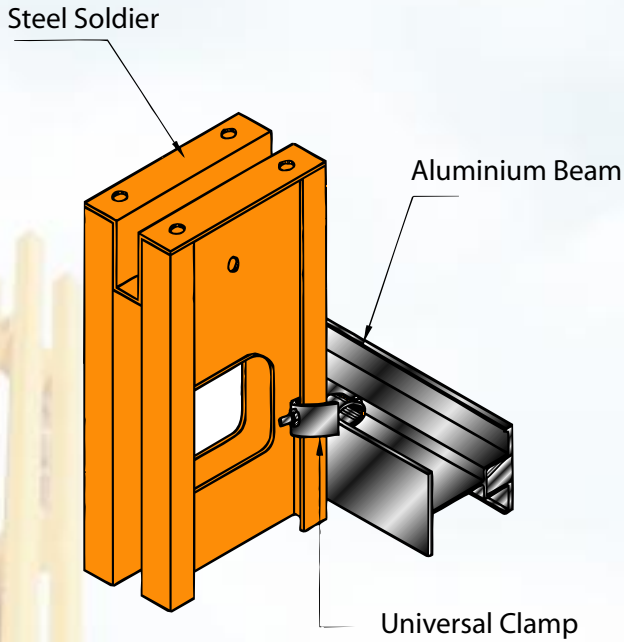
### Form Jack

Used to level the shutter. At least two form jack is required per shutter. The height of the form jack can be adjusted to a maximum of 116mm. The form jack is fastened to the base of the soldier using one M16x75mm bolt and nut and two M16x35mm bolts and nuts.



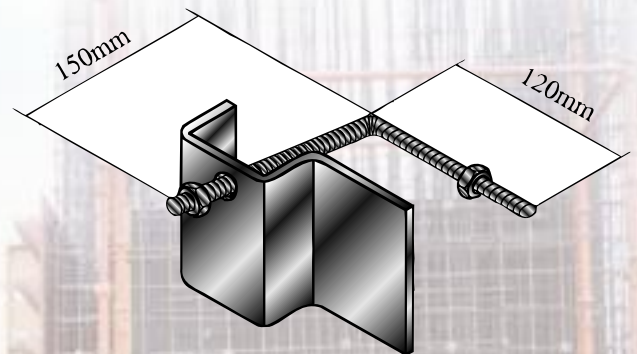
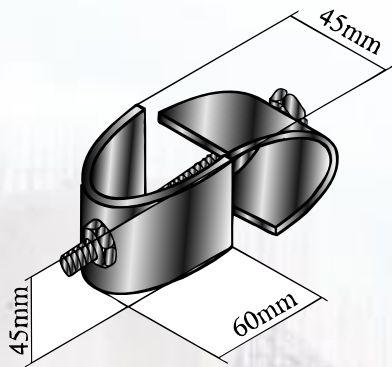
Form Jack

## Fixing Walings



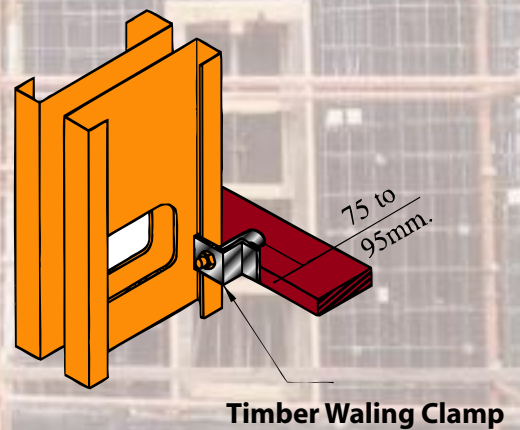
## Universal Clamp

It is used to clamp aluminium beam waling (K6, K12 etc.) to the steel soldier at any height. Universal clamp consist of two 'U' shaped plate and a M12 x 100 bolt & nut. The flange of the soldier and the aluminium beam are gripped between the two plate of the universal clamp.



## Timber Waling Clamp

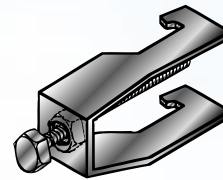
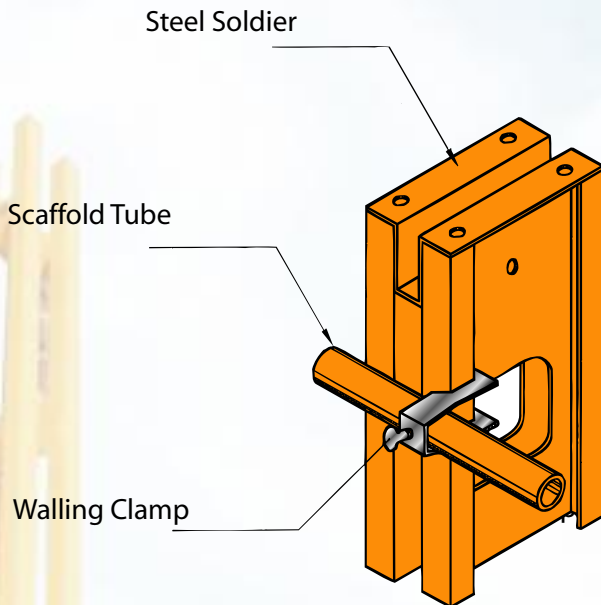
It is used to clamp timber (50mm-75mm Thk.) to the steel soldier at any height. It consist of a bend plate and a 'J' shaped bolt. Clamping is done at one end by fastening the clamp to the timber using J bolt and the other is clamped over the flange of the soldier.



## Fixing Walings & Lifting System

### Tube Waling Clamp

It is used to clamp the scaffold tube across the face of steel soldier there by aligning the shutter. It consist of an 'U' shaped plate and a M16 x 80 bolt.

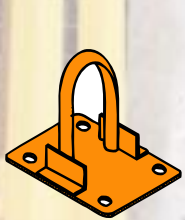


### Lifting Bracket

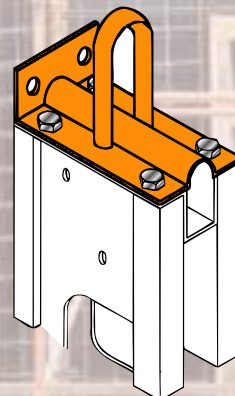
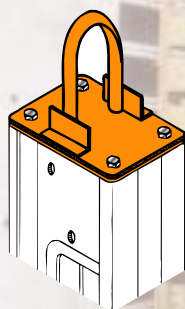
It is used to provide lifting position for handling by crane. Usually two bracket are provide per shutter. They are secured at the top of the soldier using four M16 x 35mm bolts and nuts.

In Mark I the bracket consist of a bend plate and a 'U' shaped  $\varnothing 16\text{mm}$  rod.

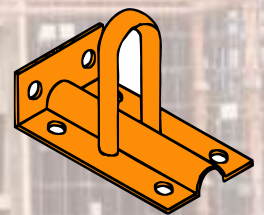
In Mark II the bracket consist of a 'U' shaped  $\varnothing 16\text{mm}$  rod welded to 10mm thick base plate.



Mark II Lifting Bracket

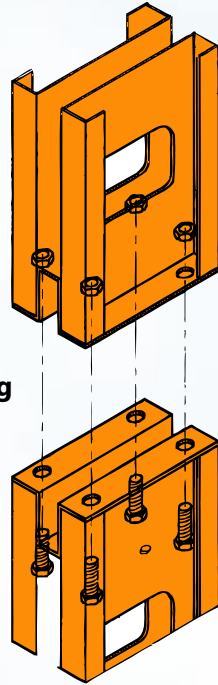


Mark I Lifting Bracket

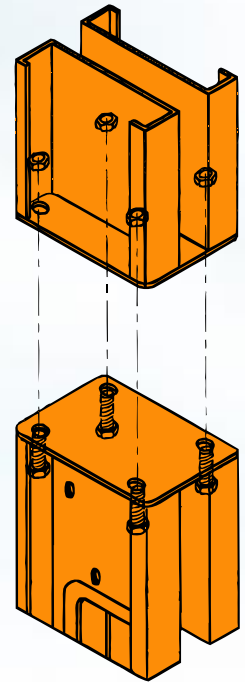


## Height Adjustment & Supporting System

Mark I Soldier Jointing

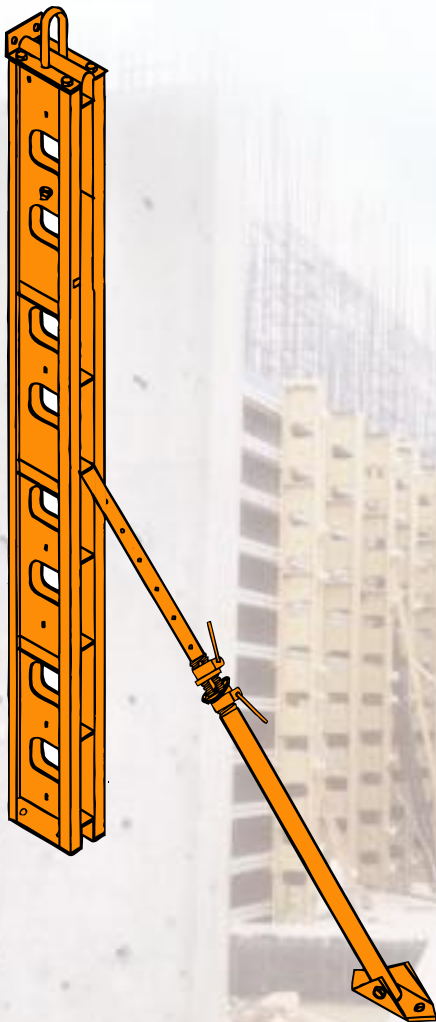


Mark II Soldier Jointing



## Jointing Of Soldiers

The steel soldiers can be jointed at the end and secured using four M16 x 35 set screws and nuts fitted through the holes of the end plates.



## Push Pull Props

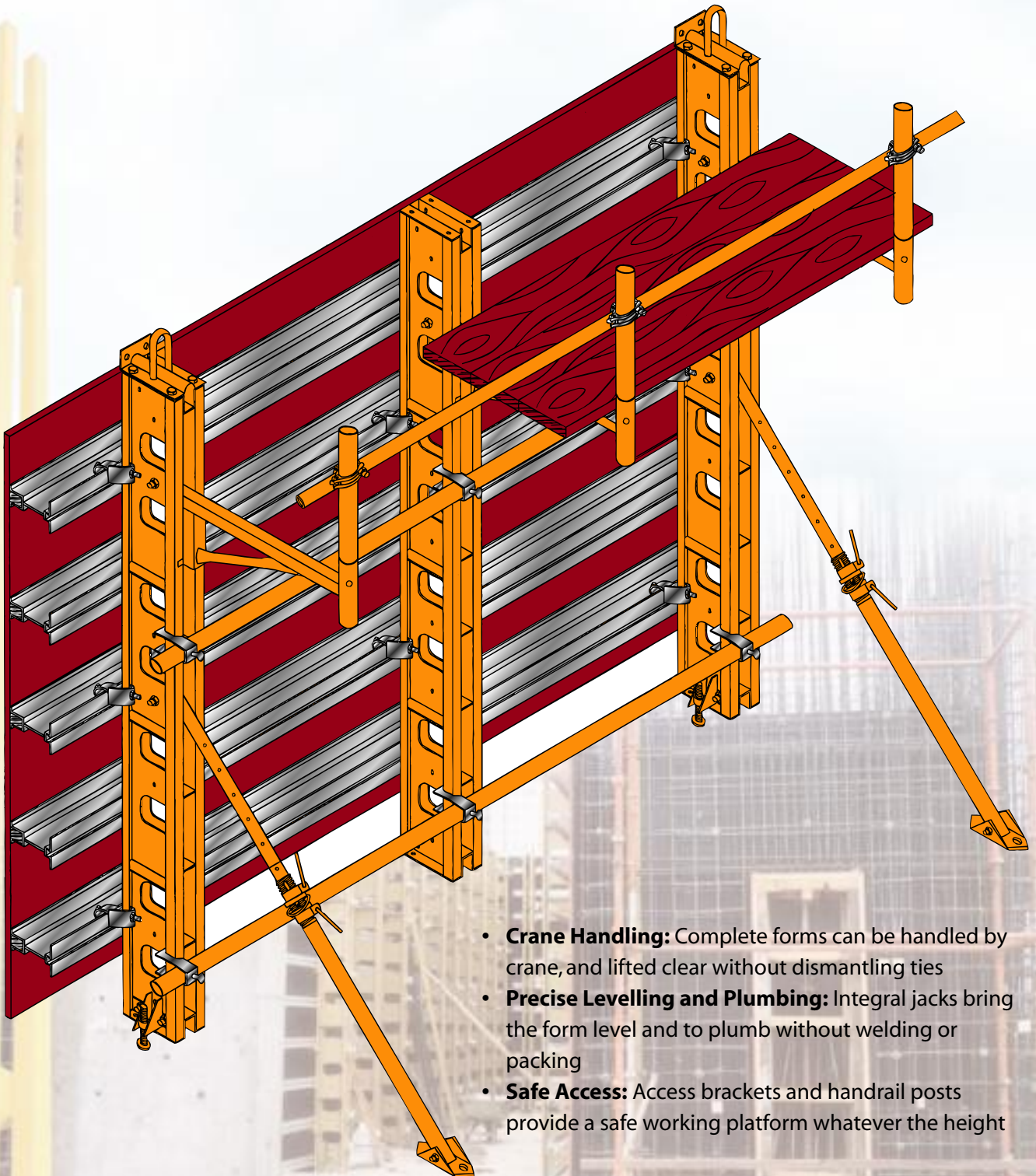
It is used to support the shutter and is fitted at the back face of the steel soldier. It consist of an outer & inner pipe, sleeve, two nuts, locking pin and base adaptor.

## Mark I Soldier

The General Purpose wall support system combining high performance with simple, rapid assembly. Great versatility and major cost advantages.

The steel soldier system provides maximum benefits when used with heavy duty ties and steel walings or aluminium beams.

- **Strong:** Moment of resistance 25.5 kNm
- **Right length for the job:** Four metric sizes catering for all common formwork heights.
- **Tall Forms with fewer ties:** End to end joining of soldiers with the joint plate reduces ties to the minimum
- **Economic use of walings:** Aluminium beams can be used at optimum spacings. There are no pre-set fixing positions.



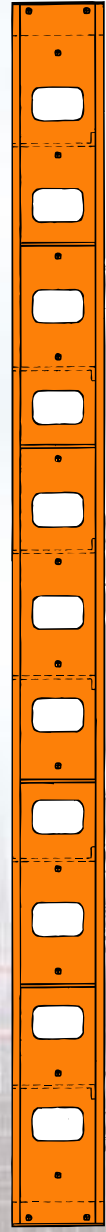
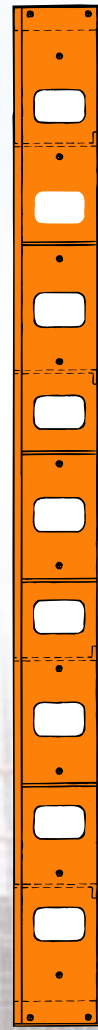
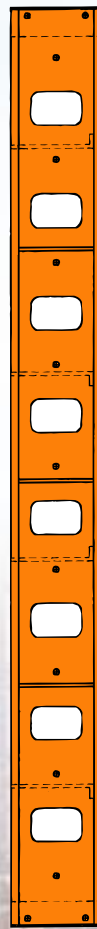
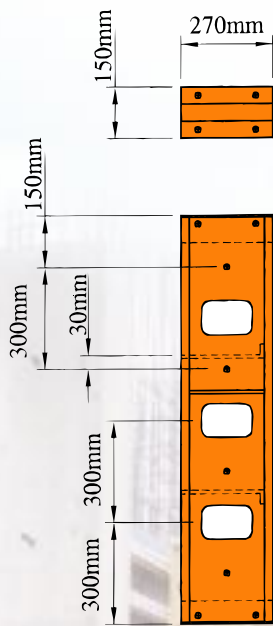
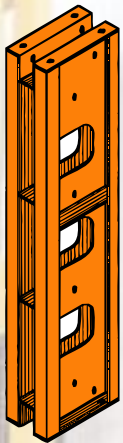
- **Crane Handling:** Complete forms can be handled by crane, and lifted clear without dismantling ties
- **Precise Levelling and Plumbing:** Integral jacks bring the form level and to plumb without welding or packing
- **Safe Access:** Access brackets and handrail posts provide a safe working platform whatever the height

# Mark I Soldier

## Standard Mark I Soldier Sizes



### 1.2m Soldier



<b>LENGTH:</b>	<b>1.20m</b>	<b>2.7m</b>	<b>3.00m</b>	<b>3.60m</b>
<b>WEIGHT</b>	<b>24.5kg</b>	<b>49.5kg</b>	<b>56.0kg</b>	<b>66.2kg</b>

### Technical Properties of Steel Soldier

Moment of Resistance (BM)	25.5 kNm.
Maximum allowable End Reaction	55kN.
Moment of Inertia (Ixx)	2200cm <sup>2</sup> .
Modulus of Section	163cm <sup>3</sup> .
Maximum tie	80kN.
Maximum B.M. at bolted joint	5kNm.

## Mark II Soldier

### **New Profile:**

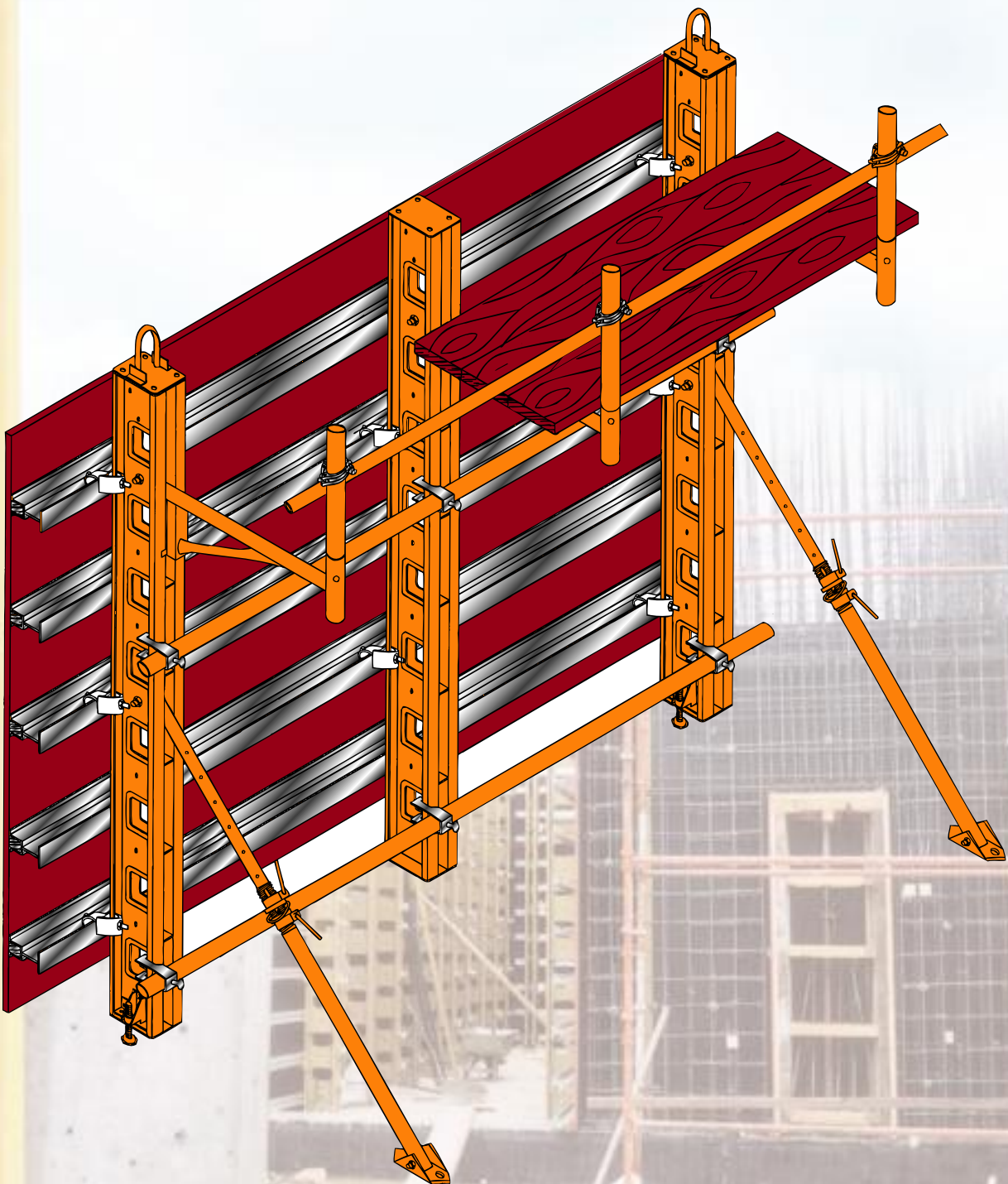
The new profile of Mark II Soldier, with its pattern of square shaped holes with stiffening ribs, is the result of an extensive analysis to determine the best balance between strength, stiffness & weight.

### **Wide Range:**

With a comprehensive range of five lengths of soldiers and a choice of essential accessories, the contractor can find economical solutions to all his wall formwork problems.

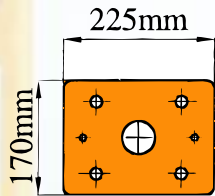
### **Versatility:**

When the soldier are combined with the K-6 aluminium waling beams even greater economies can be made. The greater strength of K6 allows soldier spacing and tie loads to be optimised. It also has the benefits of long life, light weight & fast assembly. All this factors combined to give the most versatile system for wall formwork.

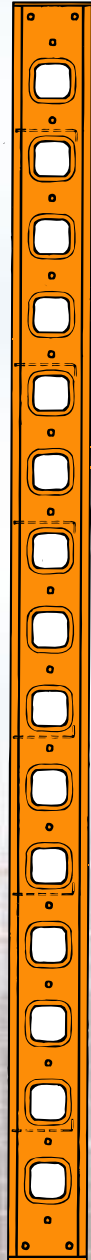
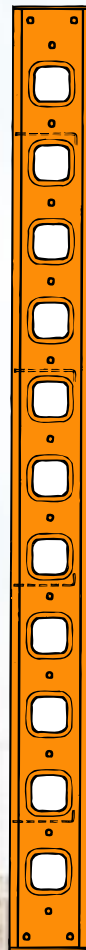
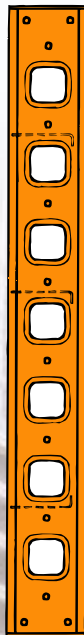
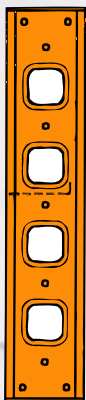


# Mark II Soldier

## Standard Mark II Soldier Sizes



END PLATE



<b>LENGTH:</b>	<b>1.125m</b>	<b>1.80m</b>	<b>2.70m</b>	<b>3.15m</b>	<b>3.60m</b>
<b>WEIGHT</b>	<b>24.0kg</b>	<b>35.8kg</b>	<b>51.3kg</b>	<b>59.1kg</b>	<b>66.8kg</b>



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