

## Transport, Storage and Installation Information – Pre-Stressed Wall Panels

Moore Concrete wall panels are designed by Chartered Structural Engineers in accordance with BS8110; Part 1 and BS5502 Part 22. Care must be taken during transport, offloading and installation to guarantee the integrity of the units.

The full design strength of the panels will only be achieved after **28 days**. The date of manufacture will be specified on the product label fixed to the unit, this label also shows the unit weight. If this label is missing please contact Moore Concrete for advice.

### Transport

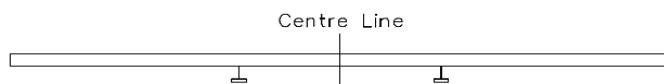
- Units will be stacked no more than 6 No. high on the transport vehicle.
- The units will be placed on timber skids positioned between each unit and will be spaced at an adequate distance apart to ensure no damage occurs to the units during transit.
- The driver collecting the units from Moore Concrete will be responsible for securing and the stability of the units before departing the yard.



### Offloading & Storage

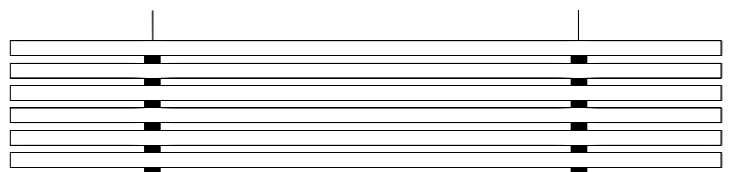
Handling of the panel units should be completed by competent persons in line with a specific risk assessment and "Lifting Operations Lifting Equipment Regulations - 1998 or 1999 (NI)". If a crane is required, the installation should to be completed in line with a Lift Plan in accordance with "Safe Use of Cranes BS 7121-1:2016".

- All equipment should be checked before use, to ensure that it is in a good condition and capable of lifting the units.
- Offloading and storage must be done safely and carefully on to firm and level ground.
- To minimise marking the units during handling operations, it is advisable to cover the pallet forks with a suitable material.
- Units must be offloaded individually and in a horizontal position using pallet forks. The forks must be centred on the unit with as wide a spread as possible, as illustrated below.
- Ensure when offloading that the wall panel units are lifted from the tongue side as there is a risk of damaging the panel if lifting from the groove side.
- Timber spacers must be positioned between each unit and aligned vertically at fifth ( $\frac{1}{5}$ ) points of the overall length as illustrated below to avoid unnecessary stressing or damage.
- The units should be stacked no more than 6 No. high.



Fork positions must be centred on the panel with as wide a spread as possible when using forklifts/telehandlers.

Timber spacers placed  $\frac{1}{5}$  of overall length from product ends.



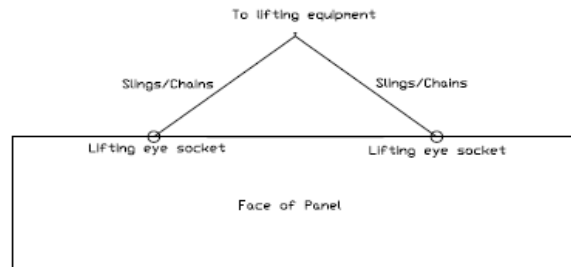
## Turning into Upright Position

When turning the panels ensure that:

- All equipment is checked before use, to ensure that it is in a good condition and capable of lifting the load.
- Lift the units from the stack using pallet forks and come in from the tongue side as there is a risk of damage if lifting from the groove side.
- Place an individual panel on two timber skids ready for turning into a vertical position. The panel should be placed on the skid leaving 200mm remaining on the groove side for the panel to turn on to. (see image below)
- The units should be turned using the 2 No. threaded sockets cast into the tongue (top edge) of the unit.
- Appropriate lifting tackle & equipment should be used. Swivel Eyes can be supplied by on request along with certification. Swivel eyes need to be capable of lifting load.
- Swivel Eyes must not be used with an angled lift less than 45°. (Shown in the diagram below)



**Example of a Swivel Eye**



- Hook on lifters to the panel and using the forklift and swivel lifters, slowly lift the panel from the horizontal to its vertical position.
- Lift the panel into its correct position.



*Swivel Eye*

*200mm of skid remaining on groove side*



*Panel being lifted from Horizontal to vertical position*

A short video of this process is available to view on our website –

<https://www.moore-concrete.com/agriculture/prestressed-wall-panels/>

## Installation

During installation of the units the customer must ensure that:

- Ensure both the tongue and groove are free from debris when installing.
- Small manufacturing tolerances are allowed in the units.
- It is advisable to seal the gap in the tongue where the lifting points are positioned, this will help prevent rain from penetrating at this point.
- Fixing options illustrated below give a brief overview of the options available. Care should be taken to ensure that loading capacities are never exceeded, either during construction or during lifespan.
- Moore Concrete can supply the bracket/clip shown below in the right hand sketch. Any alternatives to this would need agreed in advance.

## FIXING OPTIONS

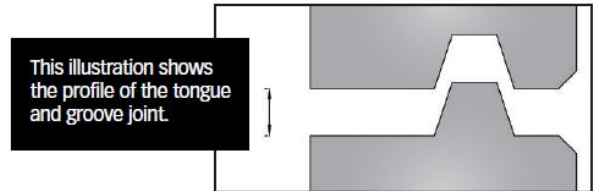
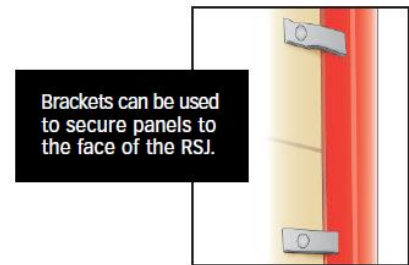
Panels can be fitted to the RSJ/Beam in 3 ways:



1. Bolted to the inside face.



2. Slotted in between. 3. Bolted to outside face.



## Applicable Units:

PANEL DEPTH	PANEL HEIGHT				APPLICATION INCLUDES:
	600mm (2')	1000mm (3'3")	1200mm (4')	1500mm (5')	
100mm (4")	✓	✓	✓	✓	<ul style="list-style-type: none"> <li>• Livestock Buildings</li> <li>• Commercial Buildings</li> </ul>
150mm (6")	✓	✓	✓	✓	<ul style="list-style-type: none"> <li>• Silage</li> <li>• Feed Stuffs</li> <li>• Grain</li> <li>• Aggregate</li> <li>• Coal</li> </ul>
200mm (8")		✓		✓	
250mm (10")		✓		✓	



Manufactured to EN 14992:2007+A1 2012

The manufacturer assumes no liability for damage incurred by improper handling.

Revised – April 2018