



## This document is good practice guidance provided by Centrum Pile Ltd to assist customers when developing their own risk assessments, lifting plans and method statements.

The competence of installation personnel and the working environment is outwith the control of Centrum Pile Ltd.

Your piles have been made by Centrum Pile Limited in a factory with an ISO 9001:2015 quality management system under strict quality control (international standard BS EN 12794:2005)

All products have limitations and benefit from considerate use.

Centrum precast concrete piles are designed and made to withstand the loads and stresses from: -

- Lifting, loading and unloading using built in lifting points:
- Transportation on normal vehicles having a flat load bed;
- Stacking / stocking when properly supported.
- Impact from a suitably cushioned pile driving hammer acting through the long axis of pile.

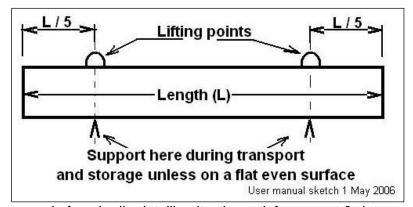
### Pile units will be damaged by being: -

- Dropped, colliding with another pile or hard object;
- Dragged, pushed, or knocked sideways (for example by a digger bucket);
- Pulled long distances with one end only raised.

#### HANDLING PILES

### Loading / unloading/ stacking:

- · Lift your piles by both of the built in lifting eyes and
- Support them directly under the eyes when stacking.
- It is not advisable to stack pile units on top of each other at site unless they will be moved again by lifting. Lifting eyes may be damaged or piles broken when they drop a level if pulled from stack.



A label is fixed to one end of each pile detailing its size, reinforcement & date cast.

The table below has been prepared to assist with your lifting plans & method statements.

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Section	200	250	300	350	400
Kg/m	99.2	150.3	216.4	288.5	396.1
Nr of bars	4	6	8	12	16
Length m		Pi	le mass	(t)	
3	0.3	0.5	0.7	0.9	1.2
4	0.4	0.7	0.9	1.2	1.6
5	0.5	0.8	1.1	1.5	2.0
6	0.6	0.9	1.3	1.8	2.4
7	0.7	1.1	1.5	2.1	2.8
8	0.8	1.2	1.8	2.3	3.2
9	0.9	1.4	2.0	2.6	3.6
10	1.0	1.5	2.2	2.9	4.0
11	1.1	1.7	2.4	3.2	4.4
12	1.2	1.8	2.6	3.5	4.8
13		2.0	2.8	3.8	5.2
14		2.1	3.1	4.1	5.6
15			3.3	4.4	6.1
16				4.7	6.5
17				5.0	6.9
18				5.3	7.3

### Adjustment for main steel variance

Density kg/cu m		1m of 12mm dia = cu m	For each additional 12mm bar ADD	
Concrete	2,400		kg /m	
Steel	7,851	0.000113097	0.616493576	

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THREADING & PITCHING (getting the pile from horizontal to vertical for driving)

The pile should not be

- Pulled a greater distance than necessary Potential risk to other people and traffic
- Pulled over rough ground or obstacles on the ground *Increases risk of damage.*
- Hoisted using a single lifting eye; a reevable sling or other measure is advised.

### Care must be taken to

- Maintain control of the pile at all times
   Rapid movement may cause collision with rig resulting in damage and possible falling debris
- Review operational practices in high winds or restricted visibility.
- Secure the pile as soon as practicable in the driving helmet and with pile arms or similar.
- Keep the bottom of pile as close to ground as practicable at all times.

#### DRIVING

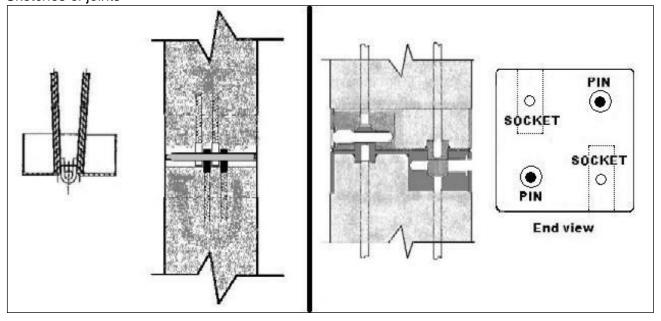
- Avoid forcing piles sideways (any direction) once they are firmly in the ground.
   High risk of cracking the pile
- Regularly check alignment of hammer blow and pile shaft Eccentric forces can break piles
- Check condition of helmet packing (under pack) at start of each pile, replace as required.

### JOINTING PILE UNITS

Where longer piles are required units are supplied with a ½ joint.

It is essential to make sure that the pile unit to be added is of the same type and the right way round before threading & pitching.

Sketches of joints



Align hoops & secure with single pin.

Secure with four pins when end plates flush.

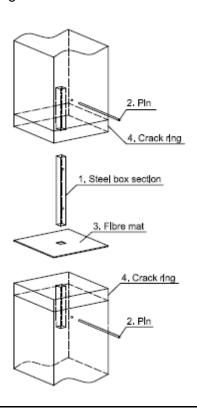
### JOINTING CD JOINTS

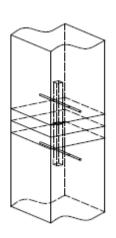
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Line up under and over pile segments - insert common steelbox section into holes and fibre mat between the pile segments, place together and insert joint pins through under and over pile segments to secure.





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