



## ***Rapid Repair & Protection Systems for Marine Piles and Structures***

### **Description:**

PileJax is a fast and easy to install pile rehabilitation jacketing system designed to become an integral part of the repaired structure. The PileJax jackets have been engineered and proven to provide a strong, durable encapsulation of the pile repair and protective annulus materials. Incorporating the innovative Joinlox joining technology, the PileJax composite jacketing system provides fast and easy installation and ease of pumping operations. The PileJax system provides a permanent long-term protection of the repair from the harshest marine environments.

### **Use:**

PileJax is suitable for use with all concrete, steel and timber piles. Can be used with cementitious or epoxy grouts, gels, corrosion inhibitors and concrete aggregates. The PileJax jacketing systems can be assembled quickly above or in the water to significantly reduce labour, dive and equipment costs.

### **Benefits:**

- Rapid Installation
- Suitable for any size and profile pile in marine or dry locations
- Lightweight, making it easier and safer to handle
- High quality material providing outstanding durability and strength
- Long life repair giving reduced on going maintenance costs
- Full composite construction - no metallic parts or requirements for cathodic protection
- Translucent colour to enable visual during pumping operations. Also available in other colours to suit navigation and visibility requirements - contact PileJax for details.

### **Configuration & Sizing:**

PileJax jacketing systems are available in any multiple diameters, thicknesses or profiles and any length required. The length of PileJax is engineered to be easy to handle yet strong and durable for long-term durability. Custom sizes can be manufactured to suit specific requirements. Single pump operations are possible without the use of straps or braces in most applications dependent on head height, density of grout/filler material and local site conditions. Please contact the PileJax technical team to discuss your project requirements and supply information.

### **Surface Preparation:**

Concrete, steel and timber piles require a through clean, all loose particle removed and must be sound prior to installing the PileJax materials. Clean existing piles using a high-pressure washer, typically min 17MPa (2,500 psi) to max 27MPa (4,000 psi) when measured at the nozzle, and/or other mechanical means of clearing piles of marine growth, rust, oil, scaling, spalling and other contaminants.



## ***Rapid Repair & Protection Systems for Marine Piles and Structures***

### **General Installation:**

**Installation must only be undertaken by person(s) who have been trained in the use of PileJax and such equipment considered normal practice for the install. Refer to project specific engineering specifications to comply with repair methods, pump pressures, codes and standards.**

PileJax is typically supplied as one-piece jacket system to be easily opened and placed around the pile. (Other configurations available upon request)

1. Fit annular spacers to inside diameter surface as per GA drawing and apply a continuous bead of UW mastic sealant along the length of the axial joint seal.
2. The single PileJax 'jacket' is opened and placed around the pile. The PileJax jacket is closed and the interlocking hooks self-align into their corresponding position on the opposite side of the joint.
3. Starting at the bottom of jacket, the first locking key is placed into joint passage one pitch up from lock position and with the aid of a 16oz rubber mallet (never use a metal or solid hammer) the key is tapped downwards one pitch length only to its stop position, thereby tensioning and locking the joint. (Note: To aid tapping of end of key in downward direction, the use of a soft timber approx. 40x40x250mm can be used to direct tap from rubber mallet accurately onto end of key). The next key above the first is inserted and locked in the same manner, this procedure is repeated in sequence for all keys to the top of the jacket. Insert final securing lock feature piece into position.
4. The PileJax is fitted into mud bed or for mid-pile installation by utilizing the PileJax bottom seal products. PileJax jackets can also be used with other seals including plugs, closed-cell foam, resin or similar. For heavy concrete aggregate mixes the PileJax Pile Clamp may be used to enable bottom plug for mid pile non-mud bed applications. Contact PileJax for further bottom seal details.

When the bottom seal is secure, begin with pumping grout plug of the PileJax jacket with the specified grout filler repair material. Using an appropriate pumping system, hose and desired shut off valve and connection to the designated pumping port. Pump plug to designated height and allow to fully cure (Consult project engineering specifications and PileJax representative to confirm pumping rates and allowable head pressures. Multiple separate pumps and/or the use of temporary straps may be required in some circumstances). Proceed by filling evenly around the PileJax jacket moving from one port to next (if multiple ports). Ensure to cap off the pumping ports on completion of use of the port. Cap top of annular grout by forming grout or epoxy paste in sloping manner to ensure that any water in future can run off the annular pile cap without pooling.

### **IMPORTANT NOTE**

©Joinlox Pty Ltd.

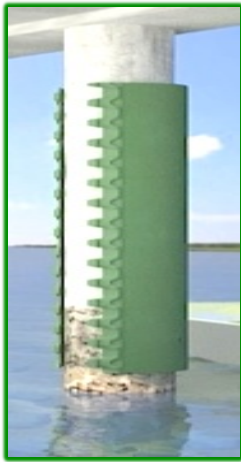
**Joinlox® and PileJax™ are registered trademarks and are patent protected internationally.**

The advice and technical information contained in this document is based on our best technical and practical knowledge at the time of publication. Joinlox continuous improvement processes means we routinely incorporate product and process improvements. Please contact Joinlox or your local distributor to ensure you have the latest information. As Joinlox has no control over where or how its products are applied, Joinlox will not accept any indirect or consequential loss or liability for any more than product repair or replacement of defective materials and manufacture. Suggestions made by Joinlox either orally or in writing may be followed, modified or rejected by the owner, engineer, installer or contractor since they, and not Joinlox, are responsible and assume all risk for carrying out procedures appropriate to a specific application, criteria and conditions.

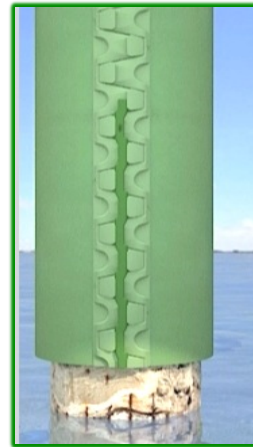
**Joinlox Pty Ltd** ABN: 97134229388 Head Office: 2/30 Walker Street, Tennyson, Qld 4105 Australia  
Ph: +61 7 3392 6172 Email: [info@joinlox.com](mailto:info@joinlox.com)

[www.joinlox.com/PileJax](http://www.joinlox.com/PileJax)

Rev 1.7



Step: 1 Place PileJax around pile



Step: 2 Insert 1<sup>st</sup> locking key and move one pitch until key reaches the stops



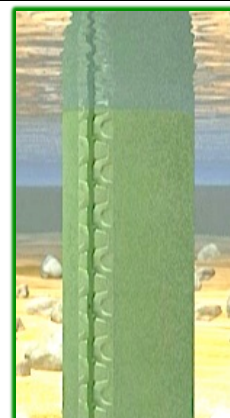
Step: 3 Insert 2<sup>nd</sup> key same as the 1<sup>st</sup> and continue procedure until all keys are fitted.



Step: 4 Connect hose and pump / plug.



Step 5: Grout filling inside PileJax



Step 6: Job is complete.