

ELCO ROCK FILLING FRAME & J - BINS

VISUAL INSPECTION CONDITION REPORT

Customer : \_\_\_\_\_

**CHECK :**    **OUT**      Date : \_\_\_\_\_                      **IN**      Date : \_\_\_\_\_

**STORE LOCATION :** \_\_\_\_\_

Item #	Number of items	Item name	Checked OUT	Checked IN	Remarks
1	1	Large rectangular base			
2	1	Hopper Column Support Post			
3	1	Feeder Hopper			
4		Protection Plate & 3 Bolts ( bolts stored in utility box )			
5	2	J-Bin attachments			
6	1	Utility Box			
7	1	Hose			
8	1	Clamp & Pulley System			
9	2	Circular Bag Clamps			

**Remarks :**

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**Dear Customer :**

- **On receipt of this equipment, please check all equipment has been received, ensure your site staff read and understand the operating, maintenance and safety information, and use the equipment in a safe manner.**
- **Responsibility for safe operation of the equipment and safety of your staff is to your care.**
- **At the conclusion of the use of the equipment, please clean the equipment, repack it for transportation and return to Maccaferri.**
- **Please advise if there are any missing parts. All equipment usage to be in accordance with Maccaferri's Hire Agreement. You will be charged for any damaged or missing components.**

**ELCO ROCK FILLING FRAME &**  
**J - BINS**

**WARNING !**

**Any alterations to this frame may prove dangerous to the operator and will be in breach of the Equipment Hire Agreement**

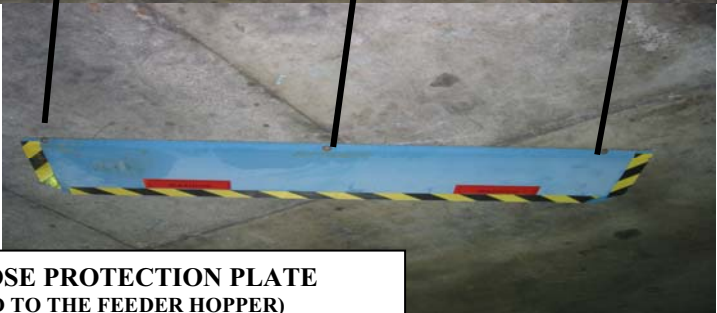
**Service must be performed only by an authorised Maccaferri service organisation.  
Please contact Maccaferri ( 0800 60 60 20 ) for return of this equipment for servicing if it is found to be faulty.**

***This documentation is also available on our website***  
***[www.maccaferri.co.nz](http://www.maccaferri.co.nz)***

## ELCOROCK FILLING FRAME & J - BINS



**FEEDER HOPPER**

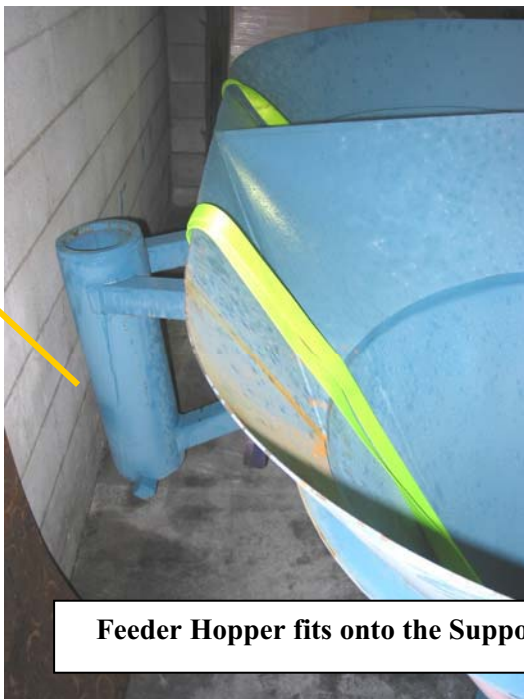


**HOPPER HOSE PROTECTION PLATE  
(ATTACHED TO THE FEEDER HOPPER)**

**HOPPER  
COLUMN &  
SUPPORT  
POST**

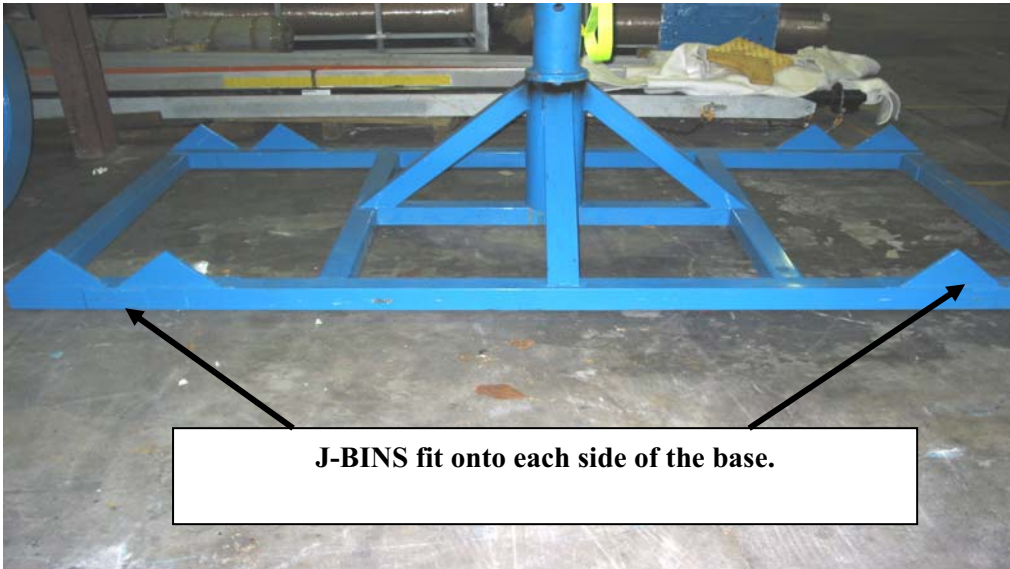


**Flange end fits  
into base.**



**Feeder Hopper fits onto the Support Post**

**J-BIN's Quick Hitch attachment, for easy lifting.**



**J-BINS fit onto each side of the base.**



**UTILITY BOX**



**Clamp & Pulley System for lifting ElcoRock containers. The other end is attached to the underside of Feeder Hopper.**



**2 x clamps to clip filling trunks of the ElcoRock bags to funnels.**



**Hose**



**3 x bolts for fitting the Protection Plate onto Feeder Hopper.**

## **ELCOMAX® ELCOROCK®**

### **Guidelines for Set Up and Filling of 5223RX / RP09 Containers ( 2.5 m<sup>3</sup> units ) using ELCOROCK Filling Frame & J – Bins.**

#### **INTRODUCTION**

These guidelines are intended to provide a clear understanding for the mechanical filling of ELCOMAX ELCOROCK containers. The principle is very straightforward, however observation of a few fundamentals can avoid on site frustration and enhance productivity.

#### **YOU WILL NEED :**

- ELCOMAX ELCOROCK containers ( sold by Maccaferri ).
- Free standing filling hopper complete with 2 J-Bin cradles ( hired by Maccaferri ).
- Backhoe or excavator with appropriate bucket size for sand delivery to hopper.
- 35 tonne excavator with suitable quick hitch attachment to match that of J – Bin system.
- 4” high pressure water supply.
- Compressor or generator pump and compatible hose for pumping water.

#### **SITE PREPARATION ( Contractor’s Care )**

Depending on the size of the project and number of units to be filled, planning of the site layout and logistics regarding filling and placement will enhance productivity and minimize the need for excessive handling or travelling.

Consideration must be given to natural influences such as tide and wave, wind and other site specific characteristics, i.e. other construction, public, equipment.

Many installations of ELCOROCK containers are constructed on comparatively soft subgrades such as beaches and riverbanks.

#### **FILLING AREA**

The filling area should be clear of debris and level. Failure to level the area if construction is on a slope or not having a stable base could result in the filling frame falling over.

#### **THE FILLING FRAME**

The filling frame consists of a large rectangular base with a centre upright, which holds the hopper system in place. Two filling / placement cradles are placed on either side of the base and the hopper system is moved in a 180 deg. Arc to fill the respective containers.

The filling frame also includes the water jetting fittings, which allows hydraulic compaction of the fill material within the container and helps prevent sand blockages and the adjustable clamps to hold the container in place during filling.

### FILLING

1. Assemble the filling frame and locate the filling frame in desired position ensuring it is level and stable.
2. Connect the water supply to the Feeder Hopper.
3. Ensure sufficient stockpile of sand is available for continued filling operation.
4. Remove one ELOROCK container from pallet and place in the J-Bin.
5. Attach clamps to top of container and lift using Clamp & Pulley System into position below the Hopper System.
6. Slide the filling trunks of the ELCOROCK over the Hopper System as far as it will go, i.e. the top edge of the bag should be within 25mm of the bottom of the Hopper.
7. Fix the adjustable clamps in place at the base of the Hopper System against the edge lip, the container should now hang with the base approximately 10 mm above the bottom of the J-Bin.
8. Turn on the water jets.
9. Begin to fill the container placing sand in alternate sides of the Hopper.
10. Ensure the container does not fold or crease during the placement of the first load of sand as this will reduce the fill volume in the container.
11. Fill the container with sand to within 150 mm of the top of the container.
12. Release the filling trunks from the Hopper System, roll them down and tie off using the polyester cord supplied with each bag, cover the holes on the trunks with silicon sealant.
13. Swing the hopper system over to the other J – Bin and repeat the process.
14. Push the rolled up filling trunks into the container and lace the opening using the polyester cord supplied, ensure a double reed knot is used to tie off the cord and cover knots with a generous layer of silicon sealant.
15. Lift the J – Bin out of the filling frame and place the container into the structure.

### PRODUCTION TARGETS

As with any repetitive process, the key to productivity is organization. An organised site, well laid out with a machine operator and two assistants will fill comfortably 3-4 bags per hour at a sustainable rate. We suggest that the contractor should allow for 6-hour production out of an 8 – hour working day to allow for down time such as replenishing the stockpile, refuelling and general repairs and maintenance to equipment.

### SAFETY

**The contractor is responsible for and must prepare its site safety plan that incorporates the safe use of the ELCOROCK filling frame and J-Bins and the safe handling and placement of the filled ElcoRock containers.**

**Complete daily checks to ensure that all mechanical components of the ELCOROCK Filling Frame & J-Bins are secure, including checks on bolted components, valves and load bearing items.**

## 2.5m<sup>3</sup> ELCORock<sup>®</sup> Filling and Placement sequence

Filling & placement apparatus transported to site



Apparatus assembled on site



Filling of containers



Moving the containers

Placement of containers



Completed Structure

