



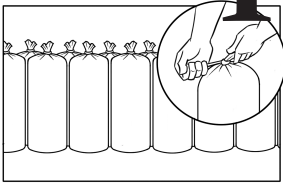
# FlexMSE™

## Vegetated Wall System

# INSTALLATION GUIDE

Consult local regulations, guidelines and permitting/engineering requirements prior to beginning a Flex MSE project

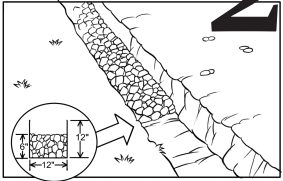
# 1



### FILLING & CLOSING FLEX MSE GTX BAGS

Fill the Flex MSE Bags with a mix of 70% clean granular soils and 30% high quality organic materials by volume. Clayey and silty granular soils are not recommended. Fill the Bags consistently to the top and seal them tightly with a minimum 50lb cable tie. Galvanized re-bar ties, sewing and hog rings are also acceptable.

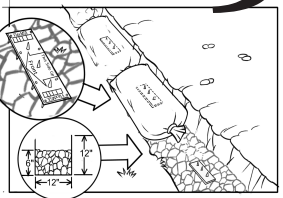
# 2



### PREPARATION

Dig a trench a minimum of 12 inches deep and 12" wide for the length of your Flex MSE structure. Add 6" of clean granular material to the trench for leveling. The purpose of the trench is to lock the base into place and protect the structure from being undermined by erosion. Taller or in-water structures may require deeper entrenchment, per a designing Engineer's specification. For high velocity water applications, armoring the base layers of Flex MSE Bags with appropriate hard material is considered best practice.

# 3

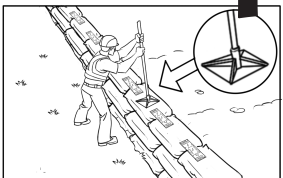


### PLACE FLEX MSE BAGS & INTERLOCKING PLATE AT BASE

Place the Flex MSE interlocking Plate on the ground below the first row of Bags for additional strength. Place the interlocking Plate so that you are reading the "This Side Up" label and the Plate's Arrow is pointing toward the front of your structure. Space the interlocking Plate so that it will lie centered under each Bag (approx. 30 inches apart).

Place the first row of Bags lengthwise in your trench, spacing them with no more than 1" between the Bags ends. Use a hand tamper or light compactor to compact the Bag into the open spaces and create a uniformly level course. **\*\*Do not overlap the Bags.**

# 4

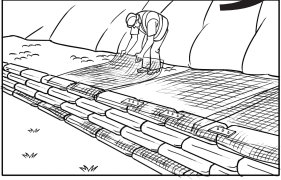


### PLACING SUBSEQUENT ROWS

Center a Flex MSE interlocking Plate over the joints of all Flex MSE Bags on each row. **\*\*Offset each new row of Bags in a "running bond" pattern over the previous row so that the interlocking Plates and Bag joints lie below the middle of Flex MSE Bag in each subsequent row.** After placing the Bag with the desired set-back, tamp or walk on top of Bags to lock them onto the interlocking Plate. The Bag face may shift forward with compaction so monitor your set-back as you build the structure. It is recommended to use a batter board or other method of measure to ensure that your angle is consistent.

Continued on back 

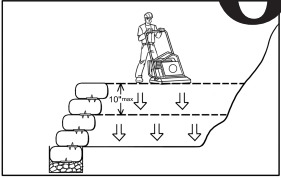
# 5



## Where required - **GEOGRID PLACEMENT**

Where soil reinforcement is needed place the specified lengths of appropriate Geogrid according to the manufacturer's instructions. **\*\*Orient the Geogrid in the correct direction of its strength.** Place the interlocking Plate over the Geogrid at the joints between the Flex MSE Bags. Pull the Geogrid snug, removing folds and wrinkles. Place the next layer of Bags as per Step 4 over the interlocking Plate and Geogrid. Walk on or compact the row to engage the Flex MSE Plate. Place backfill soil from the front face of the structure to the back of the fill zone; this technique keeps the Geogrid flat and tightly connected to the face.

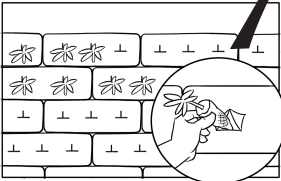
# 6



## **BACKFILLING & COMPACTING THE STRUCTURE**

Backfill and compact the fill materials after every two rows of Bags, or as specified. Structures with a more gentle angle may require partial backfilling every row to prevent Bags from slumping back. Compaction should be done on no more than 10" thick layers of fill. A vibrating plate compactor is typical. **\*\*The Clean poorly graded gravel fill zone typically used behind concrete units is not recommended for Flex MSE structures.** Vegetation will penetrate the Flex MSE Bag and grow into the backfill zone, further stabilizing the structure.

# 7



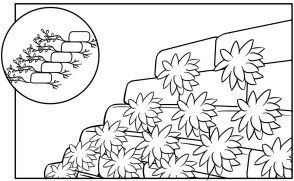
Live Planting

## **VEGETATION**

Vegetation can be installed during or upon completion of construction. Brush Layering and Live Staking are typically done as you build the wall. Live Planting and Hydroseeding are done upon completion. **\*\*Thoroughly saturate the structure prior to all methods of planting.**

When Live Planting the wall, make up to three small 3" by 3" plant pocket (↓) cuts in each Bag to insert up to a 4" plant plug. If combining Hydroseeding and Live Planting, it is best to apply seed first, and then add live plant materials.

Hydroseeding with an extreme slope hydromulch and low growing seed mix is a common method. Preseeding the bag mixture is not recommended as a primary method of vegetation. Vegetation choices are the owner's preference and should be discussed with local experts. Choosing grasses, small bushes and groundcover that are suitable for the local climate and exposure will decrease water needs and increase plant viability.



Live Staking/  
Brush Layering

# QUESTIONS?

## Call +44(0)161 980 1016

## or visit

## [www.gravitasint.com](http://www.gravitasint.com)