



# FLEXMSE®

**ANY SHAPE. ANY ANGLE.  
ANY ENVIRONMENT.**

For Erosion Control, Retaining  
Walls, Highways and Waterways

# SIMPLICITY, ADAPTABILITY, AND LONGEVITY

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Flex MSE is a Patented engineered solution for vegetated retaining walls and erosion control.

Flex MSE Bags and Interlocking Plates are used to build naturally resilient Geomodular structures.

A unique soft building material which exhibits hard material qualities, Flex MSE adapts to events that would ruin lesser systems, and only gets stronger and greener as time goes on.

Flex MSE is a Patented system which leverages Mechanically Stabilized Earth (MSE) principles along with geotextile technology to create strong and easy to install Geomodular block structures.



10m (33ft) tall municipal roadway



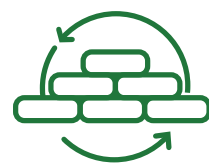
**Economical**

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**Eco friendly**

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**Permanent**

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**Aesthetically  
Pleasing**

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**75 Year  
Warranty**

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# BUILDING WITH FLEX MSE



Flex MSE is one of the easiest systems on the market to install, vegetate and maintain.

## Flex MSE Bags are:

- ✓ Filled with sand and organics
- ✓ An ideal 'planter block' for many types of vegetation
- ✓ Water and root permeable
- ✓ Flexible enough to create almost any contour or angle

## Flex MSE Plates are:

- ✓ Made from 100% recycled material
- ✓ Designed to bridge the gap between Bags to create an interlocking mechanical connection
- ✓ Engineered with Friction Strips for greater Bag to Bag mechanical connection and Geogrid hooks to connect to soil reinforcement



5m (16ft) tall landscape retaining wall

The Flex MSE Vegetated Wall system provides the strength of interlocking components without the need for concrete, rebar, wire mesh or other formwork.

# APPLICATIONS AND USES



**VEGETATED CULVERT  
HEADWALLS**



**RIVERBANK  
PROTECTION**



**HIGHWAY WALLS  
AND SLOPES**



**LANDSCAPING  
AND DEVELOPMENT**



## Civil Infrastructure

Slope Repairs (shallow and reinforced)  
Retaining Walls  
Highway Walls  
Bridge Abutments  
Noise Barriers  
Levees/Dikes



## Commercial and Residential

Large Landscaping Walls  
Garden Walls  
Site Levelling and Optimization  
Golf Courses and Parks



## Anywhere Land Meets Water

Culverts and Pump Stations  
Streambank Protection  
Riverbank Protection  
Coastal Protection  
Channel Linings  
Detention/Retention Ponds and Reservoirs  
Irrigation Canals, Ditches



## Emergency Use

Permanent Flood Protection Walls  
Wind and Storm Protection Walls  
Blast Walls and Bunkers

# FLEX MSE ADVANTAGES

1

## Flex MSE cuts installation times.

Flex MSE walls install in  $\frac{2}{3}$  to  $\frac{1}{2}$  of the time of conventional walls.

2

## Flex MSE is lightweight and easy to transport.

93m<sup>2</sup> (1000ft<sup>2</sup>) of unfilled Flex MSE ships on a single pallet.

3

## Flex MSE is cost effective.

The all-in costs for a Flex MSE wall are generally 40-50% less than other systems. Savings in machine, labor, material and transportation costs make Flex MSE an obvious choice for helping generate project cost savings.

6

## Longevity

With Flex MSE's 120 year design life and 75 year warranty, lifetime costs can be  $\frac{1}{4}$  of conventional systems.

5

## Flex MSE is ideal for a wide variety of applications.

Flex MSE works seamlessly with utilities and landforms and integrates perfectly with other building materials and systems.

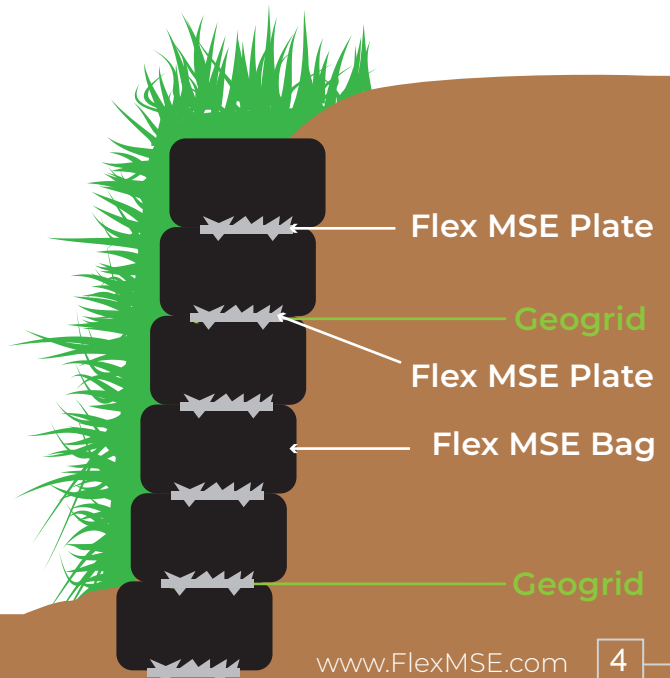
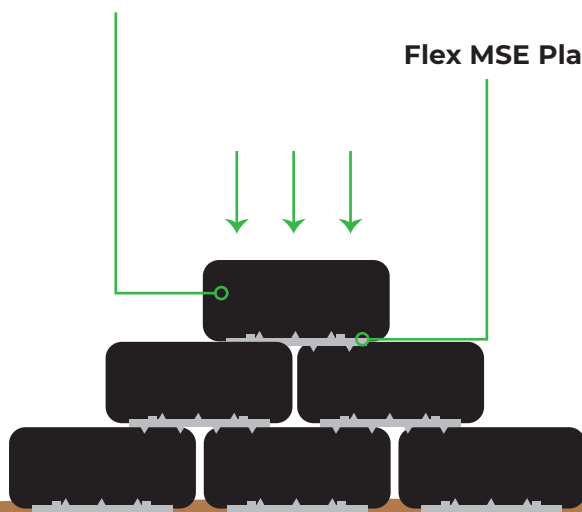
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## Flex MSE walls are easy to construct.

DIY'ers to professional contractors can install Flex MSE using our simple installation methods.

Flex MSE Bag

Flex MSE Plate



# INSTALLATION AND VEGETATION

## INSTALLATION

- Place Flex MSE Plates 760mm (30") apart in a shallow, relatively level trench.
- Center a Flex MSE Bag on top of each Plate, laid end to end.
- Place a single Flex MSE Plate over each Bag joint, in a 1:1 ratio.
- Lay each row of Bags squarely over the Flex MSE Plates, creating an offset 'running bond' pattern. Plates should be completely covered.
- Tamp or lightly compact the Bags to create a level course.
- Place and compact backfill every two courses or as required.
- Repeat this process until the desired height is reached, adding reinforcement as required.
- When using Geogrid, the Flex MSE Plate's Patented Grid Hooks secure geogrid at the select layers.

## VEGETATION

- A key advantage of Flex MSE is its ability to accept almost all types of vegetation over 100% of the face.
- Vegetation can include grasses, ground covers, flowers, vines, and small shrubs.
- Hydroseeding, live planting and live staking are examples of vegetation methods that work well with the Flex MSE system.



5m (16ft) tall commercial retaining wall

# FLEX MSE SYSTEM

## COMPONENT SPECIFICATION

### FLEX MSE PLATE

Flex MSE Interlocking Plates provide a positive mechanical connection between the Flex MSE Bags, effectively interlocking each and every Bag into one solid Unit. The Flex MSE Plate incorporates our Patented Friction Strips and two Geogrid Hooks per Plate.

#### Dimensions:

Height	42mm (1.65")
Length	285mm (11.22")
Width	99mm (3.90")
Spikes	11
Hooks	2
Weight	63g (2.2oz)



### FLEX MSE BAG

Flex MSE Geomodular Bags provide the ideal planter block for permanent vegetation. These Bags have a filtering functionality to prevent soil particle seepage while permitting water and roots to pass.

#### Dimensions:

##### Unfilled:

Width	380mm (15")
Length	890mm (35")

##### Filled:

Width	300mm (12")
Length	760mm (30")
Height	140mm (5.5")



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Front cover: 5m (16ft) tall terraced residential slope

Back cover: 3m (10ft) tall, 500m (1,640ft) long residential wall