



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

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

Flex MSE GTX Bags and Interlocking Plates are used to build naturally resilient geomodular structures, viable for horizontal to near-vertical installations.

APPLICATIONS AND USES

- Slope Repairs (shallow and reinforced)
- Retaining Walls
- Highway Walls
- Bridge Abutments
- Noise Barriers
- Levees/ Dikes
- Permanent Flood Protection Walls
- Blast Walls and Bunkers
- Culverts and Pump Stations
- River and Stream Bank Protection
- Coastal Protection
- Channel Linings
- Detention/ Retention Ponds and Reservoirs
- Irrigation Canals & Ditches
- Site Levelling and Optimisation
- Land Profiling
- Ha-has and Deer Leap Platforms

ADVANTAGES & DESIGNATIONS

- Installs in 2/3 the time compared to traditional systems
- Flex MSE is lightweight and easy to transport
- Typically 60% of the cost of traditional systems
- ASTM-rated design life of 120 years
- 75-year manufacturer's warranty
- Flex MSE walls are easy to construct & maintain
- BREEAM compatible
- BBA Stage 3 attained
- Recommended for SSSIs by the Environment Agency

VEGETATION

Flex MSE accepts almost all types of vegetation over 100% of the face. Installations can be hydroseeded, live planted or brush-layered.



10m (33ft) tall municipal roadway

TESTING

Weight (typical) ASTM D5261	=128.8 g/m ²
Grab Tensile ASTM D4632	= 401 N
Grab Elongation ASTM D4632	= 50%
Trap Tear ASTM D4533	= 178 N
CBR Puncture ASTM D6241	= 1113N
Mullen Burst ASTM D6786 (modified to ASTM D6241)	
A.O.S. ASTM D4751	= 0.25mm
Permittivity ASTM D4491	= 2.00 SEC-1
Water Flow ASTM D4491	= 5907 l/min/m ²
UV Resistance ASTM D4355	= 70%
IPIRP ASTM D256	= 1.07J/cm





FLEX MSE® PLATE

Made from 100% recycled material.

Designed to bridge the gap between GTX Bags to create an interlocking mechanical connection.

Engineered with Friction Strips for greater bag to bag mechanical connection and Geogrid Hooks to connect to reinforcement systems.



PLATE DIMENSIONS

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

FLEX MSE® GTX BAG

An ideal 'planter block' for many types of vegetation.

Bags have filtering functionality to prevent soil particle seepage while permitting water and root permeability.

Flexible enough to create almost any contour or angle.



BAG DIMENSIONS Unfilled:

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

Filled (optimum):

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

INSTALLATION

Place Flex MSE Plates 760mm (30") apart in a shallow, relatively level trench.

Centre a Flex MSE GTX Bag on top of each Plate, laid end to end (subject to design).

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.

