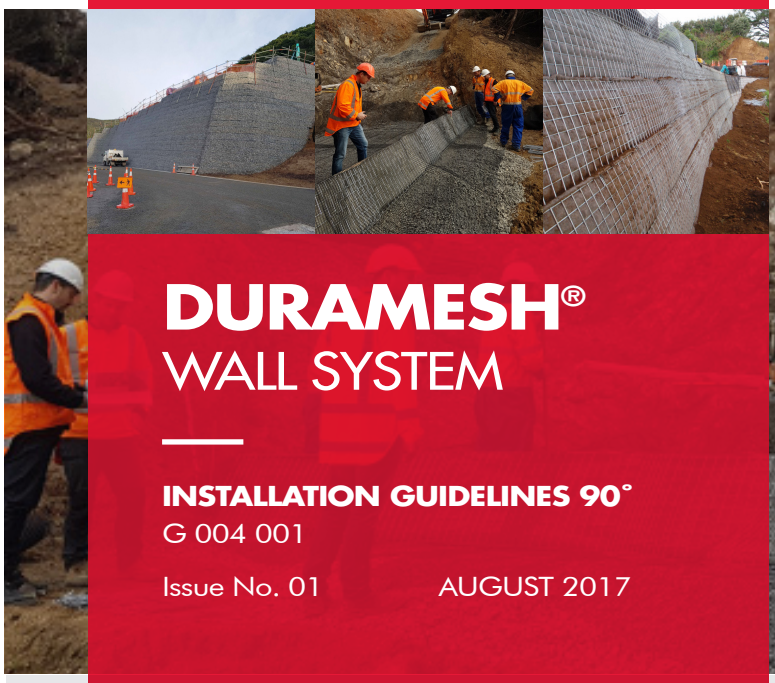

DURAMESH®
WALL SYSTEM

INSTALLATION GUIDELINES 90°
G 004 001

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THESE INSTRUCTIONS ARE GENERAL AND THE INSTRUCTIONS OF THE PROJECT ENGINEER MAY OVERRIDE THESE INSTRUCTIONS.

The contractor must have an understanding of the following key concepts relating to reinforced soil construction prior to the commencement of any construction:

- Drainage is of utmost importance. All drainage works shall be carried out as per contract drawings. Surface water shall be diverted away from the reinforced zone, and a collector system shall be installed for ground water seepage from the retained zone.
- Geogrid placement, spacing and orientation are critical. Geogrid shall be of the grade specified in the contract documents, and shall be laid with the main strength direction running from the face of the wall to the back.
- Compaction of the subgrade and each reinforced layer shall meet the compaction requirements (e.g. MDD). The project engineer will require regular testing as set out in the project specification.
- Vertical MSE walls are generally not suitable for vegetation growth and therefore require extra facing protection.

1. Prepare the foundation per the construction plans and specifications. Install the levelling pad (when required), place and compact granular soil as required by the specifications and/or construction plans to achieve starting level. Drainage system shall be constructed as per design. If cutting is involved, be sure to excavate to the required geogrid embedment length which is typically measured from the face of the reinforced soil structure to the cut face.

2. Place DuraMesh® panels at the proper elevation and station. Butt the panels together and hog ring or lace with wire to maintain proper alignment during the construction. Lay Cirtex® DuraForce® AS410 geotextile (as per drawings) up the inside of the DuraMesh® panel and clip top and bottom.

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3 Place the Cirtex® geogrid at the elevations shown on the drawings (typically at DuraMesh® panel interfaces). Before unrolling geogrid, verify required length and placement location. The geogrid (continuous in roll direction) shall be placed perpendicular to the wall face and should extend from the back of the wall horizontally to the face then up the lift height and hang over the face a minimum of 1.5m. Geogrid may be cut using a razor knife, scissors, sharp knife or other cutting tool. Care should be taken to avoid injury while cutting the geogrid. Where required, adjacent sections of geogrid may butt each other at the face of the structure or overlap up to 300mm.

4 Attach the support struts, 5 large and 5 small, to each panel once the facing wrap components and geogrid are in place. It may be necessary to cut through the facing wrap to attach the struts to the panels. The reinforced soil can be placed when the struts are installed.

5 Place and properly compact reinforced soil over the geogrid as required by the construction drawings or specifications, and clause 6 of this document. Staking may be required to keep the geogrid taut and free from wrinkles during the placement of reinforced soil. Do not drive construction equipment directly on geogrid. Place a minimum of 150mm of reinforced soil over the geogrid before the traveling of vehicles or heavy compaction equipment. Reinforced soils shall be as per the project specifications, and should be granular, well graded and free from organic materials. Maximum particle size will be specified by the designer in the project specifications.

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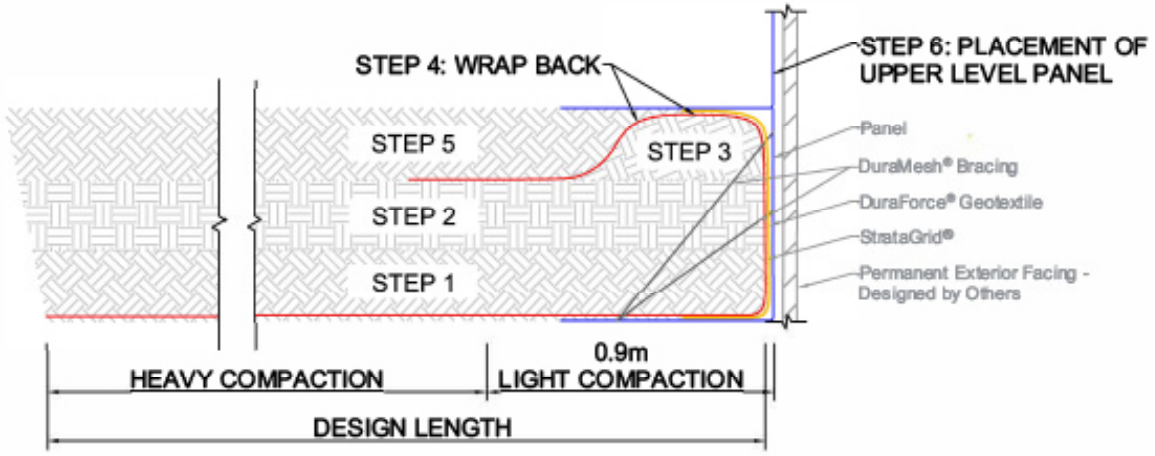
6 Compacted reinforced soil shall be level along the full length of the geogrid embedment. In no case shall the grade slope towards the front face of the structure. A maximum 2% grade falling away from the front face of the structure is acceptable. Make sure to place and compact the reinforced soil as specified in the specifications or construction plans. Soil shall be compacted to a minimum 95% Standard Proctor density in 200mm lifts, or as required by the specifications or construction plans, whichever is more stringent. Light compaction equipment shall be used at the face zone (0.9m of the wall face). Smaller lifts may be required to achieve the required compaction at the face zone. Heavier compaction machinery with a weight of up to 2500 kg/m and smooth rollers may be used away from the face zone. Sheep's foot rollers must not be used.



7 Once the backfill elevation at the face has reached 600mm compacted depth, pull the facing wrap from the front of the panel back over the compacted soil. Pull the facing wrap taut. It may be necessary to stake or pin the wrap to keep it taut while backfilling. Continue the construction sequence by placing another row of DuraMesh® panels and repeating the construction steps (refer to the figure above for correct placement).

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