



MGS Installation Guidelines

The following guideline is provided to assist in the installation of Concast Modular Ground Sleeves. Please read through the guideline in its entirety before beginning the installation.

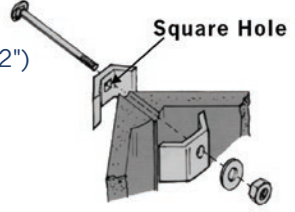
Concast provides you with CAD generated MGS Unit PDF drawings of each unit. Review all drawings before beginning installation, as they will aid in the location and depth of excavation.

Concast MGS Unit basic components:

- MGS Unit Base Sleeves (4)
- MGS cover (optional)
- Corner Clamp Hardware (8 sets)
- Hold-Down C-Clamps (4 sets)

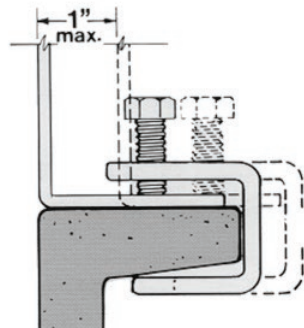
One Corner Clamp Includes:

- 1 Carriage Bolt (5/16" Dia. x 4-1/2")
- 1 Outside Corner Clamp
- 1 Inside Corner Clamp
- 1 Washer
- 1 Hex. Nut (5/16 inch Dia.)



Excavation Limits and Requirements: Excavation shall be to a depth that permits preparation of a foundation as specified; the installation of the MGS Unit unit at the prescribed line and grade. The width and length of the excavation hole shall be sufficient to permit the entire bottom surface of the MGS Unit sleeve to be set level, and then the backfill to be placed and compacted as specified.

Excavation shall be extended below the bottom of the structure grade as necessary to accommodate any required granular bedding material. When rock or unsuitable foundation material is encountered at the established grade, additional materials are to be removed as specified or as directed by the soil engineer to ensure an acceptable foundation.



One Hold Down Clamp Includes:

- 1 C-CLAMP
- 1 Hex. Bolt (3/8" Dia. x 1")

All excavations for MGS Units below grade shall be to a minimum width equal to the overall MGS Unit unit dimensions plus 6 inches. Excavation widths shall include at least three inches of clearance on each side of the modular ground sleeve unit.

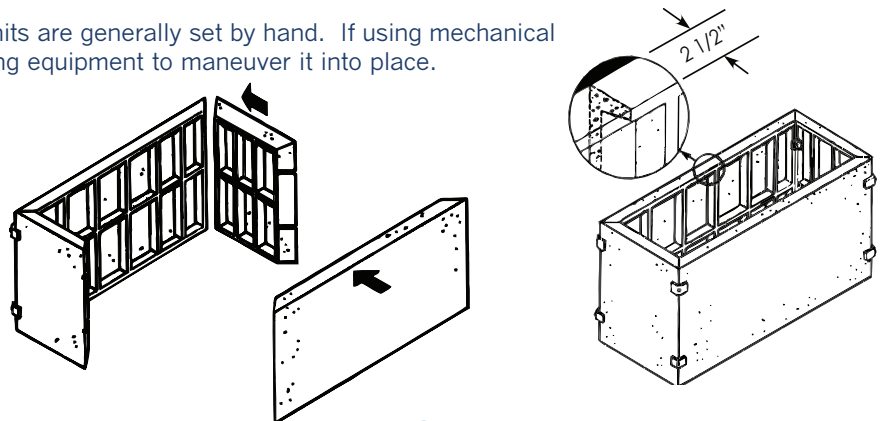
Modular Ground Sleeve Bedding: All bedding materials shall be carefully compacted into place. Bedding requirements shall include mechanical compaction of sand and gravel material when specified. A 6 inch granular base of compacted crushed rock or granular materials; at which 100% passes a 3/8 inch sieve; and a maximum of 5% passes a number 10 sieve, shall be placed on compacted sub grade under the proposed MGS Unit unit. The sub grade shall be compacted as directed by the soils engineer.

When the bottom of the excavation is soft, or where the soils engineer feels that unsatisfactory foundation conditions exist, the contractor shall over-excavate to a depth that ensures a proper foundation as directed by the soils engineer. The excavation can then be brought back up to the prescribed MGS Unit grade with a thoroughly compacted granular material.

It shall be the contractor's responsibility to notify the owner and soils engineer of changing soil conditions which may be of poor bearing capacity, and also when organic soils are encountered. Where MGS Unit unites are placed on unstable soils without notification, the contractor shall be solely responsible for all corrections of the installation without further compensation.

Placing of the MGS Unit: Modular Ground Sleeve units are generally set by hand. If using mechanical equipment to set an MGS unit, then use suitable hoisting equipment to maneuver it into place.

Modular Ground Sleeves have a top and a bottom surface. The top side is flat and the bottom side has a slight draft. An up arrow is located on the inside of each panel to identify the correct orientation. To ensure that the unit is installed correctly, please follow the directions below.

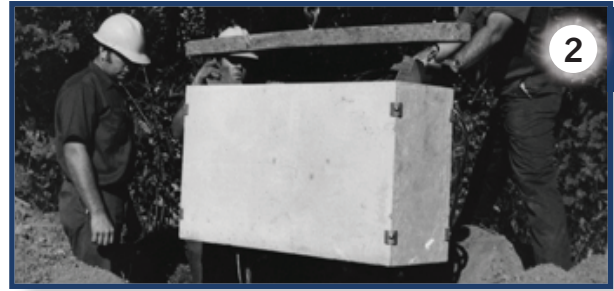


Fibercrete® Modular Ground Sleeves

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Align two of the side panels in the correct upright position. Inside surface of panels are marked with an upward arrow. Ensure that the interlocking corners are properly mated. Bolt the corner together using the provided hardware. Copy this step in all 4 corners.



If the ground sleeve is not assembled in the excavated hole, it's placement can be done in one of two ways. Small lightweight units can be placed by hand. Larger units may need hoisting equipment.



Once the ground sleeve is in the desired location, check to ensure that the unit is level, and that the entire bottom flange is supported equally. Then backfill the hole to the desired grade level.



Center the electrical equipment onto the ground sleeve. Using the provided hold-down C-Clamps, attach the equipment to the top flange of the ground sleeve.

Modular Ground Sleeve Backfilling Operations: All MGS Unit excavations shall be backfilled to restore pre-existing conditions, or to the final grade as specified by the owner. Backfill material shall be a granular type as required by the soils engineer, and shall be reasonably free of foreign materials, rubbish, debris, etc. Frozen clumps, oversized stone, rock, concrete, bituminous chunks, or other unsuitable materials may prevent a thorough compaction or increase the risk of after settlement. Backfill shall be placed to the desired grade height, but shall not cover the top surface of the MGS Unit unit.

Compaction of the materials within the encasement zones of the MGS Unit unit shall be achieved by hand or through the use of light equipment only. The use of roller type compaction equipment and heavy construction equipment should be avoided. Use of heavy equipment to compact backfill may cause damage to the MGS Unit sleeve. Any damage to the MGS Unit unit as a result of improper compaction methods will be the responsibility of the contractor.

Restoration of Surface Improvements and Final Acceptance: Whenever any surface improvements such as pavement, curbing, pedestrian walks, fencing, or turfing have been removed, damaged, or otherwise disturbed by the contractor's operations; they shall be repaired or replaced to the pre-existing condition. The repairs are to meet the owner's satisfaction.

Until the final acceptance of the project, the contractor will assume full responsibility and expense for all backfill settlement. The contractor shall refill and restore the work as directed to maintain an acceptable surface condition.

All additional materials required shall be furnished without additional cost to the owner.



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