

Terminus™ CEN End Terminal

Test Procedure for Soil Plate Modification/Removal
(for Driven Post Installations only)



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Terminus™ CEN Soil Plate Modification/Removal Test

Introduction

The Terminus™ CEN End Terminal was specifically designed to utilize a soil plate on the lower head post for all systems installed via the driven post option. The system performs optimally using this configuration (as detailed in the "*Terminus CEN Production/Installation Manual*") so every effort must be made to install the system as originally designed.

Rare instances exist where the installation site will not permit the use of the standard soil plate (e.g. installations in rocky foundations). The purpose of this document is to detail a test procedure to allow for variations of the soil plate installation if certain test conditions are met. These variations include changing the shape of the soil plate or possibly removing the soil plate altogether.

Terminus™ CEN Soil Plate Modification/Removal Test

Head Post Anchorage Test

1. Head post anchorage testing shall be carried out on a sacrificial lower post. Upon completion of the testing, the test unit must be removed.
2. Find a suitable location for the installation of the test posts that will match the conditions at the actual installation site. Install the lower head post according to the "*Terminus CEN Production/Installation Manual*", except with the modified (or removed) soil plate (See Figure 1). Note that when fastening the upper post to the lower post, only one nut is required for this test.

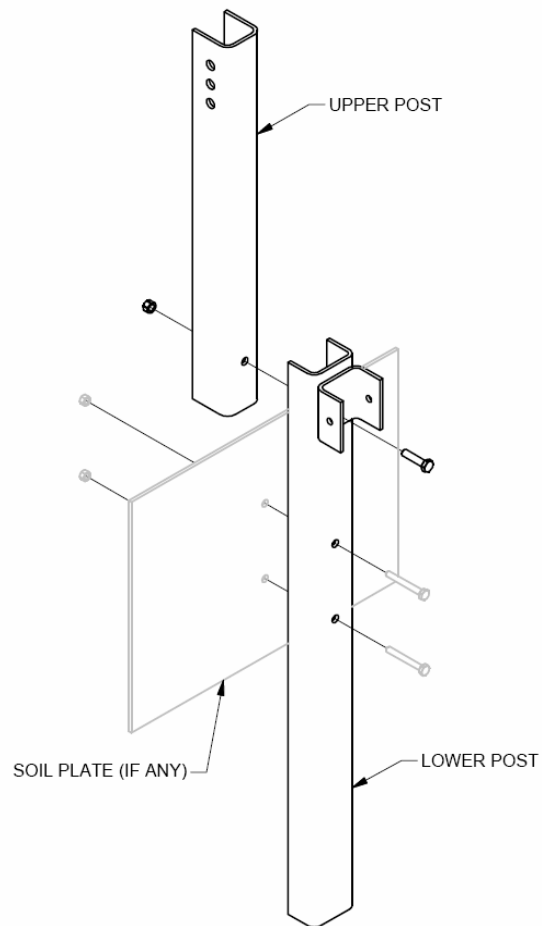


Figure 1

Terminus™ CEN Soil Plate Modification/Removal Test

Head Post Anchorage Test (cont'd)

3. A 13,500 N horizontal load shall be applied to the lower post as detailed in Figure 2 by means of a hydraulic ram with a calibrated load cell. The load is to be applied to the lower post in the area where the bolt fastens the upper and lower posts together. [Refer to Figures 2 and 3]

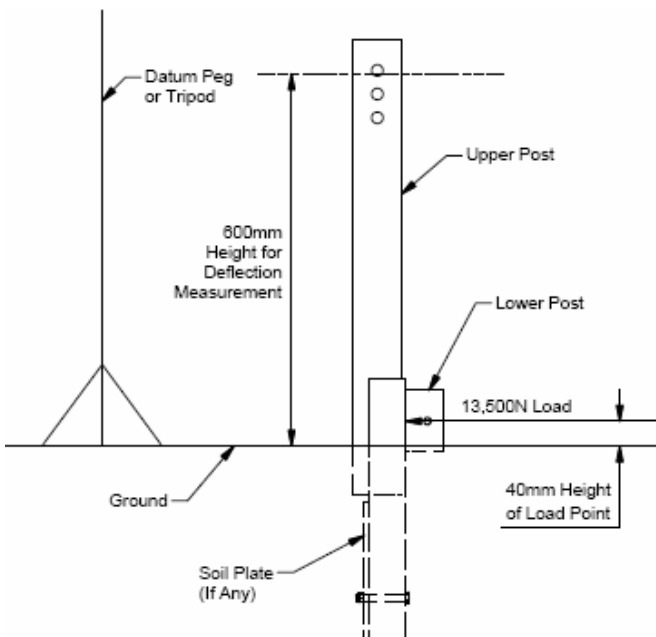


Figure 2

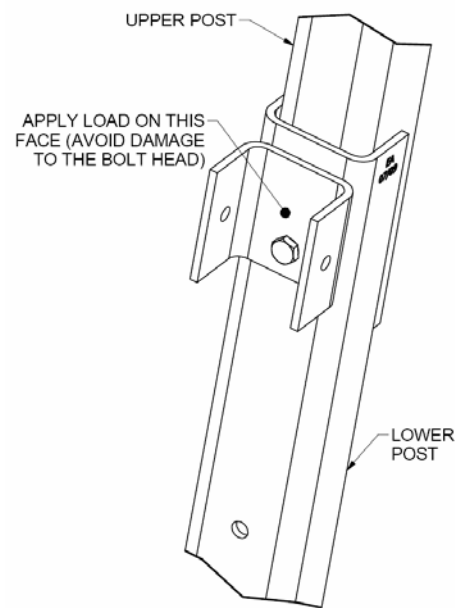


Figure 3

4. The load shall be applied by pushing on the post. The hydraulic ram must be supported against a rigid/non-moving part of the work vehicle or any other object that will not move with the loads subjected during the test. The area in front (i.e. load side) of the post can be excavated to allow space for the hydraulic ram. The area behind the post must be at the correct level.
5. A datum peg is to be driven into the ground in line with the post and the center line of the hydraulic ram with a height approximately equal to that of the test post (a simple tripod can be constructed for this purpose). [Refer to Figure 2]

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Head Post Anchorage Test (cont'd)

6. The load of 13,500 N is to be applied and the deflection of the post in reference to the datum peg is to be measured (when the load is applied) and recorded within ± 1 mm. The deflection of the post should be measured 600 mm above the ground level. [Refer to Figure 2]
7. If the measured deflection does not exceed 50 mm (see Figure 2), the installation with the modified (or removed) soil plate is considered acceptable.

If the measured deflection exceeds 50 mm, the installation is considered unacceptable. This test may be repeated with a larger soil plate. Alternatively, a concrete socketed unit may be at this location without testing (Note that a concrete socketed unit does not require a soil plate). Please contact Energy Absorption System Customer Service to discuss further options.

Terminus™ CEN Soil Plate Modification/Removal Test

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