APPLICATIONS

The self-boring pressuremeter system is used for the in situ measurement of mechanical properties of fine soils. It utilizes a standard N size monocellular TEXAM probe which bores its way into place through fine soils.

DESCRIPTION

The BOREMAC is comprised of:

Desintegrator module
This module is at the base of the probe and consists of a cutting shoe and a cutting tool. The position of the cutting tool is adjustable with respect to the leading edge of the shoe.

Probe module
A standard N-size TEXAM monocellular probe with modified outer metallic rings and jam nuts.

Probe-to-outer-rod adapter
This adapter is used to link the probe with the outer rod string and contains 4 large openings to allow the return of the drilling fluid and cuttings to the surface.

The tubing
A high-pressure single conduit fitted with a shut-off quick connect to keep the probe and tubing saturated.

FEATURES

- Allows limiting soil disturbance
- Compatible with the TEXAM control unit
- Rugged construction
TEST PROCEDURE

A drill rig must be used for providing the insertion force required to push the probe into place, for providing the hydraulic force driving the cutting tools, and for injecting drilling fluid. As material enters the cutting shoe, it is broken up by the cutter and brought up to the surface with the drilling fluid in the annular space formed by the outer rod and the borehole walls. When the probe reaches the test depth, the self-boring operation is stopped and the pressuremeter test is carried out, after which the descent of the probe is resumed. Lengths of inner and outer rods are added as needed. Should a layer of gravel have to be traversed or tested, conventional drilling techniques are used to advance the hole. The test can be carried out using self-boring probe assembly in the pre-drilled hole.

ACCESSORIES

- Rods-to-drill-rig adapter

ORDERING INFORMATION

Please specify:

- Tubing length
- Accessories

### SPECIFICATIONS

#### PROBE

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Diameter (deflated)</td>
<td>73 mm</td>
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<tr>
<td>Overall length</td>
<td>180 cm</td>
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<tr>
<td>Maximum working pressure in the self-boring mode</td>
<td>4000 kPa</td>
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<tr>
<td>Weight</td>
<td>17 kg</td>
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#### CUTTING TOOL REQUIREMENTS

Supply requirements for the hydraulic motor: 19 l/m (5 gpm) at 17500 kPa

Cutter rotation: 50 to 200 rpm

Drilling fluid requirements: 2 to 5 gpm at 700 kPa (water or drilling mud)

#### RODS

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Outer rods OD</td>
<td>46 mm (1 13/16&quot;)</td>
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<tr>
<td>Outer rods ID</td>
<td>38 mm (1 1/2&quot;)</td>
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<tr>
<td>Inner rods OD</td>
<td>12.6 mm (1/2&quot;)</td>
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<tr>
<td>Inner rods ID</td>
<td>6.3 mm (1/4&quot;)</td>
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<tr>
<td>Maximum driving force</td>
<td>4 tons</td>
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