

# SELF-BORING PRESSUREMETER

## MODEL BOREMAC



### 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

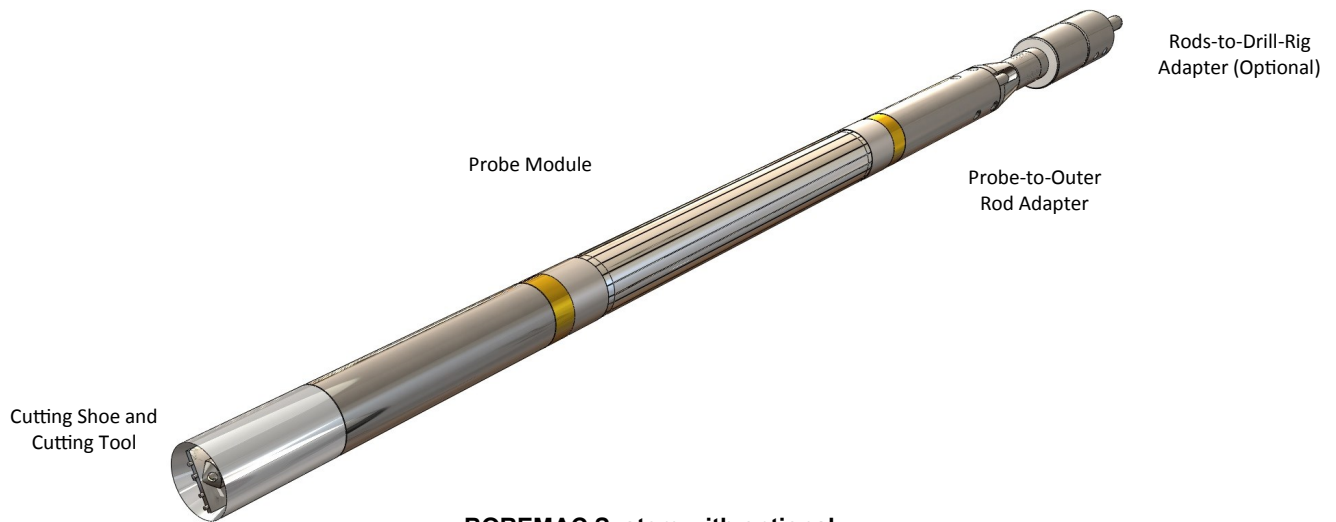
A high-pressure single conduit fitted with a shut-off quick connect to keep the probe and tubing saturated.

### FEATURES

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



Model BOREMAC Self-Boring  
Pressuremeter System



**BOREMAC System with optional  
Rods-to-drill-rig adapter**

## 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

Diameter (deflated)	73 mm
Overall length	180 cm
Maximum working pressure in the self-boring mode	4000 kPa
Weight	17 kg

### 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

Outer rods OD	46 mm (1 13/16")
Outer rods ID	38 mm (1 1/2")
Inner rods OD	12.6 mm (1/2")
Inner rods ID	6.3 mm (1/4")
Maximum driving force	4 tons