

FILED SHEAR VANE BORER H-10

Presentation

Two vane size. Measurement range from 0 to 60kPa and 0 to 100kPa. Top-level accuracy results, can be used for the design of heart fill foundations and embankments.

Detailed field investigation of undrained shear strength and sensitivity of soft and medium stiff clays.

From 0 to 30 meters by hand jack, even through hard layers of clay, sand or silt.

Meet the ASTM standard.

The field vane shear test (FVST) is the most widely used method for measuring the undrained shear strength and sensitivity of soft clays in-situ. FVST is a more economic method than for example CPT, as its operation does not require a drilling rig of highly qualified personnel.



Some criteria have nevertheless to be respected if the chosen FVST equipment is to be used as a professional detailed investigation instrument :

- The instrument should allow direct penetration boring, in order to avoid inaccuracy due to rod-clay friction.
- The vane itself must be protected against any bending due to stones or harder layers of soil. Vane Borer H-10 is a fully protected, pressure push-in, field vane instrument. No rod-soil friction is possible due to its tube-protected rods. No need either to check the vane, nor to clean it between each shearing (clay adhering to the vane may increase its area ratio considerably) :

The protection shoe of the Vane Borer H-10 not only protects the vane but also cleans it automatically before each measurement. The shoe is particularly useful for testing in stratified, sandy, stony, and marine sediment clays.

Technical Characteristics : H-10 field shear vane borer

Installation :

Pressure push-in hammering. By hand with the vane borer ground-anchored jacking system or with a hydraulic drilling rig.

Instrument : Gear driven, accuracy of torque reading : + - 0.5% of range.

Measurement range : From 0-60kPa (0-6 T/m²) and 0-100 kPa (0-10 T/m²)

Lower part :

Total length with the vane extended :	1 430 mm
Max outer diameter :	77 mm
Weight :	15 kg
Two different sizes of vanes :	55 x 110 mm et 65 x 130 mm

Instrument :

Max outer diameter :	350 mm
Weight including instrument box:	16 kg

Vane Borer H-10 complete for 30m depth, consists mainly of :

- Readout instrument complete
- Vane borer tower part with vanes
- Set of spare vanes and protection tube
- 30 extension tubes and rods
- Steel transport case
- Preboring equipment complete (in option)
- Complete insertion/extraction with rack, jack, ball cone clamp, anchoring, screws, etc. (in option)
- Additional transport case for each option (in option)