

Geonor H-10 Field Shear Vane Borer



FEATURES:

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

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 or 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.

The Geonor 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 Geonor 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: GEONOR H-10 FIELD SHEAR VANE BORER

Installation: Pressure push-in, no hammering. By hand with the Geonor ground-anchored jacking system or with a hydraulic drilling rig.

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

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

Lower part:

Total length with the vane extended: 1430 mm

Max outer diameter: 77 mm

Weight: 15 kg

Two different sizes of vanes: 55 mm x 110 mm and 65 mm x 130 mm

Instrument:

Max outer diameter 320 mm

Weight including instrument box 16 kg

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

- Readout instrument complete
- Vane borer lower part with vanes
- Set of spare vanes and protection tube
- 30 extension tubes and rods
- Preboring equipment complete
- Complete insertion/extraction with rack jack, ball cone clamp, anchoring screws etc.
- Steel transport cases.