

# Geonor H-70 Field Inspection Vane Tester



## FEATURES:

- Preliminary field investigation of undrained shear strength of soft to medium stiff clays
- Better evaluation of rod-soil frictions with the Geonor 180 degrees slip-coupling system
- Direct penetration to 10 meters, without need for preboring
- Two vane sizes. Measurement range from 0 to 80 kPa and 0 to 160 kPa

The field vane shear test (FVST) is the most widely used method for measuring the undrained shear strength of soft to medium stiff clays in-situ. For this reason, a preliminary testing of soft clays with an inspection vane is both economic and fully relevant. It also has good repeatability and is quick in providing valuable information for the planning of more detailed surveys.

Some criteria have nevertheless to be respected in order to obtain reliable results from a preliminary FVST;

- The vane tester should allow direct penetration from ground level, in order to avoid soil disturbances due to boreholes and casings.
- The friction between rods and soil (which invariably occurs below 3 m depths) should be

taken into account. This is a major cause of over-estimations of undrained shear strength.

- The vane itself must be able to withstand the tough conditions met during operation at such depths.

The Geonor H-70 field inspection vane tester was originally developed in Norway for the special task of preliminary investigations in soft clays without preboring. It is a comparatively low-cost, still fully professional instrument. The Geonor H-70 allows for safe vane boring down to 10 meters by simple hammering, drilling or pressing. It is a lightweight instrument that can be carried by a single person. But most of all, its unique 180 degrees "anti-friction" slip coupling system always ascertains the real friction between rods and soil. The vane itself is made of a high-quality stainless steel.

**TECHNICAL CHARACTERISTICS:  
GEONOR H-70 FIELD INSPECTION VANE TESTER**

Installation: sledge hammer, portable rock drill or pressed down

Instrument accuracy: +/- 3% of full range

Two sizes of vanes: range of measurement from 0 to 80 kPa (0–8 T/m<sup>2</sup>) and 0 to 160 kPa (0–16 T/m<sup>2</sup>)

Quantity	Part No.	Description
	21500	Vane tester complete for 10m depth:
10	10200	Extension rod, 25 x 1000 m
10	10500	Connection piece, M18 x 1.5
1	10900	Drive head, hexagonal, 24mm, M18
2	12200	Spanner for extension rods
1	21501	Instrument for field inspection vane
1	21502	Adaptor, hexagonal, 24mm
1	21503	Lower part for field inspection vane
1	21504	Vane, 60 x 120 mm: 0-160 kPa
1	21505	Vane, 75.8 x 151.5 mm: 0-80 kPa
1	14600	Extractor for Ø 22 & 25 mm extension rods
1	15100	Ball cone clamp, 21-28 mm
1	19000	Crow bar
1	19100	Transport case, steel