
**Geotechnical investigation and
testing — Field testing —**

**Part 9:
Field vane test (FVT and FVT-F)**

Reconnaissance et essais géotechniques — Essais en place —

Partie 9: Essai au scissomètre de chantier

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Introduction

The field vane test is used to determine the vane shear strength of soils in the undrained condition, by insertion of a rectangular vane into fine-grained soil and rotating it. During the rotation, the torque and rotation can be measured, depending on the test configuration. From the measured torque and the dimensions of the vane, the peak shear strength, an indication of post-peak behaviour, and the remoulded shear strength can be derived by a limit equilibrium analysis. Soil sensitivity can be ascertained if peak and remoulded shear strengths have been determined.

The tests are carried out in boreholes, in trial pits and with pushed-in equipment. The torque and rotation are measured either above the ground surface using extension rods, or directly above the vane.

The field vane test is mainly applicable to saturated fine-grained soil. The vane shear strength determined by the test is commonly corrected before geotechnical analysis, using factors based on local experience.

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