

Vane Shear Testing (VST)

Gregg Drilling & Testing, Inc. uses a Geonor H-10 vane to evaluate the in-place un-drained shear strength (s_{uv}) of soft to stiff clays & silts. An appropriate sized vane is selected based on the anticipated peak undrained shear strength for the soils encountered at the site. A small vane is typically used for stiff soils, whereas the large vane is required in softer soils.

The vane is advanced to the test depth by pushing on small diameter vane rods. Once the vane rods and the vane reach the test depth the torque recording head is placed over and locked to the vane rod string. The vane rods are then loaded using the torque recording head until yielding of the surrounding soil occurred. Once yielding occurs, rotation of the vane is continued in order to characterize the soil's post yielding shear resistance, *Figure VST*. The vane is then released from the recording head and is rotated clockwise twenty times with a pipe wrench to completely remold the soil. Once the soil is remolded, the torque recorder is again locked onto the vane rods. The vane is then rotated to record the remolded strength of the soil.

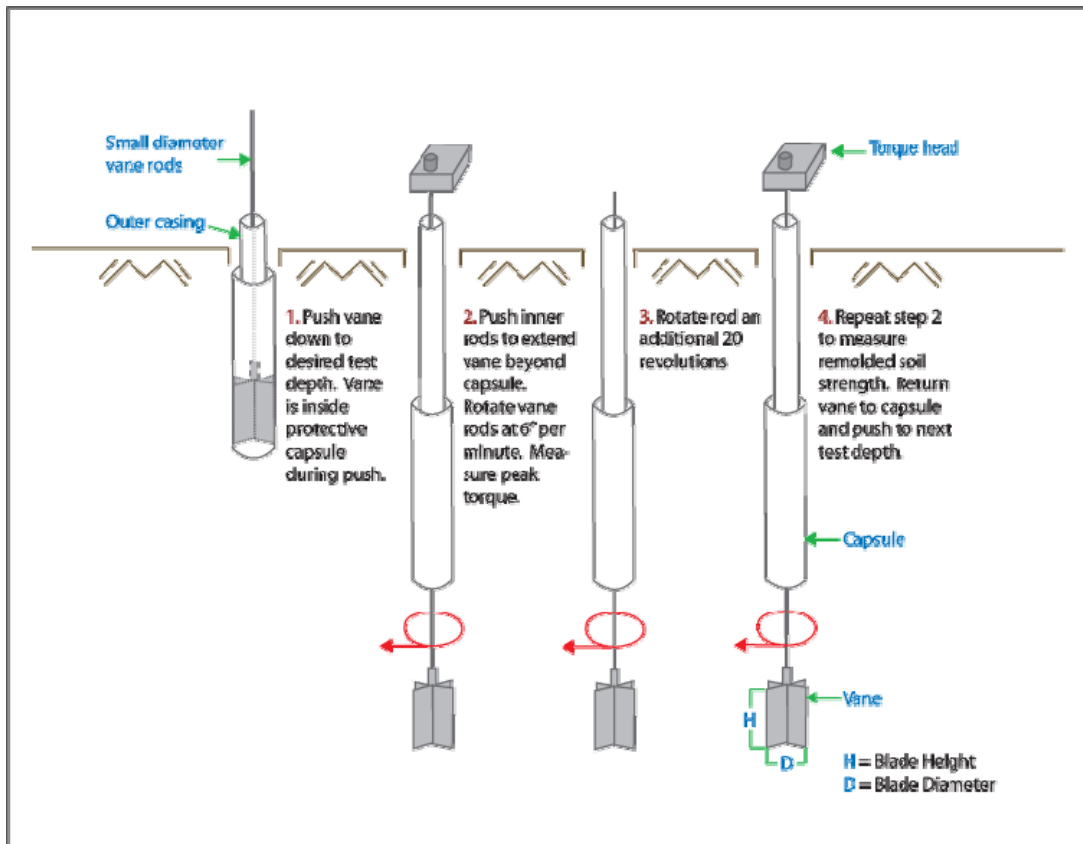


Figure VST

For further information refer to Mayne, 2002 and Greig et al. 1987.

