



## Standard Penetration Test (SPT) - Hammer Compliance

The European Standard that covers Standard Penetration Testing for geotechnical investigation, EN ISO 22476-3, specifies the requirement for energy measurement of SPT Hammers where 'N' values are used for the quantitative evaluation of foundations or for the comparison of results.

Although the Standard does not definitively specify the frequency for measurement, Southern Testing suggests that it should be checked at least annually and always after damage or repair of the hammer. Energy Ratio Certificates may also be specified by Engineers at the start of projects, particularly where multiple rigs are to be employed.

## SPT Energy Measurement Service

Southern Testing can provide an energy measurement service on site\*, or at our Field Operations Centre in East Grinstead, using our 15m testing borehole.

The measurement is undertaken using the SPTMAN system, a robust and portable analyser specifically designed to measure the actual energy transferred from the hammer to the rods and calculate the hammer energy ratio  $E_r$  by comparison with the theoretical energy.

Testing is usually completed within an hour and certificates can be made available on the same day.

Hammers to be measured should be clean and have threads that are in reasonable condition. We can also mark your hammer uniquely, if required, with a stamp to cross-reference with the certificates. Certification of chain-driven drop hammers used for Standard Penetration Tests on Window/Windowless Sampling Rigs can also be undertaken.

\* For onsite measurement a minimum borehole depth of 12m with rods will be required. Onsite testing or testing away from our facilities will incur a call out cost relating to time and distance.

## Equipment Compliance

Southern Testing can also provide a certificate of compliance for all your drilling equipment (SPT Hammer, Rods and Samplers etc..) to EN ISO 22476-3.

## To Book a Test

Please contact **Neil Burrows**  
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