

mining / water / environmental / geotechnical / energy



ROCK PRESSUREMETER/DILATOMETER

The pressuremeter tests the inside of NQ sized boreholes to measure in situ rock deformability. A relatively large volume of rock is tested at each station, spread over an 18 inch section of the borehole. Changes in pressure and volume are both measured in situ and monitored in real time. Interpretation is based on Lamé's equations. Records are plotted to calculate the Elastic Modulus E , and the data are extrapolated to estimate the plastic response and approximate an Ultimate Pressure PL . Raw data are corrected based on daily calibrations in a thick cylinder with known properties.

The pressuremeter is calibrated, operated, and processed by Colog. Deployment requires a drill rig over the borehole.

APPLICATIONS:

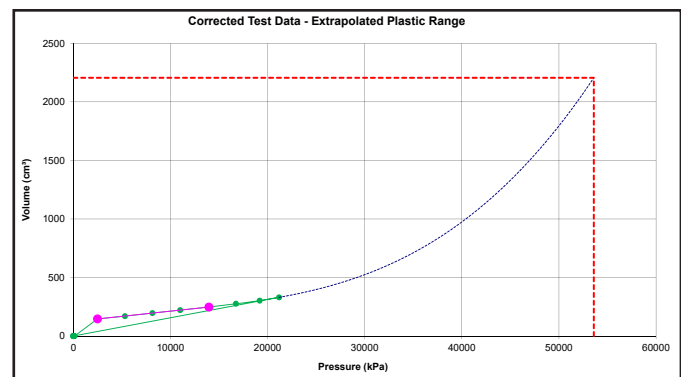
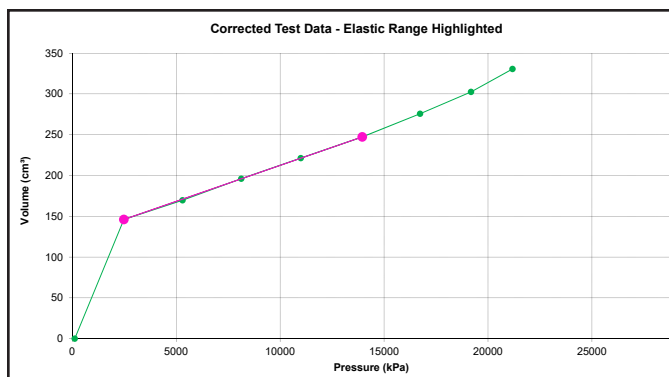
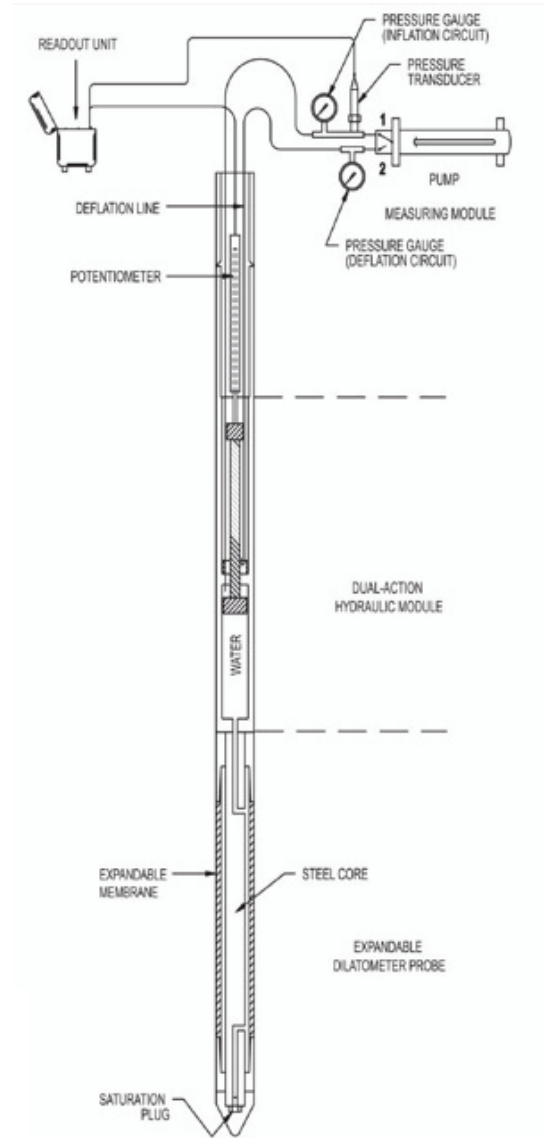
- + Deformation estimates of tunnel linings, concrete dam foundations and bridge supports
- + Settlement capacity of caissons
- + End Bearing capacity of deep foundations
- + P-Y curves for analysis of drilled shafts

PROBE SPECIFICATIONS:

Upper Threads:	BW Casing and NQ Rod
Length:	2.6m (8.5 ft.)
Weight:	42kg (92 lb.)
Operating Temperature:	-5 to +60°C (23 to 140°F)
Depth Limit:	91m (300 ft.)

SENSOR SPECIFICATIONS:

Diameter:	
Minimum Deflated	73.7mm (2.9 in.)
Maximum Inflated	85.5mm (3.4 in.)
Length:	460mm (18.1 in.)
Max Pressure:	30,000 kPa (4350 psi)



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