

Borehole Pressure Cell

Description

NOTE: This is a legacy and discontinued product not available for order.

Borehole Pressure Cells have a long term track record of stress monitoring in both elastic and viscoelastic rock. Product development is largely the result of research done by the U.S. Bureau of Mines (Panek & Stock 1964, and Smith 1972).

Cells are available in two basic configurations, a miniature flatjack version (BPC) and a cylindrical pressure cell (CPC). Due to the flat design, the BPC responds primarily to the stress in the plane perpendicular to the cell, and is only slightly affected by stress in the same plane. Two BPCs mounted at right angles to each other in the same borehole therefore will monitor the principal stresses in the plane perpendicular to the borehole. Biaxial stress measurement will require three BPCs in the same borehole.

While not appropriate for anisotropic stress conditions, the CPC will measure the average change in the principal stresses in the plane perpendicular to the borehole.

BOREHOLE PRESSURE CELL SPECIFICATIONS

ITEM	SPECIFICATION
Material	Stainless steel
Range	0 to 10,000 PSI (0 to 70 Mpa)
Sensitivity with Gauge Readout	40 PSI (300 kPa)
Accuracy with Gauge Readout	1%
Dimensions	508 (L) x 50 (W) x 9.53 (D) mm

SPECIFICATIONS