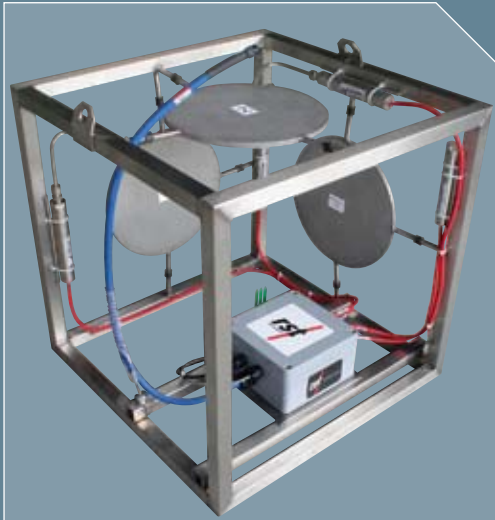




Paste Backfill Monitor



Paste Backfill Monitors shown being lowered into an underground mine.

RST's Paste Backfill Monitors are used in mine paste backfill to achieve improved extraction and to increase safety. They provide useful engineering feedback to allow paste and stope design to be optimized.

A typical Paste Backfill Monitor consists of 3 or more vibrating wire total stress sensors (orthogonal), 1 vibrating wire piezometer to measure pore water pressure, a biaxial tiltmeter and optional magnetic compass to measure "as-placed" orientation, matric suction and volumetric water content sensors, and conductivity sensors. A compact and sturdy stainless steel frame surrounds the unit and is designed to withstand the rigors of installation.

Because stope geometries vary depending on the mining situation, Paste Backfill Monitors are typically customized for the situation, including orientation sensors for suspended placements, different pressure sensor ranges depending on geometry, extra total stress sensors for a more complete stress tensor etc.

All sensors are connected to a single, Kevlar® reinforced, multi-conductor cable that can be extended outside the mining area for remote data acquisition.

specifications

DESCRIPTION	SPECIFICATION
Total Stress	0.7-3 MPa FS
Piezometer	0.7-3 MPa FS
Matric Suction	0.01-2.5 MPa
Water Content	1-100%
Conductivity	0-2.3 S/m
Temperature	-25°C to 65°C

ordering info

ITEM	PART #
Paste Backfill Monitor	LPPBM-230



RST Instruments Ltd.
200 - 2050 Hartley Ave.
Coquitlam, BC
Canada V3K 6W5

Telephone: 604 540 1100
Facsimile: 604 540 1005
Toll Free: 1 800 665 5599



info@rstinstruments.com

www.rstinstruments.com

applications

For underground mines, in mine paste, where a need for improved extraction and increased safety measures are required.

Feedback to allow paste and stope design to be optimized.

features

Durable, compact design for excellent portability and field installation.

Customized options (at time of ordering) to suit various project parameters.

Ideal for use with RST's flexDAQ Dataloggers.

Compatible with bulkhead Total Pressure Cells, Deformation Sensors.

reference

Monitoring Barricade Performance in a Cemented Paste Backfill Operation, Thompson, B.D., W.F. Bawden, M.W. Grabinsky, and K. Karaoglu, Proceedings of the Paste2010 conference, Editors: R. Jewell and A. Fourie, page 185, Toronto, Canada, 2010.



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