

SNOW MULTIPARAMETER PROBE

INTRODUCTION

Snow-pack is a complex structure. Snow is a fragile & cellular material with a distinct structural setup of ice crystals. Their mechanical properties and stability determine whether the snow is stable enough to prevent an avalanche. Snow is also a rapidly changing material.

Multiparameter Probe is an instrument for measuring the bonding force between snow grains (vertical to snow layers) with high spatial resolution & high speed. It penetrates the snow-pack with user selectable speed in between 1 to 20 mm/s. With this instrument snow researchers can rapidly & precisely investigate the properties of snow layers.



SALIENT FEATURES

- Controlled penetration speed
- Field portable & Fast measurement with high resolution
- Large storage for multiple measurements. It can store 100 measurements of 1700 mm penetration depth.

TECHNICAL SPECIFICATIONS

Snow which can be tested	: From new snow (50 Kg/m ³) to very dense snow (500 Kg/m ³)
Measurement	: At every 0.1 mm
Force meas. range	: 0 to +500N
Temperature measurement range	: - 50° C to +50° C
Penetration speed	: 1 – 20 mm/s (Selectable)
Displacement resolution	: 1 mm
Storage	: 4MB
Operating Temperature	: - 20° C to +50° C

APPLICATIONS

- ❖ Snowpack profiling for snow avalanche forecasting.
- ❖ Characterization of ski racing & snow runway.
- ❖ Compressive strength measurement.

For Further Information, Please Contact:

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Multiparameter Probe during field trial at Dhundi Observatory, SASE, Manali in Feb 2008

