

PERMEATION/COMPACTION GROUT MONITORING SYSTEM TRAINING CLASS

Location:

**RST Instruments Ltd.
2050 Hartley Avenue
Coquitlam, BC**

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Prepared by:



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Course Outline

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Introduction

This course is intended as an introduction to the Permeation (and Compaction) Grout Monitoring System manufactured by RST Instruments Ltd. (<http://www.rstinstruments.com/GROUT%20MONITORS.html>), as well as the accompanying software for real-time display of pressure and flow. Upon completion of this course, participants should have a good understanding of setting up the Grout Monitor and automatic logging and display of pressure and flow monitoring data as well as more advanced display options commonly associated with grouting theories and practices.

At Course Completion

At the end of this course, participants should be able to:

- Deploy a Grout Monitor System in the field, setup radio communication with a host laptop computer for real-time data display, calibrate the flow meter and change monitoring screens on the computer.
- Properly troubleshoot and maintain the Grout Monitor to ensure accurate and consistent results.
- Understand the datalogger and display software capabilities and file management.
- Create backup files and restore backup files
- Change display parameters of the software and configure new plots.

Prerequisites

Before beginning this course, participants should:

- Preferably have previous knowledge/experience/exposure to grouting operations.
- Be familiar with the use of Microsoft Windows operating system and programs designed for this environment.
- No other specific prerequisites as the course is intended to provide all the required training for proper startup of the Grout Monitoring System.

Course Materials and Software

The handout materials prepared for this course are yours to keep:

- Grout Monitor System Instruction Manual
- Display Software on CD-ROM
- Course Handouts

Module 1: System Overview

- PRESSURE TRANSDUCER AND GAGE SAVER
- FLOW METER (WORKING PRINCIPLE, CONFIGURATION, CALIBRATION)
- GROUT PIPE HANDLING AND CONNECTION
- DATALOGGER (ARCHITECTURE, PRE-LOADED CONFIGURATION, START-UP)
- MONITORING SEVERAL GROUT INJECTION POINTS WITH ONE DATALOGGER

Module 2: Communication Overview

- RADIO COMMUNICATION BETWEEN REMOTE LAPTOP AND GROUT MONITOR
- RADIO COMMUNICATION SETUP AND TROUBLESHOOTING

Module 3: Datalogger Support Software (LoggerNet) Setup

- SOFTWARE OVERVIEW AND INITIAL SETUP

Module 4: Real-Time Monitoring Screen (RTMC) Setup

- SOFTWARE OVERVIEW AND INITIAL SETUP

Module 5: Program Editing

- ENTERING CONSTANTS FOR THE FLOWMETER
- SETTING UP NEW GRAPHICAL DISPLAYS
- DATA FILE MANAGEMENT AND BACKUP

Module 6: Troubleshooting and maintenance

Module 7: Future Developments

- GROUT DENSITY MONITORING
- HEAVE MONITORING
- CONTROL OF GROUTING PROCESS