JET-VISION

Jet-Grouting Measurement System

JET-VISION measurement system is a read-out and sensor device for the drilling and injection parameters used in **Jet-Grouting technology (mono-, bi- and triple-fluid).**
The system allows to measure and store the following parameters:

DRILLING PHASE	RISING-JETTING PHASE
• Drilling depth • Advance speed • Hydraulic pressure rotation torque • Rotation Speed • Water Pressure • Air Pressure • Thrust Infeed Pressure • Water flow and volume • Air flow and volume • Mast inclination	• Drilling depth • Rising speed • Hydraulic pressure rotation torque • Rotation Speed • Mix Pressure • Mix flow and volume • Water Pressure • Air Pressure • Water flow and volume • Air flow and volume • Stop time • Consumption

Using the step-by-step motion, the **JET VISION** can control the automatic rising during the upwelling and jetting phase. In this automatic rising phase, the system can manage up to 4 different layer that can be programmed with different stop time and step size automatically. **JET VISION** is also able to perform complex drilling operation that need more than one single jetting phase. It can manage up to 4 pre-cutting and rising phases before the jetting.

The central unit includes a push-button to disable depth measuring when the change of the drill rod is required. This changes of the rod can also be performed automatically using a pressure switch.

JET VISION can also manage all the usual operation needed during the job, like hole flushing or changing of the rod.

Data can be simply downloaded from **JET VISION** to PC using a standard USB stick. In the PC we can show graphics of the data and we can also print it using a simple software called VISUAL-SGD. With this software we can also decide what we want to insert in the print report and what we don't want to show depending on the customer needs.

VISUAL-SGD is also usable to check data acquired in order to perform a quality check of the job for each drilling performed.

JET VISION is also able to be integrated with the following option:

The **GSM modem** option allows for the **remote transfer of stored data**, the programming of work parameters and for **remote service**.
The **GPS option** let you perform an automatic positioning of the machine on the drilling point.
The **DPS option** let you measure and store the inclination of the drilling.
The **Orbital Jet** let you control the speed of rotation of the rod during the jetting phase so that you can obtain directional jetting.

Technical features
Central unit: - Colour 7-inch LCD Display, 800x480 WVGA and 21-key polycarbonate keyboard   2 GB internal memory (RAM).   2 RS-232 / RS 422 serial outlets + 1 CAN bus   - USB port for data download   - Data stored in the XML format, GM-Data   - Aluminium container (295 x 185 x 55 mm)   - IP65 mech. protection (DIN40050)   24 V DC voltage (18-36V), 8 W   - Service temperature: -10° to 60° C   **Remote Logger**:   - Pressure sensors: 10 bars … 700 bars   - Mixture flow rate/volume sensors: max. 50 mc; resolution of 1 litre   - Injector control outlets: Nr. 4+4 (Relay)   - Analog outputs: 4-20mA or 0-5V or 0-10V (E/V proportional controls)   - PWM control outlets: 1500 mA max. (E/V proportional controls)