

# CFA VISION

## Measurement system for Continuous Flight Auger machines



**CFA VISION** measurement system is a logger device for the drilling and grouting parameters applied to the technology of continuous flight auger (CFA) device based on Windows CE unit with a 7" color display.

The system allows to measure and store the following parameters:

PERFORATION PHASE	UPWELLING-JET PHASE
Perforation depth Propeller advance speed Pressure of the propeller rotation torque Propeller rotation speed X and Y inclination mast Infeed pressure (Optional) Torque CSP Pressure (Optional)	Perforation depth. Device drawing speed. Graph of the concrete pile profile Pumped concrete volume Consumption snapshot X and Y inclination mast Pumped concrete pressure Graph of concrete pressure Automatic rising

**CFA VISION** is installed into robust small-size container; the User Interface includes a 7 inch colours display with high brightness, and a waterproof and scratch-resistant polycarbonate keyboard.

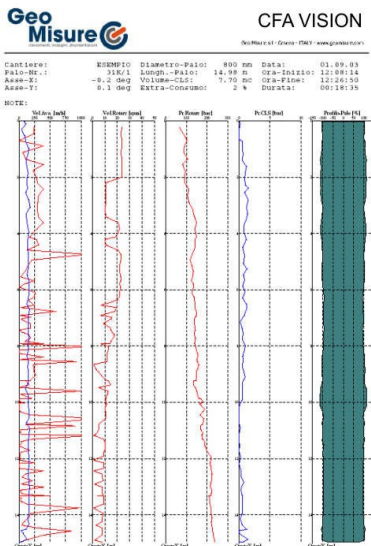
The connection to the in-field sensors is made possible through a multiple connector which allows for a fast disassembly and connection.

**Automatic control** of the rising of the auger dependent on the actual pumped concrete flow is operated by controlling an analogue output signal interfaced with the driller rising engine.

The Central Unit includes a software button to disable the depth measure when the auger is elongated or drawn back.

Data is stored into internal memory and then downloaded to a PC using a standard USB key.

By using **VISUAL-SGD** software, it is possible to transfer the data from the HD unit to the PC, and subsequently the operator can carry out the statistical analysis of stored data during the operation, as well as other quality controls, including the printing of records with the typical graphs of each concrete pole so realized.



Thanks to **VISUAL-SGD**, it is possible to customize the printing configuration by modifying the display scales, the printing colours, etc. following the customer needs. Besides showing the records of the measurement values previously listed, the report of each drill rod identifies the Building Yard, the Rod Number, the Max. Depth, the Date, the Start and End Time, the Duration, the Total pumped Concrete Volume, and the extra-consumption with respect to the predefined hypothetical volume.

It is also possible to display and print a final report (e.g., for the current day) such as a list of the concrete poles carried out, including the main values for each operation as described above.

The sensors wiring system is composed of two connector boxes. The first one is integrated to the rotary head; the depth sensor, the torque measurement sensor, the concrete pressure/volume sensor and the RPM sensor are connected to the first block. A second connector box, which includes the protection circuit, is installed into the cabin; the antenna inclination sensor, the central unit, the automatic rising control circuitry, the optional remote connection unit and the Power supply are connected to this block too.



### Main technical characteristics

- ✓ 7" display with polycarbonate keyboard
- ✓ USB slot used to download data stored
- ✓ Mechanical protection: IP65 (DIN40050)
- ✓ Power: 24 V DC (18-36V), 8 W
- ✓ Working temperature range: -10° C + 60° C
- ✓ Connector oriented design