







**DMS** (Drilling Mate System) control over performance, production and machinery.

DMS is the electronic device and instrumentation dedicated to machine monitoring, data logging, production and fuel consumption. The visible part of the system is constituted by a multi-language touch screen display, installed in the cab, designed to show in real time all the information relating to the operation and performance of the machine, assisted execution of the work cycles, fuel consumption and diagnostics of faults, with visual localization of component failure. The data is acquired by a removable USB memory or, on demand, sent directly via mail to the project manager, maintenance technicians and site managers. The configuration of some parameters can be password protected.



DMS Onboard is the whole group of electronic devices and instrumentation dedicated to machine supervision and control, recording of production data, tracking usage of raw materials and fuel consumption. The visible part of the system is constituted by a multi-language touch screen display, installed in the cab, designed to show in real time all the information relating to the operation and performance of the machine, assisted execution of work cycles, fuel consumption and diagnostics of faults with visual localization of the involved component. Production data is recorded on a removable USB memory for subsequent elaboration on a PC to conduct analysis and to obtain detailed production reports. DMS Onboard can be optionally equipped with a modem device to send production data also via e-mail to project managers, site managers and maintenance technicians.

#### DMS PC Drilling parameters monitoring and supervisioning

DMS PC is the software that displays and processes the data acquired by DMS Onboard. It's possible to analyze, process and print production data and verify the use of raw materials and fuel consumption. DMS PC can be installed on desktop or notebook PC of site managers, maintenance supervisors and project managers. Available on demand is the 3D option, which is a virtual reconstruction that processes three-dimensional models based on the data acquired in the execution of diaphragm walls.

#### DMS MANAGER DMS remote control

DMS Manager is the software for remote, centralized supervision of the rig fleet. The rigs can automatically send realtime geographic location, events, alarms, production and consumption data to a customer's company server equipped with DMS Manager. The software is accessible via the web, shortening distances and giving valuable support to the daily work of project managers, site managers and maintenance supervisors. DMS Manager gives also unprecedented situational awareness to remote personnel allowing a direct connection to the machine, to see live what the operator sees on the DMS display onboard.









In addition to DMS standard functionality (engine and machine parameters) available on all standard machines, there are also some additional and specific software packages available for the different technologies.

Those currently available are the following: LDP/CFA/DSP/RCDS CAP/CSP DIAPHRAGM WALLS HYDROMILL JET/MICROPILES/TIE-BACKS TTM1-TTM2/SOILMIXING

On the proper technologies, the DMS can be combined to: DPS (Drilling Position System) in order to measure drill string deviations; APS (Automatic Positioning

System) for rig pile spoting













CFA	
Depth	m
Drilling rate	
RPM	rpm
Torque/Thrust pressure	bar
Hoist	kN
Concrete pressure	bar
Concrete delivery	l/min

CSP/CAP	
Depth	m
Drilling/Lifting rate	
RPM auger & casing	rpm
Torque/Thrust pressure	bar
Auger Hoist	kN
Concrete pressure	bar
Concrete delivery	l/min

HYDROMILL	
Depth	m
Drilling/Lifting rate	
Motor right, left and mud pump pressure	rpm
Hoist	kN
X and Y deviations	cm
Rotation	deg

TWIN TURBOGET	
Depth	m
Drilling/Lifting rate	
RPM	rpm
Rotary Pressure	bar
Thrust/Lifting pressure	bar
Right & Left mix pressure	bar
Mix deliveries	l/min
Treatment efficency	%

JETGROUTING	
Depth	m
Drilling/Lifting rate	
RPM	rpm
Torque	kNm
Thrust	kN
Fluids pressure	bar
Fluids delivery	l/min
Drilling/Jet energy	KJ

HP PUMP	
Mix pressure	bar
Delivery pressure	l/min

Depth	m
Drilling rate	
RPM	rpm
Torque/Thrust pressure	bar
Hoist	kN
Concrete pressure	bar
Concrete delivery	l/min

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PRESSURE					
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FLOW					









STANDARD SCENARIO

Requirements:

 Machine with built-in DMS, or lately equipped with DMS "retrofit".
Sender and receiver e-mail addresses properly set on DMS onboard.

Note: data is always retained on the machine also.





Benefits:

Centralized fleet, workforce and production control across jobsites.

• Easyness of information storage and retrieval.

• Full SQL interoperability with customer's ERPs, BIMs, etc.

Requirements:

• Machine with built-in DMS, or lately equipped with DMS "retrofit".

• DMS Manager software package.

Note: data is always retained on the machine also. Some users can be limited to read-only permissions on data.



## **Production Data Manager**

Realtime machine status review Production data analysis, reporting and printing and exporting using DMS PC software

**Customer's Control Center** 

#### Customer s Customer s Utomatic sending of: Production data Production data Warnings & atarns Beolocation data (GPS) Utomatic sending of: Beolocation data (GPS) Distice A Solitors machine with built-in Box or lately equipped with DMS Tetrofit





DMS Soitmec

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SOILMEC S.p.A. Drilling and Foundation Equipment 5819, via Dismano 47522 Cesena (FC) - Italy tel. +39.0547.319111 fax +39.0547.318548 e-mail: soilmec@soilmec.it

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