

DMS
Drilling Mate System



Drilling Mate System

DMS

soilmec 
Drilling and Foundation Equipment

DMS - Drilling Mate System - is a project born in the mid-90s with the aim of providing to both operator and jobsite personnel, an active instrument to control and interact with the machine (sensors, safety devices, diesel engine, drilling parameters, etc.).

Soilmec, having perceived an upcoming electronic revolution in the field of drilling machines, used the extensive experience acquired on jobsites to develop a tool that would allow the operator to manage both machine and production.

DMS is designed with the following innovative characteristics:

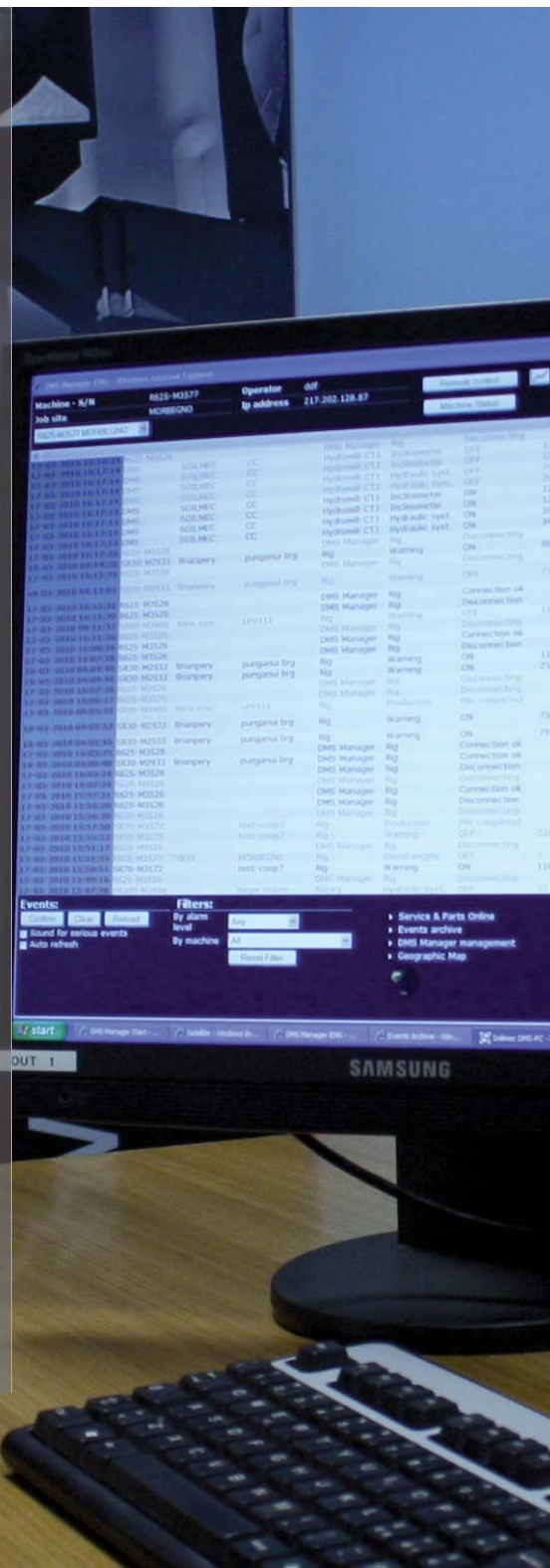
- CAN OPEN bus
- full colour touch-screen suitable for the drilling field
- Diesel engine electronic control unit and drilling rig parameters interface
- easy of troubleshooting by the operator
- a 2-PLC redundant system, for superior reliability (*)

Thanks to DMS PC's software all the data collected by the machine (drilling and concreting parameters) can be displayed and processed by a PC, in order to run jobsite reports, analyze production and processing, plan machine maintenance, etc.

DMS Manager software enables to control DMS remotely via radio, GSM/GPRS, Wi-Fi or satellite, as if the controller were on board the machine. It is possible to visualize all the operation and machine parameters, map positions, and perform certain operations remotely as well as to provide support to the operator or schedule maintenance.

DMS is the ideal partner to simplify your life: it facilitates machine use and it maximizes work productivity.

(*) only for machines in electro-proportional version

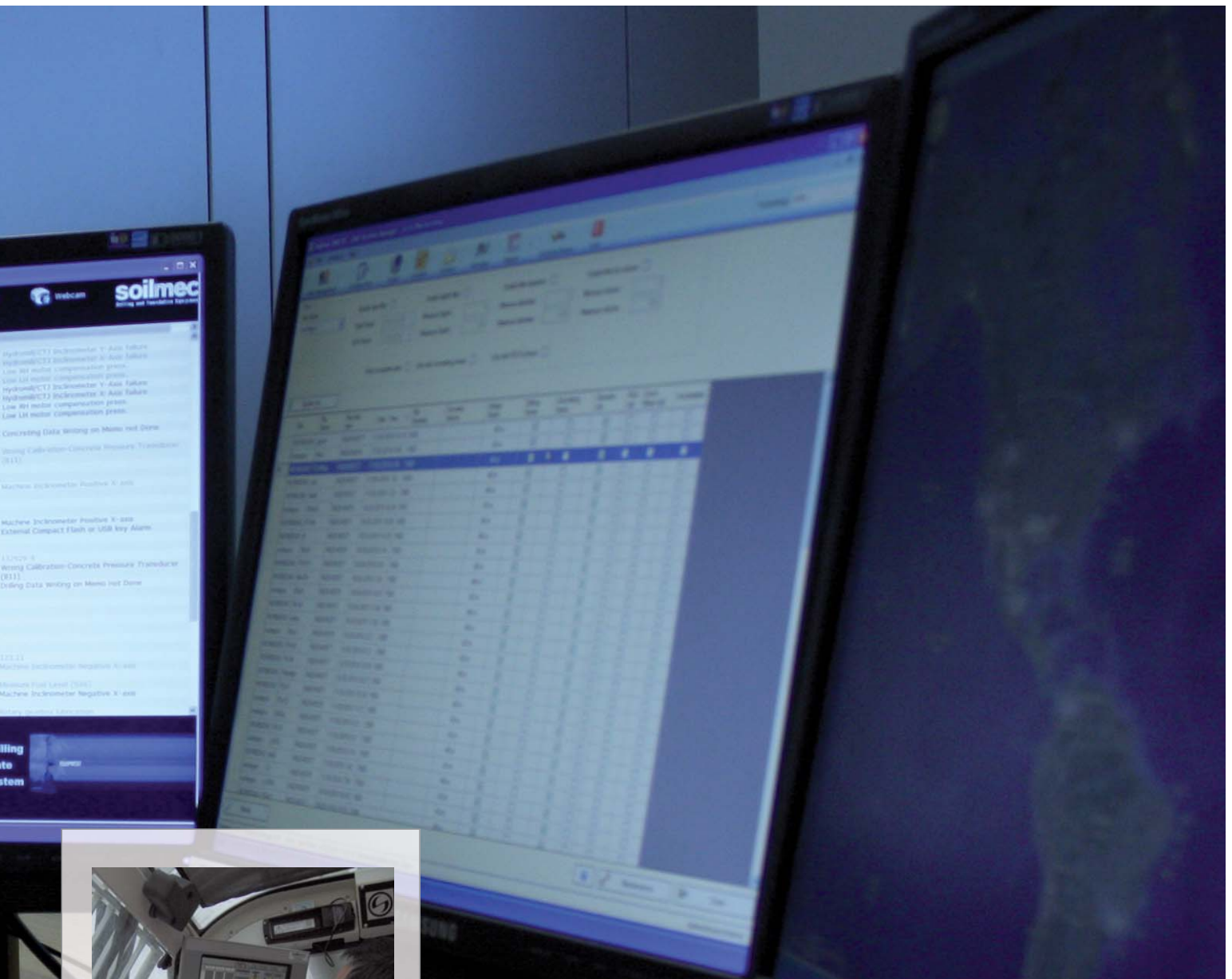


ADVANTAGES

- Downtime reduction and/or elimination
- Real-time monitoring of operating parameters and machine status
- Easy preparation of jobsite summary reports
- Follow up jobsite production
- Quality improvement of work performed
- Easy machine management and maintenance scheduling
- Easy browsing of machine manuals and spare parts reordering

With DMS be on job site...every where you are!!

DMS
you will never work alone

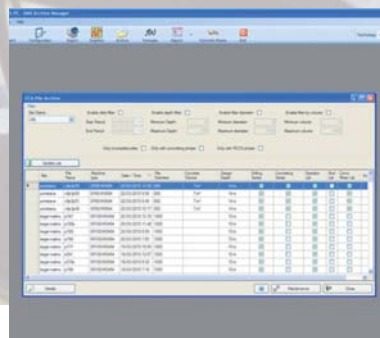


DMS

Machine control monitoring and supervision

DMS is the stand alone tool located in the cabin and equipped with touch-screen interface that allows the operator to use the machine easily as well as to set and monitor drilling parameters.

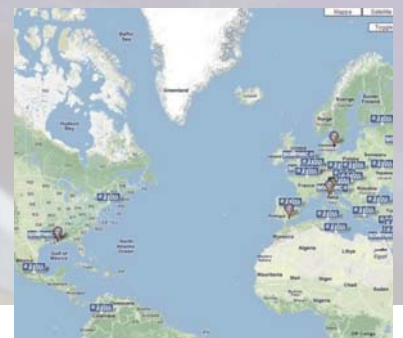
Thanks to its interfacing with the Diesel engine unit and various machine sensors, DMS allows monitoring the overall operation of the machine, recording alarms, performing troubleshooting and planning maintenance.



DMS PC

Drilling parameters monitoring and supervision

DMS PC is the software that allows displaying and processing through a PC: machine operating data collected by DMS, stored on a memory card and/or USB drive, or sent by the DMS via radio, GSM/GPRS, Wi-Fi or satellite.



DMS MANAGER

DMS remote control

DMS Manager is the software that allows full remote monitoring of all the information sent by DMS via radio, GSM/GPRS, Wi-Fi, and satellite.

It is the result of the experience acquired through Trevipark automatic parking permanent installations.

DMS

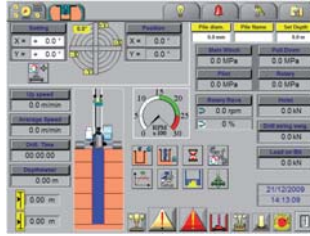
In addition to DMS standard functionality (engine and machine parameters) available on all standard machines, there are also some additional and specific software packages available for the different technologies.

Those currently available are the following:

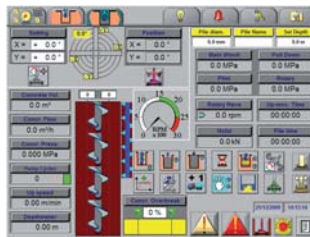
- LDP/CFA/DSP/RCDS
- CAP/CSP
- DIAPHRAGM WALLS
- HYDROMILL
- JET/MICROPILES/TIE-BACKS
- TTM1-TTM2/SOILMIXING

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 spotting.



LDP	
Depth	m
Drilling rate	
RPM	rpm
Thrust pressure	bar



CFA	
Depth	m
Drilling/lifting 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 and casing	rpm
Torque/thrust pressure	bar
Auger hoist	kN
Concrete pressure	bar
Concrete delivery	l/min



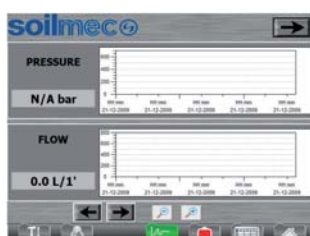
HYDROMILL	
Depth	m
Drilling rate	
Motor right, left and mud pump pressure	bar
Hoist	kN
X and Y deviations	cm
Rotation	deg



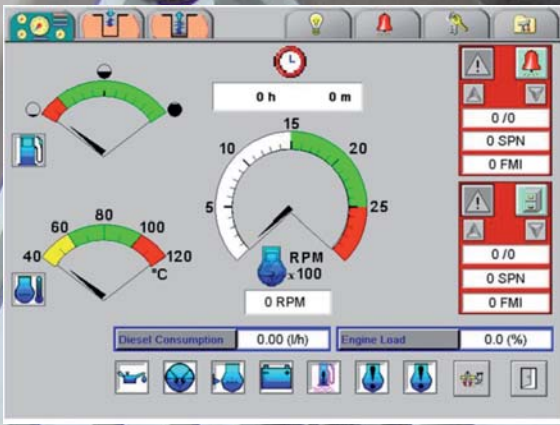
TWIN TURBOJET	
Depth	m
Drilling/lifting rate	
RPM	rpm
Rotary pressures	bar
Thrust/lifting pressure	bar
Right and left mix pressure	bar
Mix deliveries	l/min
Treatment efficiency	%



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

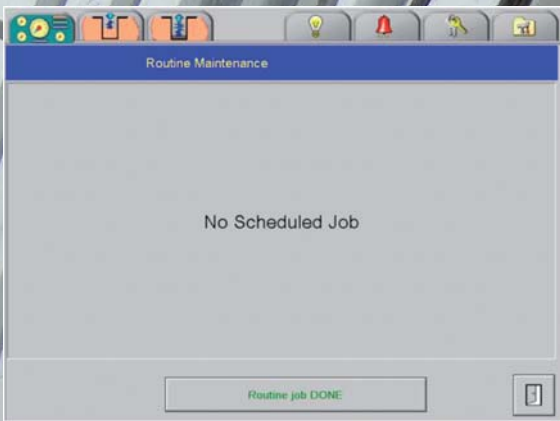


This page allows the user to read the Diesel engine main parameters. In addition, it has several fault indicators to signal alarms detected by the engine electronic control unit:

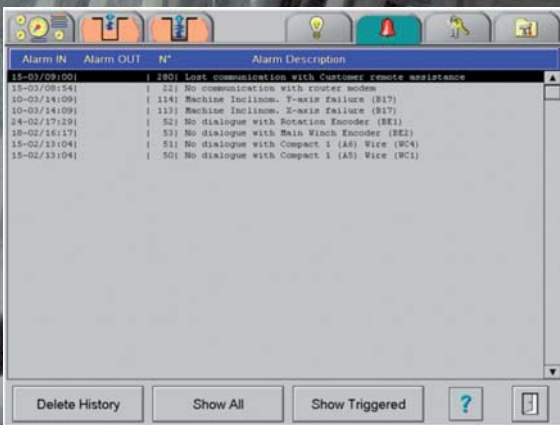
SPN - Suspect Parameter Number

FMI - Failure Mode Identifier

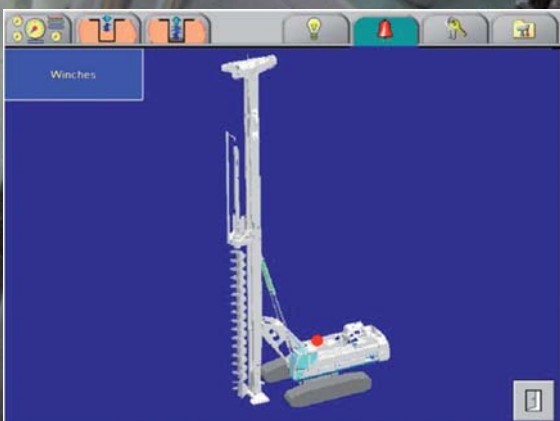
On the basis of the values of these 2 parameters, it is possible to detect the cause of the alarm.



This page records the machine scheduled maintenance operations.



On this page, DMS displays the machine active alarms (unresolved alarms) and by pressing the related button the history of all alarms that occurred. By selecting an alarm, DMS shows the position of the component that caused the alarm to trigger.



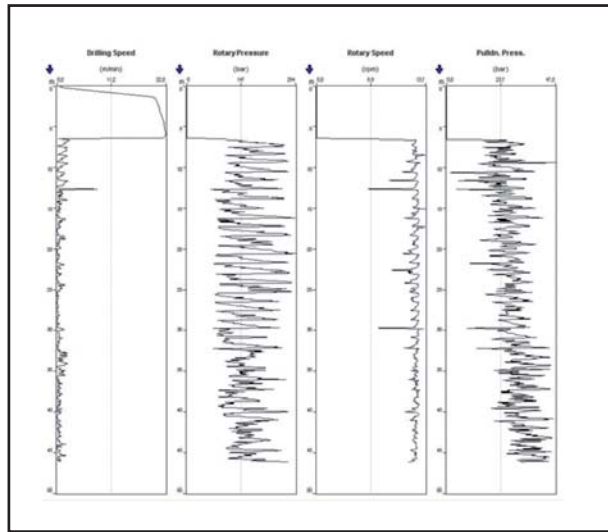
Page showing the component generating the alarm.

DMS PC

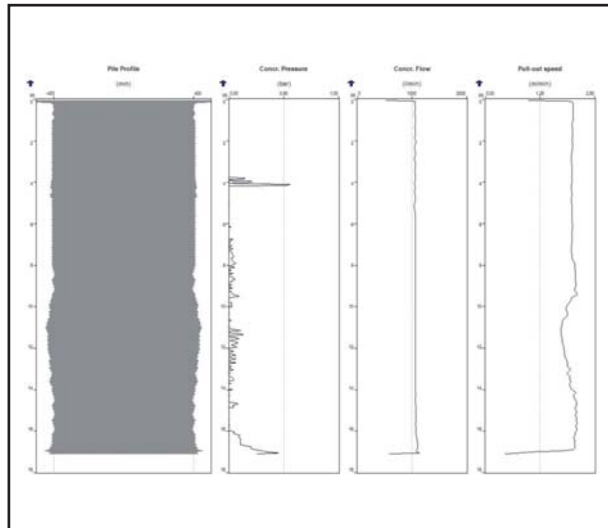
DMS PC processes the data acquired by DMS.

Main features:

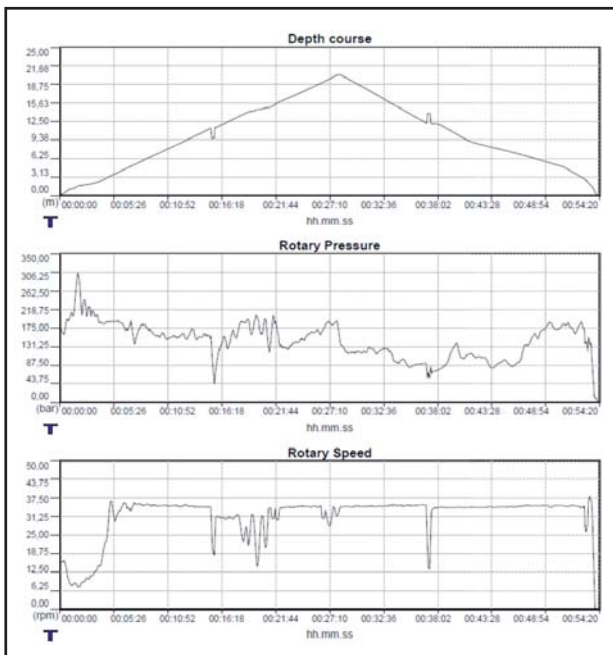
- **user friendly** (Italian and English)
- **data storage** categorized by technology type and jobsite
- **use of filters** categorized by date and depth in order to search quickly for piles produced
- depth or time-based **parameters**
- colour curve, column header, auto scale or displayed parameter range **settings**
- **exporting** numerical data as electronic tables or ASCII files
- **construction of columns** resulting from the combination of DMS measured parameters (e.g. feed/CFA speed, or specific drilling or jetting energy)
- **automatic processing of daily and job progress summary reports**



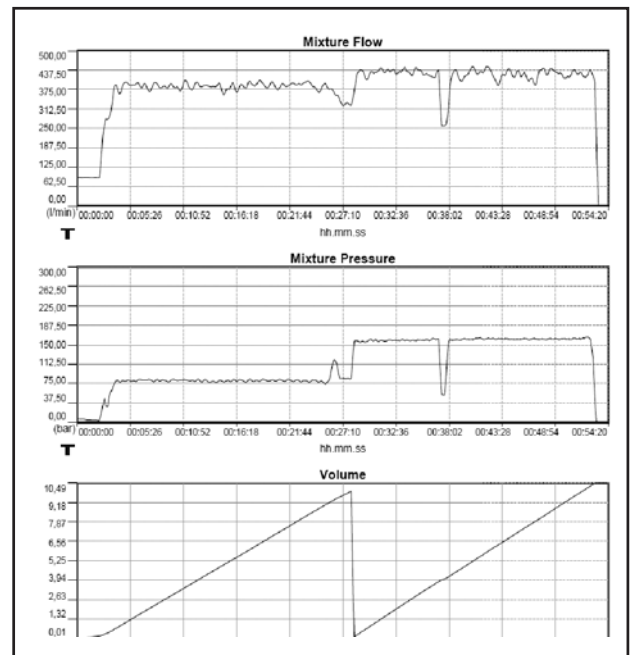
Data example **LDP** based on depth



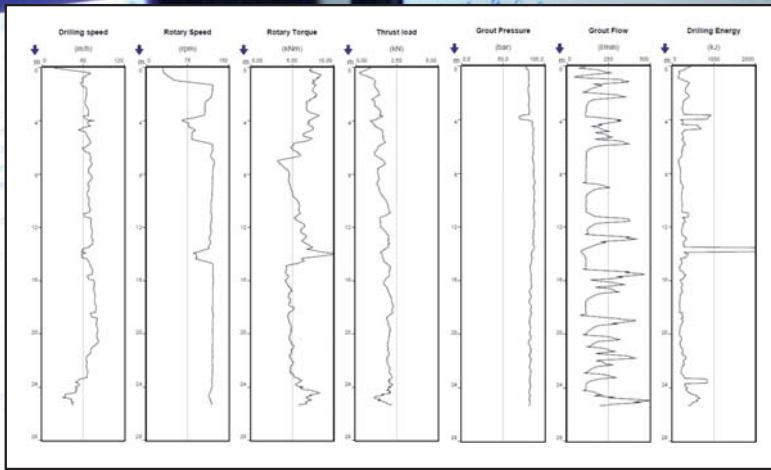
Data example **CFA concreting** based on depth



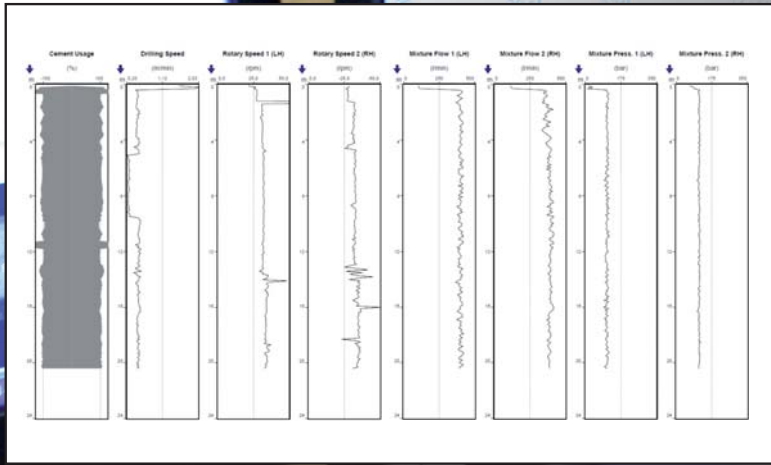
Data example **TTM** based on time



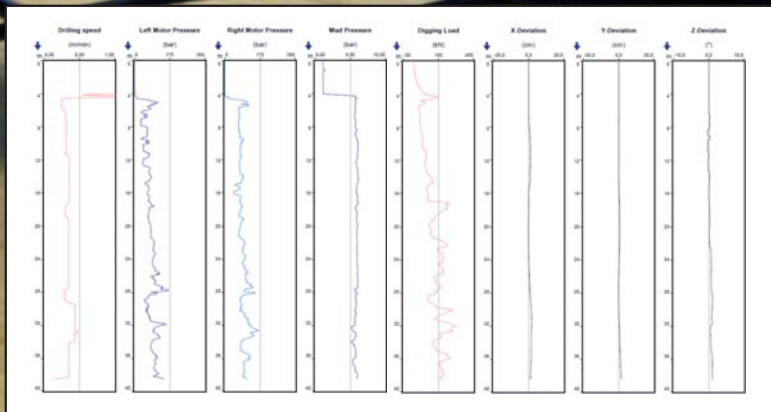
Data example **TTM** based on time



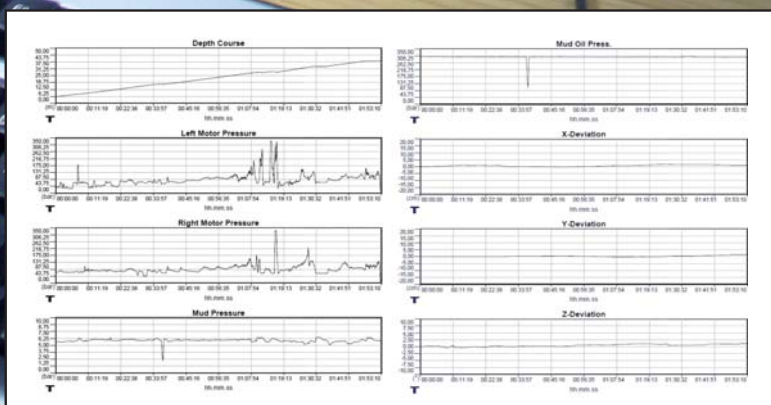
Data example
JET
based on depth



Data example
TWIN TURBO JET
based on depth



Data example
HYDROMILL
based on depth



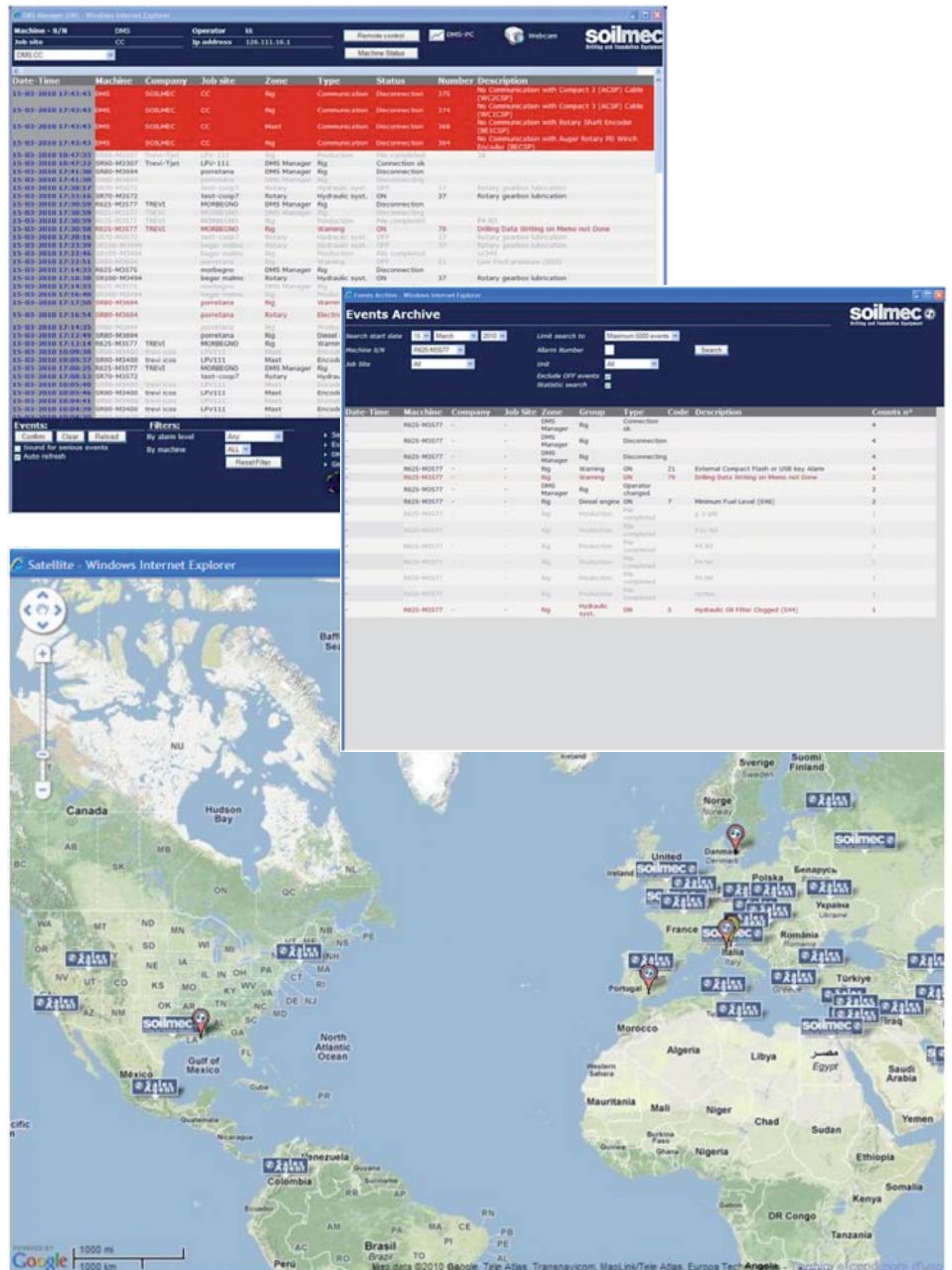
Data example
HYDROMILL
based on time

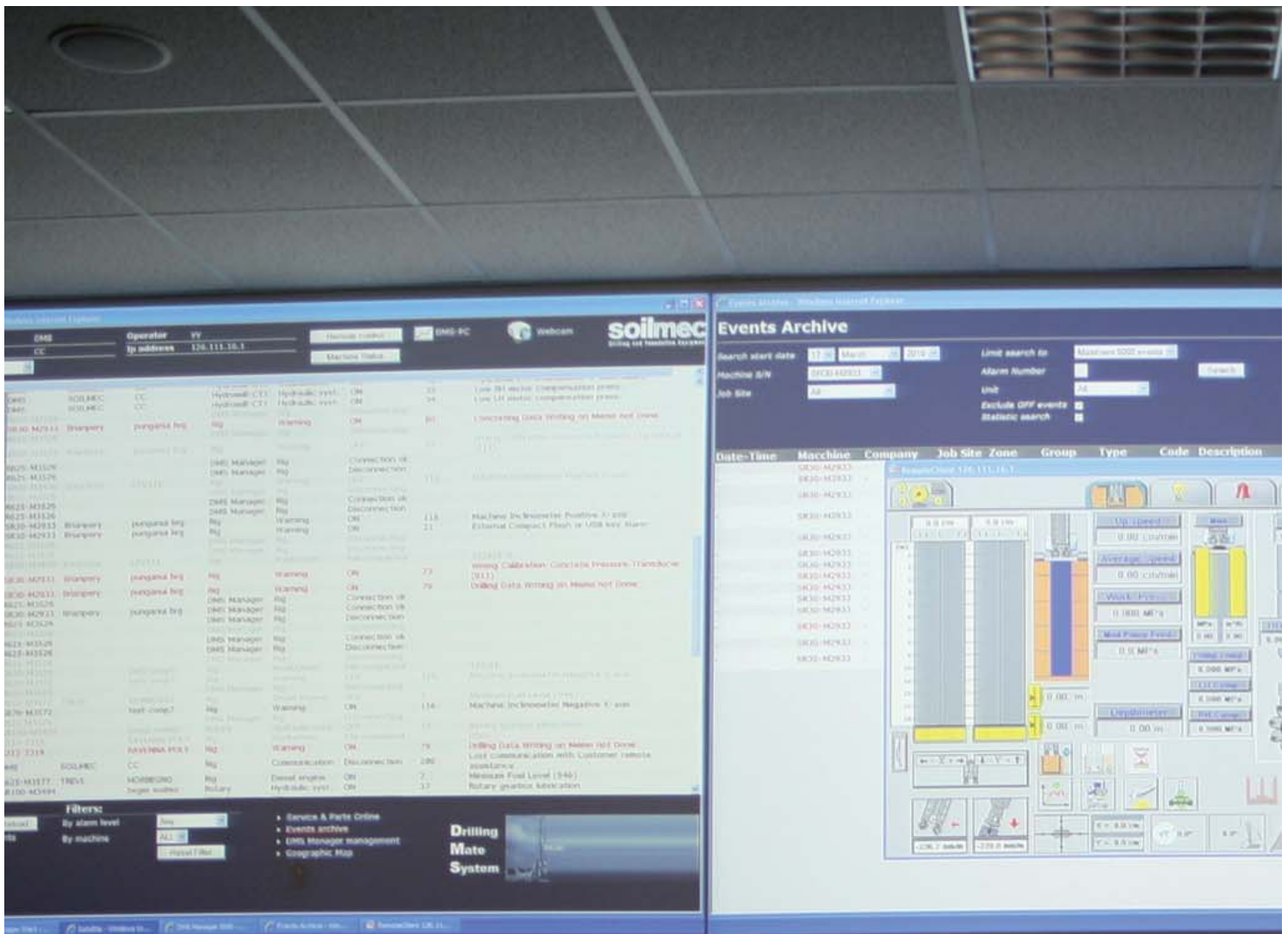
DMS MANAGER

This software offers full monitoring of the entire DMS potential.

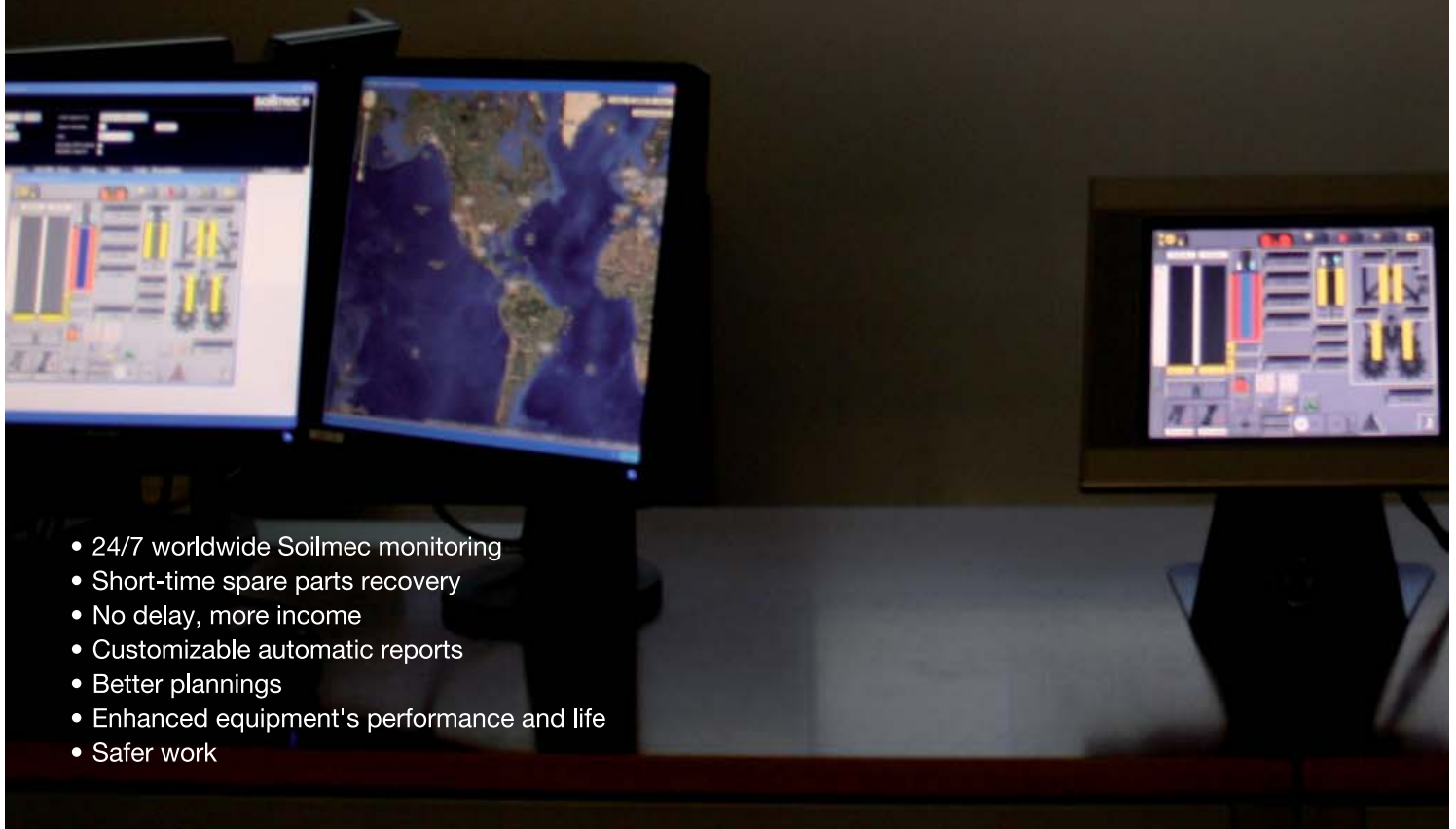
The main DMS Manager features are the following:

- history of alarms sent by the connected machines (date and time)
- machine alarm level (standard, medium, severe)
- storage of alarm signals for subsequent statistical analysis (components reliability, event recurrence)
- machine map positioning
- remote control (real time connection with the rig). This function allows:
 - helping the operator to configure DMS
 - improving the operator's technical knowledge on the machine from a remote location
- access to DMS Manager in order to verify the results of the data sent to the general archives
- access to the Spare Part Online Center (SPOC) for easy consultation of machine manuals and forwarding of online orders. This tool does not specifically belong to DMS Manager, but it has been implemented in the project to allow complete and total control over machine maintenance operations or DMS PC for jobsite data processing.





Soilmec DMS will increase your business.
DMS - you will never work alone



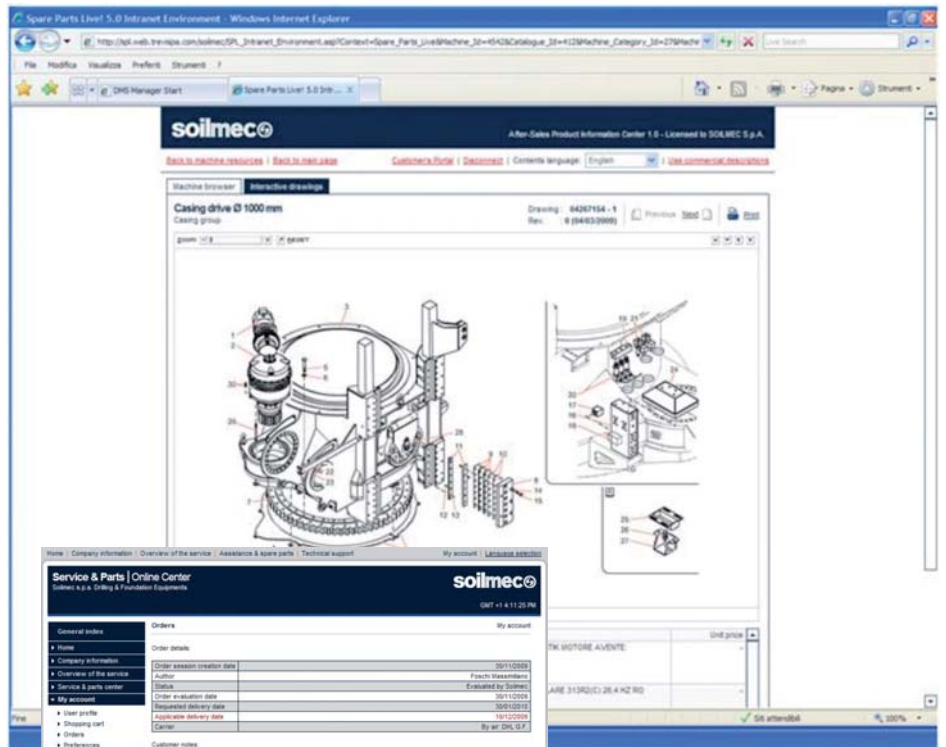
- 24/7 worldwide Soilmec monitoring
- Short-time spare parts recovery
- No delay, more income
- Customizable automatic reports
- Better plannings
- Enhanced equipment's performance and life
- Safer work

SPARE PART ONLINE CENTER (SPOC)

The innovative technical web site of Soiltec S.p.A. has been published with the aim to give Soiltec Dealer Network **continuous updated information** regarding products and equipments, for a better interaction with the Customers.

In fact, SPOC offers the following online features:

- consultation and downloading of rig documentation, e.g. user and maintenance manuals electrical / hydraulic drawings, DMS manuals, technical documentation, etc
- placement and management of purchase orders for spare parts
- real time availability of components of spare parts.



Home | Company information | Overview of the service | Assistance & spare parts | Technical support | My account | Language selection

Service & Parts | Online Center

Soiltec s.p.a. Drilling & Foundation Equipments

GMT +1 9:53:35 AM

General index

- Home
- Company information
- Overview of the service
- Service & parts center**
 - Machines center
 - Search parts by code
 - Alerts & updates
 - Immediate assistance
- My account
- Technical support

Authentication

User name:

Password:

Service & parts center Interactive spare parts catalogues

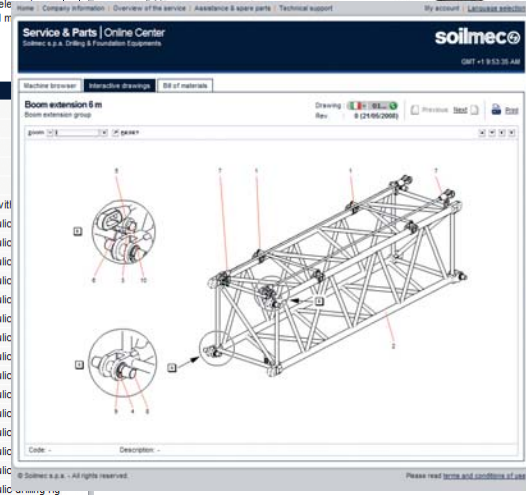
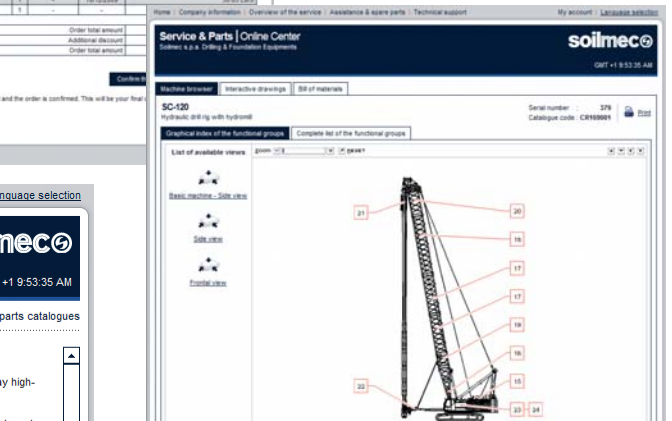
This section lets you access to the interactive spares catalogues relevant to the product you bought.

The interactive catalogues have been prepared using the innovative **Spare Parts Live! 4.0** system that lets you display high-definition technical drawings in a very short lapse of time.

If you wish to consult the information on a single spare part and add the same to your shopping cart, just click on the numerical reference. For a better interaction, the system also lets you also zoom in and out the technical drawings and more.

Interactive spares catalogues presently available:

	Name	Serial number
View available resources	Kr C.F.A. SR-60	3547
View available resources	Kr C.F.A. SR-30	3588
View available resources	Kr C.F.A. SR-30	3588
View available resources	Kr C.F.A. SR-40	3798
View available resources	Kr C.F.A. SR-40	3801
View available resources	SC-120 (Cougar)	379
View available resources	SM-401	723
View available resources	SM-21	738
View available resources	SM-14	824
View available resources	SM-14	831
View available resources	SM-14	840
View available resources	SM-14	843
View available resources	SM-14	860
View available resources	SM-14	866
View available resources	SM-14	868
View available resources	SM-14	933
View available resources	CM-1200	1834
View available resources	R-725HD	2138
View available resources	SF-70	2570
View available resources	SR-70	2699
View available resources	SR-60	2715
View available resources	SF-70	2748



Service & Parts | Online Center

Soilmec s.p.a. Drilling & Foundation Equipments



Machine browser

Interactive drawings

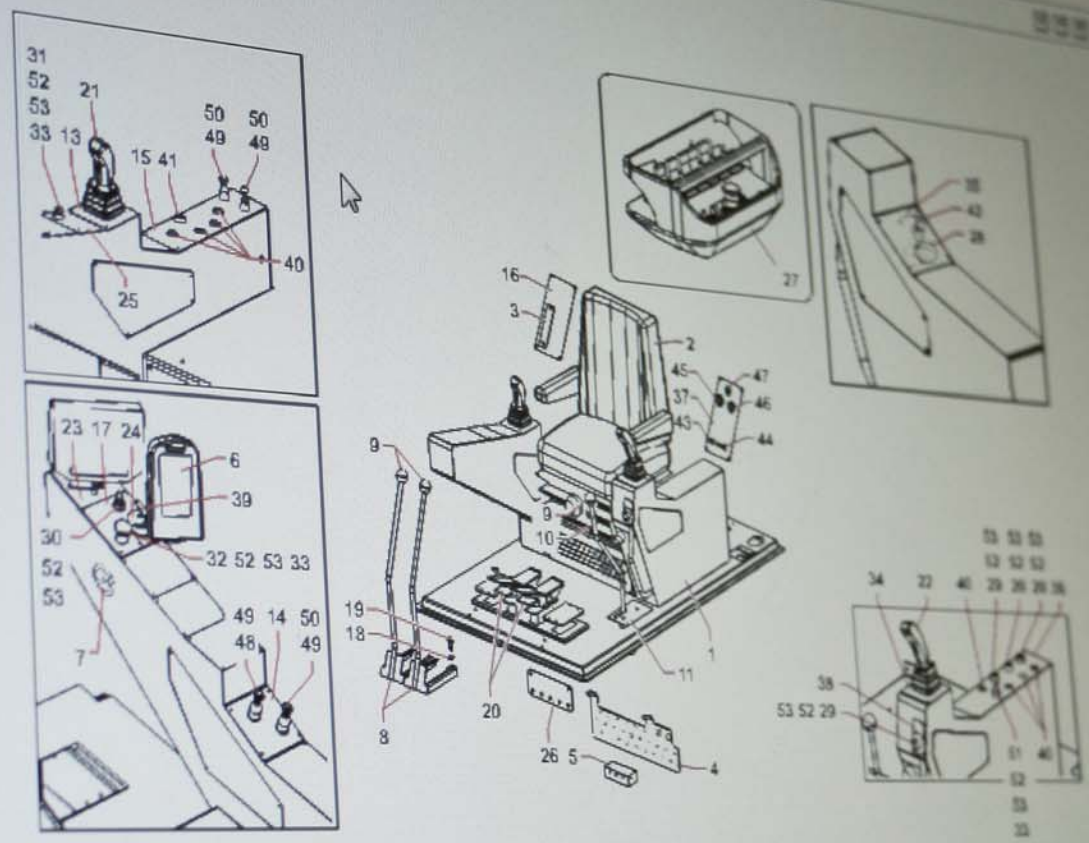
Bill of materials

Cabin and control place

Cabin and control place group

Zoom

Drawing: 01217240 - 1
Rev: 0 (10/06/2000)



Code: -

Description: -

Please read terms and conditions of use

Global Presence

SOILMEC distributes machinery and structures all over the world, supported by SOILMEC subsidiary companies and dealers. The complete Soilmec network list is available on the webpage www.soilmec.it

SOILMEC NORTH AMERICA - Houston - U.S.A.

WATSON INC. - Texas - U.S.A.

SOILMEC DO BRASIL - São Paulo - Brasil

SOILMEC U.K. LTD - Peterborough - U.K.

SOILMEC FRANCE S.A.S. - Paris - France

SOILMEC DEUTSCHLAND GmbH - Drolshagen - Germany

SOILMEC S.P.A. - Moscow Repr. Office - Russia

SOILMEC MISR S.A.E. Co. - Cairo - Egypt

SOILMEC ARABIA LLC - Jeddah - Saudi Arabia

SOILMEC EMIRATES - Dubai - U.A.E.

SOILMEC INDIA - Mumbai - India

SOILMEC CHINA - Wujiang - P.R. China

SOILMEC (H.K.) Limited - Hong Kong

SOILMEC JAPAN CO LTD - Tokyo - Japan

SOILMEC FAR EAST PTE.LTD - Singapore

SOILMEC AUSTRALIA - Sydney - Australia



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

www.soilmec.it

soilmec 
Drilling and Foundation Equipment