

GeoDrilling

INTERNATIONAL

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Breaking Ground, Building Trust.

CompAir launches oil-free website

CompAir has launched a website to explain the benefits of oil-free air compressors, and provide advice on how manufacturers can reduce maintenance and costs.

The firm said that, at a time when budgets are under constant scrutiny, companies are seeking new savings and efficiencies across their plant.

Marketing director Frederique Gerard said: "Efficiency and sustainability are key drivers at the heart of industry today. Our aim is to provide compressed-air solutions that help manufacturers to achieve cost-efficient production and meet sustainability targets.

"In addition to energy efficiency, air purity is critical for many compressed-air applications where even the tiniest drop of oil can cause product spoilage or damage production equipment, not to mention the cost of production downtime and product rework. That is why we have created Oilfreecompressors.net."

Soilmec rolls out 4,000th unit



Trevi Group company Soilmec, which designs and constructs equipment and accessories for foundations and drilling, has celebrated the production of its 4,000th machine.

The rig, an SR-100 model for large-diameter piles, will be used in Denmark, where Trevi has just started work on the construction of Copenhagen's new subway.

The achievement was marked by a ceremony on October 10,

held at the company's new manufacturing facility in Italy. It was attended by all Soilmec personnel.

Soilmec's managing director, Simone Trevisani, commented: "The construction of machine number 4,000 is not only an unrivalled result in the history of our industry, but it also bears witness to the great vitality of the 'Soilmec Team', which continues to set the standards

in the sector of technology for large subsoil operations."

Noting that some 1,000 new machines have been built in the last four years alone, Mr Trevisani added that the company had also produced some 2,400 machines for small drilling and 500 cranes.

Since 1969, when the company was founded, Soilmec has produced and distributed its equipment in more than 80 countries.



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Chinese exploration

Drillmec is supplying oil and gas drilling rigs to China

Drillmec has been awarded a contract to supply 75t hydraulic oil/gas drilling rigs to Greka Drilling, the main independent operator for unconventional gas in China. They will be used for exploration, including coalbed methane (CBM) and shale gas, in Shanxi province.

The contract is to supply 25 HH-75 rigs, from Drillmec's CBM Series, a special-purpose line of drilling rigs and related equipment, designed to meet specific requirements for deep water and shallow gas-well drilling. Greka Drilling has also reserved an option to buy a further 125.

For Drillmec, this contract has an important strategic value. It demonstrates the competitiveness of its technology at a global level and highlights its usefulness in the water, geothermic, gas, CBM and petroleum sectors. It also establishes a partnership with a new client, which has significant short-term growth objectives.

The contract also reinforces the strength of Trevi Group's mechanical engineering sector in China, opening new markets and potential for development in the Far East.

CBM series

Drillmec's CBM series includes the HH-60, HH-75 and HH-102 rigs. All are available in a number of configurations, including skid-, trailer-, truck- or carrier-mounted.

The CBM series has been designed with the aim of achieving low cost and low environmental impact, as well as a high level of safety. It offers efficiency in rig set-up and movement, as well as footprint, waste and noise reduction. It also offers a

high level of rig automation and integration of many services, such as cementing, casing and data acquisition, thus reducing the number of operations personnel required.

HH rigs offer a number of advantages over conventional rigs. All components are mounted on a semi-trailer and driven by a completely hydraulic system, which does not need disassembling when moving from site to site. The system can be powered by a diesel or electric unit installed on the deck.

Noise reduction has become a primary issue, so the diesel engine and related hydraulic oil-cooling fan are placed in a sound-proof shelter. The rig drills without brakes, avoiding excessive noise pollution.

Tripping of the drill string and tubular are carried out through a hydraulic cylinder, which simplifies mast lowering, lightening and transportation. Only a light frame is needed to bear the torque from the top drive, so the rigs do not require massive mast structures or crown blocks.

The top drive is held by two wire ropes, which engage with the sheaves on the top of the cylinder and are fixed to the trailer frame. With this configuration, the hook speed is twice that of the cylinder. This also allows for accurate weight control of up to 20t (44,092lb) during pull-down. This is very useful at shallow depths in order to avoid any sudden jump in the travelling

assembly when over-pulling stuck pipes.

The set-up procedure takes the minimum of time. Hydraulic jacks are used to raise the trailer to its proper height and erect the mast. This places the top drive and related wire ropes in the working position. The advantage of a self-standing mast is that it saves time during rig set-up and shut down, thus increasing the rig's efficiency when moving between sites.

Rig automation

The drill-string handling system is semi-automatic and requires minimal manual intervention during tripping procedures. A specific feature of the rig is that, when it is equipped with the standard pipe-handler system, the drill pipes are placed in a mousehole. The top drive moves out from the well centre to place itself vertically over the mousehole and collect the drilling string, lift it and carry it back to the well centre to add it on to the drilling string.

For pipe connections, the necessary torque is provided by the top drive. The system is completed by optional automatic slips and a power tong. A dedicated device controls torque during the lifting and making of casings. Rates can be selected on the control panel.

A hydraulic device maintains a constant weight on bit (WOB) during automatic drilling, set by the operator on the control panel. Alternatively, the penetration rate can be set during drilling. In this case, the WOB is controlled by the driller. Pre-determined over-pull rates may be set and reached smoothly in the case of stuck pipes. ♥

