



# IN DEPTH



The news letter for customers, agents, staff and friends

## news

June 2009 - n. 8

**casagrande group**

AGENCIES HIGHLIGHT

## Casagrande UK celebrates 20 years as Casagrande's distributor in UK and Ireland

Founded by Michael Finch, the company was appointed Casagrande's distributor in February 1989 and has continued to represent Casagrande to the present day.

Casagrande UK is celebrating 20 years as Casagrande's sole distributor for the UK and Ireland this year. Founded by Michael Finch, the company was appointed Casagrande's distributor in February 1989 and has continued to represent Casagrande to the present day.

At the time that Casagrande UK was incorporated, Casagrande had only a small share in the UK market but since then, Casagrande UK has grown to become one of the major suppliers of piling and drilling equipment in the market with nearly 300 machines of all types sold, from the smallest drilling



rig, the M3D, to the largest C800 piling rig. Amongst Casagrande UK's early achievements were the successful introduction of the first generation of Casagrande hydraulic piling rigs into the market including C30 and C50 piling rigs and C60 machines with HT torque multiplier.

At this time, Casagrande UK also increased market share in the drilling rig market and, over the years, the C6 has become one of the biggest selling rigs in the UK market with approximately 130 rigs sold.

▶▶ CONTINUED PAGE 2

JOB SITE

## Casagrande goal is to increase Customers' productivity

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Because the New York Metropolitan Transportation Authority (MTA) regulations and the local ground conditions which limit the types of applicable drilling technologies, J.C. Contracting of Woodside, a Brooklyn, New York-based specialty contractor, required a rig able to deliver both large-drill piles and mini-piles. Facing the same restrictions led Groundwater Specialists, a contractor from Ronkonkoma, New York, to seek a drilling set-up that could make their rigs more productive. Both companies turned to Casagrande USA, of Lafayette, New Jersey, for customized set-ups that met all their needs.

The MTA is responsible for maintaining the integrity of the New York City subway systems underground structures. One of the regulations required to avoid sending drill spoil outside the drilling casing while operating in external flush mode-drilling mini-piles are specified using casing extended beyond the inner rods, forcing the soil to travel internally (between the casing and the drill rods).

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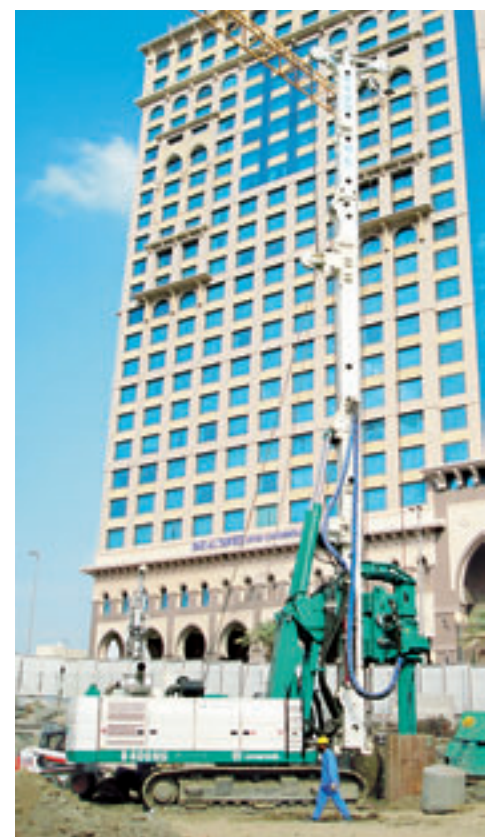
Job site

## The Jabal Omar towers project in Saudi Arabia

A new incredible project aimed to improve and accelerate accessibility to the al-Harem site is under construction.

The Jabal Omar Towers Project will include seven apartments towers of 35 floors each, two hotel towers of 50 floors, a four-levels retail concourse and four hotel blocks, each having 15 floors. The total developed area will appox. 230000 Square Meters.

Together with the idea to improve the pilgrims' access to the al-Harem areas, the architects have developed a concept to insure viewing of the Holy Areas from the majority of the apartments and rooms. The visibility is improved, naturally, due to the elevated mountain terrain overlooking the area and, furthermore, the buildings and the towers will be constructed in different shapes and typologies to maximize the view for all the pilgrims visiting al-Harem.



▶▶ CONTINUED PAGE 4

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In the mid 1990's, the Irish market started to grow and Casagrande UK have become one of the strongest suppliers in that market too.

In the late 1990's, Casagrande UK were involved in the development of the new CFA26 and CFA425 models and with the introduction of the B125 in CFA-L mode, a significant share of the CFA market was gained. Today, the company is still managed by Michael Finch but has grown to twelve staff and operates from purpose designed offices and yard in Chesham, Buckinghamshire. Casagrande UK has taken on the distributorship for other related manufacturers but the Casagrande product range remains the larger part of the company's sales turnover. A key factor in Casagrande UK's success has been the development of in-house after sales capability and the company presently employs seven specialized technician people dedicated to

on site servicing and spare parts sales functions.

Despite the global recession having affected the UK and Irish markets for foundation equipment, Casagrande UK is looking forward to a bright future and anticipated growth in various areas of the market such as :

- Diaphragm walls (with standard clamshells and Hydromill reverse circulation equipment)
- Secant/tangent piles walls
- CFA,
- Displacement piles,
- Drill shafts,
- Jet grouting
- Minipiling
- Anchors
- Geothermal drilling.

## COMPANY'S NEWS

# Casagrande presence at IFCEE (Orlando, USA) and INTERMAT (Paris)

Another busy year has started, and Casagrande is strongly present at the first two main events of 2009, with more equipment and innovative technology.

**The first appointment was the International Foundations Congress and Equipment Exposition, held in Orlando (Florida - USA) from March 15 to the 19th.**

The event, recurring every three years in USA, combines technical conferences and foundation equipment exposition. Being sponsored by ADSC (American Drill Shafts Association) the event is mainly focused on three major technologies: drill shafts, micropiles and anchors/tiebacks. However, the equipment exposed included also rigs and materials for other related geo-engineering and geo-construction technologies. Mainly organized for the Americana and Canadian markets, with its technical program, outdoor equipment, and the indoor material and services, this exhibition attracts attendees from Central and South America.

Exposed equipment:

- CASAGRANDE B 105 hydraulic piling rig
- CASAGRANDE B 135 hydraulic piling rig
- CASAGRANDE M9 drill rig
- TEC CSM (cutting wheels only)

Casagrande USA had welcomed all visitors with a professional and well

trained team which had illustrated all the latest information about Casagrande's technologies.

**The second 2009's important appointment was the INTERMAT exposition in Paris from the 20th to the 25th of April.**

All major players from around the world are generally present at this international construction equipment exposition because of its unique 30000 square meter outside testing area where various types of construction equipment are generally tested. Casagrande was present at the exhibition together with TEC System, the

French agency located in Naintre (western France). Due to the importance of the Paris exposition the following equipments was shown:

- CASAGRANDE B 170 with VIBRO application
- CASAGRANDE B 250 with CSM application
- CASAGRANDE HBR 205 geothermal drill rig
- TEC BAYA hydraulic clamshell
- TEC NEW ABYSS soil investigation
- TEC GALAXY soil investigation drill rig
- TEC FUTURO compact drill rig
- TEC PH 2X5 grouting pump



The two events were important to recognize the market trends following last year's economic worldwide recession. The large presence and the interest shown at the events was very positive. The general feeling recorded was that the two markets (European and American), even if in different ways, have recognized that the construction of infrastructures and the requirement to start in short time large worldwide projects, are the indispensable tool to accelerate the economic international recovery. Recognizing these markets requirements, Casagrande is preparing to serve the industry and their clients adding new technologies applications and new or improved equipment to the already large fleet.



# C900

## Hydraulic Piling Rig

[www.casagrandegroup.com](http://www.casagrandegroup.com)



FROM PAGE 1

JOB SITE

# The Jabal Omar towers project in Saudi Arabia

A new incredible project aimed to improve and accelerate accessibility to the al-Harem site is under construction.

The proposed development is divided along the mountain ridge, defining the development in two sides; one facing



and the other sloping away from al-Haram area.

The development on the eastern side includes the retail concourse and it will be connected with a network of pedestrian access routes that will lead the pilgrims down to the mountain to the Holy Sites.

Hotel and apartment towers are situated on the mountain ridge, while the development on the western side is dedicated to car-parking and vehicular access.

A combination of elevators, escalators and walking concourses are considered for reducing the travel time from the accommodations. An interesting and innovative concept is aimed to recycle all the development waste water which will be used to water all the landscaping that will be placed above the entire car-parking roofs.

## Foundation works

The first phase of the foundation work consists of the installation of 400 piles; 1200 mm in diameters up to 35 meters in depth. The piles are installed by Huta Foundation Works Ltd. using one Casagrande C900 and one Casagrande B400 drill rig.

The soil profile consists of weathered to hard Grandiorite rock and sedimentary (silty sand, gravelly sand) layers. Water level is approximately 6 meters below ground level. The piles, fully cased to prevent any possible groundwater contamination, are drilled into very hard granite for at least 3 meters. Drilling is performed with special tools and adapters developed by HUTA engineers. Huta foundation is one of the four companies forming the HUTA-HEGERFELD Saudia Ltd. Group. The group has been operating in Saudi Arabia on the infrastructural project market, completing successfully contracts for more than 3.5 Billion of US Dollars. The group, with more than 3000 employees is considered one of the leading construction companies in the Kingdom and is structured in four major companies: Huta-Marine Works Ltd, Huta Foundation works Co., Huta Hegerfeld Environmental Works Ltd., and OCC Weaver.

Job site

FROM PAGE 1

JOB SITE

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The B135 met requirements for longer, single-pass drilling and Casagrande's C8-2 hydraulic crawler drill was a perfect fit for the clients drilling applications.

In the case of J.C. Contracting, Casagrande USA proposed to modify a standard B135 hydraulic piling rig to be used also for mini-pile applications. The challenge for Casagrande's designers and mechanics were to find a way to develop the modifications while insuring an easy/practical system to install and remove the various components for the dual-use rig. The following requirements were needed to be solved to complete the B135 double-use applications set up: the installation of a clamping and break-out device to handle the 3 to 1-inch diameter pipes and the hydraulic and electric controls were to run from the B135's cab. In addition a flushing media induction system was installed to enable the use of the duplex drilling system common to mini-pile rigs. The result is that it takes a J.C. Contracting mechanic only about a day to reconfigure the drill rig from large piles to mini-pile applications and vice-versa. The adaptation undertaken for Groundwater Specialists also came because a specific New York City MTA specification. In this case the agency requires that the inner drill string remain retracted within the casing a distance of 2 times the inside diameter of the cas-

ing to prevent external flush. Bits can be extended beyond the casing only when an obstruction is encountered, but must be retracted again once the obstruction is cleared. When an obstruction was encountered, Groundwater Specialist's mechanics had to break the casing and inner rods, pull the drill head, add a sub and then drill through the obstruction. Once through, the drill set-up was changed again. The changeover time (an hour both when extending and retracting the drill head) was prohibitive. Groundwater Specialists came to Casagrande USA with the request to solve the problem. Casagrande's C8-2 hydraulic crawler drill was a perfect fit for the clients drilling application. A modification was undertaken to increase the stroke between the double heads on the drill to 760 mm.

This allowed drilling to be done far enough inside the casing to meet specifications,

and at the same time allowed the switchover for drilling through an obstruction to occur down the hole, without tooling changeover. Groundwater Specialists had one further request, specifically that a top hammer hydraulic drifter be set up as the upper drill head. This would allow the use of water flushing: air would not be needed to drill the obstruction with a down the hole hammer. The mechanics at Casagrande USA

installed a powerful Krupp HB 50 Drifter.

In conclusion J.C. Contracting and Groundwater Specialists, own now equipments that, whatever the nature of the job they are on at the moment, are modifiable to satisfy the project requirements, will be able to increase at the same time production rate and insure quality performance as requested by the MTA Specification.

