



IN DEPTH

news



The news letter for customers, agents, staff and friends

March 2008
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COMPANY'S NEWS

Casagrande USA, located in Lafayette, New Jersey, is now the official "company store" focused solely on the Casagrande product line

Customers can now access a larger domestic stock of normal wear items and spare parts, an increase in after-sale service and support, and an increase in the quality of communication between the market here in the States and Canada, and our northern Italian home base.

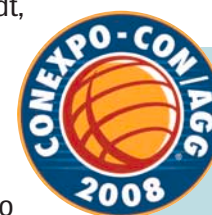


As evidence of Casagrande's ever increasing commitment to the North American market, we are proud to announce the formation of

Casagrande USA and the addition of Daniele Infanti as sales manager to the Casagrande USA staff. Daniele, a native Australian and former Casagrande area manager for Asia and Oceania, comes with over 14 years of geo-technical drilling equipment experience. Casagrande USA, located in Lafayette, New Jersey, is now the official "company store" focused solely on the Casagrande product line and to giving our North American customer base the service

and "in depth care" they have come to expect and deserve. Custom and application specific modifications to the Casagrande line of machinery can now be carried out by factory trained mechanics and technicians at our New Jersey facility, or on-site as required. Under the leadership and experience of Mike Steinhardt, our customers can now interface with an organization whose knowledge and expertise is not limited to only the machines, but also to the range of drilling techniques and tooling options in practice today. This combination of talent and know-how will insure that our customers, old and new, can be confident in knowing they will be given the machine best suited to the job at

hand. We at Casagrande are looking forward to this new partnership and to growing the number of satisfied owners and operators here in the United States and Canada while helping to increase the efficiency in which they are able to complete their projects.



Please come visit us to speak with a company representative, to welcome Daniele, and to view a sample of our current product line during Conexpo/ConAgg in Las Vegas, March 11th thru the 15th. We are located in the silver lot - booth S-649. Casagrande - The Power in Your Hands.

Casagrande PG 185

Casagrande PG 185 installs Horizontal Jet Grouting at the New Brenner HT-1 Tunnelling Project

Project Information

The very much needed upgrade of the Munich - Verona rail system includes the cut and cover and tunnel segment between Kundl/Radfeld - Baumkirchen (Inntal - Tirol,

Austria), as part of H7-1. The H7-1 project section has an overall length of 5,30 km with a 2.2 km tunnel portion.

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Job site

▶▶ CONTINUED PAGE 2

A C600HD rig with the CSM

Soil Mixing technique using the milling system in comparison with the rotary system is used in order to insure continuity between panels while creating a homogenous mixture of the injected binder.

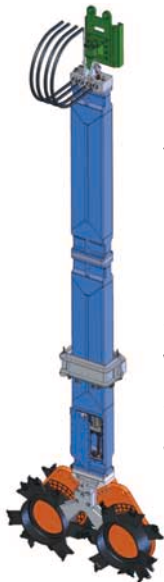
The installation of the approx. 15 meters deep cut-off wall is underway and will be completed in November 2008. A total of approx. 16,000 square meters of cut-off divided in 433 overlapping panels will be installed as containment and remediation for the area.



JOB SITE

A Casagrande C600HD rig is used in Naples-Italy, for soil mixing with the TEC-CSM milling method

Soil Mixing technique using the milling system in comparison with the rotary system is used in order to insure continuity between panels while creating a homogenous mixture of the injected binder.



The rehabilitation project was awarded by the Department of Emergency Works of the Campania Region to the consortium SIBA s.p.a. - E.M.I.T. s.p.a.- S.I.F. s.p.a to contain the underground seepage of contaminated water from an old disposal site.

S.I.F. s.p.a. (SOCIETÀ ITALIANA FONDAZIONI) is responsible for executing

plastic soil mixing cut-off wall. Founded in 1960 in Rome, S.I.F. has developed an innovative and dynamic organization able to insure a strong presence on the Italian geotechnical and foundation market. Diaphragm walls, drill shafts, piling, CFA, minipiles, grouting, jet grouting, tunneling and soil mixing are the major technologies used by SIF.

The Soil Mixing technique using the milling system in comparison with the rotary system is used in order to



The New Delhi metro: another test for Casagrande KRC system



Equipment used

- B250 KRC2 HD-180° Hydraulic Grab type K 2200 x 800
- C600HD KRC2 HD-180° Hydraulic Grab type K 3000 x 800
- Casagrande D14 Desander with nominal capacity of 140 m²/h

Other Projects for DMRC

Sembo Engineering Ltd has been awarded of five different contracts by the Metro Railway Corporation's (DMRC).

1. DMRC's pkg 3C13, at Barakhamba Road, from Tolstoy Marg to Mandi House
2. DMRC's pkg at Panchkuian Road Ramp & Tunnel
3. DMRC's Pkg BC33R, Ananda Vihar Station
4. New Project: DMRC's pkg BC23 at Krishi Bhawan
5. New Project: DMRC's pkg AMEL-C4, near Delhi Airport

Two Casagrande KRC rigs have been used at the New Delhi Subway Extension. The versatility of the KRC unique system helped to install the diaphragm walls at the contract No. BC2 (from Vishwavidyalaya-University to Camp), in very challenging logistic conditions.

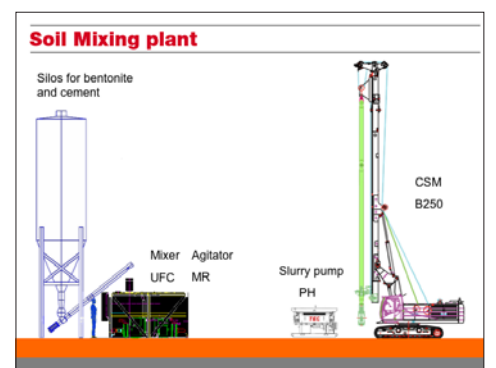
Diaphragm Wall details

- Maximum depth : 28 metres
- Length: 650 meters each side
- Panel Thickness: 800 mm
- Type of soil: Sandy clayey soil with maximum SPT of up to 60
- Progress achieved: One panel of 25m x 800mm x 2.8m was excavated in 150 minutes



Job site

insure continuity between panels while creating a homogenous mixture of the injected binder (cement /bentonite). The main advantages in applying the TEC-CSM milling technology are the use of the native soil and the possibility to optimize the design and consumption of the contraction material used. Quality con-



trol is maintained using a real time monitoring system which records all the required parameter on an on-board computer. Comparing to other systems, the minimized body section of TEC-Casagrande equipment facilitate the mill's withdraw.

EXPO

Main exhibitions which Casagrande Group will attend in 2008

 5 - 9 march SAMOTER Verona, Italy	 11 - 15 march CONEXPO Las Vegas, U.S.A.	 22 - 26 april SMOPYC Zaragoza, Spain	 1 - 4 october GEOFLUID Piacenza, Italy	 25 - 28 november BAUMA CHINA Shanghai, China
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SERVICE PRODUCTIVITY QUALITY RELIABILITY



WHAT IF YOU COULD HAVE THE STRENGTH OF A ROMAN LEGION BEHIND YOU ON YOUR NEXT PROJECT?

IN ANCIENT ROME, LEGIONARIES CARRIED THE BANNER S.P.Q.R. – SENATUS POPULUSQUE ROMANUS – THE SENATE AND THE ROMAN PEOPLE. TODAY'S MODERN LEGIONARIES, CASAGRANDE, STILL CARRY THE S.P.Q.R. BANNER.



THE POWER IN YOUR HANDS
in depth care

www.casagrandegroup.com

Casagrande PG 185 installs Horizontal Jet Grouting at the New Brenner HT-1 Tunnelling Project

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The General Contractor Joint Venture team (Strabag, Zublin, Hochtief Construction AG) includes the foundation specialist Insond Spezialtiefbau which is responsible for the installation of the horizontal umbrella-type jet grouting treatment. The project is expected to be completed in 2009.

All the tunnelling operations, including the jet grouting installation, are performed in compressed air environment. Jet grouting is installed from

two different fronts, reducing in this way the standby time while the tunnel excavation is executed.

The Jet Grouting Treatment.

Horizontal jet grouting is installed forming a double-rows umbrella. Design requirements calls for 60 cm diameter jet grouting columns positioned at 40 cm distance from each other. Thus will insure continuous overlapping and interlocking between the adjacent columns.

A total of 34 double-type umbrellas will be installed. Each tunnel advancement will require the installation of an average of 60 jet grouting columns. The project overall drilling length is approximately 30,000 liner meters. The jet grouting columns installed with 11% inclination are 15 meters long. Each excavation advancement, how-

Casagrande Equipment Utilized

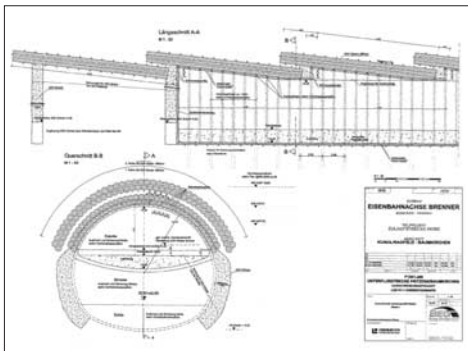
Casagrande PG185 hydraulic crawler drill
Casagrande P700 high pressure pump
Casagrande Mix30 mixer

info

ever is only 12 meters long, leaving always an overlapping and front protection of 3 meters to prevent any possible collapse of the excavation front. However, the front is also protected with one meter grouting and shotcrete.

As stated above, all the tunnelling operations are performed under balanced compressed air ranging between 0,4 to

0,6 Bars, depending on the ground water elevation.



INTERVIEW

A brief interview with Mr. Wang Lin Hai Casagrande S.p.A. representative:

1. When did your cooperation with Casagrande start?

My cooperation with Casagrande started in 2005 and since then Casagrande S.p.A. Shanghai Representative Office was planned in 2006 and finally founded at the end of 2007.

2. How is Casagrande S.p.A. Shanghai organized?

Casagrande S.p.A. Shanghai representative office is mainly engaged to improve the market share, the quality of the after sale service and the sales of Casagrande equipment in China.

The office organization includes an office manager, a personal assistant and two technicians.

Each agent is dedicated to one of the main market areas. The system is giving us the possibility to share information and is needed to insure the continuous increase of Casagrande's presence in the Chinese market.

3. How do you see the future of the market in your area?

China's market is very difficult and there are an increasing number of local piling manufacturers. We have difficulties to compete in the open (standard) market. For this reason our main focus is the market special large project and sophisticate equipment (large crawler rigs, tunnelling rigs, diaphragm walls

equipment) where there are less local competitors. Our future goal is to insure the presence of the Casagrande brand in China while developing a market share for tunneling and Hydromill equipment systems that will be used in large and complex projects in the future.

As of today, there are various Casagrande units working on the Chinese market both piling rigs and crawler rigs. The Railway, Water and Electricity departments is one of our customers. Since Casagrande S.p.A. Shanghai Representative Office in China was formed we have maintained our position of top vendor between the international foundation manufacturers present on the market.

4. Tell us something about your background?

I am a graduated from the Shanghai Hydraulic Technological Academy. My working experience are from 1990-1995 with Rexroth local Representative Office, from 1995-2001 Singapore Energizer Co., Ltd, and then from 2001-2004 with Boma Equipment Shanghai Branch.

By the way, my special interest is soccer and I am an enthusiastic follower of the Italian league. Unfortunately my favourite teams are AC Milan and Juventus.... and they are not doing very well this year.

Casagrande in China

It has been always challenging to work into the Chinese market due to its local production.

However, we expect the start of some large tunnelling projects together with the increase use of similar equipment of deep diaphragm walls as support/structural foundation system and more projects were cut-off for see page control are required. We have been

working in following these projects in order to be ready when the equipment will be required.

Here below the contact information for our representative in China:

Name address of the agency
CASAGRANDE SPA SHANGHAI REPRESENTATIVE OFFICE
RM 608 LIDOU BLD,
L 500 1 ZHONGSHANNANYI ROAD
SHANGHAI, 200023
P. R. CHINA

Contact

Mr. Wang Lin Hai
Tel. 0086 21 53011179
Fax 0086 21 53011178



agency highlight