





# Go with the flow

Massenza's Gabriele Pavan explains how the company has harnessed new technologies and is confidently moving with the market

Public presentation of Massenza PRIM100TP drilling rig in Ethiopia almost 20 years ago

New MIP28 rig model, a rotary-percussion rig designed for soil sampling, aquifer water and interstitial gas sampling he hydraulic circuit, which is one of the most important components of the drilling rig, has evolved in the direction of reduced consumption and increased efficiency over the last 20 years. For instance, Massenza rigs are mounted only with variable and load-sensing hydraulic pumps for the main circuits.

Safety standards and features have improved dramatically in the last two decades with Massenza's technical team adding many controls that enable the checking of all functions.

Furthermore, thanks to finite element analysis the company can accurately identify any weak points of the structure and take early action to strengthen these areas. Due to the combination of more than 90 years of experience and new technologies, Massenza can ensure its rigs match the highest standard of quality and safety, the company says.

Improvements in electronics now mean that Massenza's rigs can be completely



controlled by remote and wireless control panels. The operator can easily find the best work position in terms of safety and efficiency.

### Africa and beyond

In 1994, Massenza Drilling Rigs won a big contract for the complete construction of 650 boreholes for water wells in Ethiopia. This project has been very exciting and, at the same time, a hard challenge but the company is proud to say it has succeeded in completing all the boreholes in the agreed time.

Massenza supplied everything required for the contract: drilling rigs, drilling tools, manpower and its solid experience. The complete success of the contract has resulted in Ethiopia being one of the company's best markets today, Massenza says.

Massenza has supplied drilling rigs to all continents except Antarctica: Africa (Algeria, Cameroon, Congo, Ethiopia, Ghana, Libya, Mauritania, Morocco, Nigeria, South Africa); Middle East (Iraq, Oman, Syria, Turkey, United Arab Emirates); Russia, Europe (almost all countries), Australia, South America (Chile, Peru, Venezuela) and the US.

The company does not intend to stop there. Over the next few years Massenza will widen its market, increase its presence in strategic countries and continue to improve quality and safety. The team accepts the challenges it faces from emerging economies but is confident that its customers will recognise the experience gained from over 90 years of history.

The response Massenza receives from many international exhibitions is that customers know the value of 'Made in Italy' and they understand that the quality and efficiency of Massenza rigs will result in increased profitability.

## Timeline of events

Massenza was established in 1921 and since then it has been an effective contributor to the evolution of drilling technologies. Over more than 90 years the company has seen many changes and launched many significant products: in 1940 Massenza produced the first percussion drilling rig, in 1950 it sold the first rotary drilling rig and in 1970 it created the first completely hydraulic drilling rig.

From this date, all the drilling rigs Massenza has produced have been manufactured to each customer's individual requirements – one of the major reasons for the manufacturer's success is the importance it gives to the special needs of each customer.

Every rig is tailor-made depending on the specific application and the drilling method of the customer. In recent years it has designed many different handling systems to load/unload the pipes: the most advanced is its arm pipe loader, with which it is possible to load/unload the rods in a few seconds. Rig and handling systems are controlled by only two operators, reducing manpower costs and increasing safety.

In June of this year, after several months of design and testing, Massenza launched its new MIP18 model. This is a

rotary-percussion rig designed for soil sampling, aquifer water and interstitial gas sampling. The MIP18 is claimed to be the complete and unique solution for in-situ soil-sampling investigation and remediation. It is particularly optimised for soil sampling for environmental analysis (direct-push), aquifer water sampling (direct-push), placement of aguifer water monitoring systems (piezometers), interstitial gas sampling, placement of interstitial gas monitoring systems and CPTu tests, thanks to its automatic anchoring system and complete Pagani Geotechnical Equipment CPTu system.

# Investing in people power

Massenza believes the training of operatives is vital. This is why Massenza Drilling Rigs co-operates with the Italian driller association ANIPA in promoting training courses for drillers. Following the sale of a rig, Massenza can offer a two-stage training programme.

The first stage is to instruct personnel in the operation, maintenance and replacement of component parts of the rig at its factory premises.

The second stage is the attendance of an expert drilling engineer at the customer's job site to oversee borehole drilling and instruct the operatives in best safety and productivity practices and techniques.

#### **Combined effort**

Massenza's first challenge and goal is to continually improve its quality. The company's technical department studies new solutions every day in order to give customers the best possible product. The commercial department and the aftersales service work hard to give immediate answers and to find quick and effective solutions.

During the last 10 years the market has completely changed: before this period, Italy was Massenza's main market. Now, due to the decrease in national demand and the development of overseas markets, the company exports 90% of its production. This has resulted in new challenges as Massenza is competing in new markets against products from emerging economies, which may not be of the same technical specification.



Above: a job site in Ethiopia with rig model M.1,28 at the moment the crew strikes water

Below: M.I.45 rig with 45t pull-back and 2,350kg/m of torque for Ethiopia



For more information: www.massenzarigs.it