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## Colli Drill

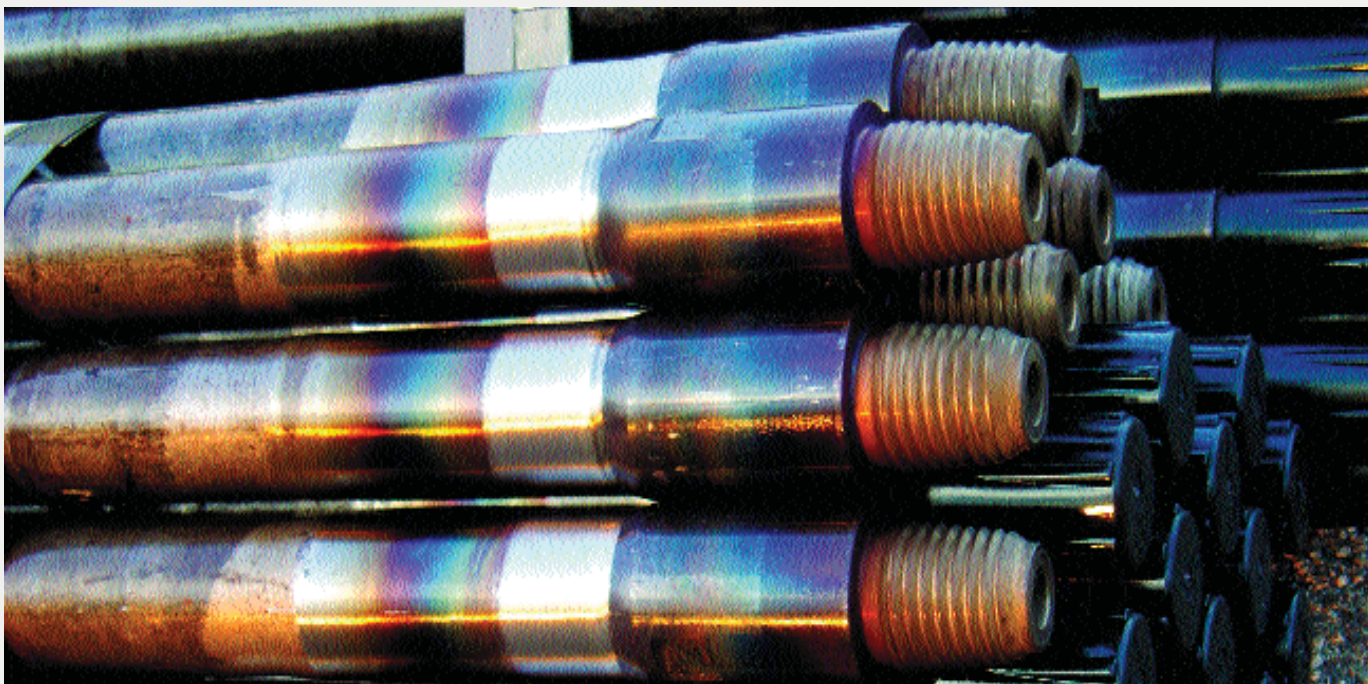
### Brings Its HDD Drill Pipe to the North American Market

(Colli Drill porta le proprie aste per  
HDD sul mercato Nord Americano)

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## Colli Drill Brings Its Drill Pipe to North America

“It happened that in 1994, Massimo Colli, who was only 22 at the time, came to me and said, ‘Renzo, my father tells me he wants to produce drill pipes, could you give me a hand?’” In this way, Renzo Chirulli, now USA export manager for the Colli Drill Co., recounts the beginning of the adventure that has grown this business, in just more than 12 years, into one of the leading world producers of HDD and waterwell drill pipes.

“Between 1994 and 1995,” says Chirulli, “I couldn’t tell you how many kilometers Massimo [Colli] and myself traveled all over Europe, looking for machinery and steel. We went around with an aged laptop, a copy of the *Stahlschlüssel* (key to steel) and a tape of Laura Pausini to feel nearer to home even in the most out of the way villages in Germany and England.”

Since then, growth has been really heady. The Colli Group now numbers nine companies, spread over three continents, with about 100 employees and an overall turnover of more than \$25 million. Drill pipe production began toward the end of 1995, and to date more than 220,000 drill pipes have been manufactured, their diameters varying between 38 and 220 mm (1.5 to 8.7 in.) and lengths of up to 12 m (40 ft).

“At the start, few took us seriously,” says Massimo Colli, general manager of Colli Drill. “My father would see red, speaking of the tons of steel we had used to try out friction welding, before beginning the actual production. Currently we have customers in at least 30 different countries — from South America to Far East Asia. Our main objective has always been exclusively to give our customers complete satisfaction, at the risk of not earning a cent.”

For this reason, investment in research and development has always been the focal point of Colli Drill’s entire activity. “We began with a portable Rockwell durometer, but today we can boast of two internal laboratories entirely given over to metallographic and mechanical tests on both steel and welding,” says Chirulli, who was production manager for Colli Drill in 1995. The HDD drill rods produced by Colli Drill today are of three main types — standard friction welded (SFW), forged one-piece (FOP) and forged-friction welded (FFW) drill pipes.

At Colli Drill, all manufacturing processes are monitored by cutting-edge sensors, as well as computerized systems. “Every single steel batch that enters our production process is given an identifying tag number, which enables us to trace back the original cast, the characteristics declared by the steel producer and those determined directly by ourselves in our laboratories when the steel arrives at the factory,” says Mirko Samac, mechanical engineer and the current production manager of Colli Drill. “When it leaves our plants, each Colli Drill pipe is branded with two numbers, one for each welding, resulting in what can be called an identity card.”

For each welding process, in fact, more than 700 pieces of data are recorded, which means that the entire production history of every single steel item that leaves the premises can be traced back.

“Should a rod break, we can tell at once whether the break depends on incorrect use of the pipe in the jobsite, or may be due to a defect in the material or manufacturing



Colli Drill's team (from left): Mirko Samac, production manager, Genni Colli, marketing, sales and development manager, Massimo Colli, general manager, and Renzo Chirulli, export manager USA. (photograph by Francesco Elio Chirulli)

process," says Samac. "Over the last six years, we have recorded an average of one break every 3,000 pipes produced. In 90 percent of the cases, the break was caused by incorrect use in the jobsite, while in the remaining cases — we are speaking here, therefore, of less than one pipe every 30,000 — it was due to a defect in the material or a production problem."

"When this happens" explains Genni Colli, marketing, sales and development manager, "we have always substituted the damaged parts, and always found satisfactory agreements with our customers, our reward being their continuing fidelity."

Genni Colli, Massimo Colli's sister, has a degree in chemistry, and joined the company in 2001. She is firmly convinced that the quality of the product is the strong point of the Colli Drill pipes. "We don't go for spinning tales to our customers," says Genni Colli. "We prefer that the reality we express with our products be founded on the exceptional quality of the product and on the entire satisfaction of our customers."

Since 1998, Colli Drill has been certified ISO 9001 for the production and sale of drill pipes, but the quality of the product, those in the company insist, is not based on certificates.

"We have the greatest respect for our competitors, but we have never believed that competition, especially for HDD drill pipes, should be founded solely on price," says Genni Colli. "And for this reason, we continue to invest in research and technology. Drilling rods are not simple steel pieces, and in ours, the technological content is of the highest."

Some months ago, Chirulli undertook the appointment as Colli Drill's USA export manager, with a view to bringing Colli Drill pipes to American customers. "I love America, its people, its great spaces and its work style. But our biggest competitor today is the dollar," he says. "However, we are used to sacrifices, and we'll win this challenge too. We'll bring Colli Drill quality from Italy to our American customers, even if we've got to swim there."

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Chirulli, who is 42 years old and an engineer who specialized in directional drilling and trenchless technology, knows HDD well, as he has produced rigs and has carried out hundreds of kilometers of HDD installations. He has made a name for himself in the international no-dig technical-scientific community and has written books and articles on this subject. He sees Colli Drill as a family-run company and is convinced that the American market, as happened with other markets spread throughout the world, is ready for Colli Drill pipes.

"When we began production of forged-one-piece (FOP) drill pipes toward the end of 2006, we rendered our range of offers for HDD pipes complete," says Genni Colli. "We did this to meet the needs of customers accustomed to using FOP type pipes, but we are convinced that the top technology for a HDD drilling pipe is the forged-friction-welded drill pipes."

Colli Drill's research on forged-friction-welded pipes for HDD started in 2000, and the first forged-friction-welded pipe was produced in 2001. Why are people in Colli Drill so sure the FFW pipes are the best?

"Because in an FFW pipe we can use differentiated steels, for the pipe and the tool joints, with the highest mechanical characteristics, being able to carry out special treatments on the threads which are impossible on forged-one-piece pipes," says Massimo Colli.

"Besides, from a hydraulic point of view and therefore involving efficiency in transporting drilling fluids," adds

Chirulli, "an FFW type is decidedly better than the FOP sort."

In fact, that the characteristics of the steels used in Colli Drill for the production of drill pipes for HDD are of the highest grade, company officials say. The pipes are produced and sold with nominal characteristics that meet the API grade S135 (minimum yield strength of the steel = 135,000 psi), but the true yield strength of the steels used is more than 170,000 psi.

Why use such high characteristics?

"Because when you are pulling back a pipe, perhaps over a river crossing, the last thing in the world you want is for the drill pipe to break. Nobody, therefore, stoops to compromise with regard to quality in Colli Drill," says Chirulli.

"If we want to lead the field, we've got to think and act like leaders," says Massimo Colli. "And for the last 12 years, we never stopped doing just that."

The challenge is on. Already various producers of HDD rigs are today purchasing pipes produced by Colli Drill. In some countries, the company sells through national dealers, in others directly to the end customer. Colli Drill takes part in the main international fairs of the drilling sector and, in 2007, will be present at BAUMA 2007 (April 23-29) in Munich; No-Dig Roma07 Mediterranean — XXV International (Sept. 10-12 in Rome) and ICUEE (Oct. 16-18 in Louisville, Ky.).

This article was provided by Colli Drill, which is headquartered in Capena (Rome), Italy.

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