SCHULER

FORMING THE FUTURE

PRESS RELEASE

More stable pipelines for oil, gas and water

Schuler developing new process for demagnetizing large pipes together with Maurer Magnetic

Göppingen, 30 April 2013 – Large pipes, such as those used to construct pipelines, are either welded together with a spiral seam or with a longitudinal seam. In cooperation with the Swiss company Maurer Magnetic, the plant and machinery manufacturer Schuler has now developed a process which can already demagnetize large pipes during their production. This prevents deflection of the arc during welding and ensures the quality of the welds, thus enabling them to withstand the guaranteed loads.

"Magnetization can result on the one hand from the rolling, machining, forming and plasma cutting of steel sheets and on the other hand from the submerged welding of pipes with spiral or longitudinal seams," explains Dietmar Rieser, Managing Director of Schuler ATIS. "When pipe ends are then welded together on site, the arc can be deflected if there is too much residual magnetism – thus reducing the quality of the weld. This is not the case with demagnetized large pipes." Moreover, it avoids disruptive influences during the quality control process – e.g. when x-raying. Recent research results also indicate an increased incidence of corrosion on pipes which have not been demagnetized.

"Pipelines are exposed to extreme loads, as they often have to span hundreds of kilometers of inhospitable territory with extreme temperatures," adds Schuler Managing Director Jochen Früh. At the same time, the transport pressure of media such as oil, gas or drinking water inside the pipes is constantly being raised in order to extend the range and bridge the growing distances between individual extraction areas.

No delay in production

In the process developed by Maurer Magnetic and Schuler, pipes with spiral or longitudinal seams are transported through an electromagnetic coil and demagnetized. "There is no delay at all in production," assures Marek Rohner, Head of Technology at Maurer Magnetic. "We have therefore patented this innovative process."

Intensive tests at Schuler's site in Weingarten have shown that the method is suitable for spirally welded pipes with a wall thickness of up to 25.4 millimeters and a diameter of 20 to 120 inches. Pipes with longitudinal welds can have diameters of 16 to 64 inches and a wall thickness of up to 80 millimeters.

Maurer Magnetic's experts also use their patented "Maurer Degaussing Technology" for the process. The large pipes are completely demagnetized by an alternating magnetic field, which can reach a field strength of up to 80 kA/m in the high-performance coils.

The process can also be used for rectangular, ERW and seamless pipes.

Captions

Bild.jpg: Demagnetizing pipes ensures the quality of welds and enables them to withstand high loads.

Please name Schuler as the photo source.

About the Schuler Group – www.schulergroup.com

As the technological and global market leader in metalforming, Schuler supplies machines, production lines, dies, process know-how and services for the entire metal-working industry. Its clients include car manufacturers and their suppliers, as well as companies in the forging, household equipment, packaging, energy and electrical industries. Schuler is also the market leader in coin minting technology and supplies systems solutions for the aerospace and railway industries. The company employs around 5,500 people and is represented by its own facilities and sales offices in 40 nations around the world. In fiscal year 2011/12 (ending Sep. 30), Schuler posted sales of € 1,226.1 million with an Ebitda margin of 9.6 percent.

About Maurer Magnetic – www.maurermagnetic.ch

Founded in 1923 and based in Grüningen, Switzerland, Maurer Magnetic is today the Swiss market leader in magnetic technology. Its products and services are highly regarded by customers in Switzerland and abroad, with an export share of over 50%. Since the year 2000, the company has entered new markets around the world with its own, newly developed and patented technologies in the field of magnetizing and demagnetizing applications. The company's share capital is held exclusively by the Maurer family with Albert R. Maurer as the General Partner. Continuous re-investment of profits over the years has helped generate constant growth, financed entirely by the company's own funds.

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Press contact:
Simon Scherrenbacher
Corporate Communication
Bahnhofstrasse 41
73033 Göppingen
Germany
Tel.: +49 7161 66-7789
Fax: +49 7161 66-907
E-mail: simon.scherrenbacher@schulergroup.com