

Hächler AG Umwelttechnik Provides Lateral Success



By Sharon M. Bueno

The Hächler Group is led by (left) Joachim Lorch, CEO Environmental Hächler Group; Fritz Knecht, CEO, Hächler Group; and Beat Giger, CFO Hächler Group.

The Swiss-based manufacturer has risen to one of the leading lateral rehabilitation system companies in Europe in less than 20 years of operation.

In a few months, the Hächler Group will be marking its 60th anniversary in business. Since opening its doors in 1946, the Swiss-based corporation has evolved into more than a building contractor.

The Hächler Group's environmental company — Hächler AG Umwelttechnik — has become a leading manufacturer of lateral rehabilitation systems in Switzerland and in Europe as well. Early on in its entry into the trenchless marketplace, Hächler officials determined the way to succeed as a company was to focus its attention on a singular aspect of sewer rehabilitation and become the leading manufacturer and expert in that field. They chose to concentrate in

laterals and lateral rehabilitation.

Coming into the trenchless market in 1992, the company is an innovator for lateral inflow repair systems and offers a slew of products in this market. Its goal is to create "the most perfect" product on the market and company officials refuse to settle for anything less. As the Hächler products have evolved over the years, so has the company's reputation. They believe they have the best products on the market.

Hächler AG Umwelttechnik's rehabilitation system for lateral inflows — the EL 300/600 — was recognized earlier this year by the German Institute for Engineering (DIBT) and received the highest European admission to DIBT. Just recently, the company was

honored with the *Cash* Employer's award for 2005, naming the Hächler Group as one of the 10 best employers in Switzerland. *Cash* is the leading financial newspaper in Switzerland.

History

Hans Hächler founded his construction company in Baden, Switzerland, in 1946. In its early years, the company was a building contractor — building everything from houses to pipes. Sixty years later, the Hächler company — known today as the Hächler Group — is a leading construction company in Switzerland, with 280 workers employed in its nine different companies. The nine companies are divided into two business areas: construction and environmental services, with four of Hächler's companies under the environmental services umbrella. Hächler's trenchless operations, which became an integral part of the Hächler Group in 1992, fall under the auspices of the environmental services sector. The primary trenchless com-

pany is Hächler AG Umwelttechnik, established in 1995.

Hächler entered the trenchless market in 1992 after learning of methods to rehab damaged pipes. Since 1995, Hächler AG Umwelttechnik has developed sewer rehabilitation systems, primarily for the repair of laterals and distributed them to a worldwide market. Its first product was the socket rehabilitation system, the EL 300/600, for lateral inflow repair. Joachim Lorch is the general manager of all four environmental companies within the Hächler Group and is also CEO of Hächler AG Umwelttechnik. He has been with Hächler since 1997.

"Hächler AG Umwelttechnik started in 1995 but we started in trenchless technologies in 1992," Lorch says. "We had damage in a pipe that we had made and we made a new pipe but it was not correct. Afterward, we learned that there were possibilities to repair pipes with robots. And that is the reason we researched the business of sewer rehabilitation and decided to enter it."

Initially, the Hächler environmental companies offered the services of relining and robot lateral repairs for the trenchless market with foreign systems. But company officials decided early on to fully concentrate their efforts on their own robot systems for lateral rehabilitation, as there were not many companies pursuing that avenue of rehab at the time. This provided Hächler the opportunity to set the market for lateral rehab systems, as well as dominate it.

"Early on, we started the service department with robots and relining systems," Lorch says. "But today, we produce and promote only robot systems. Because our thought was that you should do one thing perfect and do it well. We also decided to produce the robots because there were already many suppliers of relining systems."

Hächler's corporate office has remained in the City of Baden, since the company's founding. Baden is an industrial city with a population of about 20,000 and is just 20 km from Zurich, with access to neighboring countries. While the company head-

quarters has remained in Baden, its production facility is in southern Germany in the City of Kressbronn, near Lake Constance. Approximately 60 of the Hächler Group's 280 employees work in the environmental services area of business.

While its primary business and corporate operations are in Baden, Lorch notes that it has trenchless dealers across Europe. "Everything is based in Switzerland except for our production factory," Lorch says. "Our international sales are handled by dealers in Europe,

reinforced mortar into the damaged area from the operating vehicle. This system feature allows the user to adapt the amount of mortar to the respective level of damage. Approximately 15 to 25 kg of mortar is used, although up to 50 kg can be used to repair what is considered "major damage." Large amounts can also be used to permanently rehabilitate large bursts and damage with extremely heavy infiltration of extraneous water. The EL 300/600 is designed for pipe dimensions of 8 to 24 in.

"A very big difference [between Hächler's system and its competitors] is that we pump the material from the service vehicle to the damaged lateral," Lorch says. "That means we can decide if we need less or more material. The special fiber-reinforced mortar from ERGELIT is the perfect product for water infiltration and it's very good for repairing large damage such as cavities or strong water infiltration."

Hächler also manufactures two models of its cutting units, with the first model developed – the HF 200 – in 1998. The HF 200 is for diameters between 8 and 28 in. The HF 130, which was devel-

oped for smaller diameters of 5 and 10 in., was brought to market in 1999.

"Our cutting unit is unique because of its special arm... It has what looks like a human arm," Lorch explains. "The hydraulic cutting robot is very flexible because of its long arm. It is possible to mill in front of the robot and at the pipe wall at the same time. The reach into the lateral can be up to 50 cm and that is especially useful. Lateral inflow repair and also rehabilitations in the main sewer can be prepared perfectly. A good rehabilitation demands always cutting on the whole area that is to be rehabilitated."

The latest product added to the Hächler line is the Hatset, which works in concert with the EL 300/600 system and allows you to fit top hat sections up to 40 cm inside the house connection by inversion from the main sewer. Lorch says this



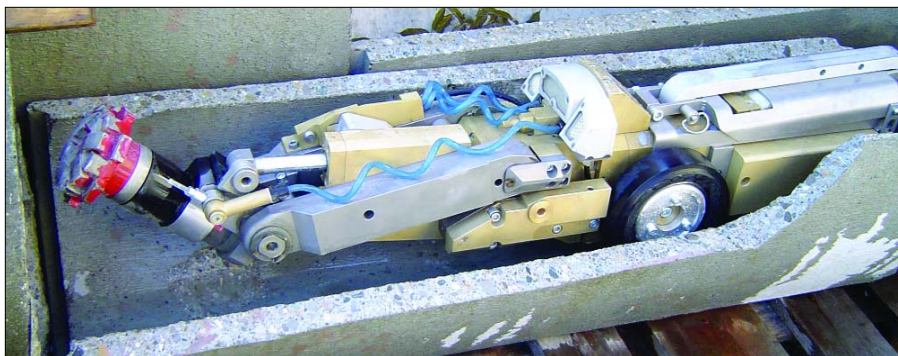
Hächler Umwelttechnik has been partners with ERGELIT in Germany since 1995. ERGELIT supplies the fiber-reinforced mortar to seal the laterals, such as the one shown here.

where we have seven locations. The Swiss, German, Asian and Austrian markets are promoted directly from our Baden offices. Our main market now is Europe. We are in a leading position in Europe right now and we are also in a good position in Asia. And now we are hoping to become a leading company in the United States."

Products

Hächler's primary product since the beginning is its EL 300/600 lateral inflow repair system, which injects dry mortar into the damaged lateral. Since its introduction in 1995, the robot system has continually evolved and improved – and to-date has performed 90,000 lateral repairs, Lorch says. In 1995, Hächler also formed a partnership with German-based ERGELIT, which provides its fiber-reinforced dry mortar to work in conjunction with Hächler's EL 300/600.

The EL 300/600 injects the fiber-



The HF 200 was Hächler's first cutting device, which is designed with a "human arm" to reach the lateral.

ensures that liners are optimally connected inside the main pipe up to 24 in. in diameter. The first joint in the house connection can also be securely rehabilitated at the same time.

"The Hatset is able to make an inversion from the main pipe to the lateral up to 40 cm... There are very few systems which are able to do this," Lorch says.

The Hatset is an example of how much respect Hächler has for its customers, as the product came about

after Hächler officials listened to the wants and needs of its customers. Hächler considers regular discussions with its customers to be the best way to jumpstart research and development on new products or improving existing ones. In fact, each year, Hächler invites the workers of its customers to its German factory for a two-day, free-of-charge training class. The sessions are twofold: first, the customers receive top-of-the-line training on the new and existing

equipment and secondly, Hächler officials can pick their brains on what they need to do to improve their products and generate ideas for new ones.

"We get the feedback from the customers of what we can do better or what the market needs are," Lorch says. "We've been doing this since 1998 and they receive quality training on the systems and we discuss how we can make the products better. The best ideas are from the workers because they are not complicated and they are not engineers. They just tell us what they want the equipment to be able to do. This has been very successful for us."

The goal each year, Lorch says, is to come up with a new solution for sewer repair. "Presently, we are researching and developing new systems, which are going to solve current problems for rehabilitating smaller pipes with diameters between 3 and 6 in.," he says.



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Trenchless Market

The current state of the trenchless market, particularly in Europe and with laterals, more than pleases Lorch. "The big and growing market in Europe is the lateral market," he says. "In Switzerland, for example, about 50 percent of the laterals have to be repaired and in Europe, it is similar. It's good for us."

So how many laterals need to be repaired? Using Switzerland as an example, Lorch notes that there are 40,000 km of sewer mains and double that number in laterals — or approximately 80,000 km of laterals. He notes that the laterals are typically in worse condition than the sewer mains.

And more and more municipalities are including sewer and lateral repairs in their budgets than before. "You can see it. You can see the countries with very good economic situations, making infrastructure repair a priority," Lorch says. "They don't have a choice because the problem is clear that if you don't do anything now,

you have no chance to repair it 20 or 30 years from now. You will have to make it new and it's much more expensive than repairing it now. It is very different from country to country because of the money."

Lorch also notes that the rise in the use of trenchless methods and infrastructure repair in Europe can be attributed to environmental concerns. "In the area of sewage systems, we observe an increasing market worldwide," he says. "This market is affected essentially by the increasing environmental awareness of human beings. More and more countries realize that the sewers have to be cultivated and rehabilitated. A collapse of the sewer systems would not be financially affordable in the long run by any national economy of our world."

Lorch says he does not envision a great wave of entirely new products in lateral rehabilitation in the future but sees improvements and technological advancements to existing ones. He also says there will be more



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—Joachim Lorch


importance placed on stronger quality assurance and preparation at the construction site.

As the need for lateral repairs continues to grow, Lorch says Hächler AG Umwelttechnik will be ready to meet the challenge. "We are going to continue to increase and position ourselves successfully worldwide," he says.

Sharon M. Bueno is managing editor of *Trenchless Technology International*.

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