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[TITELSTORY]

Richter – Hidden Cham-
pion in Maintenance

[DRUCKINDUSTRIE]

Branche erwartet 2011
Umsatzstagnation

[UMSATZLISTE]

Die führenden Unter-
nehmen der deutschen
Papierwirtschaft

[SOFTWARE]

Energie sparen in der
Papierherstellung

[SPECIAL]

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RICHTER

VDMA Abend
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Richter Plant I pulp & reject in Hürtgenwald



Grinding with a generally overhauled suction roll in Plant II rolls

[TITELSTORY]

RICHTER – HIDDEN CHAMPION IN MAINTENANCE

Many mechanical engineering parts and aggregates in paper mills are constantly exposed to corrosion and abrasion and have to be replaced, overhauled and reworked at regular intervals. With increasing cost pressure in the paper industry, services optimizing the preservation of existing values become ever more important.

When rolls and pumps need to be overhauled and regenerated, if worm gears, perforated plates and rotors are worn down or damaged, the company Richter in Düren is the right address. Wolfgang Richter with his company can look back at 40 years of experience already in servicing complete aggregates and consumables from slat conveyors to winders and is a highly demanded partner when it comes to overhaul, modernization and finishing.

The company with three sites in the district of Düren offers the all-round service in the three business divisions, pulp & reject, roll service and pump service. With basic wear-resistant materials, such as steel, stainless steel, hard metals, ceramics, composites and special materials, Richter reinstates the original geometry of worn down components and thereby considerably prolongs their service life. Around 130 paper mills in Germany, Austria, Switzerland and the Benelux countries are among the customers of the family-managed company with about 200 employees.

**Started in 1971
with one employee**

In 1971 Wolfgang Richter started in a small hall in Hürtgenwald with just one employee and initially focused on reworking consumable parts. Soon thereafter about 15

employees were occupied with tasks such as welding, lathing, milling and drilling as well as assembly, disassembly and repairs. “There is always also waste material contained in recycling paper and in the pulper of the paper mill, it is responsible for the wear and tear on worm gears, rotors or perforated plates. In the normal case we regenerate these parts. Yet if a repair is no longer possible, we will also build them new – then of course highly wear-resistant”, explains Richter. “This task is still the bearing element of our company in the present day.”

In the year 2000 Richter expanded its product spectrum for the paper industry by roll services. In 2005 the business segment for vacuum pumps was added. Richter technicians inspect the condition of components on site in the paper mills or the customers send their defective machine parts instead straight to Düren where the further procedure will be decided after a precise analysis of the condition that is often not possible in so much detail on site. If required, firstly a materials analysis will be conducted for a damaged component. This is performed directly in the factory using the company’s own spectral analysis device, which is Richter’s pride because it can normally only be found among the equipment of specialized materials laboratories.

“If we receive a broken worm gear for example, we have to know the alloy composition and the materials number. With about 3000 steel types available today it is absolutely imperative to have this data. This is the only way we can use the suitable materials for a high or higher quality repair or new fabrication.”

**Every machine part
can be regenerated**

Besides steel and stainless steel, also special materials are processed in Plant I, which have in part been developed by the Senior Manager Wolfgang Richter and his son Dirk. “We can regenerate or rebuild any machine part”, explains the boss of the company. “About 200 to 300 parts are permanently in circulation at our plant.” Parts that are highly exposed to wear and tear will be optimized with a special alloy. “We not simply repair consumable parts, we optimize and finish them. Therefore, these components will last for a significantly longer time after reworking than they did before.”



Company founder Wolfgang Richter (right)



Vacuum inspection/capacity test on site by Richter service technician

After welding on, all worm gears, rotors and other components have to be beveled so that they can then be fitted again optimally in the paper mill. Wolfgang Richter: “Based on our many years of experience we know exactly how much material we apply during the welding so that we need to bevel as little as possible afterwards. The beveling process is not quite simple because our materials are extremely resistant.”

Overhauling rolls and pump service

Plant II in Düren is managed by Junior Manager Dirk Richter. The roll technology and vacuum pump divisions have been located there for a few years now. Suction rolls are overhauled and beveled, pegs are repaired and replaced, and rolls are balanced and newly coated. For coating rolls, Dirk Richter who, like his father, is a mechanical and specialized welding engineer, has developed his own materials. “In terms of roll coating, protection against wear and tear and corrosion, we have made tremendous progress in the past five years. By now we have several composite roll coatings for the most diverse rolls on a large number of different positions – among these are, for example also the coatings for carbon fiber laminate rolls that have been an enormous success for years.

Plant II has different assembly-hall naves available with optimized processing lines for many different roll lengths. The rolls are taken into a nave depending on the ball lengths and undergo a complete overhaul there. Currently three beveling benches are in operation on which ball lengths of up to 6.50 m can be processed. In addition, two beveling benches for ball lengths of 10 m and a balancing bench for up to 70 tons are already integrated in the machine outfit. Yet, these will be set up once the

pump service division has moved to the third Richter plant.

The company is furthermore also revising all of its own machines that are used for processing the consumable parts. “Our machines are in top shape because we perform the general overhauls ourselves of course. This has always been our company philosophy – finishing existing values, not dismembering used components or machines but to renew and modernize them. We not only recommend our customers to do so but we also act accordingly at our own company”, says Dirk Richter.

» Currently three grinding machines for ball lengths of up to 6.50 meters are in operation «

Only recently a used lathing machine was readied for use at Richter, meaning its mechanics was overhauled and refitted for a modern control system. “The machine is now better than before”, as the Junior Manager is convinced of. In the summer the company will commission a third plant in an industrial zone in Düren – of course in an old industrial building that has been rebuilt, modernized and expanded according to the company’s motto “Make something new better from something old”. In the old brick building today, now with up-to-date sheathing, where aluminum used to be processed, there are three 100-meters long hall naves with 20-ton crane systems for the modernization of pumps.

“At this time we have about ten to twelve supply or vacuum pumps permanently on throughput”, explains Dirk Richter. More and more customers also draw in this field on the know-how of the company. “Our customers appreciate the way and manner in which we overhaul pumps as well as the good cost-benefit relation.” By the right choice of materials and by virtue of exclusively using fine materials, the pumps like all overhauled parts run considerably longer. “We are not the only ones who finish consumables, but no other company has such a wide range and such a comprehensive service portfolio as Richter.”

Always there for the customer

Optimal customer service is very important to the company: “We are there for our customers around the clock, of course also on Sundays and holidays. Because in emergencies, immediate help is required”, says company founder Wolfgang Richter. This is especially also true for the assembly service, which is the company’s fourth business segment with about 50 employees. Customers who work together as partners with Richter have these employees available on short notice in emergencies. “Our assemblers are basically the rapid deployment force for our customers.” | DB