

**SPECIAL
REPRODUCTION**

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AKTUELLE PAPIER-RUNDSCHAU

CROSSMEDIA-INFORMATION FÜR ENTSCHEIDER DER PAPIERWIRTSCHAFT

2012 | Nr. **08**
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[BVDM]

**Druckindustrie für 2012
optimistisch**

[VERBAND]

**Zellcheming gibt sich
einen neuen Rahmen**

[NEUAUSRICHTUNG]

**Huyck.Wangner und
Stowe Woodward mit
Reorganisation**

[KUNDENSERVICE]

**Södra Cell will mehr
neue Produkte**

[SPECIAL]
PAPIERERZEUGUNG,
VORBERICHTE ZUR
ZELLCHEMING

[BTG]

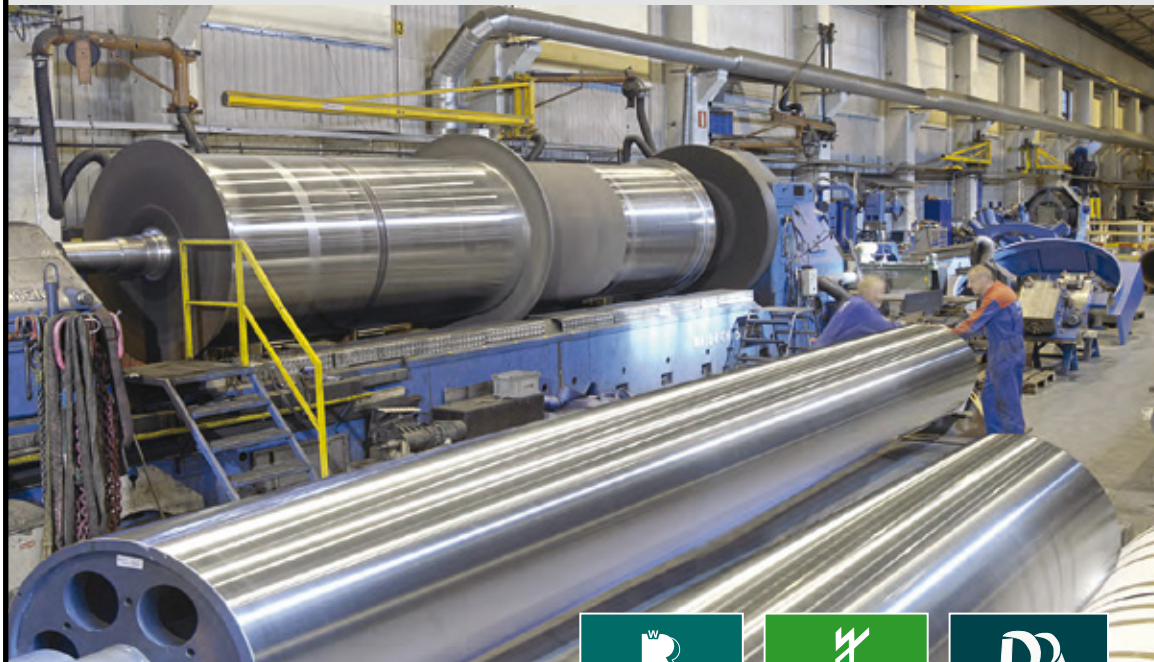
**Schaber erhöhen
Feststoffgehalt der
Streichfarbe**

RICHTER Karhula Oy

Function roll – Union

Manufacturing of rolls, repairs, service

- G-Groove stainless steel covers
- Deflection compensation roll shells,
Manufacture and retrofit
- Manufacture of function rolls
- Roll service



The Roll Union



Large rolls turning shop in Karhula factory for max. components sizes 2.10 m diameter x 18 m length (80t)



Wolfgang Richter at the honing machine in Karhula. Diameter 1.70 m x 10.50 m length (60t)

[TITELSTORY]

RICHTER IS COOPERATING WITH KARHULA

Mesera Karhula Oy is a Finnish private company for mechanical engineering and service. In Kotka/Southern Finland, the company builds special rolls for the paper industry. Early 2012, the company Wolfgang Richter Düren took over sales, service and commissioning of rolls in Germany, Austria, Switzerland and the Benelux countries.

At the site of Mesera Karhula in Karhula industrial park, machinery and equipment for the paper industry have been produced since 1905 under different names (Ahlstrom, Valmet, Metso, Mesera). The company built the first three board machines from 1908 till 1911, the first pulp machine in 1909. From the very beginning, rolls business always occupied a large share in the production. Throughout its history, the Company become more specialized in the construction of high-quality special rolls as well as roll service for deflection compensating rolls, suction rolls, press rolls and guide rolls as well as reel rolls. Today over 400 deflection compensating rolls made in Karhula are in operation. In Karhula factory, you can furthermore look back on over 105 years of experience in the headbox and the related service around 400 complete headboxes and headbox parts were shipped from Karhula to paper manufacturers and assembled. Mesera Karhula is now a company employing around 100 employees and having a turnover of about 12 million Euros.

„Our company might be small in comparison to large, worldwide leading paper machine manufacturers, but we provide our customers with very high quality and always deliver in a reliable manner,“ says Jari Hämäläinen, sales and plant manager Mesera Karhula. The core business is the production of function rolls like sizer, press, calender and suction

» Core business
is the production of
function rolls «

rolls, especially the manufacturing of components for deflection compensating rolls, both for conventional (swimming), and for zonecontrolled types of all manufacturers.

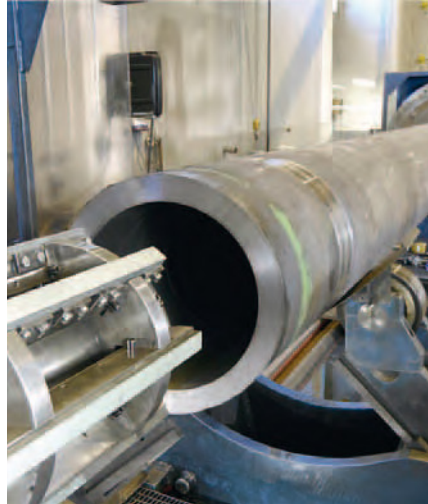
The company is mainly specialized in the production of large rolls. Single parts can be manufactured or reconditioned up to a

weight of 80 tons. Besides that the Richter-partner company manufactures with its „G-Groove“ roll covers, wound stainless steel strips for press rolls which guarantee a long service life and a better drainage.

The main markets for the Karhula rolls are located in Finland and the rest of Scandinavia as well as Central Europe. First deliveries already went to South and North America. Customers such as Stora Enso, UPM and Metso rely on the Mesera Karhula's roll service. „We can overhaul all roll makes - from the smallest repair to major overhauls, including rebuilds. Our machinery portfolio allows all kinds of service works and roll processings as well as spare parts deliveries for all deflection compensating rolls. With our ultra-modern large machinery park, our decades of Know-how in the paper industry and the experienced, highly skilled workers, we see ourselves for the future in a strong position for the European paper industry, „said Jari Hämäläinen. Until recently the company worked as a supplier for Metso. Now we want to participate in business independently.



Drilling out a pipe for the production of a new deflection compensating roll



Roll pipe on the honing machine before immersion of honing head



Nipco roll shell honing as service, surface roughness Ra = 0.4 μ

The Karhula machinery park mainly consists of large machines

These include two turning lathes for max. 80 tons components, a max. turning diameter of 2.10 m and a max. turning length of 18 m as well as two state-of-the-art grinding machines for diameter up to 2 m and 13.50 m grinding length, one of which masters the highly modern, so called 3D-grinding.

This maximum five year old process is really the latest technology in roll grinding and is primarily used to compensate geometry changes that are caused by the extreme speed differences of roll between regrinding operations and production. This means in short: the roll is "non-circular" ground, so that it runs perfectly and smoothly under operating conditions. "We achieve dynamic balance up to 3.20 m diameter and a component length up to 15 m.

What mostly distinguishes us from medium-sized manufacturers are our large drilling lathes and honing machines for the manufacturing of deflection compensating roll shells. Thanks to them, very fine surfaces down to Ra 0.4 μ can be achieved which can be processed up to a diameter of 1.70 m, a length of 10.50 m and a weight of 60 t", comments Hämäläinen. Karhula is also in a position to mill and to plane rolls having such a length.

Yamauchi, the third partner of Rolls Union

Since early 2010 Mesera Karhula has been working together with the Japanese company Yamauchi which produces since that time calender rolls made of polymeric composite materials in an area of the Finnish plant, so that it completes the Karhula products range. Yamauchi is also partner of company Richter which has taken over sales and service for calender roll covers in Central and Eastern Europe (see apr No. 6/12).

After installing the new thermal spray system at Richter Plant II Rolls in Düren for the production of ceramics and Wolfram carbide covers in October this year (see apr 2/12), the three companies can present themselves as „Rolls Union“ and are able to offer all kinds of new rolls, spare shells for deflection compensating rolls, roll covers |

History

1889 Establishment "Karhula workshop" as repair company for machines for the wood and paper industry.

1905 First head box was built up.

1908 till 1911 first three board machines were built up.

1915 Ahlström acquires Karhula workshop.

1948 Ahlström Karhula designs and builds up the first Finnish paper machine for Tervakoski.

1948 till 1987 Ahlström establishes itself worldwide as supplier of paper industry for complete paper and pulp machines as well as for components and service.

1987 Valmet (today Metso) buys Ahlström paper machine division in Karhula and specializes the production in roll technology, especially swimming deflection compensating rolls.

1989 the first swimming deflection compensating roll is delivered to Kämmerer Osnabrück.

1995 the first zone zone-controlled deflection compensating roll is manufactured.

1999 Valmet changes its name into Metso.

2000 Metso starts company-wide simple components Outsourcing.

2000 Metso sells first divisions of Karhula plant and buys there the finished components, f. ex. head boxes, frames, dewatering components, clamps and regulators.

2004 Mesera takes over roll construction and roll service from Metso.

Until today, there are 48 zone-controlled, over 400 swimming as well as 200 shells as spare parts for all existing deflection compensating rolls makes which have been manufactured.