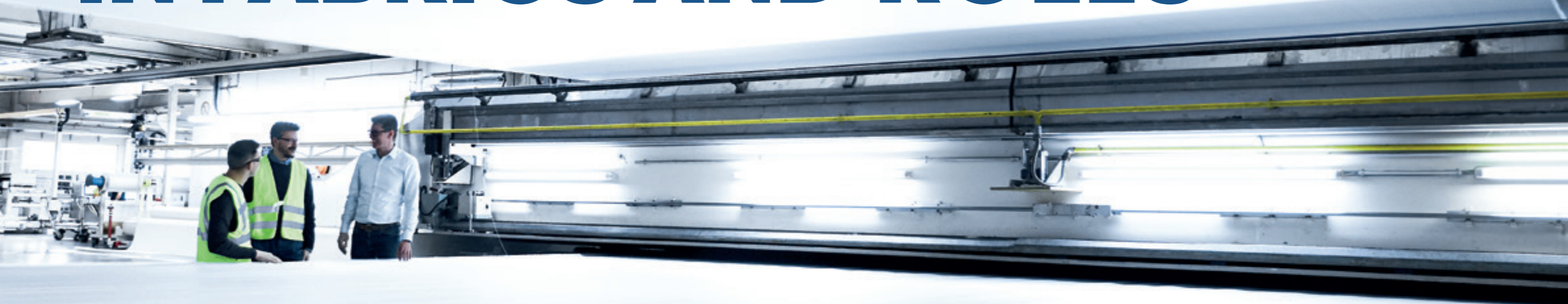


ANDRITZ + XERIUM THE PERFECT FIT FOR FUTURE INNOVATION IN FABRICS AND ROLLS



ANDRITZ made one of the largest acquisitions it has ever made when it bought Xerium Technologies in October 2018. As anyone working and operating in the pulp and paper industries will know, the name Xerium is synonymous with high quality consumable products used in the paper, board, and tissue industries. It is also a well-known supplier to pulp drying plants around the world. In fact, for ANDRITZ and its vast portfolio of superior technology supplying all those industries above, it is the perfect fit.

Wolfgang Leitner, President & CEO of ANDRITZ was clearly delighted with the acquisition, saying, "With Xerium, we acquired a high-tech global supplier

providing essential services and wear parts to the paper industry. The acquisition fits squarely with our long-term strategy to execute complementary acquisitions and to grow our aftermarket business with its stable source of revenue and earnings."

This acquisition is indeed a perfect fit for ANDRITZ going forward, but also for Xerium and its products, as it now has full access to extensive machine building and process know-how, which will be a valuable factor in the further development of its staple consumables, paper machine clothing, and rolls. Xerium will be fully integrated into the ANDRITZ group this year and joins with existing ANDRITZ Kufferath to operate under the name ANDRITZ Fabrics and Rolls.

Mark Staton, CEO of Xerium and head of the new ANDRITZ Fabrics and Rolls division, says of what the new ownership means, "We are now part of a true global leader in the pulp and paper sector, which will help us develop our products and business based on a much broader range of opportunities. There were alternative possible acquirers, but none was more attractive in terms of a true fit for the business."

"Xerium has been run as a safety focused, results orientated and innovative company that is committed to delivering best-in-class products and services to customers. The wish is that, when history is written, this acquisition will be seen as

one of the most important and valuable in the evolution of ANDRITZ."

Xerium brings to ANDRITZ an extensive global footprint of 29 manufacturing facilities in 13 different countries and is strategically located in the major paper-producing regions of North America, Europe, Latin America, and Asia-Pacific.

MAKING FULL USE OF THE COMBINED PRESENCE

The products the company makes play an essential role in the paper production process as they are right at the heart of enhancing quality and therefore enable its customers to differentiate their products in a competitive marketplace. Staton

continues, "Xerium adds a full range of fabric and felt solutions as a market-leading supplier in paper machine clothing, as well as a true global manufacturing platform. It also brings a position of global leadership for roll covers again on a fully developed operating platform."

"By making full use of our combined presence in the industry and our joint network of talented sales professionals, we should be able to create new opportunities for sales and growth. Also, the





Aerial view of the production facilities in Gloggnitz, Austria



availability of the TIAC pilot plant will support our development effort and help us ensure that ANDRITZ Fabrics and Rolls is at the forefront of delivering customer value with best performing products."

ANDRITZ Pulp & Paper's service business has been growing well over the last 10 years. Dietmar Heinisser, Division Manager in the Pulp & Paper Service segment, and board member of Xerium, was involved in the acquisition process and works closely with ANDRITZ Fabrics and Rolls. He says, "While we have achieved a leading position for service in almost all pulp and paper

process areas, we saw further growth potential in the paper machines segment. Xerium is one of the market leaders in this area and complements our range of products and services very well.

"We will continue to provide added value services and deliver best-in-class products but, of course, we will also combine our sales and service network globally so that we are able to be close to our customers and provide proactive and fast service. Furthermore, we will combine our product portfolio in a way to be able to deliver tailor-made concepts for our customers,

in particular IIoT solutions where ANDRITZ and Xerium fit together perfectly."

GLOGGNITZ – THE LARGEST PLANT IN THE WORLD FOR PRESS FELTS

One of the largest technology and manufacturing centers that forms part of the



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FOR FURTHER INFORMATION SEE PAGE 2

HELMUT MÜLLER
Vice President,
Operations –
Clothing EMEA

"We have a huge history of supplying the pulp and paper industries from this site at Gloggnitz."



Xerium acquisition is the site at Gloggnitz in Austria, which is, by coincidence, close to the ANDRITZ headquarters in Graz. The site is the largest plant in the world for the manufacture of press felts and fabrics, most notably the well-known industry brand Huyck.Wangner.

The site at Gloggnitz has a long history and 200 years of experience in the production of fabrics, starting out in 1812 by producing the FEZ; felt hats worn in the Orient, the Balkans, and the Ottoman Empire. In 1874, it started making the first press felts for the paper industry and has

since dramatically evolved its portfolio into dryer fabrics for the paper industry as well as engineered fabrics for pulp dewatering and sludge dewatering. The site also makes products for the fiber cement industry as well as for the leather and laundry industries.

Helmut Müller, Vice President, Operations – Clothing EMEA, says, "We have a huge history of supplying the pulp and paper industries from this site at Gloggnitz. We have excellent, highly skilled staff of around 500 people who have a lot of years of experience combined, and who

The R&D center in Gloggnitz also houses its own laboratory. Research projects, investigations, analysis, and tests are regularly carried out to continually improve the quality and efficiency of the press felts.



are our best guarantee of good quality products. On the other hand, this plant is the most modern in the world with the most modern machines, equipment, and technology available on the market."

The plant at Gloggnitz produces roughly 1,500 tons of finished goods, and everything here is examined closely for final quality. Müller says, "It all begins with the incoming raw material that is intensely examined in our own laboratory. Once we have established that the raw material is exactly what we need for the final product, we produce our fabrics with each step in the production area being controlled and monitored by our specialist quality inspection team.

"We use only the best in modern equipment, as the construction of felts and fabrics is very difficult and complex and only with the very best in equipment you can control the quality. We also receive samples of the used felts and fabrics back from our customers, so we can really see what happens to our products during usage."

IIOT – BRINGING BEST-IN-CLASS SOLUTIONS

Big data analytics and IIoT technologies have become instrumental tools for

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MARK STATON
CEO of Xerium



DIETMAR HEINISSE
Division Manager
in ANDRITZ
Pulp and Paper

"Xerium is one of the market leaders in this area and complements our range of products and services very well."



Xerium in its work to maximize efficiencies and life-times of paper machine clothing. One of its latest innovations is the development of SMART Technology, which provides the first continuous pressure-sensing paper machine roll.

Heinisser says, "One huge advantage we have is our tissue pilot plant in Graz – the TIAC. With the know-how of Xerium on the fabric side, together with ANDRITZ's paper machine knowledge and research facilities, we will be able to develop the best-in-class products where the customer can really benefit. ANDRITZ expects to quickly be in the position to offer more valuable IIoT solutions across the paper, board, and tissue industries." This combined knowledge, as well extensive experience will provide a real boost to customers' long-term performance.

Xerium has always provided tailored solutions, designed to optimize performance and reduce running costs on its customers' machines. "Our new future with ANDRITZ in Gloggnitz is really exciting," concludes Müller. "This is the first time in our history that we have been associated with a producer of machinery and technology that actually uses our products on its machines. This is a big advantage for us and for our customers, as we can develop new products and technologies alongside ANDRITZ that will push the boundaries of quality and efficiency."

CONTACT

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Production of a press felt in Gloggnitz



Twisting

In the twisting department, identical or different strands of thread are twisted together to form yarn. For press felt base fabrics, yarns with combinations of multifilament and monofilament strands are used. This makes it possible to create a product with characteristics that exactly meet the customer's specifications, for instance, better paper quality, higher dry content, stable runability, etc.



Weaving preparation / Weaving

During weaving preparation, the yarns and threads are made into "warp" and "weft". The warp runs through the weaving machine longitudinally; the weft is fed in laterally. Yarns or threads are spooled by means of sectional warpers. The number, length, and tension of the threads



are predefined for each disc. These discs are combined to form a warp beam and inserted into the weaving machine. As many as 100,000 warp threads are pulled into the machine per warp.



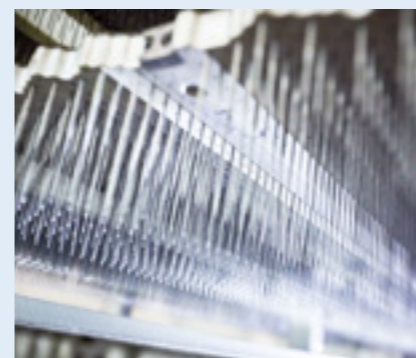
Burling / joining department

Following weaving, a 100% quality inspection is carried out in the burling department. Any defects that may have occurred during weaving are removed or rectified. Flat-woven base fabrics are made endless in the joining department on seaming machines.



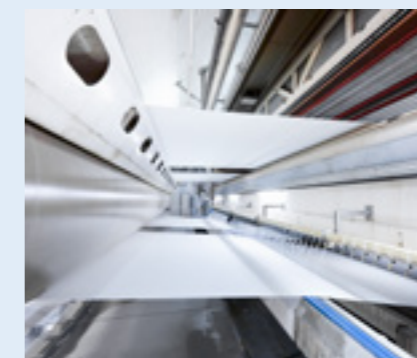
Batt preparation / production

In the batt preparation department, the fibers, which have been compressed into bales, are opened for the ensuing carding procedure. By means of this opening and mixing of fibers that have different material properties or degrees of fineness, a homogeneous mixture of fibers is obtained, which is then needled to a stable batt on the needle loom.



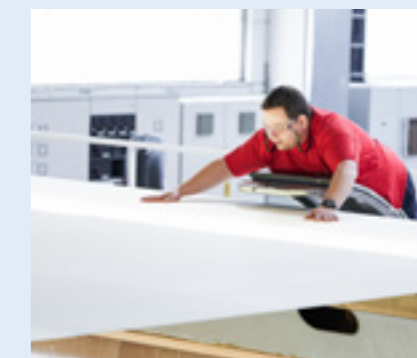
Needling department (needle felt)

Before needling, the fabric is heatset (exposed to temperature and tension) on the heat setting machine for the first time. Then, the pre-needled fiberweb is needled into the base fabric on modern needle machines with multiple needle boards. The special felt needles used for this have barbs pointing towards the tip on their three-edged front. When the needle enters the batt, the barbs fill up with fibers and transport them through the base fabric. After several passes on the needling machine, the felt attains the necessary density and the fibers are sufficiently embedded in the fabric.



Heat setting/ finishing machine (heat-set, impregnation, pre-compaction, etc.)

The needled felts from the needling department are once again placed on the heat setting machine. There the felt is finished for the end-user in a thermal-hydraulic process, i.e., it is washed, pre-compacted and, if necessary, impregnated against impurities. The felts are heat-set, cut to size, the edges are sealed, and a trade line is applied to facilitate correct installation into the paper machine.



Final inspection

The final inspection is the last stage in the Huyck.Wagner Austria Quality Assurance Organization and ISO 9001. Since every component has been stringently checked during the entire process, the final inspection of the completed felt focuses not only on product-specific components, but also on position-related demands. This guarantees a high standard of quality as well as excellent reproducibility.