

CASCADES TISSUE GROUP BANKS ON ATMOS TECHNOLOGY

PREMIUM TISSUE GOES GREEN



Suzanne Blanchet,
CEO of Cascades
Tissue Group

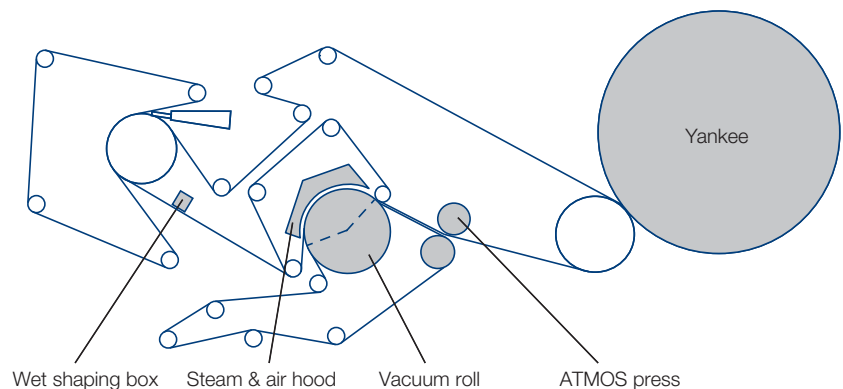
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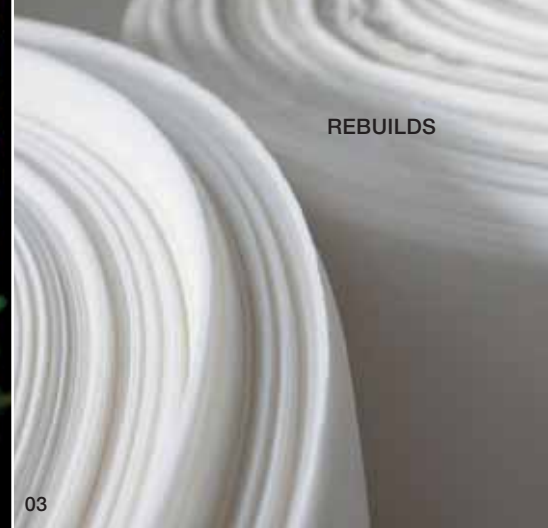
The Cascades Tissue Group has upgraded its TM 2 from a conventional tissue machine to an ATMOS system. This has not only allowed the Canadian producer to manufacture premium tissue with considerable energy savings since the autumn of 2010, but has also made the Group the first manufacturer in North America to produce premium and ultra quality tissue from up to 100% secondary fibers.

With its investment in the TM 2 rebuild in Candiach, Canada, the Cascades Tissue Group is not just meeting consumer demand for high-quality

tissue products in North America, it is also demonstrating its commitment to sustainable solutions. All these requirements were met by Voith Paper's

01 ATMOS principle





REBUILDS

02-04

Excellent quality and resource conservation are no contradiction: Premium and ultra quality tissue produced from up to 100% secondary fibers and with considerable energy savings.

02 04

ATMOS technology. Compared with other available manufacturing processes, the new system allows resource-conserving production of premium tissue paper using up to 100% secondary fibers and with energy savings of up to 60%. Suzanne Blanchet, CEO of the Cascades Tissue Group, explains: "Long before it was in fashion, Cascades believed and invested in sustainable development, so it only made sense for us to look for technologies that would enable us to produce top quality tissue paper with a reduced environmental footprint."

Customized rebuild. Working together, Voith and Cascades carried out a detailed technical analysis of the

existing tissue machine during the project planning phase, to ensure that the rebuilt machine could operate in both ATMOS and dry crepe modes. This allows Cascades to adapt production to market demands and gives it the competitive edge in both conventional and premium tissue markets. In addition, it was important to re-use as much of the existing equipment as possible in the rebuild to reduce the overall costs of the project without compromising the ATMOS process.

In the wet section, the rebuild included the installation of a new MasterJet Pro T headbox and a crescent former. An ATMOS module comprising of ATMOS

suction roll and ATMOS press, as well as a new calender for producing premium toilet tissue, were also installed. A new center wind reel was also part of the scope to ensure optimum reeling of the bulky tissue.

In October 2010, the Cascades Candiatic TM 2 went back on stream after the ATMOS rebuild. Since then it has been producing conventional and premium tissue at a speed on reel of more than 1,800 m/min in conventional mode and 1,200 m/min in ATMOS mode. The successful startup of the second ATMOS machine installed worldwide illustrates the benefits of the technology: ATMOS is regarded as the most up-to-date solution for >

Info: Cascades Inc.

Cascades Inc., founded in 1964, manufactures, processes and sells packaging and tissue products. These products are comprised mainly of recovered fibers. Cascades employs almost 12,500 people worldwide at 100 sites in North America and Europe.

▷ producing premium and ultra premium tissue in a way that saves resources and at the same time enhances the competitiveness of the producer. Suzanne Blanchet can confirm this: “This investment gives evidence of our commitment to the growth of the Cascades brand in the top tier segment.” Blanchet is extremely satisfied with the outcome of the project: “The investment started a new era in the production of high-quality premium tissue paper in North America and worldwide and confirms Cascades position as a leader in sustainable manufacturing of premium and ultra premium tissue paper.”

The ATMOS principle. In conventional tissue manufacturing, the press stage has an adverse effect on volume and softness of the paper. The initially bulky, open fiber mixture is often compressed to a flat sheet in the nip between press section and Yankee cylinder at pressures of more than 30 bar. As a result it is neither particularly absorbent nor really soft. Although this tissue then undergoes creping on leaving the Yankee cylinder to give it a fuller appearance, the definitive properties of the paper scarcely change. Voith has achieved a significant improvement in tissue paper quality through its development of ATMOS technology at the Tissue Innovation Center in São Paulo, Brazil.

The key to ATMOS technology is the ATMOS suction roll and its specially developed AtmosMax clothing for supporting the web run. The AtmosMax fabric lends a three-dimensional texture to the web, which is gently dewatered by the ATMOS suction roll at a vacuum of 0.5 bar. In addition, the AtmosMax clothing and the paper web are sup-

ported by two other fabrics as they pass over the suction roll. There is a dewatering felt named AtmosFelt under the paper web that reinforces the suction effect of the vacuum. On top is the open tensioning fabric AtmosBelt that gently presses water out of the web. To reduce the viscosity of the web to be dewatered, and thus increase the dry content of the tissue, hot, damp exhaust air from the hood of the Yankee cylinder is blown through the clothing fabrics and paper web into the ATMOS roll. A short press nip located directly at the outlet to the ATMOS module removes more water from the tissue web to increase its dry content and also the fiber bonds resulting in higher tensile strength.

In tissue manufacture, the largest cost factors are fibers and energy. Using ATMOS technology, up to 30% fewer fibers are required than in conventional tissue machines. This tissue paper nevertheless still has the same strength properties and very high water absorption capacity necessary for kitchen and hand towels, and it also offers a first-class “hand feel” and bulkiness for toilet tissue. In addition, up to 100% secondary fibers can be used depending on application without prejudicing quality: An ATMOS tissue produced with secondary fibers has a quality comparable to or even better than the leading premium tissue products available on the market. Along with the benefits relating to paper quality, ATMOS also offers impressive energy savings, with consumption up to 60% lower than other premium tissue production processes. Voith’s ATMOS technology therefore allows ecologically compatible production of tissue papers in the premium segment. //

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- 05 "The investment started a new era in the production of high-quality premium tissue paper in North America and worldwide, and confirms Cascades position as a leader in sustainable manufacturing of premium and ultra premium tissue paper," explains Suzanne Blanchet, CEO of Cascades Tissue Group.

