

ATMOS technology
Premium tissue with high
absorbency and bulk





Significant energy and fiber savings with ATMOS

The combination of saving energy and fibers, running the machine with 100% recycled fiber, as well as easily switching between conventional quality and ultra-premium make ATMOS an environmentally friendly technology. It is thus the most feasible and sustainable alternative for tissue producers to operate at an optimum quality-cost ratio while meeting regional market demands.

Energy

One of the tissue producers' major concerns is the energy cost increase in recent years, which has resulted in higher production costs and, thus, lower profit. Realizing the significant impact that energy has on overall production costs, Voith developed the ATMOS technology. This technology allows production from standard to premium tissue with the lowest energy consumption per ton and finished product when compared to other technologies available in the market.

Fiber savings

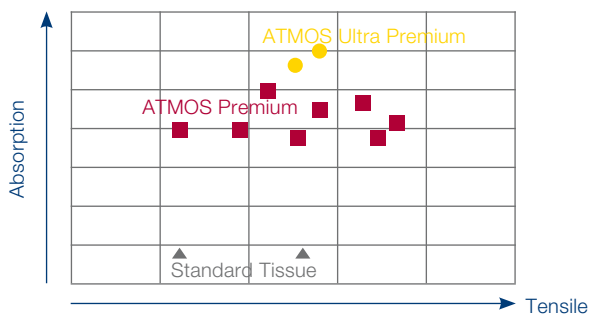
It is a well known fact that fiber is the single most costly contributor to a tissue mill's production expense. Combined with the special focus on saving natural resources, Voith developed the ATMOS technology to produce standard and premium tissue. ATMOS requires up to 30% less fiber when compared to other technologies available in the market, and at the same time, enables the production of premium tissue using 100% recycled or virgin fibers.



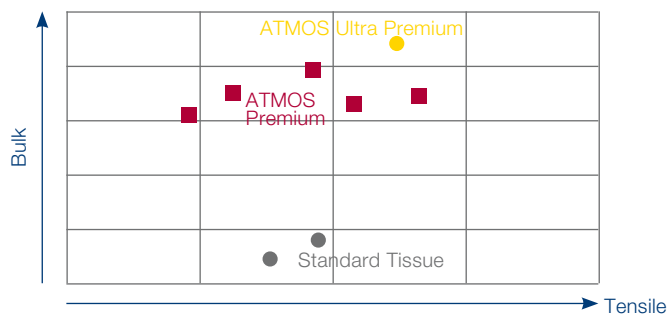
Bulk and caliper

Making high quality tissue means enclosing as much air with as little fiber as possible. Bulk and caliper are fundamental quality features. They result in absorbency for towel or structural and surface softness for toilet paper, the main tissue products in terms of worldwide consumption. These important tissue quality features are divided into three categories according to the global requirements of different markets: standard, intermediate and premium.

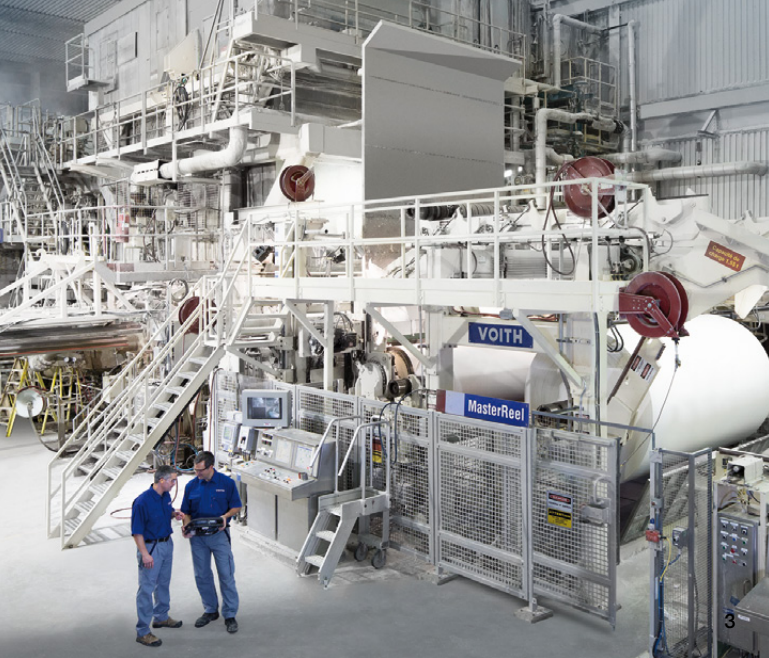
The ATMOS machine can be designed for machine widths of 2,800 mm to 5,600 mm and can operate in ATMOS mode to produce premium tissue or as conventional dry crepe machine for standard tissue production. ATMOS has proved to be operationally simple and robust. It allows a high level of flexibility with regard to grade changes across the complete range, from structured premium to standard tissue, while operating efficiently on virgin fiber, as well as 100% recycled fiber.



Towel Paper Flexibility to switch between conventional and premium



Toilet Paper Flexibility to switch between conventional and premium



- 1 Low-energy tissue production thanks to ATMOS
- 2 ATMOS can be operated with up to 100% recycled fiber
- 3 Cascades ATMOS machine in Candiatic, Montreal
- 4 Premium tissue produced with ATMOS technology

Satisfied customers trust in ATMOS

The ATMOS technology is meeting the requirements of CMPC and Cascades. Their satisfaction has convinced other customers to trust in this advanced technology that allows premium tissue production at lower natural resource consumption while using recycled fibers. As a result, the demand for ATMOS installations has risen worldwide.

CMPC, Talagante TM 2

In 2006, Voith and CMPC commissioned the innovative ATMOS technology, while maintaining the capability to run the machine also in a conventional Crescent Former mode.

According to CMPC's production schedule, 19 g/m² premium consumer towel and 30 g/m² away-from-home towel, both based on high amount of recycled fiber, have been produced since startup.

Cascades, Candiatic TM 2

Since 2010, Cascades Tissue Group has successfully run the ATMOS technology on the TM 2, located in Candiatic, Quebec, Canada. It is the first machine with ATMOS technology in North America. The Candiatic TM 2 is producing premium consumer paper towel, away-from-home hand towel, and premium consumer bathroom tissue using up to 100% recycled fibers. Cascades is thus the first to produce premium tissue with a high amount of recycled fibers in North America.



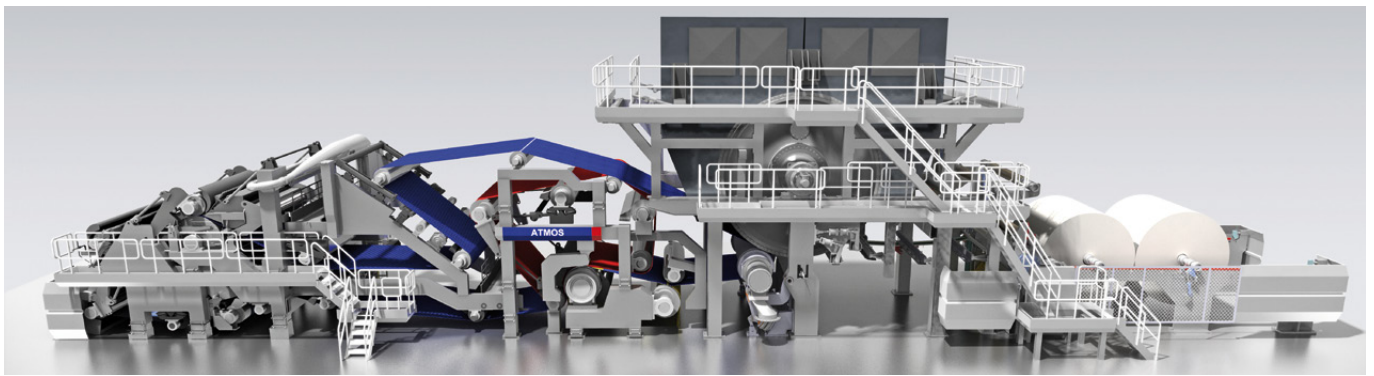
Think of sustainable premium tissue, think ATMOS!

In the last couple of years, sustainable paper production has become a vital topic for many tissue producers. Extraordinarily rising resource costs and great shifts in demand have placed the tissue industry in a significant economic and ecological transformation. The greatest challenges for the paper industry are reducing energy and water consumption as well as using raw materials much more efficiently.

At Voith, sustainability integrates two main aspects: environmentally friendly production and systems that enable tissue makers to produce all sort of tissue paper with less fiber, water, energy and waste. Voith formulated clear goals that will allow to maximize the worldwide recovered paper recycling rate, reduce energy consumption by half and enable paper production without any waste water and with a minimum amount of fresh water. For Voith, tissue making as well as environmental consciousness go well together.

ATMOS for premium and standard tissue

The premium, structured quality is produced in the forming area with the tissue sheet being formed between the forming and the molding fabric. After its formation, the sheet is dewatered using vacuum, pressure and air at high moisture and temperature in the ATMOS module. Protected inside the molding fabric structure, the sheet is carried from the ATMOS module to the Yankee cylinder. It is then transferred to the Yankee/hood system for thermal drying and on to the reel.



ATMOS can easily switch from premium to standard quality by replacing the structured fabric with a conventional felt

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