



Air handling unit on the roof at Zott in Mertingen, Germany

Voith Paper Air Systems opens up new industries

Cooling and ventilation for cola, paper, and yogurt

What do dairy products, textiles, and beverages have to do with Voith Paper? Since the founding of Voith Paper Air Systems on 1 June of this year, quite a bit.

The new cooling and ventilation systems division, based in Bayreuth, Germany, works primarily with the paper industry, but even in the formation period, the potential for industries not previously addressed by Voith Paper became apparent. So in the future, the system provider for paper machines will deal not only with the optimization of dryer sections, but also the cooling and ventilation technology for yogurt and thread. This offers advantages for manufacturers and retail giants, as well as for individual consumers.

With the integration of essential components and all of the technology of the former Wiessner GmbH into the Voith Group, a comprehensive restructuring took place. This led to the creation of two product centers (Center of Product – COP): paper, foods, and a special division, which includes tobacco products and textiles. With over fifty percent of the sales volume, the paper division clearly dominates, but also in the other two areas there is still enormous potential, according to Dr. Hermann Bernard, head of Voith Paper Air

Systems during the start-up phase. “The current structure gives us many opportunities for development. This is shown by the initial orders, such as a cooling tunnel for Milchhof Brixen – BRIMI, the only mozzarella producer in South Tyrol, or the construction of a special blow box for cooling synthetic fibers for Oerlikon Neumag, the system provider for the textile industry.”

Optimum process air is critical

With the acquisition of Wiessner GmbH, Voith Paper Air Systems has gained years of experience in ventilation technology, especially for paper production. In one current order for the Klingele Papierwerke, for example, the process air technology, including the steam and condensate system for the Voith Boost Dryer will be delivered to the Klingele plant in Weener, Germany.

Optimum process air is critical, especially in the dryer hood of a paper machine. There is not only extreme heat during the drying process of paper but chemicals are released into the environment, too. In order to achieve high paper quality, ventilation equipment from Voith Paper Air Systems is quickly and thoroughly removing the emitted materials, while simultaneously controlling the direction of the airstreams. The joints between the hoods are a particularly difficult area. Thermal bridges can occur here, forming so-called dew points. If the moisture inside the hood condenses quickly, drops may fall on the paper web. At production speeds of up to 2,000 meters per minute, this may result in costly breaks.

Saving costs with EOS

The dew points in the paper machine hoods made by Voith Paper Air

Systems are higher than in those of the competitors. “This has a noticeable effect on the energy usage and lowers costs,” explains Dr. Hermann Bernard. The higher the dew point is, the less energy is used. At the same time, the controlling system EOS (Energy Optimization System) realizes an optimum energy utilization by improving the efficiency of the heat recovery system. Even at the after-dryer section, the process air can be improved by an optimum ventilation system. Furthermore, Voith Paper Air Systems provides balanced climate control in buildings where paper machines are in operation. That prevents corrosion and mold.

Using paper expertise in other industries

Voith Paper Air Systems not only works in paper production, but also in the field of the food sector and special industries such as textiles, beverages or tobacco. Examples are a cooling system for bottling Coca-Cola and the ventilation in the production facility of a textile producer in Dubai. “Our goal is to transfer our extensive process experience in the paper industry to other industries. There is still great optimization potential in the production chains of foodstuffs, which have not been exploited. Particularly for dairy products, improved process technology between the milk production and the delivery of the finished product has a great potential. Here, the integration of individual process steps and an improvement in economy can be achieved,” says Dr. Bernard.

Increased dew point in the dryer hood cuts energy costs





Double acting cooling tunnel (interior view)



Cooling tunnel (exterior view)

Voith Paper Air Systems is already involved in the cooling process for dairy products and its cooling technology offers clear advantages for producers and retailers. For some facilities, the cooling of the production temperature can last up to two days. In the cooling tunnel from Voith Paper Air Systems, complete pallets are cooled in one to two hours. This produces competitive advantages, because the shelf life is not only increased, but can also be more pre-

Automatic belt washer



cisely defined. In addition, optimally cooled food-stuffs meet the strict ISO standards for the food industry. And last but not least, every consumer benefits from the defined shelf life of the products they buy.

Process experience can also be transferred to special areas. In textile plants, for example, the process air must be adjusted to the type of thread. "This is a balancing act. Depending on the ventilation, a thread can tear or become supple," says Dr. Bernard. Another unusual area of use is in belt washers for the tobacco industry. Here, too, the ventilation and removal of moisture contribute significantly to the quality of the product. Various products and services round off the portfolio. This refers, for example, to maintenance as well as measurement tests, single components and spare parts.

Voith Paper Air Systems

Since October 1, 2007 Voith Paper Krieger GmbH & Co. KG, Mönchengladbach and Voith Paper Air systems GmbH & Co. KG, Bayreuth form the Voith Paper Air Systems group within Voith Paper.

Voith Paper is now able to cover the entire range of air systems products: The know-how for paper machine hoods, air-conditioning, air ventilation and heat recovery systems is concentrated in Bayreuth. The specialists for non-contact-drying as well as non-contacting web guiding systems are located in Mönchengladbach. There are approximately 180 employees at Voith Paper Air Systems.

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Since October 1, 2007 Rainer Pumpe, Vice President Air Systems, is the responsible manager for both locations in Bayreuth and Mönchengladbach. He is the successor of Dr. Hermann Bernard, who headed the location in Bayreuth during the start-up phase.