

Ingersoll Rand Compressors

The Right Solution for Pulp and Paper Sector





Ingersoll Rand Compressors Help Customer Ramp Up Dissolving Pulp Production in Brazil

Dissolving pulp is bleached wood pulp with a high amount of cellulose that is not made into paper, but rather dissolved to obtain a homogenous solution deprived of any fibrous structures. Also known as dissolving cellulose, the material is defined by a number of special properties including high chemical purity and is used in a wide range of industrial applications. It is commonly utilized in the manufacture of textiles, as well as cellophane, cigarette filters, photographic film and pills, among many other specialty products.

Increasingly seen as a viable alternative to cotton, high-purity cellulose is a key component used in the textile industry to produce viscose fibers, which has led the global dissolving pulp market to witness considerable growth in recent years. This is especially visible in developing countries, with the Asia-Pacific region – and China in particular – being a leading producer and consumer of the material. As the demand grows, the region's companies are now also importing significant amounts of dissolving pulp from other parts of the world.





Blowing It Up

Ingersoll Rand, a global provider of pressure and vacuum solutions for numerous sectors, has recently cooperated with one of the world's largest producers of dissolving pulp on the expansion of their existing production facility in Brazil. The Singapore-based company owns mills and sustainable wood cultivation land in two Brazilian states, where it employs over 7,000 people, and has sales offices in Asia, Europe and North America. In 2019, it announced its plans for a six-fold output increase at one of the mills.

Located in the state of São Paulo, the factory originally had the capacity to produce approximately 250,000 tons of dissolving pulp per year, a figure which was supposed to increase to around 1.5 million upon the expansion project's completion. As dissolving pulp production requires the continuous flow of compressed air for wood pulp separating, cleaning, bleaching and other processes, the delivery of state-of-the-art pressure equipment for the enlarged facility's compressor room was an important part of the R\$7 billion investment.

Profitability in the dissolving pulp industry largely depends on the high quality and reliability of the utilized machinery which should consistently ensure high purity of the produced material and maximum uptime. The customer's needs were simple regarding compressed air when planning the São Paulo plant enlargement. They required a solution guaranteeing high airflow availability and demand control capabilities to successfully manage production processes that are extremely sensitive to pressure variations.

Reducing the Pressure

Ingersoll Rand, which has extensive experience in delivering products and services for the pulp and paper sector, has had a long relationship with the dissolving pulp producer as the company's original São Paulo mill uses our Centac centrifugal air compressors. When the customer started planning the plant's expansion and the project was at an early stage of the engineering design process, we managed to suggest our pressure solution even before any contract notice was officially released to the market. This gave us a competitive edge.

The expertise and confidence shown by our experts as they were answering the questions of the dissolving pulp producer's engineering team quickly convinced the customer and Ingersoll Rand secured an order. As the company wanted the expanded mill's compressor room to operate in a 3+1 set-up, we supplied four MSG® TURBO-AIR® NX 8000 units equipped with demand management as well as a number of heat-of-compression dryers. Thanks to its innovative design features, this centrifugal compressor model is one of the most wear-free and efficient machines in its class.

The equipment was delivered to the customer in 2020 and the enlarged production facility became operational in the last quarter of last year. The pressure solution provided by Ingersoll Rand will give the dissolving pulp producer complete peace of mind as it meets the company's requirement for the system to reset within 10 seconds in case of failure. The customer is fully satisfied with the received compressors and is now also interested in our broad portfolio of aftermarket services, with a respective contract currently being negotiated.

