

Sulzer Pumps delivers 300 pumps and agitators for PM9

When selecting the supplier of centrifugal pumps and agitators for a large innovative and fast paper machine with the most advanced technology, it is of vital importance that it should be a specialist in pulp and paper industry. The pumps and agitators must run reliably to guarantee the highest process availability. They also have to run at high efficiency levels to keep energy costs as low possible. The degree of standardisation has to be high to reduce the spare parts inventory and costs to a minimum.



Sulzer Pumps' 'Pulp and Paper Segment' (formerly Ahlstrom Pumps) was selected to deliver the centrifugal pumps and agitators for the new and fast PM9 at Verzuolo. In the delivery were almost 300 AHLSTAR™ stock/process, degassing and vertical pumps, ZPP headbox feed pumps, HPP high pressure multi-stage pumps and horizontal and vertical SALOMIX™ agitators.

The pumps in the Ahlstar series are used for the pumping of stocks, filtrates, water, rejects, chemicals, additives, slurries and sludge. To guarantee the highest process reliability, tailor made hydraulics have been used. More than 80% of the pumps delivered are Ahlstar APP pumps which are specially designed for pumping paper stock.

For reject applications NPP non-clogging and wear resistant pumping hydraulics are used. In certain pulper and screening feed applications, where it is accepted that there is a lot of entrained air, degassing pumping

hydraulics are used. The degassing system removes that proportion of air which affects pumping efficiency. So pumping problems such as unstable and fluctuating flow and/or pressure caused by entrained air in the stock can be avoided.

Sulzer Pumps launched the dynamic seal for the pulp and paper industry about 15 years ago. Since then almost 30 000 dynamic have been installed in this industry. Most of the Ahlstar pumps in Verzuolo mill are equipped with the maintenance and leak-free dynamic seals. The dynamic seal in Ahlstar pump does not require any external sealing water which further simplifies the operation of the pump and thus increases process reliability. This results in lower total costs. At the Burgo mill even the HPP high pressure multi-stage pumps are equipped with dynamic seals. These pumps are typically used as a shower water pumps in the paper machine.

Since the machines entire production passes through the headbox feed pump and the dilution water pumps, they have to be totally reliable. The low-pulse ZPP headbox feed pump, the first stage cleaner pump and the dilution water pump are designed to provide the special performance required in today's fast, high-output paper machines such as this LWC machine.

The inner surfaces of the headbox feed pump have been polished to avoid the fibres clogging and to improve start-up. The ZPP pumps minimise pressure pulsations to give a uniform sheet basis weight. To ensure that the pressure pulsations are reduced to an absolute minimum, Sulzer Pumps attaches great importance to the precision castings of the hydraulic parts in its own foundry in Finland.

In addition to pumps, Sulzer Pumps has supplied more than 80 horizontal and vertical agitators for the stock chest, towers and for the coating kitchen to handle additives and pigments. The horizontal SALOMIX SLG agitators are side-mounted propeller chest agitators and designed for paper stock. They have a low power requirement, are reliable in operation and, thanks to their robust concept, easy to maintain.

The vertical L agitators are designed to keep slurries homogeneous and to equalise concentrations with maximum modular component flexibility.

Sulzer Pumps is a provider of a full range service for pumps and agitators. It provides the industry with a rapid spare part supply, wide range of field services, all repairs including demanding retrofits and a full range of long term contracts. It is a division of Sulzer Corporation founded in 1834 in Switzerland.

www.sulzerpumps.com