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Pulp

Pulp dryers have different requirements compared to those for paper machines. Their high basis weights of pulp need special drainage in the wire and press section.

The weight of over 1000 g/m² in combination with the thickness of the pulp has to be dewatered. A special technology for extra dewatering has been developed for the wire section. The use of the **SteamTech steamshower** adds a high amount of energy by condensing steam into the pulp. The energy is 2690 kJ/kg steam compared to water showers with only a max. of 410 kJ/kg for water. This means there is more than 6-times energy available without adding so much extra water to the process by using steam.

With the special steamshower it is possible to add steam amount of up to 15 t/h. With these mega Watts of energy we are able to increase pulp temperature to temperatures so high that the viscosity of the water is reduced. The technology of the **VIB SteamTech steamshower** combined with suction boxes creates extra dryness in the wire section.

SteamTech steamshower in the press section

For further improvement, this technology has been adopted into the press with a special press section steamshower, in order to boost the effect of the wire. This comprehensive solution could create an increase in dryness of 4%, resulting in production increases of up to 12% .

In modern pulp dryers the steamshowers have control zones across the machine in order to control the dewatering in both the machine direction, and in cross direction. The large size of these special linear control valves are controlled by an integrated control system for automatic setpoint control.

In many older pulp dryers the new steam application has replaced the hot water boxes, enabling not only a reduction in water consumption, but also a higher output. Some pulp dryers even use 3 steamshowers. In this on-line process with up to 3 different steam applicators in use it is important to have an intelligent control, and the integration into one unified concept.

Due to the electronic control of the process in the wet part the cutting and piling have become much easier, which created higher output with fewer problems at the dry end of the pulp dryers. Some pulp mills also use the **VIB AirTech** spray to further control moisture and weight across the pulp web.

The technology with steamshowers has created better efficiency, less energy consumption and higher production rates on many pulp drying lines. This has created best return on the investment, though some of the pulp mills have had to upgrade to a fully electronic system.

The quality standards have been increased with the new measurement and steaming technology in one upgrade package.

As the leading company for moisture and steam applications, VIB Systems provides solutions for many different moisture problems throughout the pulping industry worldwide.