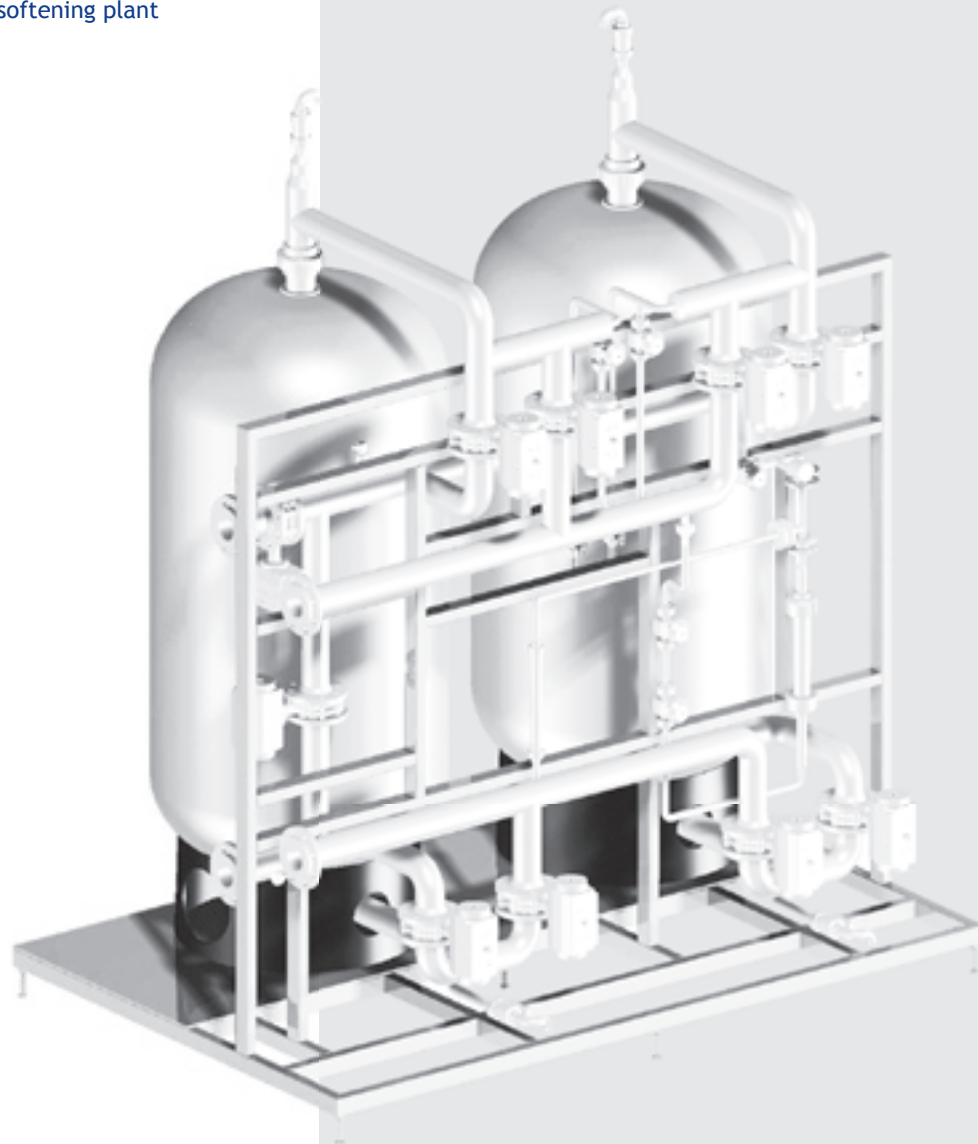


Projects

Paper Manufacturer is working with OSMO technology

OSMO plans custom-made demineralised water preparation for a renowned manufacturer of corrugated cardboard in Germany.

11 OSMO-softening plant



11

At the end of 2009 a well-known German manufacturer of corrugated cardboard invited tenders for the renewal of the boiler feed preparation in an existing industrial power plant. The preparation system had been in operation for less than ten years at this time and no longer corresponded to the modern availability and automation requirements of the operator.

Technological challenge

The challenge for OSMO Membrane Systems GmbH lay in re-engineering the old system without interrupting steam production. The experiences that the operator had gathered with the existing system were first analysed and incorporated into the concept for the new system. For example the operator had been forced to replace some of the membranes in the old system after a short time and there was no further opportunity to test the installed membrane module during operation. Because of the low level of automation there were also only limited opportunities for remote monitoring.

Scope of delivery

The system technology delivered by OSMO comprises pre-filtration, conditioning and a reverse osmosis system with downstream water-softening system for the production of absolutely soft and low-salt drinking water in the so-called low salt content process. The maximum flow rate of the entire system is 24 m³/h, whereby the individual process levels of reverse osmosis and softening can also be carried out individually

if necessary. This substantially increases the availability of the system technology and represents an advantage for the client. In addition the reverse osmosis equipment was designed with the necessary automation to prevent exceeding the maximum concentration that is physically possible (scale control). This measure results in a long membrane lifespan. In the realised OSMO system it is also possible to test the quality of the membrane elements during operation (element control). The system technology was completely visualised so that it is now also possible to carry out efficient remote operation.

OSMO provided the client with a mobile, container type preparation system for the entire duration of the conversion to ensure that sufficient steam was available for paper production at all times.