

HUBER STEP SCREEN® Vertical for cooling water screening in South Africa

From 2001 to 2004, we could sell to Sasol in South Africa 65 units of our STEP SCREEN® Vertical SSV, size 4300 x 776 x 3, for river water screening. The second delivery in 2002 with 28 SSV screens, size 4300 x 776 x 3, still is the biggest individual order ever received for mechanical step screens. Sasol is a worldwide active oil and gas company with extensive chemical activities. Based in Johannesburg, Sasol is one of South Africa's five most important companies listed on the stock exchange. About 30,000 employees worldwide generate an annual turnover of more than 11 billion US \$.

South Africa does not have any oil resources of its own and has to find solutions how to avoid complete dependence on oil imports. In 1950, South African Synthetic Oil Limited (SASOL) was founded. SASOL mainly uses local coal deposits to produce fuel, kerosene, waxes and other hydrocarbons by means of the Fischer-Tropsch synthesis (developed in Mühlheim a.d. Ruhr, Germany in 1925). This synthesis process operates at about 160 to 200 °C. This reaction and other treatment methods require exact temperature control at any time, for example through cooling which is ensured by means of heat exchange processes in the cooling tower operation. SASOL operates several cooling towers on its three production sites in South Africa and compensates their water losses with river water. The water throughput per cooling tower is up to 55,000 m³/h. The installed heat exchangers and pumps are protected

against coarse pollution by 7 / 14 SSV screens. Before installation of the HUBER screens (STEP SCREEN® Vertical) simple sieves with high cleaning requirements were used for pump protection. Moreover, they were not efficient enough to clarify the river water so that sediments frequently led to blockage in the area of the heat exchangers in the cooling system. Any failure of a heat exchanger causes costs and loss of production of millions.

The HUBER SSV screens represent an automatic, low-maintenance separation technology that reliably prevents blocking of both the heat exchangers and pumps. Since installation of the screens, Sasol has been very satisfied with their operation and ordered another four SSV 4300 screens for one of its sites to facilitate maintenance work. They plan to order additional replacement machines and keep them in stock to have them immediately available as standby without having to interrupt the cooling systems in case one of the screens installed in the cooling process needs to be dismantled. This allows for convenient maintenance of the dismantled screen.

Stockkeeping of replacement screens combined with a HUBER service contract ensures the required virtually 100 % availability of the screens in the cooling process.

Bernhard Ortwein
Business Unit Industry



Seven HUBER STEP SCREEN® Vertical units installed in the inlet to the cooling tower