BIG AND BIGGER

ANDRITZ Engineered Pumps

Water is the source of all life, but also an indispensable resource for business, industry, agriculture, and energy supply. However, water is becoming scarcer; soon the demand for fresh water will exceed the supply by nearly 50%.

At face value, this does not appear to be an issue for European countries. There is a reliable supply system and water resources are used sustainably with a view to the long term. This appearance, however, is deceptive. Seasonal shortages, little precipitation, high population density, and intensive business and industrial use are affecting existing water resources and are creating sustainability and supply problems in some areas.

In order to mitigate these issues and address the associated requirement for reliable and sustainable water management in Europe, it is necessary to equip and retrofit existing systems with appropriately efficient technology.

As one of the world's leading technology companies, ANDRITZ not only looks back on more than a century of expertise in the manufacturing and supply of electromechanical equipment for hydropower plants. The company wields decades' of experience in the construction and supply of project- and customer-specific large engineered pumps. Starting in the 1960s, ANDRITZ put various pump stations for irrigation and drinking water supply into service across the Middle East and Africa, for example.

Today, we offer a broad product portfolio, which, in addition to vertical line shaft pumps and double-suction and multi-stage split case pumps, also includes vertical and concrete volute pumps, as well as submersible motor pumps. With a multitude of pump project references covering irrigation, large pumps for drinking and industrial water supply, flood protection for cities, dewatering mines, desalination, cooling thermal power plants, and large infrastructure projects, there is ample proof of ANDRITZ's technical expertise.

As part of a suite of sophisticated condition monitoring solutions, special pump sensors provide constant operating and condition data, which is accessible to customers from the ANDRITZ Metris system. This not only delivers a 24/7 service for the customer, but also continuous optimization of the entire plant.

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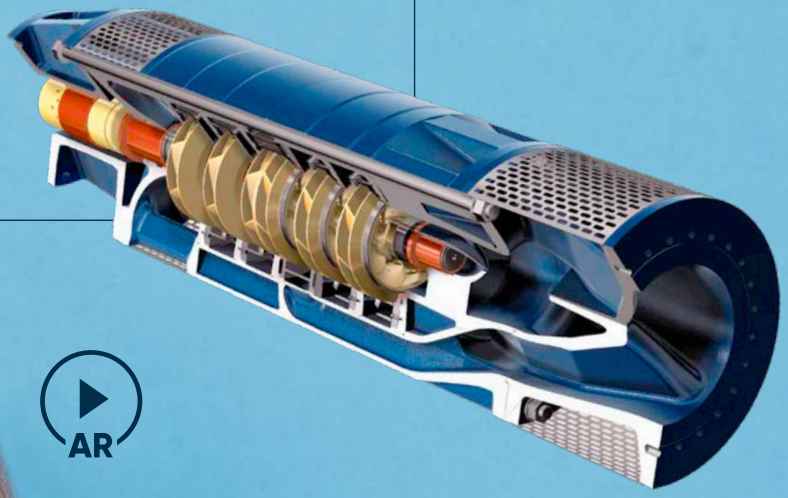
ANDRITZ HYDRO PROVIDES PUMPS that meet the demand for ever larger, higher-performance units, whether for low flow rates or wear-resistant applications. Depending on the application case, ANDRITZ Hydro develops, produces, tests, and supplies both standard pumps and custom-tailored large pumps. ANDRITZ engineered pumps operate worldwide in large infrastructure projects for irrigation, drainage, desalination, flood control and for drinking and industrial water supplies.



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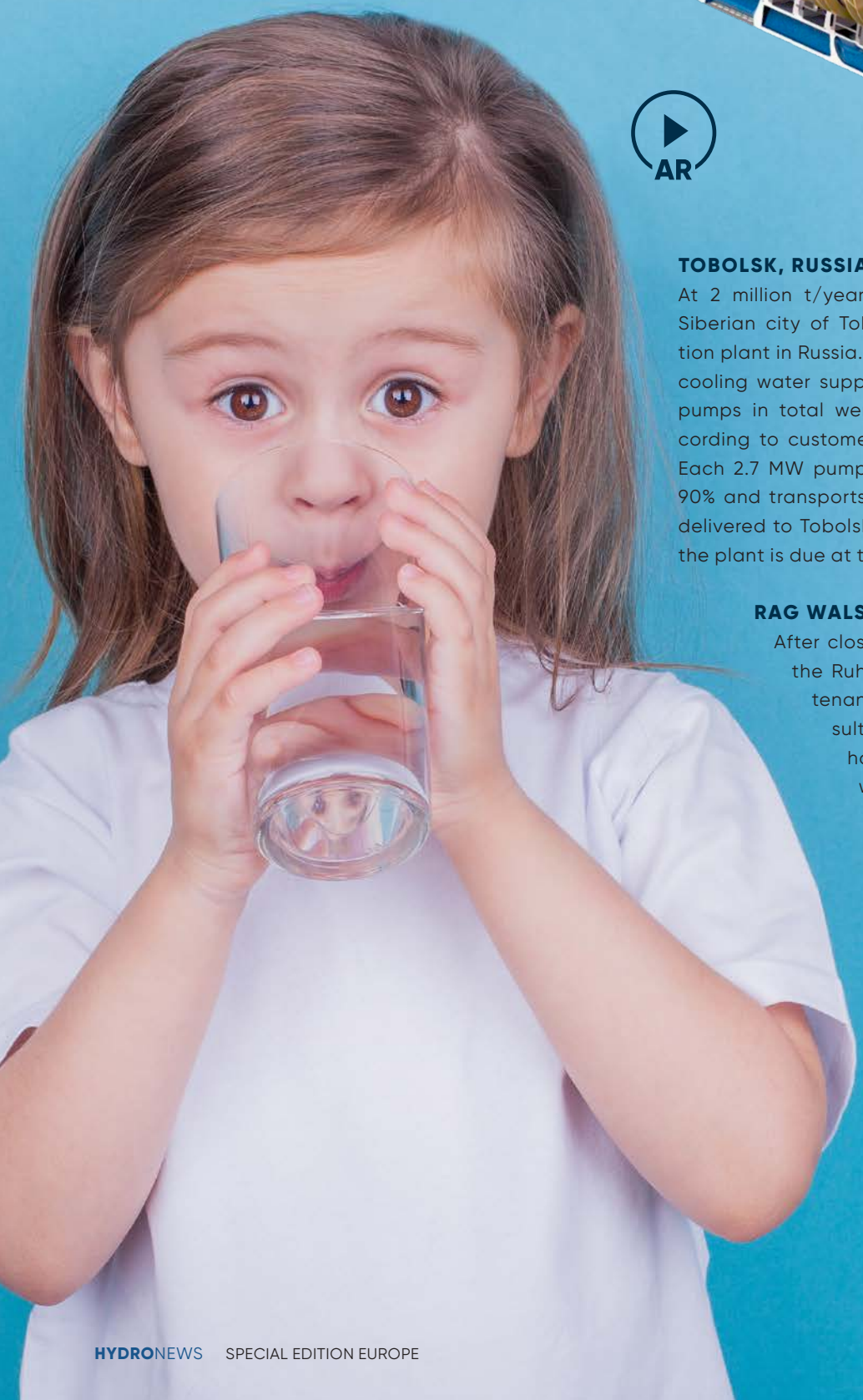

TOBOLSK, RUSSIA

At 2 million t/year, ZapSibNeftekhim, located near the Siberian city of Tobolsk, is the largest polymer production plant in Russia. ANDRITZ provided the large pumps for cooling water supply. Seven high-tech vertical line shaft pumps in total were developed and manufactured according to customer- and project-specific requirements. Each 2.7 MW pump demonstrates an efficiency of up to 90% and transports 9,216 m^3/h of water. The pumps were delivered to Tobolsk in December 2017. The completion of the plant is due at the end of 2019.

RAG WALSUM, GERMANY

After closure of the last remaining coalmines in the Ruhr Pot, the necessity for intense maintenance and water management has resulted in a plan to transform the former hard coal mining locations into drinking water wells. For this project, ANDRITZ manufactured and delivered three double-suction, submersible motor pumps of 13 tons a piece. With a speed of 1,470 rpm, they achieve an efficiency of 81% and convey 530 m^3/h water from a depth of more than 800 m. These pumps can fully compensate for axial thrust loads of up to 30 tons and have 50% less flow speed. Every pump with ANDRITZ heavy-duty mining (HDM) technology is specifically customized, has maximum operating reliability, minimum wear, and an extremely long lifetime of more than 20 years.