Manufacturing for a Demanding Market

ANDRITZ Hydro currently operates nine major manufacturing facilities across Europe. Our workshops have two different types of configuration – manufacturing units and service workshops. Though both may exist at a single location, six out of the nine facilities across Europe are purely service workshops.

Our strategy is to deliver state-of-the-art capabilities at the manufacturing units for worldwide supply. At our locations in Europe, we produce highly advanced core components that are assembled by our superbly qualified, well-trained and highly experienced employees.

The service shops throughout Europe have a more flexible set-up in order to focus on customer requirements in their local home market. All our locations have a very productive and well-organized structure that promotes ANDRITZ Hydro through dedicated professionalism. Additionally, due to excellent collaboration and strong relationships with our supply chain and preferred suppliers and partners, we ensure delivery and assembly of products and services of the highest quality – at competitive prices, and on time.

"In the early 19th century, the pioneers of turbine manufacturing in Central and North Europe lay the cornerstone for the modern company ANDRITZ is today. They are still the heart of the manufacturing business and provide highly-skilled and well experienced engineers catering not only Europe, but also the worldwide market."

EDGE

To date, ANDRITZ Hydro manufacturing and service locations worldwide have executed more than 2.5 million direct labor hours in their workshops and almost 800 thousand of additional direct labor hours on site. The manufacturing units and service workshops in Central Europe alone have carried out almost 1 million direct labor hours and close to 500 thousand hours on site. This large number of manufacturing hours means that a safe and nurturing environment is among the highest priorities for ANDRITZ.

To ensure this, the ANDRITZ Production System (APS) has been implemented to create a continuous improvement culture and achieve excellent operational results. It is a system designed to define, describe, quantify and increase the performance levels of production organizations, as well as to generate a common understanding of manufacturing principles and methods. A business-specific handbook is also available and training of employees is continuous, ensuring the competitiveness of each of the manufacturing and service locations by increasing their productivity and performance.

WIRE AND ARC ADDITIVE MANUFACTURING

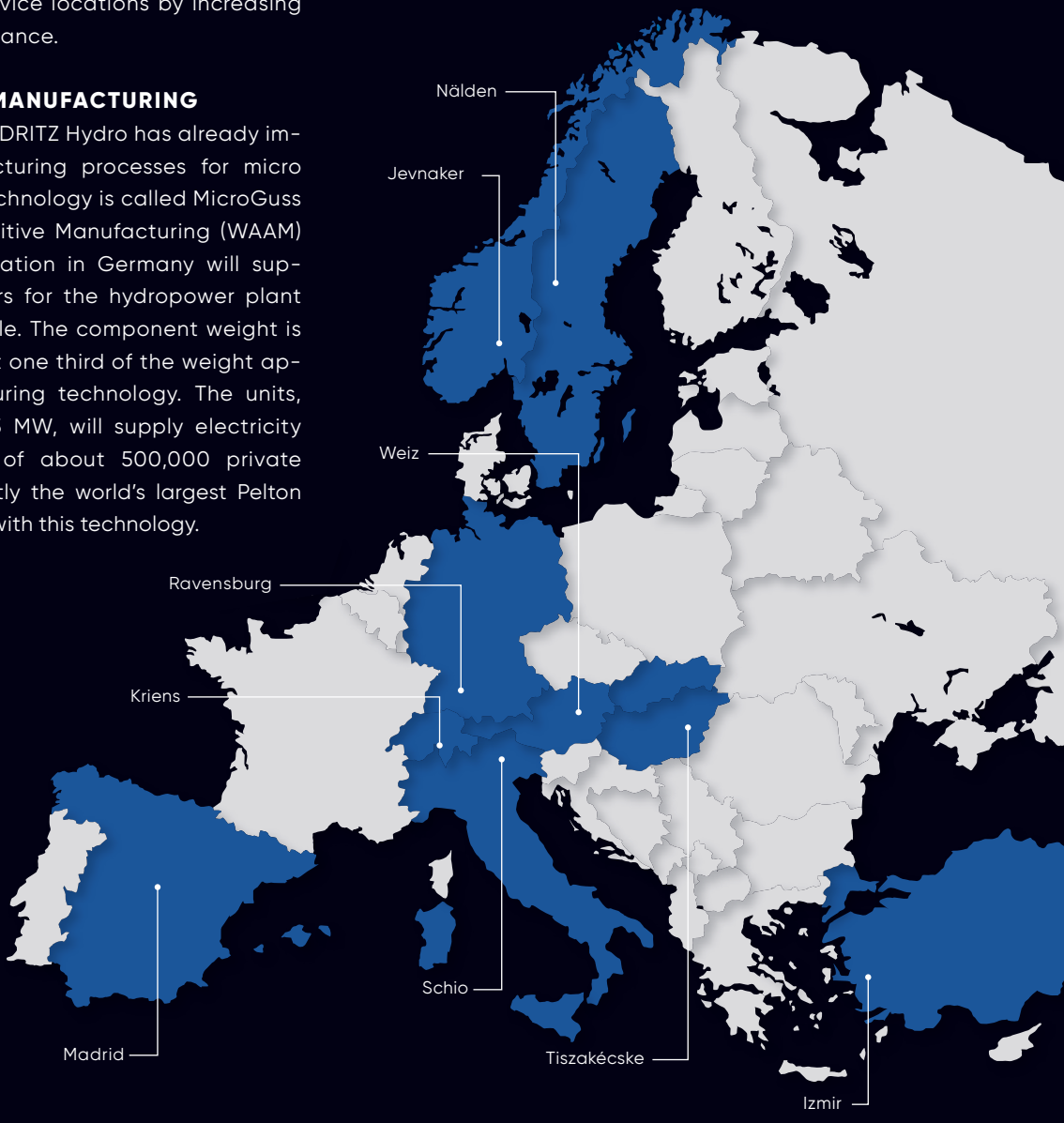
Within the ANDRITZ Group, ANDRITZ Hydro has already implemented Additive Manufacturing processes for micro casting Pelton runners. The technology is called MicroGuss and it is a Wire and Arc Additive Manufacturing (WAAM) process. The Ravensburg location in Germany will supply two Pelton turbine runners for the hydropower plant Sy Sima in Norway, for example. The component weight is 38 tons per runner, with about one third of the weight applied via Additive Manufacturing technology. The units, each with a capacity of 335 MW, will supply electricity equivalent to the demand of about 500,000 private households. These are currently the world's largest Pelton turbine runners manufactured with this technology.

MOBILE COATING

Mobile Coating is an alternative solution to overhauling surfaces and damaged impeller coatings directly at customer sites. Preparatory work can be carried out by the client, saving both time and costs. The actual coating repair operation is executed by ANDRITZ Hydro engineers based at the Kriens site in Switzerland. This flexible production technology offers a key advantage by increasing competitiveness within the local service market.

REVERSE ENGINEERING OF STATOR BARS

In the second half of 2018, a new stator bar forming machine was put into operation in Weiz, Austria. This enables ANDRITZ to produce stator bars with shorter cycle times and more competitive prices. This machine will also be used by the service business. Reverse engineering of stator bars and fast, efficient and competitive processing of even small orders (as little as one stator bar) is now possible.



ANDRITZ HYDRO MANUFACTURING WORKSHOPS IN EUROPE — MAP