

... in practice



Hot water storage tanks and water heaters (boilers)

Dražice is the Czech Republic's leading manufacturer of hot water storage tanks and water heaters.

Dražice started with the idea of manufacturing the most economical and least failure-prone water heater ever – in short: the best boiler. This became the company's philosophy. Despite achieving its targets every year, the company continues to optimise its products. This continuous im-

provement of the quality of their of water heaters (boilers), buffer tanks and heating elements has been recognised with various awards, such as the AOVТ 2021 Award and the Czech Business Superbrands 2022.

The challenge

The Dražice portfolio includes over 380 types or modifications of hot water storage tanks and water heaters, as well as various types of buffer tank. The basic structure of the tanks is always similar: A sheet is shaped into a pipe and the seam is welded. A base and lid are then added and also radially welded. It is important to have high-quality seams which will withstand the pressure in the heat accumulators later on.



The slip roll machine shapes the pipe, which is then welded directly using the MIG/MAG welding procedure. The wire feeder ensures reliable transport of the welding consumable. The various welding procedures ensure low-spatter seams with a wide range of materials, material thicknesses and diameters.

The solution

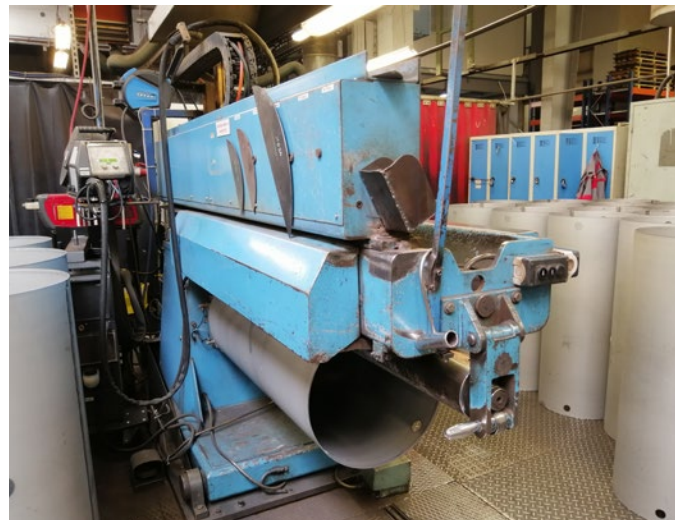
The base material for the heat accumulator is structural steel with a yield strength of 230 MPa; the diameters of the pipes range between 500 and 850 mm; the material thickness is between 2 and 3 mm. Each component requires individualised weld seams. With the wide range of welding machines and innovative welding processes, EWM machines always deliver optimal results. What's more, the control of the welding machines can be easily integrated into Dražice's plant controls, allowing automated or semi-automated production of the base bodies.



The seam is positioned at the top of the pipe. An axis carries the welding torch directly along the seam from above. The seams are high-quality and low-spatter. The wire feeder ensures reliable transport of the welding consumable.

The success

Depending on the application, the Titan XQ 400 puls DW or the Picomig 355 puls is used for automated welding, as they provide the right welding parameters for any material, even aluminium. In manual welding, the Phoenix 405 Progress puls stands out with its wide range of applications, from MIG/MAG, to electrode, to TIG welding. The drive4X wire feeder carries the welding consumable safely to the weld spot. This results in almost spatter-free seams, high weld seam quality and minimal post weld work, because for Dražice, reliable weld seams mean high productivity and thus strong performance.



The shaped pipe is located low down in the machine, while the weld seam is positioned centrally at the top. An axis positions the welding torch precisely on the seam to ensure safe, low-spatter welding.