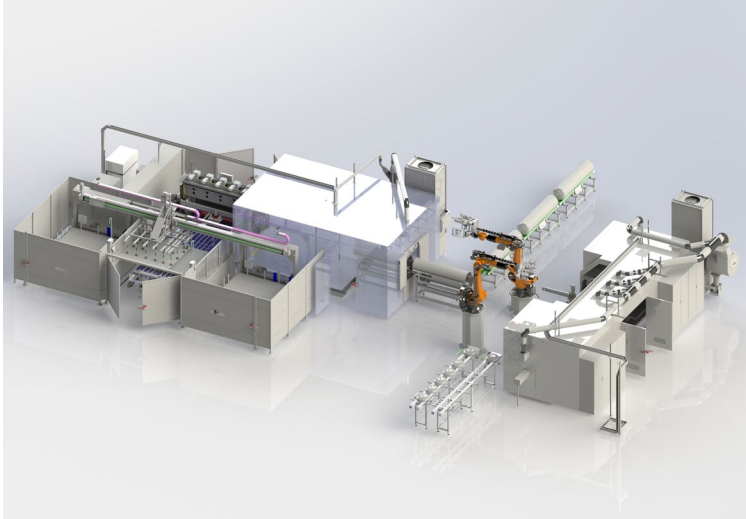
Hot water tanks made of mild steel: in maximum perfection and speed

Weil Technology



Material: Mild steel
Input: Coil or blanks, top/bottom incl. pipes and sockets
Material thicknesses: 1.2 – 3.5 mm
Tank-ø: 300 – 630 mm
Shell lengths: 250 – 2000 mm
Welding technology: Laser + cold wire & Laser-MAG-Hybrid
Cycle times: 45 to 90 s/tank
Output: 34 to 68 tanks/h
Changeover time: shell approx. 5 min, circumferential seam approx. 30 min
Degree of automation: 1 operator
Footprint: ca. 420 m²

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Hot water tanks made of mild steel are efficient at storing heat and are usually cheaper to purchase than those made of stainless steel. However, increased wall thicknesses during manufacture and the risk of gap corrosion at the connections between the domes and the shell pose significant challenges. This risk is eliminated by using a butt joint for the circular seam, as the viscous enamel can completely cover the joint area between the domes and the shell leaving no uncoated areas that might cause a corrosion.

For efficient production of mild steel hot water tanks, our product range includes both the Variostar production line for shell manufacturing and a fully automatic MBF circular seam welding cell.

Lasers welding with maximum prescision and speed

Our production line manufactures fully automatically from sheet metal or coil to laser-welded hot water tanks. First, the cut sheet metal blanks are roll-bended into a circular shape to form the tank shell, and the longitudinal seam is butt-welded using a laser plus cold wire. The bottom and top caps are then welded to the shell using a Laser-MAG-Hybrid welding process.

Your benefits by manufacturing hot water tanks with our laser production line:

- Shell production from blank or coil
- Compact dimensions
- Less energy input into the material thanks to laser welding
- High laser welding speeds of up to 6 m/min
- Significant lower filler-wire consumption than with MAG welding
- Variostar shell production line without any tools
- Fully automatic production line with minimal personal requirements
- Butt joint on circular seam: ideal for internal coating
- Longitudinal laser seam without unwelded start and end

- Flexibility
- High output, small footprint
- Low part deformations
- High productivity
- Cost savings
- Short changeover times
- No gap corrosion
- No leckage, no re-work on T-joint

Weil Technology

Weil Technology's core competence lies in machines for sheet metal processing using laser welding and cutting. We can look back on over 35 years of experience in this field. At our headquarters in Müllheim, Germany, around 250 employees develop and manufacture our concepts and systems. Our proven solutions and pioneering applications in the field of laser-welded hot water tanks are in use worldwide and are helping to bring about the transition to renewable energies.

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For more information see:
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