

PROGEF Polypropylene welded system Collaborative teamwork delivers the most optimal solutions

Skærbæk Power Plant, HYTOR and GF Piping Systems finds the optimal solution for the chemical systems at the Skærbæk Power Plant

Long-term application of the Skærbæk Power Plant with Polypropylene welded system due to distinctive mechanical properties.

Maximizing outcome with the right consulting services

Water treatment in power plants is a crucial process when it comes to maximizing the operational efficiency. When Skærbæk Power Plant, a part of the Ørsted Group, sought an optimal solution for their water treatment requirements, they turned to GF Piping Systems for expert advice on chemical resistance, pressure, and temperature ranges. The recommended material, PROGEF Standard (PP-H), in combination with infrared fusion technology, proved to be the ideal choice.

Project background

Skærbæk Power Plant sought a new solution for their water treatment system, aiming to use PP (Polypropylene) due to their positive experiences with the material. They opted for GF's Infrared (IR) fusion technology for its speed, reproducibility, cleanliness, and full traceability. Following a thorough screening process, HYTOR was chosen as the installation contractor. Prior to project commencement, HYTOR's employees underwent comprehensive training in systems, materials, and IR fusion. The completed systems, which were delivered pressure-tested and accompanied by comprehensive documentation, attest to HYTOR's meticulous attention to detail.

Selected technical solution

Infrared fusion technology: IR welding is often a preferred fusion method for industrial applications where there are high demands on quality and where there is a need for documentation. IR welding is characterized by contactless heating of the parts to be welded and very little and controlled bead formation. **PROGEF (PP-H - polypropylene):** The Polypropylene piping solution PROGEF is part of GF Piping Systems high-performance piping systems portfolio, providing unique mechanical properties, chemical resistance, outstanding weldability, and an especially high resistance to thermal distortion. Its superior material offering exceptional attributes ensures safe and efficient operations. As a reliable, versatile, and high-performance alternative to metal solutions, PP has consistently demonstrated its ability to enhance operational safety.

With a portfolio of PP pipes, PP fittings, PP valves, tools, jointing, process automation and measurement and control instrumentation, GF Piping Systems is a reliable partner that offers the full solution for a safe and reliable flow.

Achieved improvements

HYTOR has designed two chemical systems housed within frames (one for lye and another for hydrochloric acid) both utilizing the PROGEF system. To ensure ease of operation, the drain and rinse nozzles are positioned on the same side. The robust steel frames provide stabilization for the pipe system in several areas. The installation includes not only pipes and fittings but also ball valves, cone check valves, pressure retention valves, and gauge guards.

Where next?



Infrared welded PP-H piping system with 546 Pro ball valves in the foreground.



Gauge guards mounted at the end of the piping system.

Customer Benefits

- Deep application expertise of sustainable and high-performance solutions
- Know-how of how to handle various media in regards to chemical resistance, pressure and temperature conditions
- Complete solution for PP welded systems, including various jointing technologies and even rental options
- Customizing of special solutions in small or large series based on the customer's sketch or drawing (CAD)



Speak to an Expert



Learn more about PROGEF



Learn more about IR welding

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