

Case Study: Thermal Insulation of Gas Removal System at Bükfürdő Thermal & Spa

Project Overview: Location: Bükfürdő Thermal & Spa, Hungary Scope: Insulation of gas removal (degasification) pipe system and associated equipment. Product Used: Thermie-S liquid insulation.

Background: The Bükfürdő Thermal Spa, located in western Hungary, is one of Europe's largest medicinal baths. The spa utilizes natural thermal water rich in dissolved gases and minerals. To ensure safe and efficient operation, the spa employs a complex gas removal system to extract dissolved gases from the thermal water before it's used in various spa facilities.

Challenge: The gas removal system, consisting of large tanks, pipes, and valves, requires effective insulation to:

1. Maintain optimal water temperature
2. Prevent heat loss
3. Protect workers from hot surfaces
4. Prevent condensation and corrosion

Traditional insulation methods posed challenges due to the complex geometry of the equipment and the need for frequent maintenance access.

Solution: Thermie-S liquid insulation was chosen for its ability to:

- Conform to irregular shapes and surfaces
- Provide a thin yet effective insulating layer
- Allow easy access for maintenance
- Resist moisture and prevent corrosion under insulation (CUI)

Implementation: The Thermie-S liquid insulation was applied to:

- Large cylindrical tanks
- Complex pipe networks with multiple valves and fittings
- Control wheels and access points

Results: After application of Thermie-S liquid insulation:

1. Heat retention in the system improved, reducing energy loss
2. Surface temperatures of equipment were reduced to safe levels
3. Condensation on cold surfaces was eliminated
4. Maintenance became easier due to the thin, durable insulation layer

Conclusion: The use of Thermie-S liquid insulation at the Bükfürdő Thermal Spa's gas removal system proved to be an effective solution, addressing the unique challenges of insulating complex equipment in a high-moisture environment. The project demonstrated the versatility and efficiency of liquid insulation technology in specialized industrial applications.

