



Geothermal Applications

Reliable and efficient solutions

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BALCKE DÜRR

Proven Solutions for Geothermal Performance

Geothermal power plants require components that can withstand corrosive steam, high gas loads, and fluctuating operating modes. With decades of experience and over 800 MW installed worldwide, NEM Balcke-Dürr provides high-performance cooling tower condensers and comprehensive cold-end solutions designed specifically for geothermal applications.

Our modular condensers feature enhanced gas extraction systems and are built from corrosion-resistant materials, such as stainless steel and titanium. Whether you are planning a new built plant or intend to replace/upgrade existing equipment, we can provide appropriate solutions starting from delivery of single parts up to turnkey cold end solutions including installation.



Benefits

- Full cold-end solution from a single source: condenser, cooling tower and cooling water circuit
- High reliability and efficiency in highly corrosive geothermal environments
- Effective handling of non-condensable gases (up to 10%) through enhanced gas extraction ports
- Proven track record with references in Iceland, Indonesia, Germany and more
- Compact, modular designs tailored for cogeneration and base load operation
- Reduced power consumption of vacuum systems due to advanced subcooling design

Technology & Features

Our geothermal **condensers** are designed for extreme operating conditions with a strong focus on performance, durability and cost-effectiveness.

- **TEPEE tube bundle design**

Ensures constant steam velocity and optimal steam flow distribution, minimising pressure drop and maximising condensation rate.

- **Advanced gas removal system**

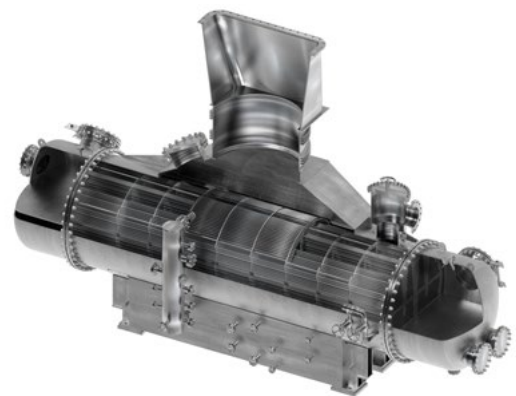
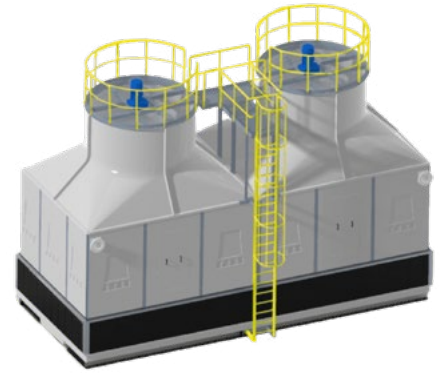
The ideal solution for H₂S and CO₂ abatement. Includes multiple extraction ports and gas coolers with high subcooling capacity to reduce the load on vacuum pumps.

- **Cogeneration capability**

Unique combi bundle design enables flexible switching between electricity generation and district heating, optimizing seasonal operation.

- **Turnkey delivery and site installation**

From engineering and fabrication to installation, commissioning and testing – all managed by our expert project teams.



Different types of condenser designs and arrangements

Application



Surface condenser inside a power plant in Iceland



Cooling tower in Iceland



Heat Exchanger Solutions

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