Tar oil cooling

Chemicals producer, Germany

Case story

A German chemicals producer decided to exchange their existing shell-and-tube for a DuroShell plate-and-shell heat exchanger in one of its coal tar distillation plants. They had previously experienced heavy fouling and frequent clogging with their shell-and-tube solution – leading to high maintenance costs.

After evaluating Alfa Laval's DuroShell, the plant engineers realized it would be a perfect coal tar cooler. Its highly turbulent flow minimizes fouling, and the clogging problems have been eliminated.

The turbulent flow also maximizes heat transfer, allowing the unit to be up to five times smaller than a comparable shell-and-tube. The design enables the heat exchanger to operate with crossing temperatures and a very small temperature approach, which further increases efficiency and reduces cooling water needs.

Results

- No more clogging in the heat exchanger
- Major savings in maintenance costs
- Compact solution and easy installation

DuroShell RollerCoaster
Robust and efficient performance.

DuroShell PowerPack
Optimized flow distribution and fatigue resistance.

Learn more at **www.alfalaval.com/duroshell**

Why Alfa Laval DuroShell

Maximize uptime

- High reliability and fatigue resistance
- Minimal maintenance

Cut costs

- Low investment cost
- Minimal energy consumption
- Reduced maintenance costs

Increase capacity

- DuroShell's compact size and high thermal efficiency make it easy to increase capacity to solve heating and cooling limitations

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