



## Genuine spare parts and service increased plate heat exchanger performance

### Enterprise data center receives free cooling pressure drop service solution

**Enterprise data centers are privately owned and operated by a single company and support the organization's data processing and storage needs. They house physical computing equipment like servers, network systems and storage devices, as well as support infrastructure like power, cooling and environmental monitoring systems.**

When a free-cooling, enterprise customer in the southeastern United States experienced decreased temperature performance and increased pressure drop, Alfa Laval sent a trusted service advisor to do a site walkthrough and performance inspection of their AQ14L gasketed plate heat exchangers.

It was recommended that 419 plates in one heat exchanger be cleaned and the gaskets be replaced. Plate heat exchangers have an essential role in data centers. If the operating conditions do not comply with the temperature and flow rate design specifications, the exchanger functions poorly. This may lead to lower product quality, reduced safety and higher energy costs. And, if unexpected failure occurs, it can lead to costly downtime and major losses in production.

Alfa Laval field service technicians worked with the on site team to schedule cleaning of the plates. Once the plates were cleaned, field service helped the on site team learn how to re-gasket the plates. When the units were re-assembled, they were pressure-tested to ensure there were no leaks present.

It's important to perform preventative maintenance to prolong the operating lifetime of the heat exchanger and reduce downtime. The customer has scheduled similar service on another heat exchanger and will be sending the whole unit to the Richmond service center for reconditioning, frame service and retrofit.



**Cleaning benefits**

- Restores process equipment to optimal condition
- Minimizes maintenance downtime and labor costs
- Maintains optimal performance
- Minimizes pump energy consumption
- Reduces carbon footprint

Fast facts

**The customer**

This global, Fortune 500 customer needed assistance at a southeastern United States location.

**The challenge**

Determine the reason for decreased temperature performance and increased pressure drop.

**Reduce maintenance costs**

Eliminate unnecessary downtime caused by performing maintenance and plate gasketing on a fixed schedule.

**The solution**

Site walkthrough with a performance audit revealed cleaning and regasketing 419 plates would improve performance and efficiency.

**Benefits**

With Alfa Laval's troubleshooting and heat transfer experience, the enterprise customer eliminated decreased temperature performance and experienced increased energy savings.

Alfa Laval has been a leader in heat exchange technology since 1933. The customer was impressed with Alfa Laval's troubleshooting expertise and gasket installation prowess. In the end, the customer benefitted from genuine spare parts, staff training and experienced energy savings.

Alfa Laval's contribution

**Our yearly new installations**

Every year, new Alfa Laval plate heat exchangers enable free cooling in data center operations, resulting in 144 GWh of energy savings and a CO<sub>2</sub> emissions reduction of 33,000 tonnes. This is the equivalent of heating:

**Total installed base contribution**

Annually, Alfa Laval heat exchangers provide a total of 530 GWh of energy savings through free cooling in data centers. They also reduce CO<sub>2</sub> emissions by 120,000 tonnes, or the amount generated by:

**Imagine if...**

...by 2030, all data centers utilized the waste heat from the servers. They would reduce CO<sub>2</sub> emissions by 680 million tonnes every year, while saving a combined 3,000 TWh, the equivalent of what it takes to heat:

