



Our services help you with:

- Assessing the current condition of plates and gaskets
- Support for preventive maintenance strategies
- Insights into optimizing energy and production performance

How it works

The VCA procedure utilizes thermal cameras and digital tools to assess the mechanical and thermal integrity of your PHE during operation. Leveraging our expertise in the Alfa Laval PHE and its design, along with current findings, we provide detailed recommendations based on urgency level in a comprehensive service report. This enables you to make well-informed decisions to maintain your PHE in optimal condition. The PHE must be in operational mode to capture thermal images.

How the service can be delivered



On site



Remotely



At service centres



On board



In dry dock

Alfa Laval

Visual condition assessment

for gasketed plate heat exchangers

Boost efficiency while reducing costs

A common cause of unplanned shutdowns and manufacturing losses in heat exchangers is the lack of preventive maintenance for the plate heat exchangers (PHE). Despite their robustness, contaminants can accumulate and cause dirt buildup, resulting in decreased thermal performance. This inefficiency in energy usage can silently drain resources and lead to unexpected failures and costly disruptions.

Our Visual Condition Assessment (VCA) service provides a swift evaluation of your heat exchanger's operational and thermal status. By comparing to how the PHE was designed, our experts' recommendations enable you to make well-considered maintenance decisions to ensure reliable equipment performance.



Example

Say goodbye to unplanned downtime

Visual Condition Assessments allow Chivas to plan heat exchanger maintenance

Chivas is one of the world's most famous Scotch whisky brands, often marketed as a premium whisky for discerning drinkers. Its owner, the Pernod Ricard company currently has twelve distilleries in Scotland, and plans to expand production to meet growing demand in the future.

Shorter 'silent seasons'

Like most whisky manufacturers, Chivas schedules production shut downs during the summer months – so-called 'silent seasons' – so its distilleries can perform essential maintenance on equipment. This is a crucial period in the whisky production cycle, ensuring smooth-running operations and the maintenance of high quality standards once production resumes. However, due to the increase in global demand, these silent seasons have been shortened to as little as ten days, putting pressure on distilleries to carry out their annual maintenance tasks in record time.

Auditing heat exchangers

One of the key tasks performed during a shutdown is the maintenance of heat exchangers on the production site. Traditionally, Chivas technicians would open certain selected heat exchangers to see if they needed cleaning or if the plates needed replacing. Technicians opened, checked and closed numerous heat exchangers which is time consuming, sometimes unnecessary and increases the risk of issues due to disturbing the pack. With little predictive analysis on the heat exchangers, Chivas had no way of planning for upcoming maintenance needs.

An efficient, hands-off solution

Chivas first invited Alfa Laval to talk about how they might improve this situation back in 2020. The whisky maker wanted to know if its heat exchanger maintenance process could be made more efficient; if there was any way for issues to be picked up in advance thereby enabling the creation of longer term maintenance plans.

Alfa Laval proposed the use of Visual Condition Assessments (VCA) which would eliminate the need to disassemble and reassemble heat exchangers. Instead, an engineer could go to the site and inspect the customer's heat exchangers using a thermal imaging camera attached to a smart phone or iPad. The equipment could be checked for corrosion, leaks, fouling, incorrect installations and more – all without the need for a physical intervention.

Reports enable planning

A VCA works in the same way regardless of the number of heat exchangers involved, and the result is a report listing what needs to be done. Maintenance tasks are marked as either urgent or not urgent, allowing Chivas to prioritise and plan. A typical VCA report contains:

- Unit data, including any changes and adaptations
- Pictures and description of problem areas
- Thermal image of the customer's unit, with an interpretation
- Summary of findings and recommendations

A rolling schedule

The first VCA audit of Chivas's distilleries was carried out in the spring of 2021, and covered all twelve production sites. It allowed the whisky maker to change out packs that were highlighted before facing an unplanned stop. A second rounds of audits were carried out in May 2023 and a third will take place in 2025. This rolling schedule can simply be repeated every 2 years.

Saving time, money and effort

Using VCA saves Chivas time and wasted effort on the part of its maintenance team. The VCA's provide the data to plan maintenance and aid efficiency. Engineers only do what needs doing – no more, no less – which frees up more time for them to spend on value-adding activities.

According to the Maintenance Department at Chivas, the use of VCA technology has provided valuable data and greatly aided maintenance planning. "Thanks to VCA and Alfa Laval, we have seen the benefits of thermal imaging, data collection and reporting."



Related services

Reconditioning
Smart heat exchanger
Cleaning-in-place (CIP)

Contact Alfa Laval

Service and support

We are here to help you!
Please provide details about your needs, and we'll connect you with the best team to advise you.



www.alfalaval.com/contact-us/service-and-support

