



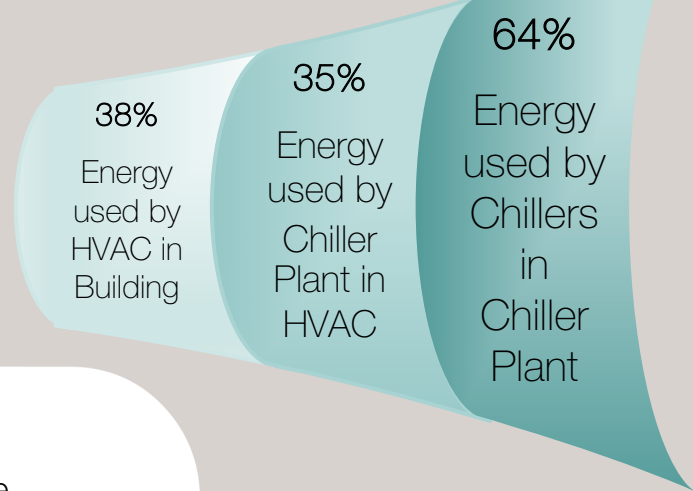
Smart heat exchanger innovation helps HVAC decarbonization

HVAC systems in commercial buildings can be efficient and save money with no loss to tenant comfort



HVAC energy usage

Did you know that 38% of the energy consumed in commercial buildings is due to HVAC systems? With warmer than usual fall and winter temperatures, and new records during summer and spring loads, distribution becomes unbalanced and equipment is subject to "new norm" peak/normal hours of operation.



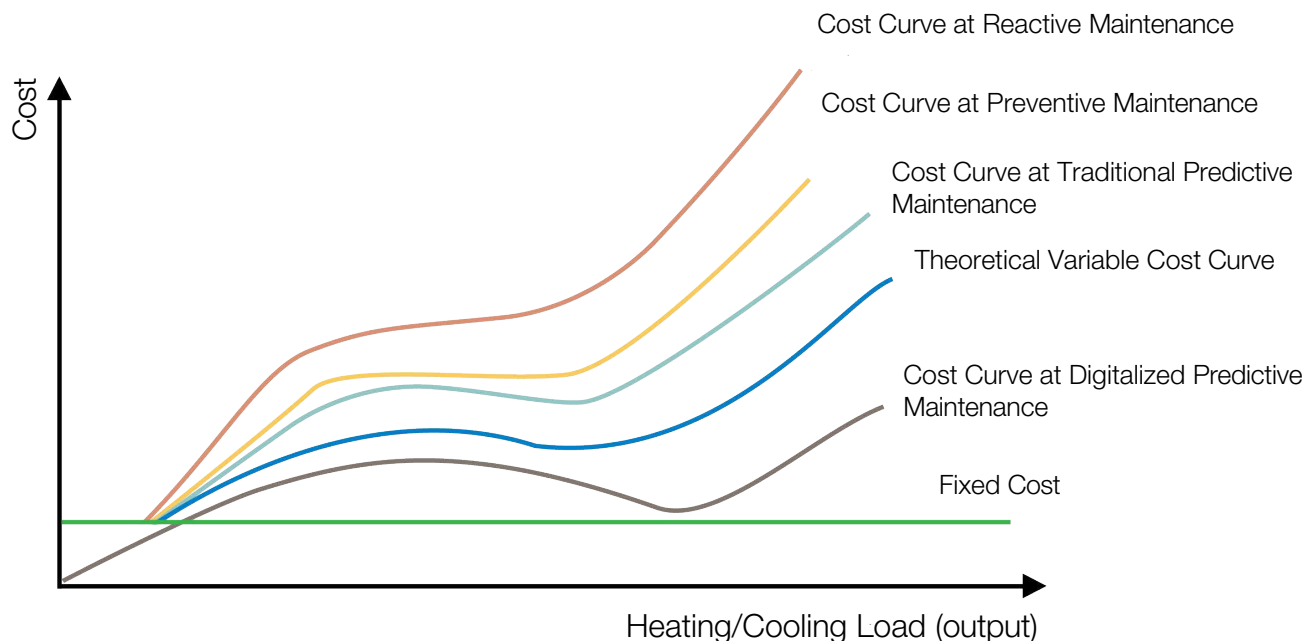
The best place to start when increasing efficiency?

When commercial buildings look at ways to combat climate change or become compliant with new environmental regulations, the improvements are focused on the architectural and electrical aspects of the building rather than improving HVAC system inefficiencies. Challenging the conventional methods of operation and maintenance of HVAC is the least expensive solution.

Plate-and-frame heat exchangers are an integral part of the HVAC system. They play a critical role in the transfer of heating/cooling capacity produced by air handling units and are directly linked to the cost associated with running chillers, boilers, cooling towers and pumps.

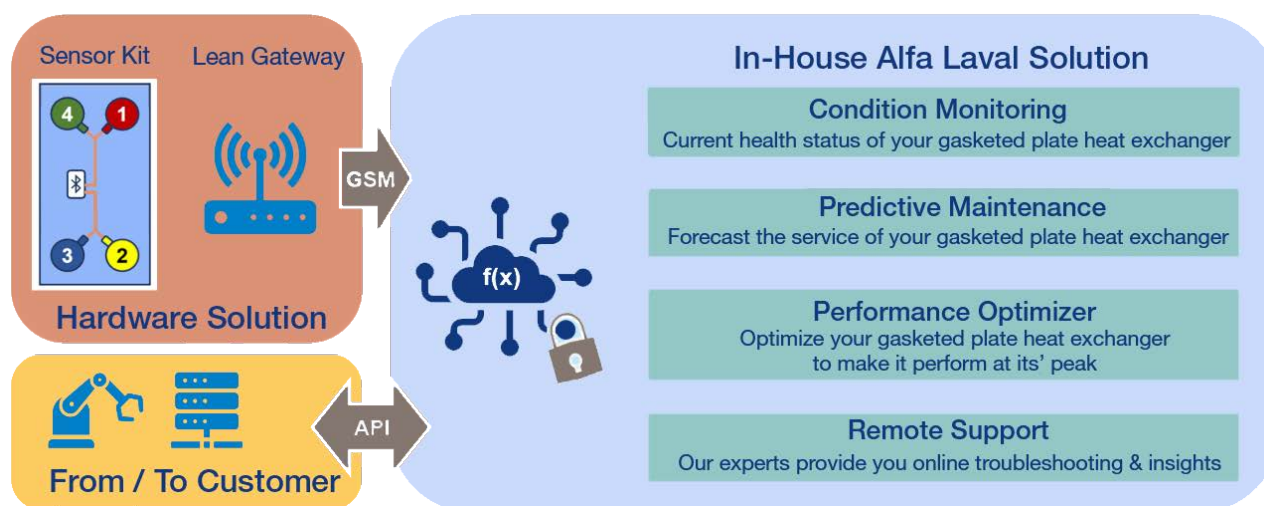
Systems are designed based on maximum theoretical load, meaning that the operational curve is completely different from the design point and, therefore, associated running and maintenance costs are drastically different. Between different maintenance philosophies, the more reactive the implemented maintenance strategy, the higher the cost of running and maintaining the system. In fact, every 1.8°F increase in condensing temperature results in 1.5% increase in running costs.

A 1.8°F lower evaporation temperature results in 3.5% higher chiller energy consumption.



Predicting fouling is an untapped source of savings

Costs due to fouling of a plate heat exchanger, such as additional energy usage, downtime, over design and cleaning chemicals, can be minimized by optimizing maintenance intervals and performance through connected services.



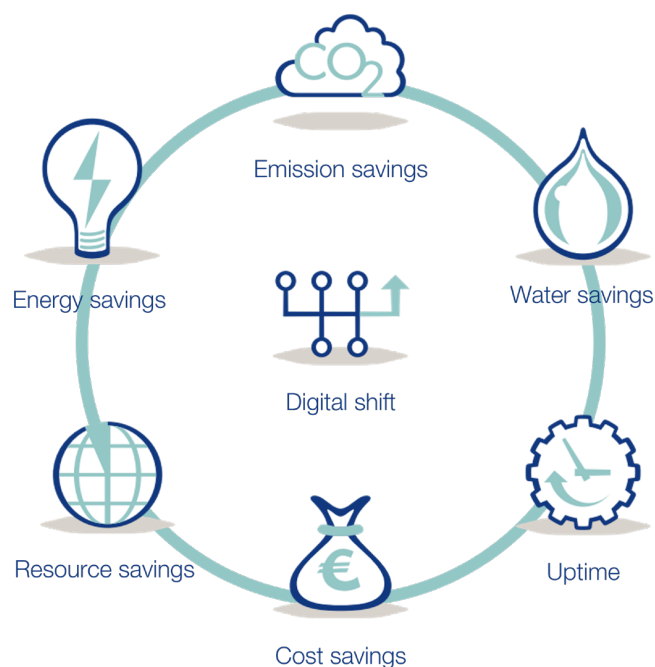
Alfa Laval has been a leader in heat exchange technology since 1933. With our heat exchanger connected services, your heat exchanger becomes “smart” through the use of sensors and cloud integration.

Condition monitoring provides predictive maintenance as well as reporting in real time so performance can continuously be optimized. Connected services support you in facing your building challenges which provides better sustainability, insights, reliability and performance of your capital assets.



Service when necessary

Service intervals can be optimized by performing service at the right time, based on the actual condition of equipment rather than based on a fixed time interval. Our Alfa Laval service team is certified to perform an array of services at your building site or at our service centers and will work to optimize your maintenance budget.



Did you know that a 10 inch port plate-and-frame heat exchanger running at 20% less efficiency can save you up to \$80,000 within 2.5 months after a cleaning from an Alfa Laval certified field service engineer?

Next steps to support your sustainability journey

Are you ready to explore savings? What are your HVAC challenges and goals? A heat exchanger condition assessment is the first step in determining how you can increase efficiencies in your HVAC system.

How to contact Alfa Laval:
Hotline: 1-866-ALFA-LAVAL
www.alfalaval.us/service