



Grape must concentration

AlfaVap evaporation system for wineries

Concentration by plate evaporation

Grape must can be concentrated by evaporating as much as possible of the water component. For this, Alfa Laval provides AlfaVap rising film plate evaporator systems. These are designed to ensure sensitive liquids are treated as gently as possible during evaporation, even at high concentrations and viscosities.

Increase profits through improved quality

With heat sensitive products, improving quality usually translates into higher market value. AlfaVap plate evaporators maintain high thermal efficiency even with viscous syrups, so process temperatures can be kept low to improve quality. In addition, turbulence and small liquid hold-up time shorten the amount of time that products are exposed to heat. These advantages make AlfaVap the preferred evaporator for heat sensitive products such as concentrated grape must.

AlfaVap systems provide significantly greater thermal efficiency than traditional evaporators, thus reducing the energy required for grape must concentration, making it easy to reduce operating costs.

Low delta-T performance, combined with a Thermal Vapour Recompressor (TVR), provides tremendous savings on steam consumption. Typically only 0.2 kg of steam is required for every kg of evaporated water.* This is particularly beneficial for systems that operate through much of the year.



Multi-effect AlfaVap evaporation system for grape must

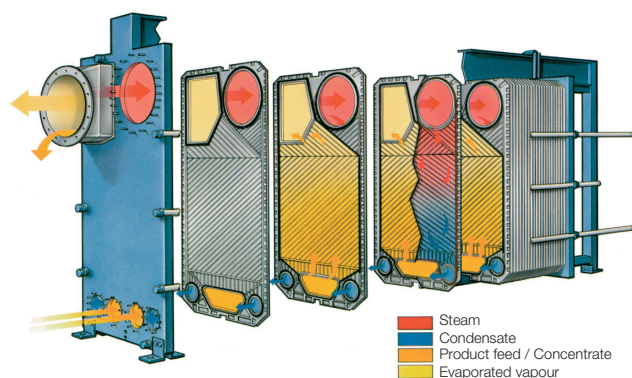
If on the other hand only the evaporation system only is to run a few weeks per year, perhaps a more simple system with lower investment is preferable. Either way, Alfa Laval can provide the right solution and be the partner from design to commissioning.

Key benefits of Alfa Laval plate evaporation technology:

- Effective control of the grape must concentration process
- No risk of colorization
- Can be used for higher Brix levels – 65°Bx or more
- Capacity can be increased simply by adding more plates
- Low steam consumption and lower energy costs
- Compact and flexible installation
- Low maintenance costs, with a long expected gasket lifetime.

*3-effect system with TVR

Flow principle for AlfaVap



As a special feature for the AlfaVap plate evaporators, the plate cassettes are made up of two plates laser welded together to form a welded steam channel.

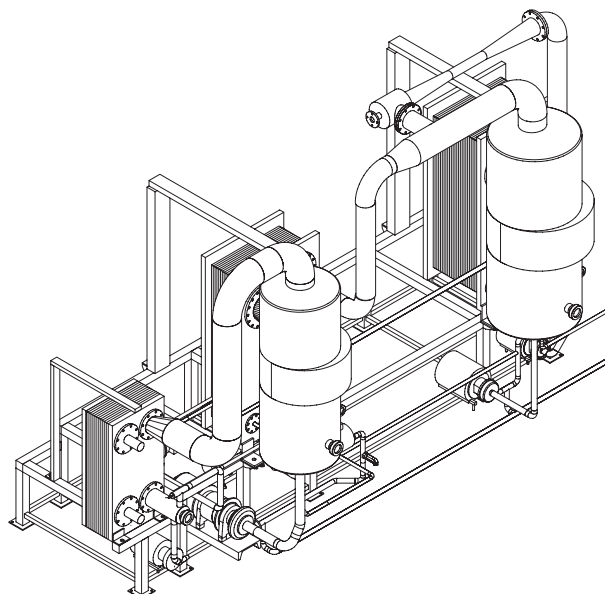
Profile and hole configuration are tailor made for evaporation applications.

AlfaVap – tailor-made for evaporation



AlfaVap is equipped with two small inlet feed connections located centrally in the bottom of the frame plate, and large outlets for the vapour and concentrate at the top.

- There is one large inlet connection for the heating steam, and two small outlets for the condensate. AlfaVap uses the cassette concept with the plates welded in pairs.
- The heating steam is condensed in the welded channels while the evaporated product passes through the gasketed channels.



The system comes complete with all vessels, pumps, structural supports, heat exchangers, evaporators, condensers, piping and auxiliary equipment.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com