

# Alfa Laval's Advanced and Compact Hygienic Condensers for API Industries

## Two Pass Compabloc

Alfa Laval's Two Pass Compabloc is a compact condenser with very high heat transfer efficiency specifically designed for the pharmaceutical industry and the high hygienic requirements of modern API production.



The hygienic design, high performance, low operating costs and easy installation combine to ensure patient safety, reliable uptime and production efficiency. Alfa Laval has supplied several Compablocs to Indian as well overseas API Industries. This is supplied for Glass line Reactor in Hastelloy as well other exotic MOC.

The efficiency of Condensation here is more than 98% in Primary Condenser itself, hence there is possibility to avoid secondary condensers, which leads to CAPEX as well as OPEX savings.

## The Benefits

- Generally Heat Transfer Area required 1/4 th compared to Shell and Tube . K values between 1500 to 2200.
- 100 % Drainability
- More than 98% Solvent recovery in Primary condenser itself due to close temperature approach possible
- Venting of non-condensable is effective
- All contact parts of vapours side as well as coolant side in Hastelloy or Exotic MOC
- Compact in size – Less area required, less installation cost as well
- Totally gasket free so minimal Maintenance cost
- Both sides are possible to clean mechanically if required
- Very low head space is required as it is very compact compared to any other technology

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## Spiral Heat Exchanger

Alfa Laval spiral heat exchangers are designed to handle the toughest heat transfer challenges. They are specifically designed for the pharmaceutical industry and the high hygienic requirements of modern API production. The robust, efficient and compact designs keep both installation and maintenance costs extremely low, and they have a proven reputation for almost never fouling up.

Alfa Laval has supplied several thousand SHES to India as well as overseas API Industries. This is supplied for SS Reactors.

The efficiency of Condensation here is more than 98% in Primary Condenser itself, hence there is possibility to avoid secondary condensers, which leads to CAPEX as well as OPEX savings.



## The Benefits

- Generally Heat Transfer Area required is 1/2 compared to Shell and Tube. K values are between 700 to 1400.
- 100 % Drain ability on vapour side.
- More than 98% Solvent recovery in primary condenser itself, due to close temperature approach possible
- Venting of non-condensable is effective
- All contact parts of vapours side as well as coolant side in SS 316 L
- Compact in size – required less area as well less installation and is easy to install.
- Totally gasket free so minimal Maintenance cost
- Vapour side is 100% visually inspectable.
- CIP is possible, Back flush cleanable.