



## How to maintain a Compabloc heat exchanger

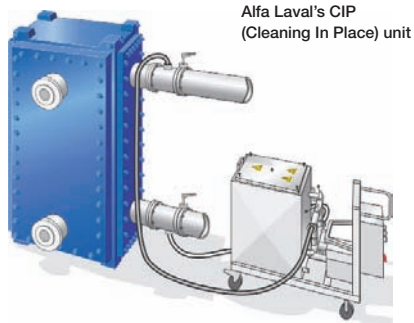
**Simple service maximizes uptime**



Compabloc is a breakthrough plate heat exchanger design that combines several major process advantages in one compact unit. The all-welded plate pack eliminates gaskets between plates, which makes it possible to operate with a wide range of aggressive media, high temperatures and high pressures. The corrugated plate patterns minimize fouling and make

Compabloc ideal for heat recovery in corrosive operating environments.

Cleaning the Compabloc heat exchanger is done quickly and conveniently by hydroblasting the channels. The unit's compact size allows the water jet to reach every corner with equally high pressure. And access is facilitated by the easily removed side panels.



### How to perform Cleaning In Place (CIP) on a Compabloc

- Connect the Alfa Laval CIP Unit to the lower connection, using a T-pipe with a leg.
- The cleaning flow rate should be about 20% of the nominal flow.
- Mix the cleaning agent with water in the tank and heat it to approx. +60°C (or as per instructions).
- Circulate the cleaning solution for 3-4 hours (or as per instructions).
- Drain and rinse with clean water. Dispose of the used cleaning solution into an appropriate waste-water system to reduce the environmental impact.
- Disconnect the CIP unit.
- Restart the heat exchanger with restored performance and capacity.

### How to open the Compabloc

- Loosen and remove the nuts holding the panel(s) to be removed.
- Remove the necessary number of panels.

### How to perform mechanical cleaning

- Clean with steam or high-pressure water – up to 800-1000 barg. Use a nozzle with rotating head or concentrated jet (hydroblast gun or cleaning bar).
- Angle the cleaning device at 45° to allow best access to the heat-transfer surfaces.
- Use hot water (50-60°C) for enhanced efficiency.
- Clean the plate pack channel by channel, following the angle of the plate pattern.

- Dispose of the used cleaning solution into an appropriate waste-water system, to reduce the environmental impact.

### How to close the Compabloc

- Mount the panels with new gaskets, with Compabloc in a vertical position.
- Re-tighten the nuts.



## Trouble-shooting

Symptom	Possible reason	Solution
Inadequate thermal performance at start-up	<ul style="list-style-type: none"> <li>- Air pockets</li> <li>- Insufficient service fluid (e.g. cooling water)</li> </ul>	<ul style="list-style-type: none"> <li>- Vent the unit (CP 50–120 models are not self-venting)</li> <li>- Check flow rates and temperatures</li> </ul>
Decreasing thermal performance (possibly in conjunction with an increased pressure drop or a reduced flow rate)	<ul style="list-style-type: none"> <li>- Fouling on heat-transfer surface</li> </ul>	<ul style="list-style-type: none"> <li>- Clean the unit and adjust flow rates to specified levels</li> </ul>
External leakage	<ul style="list-style-type: none"> <li>- Damaged panel gasket</li> <li>- Relaxation of gasket during shut-down or shipment</li> <li>- Liner spot welds damaged (due to unexpected full vacuum)</li> <li>- Damaged plate pack</li> </ul>	<ul style="list-style-type: none"> <li>- Replace the gasket</li> <li>- Tighten panel bolts</li> <li>- Replace the lining or consult with Alfa Laval service team</li> <li>- Contact Alfa Laval for advice. Field repair may be possible</li> </ul>
Internal leakage	<ul style="list-style-type: none"> <li>- Heat-transfer surface is damaged by erosion, corrosion or mechanical impact</li> </ul>	<ul style="list-style-type: none"> <li>- Contact Alfa Laval for advice. Field repair may be possible</li> </ul>

(For detailed information on how to open, close and maintain the Compabloc, please refer to the Instruction Manual.)

### 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](http://www.alfalaval.com)