

For an increased efficiency  
How are the heat exchangers equipped?

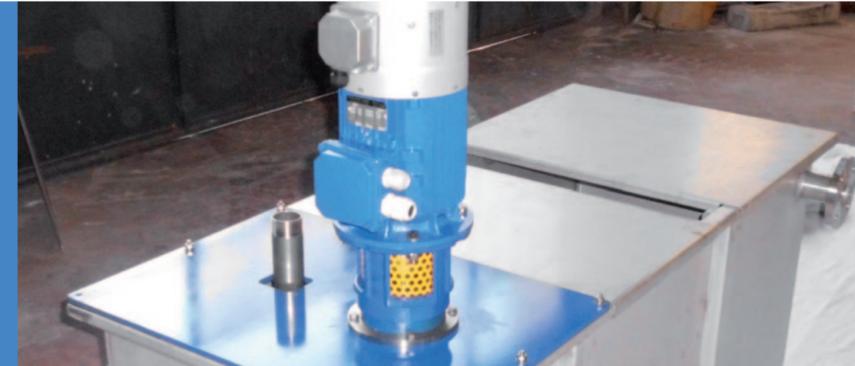
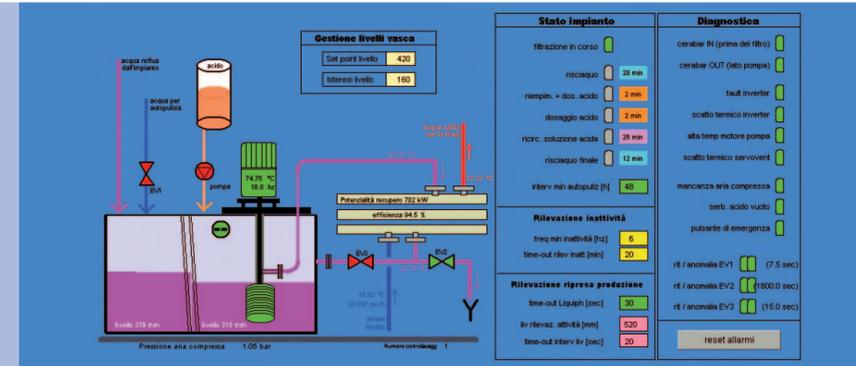
For a more efficient cleaning and  
higher performances  
How are impurities removed?

An innovation that reduces costs  
What are the benefits of multi-line and batch machines?

For a higher thermal recovery  
What is installed on multi-line and batch machines?

## SELF-CLEANING HEAT EXCHANGER

For continuous line machines  
For multi-line and batch machines



More than 85% heat exchange efficiency  
Removal of any chemical residue from internal pipes  
Automatic self-cleaning system  
Tailor made Client solutions

Albini Energia has patented two heat exchangers with an automatic self-cleaning system capable of removing impurities from waste water and ensuring high and regular thermal exchange.  
Albini Energia develops the heat exchange machines to match the specific needs of the Client, varying the type of modules according to exchange surface needed to reach the maximum efficiency.

- Hot waste water tank
- Frequency inverted pump used to lift the hot waste water from the tank, ensuring a continuous flow in order to optimize the performance of the apparatus
- Tank containing a descaling acid with an integrated dosage pump
- Automatic valves that allow the acidic solution to circulate during self-cleaning cycle
- Electric switchboard for full control of the apparatus and relative software

- The heat exchangers are built to prevent suspended solids from depositing on the outer layer of internal pipes
- The heat exchangers are equipped with a steam inlet inside the waste water tank, that helps to raise the washing solution temperature and hence improving the performance and the efficiency of the cleaning system
- The systems automatically activate the circulation of the acidic when production line comes to a stop, in order to always have the highest heat exchange efficiency
- The process is completely automatic and it does not request any maintenance work or manual cleaning

Full thermal recovery from one or more working machines even when water loading and water discharge are not simultaneous  
Innovative system control for heat exchangers  
Lower costs and faster return from investment

- In addition to the standard equipment, heat exchangers installed on multi-line and batch machine are also equipped with:
- Temperature sensors installed on each water loading and water discharge line for each machine
  - Switch valves installed on all water discharge lines
  - Mixing valves on all water loading lines
  - A thermo-isolated tank for pre-heated clean water
  - Inverted frequency pumps stations

