



Innovative beverage processing saves time and money while ensuring safety and growth

Hariss International Ltd., Kampala, Uganda



Food and beverage manufacturer Hariss International Ltd. is one of Uganda's leading producers of still and carbonated drinks. To meet the rising domestic demand, the company decided to expand its existing production facility with a new beverage processing line despite limited floor space. Hariss International turned to long-time partner and Alfa Laval Authorized Integrator A. Water Systems s.r.l.

The innovative use of an Alfa Laval FrontLine WideStream plate heat exchanger as a hybrid cooler and flash pasteurizer. This drastically reduced costs for equipment investment, installation, operation and maintenance while ensuring product hygiene, safety and quality.

To strengthen market share, Ugandan beverage producer Hariss International decided to expand production capacity for its still and carbonated beverages. Hariss International chose Italian engineering consultancy Water Systems to tackle the challenge based on its proven technical expertise, extensive beverage industry knowledge and solid reputation for delivering reliable solutions.

Space- and cost-saving solution boosts production capacity

Economy of space was a priority for Alfa Laval Authorized Integrator, Water Systems, due to the small footprint of the existing production facility. Normally, due to the use of different pasteurization recipes, these two process lines must use two individual gasketed plate heat exchangers – one for still drinks and one for carbonated drinks. However, to overcome space restrictions, Water Systems recommended the use of a single Alfa Laval FrontLine 8 WideStream gasketed plate heat exchanger as a hybrid cooler and flash pasteurizer to handle production of both still and carbonated drinks.

Versatile two-in-one cooler and flash pasteurizer

Versatility was a key factor when Water Systems selected the Alfa Laval FrontLine as the plate heat exchanger of choice for the new beverage production line. With its reputation for safety and hygiene, gentle product treatment, long operating time and superior cleanability, the FrontLine offered clear advantages.

Its flexible modular design made it easy for Water Systems to adapt the 247-plate Alfa Laval FrontLine configuration simply by relocating some of the pipework. This enabled part of the five-section heat exchanger to operate as a cooler when operating in a premixing unit configuration for carbonated drinks and as a flash pasteurizer when bottling for still drinks and fruit juices.

Moreover, its WideStream plates allow fruit pulp to pass through easily without compromising product safety, quality, taste or colour. In addition, the FrontLine heat exchanger is easy to disassemble for inspection and service, and heat transfer plates can easily be added or removed as required. The hybrid version of the FrontLine heat exchanger enables Hariss International to minimize equipment investment, installation cost and process line footprint.

Scope of supply

In addition to the Alfa Laval FrontLine plate heat exchanger for beverage heating, cooling and flash pasteurization, the complete beverage process line for Hariss International included this equipment for ingredient transfer, mixing, tank cleaning and control:

- Alfa Laval SRU pumps
- Alfa Laval mixers
- Alfa Laval agitators
- Alfa Laval SaniMagnum tank cleaning machines
- Alfa Laval SaniMidget tank cleaning machines
- Alfa Laval LKB and LKLA butterfly valves
- Alfa Laval Unique Mixproof Valves
- Alfa Laval Unique Single Seat Valves
- Alfa Laval LKC-2 Non-return Valves
- Alfa Laval SPC-2 Regulating Valves
- Alfa Laval CPMI -2 Valves
- Alfa Laval Air Actuator
- Alfa Laval Sampling Valves
- Alfa Laval ThinkTop Basic Valve Control Heads

85% heat recovery

Besides uncompromising safety, hygiene and cleanliness, the FrontLine offered economic efficiency too. When used as a flash pasteurizer, the FrontLine recovered



Alfa Laval FrontLine gasketed plate heat exchanger meets the highest demands on hygienic control and handling of heat-sensitive media.

more than 85% of heat used from the hot product for reuse to pre-heat cold product. In addition, all pumps and agitators in the process line comply with premium electric efficiency standards.

More optimization in the future

Steady and reliable. That's how Hariss International characterizes the complete Alfa Laval production line installed by Water Systems. The company is also satisfied with the peace of mind that the additional production capacity has brought to the factory. So satisfied, in fact, that discussions are underway with Water Systems to extend the installation further to cope with the growing demand for pasteurized still drinks.

“Our new beverage process line lives up to our expectations for reliability, hygiene and increased production capacity.”

Mr. Chadi K. Ahmad, Director of Hariss International

Fast growth in demand reflects Hariss International's ambition to expand into other countries in the East African Community and become one of the largest manufacturers of fast-moving consumer goods in the region. To support the company's expansion efforts, Water Systems and Alfa Laval remain ready to assist with beverage manufacturing solutions that save time and money, ensure high quality and meet the highest demands for hygienic control and handling of heat-sensitive media.

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

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