



WAVE Technology

With advanced heat treatment and pasteurization you can start producing liquid food products and in volumes you have never been able to process - without fouling your plant..

www.sanovoprocess.com

WAVE Technology

A heating system based on
consolidated ohmic technology



SANOVO's WAVE Technology, is an advance heat treatment system for pasteurization that applies a high frequency / high voltage electrical fields to the liquid product.

By applying ohmic heating technology, the SANOVO WAVE improves the quality of your product and significantly extends your liquid product shelf life. Find out how.



Watch
movie

Challenge us with Your Product

There are countless applications and products that are suitable for pasteurization or sterilization with our WAVE Technology system. Processing your liquid raw material in the right way will open new markets and increase its value. For instance, high protein products or ice cream bases can be pasteurized at higher temperatures with WAVE.

■ Dairy and Liquid Eggs

The WAVE pasteurization, thanks to an instant and uniform heating of the product and to the absence of overburnt areas, gives excellent results when applied on dairy derivatives, like flavoured sweet milk, fermented products, milk cream and other applications.

■ Nutritional Drinks and Food Ingredients

WAVE pasteurization applied to high protein content sport drink is giving a longest shelf life without any reduction of the functional properties.

■ Plant-based Drinks, Fruit Nectar, Puree and Colors

In plant-based drinks processing, where the direct heating sterilization methods are already recognized and accepted as the solution to be adopted, WAVE pasteurization, leads to further improvements.

■ Ice Cream Bases

The WAVE pasteurization applied in a process for UHT mixes for artisan ice-cream production is giving the possibility to sterilize the product with reduced yellowing and no burnt taste.

.... and many more.

Instant and uniform heating

Extended Shelf Life Without Changing the Product's Functional Properties

In the conventional indirect pasteurization systems, during the heat transfer, the products can be damaged in several proprieties such as taste, flavor, texture, and natural functional features.

The combination of conventional pasteurization and ultra-pasteurization with SANOVO WAVE Technology, based on innovative Pulsed Ohmic heating technology, has proven to have a strong positive impact on the natural properties of food products. Moreover, the higher reduction in bacteria significantly increases product shelf life.

In fact, it is possible to optimize the process in the conventional pasteurizer thanks to the instant and uniform heating capacity guaranteed by the SANOVO WAVE Technology system.

The system has been applied to different liquid products, and it resulted in strong improvements when compared to traditional pasteurizers. In the tubular or plate heat exchanger, the heating is passed to the product through a hot surface, increasing the fouling and reducing the efficiency. With the WAVE Technology, instead, the product is heated directly and the maximum temperature in the system is the temperature of the product itself.





Advanced Heat Treatment

Why Invest in a SANOVO WAVE Technology System?

SANOVO WAVE Technology works with pulsed ohmic heating to increase shelf life without denaturation of the product. This method is based on three key principles: speed, precision, and uniformity.

Speed, precision and more uptime

The residence time into the heating system is extremely short, so the process dynamics is very fast and a very precise control system is necessary. The control system developed by SANOVO TECHNOLOGY PROCESS ensures no temperature overshoots in every process condition, securing the best process performances during the operation.

Uniform quality

WAVE Technology performs with industry-leading electrical efficiency and allows liquid food producers to sell safe, highly competitive products of consistent quality to a larger customer base.



[Click here](#)

Get in touch to have further information
about SANOVO WAVE technology.

SANOVO WAVE Technology with Ohmic Heating

How Does it Work?

Most foods containing high levels of water and dissolved salts are able to conduct electricity through electrolytic conduction. With the application of AC current with very high frequency, the ions are forced to move continuously without deposition effects on the electrodes, and the collisions with each other and with other molecules in the solution cause a temperature increase in the product itself due to friction.

Ohmic heating technology

The liquid food is heated by passing the electrical current through it, and the heat is applied/developed in the product itself. Ohmic heating results in fast, uniform heating throughout the product and better preservation of functional properties, color, and nutritional values.

The heating is correlated to the electrical conductivity of the product, the voltage applied between the electrodes, and the distance between the electrodes and the cross-section of the product. The design of the heating element (diameter and length), the number of elements, the regulation of the voltage, and the current applied to the product is the real secret of the development of the correct unit.



Watch
movie



Not Sure about the Impact on Your Product?

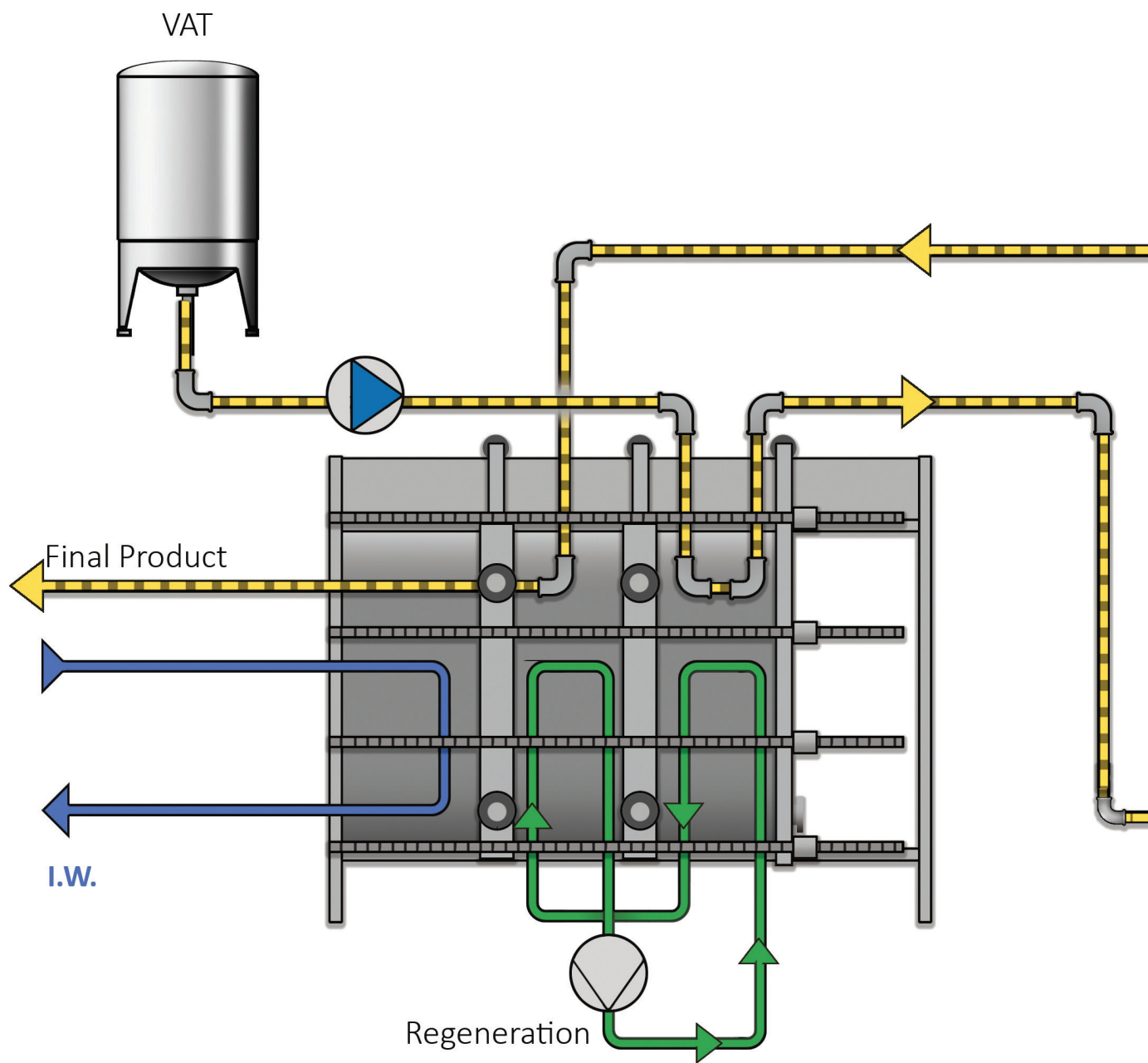
No problem. Our pilot plant is ready for testing

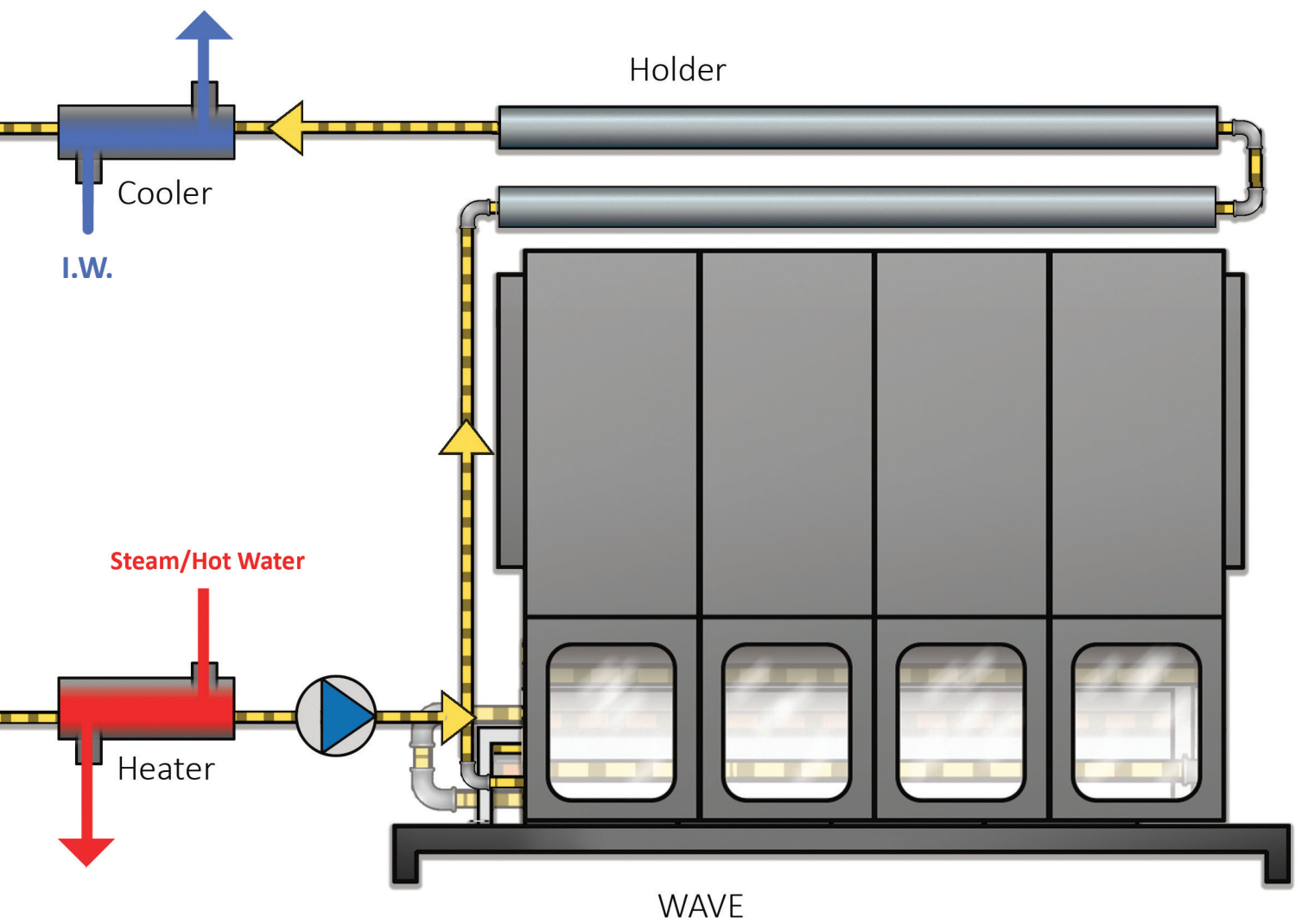
Our pilot plant is available for you during R&D and product development. You can test your product before investing in new machinery. Besides testing your product, you will have experts at your side all the way.

We have more than 60 years of experience in liquid processing, and we take pride in sharing the know-how with you. We are committed to make your test successful and will guide you to get to the best possible products.

Flow Diagram - Sterilization and Pasteurization

SANOVO WAVE Technology





WAVE Technology

Available in capacities from 1,000 liters/hour and works with every new or existing pasteurizer.



SANOVO WAVE Technology performs with industry-leading electrical efficiency and allows liquid egg producers to sell safe, highly competitive products of consistent quality to a larger customer base.

Moreover, it allows you to reduce the carbon footprint of your production.

1

Applicators

Set of elements to transfer the energy to the flowing product instantly and uniformly.

2

Holding cells and cooler

To ensure the right holding time for the higher killing rate.



Open layout



Go to website



Play video



3 Power and control

Power control unit to regulate automatically the desired temperature.

4 PLC Panel

Stand-alone unit suitable for the automatic control of the entire process and self-adjusting for easy integration with any pasteurizer.

Project Management, Worldwide Service and Support Close To You

Lifelong partnership around your project



Your project is key to the entire organization of SANOVO TECHNOLOGY PROCESS. When our agreement has been signed, our experienced team of R&D engineers, project managers, supervisors and service technicians will make sure that your project will be timely fulfilled the best possible way - phase by phase - to your satisfaction.



4 Production units
15 Sales & service offices
+50 Distributors



CUSTOMER CARE

Unforeseen emergencies do happen in every type of industry occasionally. Failure of critical parts lead to expensive downtimes. That is why we are ready to support you right away – remotely or onsite - with technical knowledge, personal support and replacement parts if needed..

APPLICATION SUPPORT

Do you have a clear overview of the application possibilities and product properties of your unprocessed raw material? We are involved in many industries and have insights into the business of powder processing. Our experts will help you to test and validate that your products attributes are ideal to match market demands.

TRAINING PROGRAMS

Well trained staff is essential to business success. Besides having a test center, we also facilitate training for our customers. Our highly skilled instructors have many years of experience in the training of both customers and our own staff from all over the world.



Learn more about customer care

FOOD CONTACT MATERIAL (FCM)

Producers and importers of food contact materials must provide a declaration of compliance for their food contact materials together with additional supporting information on their food safety management system including e.g. migration test results. All components in our equipment are in compliance in relation to food contact materials 1935/2004.



Call us for more information

We appreciate your requests and will always allocate our experienced and dedicated staff to give you a comprehensive reply.



Reserve time for a test trial

We have installed a WAVE Technology system to carry out trials for our existing and new customers. We invite you to send us a sample of your liquid product, in order to test the quality and properties of your final product produced on our WAVE Technology.



Experience WAVE Technology

We will plan a reference visit for you at one of our existing customers' plants. Then you can see the WAVE Technology in action and learn from the experience of others.

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