



# THERMALINE

INNOVATIVE HEAT TRANSFER SOLUTIONS



## Process Systems

Complete Processing Packages

Customized and Optimized

Factory Tested

Full Technical Support



## INNOVATIVE HEAT TRANSFER SOLUTIONS

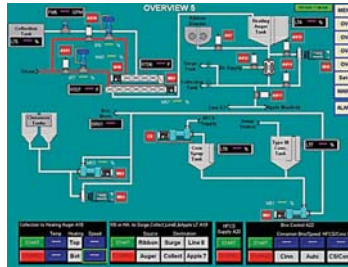
### Our Technology is the Heart and Mind of your Process System

Thermaline, a leading manufacturer of sanitary heat transfer equipment, takes that extra step to put the complete processing package together. With our technical and practical knowledge of processing, we are able to optimize a packaged system custom tailored to fit your needs. Thermaline knows our success is based on yours; therefore, we work closely with your team to design a system that incorporates your high standards in product integrity, texture, taste and appearance while using today's most advanced procedures and automation to simplify operation on the production floor.

Thermaline process systems are factory tested and wholly supported during start up and production with both on and off-site technical assistance. From basic loop water systems to PLC-controlled Aseptic processing, you can expect the same level of support and commitment to ensure your success.

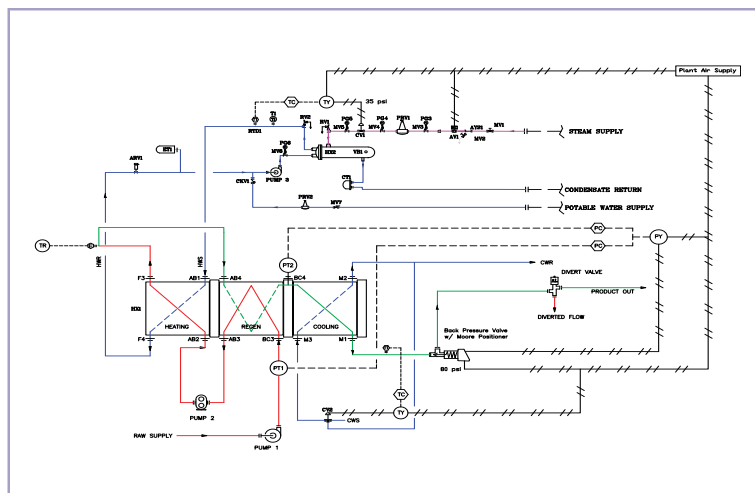
### A Keen Mind

Thermaline has partnered with an industry leader in controls and automation to form a reliable HMI and control system that your production team can easily operate. With a combined 50 plus years of programming and knowledge of processing you can rest assured your entire system will perform exactly as you have envisioned. From single loop control to full PLC touch-screen automation, Thermaline has the solution to synchronize and harmonize your processing equipment. Each system is designed with as little or as much automation to match your budget, goals and process requirements.



HMI Human  
Machine Interface

PLC

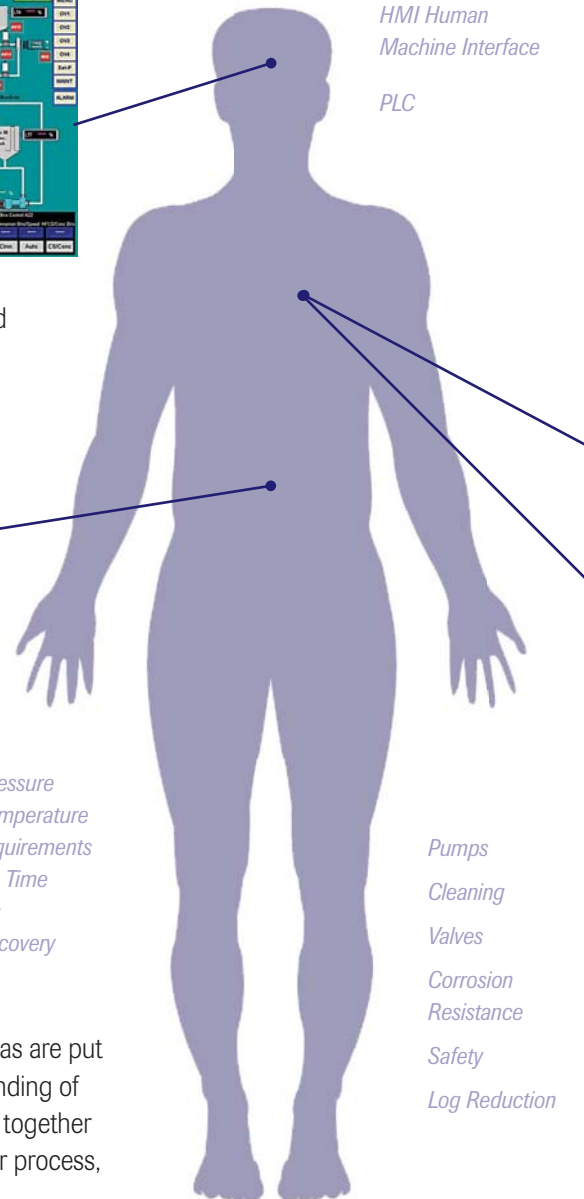


#### Monitoring:

- System Pressure
- System Temperature
- Power Requirements
- Residence Time
- Run Times
- Energy Recovery

### A Solid Core

Thermaline systems are built on a solid core. The core of your processing concepts and ideas are put onto paper and reviewed with you and your team to ensure you have a complete understanding of the system before production begins. Our CAD and engineering departments work closely together to exercise the design and create a solid core. Exercising the design eliminates bulk in your process, further enhancing performance and product quality.



Pumps  
Cleaning  
Valves

Corrosion  
Resistance

Safety

Log Reduction

## Industry-leading electrical components

- Allen Bradley
- Spirax-Sarco
- Siemens
- Endress + Hauser

## Processing solutions for every product

- Dairy – milk, cheese, eggs
- Juices – fruit, pulp, concentrates
- Condiments – ketchup, BBQ, mayonnaise, mustards
- Dips – hummus, dairy-based, cheese sauces
- Purées – fruits and vegetables
- Soups and gravies



10 GPM Juice  
Concentrate HTST

20 GPM Cheese Milk HTST



20 GPM Juice HTST



5 GPM Condiment Cooker



40 GPM Juice HTST



15 GPM Fruit Purée HTST

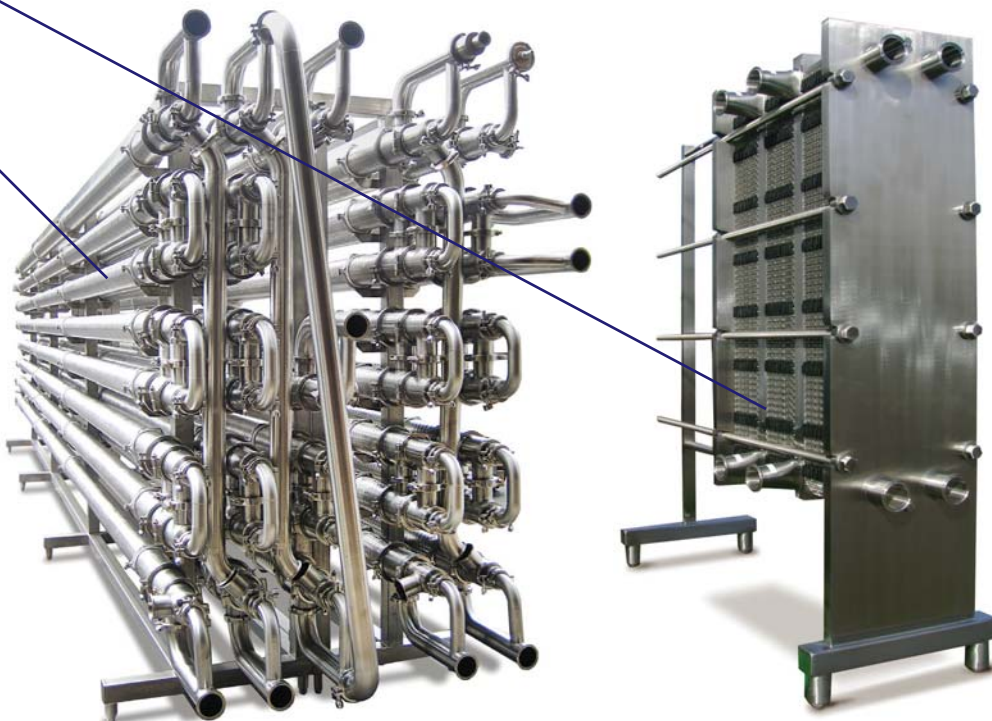
## Equipment for every application

- Product heating
- Product cooling
- Heat treating
- Hot water makers
- HTST (pasteurizers)
- UHT (extended shelf life)
- Aseptic

## Certified to the highest standard

Process systems are made in accordance with 3-A sanitary piping guidelines and 3-A processing guidelines.

- 3-A
- ASME
- UL
- PMO



## A Strong Heart

With Thermaline's wide range of heat transfer equipment, we are able to build a system around your product rather than force your product through a one-size-fits-all solution. Thermaline offers both tubular and plate style heat exchangers to maximize energy efficiency and minimize your capital investment. Once the heart of the system is designed, we carefully engineer the peripheral equipment to complement the heart. Finally the HMI Human Machine Interface and controls are added to make it come alive. With a strong mind and healthy heart you can expect years of reliable performance.

# Additional Thermaline Products

## Thermaline Sanitary Plate Heat Exchangers

Thermaline offers a comprehensive plate heat exchanger line to accommodate today's most demanding processing requirements. Thermoclip plates range from fractional surface area plates for micro flow rates to plates with excess of 6 ft<sup>2</sup> and 6" ports for high volume production. With multiple plate patterns, corrugations, draw depths, and materials, we can optimize each unit to operate at peak efficiency, lowering the cost of ownership, but more importantly providing long-term energy savings.

- 3-A and FDA-compliant
- Adhesiveless clip gasket system
- Multi-section capable
- Tie-bolt and automated frames



## HygenX™ Series:

Shell and Tube Heat Exchangers

## HygenS™ Series:

Closed Loop and Process Water Heater Packages

## Reconditioning Services

Thermaline can clean, inspect, and re-gasket your plates like new. Our reconditioning facility runs 24 hours a day to keep your plant up and running smoothly.

## Thermaline Floating Series Corrugated Tubular Heat Exchangers

Thermaline offers a complete line of tubular heat exchangers, corrugated to maximize heat transfer efficiency. Our Floating Series boasts an innovative floating tube design to minimize material fatigue and eliminate cross-contamination issues.

- Meet or exceed 3-A tubular heat exchanger design requirements
- Duofloat Sanitary corrugated floating double-tube heat exchanger
- Trifloat Sanitary corrugated floating triple-tube heat exchanger
- Multifloat Sanitary corrugated floating multi-tube heat exchanger
- Possible media and product leaks are vented to atmosphere
- Direct and indirect regeneration

Visit our website  
for more information  
about all of our  
products and services:  
[www.thermaline.com](http://www.thermaline.com)



## Hot Water Sets

- Full range of models from 25 gpm to 750 gpm
- Turns steam into clean hot water for product or process heating
- Full controls package available or integrate with your process controls



# THERMALINE

**Thermaline, Inc.**

1531 14th St. NW, Auburn, WA 98001

Toll Free 1.800.767.6720

Phone 253.833.7118 / Fax 253.833.7168

[www.thermaline.com](http://www.thermaline.com)

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