



ESL AND  
ASEPTIC

S&I

SYSTEMS &  
INTEGRATION

# THE STATCO-DSI DIFFERENCE.

Statco-DSI custom designs our process solutions to best fit your needs. We strive to keep you competitive in your marketplace – embracing the fact that your business succeeds or fails based on three basic principles: **Product quality, plant throughput and operational efficiency.**

Our system design approach always takes these principles into account. You may hire us as an outside vendor, but you'll feel like we're on your staff because of our commitment to providing you with the best customized solution for your product and production needs. We view our business relationship as a partnership because we know that in today's business climate, if you're not successful, we're not successful.

Our dedicated team of ESL and aseptic experts and our nationwide network of seasoned sanitary process professionals will provide you:

- **Process knowledge:** Most of our project engineers and sales staff have walked in your shoes. In the past, we were plant engineers, operations managers and maintenance supervisors. We bring our hands-on experience to your project and evaluate your complete operation to ensure that you achieve your desired results.
- **Design flexibility:** Off-the-shelf solutions make an equipment manufacturer's job easier, not yours. We approach every project as a unique opportunity with unique challenges. From individual components to complete, turnkey systems – custom process design is what we do and we work hard to do it better than anyone else.

- **Technical expertise:** We are proud to have 40+ exemplary engineers on staff with a wealth of product and process knowledge. The cohesiveness of this group is emphasized by extremely low turnover, ensuring a high level of commitment to your project.
- **Project management experience:** We believe in start to finish involvement. Our project management team is led by a single point of contact throughout all project phases – from process development through engineering and equipment procurement – all the way through installation, start-up and post-production support.  
**One team, one call, one solution.**

In addition to the proprietary equipment we design and manufacture in-house, Statco-DSI represents over one hundred manufacturers in the food, beverage, dairy and biopharm industries. Our full line of equipment includes:

- Casers
- Fillers
- Valves
- Separators
- Homogenizers
- Heat exchangers
- Conveyor systems
- Instrumentation/controls
- Custom tanks, vessels and silos
- Complete process systems

**Whether you need an entire system or to tie one of our components into an existing line, let us link your good name with the best names in the sanitary processing industry.**



# EXCELLENCE IN ESL AND ASEPTIC.



**Statco-DSI** is your clear choice for expertise in direct and indirect heating ESL/Aseptic systems for low and high acid foods. Whether your product is intended for non-refrigerated storage, vending machines or institutional distribution, we can help you choose the right system to give you longer shelf life and a better value-added product.

ESL and aseptic processing gives you the ability to expand your distribution area with the assurance that your product will deliver the freshness consumers demand.

**Statco-DSI's Therma-Stat ESL/Aseptic Processing Systems** are built with readily available, domestically supplied components for long term ease-of-maintenance and reduced downtime. We build our systems in-house to control the project timeline and ensure on-time delivery. In addition to these key advantages, our systems offer exclusive features:

- > **Product-to-product regeneration:** raw product heated with ultra-pasteurized product significantly reduces energy usage and system complexity
- > **Seamless, unrestricted routing** to multiple destinations maximizes production runs and minimizes scheduling conflicts
- > **Optimized design performance** reduces utility costs, environmental impact
- > **Specialized HMI screen graphics** and event logging aids in system troubleshooting

## Product applications include:

### Low acid

- Fluid milk
- Ice cream mixes
- Heavy whipping cream
- Non-dairy creamers
- Non-dairy whipped topping
- Nut milk
- Whey-based products
- Soy-based products

### High acid

- Juices
- Smoothies
- Purees
- Particulate products
- Acidified products

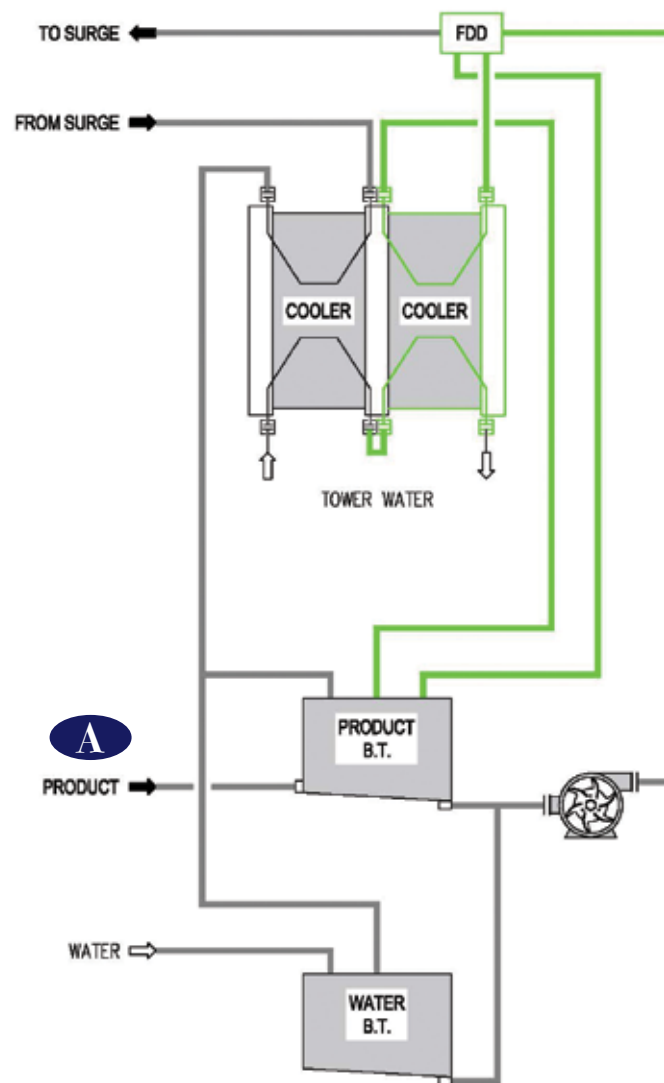
**Therma-Stat's smooth, quiet operation extends the life of your system between scheduled preventative maintenance routines. And with longer run times, reduced maintenance and reduced product loss, our ESL/Aseptic systems deliver a maximum return on your investment.**

**For excellence in ESL and aseptic processing, Statco-DSI is the clear choice.**



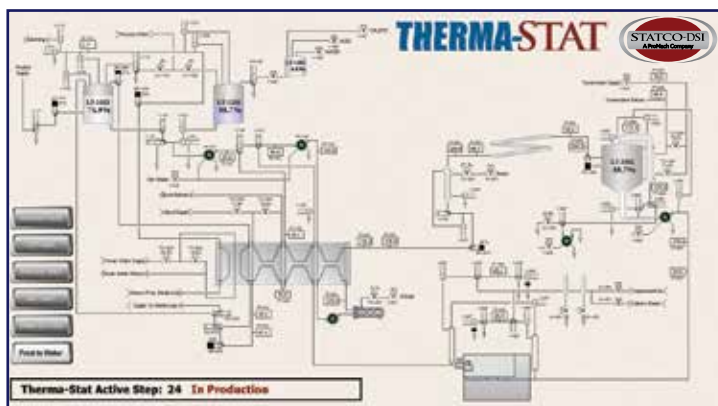
# THERMA-STAT

- A** Raw product from the system balance tank undergoes regeneration heating versus ultra-pasteurized product exiting the flash chamber in a plate heat exchanger (PHE).
- B** Raw product exiting the PHE is metered by a legal timing pump through the heater section of the PHE and discharged into the culinary steam injector.
- C** Culinary steam is injected directly into the product stream to produce the desired holding temperature prior to routing through the legal holding tube.
- D** Product exits the holding tube into a flash chamber where the controlled vacuum environment instantly reduces the product temperature and removes the product vapor that was added as culinary steam.
- E** Product exiting the flash chamber is routed through an aseptic homogenizer en route to the ultra-pasteurized side of the PHE, where it undergoes regeneration cooling.
- F** Ultra-pasteurized product exiting the regenerator undergoes final cooling versus glycol prior to routing past the legal flow diversion device (FDD) en route to the final product destination.

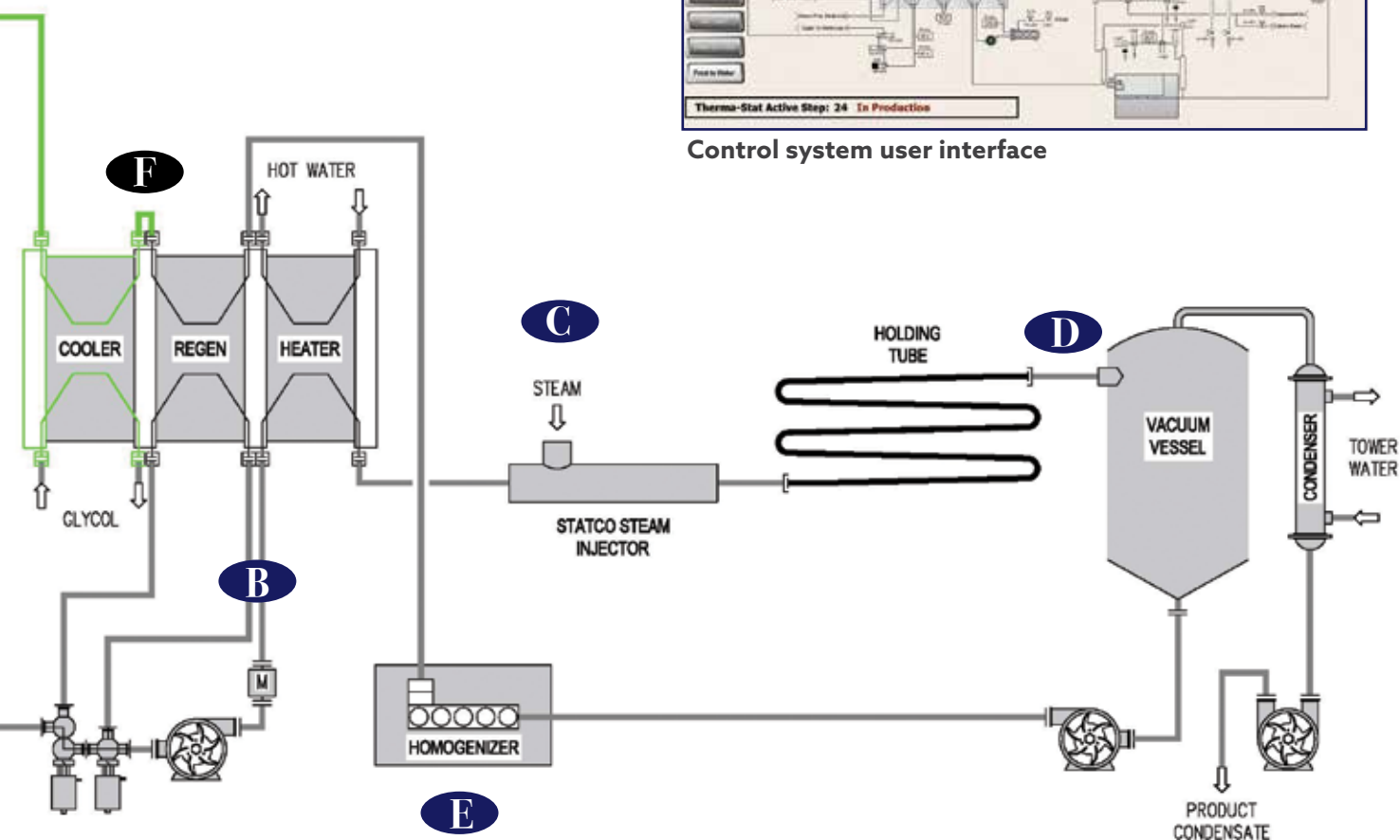




To be on the ***leading edge***  
of your marketplace,  
you need the ***cutting edge***  
advantages of **Therma-Stat**.



Control system user interface



# SETTING THE STANDARD.





# THERMA-STAT

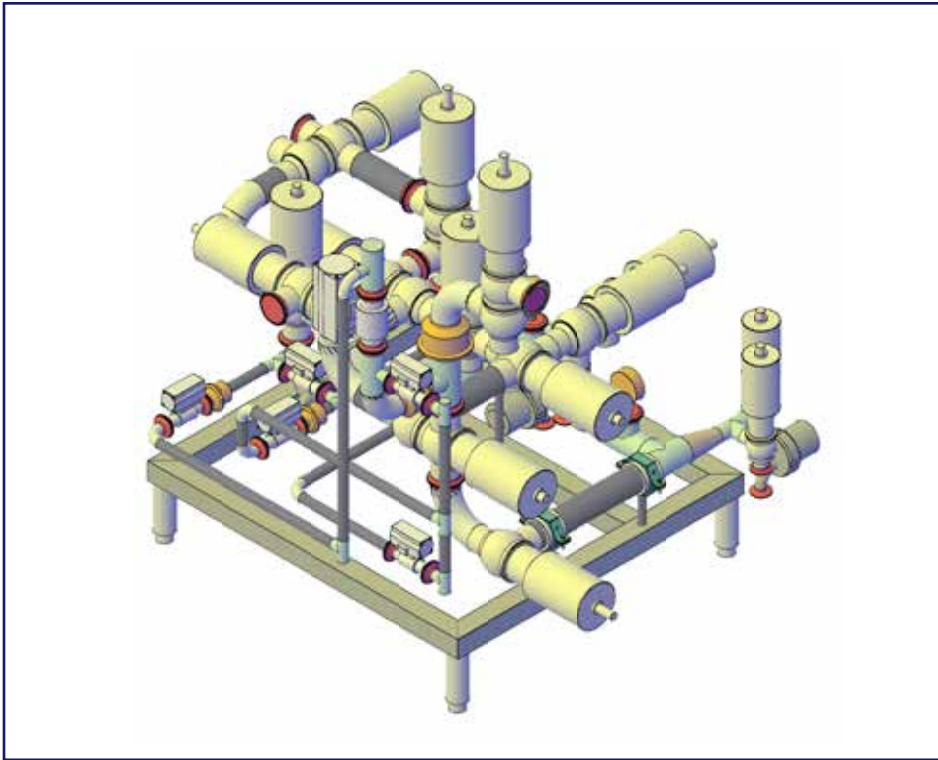
When you choose Therma-Stat for your ESL/Aseptic processing line, you'll benefit from standard design features that are options on competitive systems. Our complete package includes:

- On-site commissioning, start-up assistance and operator training
- Utility monitoring
  - Steam flow and steam quality
  - Tower water flow and load
  - Glycol flow and load
  - Process water flow and consumption
- Phase detection of both product entering the UHT and at all product destinations
- Seamless transitions between sterilization, production, AIC and CIP with no field swings

**Therma-Stat is the most energy efficient and reliable ESL/Aseptic system in the marketplace.**



# OPTIMIZE PRODUCTION EFFICIENCY.



## The Therma-Surge Difference

- Three zone approach, with double block-and-bleed protection
- Complete independence of CIP, sterilization and production from the source system
- All product valves lifted during CIP for thorough cleaning
- Side inlet valve allows fillers to pull product from the surge tank when system transitions from product-to-water or water-to-product
- Optical (NIR) phase detection reduces product loss, increases efficiency
- Cooling water recirculated in outer tank jacket reduces water usage



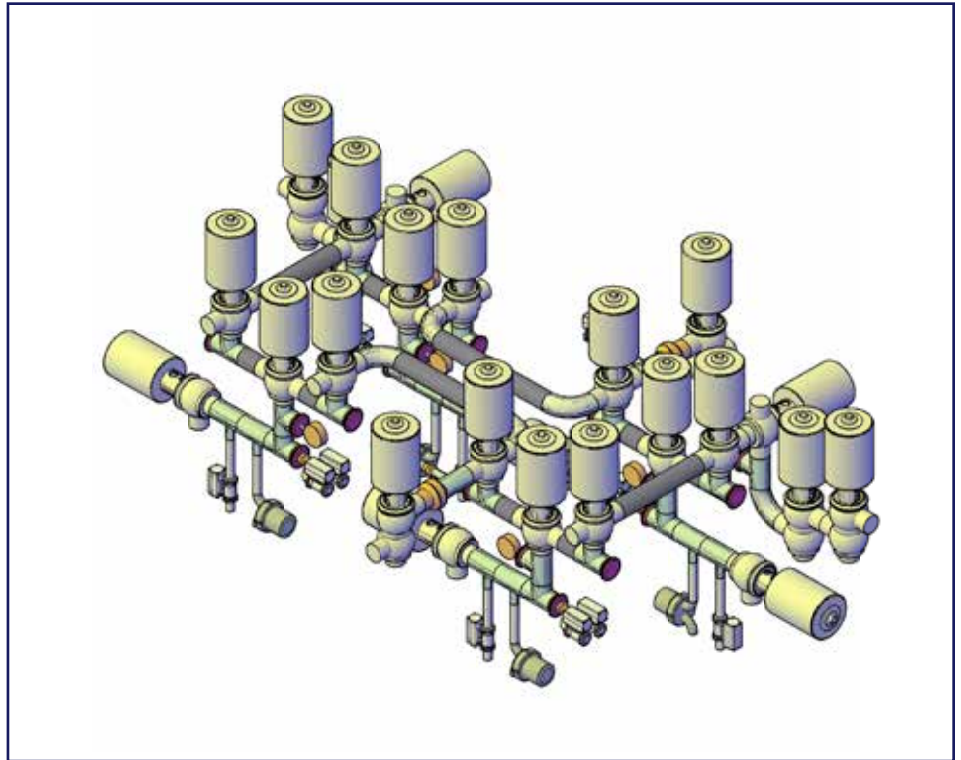
**Statco-DSI's Therma-Surge** valve solution allows the surge tank on the Therma-Stat to operate independently from the rest of the system to deliver optimum production efficiency. Your product quality is ensured because all product valves can be lifted during cleaning (CIP), leaving no potentially contaminating residue behind.



# PROTECT PRODUCT QUALITY.

## The Therma-Route Difference

- Seamless product routing with complete independence from the ESL/Aseptic surge tank and filler for CIP sterilization and production
- Double block-and-bleed protection
- All product valves lifted during CIP for thorough cleaning



**Statco-DSI's Therma-Route** valve solution offers zone protection between ESL/Aseptic surge tanks, filler routing lines and fillers. Valve configurations can be designed to accommodate multiple surge tanks routing to multiple fillers. This seamless product routing capability provides complete independence of CIP, sterilization and production.

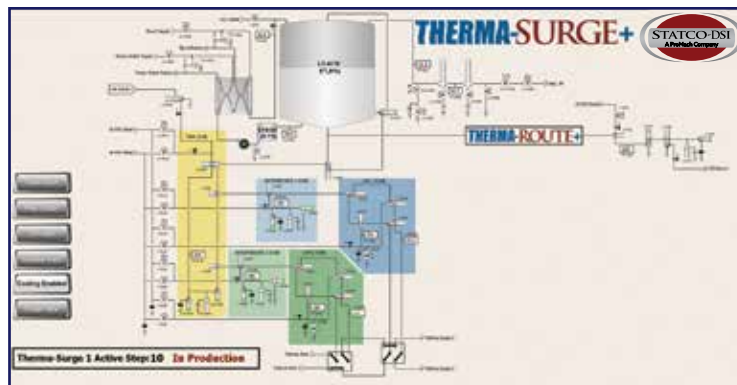
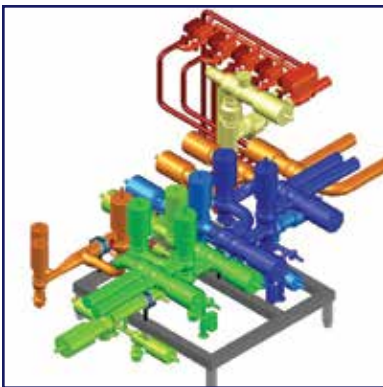


# SEAMLESS ROUTING FLEXIBILITY.

Statco-DSI's Thermo-Surge+ and Thermo-Route+ deliver assured product integrity – from processing through filling.

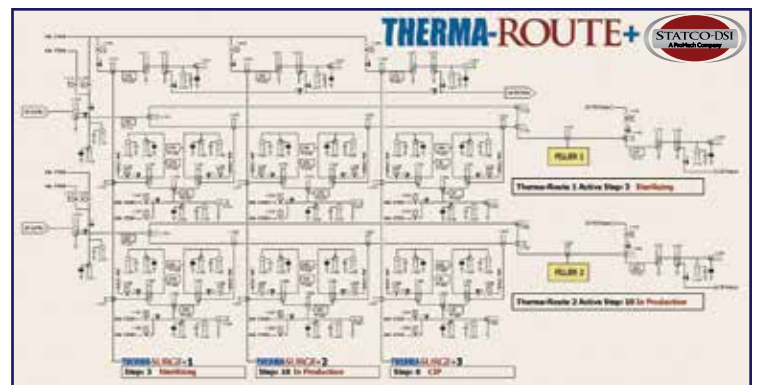
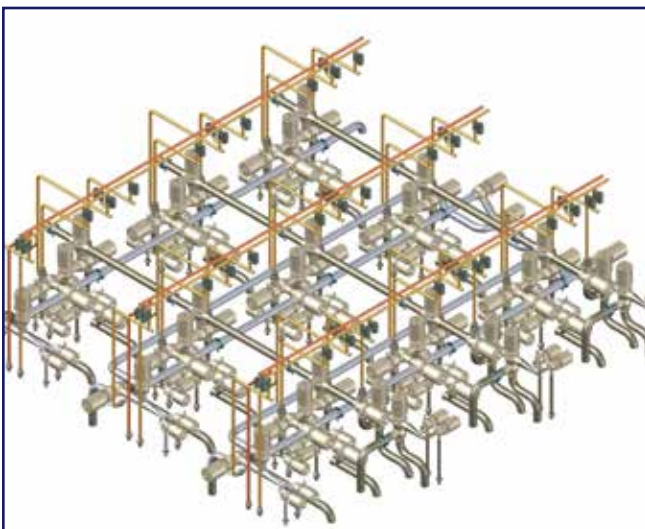
## THERMA-SURGE+

The Thermo-Surge+ 5-zone design provides complete routing flexibility between multiple UHT processors and a common surge tank.



## THERMA-ROUTE+

The Thermo-Route+ multi-zone design delivers complete routing flexibility between multiple surge tanks and multiple fillers.







**Contact us today ... and start taking advantage of the Statco-DSI difference in ESL and Aseptic technology.**



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