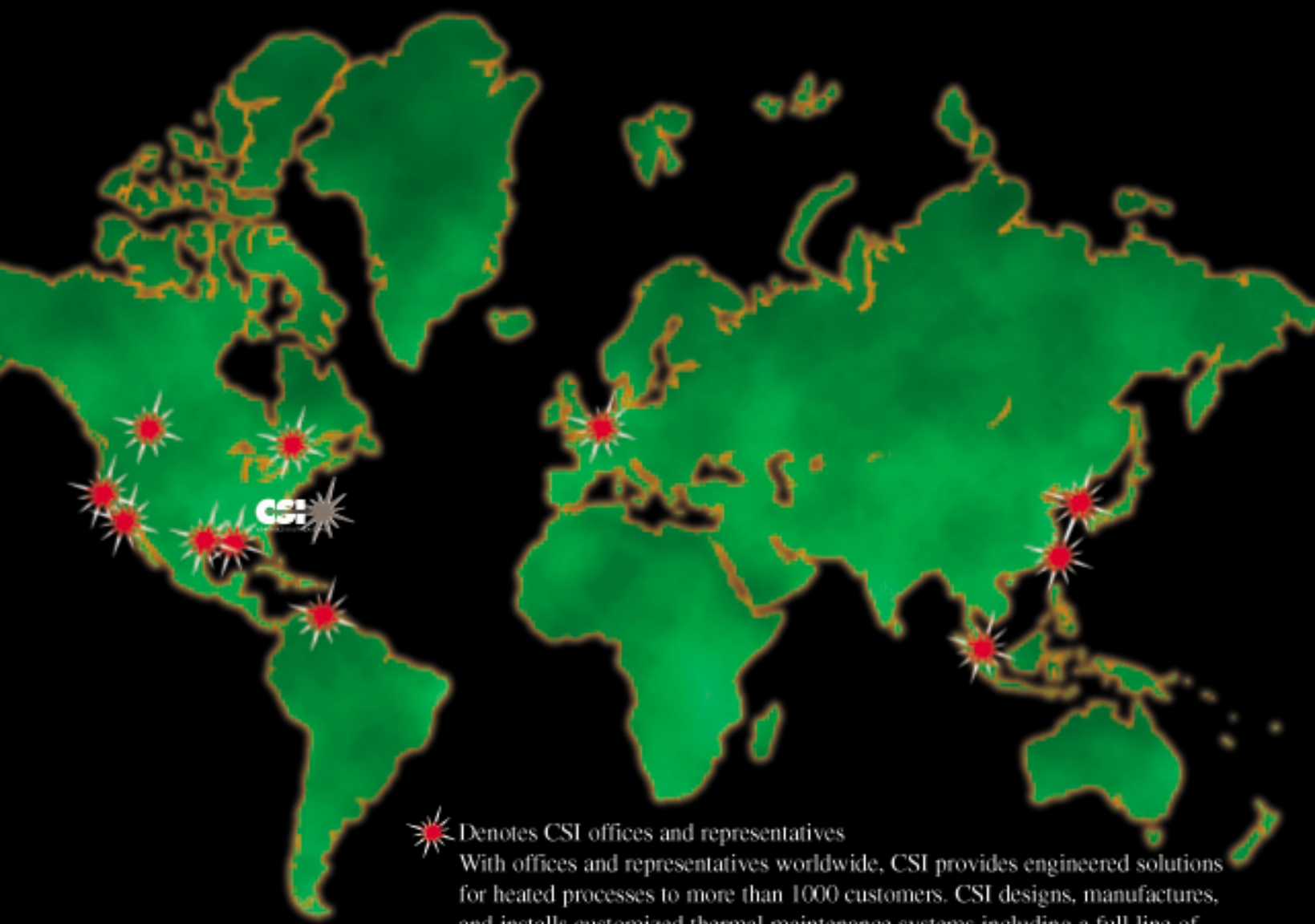
ENGINEERED SOLUTIONS FOR HEATED PROCESSES

CSI

CONTROLS SOUTHEAST INC.

"CSI is dedicated to providing the highest level of technical expertise, product quality, and customer service to all of its customers, from the Project Engineer at a Fortune 500 chemical company to the Maintenance Supervisor at a 50 employee plant."

Fred Stubblefield III, General Manager



Denotes CSI offices and representatives

With offices and representatives worldwide, CSI provides engineered solutions for heated processes to more than 1000 customers. CSI designs, manufactures, and installs customized thermal maintenance systems including a full line of Bolt-On System Technology and Fabricated Jacketed Systems.

"For more than 35 years, CSI has been dedicated to helping customers solve process heating and system design problems. Every employee at CSI is focused on providing total customer satisfaction. No other company in the world provides the level of heat transfer expertise, system design consultation, product quality, and customer service that we offer. Early involvement is the key to taking full advantage of the time and money saving opportunities afforded by our expertise."

Fred Stubblefield, Jr.
President

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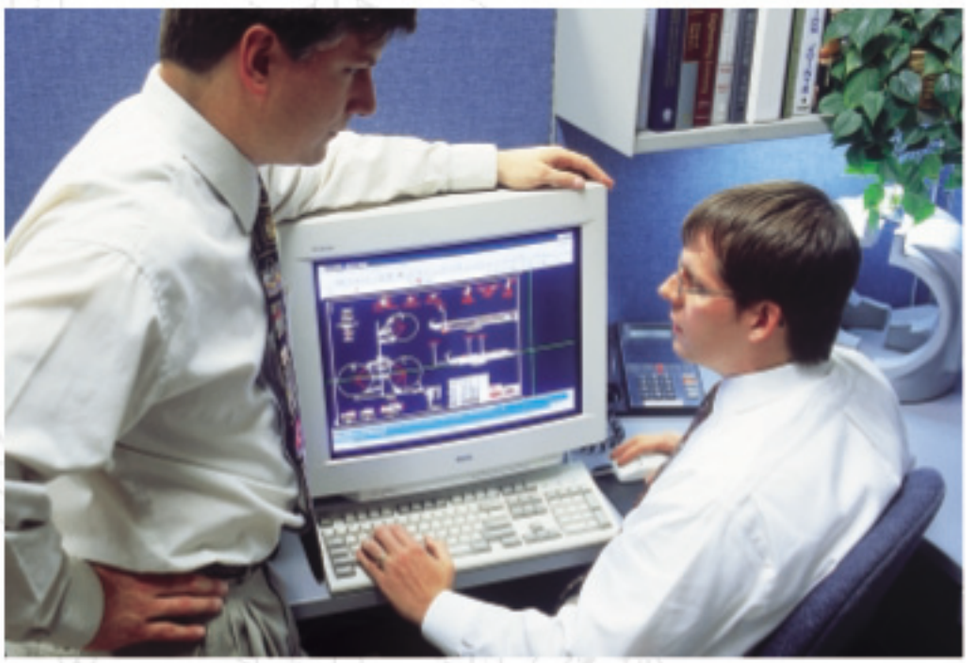
Technical Expertise

We specialize in designing and manufacturing thermal maintenance systems for the chemical, petro chemical, food, and pharmaceutical processing industries. Over 35 years experience in this specialty market enables us to provide an unsurpassed level of technical expertise to our customers.

CSI employs a team of Autocad designers and application engineers with specialties including heat transfer materials, system thermal analysis, system layout, jumpover routing, stress analysis, finite element analysis, and pressure drop analysis. Three of the application engineers are Registered Professional Engineers. CSI s technical staff has more than 200 years combined industry experience and average 10 years with CSI.

"As a matter of principle, CSI takes full responsibility for the thermal performance of the systems we design and build. We also guarantee our finite element analysis, stress analysis, heating medium pressure drop analysis, and fit up during installation."
Mike Cockram, Vice-President Engineering



(Top) Engineering Manager, Steve Rowe, and Chris Grice discuss ControTrace layout on a large pitch project for a northeastern customer. CSI provided field services, detailed design, and shop fabrication on pipe and ControTrace.

(Bottom left) CSI pattern makers produce more than 500 new patterns annually for standard process components including valves, pumps, meters, instruments, pipe assemblies and fittings.

(Above) CSI Production Crew Leader uses a transit to maintain close tolerances (.010") in the production of polymer manifolds.

Manufacturing Facilities

CSI s headquarters and manufacturing facility are located in Charlotte, NC. The total facility is in excess of 100,000 square feet with approximately 90,000 square feet dedicated to production. CSI employees total more than 165 people.

We maintain a Code Shop with the following authorizations from the National Board of Boiler and Pressure Vessel Inspectors and the ASME: VR, R, PP, and U.

CSI s commitment to product quality begins with its production employees. We employ more than 60 welders and fabricators certified in accordance with ASME standards. In 1997, CSI performed radiography on close to 800 yards of weld and maintained a 99.5% acceptance rate based on criteria set forth by National Regulatory Code.

As of September 1998, we have maintained 1.8 MILLION Safe Man-hours Award for No Lost Time Accidents Presented by the N.C. Manufacturers Association.

Sales and Service

CSI provides quality products and services to processing industries worldwide. Our Sales Engineers and Standard Products Consultants service our customers throughout the United States, except California. We have appointed representatives to service our customers in California, Canada, Europe, Asia, and South America.

The experience base and process heating expertise this team offers our customers is unsurpassed in the industry worldwide.

"We re proud to offer every customer big or small, first class technical assistance, customer service and dependability."
Henry Gaines, Vice-President Sales

(Top left) *"Our alliance customers often request that we build their specialty equipment because they have confidence in our dedication to quality and on-time delivery. These titanium tank heating coils are a good example."*
Brian Walsh, Production Superintendent

(Bottom left) CSI maintains inventory of over 4000 ControHeat patterns. An updated list of ControHeat patterns can be found on our Web site, **www.csiheat.com**.

(Top right) CSI has the capability of taking a project from concept through installation. CSI field crews have completed installations throughout the US. Recently, CSI completed its first Duplex Stainless jacketed pipe installation in the UK.

(Bottom right) *"For 35 years, CSI has extended an open invitation to customers to visit our facilities at any time. We believe a facilities tour is the best means of evaluating a supplier."* Howard Hill, Production Superintendent.

Today, ControHeat jackets are operating successfully in more than 50,000 applications worldwide. Continuous product improvement combined with a significant increase in demand for ControHeat technology has required CSI to increase production capacity to 15,000 units per annum. Every year, CSI makes over 500 new ControHeat patterns to fit standard process components and fittings. A complete pattern list is updated monthly on our Web site, www.csiheat.com.

ControHeat

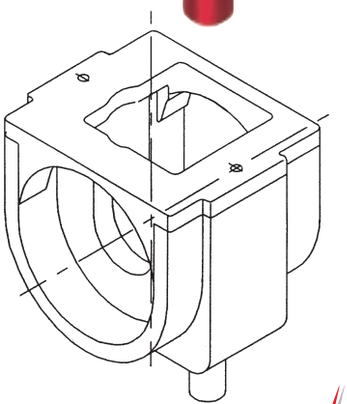
Since 1973, the ControHeat bolt-on jacket for valves, pumps, meters, and other process components has been the preferred method of component heating for many applications.

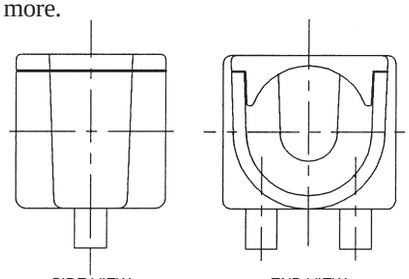
Practically any piping system component can be effectively heated with ControHeat. Heating applications ranging from 200˚ to 750˚F with heating media ranging from hot water to hot oil vapor use ControHeat.

The benefits of ControHeat versus fabricated jackets are numerous:

a) Line size flanges with uniform flange-to-flange coverage
b) No cross-contamination
c) Easy access to base component for repair or replacement
d) Lower cost of ownership
e) Available for electrical service

ControHeat jackets are used by the largest, most advanced chemical companies in the world in process service including: acrylic acid, bitumens, BPA, caprolactam, DMT, DNT, hot melt adhesives, PA, polymers, sulfur, and many more.

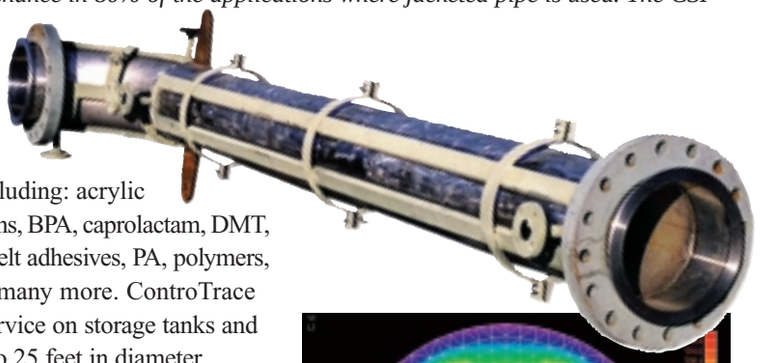




CSI CONTROLS SOUTHEAST INC.

Bolt-On Products & Systems

Historically, the chemical industry has defaulted to one of two ways to maintain process temperatures – fabricated jacketed systems or tube tracing. Often the process requirements of our customers are such that the expense of a jacketed system is excessive, but the performance capability of tube tracing is inadequate. So, CSI developed two bolt-on heating products, ControHeat and ControTrace, which provide unique benefits that the traditional systems cannot. As a general rule, CSI Bolt-On Technology will provide equivalent thermal maintenance in 80% of the applications where jacketed pipe is used. The CSI Bolt-On System provides considerably higher thermal performance than electrical or tube tracing.

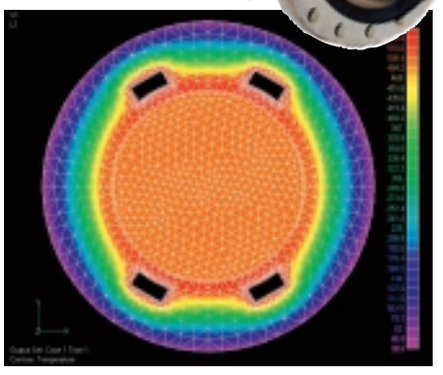


ControTrace

Specially designed by CSI, ControTrace is an economical alternative to jacketed pipe while also providing substantially more heating capacity than tube tracing. Formed from SA178 Gr. A boiler tubing, the elements are pressure rated in accordance with ASME Boiler and Pressure Vessel Code, Section VIII, Div. 1. The pipe-side surface of ControTrace is contoured to closely match the outside diameter of the pipe on which it will be placed. This maximizes surface area contact for each element.

Today, hundreds of miles of ControTrace are used around the world in process services including: acrylic acid, bitumens, BPA, caprolactam, DMT, DNT, hot melt adhesives, PA, polymers, sulfur, and many more. ControTrace is also in service on storage tanks and vessels up to 25 feet in diameter.

CSI will design your ControTrace system to ensure adequate surface coverage. CSI will also provide you with installation drawings, jumpover connections and jackets for the valves and instrumentation to provide uniform heat to the entire system very economically and with no chance for cross-contamination.



Four ControTrace Elements maintain a bulk process temperature of 535.3˚F. 10" Sch. 80 S, hot oil T=550/h200, ambient T=10/h2, 3" of cal sil, process fluid h5.

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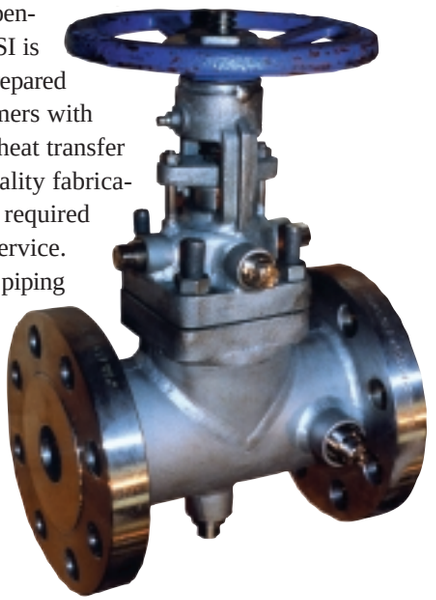
Fabricated Products & Systems

Fully Fabricated Jacketed Pipe

CSI is no doubt one of the most experienced fabricators in the world with specialties ranging from all-stainless, heavy-wall polymer piping and manifolds to light-wall CIP jacketed tubing for dairy products. AL6XN, Hastelloy, Monel, Duplex stainless and titanium – as well as carbon and stainless steels – are familiar materials of construction in the CSI shops.

Jacketed pipe systems can be very unforgiving and mistakes very expensive to correct. CSI is committed and prepared to provide customers with the engineering, heat transfer expertise, and quality fabrication and welding required for trouble free service. We give jacketed piping the attention to detail it deserves.



Fully Fabricated Jacketed Valves and Components

CSI fabricates jackets for all types of valves. There are four basic categories of fabricated-jacketed valves. Within each category numerous options are available, such as types and locations of heating medium connections, bonnet jackets or additional heat coverage for specific areas, and materials of construction.

To the best of our knowledge there are currently no industrial fabrication standards that specifically address jacketed valves. Unless instructed otherwise by the customer, CSI designs, fabricates and tests jackets for valves in accordance with the ASME Boiler and Pressure Vessel Code, Section VIII, Division 1.

Assembled valves that are sent to our shops for jacketing are pressure and leak tested before and after jacketing.

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