



Semiconductor

Swagelok® Thermal Loop Solutions:

Products, Services, and Expertise to Support Fab Production Efficiency

We understand that maximizing wafer yield is your top priority. That's why the components and assemblies used to connect critical equipment such as chillers and heat exchangers must function properly. Not only is leak-tight performance critical, but proper insulation is required to allow maximum process consistency, repeatability, and a condensation-free operating environment. Additionally, efficient installation processes that minimize labor costs and shorten project timelines are essential for maintaining competitive operations.



Swagelok® Thermal Loop Solutions was developed to address these needs. Based on our decades of experience helping to maximize the productivity of semiconductor processes and our deep technical understanding of application requirements, our thermal loop solutions combine technical expertise with products and services that enable greater success in this demanding application—and it is all delivered via our global network of fully trained field engineers.



swagelok.com



Products

Our thermal loop product portfolio includes:

- **Hoses** - Engineered for reliable fluid transfer in demanding thermal applications
- **Quick Connects** - Enabling efficient connections and disconnections
- **Valves** - Precision flow control components for optimal system performance
- **Fittings** - Reliable connection components for secure system integration
- **Subassemblies** - Custom-configured assemblies tailored to your specific requirements

Services

We provide comprehensive service solutions:

- **Onsite Services** - Field support delivered by our trained engineers
- **Fabrication Services** - Custom assembly and manufacturing capabilities

Expertise

Our technical knowledge ensures optimal system performance:

- **Application Knowledge** - Deep understanding of semiconductor thermal management requirements
- **Application Training** - Comprehensive education on thermal loop system optimization
- **Product Training** - Detailed instruction on component selection and use
- **Product Selection** - Expert guidance on choosing the right components for your application

Benefits of Working With Us

When you partner with Swagelok for your thermal loop solutions, you can experience:

- Enhanced efficiency and safety with heat loss and condensation prevention
- Reduced capital expense and operating expenditures by improving and maximizing equipment and component life cycles
- Improved stability and performance with consistent thermal delivery
- Lower installation cost by consolidating thermal loop management suppliers
- Significant labor savings by eliminating complex rigid tubing installations and separate insulation processes
- Reduced installation time with pre-insulated hoses that replace time-intensive rigid tubing systems and eliminate production delays from multi-stage installation
- Expert guidance on component selection, installation, inspection, and maintenance procedures to improve service life and performance and minimize the chances of costly or dangerous failures
- Preventive maintenance recommendations and insight into which components should be kept in inventory, including standardized end connections and couplings that will help improve productivity
- Detailed expert-reviewed reports containing the overall findings of analysis, along with prioritized improvement recommendations
- Global availability, local support, and the Swagelok Limited Lifetime Warranty

To find out more about how Thermal Loop Solutions can improve your business, contact your local authorized Swagelok sales and service center.