



Structured Materials Industries, Inc. (SMI) provides vapor transport line heating solutions for preventing both condensation and decomposition chemical of vapors. The technology was developed and proven in our applications laboratory through several years of development efforts. Our heating solutions use and include the capability for baking out the gas transport lines. Designed by industry experienced engineers and installed by highly qualified service engineers and technicians, or by the customer, the process line heaters provide constant gas line temperature management for accurate, condensation free, and decomposition free vapor transport. The SMI line heaters contribute to reducing system maintenance and improving processes.

Product offerings include insulated sleeve heating, wire wrapping, thermocouple temperature monitoring and control feedback, and line thermal insulation for: tubing, fittings, valves, and other gas transport line components.

Minimize Maintenance, Improve Performance



Providing Tailored Custom Solutions to Unique Problems

Process Line Heater Specifications:

- ❖ **Insulation Level: 1.25 R**
(to 250°C core; 40°C surface)
- ❖ **Insulation Thickness 1/2"**
- ❖ **Custom Sleeves (Shape/Thickness)**
- ❖ **Multi-Colored Options**
- ❖ **Control System Configurable**

System Applications:

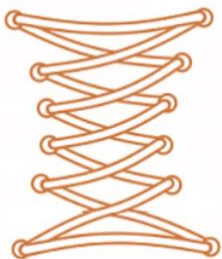
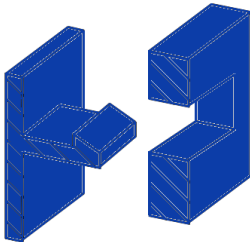

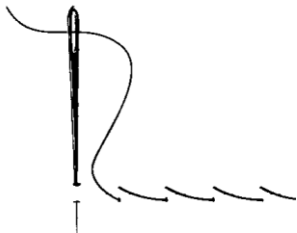
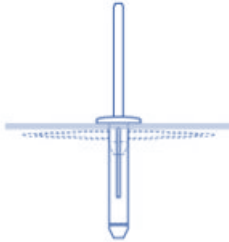

- ❖ **Vapor Delivery Assembly**
- ❖ **Gas Source Assembly**
- ❖ **Vapor/Liquid Transport**
- ❖ **Reactor Assembly**
- ❖ **Exhaust Assembly**
- ❖ **Abatement System**

Features:

- ❖ **Easy Installation**
- ❖ **Integrated Thermocouples**
- ❖ **Configurable to Most Gas Lines and Gas Line Components**
- ❖ **Cost Effective**
- ❖ **Improves Temperature Uniformity**
- ❖ **Reduction of Hot or Cold Spots**
- ❖ **Reusable Material**
- ❖ **Sleeves for Valves and Fittings**

Deposition Process Applications Include:

- ❖ **MOCVD** ❖ **ALD** ❖ **HVPE**
- ❖ **CVD** ❖ **FB-CVD** ❖ **ICPE**
- ❖ **PECVD** ❖ **Liquid Delivery Systems**

		
Lace Assembly	Snap Assembly	Velcro Assembly
		
Stitched Sealing	Rivet Sealing	Resin Sealing

Easy Six Step Ordering Process:

1. Send Specifications (e.g. length of transport lines, OD of tube lines, number of zones, etc.) along with Photographs or Line Drawings to sales@structuredmaterials.com.
2. SMI Engineer Reviews and Confirms Dimensions.
3. Receive a SMI Quotation with Technical Details and Pricing.
4. Submit an Order either by Phone, Fax, Mail, Or Email. Payment Terms are Net 30 or Advance Payment (Credit Card or Wire Transfer – additional fees may apply).
5. Receive Parts.
6. SMI Can Optionally Install Parts for the Customer.



Example of SMI Process Line Heaters on an Exhaust Assembly.