



Superior Energies, incorporated in 1978, is a Veteran-Owned Manufacturer with over 100 years combined experience in the engineering, fabrication and installation of Insulation Blankets, Fire Blankets, Acoustical Curtains, Thermal Shields and the best Leak and Freeze Protection products available.

SEI has manufactured covers for a number of different industries utilizing a variety of designs, specifications, and techniques.

SEI has equipped facilities with 75000 Sq. Ft. of combined production area, incorporates the latest technology with Superior Service for all industries.

Over 100,000 Sq. Ft. of raw materials in inventory helps expedite customer orders upon request.

#### MISSION STATEMENT

Superior Energies recognizes that our greatest assets are our customers and our people.

As manufacturers of high quality insulation products worldwide we will continue a tradition of excellence by:

- Meeting the requirements of our customers;
- Fostering partnerships;
- Maintaining a commitment to continuous improvement;
- Promoting individual responsibility of duties;
- Encouraging a team effort with our fellow employees.



Superior Energies, Inc. P. O. Drawer 386 3115 Main Avenue. Groves, Texas 77619

Phone (409) 962-8549 • Fax (409) 962-4027 1-800-BUY-SEI1 • 1-800-289-7341 www.insulationsei.com



# "TEMP-SET"® COVERS



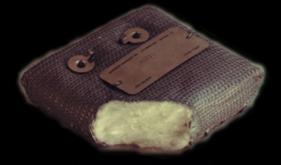


Save manhours and energy dollars. Insulate with Temp-Set® Covers.



# SPECIFICATION CATEGORIES

- 1. Temp-Set 150-450° F Interior <sup>1</sup>
- 2. Temp-Set 150-450° F Exterior <sup>2</sup>
- 3. Temp-Set 150-450° F Haz. Envir. <sup>3</sup>
- 4. Temp-Set 450-1200° F Interior <sup>1</sup>
- 5. Temp-Set 450-1200° F Exterior <sup>2</sup>
- 6. Temp-Set 450-1200° F Haz. Envir. 3
- 7. Temp-Set 1200-2300° F Interior 1
- 8. Temp-Set 1200-2300° F Exterior <sup>2</sup>
- 9. Temp-Set 1200-2300° F Haz. Envir. 3
- <sup>1</sup> Interior not exposed to weather
- <sup>2</sup> Exterior exposed to weather
- <sup>3</sup> Haz. Envir. caustic or acidic application





SUPERIOR ENERGIES, INC.

1-800-BUY-SEI1 1-800-289-7341 Ph: 409-962-8549 Fax: 409-962-4027

# Removable/Reusable Thermal Insulation Systems

Constructed for any temperature or atmospheric environment, Temp-Set® Covers can usually be installed while process is on line. They are very durable, weather resistant and ideally suited for any area that requires frequent maintenance. Standard applications include heat exchangers, valves, manways, flanges, pumps, engine manifolds, engine exhausts, exhaust silencers and turbines. All covers are custom designed and guaranteed to fit closely to minimize heat loss.

Our trained representatives are available to assist you in developing insulation specifications to meet your requirements. A needled glass fiber core is central to the Temp-Set® Covers, this is ordinarily used for temperatures up to 1200° F. A ceramic fiber insulation is available for temperatures up to 2300° F. The thickness of the fiber core can vary from one to four inches, depending on the application.

A siliconized glass fiber is normally used for the covering of the fiber core. It is impervious to fuel and water. Stainless steel foil, \*Hypalon®, \*Teflon® (\*Registered trademark of I.E. Dupont De Nemours.)and other covering materials are available.

To reduce noise, barriers such as lead loaded or reinforced vinyl can be added for improved acoustical applications. The total composite is encapsulated in 304 stainless steel mesh (monel and inconel are also available). All accessories, such as lacing hooks and staples, are available in these materials.

Then Temp-Set® Covers are tagged with stainless steel embossed tags in order to offset any delays caused by misplaced blankets and aid in installations. Temp-Set® Covers can be manufactured using either a hog-ring staple manufacturing assembly or a sewn assembly, both with a variation of seaming capabilities.

# **CONSTRUCTION METHODS**



# "TEMP-SET"® COVERS

## **Refining & Petro-Chemical**



Thermal Image Before Cover



**Thermal Image After Cover** 



Heat Exchanger Channel Head Covers



Field Installation



Valve Cover

## Marine & Offshore



Marine Exhaust Y



Manifold, Exhaust & Expansion Joint



Offshore Drilling Jackup Engine Room



Semi-Submersible Engine Exhaust

## **Engine Manufacturers**



**Manifold Cover** 



**Turbo Cover** 



Caterpillar Manifold



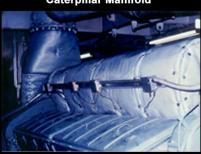
Caterpillar Manifold



Aftercooler



Turbo / Manifold / Adapter



EMD 645 E5



Detroit Engine Exhaust

## **Transportation**



**Maxim Silencer** 



**Turbo Air Intake** 



**Custom Fitted** 



Fire Pumps



# "TEMP-SET"® COVERS

## **Power Generation**



**Siemens SGT300** 



Siemens SGT 400



**Turbine Exhaust** 



**Turbine Compressor** 



Westinghouse 501 AA Complete



501 Exhaust Cone



501 AA Project



**Military Defense** 



Inner Layer **Steam Turbine** 



Outer Layer Steam Turbine



**Hot Gas Gasket** Boeing 707



**Boiler Cargo Ship** 





**ICBM Silo Cover** 



**Exhaust Collector Navy** 



**Elliott Compressor After** 



**Elliott Compressor Before** 

## **Pipeline Transmission**



Compressor



**Compressor Gen** 

**57 Megawatt Outer Layer** 

57 Megawatt Inner Layer







**Lacing Anchor Assembly** 







**Sewn Flap Assembly** 



**Fabrication** 

**Internal Heater Panel** 





**Hog Ring Staple Assembly** 







**Custom Assembly** 



One Piece Sewn Const. Valve Cover



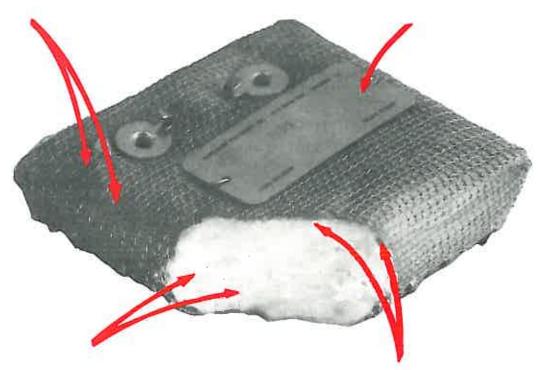
SUPERIOR ENERGIES, INC.



P. O. Drawer 386 • Groves, Texas 77619 • (409) 962-8549 • (409) 962-4027 FAX

The total composite is encapsulated in 304 stainless steel mesh. Monel and inconel are also available. All accessories such as lacing hooks and staples are available in these materials.

Temp-Set® Covers are tagged with stainless steel embossed tags in order to offset any delays caused by misplaced blankets and aid in installation.

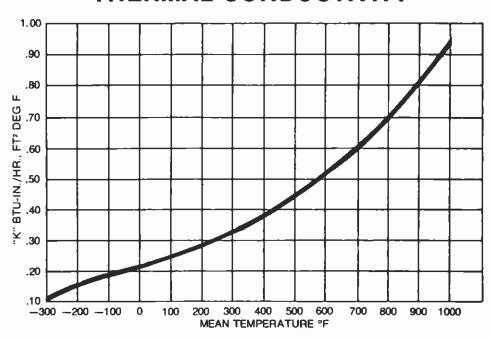


Needled glass fiber is ordinarily used for temperatures up to 1200°F. For temperatures up to 2300°F a ceramic fiber insulation is available. Depending on application, thickness can vary from 1 to 4 inches.

A siliconized glass fabric is ordinarily used which is impervious to fuel and water. Also stainless steel foil, hypalon\*, teflon\* and more are available.

#### TEMP SET 1200°

#### THERMAL CONDUCTIVITY



### PHYSICAL PROPERTIES

Thermal conductivity		
(average m	<mark>ean tem</mark> pera	ture)
	Btu-in./hr.,	
400F:0.38	Bru-in./hr.,	ft <sup>2</sup> deg F
500F:0.45	Btu-in./hr.,	ft <sup>2</sup> deg F
	Bru-in./hr.	

Weight: 1/2 in. = 6 oz/sq.ft.± 10% 1 in. = 15 oz/sq.ft.± 10%

Combustibility
Noncombustible, will not burn

Fineness of fiber
Average fiber diameter, 0.00035 in.

I" Thickness

Tensile strength (average)
Parallel to roll, lb./sq. in. 7
Across roll, lb./sq. in. 12

Fusion temperature
No fusion or melting at 1300F

Alkalinity: 0.12%

Tensile strength (after heating to 1200 F for 6 hours)

Parallel to roll, lb./sq. in. 48
Across roll, lb./sq. in. 54

Stability: No physical change after being subjected to saturated steam at 225 lb. for 16 hours

Resistance to vibration: Excellent

SUPERIOR ENERGIES INC.

"tire-Temp" Covers

LET "FIRE-TEMP"® COVERS PROTECT YOU AND YOUR ENVIRONMENT

# "Fine-Temp" Covers

The "Fire-Temp" Cover is an easily handled encapsulation of multi-layer compressed fire retardant materials. Our approach gives a compact, flexible, and approved solution to the fire protection of sensitive equipment.

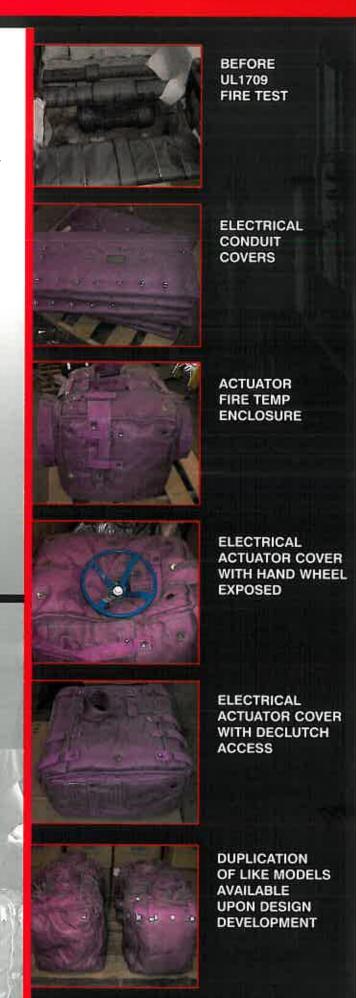
"Fire-Temp" Covers are suitable for all types of actuators, cable runs, control and junction boxes, and all other equipment effecting the safe sequenced shutdown of your facility in a fire situation. "Fire-Temp" Covers can be fitted to any existing installation without interruption to the plant process, and its use can result in protection of human life, reduced downtime, and reduced insurance rates.

The "Fire-Temp" Cover system is user-friendly. The system is tailor made to meet customers' varying fire protection specifications, embracing the UL 1709 & ASTM E119 fire curves, giving protection for up to one hour. "Fire-Temp" affords very easy access to the equipment to which it is fitted, requiring very little tools for installation or removal, using a relatively small space around the equipment being protected.

We offer a complete service of design, manufacturing and installation, or if preferred, supervision of your personnel for installation. In a retrofit situation, the equipment is manufactured to a site survey carried out by either you or our engineers.

## **APPLICATIONS**

PNEUMATIC ACTUATORS
ELECTRICAL ACTUATORS
CONTROL PANELS
JUNCTION BOXES
CABLE TRAYS
ELECTRICAL CONDUITS
INSTRUMENTATION
VALVES



Call us at 800-BUY-SEII • 800-289-7341

#### FIRE ENDURANCE TEST

AFTER 52 MINUTES OF UL 1709 FIRE TEST CONDITIONS



ELECTRICAL CABLE TRAY COVERS



ACTUATOR SPRING RELIEF FIRE TEMP COVER



ELECTRICAL ACTUATOR COVER WITH CONTROL PANEL ACCESS



PNEUMATIC ACTUATOR COVER



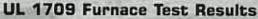
DOUBLE ACTING PNEUMATIC ACTUATOR COVER

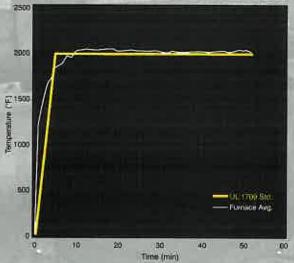


The fire exposure is continued on the specimen until failure occurs, or until the specimen has withstood the test conditions for the desired fire endurance rating. Essentially, the Hydrocarbon Fire

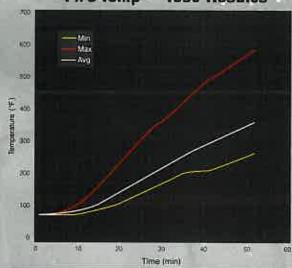


Exposure requires the furnace temperature to rise to 2000°F within the first five minutes of the test and remain at that temperature until the test is over,





#### "Fire-Temp"® Test Results



#### "FIRE-TEMP" COVER LAB RESULTS

The 4" steel conduit "Fire-Temp" Cover achieved a fire endurance rating of 28 minutes under UL 1709 conditions.

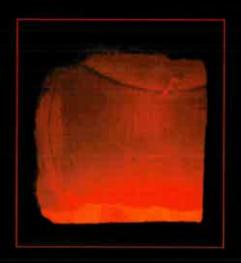
The 4" x 24" cable tray protected with "Fire-Temp" enclosure system achieved a fire endurance rating of 16 minutes under UL 1709 conditions.

The motor actuated valve protected with "Fire-Temp". Cover enclosure achieved a fire endurance rating of 42 minutes under UL 1709 conditions.

Superior Energies Inc. is here to fulfill your fireproofing requirements

1-800-289-7341





Would you like protection from environments like these?









# "FIRE-TEMP"® COVERS

## **Electric Actuators**













**Pneumatic & Hydraulic Actuators** 











**Linear Actuators** 

















SUPERIOR ENERGIES, INC.







# "FIRE-TEMP"® COVERS

## Manufacturers Utilizing "Fire-Temp"® Covers



**Rotork GP Range** 



Rotork IQ Range



**Rotork GP Range** 



**Bettis G-Series** 



**Bettis CBA-Series** 



**Bettis G-Series** 



**Limitorque L120 Series** 



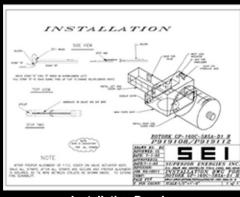
EIM Control Panel Access



**Limitorque MX Series** 



Fuel Shut-Off Valve for ABS Certified Vessels



**Installation Drawing** 



Manual Hydraulic Override & Exposed Beacon



Masoneilan



Masoneilan

# "ACCOUSTA-SET"® COVERS



#### "Accousta-Set"® Curtain System

#### **Specification**

#### Non-Barrier

A non-barrier, highly noise absorbent quilted fiberglass blanket designed to absorb unwanted sound reflection in various applications.

#### Barrier

A barrier quilted fiberglass blanket designed to absorb sound and reflect transmitting noises back through the fiberglass blanket resulting in a baffling effect.

# Acoustical Curtain Noise Control System

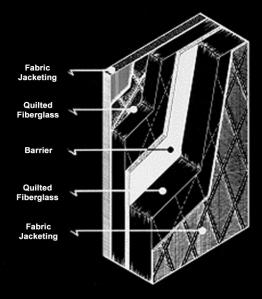




These fiberglass "Accousta-Set" Curtain blankets are cut custom for every application. Typical "Accousta-Set" Curtain widths are 4' x your required length of application. The sides of the "Accousta-Set" Curtain contain Velcro or grommets for interconnecting the acoustical blankets, and the tops are grommetted for vertical suspension, an ideal system for surrounding an industrial noise source or serving as a noise wall to protect rooms.

"Accousta-Set" Curtain blankets are portable, easy to install and removable-reusable. "Accousta-Set" Curtain blankets boast an estimated 15-20dB drop in noise levels. "Accousta-Set" Curtain blankets are available in different colors and custom sizes.

Made to your specifications, these "Accousta-Set" Curtain blankets can be a cost effective way of handling your noise attenuation.





## HIGH-TEMP "ACCOUSTA-SET"® COVERS

# High-Temperature Noise Control System









High-Temp"Accousta-Set"® Blanket

High-Temp"Accousta-Set"® offers multiple use of thermal conservation, decibel reduction of the noise source, and personnel protection from potentially dangerous hot applications.

Manufactured as a complete, all inclusive item, requiring only installation of the custom fitted application. The High-Temp "Accousta-Set" offers a variety of tolerances to temperatures ranging from 1200°F to 2300°F.

High-Temp "Accousta-Set"® often is an outside layer to a multi-layer Insulation Blanket System.

Custom manufactured to any application, High-Temp "Accousta-Set" covers can be reproduced as a standard fitted item.

High-Temp "Accousta-Set's" ease of installation and removal during scheduled or un-scheduled maintenance provides a luxury for customers to concentrate on other pressing problems.

Ranging from 15 to 20 decibel reduction, High-Temp "Accousta-Set"® is an effective solution to your noise and thermal concerns.

High Temp Accousta-Set<sup>\*®</sup> Specifications

Typical application is 2" Nominal Thickness with a Vinyl Barrier sandwich between 1"of the high temp materials.

 Based on 1" layer of high temp fiberglass material dissipating temperatures to 140°F before reaching face of Vinyl Barrier

Higher temperatures would require Vinyl Barrier to be placed under cloth jacket.

 The continuous operating temperature for the Vinyl Barrier can not exceed 140°F.

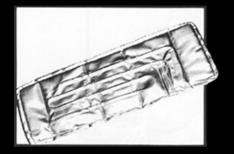




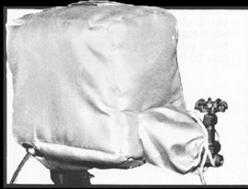




# "THERM-GUARD"® COVERS







#### Therm-Guard®

Therm-Guard® is designed with self limiting heat trace cable line or heater pad with a thermostat to activate the cable.

The thermostat is mounted on the inside face of the Therm-Guard<sup>®</sup> Cover to insure temperatures will maintain above desired range.

This application can be custom made to any specifications with a supplied power source of 110 or 220 volts.

The insulation properties of Therm-Guard® are specified for the minimal heat loss requirements. Typical applications range between 1" to 2" nominal thickness of the insulation core.

The jacketing is also specified by process requirements (Example: Caustic Process would require Teflon® cloths).

- Typical Jacketing: Silicone Impregnated Fiberglass Cloth
- ▶ The Therm-Guard® Covers are removable and reusable.





# "FROST-GUARD"® COVERS





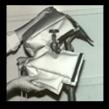
### Frost-Guard®

The "Frost-Guard" is resistant to all forms of water and hydrocarbons. Specifications can be adjusted for use in chemically corrosive environments. Utilizing easy to handle Velcro fasteners, this system can be removed and reused many times over. An insulation filler of high density needled glass fiber blanket provides thermal protection against the onslaught of winter.

Standard applications include transmitters, DP Cells, gauges and meters. "Frost-Guards" can also be custom designed to tailor fit more complex forms of instrumentation.

Superior Energies Inc.'s trained technicians are available to survey your facility for many offset costly delays due to instrument malfunction.









SUPERIOR ENERGIES, INC.

# "SPRAY-SHIELD"® COVERS



An effective solution for the hazzards associated with high pressure flange leaks

## Spray-Shield®

An effective solution for hazards associated with high pressure flange leaks is Spray-Shield® by Superior Energies, Inc. It provides an economic way to offset the injury risk to personnel and equipment damage occurring due to sudden flange leaks of steam, acid, caustic or other hazardous fluids. Depending on process, pressure and temperature, the Spray-Shield® is manufactured using a variety of chemically resistant materials.

Utilizing drawcords or simple fastening mechanisms, this system can be easily installed and removed for routine inspection.

Special mesh screens of stainless steel, monel or inconel can be incorporated into the Spray-Shield® to help dissipate high pressure leaks. Fabrics coated with E.I. Dupont's \*Teflon®, \*Hypalon® (\*Registered trademark of I. E. Dupont De Nemours.), and silicone are used for temperatures up to 500° F. Rigid protectors of stainless steel and other chemically resistant alloys are used for temperatures up to 2000° F. Let Superior Energies, Inc. help you maintain your important injury free goals by providing you with Spray-Shield® as a part of your ongoing safety program.

# "FLEXI-WRAP"® COVERS

## Flexi Wrap®

Ideally suited to the problems associated with the freeze protection of small diameter process and pneumatic lines, Flexi-Wrap® is an insulation filler of twelve pound density glass fiber. This ensures the utmost thermal efficiency while the silicon coated jacketing provides moisture resistance. A continuous seam of Velcro® stripping makes Flexi-Wrap® ready to install.

Our unique "six double lock" design enables the cover to be cut at any six inch interval without product damage. Ten foot rolls are available for pipe sizes from 1/2" to 2" in diameter. The silicone jacketing can be replaced with \*Teflon® (\*Registered trademark of I.E. Dupont De Nemours.) coated jacketing for increased corrosion resistance. So let Flexi-Wrap® be added to your maintenance arsenal and fight off the onslaught of winter.



An effective addition to your winterization program



