



## Acoustic Shields & Blanket Insulation for Sound Attenuation

**Pre-engineered thermal acoustical insulation system** designed to reduce harmful noise levels and improve the surrounding work environment.

**Custom-fit**, through CAD technology allowing versatility in equipment coverage. Virtually any irregular surface can be insulated and multipiece designs are typical for most equipment applications.

**Top quality design construction.** The recommended design LT450A-TT features an inner and outer chemical resistant Teflon® fiberglass cloth, with high density fiberglass mat and barium sulfate loaded vinyl.

**Removable and reusable.** Blanket pieces can be installed with minimal effort and fastened with a stainless steel wiretwist, metal spring tensioner, or metal D-ring strap with Velcro® tab. Installation requires no tools or materials.

### *Reduce Harmful Noise At The Source!*



**16"x18" CENTRIFUGAL PUMP**  
Design: LT450A-TT – 1.5" thick  
6.0 dBA Reduction

### Advantages:

- Installed with plant personnel
- Remove and reuse numerous times
- A closed insulation system
- Custom-fit to existing conditions
- An ideal replacement for Asbestos
- Vibration resistant

### Applications

- Ejectors
- Gear Box Casings
- Steam and Gas Turbine Casings
- Compressor Housings
- Exhaust Ducting
- Pressure Reducing Valves
- Custom Sound Curtains
- Liquid Chillers



**ACOUSTIC SHIELD  
SCROLL COMPRESSOR**  
Design: LT250AS  
6.0 dBA Reduction

## DESIGN FEATURES



- 1 Double Sewn and Binded Seams
- 2 Durable PTFE Teflon® Impregnated Fiberglass Cloth
- 3 Aluminum Nameplate Embossed Lettering With Tag Description
- 4 Stainless Steel Lacing Hardware With Featured Wiretwist Fastener
- 5 Extended Velcro® Flap on Closing Seams
- 6 High Density Mass Loaded Vinyl (Reflection)
- 7 High Density Needled Fiberglass Mat Filler (Absorption)



THERMAL



ACOUSTIC



SAFETY



SUSTAINABILITY

*Engineering Reusable Solutions for a Sustainable Planet*



**HVAC LIQUID CHILLER  
COMPRESSOR, COMPRESSOR INLET, MOTOR HOUSING**

Design: LT250A-VP

Performance: 4.0-5.0 dBA Reduction



**24" PROCESS PIPING**

Design: LT450A-TT

Performance: 10-12 dBA Reduction





**CENTRIFUGAL LIQUID CHILLER**

Design: LT250A-VP 1.5" thick  
Wiretwist / Velcro® Flap Fasteners  
Performance: 7 dBA Reduction



**AXIAL FAN HOUSING**

Design: LT450A-TT - 1.5" thick  
Wiretwist / Velcro® Flap Fasteners  
Performance: 6 dBA Reduction



**WATER COOLED SCREW LIQUID CHILLER**

Design: LT250A-VP-1 1/2" Thickness  
Performance: 6.0 dBA Reduction



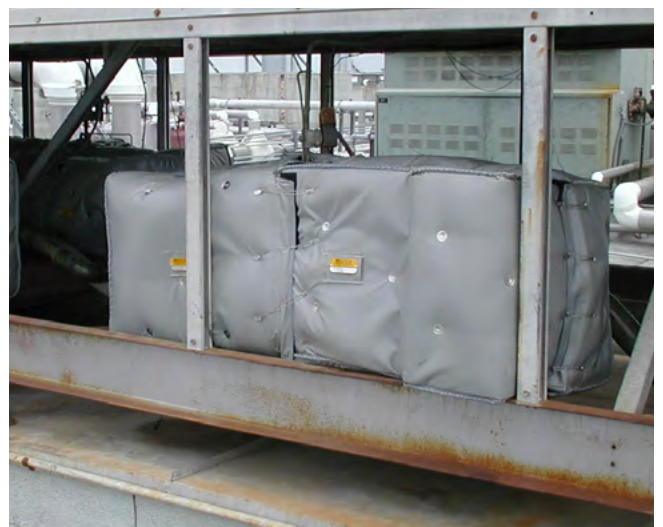
**GAS TURBINE INLET DUCTING**

Design: LT450A-TT - 2" Thickness  
Performance: 8 - 10 dBA Reduction



**MULTISTAGE COMPRESSOR & MOTOR HOUSING**

Design: LT450A-TT - 1.5" thick  
Performance: 8.8 dBA Reduction



**AIR COOLED SCREW LIQUID CHILLER**

Design: LT450A-TT-1 1/2" Thickness  
Stainless Steel Wiretwist / Velcro® Flap Fasteners  
Performance: 4-7 dBA Reduction

# Test Results

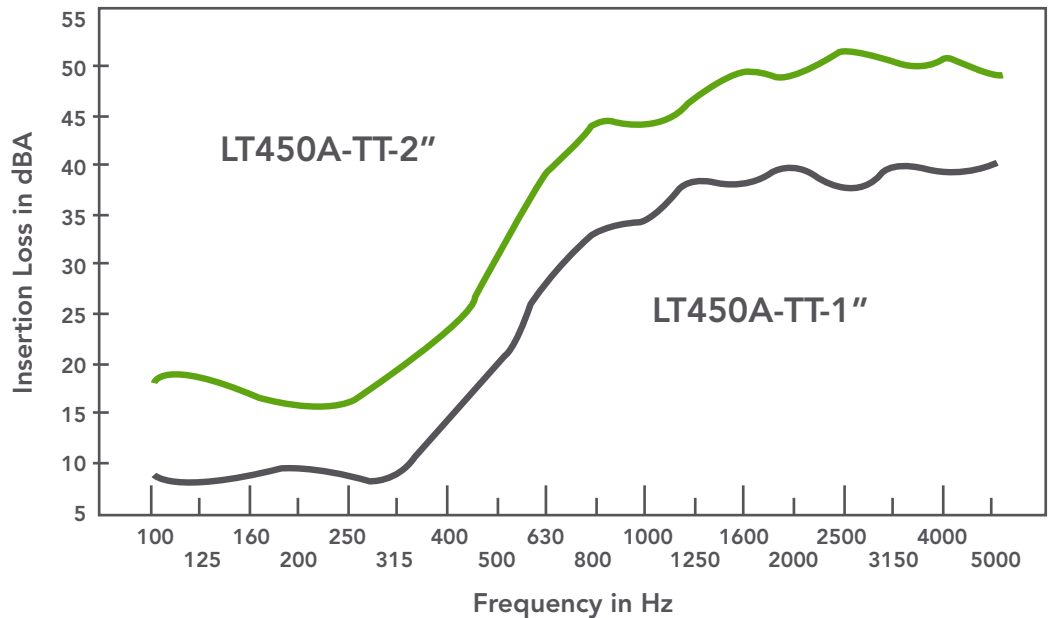
With the following measured in the A-Weighting, the total noise reduction from the 107 dBA loudspeaker level over a 100-5000 Hz frequency band would be: 20.8 dBA for design LT450A-TT-1" Thickness and 29.5 dBA for design LT450ATT- 2" Thickness.

This data represent (ASTM) Test Procedure E-1222-87 for the laboratory measurement of the insertion loss of pipe lagging systems. Shannon will not be warranted for performance results of Blanket Insulation expressed or implied.

107dBA SOURCE	A-WEIGHTED MEASUREMENTS		LINEAR WEIGHTED MEASUREMENTS	
Test Frequency (in Hz)	LT 450A-TT-1" Noise Reduction (in dBA)	LT 450A-TT-2" Noise Reduction (in dBA)	LT 450A-TT-2" Insertion Loss (in dBA)	LT 450A-TT-2" Insertion Loss (in dBA)
100	8	19	8	18
125	8	20	7	19
160	9	17	9	17
200	9	16	9	16
250	8	17	8	16
315	10	20	9	20
400	14	24	14	23
500	21	30	20	30
630	28	39	27	39
800	34	44	33	44
1000	35	44	34	43
1250	38	46	37	46
1600	37	49	36	49
2000	38	48	38	48
2500	37	51	36	51
3100	40	50	39	50
4000	39	49	38	50
5000	41	49	40	49

PS-ES-919

## INSERTION LOSS PERFORMANCE COMPARISONS



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