

The Energy Miser® Insulation System



sports facilities
sports facilities

warehouses
warehouses

aircraft hangars
aircraft hangars

ice arenas
ice arenas

manufacturing
facilities
**manufacturing
facilities**



A Retrofit Ceiling and Wall System



Olathe, Kansas
North Salem, New York
800.373.4262
www.icasbs.com



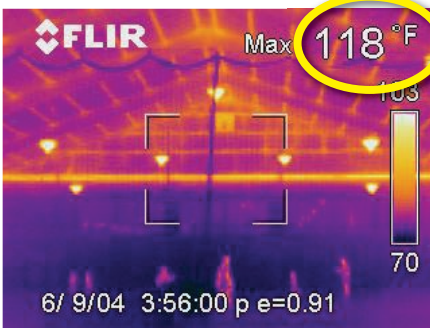
ICA - RETROFIT INSULATION SYSTEM EXPERTS

At ICA, we understand that with the unprecedented increases in energy costs, now more than ever is the time to become energy efficient. Finding ways to lower operating costs is becoming a necessity for business owners. A long-term solution for businesses today is adding insulation to their building.

Most metal buildings have insulation that is installed between the purlins and the roof panels when the building is erected. While insulation that is compressed over the purlin is considered “standard” in the industry, this method does not allow the insulation to recover back to its full thickness or stated R-value,

and therefore still allows considerable heat and cold transfer through the purlins.

BEFORE Energy Miser®

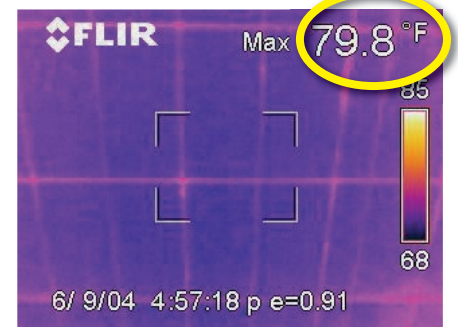


Shown to the left is a thermal image taken by a ThermoCAM®, an infrared camera that instantly measures the temperature of the area within the lens. This image was

taken on a 95-degree day, in a facility that had three inches of insulation installed over the top of the purlins. The heat transfer through the structural steel is so great that the steel is glowing. As you can imagine, if the heat transfer through the purlins is so great in the summer, the transfer of cold air in the winter will be just as significant.

The thermal image on the right, taken one hour after the photo at the left, illustrates a building after the Energy Miser® Insulation System was installed. The purlins are completely encapsulated from underneath utilizing the full thickness of insulation, which blocks the heat and cold transfer through the steel. *Note the difference in temperature between the two buildings.*

AFTER Energy Miser®



ENERGY MISER® INSULATED CEILING AND WALL SYSTEM

The patented Energy Miser® Insulation System includes faced fiberglass blanket insulation, optional unfaced backfill insulation and attachment hardware. This system can be placed under existing insulation without modifying the building structure, pulling off the roof or the insulation above the purlins.



BENEFITS OF THE ENERGY MISER® INSULATED CEILING AND WALL SYSTEM



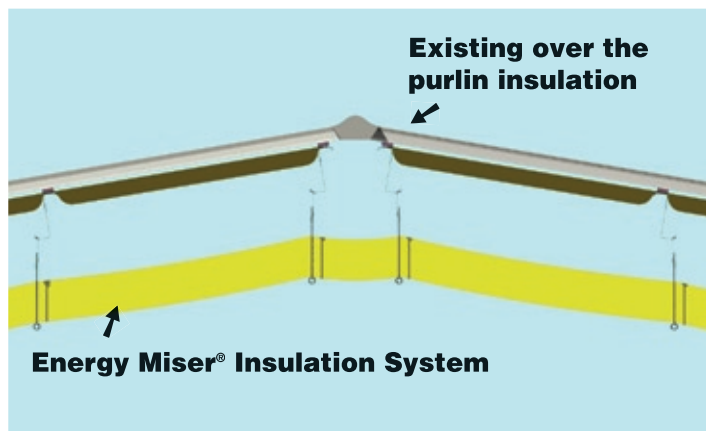
Not only does the patented Energy Miser® Insulation System dramatically reduce monthly utility bills, it also offers an aesthetically pleasing environment. The adjacent chart lists additional benefits.

- ✓ Instant relief from the heat load on the roof in the summer
- ✓ Acoustics and sound absorption dramatically improved
- ✓ Appearance and environment significantly enhanced
- ✓ Access to ceiling after installation
- ✓ Flame retardant for fire safety
- ✓ Comfort increased
- ✓ ASTM C1363 Guarded Hot-Box Tested
- ✓ Professional, expert installation
- ✓ Owens Corning tested for thermal performance
- ✓ Warranty for parts and labor
- ✓ The need to paint the purlins and/or structural steel eliminated
- ✓ Guaranteed in-place R-value
- ✓ Reflective surface enhances lighting performance
- ✓ Condensation control

CUSTOMIZE THE ENERGY MISER® TO SUIT YOUR BUILDING

Because this system is specifically designed for existing buildings, it allows for versatility in the installation. The patented Energy Miser® Insulation system can attach directly underneath the purlins or it can be suspended from the purlins to virtually any length. If the full height of the building is not utilized, lower the Energy Miser® System and create an unconditioned space above. Depending upon the use of the building and the humidity level, the cavity above the Energy Miser® system can be ventilated.

This means less area in the building to heat or cool!



Dropped below structural steel — installation shown in progress



Energy Miser® installed under purlins

SYSTEM HARDWARE

The patented Energy Miser® Insulation System utilizes white enamel roller tubes spaced at 10 feet to 12 feet on center. Roller tubes are secured to any building type by means of an I-bolt and cliphead. The system can attach to, but is not limited to purlins, bar joists, tube frames or wood structures. The insulation is pulled over the roller tubes and secured to the structure using termination bar.

Among the distinct advantages of the installation of the Energy Miser® System are the stapled seams, which allow access to the area above the ceiling for the life of the building, without compromising the vapor retarder or the integrity of the facing. The seams can be opened, allowing access to the ceiling for electrical maintenance and repairs, or hanging of banners, speakers or other articles during events. Upon completion of work, the seams are



Installation of the Energy Miser® system

resealed with new staples and the continuous vapor retarder is intact.

GUARANTEED IN-PLACE R-VALUES

The patented Energy Miser® Insulation System is available from a condensation control blanket up to an R-45 system. Whether your building has little or no insulation, we can help you choose the system that will maximize your savings on utility costs.

The Energy Miser® Insulation System is the only insulation system specifically designed for retrofit applications that has been ASTM C1363 Hot-Box Tested. The results of this test verify the in-place (installed) R-value of the Energy Miser® Insulation System.

For more information regarding the test results please contact ICA at 1.800.373.4262.

REFLECTIVE FABRIC CEILING

A reflective fabric ceiling is a great way to make an old building look new again. If additional insulation is not needed in a building, but the current vapor retarder is looking dingy and torn, reface your building. Facing is suspended over cable and can even be dropped to cover all of the existing structural steel. Seams are overlapped so there is easy access to the purlins or roof deck.



INCENTIVES TO ADD INSULATION TO A BUILDING



The Energy Policy Act of 2005 allows for tax deductions for improving the energy efficiency of existing buildings. Further incentive to make improvements can be found in local utility companies. Many companies are offering rebates or distribution funds to customers that create a more energy efficient space.

**Visit www.icasbs.com
for other insulation system options.**

Since 1985,

ICA



**has been installing
high-quality
insulated ceiling
and wall systems for
existing buildings.**

SERVICES AVAILABLE NATIONWIDE



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- Shanghai, China



**1280 N. Winchester
Olathe, Kansas 66061
800.373.4262**

www.icasbs.com

**39 Fields Lane
North Salem, New York 10560
914.669.4394**



Hear what our clients have to say

“The crew ICA dispatched for our installation was top-notch. Their workmanship and professionalism far outperformed other teams we’ve worked with. Having people we could rely on saved us a lot of grief.”

David Landis
Epic Metals - Rankin, PA

“I was very glad to see someone have so much pride in what they did. It’s getting more and more rare to have contractors do jobs correctly with no guidance. You are very lucky to have a great team. I will recommend you to anyone looking for insulation.”

Vinny Choppy
VM Choppy - Troy, NY

“Our hangar didn’t have insulation and had terrible lighting. We planned on putting in additional lights before ICA installed the Energy Miser®, but now it’s increased our light level and saved us the money. We now have an energy-efficient working environment that’s not only comfortable to work in, but looks great. Everyone loves it.”

Jim Sturguess
G & J Aircraft Service - Boonville, MO