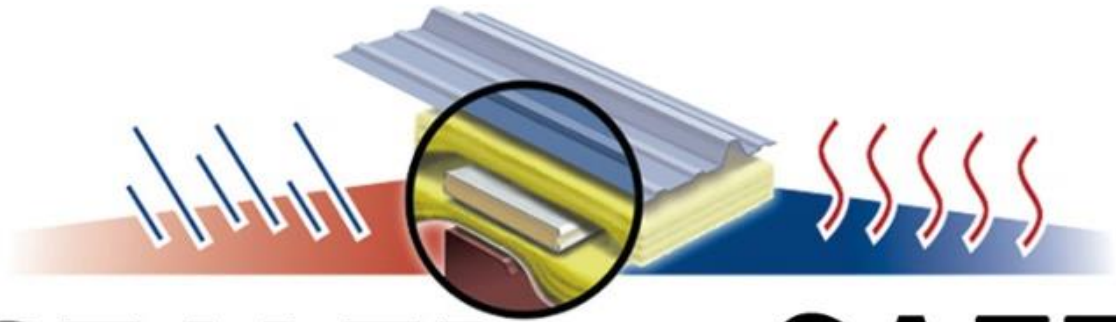




SEALED "N" SAFE®

PATENTED

CONTINUOUS INSULATION SYSTEM

Case Study

Featuring SNS Thermal Bridging In a Roof Application

Uintah Training Facility

vs

Morgan Athletic Gymnasium



Building Design

Project Inception: 1-22-2013
Building Uses: Education/ Gyms
Architect: Kevin Madson & Associates, Inc.
Contractor: Westland Construction
Manufacturer: CO Building Systems

Width: 150'
Length: 293'
Height: 30' Sheeting

Standing Seam Roof Panel: TS-324

Windows:

4 each 17' x 4'
20 each 22' x 4'

Louvers:

0

Doors:

2 each 12' x 10'
2 each 6'-4" x 7'-4"

Hvac:

0

Insulation System:

Roof: 10" with WMPVR facing
**SNS Continuous Insulation System featuring
SNS Thermal Bridging in the Roof**
Wall: 6" with WMPVR facing

Project Inception: 4-6-2011
Building Uses: Education/ Gyms
Architect: Design West Architects
Contractor: Westland Construction
Manufacturer: CO Building Systems

Width: 150'
Length: 293'
Height: 30' with a 7' CMU Wall
23' Sheeting

Standing Seam Roof Panel: MBCI Ultra-Dek

Windows:

4 each 17' x 4'
20 each 22' x 4'

Louvers:

4 each 7' x 4'

Doors:

1 each 14' x 14'

Hvac:

1 each 10' x 8'
1 each 12'-4" x 4'-6"

Insulation System:

Roof: 10" with WMPVR facing
Styrofoam Block in Roof
Wall: 6" with WMPVR facing

Uintah Training Facility

Morgan Athletic Gymnasium

Inside & Outside Temperature Conditions

Thermostat Settings for Gym: 64°F w/ no set back
Average (high & low) daily temperature an average over the month

April 2014	47.33 °F
May 2014	58.19 °F
June 2014	67.33 °F
July 2014	75.65 °F
August 2014	68.52 °F
September 2014	62.90 °F
October 2014	51.22 °F
November 2014	33.77 °F
December 2014	28.81 °F
January 2015	27.55 °F

Thermostat Setting for Gym: 65°F – set back 60°F
Average (high & low) daily temperature an average over the month

45.03 °F	April 2014
54.94 °F	May 2014
61.47 °F	June 2014
71.61 °F	July 2014
65.26 °F	August 2014
60.37 °F	September 2014
48.68 °F	October 2014
33.93 °F	November 2014
30.74 °F	December 2014
29.55 °F	January 2015

Heating Results

Units of Natural Gas Consumed: (\$.86 per CCF)

Became Operational

April 30, 2014	1025 CCF
May 23, 2014	338 CCF
June 25, 2014	39 CCF
July 29, 2014	3 CCF
August 27, 2014	2 CCF
September 29, 14	8 CCF
October 27, 2014	145 CCF
November 21, 14	975 CCF
December 22, 14	1359 CCF
January 23, 2015	2307 CCF

Savings Difference

\$167.00	16%
\$266.00	48%
NA	
NA	
NA	
NA	
\$190.00	60%
\$517.00	60%
\$185.00	14%
\$396.00	17%

\$1720.00

Units of Natural Gas Consumed: (\$.86 per CCF)

1219 CCF	April 21, 2014
648 CCF	May 21, 2014
84 CCF	June 20, 2014
1 CCF	July 22, 2014
1 CCF	August 21, 2014
19 CCF	September 22, 2014
366 CCF	October 21, 2014
1577 CCF	November 20, 2014
1575 CCF	December 19, 2014
2768 CCF	January 22, 2015

Averages

38%

This case study of two high school gymnasiums, identical in size, 150' wide x 293' long and 30' high, both are standing seam roofs, they both have 24 windows along the top of the walls, both have the same insulation system, one thermostat was set at 64 degrees and other 65 degrees with a set back at 60 degrees at night. The outside temperature differences were on average between 2 to 3 degrees. The gymnasium with the SNS thermal Spacer, experienced a 38% saving on their heating bill. We have found that the more extreme the conditions, the better the performance will be.

In conclusion, living in Death Valley, California or in the North Pole, heating and cooling conditions are applied in either keeping heating or cooling in or keeps it out. By placing the SNS Thermal Spacer continuously on every purlin and/or girt, it isolates the outer shell from the inner frames thus creating a Thermal Bridging Technology. The SNS Thermal Spacer with traditional MBI insulation blankets, create a Continuous Insulation System that will double the energy performance of a metal building, saving energy, that accrue, year after year for the life of the building.

SNS Thermal Spacers are proven safe and effective, tested per AISI, ASTM, ICC and U.S. Energy Codes and structurally sound and watertight. SNS Systems provides solutions for standing seam panels, through-fastened panels, wall panels and complete building envelope systems for metal buildings. For more information visit www.sealednsafe.com