Application . . .

Vertical Standing Seam Panel Insulation for Tanks
Thermon’s ThermaSeam tank insulation system, comprised of prefabricated standing seam insulation panels and accessories, dramatically improves the durability, life expectancy and appearance of a tank insulation system. Storage tanks ten feet (three meters) or greater in diameter that require insulation for temperature conservation or condensate prevention are ideal candidates for a ThermaSeam system.

An aluminum outer jacket is bonded to foil-faced polyisocyanurate insulation to form a laminated ThermaSeam panel (other metal jacket/insulation combinations are available). These panels extend vertically the full height of a tank sidewall and are also utilized on a tank roof. Protrusions from the insulation, such as manways, nozzles and stair brackets, are tightly fitted and sealed. Where ground water or product wicking is a problem, foamglass insulation can be installed at the base of the tank.

Ratings/Specifications . . .

Panel width ......................................................... 24” (61 cm)
Panel height .......................................... based on tank height
Panel anchor cable .................................. 1/4” dia. (6.4 mm) steel
Panel retaining clip .............................. 3/8” x 0.015” stainless steel
(9.5 mm x 0.38 mm)

Available insulation materials/temperature ranges
Polyisocyanurate ........ -100°F to 250°F (-73°C to 121°C)
Fiberglass ..................... -60°F to 850°F (-51°C to 454°C)
Mineral wool ............... -60°F to 1200°F (-51°C to 649°C)
Composite ..................................... based on combination

Insulation k factors1
Polyisocyanurate ... 0.19 Btu•in/hr•ft²•°F (0.027 w/m•°C)
Fiberglass .............. 0.24 Btu•in/hr•ft²•°F (0.035 w/m•°C)
Mineral wool .......... 0.30 Btu•in/hr•ft²•°F (0.043 w/m•°C)
Composite ..................................... based on combination

Available insulation thicknesses ..... 1” to 4” (25 to 100 mm)
Available metal jacket materials2/thicknesses
Aluminum ......................... 0.024” (0.61 mm)
Stainless steel ...................... 0.016” (0.41 mm)
Coated steel ......................... 0.024” (0.61 mm)

Notes . . .
1. Mean temperature for k factor is 100°F (37.8°C).
2. Metal jacket is available in a variety of colors; contact Thermon.
Installation Details . . .

ThermaSeam panels are held in place against the tank with stainless steel retaining clips (captured in the machine-formed seam) secured to steel anchor cables wrapped around the perimeter of the tank. External banding, a traditional weak spot in the tank insulation process, is eliminated.

Stickpins temporarily hold the steel cables in place prior to tightening the turnbuckles.

Stainless steel turnbuckles and two double-crimped ferrules at each cable end apply the necessary tension required to support the ThermaSeam panels.

Stainless steel retaining clips are looped around the anchor cable and folded over the edge of the panel. The machine-formed seam locks the panels and retaining clips together snugly against the tank.

Climber basket and laminated ThermaSeam panels eliminate the need for scaffolding in most applications.