

# AMISTCO

PRODUCT BULLETIN - AIBM



## AMISTCO INSULATION BLANKET MESH

Steam turbine manufacturers were the first to develop knitted wire mesh blankets due to their need to increase generating capacity for a given size turbine. To increase capacity, higher pressures were required. With higher temperatures creating greater insulation problems, removable knitted wire mesh blankets were made in sections to fit around the turbine. The blankets have worked so well that their use has been expanded into many other insulation areas.

### FLEXIBILITY

The knitted loop structure provides a two way stretch creating decreased stiffness than the insulation it covers. It is ideally suited to fit around irregular curves and complex surfaces.

### STRENGTH

Since the mesh is metal, it provides the strongest insulation covering that can be used. It is highly resistant to coming apart from vibration or continuous handling. It is resistant to penetration by sharp objects or employees walking on it and stays intact longer than the insulation can.

### ECONOMICS OF MATERIAL

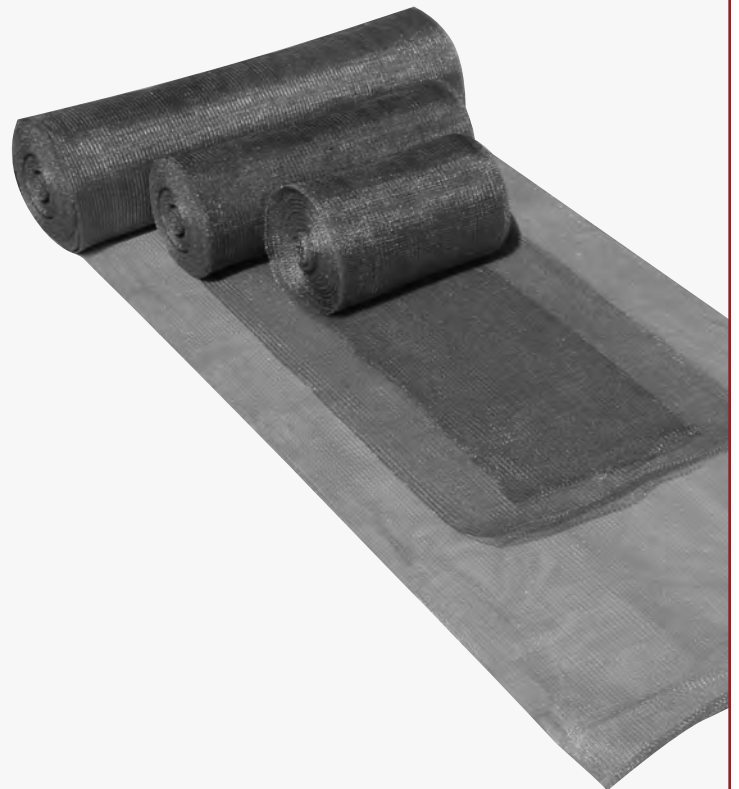
For temperature ranges of 600°F to 1200°F, knitted mesh is more cost effective than alternatives such as glass or hexagonal mesh. For temperatures ranging from 1200°F to 2300°F Inconel Alloy knitted mesh is the only covering material able to resist the heat and retain strength.

### COST AND EASE OF FABRICATION

Knitted mesh can be purchased in widths to suit the blankets to be manufactured. It can be easily cut with industrial scissors or shears and fabricated in many ways. Specialized sewing labor can be eliminated in many cases using a stapler as the preferred method. The blankets can be manufactured quickly and easily, reducing fabrication cost by eliminating special labor skills.

### APPLICATIONS

- Armature Burning Furnaces
- Exhaust Systems and other industrial uses
- Gas Turbines
- Marine Insulation Blankets
- Nuclear Power Plants
- Nuclear Reactor Feed Pumps and Fittings
- Petrochemical and Refining
- Reactor Nozzle Inspection Ports
- Slow Cool Steel Ingot Cars
- Steam Turbines
- Stress Relieving



## WIRE ALLOY

AMISTCO Separation Products, Inc. manufactures most commonly as follows:

Up to 1200°F	304 Stainless Steel
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There are several other alloys, quickly available for special requirements such as corrosive or unique atmospheres. Amistco Separation Products, Inc. engineers will suggest other alloys according to your application.



## WIRE DIAMETER

Common wire diameter for insulation blankets are .006, .008, and .011. For applications requiring maximum strength and frequent removal such as turbines, .011 is selected. For less frequent removal, the .008 is required. AMISTCO suggests .006 where maximum flexibility is required.

## YIELD

Wire diameter also affects yield square feet per pound.

Stainless Steel .011	13ft <sup>2</sup> /lb single ply
Stainless Steel .008	24ft <sup>2</sup> /lb single ply

Inconel .011	12ft <sup>2</sup> /lb single ply
Inconel .008	22ft <sup>2</sup> /lb single ply

## OPENING SIZES

Knitted wire blanket mesh can be manufactured in a variety of opening sizes. 60 density provides the optimum balance between large openings for economy and small enough openings to provide tufting through the insulation material.

## WIDTH

Blanket mesh is available in 12", 18", 24", 30", 36" and 42" widths.

## PRICING AND AVAILABILITY

AMISTCO Separation Products, Inc. maintains availability subject to demand for the most common alloys, wire diameters and densities. Special alloys and densities can be manufactured promptly upon request. For a pricing quotation contact your AMISTCO Separation Products, Inc. sales representatives or fax/e-mail your quotation request.



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