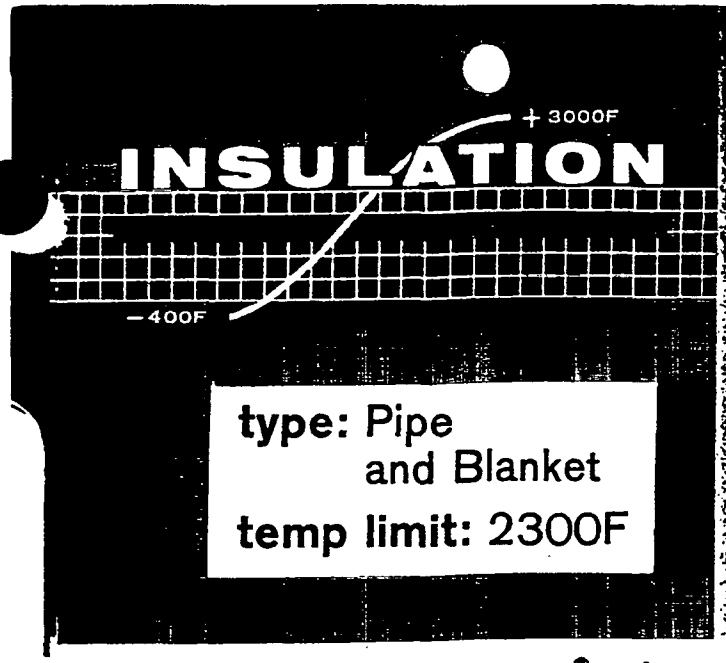

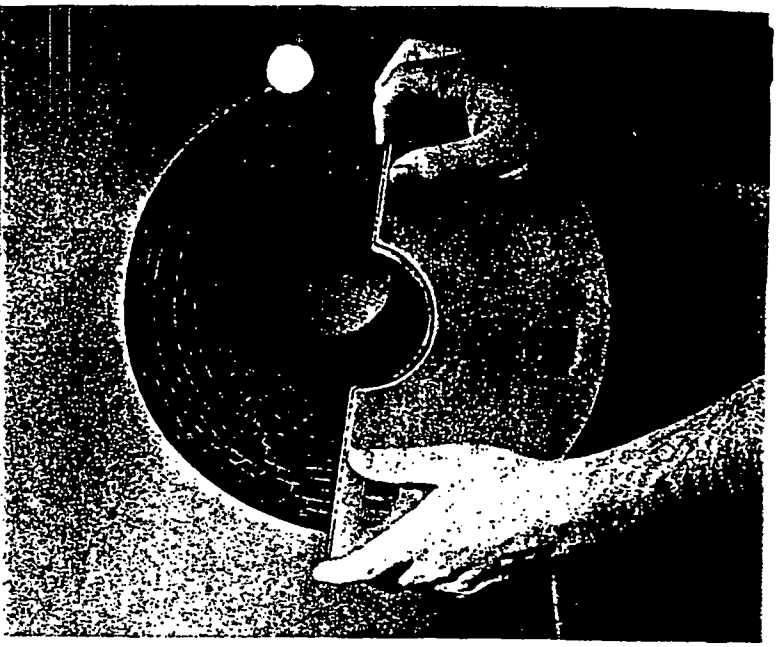

J-M METAL-K® pipe and blanket insulation

■ **DESCRIPTION:** Metal-K is an all-metallic reflective type insulation, consisting of inner reflective foils (either aluminum, stainless steel, Inconel or other metals as required) spaced from ⅛" to ¼" apart by 3/16" wide corrugated metal strips fastened to the foils. These strips are spaced on approximately 6" centers and are staggered between layers to minimize through metal conduction. A stainless steel outside cover sheet provides mechanical strength and a lower surface temperature. Other constructions are available to meet specific requirements. Metal-K is light in weight and thermally efficient.

■ **AVAILABLE FORMS:** Metal-K insulation is factory engineered and fabricated for each individual job. It is furnished in special shapes to accurately fit all flat and curved surfaces including piping, fittings and flanges. Pipe insulation can be furnished in two foot long, flat, wrap-around blankets or in formed full or half sectional pieces. Usual blanket size for flat or curved surfaces is 24" x 36". Edges are grooved to reduce convection and radiation losses at the joints. Johns-Manville furnishes clips and bands to facilitate installation.

■ **USES:** Metal-K is used to protect nuclear reactor systems against contamination. In addition to insulating the reactor vessel, Metal-K is installed as both an internal and external insulation for piping and equipment. It is also suitable for other applications where utmost cleanliness and resistance to gas erosion or chemical attack is important.

■ **ADVANTAGES**

Thermally Efficient

Metal-K has a low thermal conductance and provides permanent resistance to heat flow.

Eliminates System Contamination

All materials become radioactive when exposed to neutron flux in the vicinity of a reactor. Metal-K contains no fibrous or particulate matter associated with conventional materials. Therefore, the possibility of system contamination by activated material is eliminated.

Non-Absorptive

The all metallic components of Metal-K will not absorb radioactive material in the event of a leak or a spill during refueling.

Cleanable

Metal-K may be submerged in water and exposed to cleaning solutions used for decontamination. Its smooth, bright surfaces are readily cleanable.

Non-Corrosive

Metal-K eliminates all possibility of stress corrosion of austenitic stainless steel from trace amounts of chloride present in conventional insulating materials.

Internal Insulation

Metal-K can be used inside equipment and piping carrying gases such as gas cooled reactors.

Easily Installed

Metal-K is precision engineered and fabricated for each individual job and accurately fits all surfaces.

ET-000055