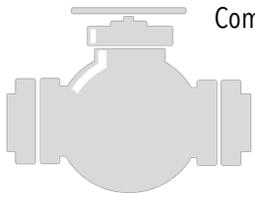


INSULATION OPTIONS

Removable Insulation Jackets

Removable Insulation Jackets are used on any component that requires insulation for safety or energy savings and require:

- Routine maintenance
- Periodic inspection
- Access to the component for any other reason
- Custom fitting due to being unusually shaped
- Additional safety measures



Components used to control steam in boiler systems—such as control valves and steam traps—are vital to a functioning facility. However, these components often radiate heat. Thus, if left

uninsulated, are a burn hazard for employees and a huge source of energy loss. Additionally, they require regular maintenance to avoid malfunctions. Removable Insulation Jackets stop energy loss and eliminate burn hazards while making it easy to inspect or maintain piping system components.

Moreover, they remove the need to call an insulation contractor to re-insulate the component. Simply remove the jacket, perform the task, and re-install the jacket.

Lifecycle Cost Analysis

Provided below is a formula that can be used to determine the total lifecycle cost of insulation, allowing for an objective comparison of removable versus conventional insulation for a specific application.

$$C_L = C_I + N_S \times [C_{RI} + (T_S \times C_e)]$$

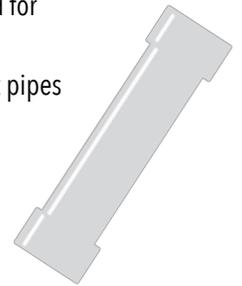
C_L	Total lifecycle cost
C_I	Cost of insulating component
N_S	Number of times component will be serviced during lifecycle
C_{RI}	Cost of re-insulating component (\$0 for Removable Insulation Jackets)
T_S	Time that component remains uninsulated during servicing (0 for Removable Insulation Jackets)
C_e	Energy cost per period “ T_S ” of uninsulated component versus insulated

Conventional Permanent Insulation

Conventional Permanent Insulation is anything other than Removable Insulation Jackets. Traditional Fiberglass, Calcium Silicate, Foam Glass, or any of the many types of fixed insulation are:

- Typically used for straight-run piping; not piping components that require routine maintenance or inspection
- Not easily removed and require an insulation contractor to cut off and replace

Long runs of straight pipe benefit more from permanent insulation because there is a limited need for maintenance. For example, continuous permanent insulation for 25 ft. of straight pipes would be more cost effective than constructing multiple jackets that would hardly (or never) need to be removed.



By using permanent insulation in combination with Removable Insulation Jackets for piping system components, you can create a safer work environment as well as achieve your energy saving goals.