

## *Removable Insulation for Boiler Doors & Drum Covers*

*ThermaXX removable insulation is an excellent solution for improving boiler energy efficiency and safety.*



Scotch marine boiler – before

### **About Boiler Doors and Drum Covers**

Boilers are large closed containers where liquids, commonly water, are heated for industrial use, generating power and various heating purposes. Each boiler is made of high-grade metal, often steel, iron, copper or brass. Most hot water and steam boilers for central heating in medium and large facilities have one or



ThermaXX'd

more doors. The job of boiler doors is to allow access inside the boiler, while still maintaining an airtight seal and full structural integrity of the boiler. Some boiler doors may also require openings or ports for ventilation, observation, or other needs. Types of boiler doors and covers we regularly encounter include access doors, steam drum covers, and mud drum covers.

*Access doors* are located in the front and/or rear of the boiler, access doors are typically fire doors which allow personnel to access the interior of the boiler for inspection and maintenance.

*Steam drum covers* are located at the top of a water-tube boiler, the steam drum is where dry, pure steam collects and is drawn off while the remaining water is passed back to the heat source. Problems with the steam drum causes, at the least, inefficient heat distribution and can also result in corrosion of the steam system or boiler malfunction. The steam drum cover allows inspection and maintenance for this vital component.

*Mud drum covers* are located at the bottom of some boilers, the mud drum (sometimes called a "bottom drum") captures impurities and sediment from the boiler water. The mud drum cover enables removal of this sludge.

### **Insulating Boiler Doors and Drum Covers**

Boiler doors and covers all can reach rather hot surface temperatures. Surface temperatures may reach around 350°F in fire doors, 200°F in mud drum covers, and, for steam drums covers, the temperature of the pressurized steam which the drum contains. This presents a safety hazard for the workers at risk for coming into contact with these surfaces. In addition, a great deal of heat can radiate from boiler doors and cover, resulting in wasted energy.

Boiler access doors and drum covers all require regular use, making permanent insulation that would extend past these components unrealistic. Fire doors often have fire brick or other insulation in the interior but may still have unacceptable surface temperatures.

In our experience, boiler drum covers are typically not insulated at all. Some covers utilize cementitious insulation.

Well-suited for components requiring regular maintenance, removable insulation covers can provide an excellent solution for the safety and efficiency issues without inhibiting functionality or maintenance needs.

### **Thermaxx Boiler Door Insulation**

Thermaxx has strong capabilities insulating the doors and drum covers of many boilers including sectional cast iron boilers, scotch marine boilers, shell boilers, fire tube boilers, and water tube boilers.

Our capabilities in removable insulation are diverse, but our products have a few things in common:

- **The right fit:** *We produce covers to exact fit for your specific boiler door and cover needs. In addition, we can design custom boiler insulation "panels" for many applications.*
- **Convenient:** *Our insulation jackets are designed to be able to be removed and replaced easily and quickly by any personnel. They typically use a simple closure system of velcro and D-rings.*
- **Cost effective:** *We'll provide the jackets that are compatible with your needs and device. We typically utilize 1" fiberglass for boiler insulation, but we can tailor design, materials, and thickness to your needs. Being able to buy exactly the jacket you need means you don't have to pay for un-needed insulation.*
- **High quality:** *Our jackets are painstakingly designed and crafted to remain effective under harsh conditions for extended periods of time. As with all Thermaxx Jackets, we stand behind our removable boiler insulation with a 5 year guarantee.*