

# FIREPRO

by UniTherm

# UNITHERM

insulation systems

FirePro by Unitherm is a fire protection system designed to insulate equipment and significantly delay internal temperature rise in the event of a fire. Easy to install, remove and reuse, the FirePro product line offers a simple and effective means to protect critical process control equipment. FirePro products meet **UL1709** requirements and follow the recommended standards of **API 2218**.

## Features and Benefits

### Fire Protection

Developed in close liaison with oil and petroleum industry leaders, FirePro is a versatile and flexible system for protecting critical control equipment at temperatures of 2000°F (1103°C) for at least 30 minutes.

### CAD Designed Products

Built completely from CAD drawings, UniTherm creates passive fire protection systems without needing possession of equipment, enabling you to bypass a time & budget consuming equipment fitting process.

### Removable & Reusable

Unlike molded-on coatings, UniTherm's FirePro insulation blankets are removable and reusable. FirePro systems are comprised of two layers of fireproof insulation blankets and secured with draw cords and a high-temperature strap and single-throw buckle system. The fire-resistant strapping system provides easy access to equipment and simplifies the installation and removal process.

### Corrosion Neutral

The removability of FirePro enables efficient routine maintenance on critical equipment. FirePro is corrosion neutral and does not precipitate corrosion like many other types of insulation.

### Lowest Life-Cycle Cost

FirePro is the lowest priced fireproofing solution and is highly efficient in terms of maintenance and serviceability as it does not require costly pre-installation treatment or equipment adjustments.

## Applications

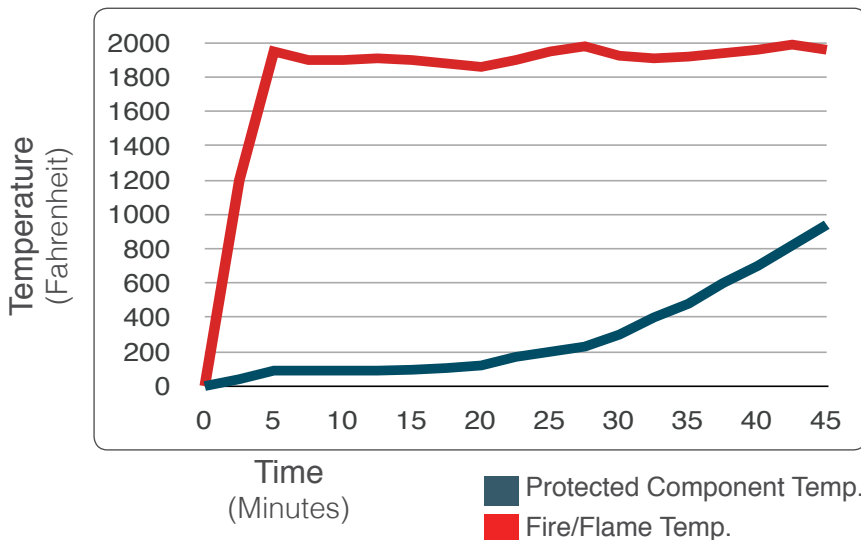
- » Valves
- » Actuators
- » Controls
- » Cable Trays
- » Cabinets
- » Enclosures
- » Air Tanks



### UL 1709 Fire Testing and Results

To ensure that FirePro would perform in extreme temperature situations, the system has undergone rigorous testing, including a hydrocarbon fire test. The system exceeded current industry standards for fire protection for in a UL1709 furnace test with Underwriter's Lab.

In addition to outside testing with Underwriter's Laboratories® and Southwest Research® UniTherm utilizes its own UL1709 certified, high-temperature furnace for routine quality assurance tests and new product research and development.



*This chart shows the results of a FirePro system subjected to a full Hydrocarbon Fire Test that meets **UL1709** requirements.*

### Verified Results

FirePro by UniTherm has been independently assessed and verified by both Underwriters Laboratories® and Southwest Research Institute®. The FirePro system fulfills the requirements for UL1709 and ASTM E119 and a wide range of onshore and offshore passive fire protection guidelines and requirements.



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As key components in critical process control systems, valve actuators are generally the most heat sensitive component in any industrial environment. FirePro by UniTherm is a passive fire protection system that insulates and protects equipment from the high temperatures of a UL 1709 fire.

Flexible and versatile, FirePro blankets can be designed for electric and pneumatic actuators and are pre-engineered with openings for routing of power and doors or extensions for various external mechanisms, making it easy to access critical control elements for operation or maintenance.

## Pneumatic Actuators

FirePro covers for pneumatic actuators include customized access doors to enable easy access to controls and can be fitted with position indicator rods that clearly display the position of a valve.

Per API 2218 standards, handwheels and mechanical controls must extend outside of fire protection. UniTherm pre-engineers FirePro systems to include slots and openings for handwheels and declutch devices, air and tubing, and all gauges and valves associated with air tanks for pneumatic actuators.



### Electric Motor Actuators

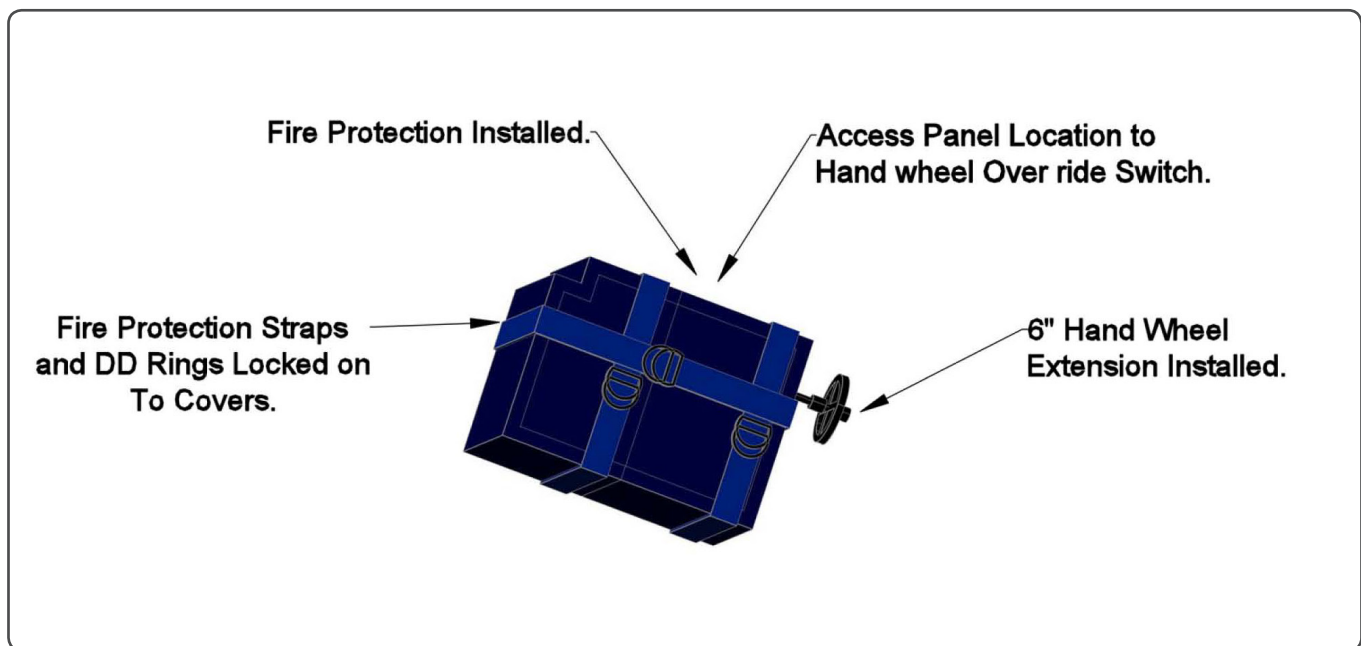
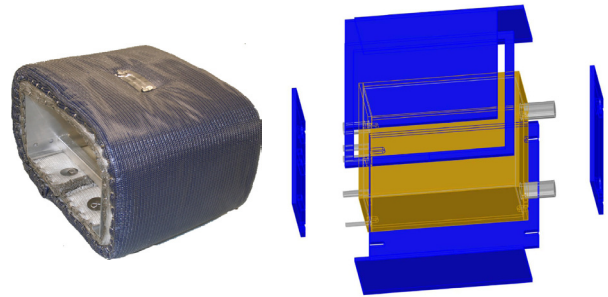
For electric-powered actuators, FirePro systems include access doors for non-critical instruments and like pneumatic actuators, can be fitted with indicator rods to easily determine the position of the valve.

Handwheels, declutch levers, push buttons, knobs and other key controls can usually be extended outside of fireproofing to ensure direct access, which adheres to the standards outlined in API 2218.

The extent of coverage for FirePro systems designed for electric motor actuators also includes lights, dials, gauges, gear boxes, pipes, and power cables.

### Cable, Tray, and Storage Tanks

In addition to protection of automated valves, FirePro offers solutions for fire proofing vital power sources. FirePro covers offer UL1709 approved fire-proofing for cables, wireways, and air tubes and help to ensure the operation of critical equipment in the event of a fire.



*CAD image of electric motor actuator blanket construction*

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# Passive Fire Protection for Cable Trays & Cabinets

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In a fire hazard area, including fire protection for power sources and key electrical components is crucial. With the FirePro system, UniTherm offers a means of fireproofing power cables, wires, junction boxes and key electrical enclosures so that process control systems function as intended in the event of a UL1709 fire. FirePro systems meet UL1709 fire standards and ASTM E-1725 electrical standards.

## Cable Trays

FirePro systems provide a significant level of fire protection to banks of critical power and control circuits that may be routed through a fire hazard area.

Comprised of two inches of fireproof blankets and heat-resistant strap and buckle systems, FirePro presents a straightforward solution for fire proofing. FirePro provides a means to access wires and cables without destroying fireproofing as FirePro blankets can easily be removed and reinstalled.



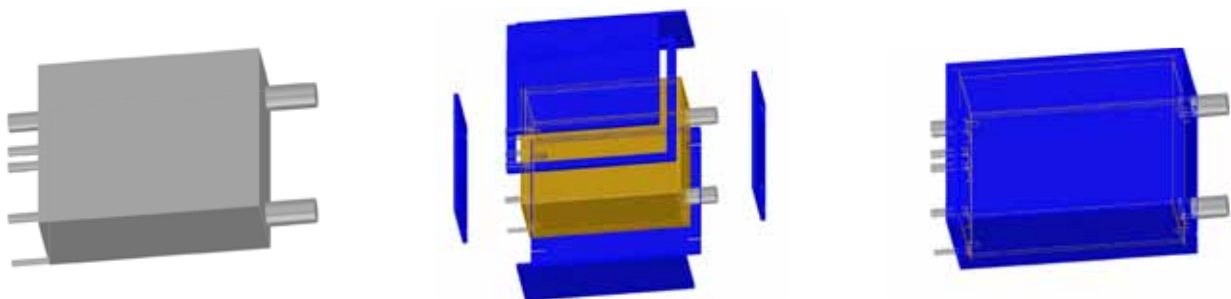
*FirePro Cable Tray Cover*

Standard FirePro cable trays offer fire protection for up to 30 minutes per UL1709 standards. In situations where 45 minutes to 1 hour of fireproofing proves necessary, UniTherm can create thicker insulation, which increases the duration of fire protection.

## Cabinets & Enclosures

FirePro covers for junction boxes, electrical cabinets and related enclosures provide passive fire protection for enclosed components for up to 30 minutes in a UL1709 fire.

UniTherm designs highly custom fire protection covers that include access doors or removable panels and pre-engineers openings for conduit or cable penetration. FirePro systems are custom designed, engineered and fabricated for each application and easy to remove or reinstall so that electrical cabinets and instrument enclosures remain easily accessible as well as fireproofed.



*The series of CAD illustrations above depict an uncovered junction box(left), assembly of the FirePro system(center), and a fully assembled FirePro cover(right).*

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