



# VIKING Fire

Fire suits with built-in  
TST - Thermal Sensor Technology



# NEW!

## VIKING TST

Thermal Sensor Technology



**Built-in heat sensors  
that indicate  
critical temperatures**





# The first true lightweight and flexible fire suit with built-in thermal sensors

VIKING combines innovative use of fabrics with proven thermal sensor technology to create state of the art intelligent clothing.

## Proven technology built right into the fire suit

Data shows that heart attack due to heat stress is the leading cause of death among fire-fighters in action. Special features in VIKING fire suit are designed to reduce some of the factors that cause heat stress. Not only are our fire suits extremely lightweight and flexible, but we now offer VIKING suits with integrated microelectronics.

Temperature sensors attached to two displays on the arm and shoulder indicate critical temperatures - both inside and outside the garment - to fire-fighters and their team.

## VIKING TST Thermal Sensor Technology



Thermal sensors integrated into the clothing indicate critical temperature levels without adding extra bulky equipment.

*Thermal sensors are attached to an LED display via a conductive ribbon sewn into the fabric layers.*

# Intelligent Clothing

## The precious seconds between safety and injury

The heat insulating textiles in modern fire suits protect the skin so well against radiant heat that it is becoming a challenge for fire-fighters to detect critical temperatures before they result in injury. The difference between pain and second degree burn is a mere 12 °C increase in skin temperature.

VIKING strives to reduce the risks of heat stress and burn injuries by providing fire suits at the lowest possible weight in relation to protection. Integrating thermal sensor technology with the jacket gives the added advantage of indicating critical heat levels before it's too late.



LED display on sleeve

Thermal sensors integrated into the inner and outer layers of the coat monitor outer temperature near the fire-fighter and on the inside of the coat close to the body. Sensors are attached to two LED displays – on the sleeve and on the back of the left shoulder.

### Shoulder display and heat sensor

The LED display on the upper left shoulder is visible to other fire-fighters on the team and indicates potentially critical situations.

### Durable materials

A small box in the inner liner of the coat contains a battery and a control chip that calculates the temperature and activates the LED displays.

Sensors are covered in flexible waterproof plastic to protect against fluids.

### Sleeve display

The LED display on the lower sleeve indicates dangerous heat levels both inside and outside the fire suit.

A test button feature is integrated into the display and a signal blinks once a minute during operation.

### The sensor outside the coat:

When the outer temperatures reach about 250 °C the outer circle on the display begins to flash slowly. At 350 °C the display light flashes rapidly.



LED display and sensor on shoulder

### The sensor inside the coat:

When the temperature inside the garment reaches about 50 °C F the long line on the display begins to flash slowly, and at 65 °C the display light flashes rapidly because when the inside of the coat near the skin reaches 79 °C the situation is critical.

### Durable parts

All components will meet current standards for use fire-fighting equipment. The microelectronics are durable and can withstand at least 25 wash cycles. The only thing you have to remove is the computer/battery from a pocket in the liner. No maintenance is required - only the battery needs to be changed.

### VIKING is always one step ahead

We designed the original lightweight and breathable fire suits. We were the first to introduce Raglan sleeves to US fire-fighters. And now we are the first to integrate thermal sensor technology directly into lightweight and flexible fire suits.



Control chip with battery stored in the lining

For the most advanced fire suits available, choose VIKING.

## The latest in design and technology for comfort and protection

It's all about the critical time factor. Protection against heat and fire, flash over and reducing the risk of heat stress is our main concern.

We know what it takes to create fire suits with the best combination of fabrics and features for optimal protection, durability and freedom of movement.

Discover the VIKING advantage.



# The VIKING advantage

VIKING Life-Saving Equipment is a global market leader in maritime and fire safety, providing essential safety equipment for commercial shipping, yachting and fishing vessels, offshore installations, defense and fire fighting sectors.

VIKING turnout gear is used by professional fire-fighters across the globe – from Boston to Singapore. Our protective clothing is developed in close cooperation with our demanding international customers which means we can deliver innovative suits with special features as well as standard models.



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**safety**  
— THINK VIKING™