



FIRETRACE[®]

POWER TO INNOVATE. FLEXIBILITY TO ADAPT.

WIND ENERGY

Fire Protection Solutions

FIRETRACE, THE PROVEN CHOICE FOR WIND ENERGY SYSTEM PROTECTION

THE PROBLEM

With the height of wind turbines reaching 300 feet (91 meters) or more and a cost of roughly \$1 million per MW, when a fire occurs the only option is to wait patiently for the fire to burn out. This is very expensive and dangerous for employee safety, equipment downtime/replacement and debris management.

The ever-increasing awareness on the renewable energy sector has made it more important than ever to be prepared and protected against known fire hazards. Since January 1, 2010 NFPA 850 includes wind turbine and outbuilding fire protection recommendations identifying typical hazards specific to the wind industry. Frequency of reported fire incidents are on the rise and with the renewable sectors continued growth it is important to take the first steps in being proactive versus reactive to fire safety.







WHY FIRETRACE?

Until now, there have not been good fire suppression options available to the industry. Traditional attempts at fire suppression have been either impractical due to the complexity and weight of the system or rendered unreliable by environmental impacts including vibration, temperature extremes, dust and airflow. The result - ineffective detection and suppression of a fire, or crippling false alarms and activations.

Firetrace's approach protects critical areas with targeted fire suppression solutions within the enclosures in which they start. This method limits fire damage to the failed components rather than destroying a full cabinet or nacelle and require less time and suppression agent to control the fire. As a result, Firetrace systems have minimal space or weight impacts on the turbine, while providing critical, reliable safety for equipment and staff in the event of a fire.

Firetrace offers a fully automatic fire suppression system ideal for the wind industry. In the nacelle and base of the tower there are specific areas Firetrace recommends protecting, which can include control and converter cabinets, transformer space, brake and hydraulics.

FIRETRACE ADVANTAGES

-  - Protects multiple critical enclosures with one system
-  - Requires no electricity offering uninterrupted service 24/7
-  - Initiates shut down or sends an alert to your monitoring system
-  - Eliminates concern for false alarm or false discharge
-  - Provides immediate detection and delivery
-  - Allows for inexpensive installation, maintenance and recharge





DIRECT RELEASE SYSTEMS

In Direct release systems, the tubing nearest the hottest point of the fire ruptures, forming an effective discharge “nozzle.” The agent contained in the cylinder is then released in the immediate proximity of the fire.

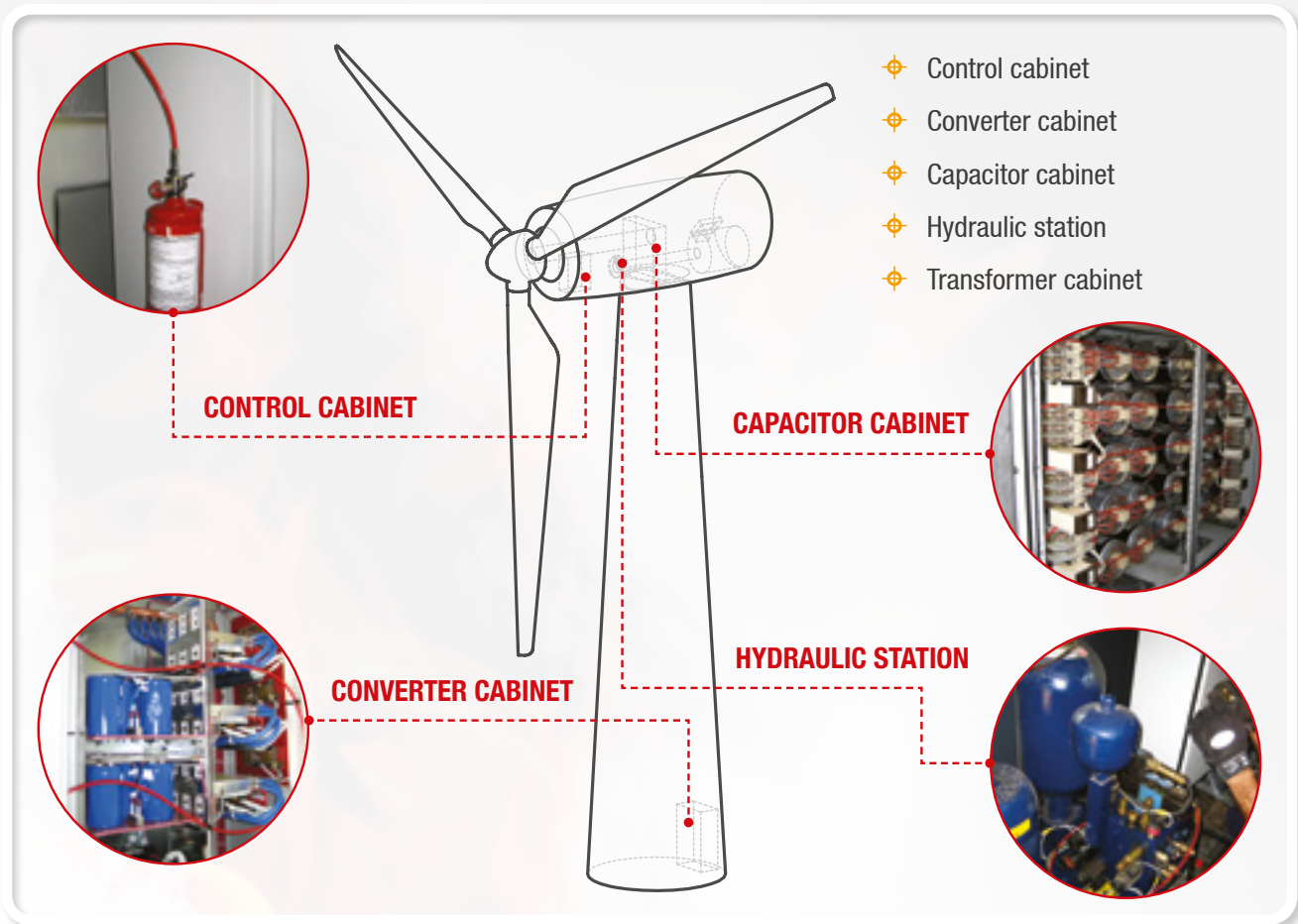


INDIRECT RELEASE SYSTEMS

With an Indirect release system, the Firetrace tubing is used only for detection. When a fire causes the tubing to burst, a valve opens and the suppressant is discharged via a traditional distribution network and fixed nozzles.

FIRETRACE DETECTION TUBING

Firetrace Detection Tubing is ideal for fast, reliable detection of heat and flame even in the toughest applications.



HOW MUCH DIFFERENCE DOES IT MAKE?

Even a small fire can have tremendous consequences. Take the example from one of our customer’s experiences below:

UNPROTECTED CONVERTER CABINET FIRE

- ⊕ \$250,000 IN DAMAGE
- ⊕ 6 WEEKS OF DOWNTIME

PROTECTED CONVERTER CABINET

- ⊕ TOTAL INCIDENT COST, INCLUDING FIRE SUPPRESSION SYSTEM, LESS THAN \$10,000
- ⊕ 1 DAY OF DOWNTIME

FIRETRACE[®]

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OVER 500 AUTHORIZED FIRETRACE DISTRIBUTORS WORLDWIDE

Providing hazard analysis, quotations, installations, service and support on Firetrace systems, to reliably and effectively protect your assets.

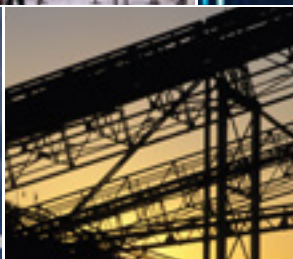
From the adaptable pre-engineered systems using the world-renowned Firetrace Detection Tube to protect critical equipment and enclosures to the innovative new E4 Engineered Systems providing a new level of flexibility in system design, Firetrace leads the world in special hazard protection.

Airports

IT Infrastructure

Mass Transit

Ports and Intermodal Facilities



Mining

Military

Oil & Gas

Wind Energy

Pharmaceuticals

A HALMA COMPANY

www.firetrace.com

Firetrace currently has more than 20 international approvals and listings, including UL, CE, FM, ULC & ISO9001. Approvals and listings vary by system type and agent.



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