



PARTNERSHIP SOLUTIONS

FIRE-PROOFING PRODUCTIVITY: HOW CONGER INDUSTRIES HELPED ESSITY TACKLE FORKLIFT FIRE HAZARDS

Deriving its name from "essentials" and "necessities," Essity is a company dedicated to producing vital hygiene and health products while demonstrating a commitment to global well-being through sustainability and innovation.

Their product line includes napkins, hand towels, toilet paper, and other similar items tailored for commercial use. With their roots stretching as far back as 1849, Essity offers a variety of products and services that are essential for everyday life.

CASE STUDY HIGHLIGHTS



**Increased Equipment
Useful Life**



**Less Operational
Downtime**



Improved Safety

CHALLENGES

Essity recently experienced a serious safety problem with their Toyota polycab forklifts



Debris was accumulating in the engine compartment and igniting, causing severe damage and was an operational hazard.

Determined to find a solution, Essity reached out to Conger for assistance.

Debris-Induced Fires

Essity has multiple operations that produce paper dust and scraps, which can accumulate in the forklift's engine compartment.

Over time, the heat produced by the engine and transmission increases the risk of igniting the accumulated scraps, creating a dangerous situation that jeopardizes both the equipment and operator's safety.

Addressing this fire hazard called for an innovative solution.

SOLUTIONS

A Fire Suppression System

After evaluating the problem, Conger recommended the installation of a fire suppression system designed by Rotarex, a global leader in gas safety solutions.

This system was engineered to detect and extinguish a fire in its early stages to minimize damage and prevent a disaster.



How It Works

If a fire were to ignite, the Rotarex fire suppression system quickly springs into action.

Here's how:

1. **Trigger Line Detection:** A plastic trigger line, pressurized with compressed air, is routed through the engine and transmission compartments to monitor for extreme heat. If a fire occurs, the intense heat melts the plastic line, releasing the compressed air contained within.
2. **System Activation:** When the compressed air escapes, it triggers a valve on the suppression container mounted atop the forklift. The valve's activation releases the fire suppressant liquid stored in the container.
3. **Suppressant Dispersal:** The suppressant is distributed through a network of tubes and nozzles strategically positioned in the engine bay. These nozzles target the fire directly, extinguishing it.



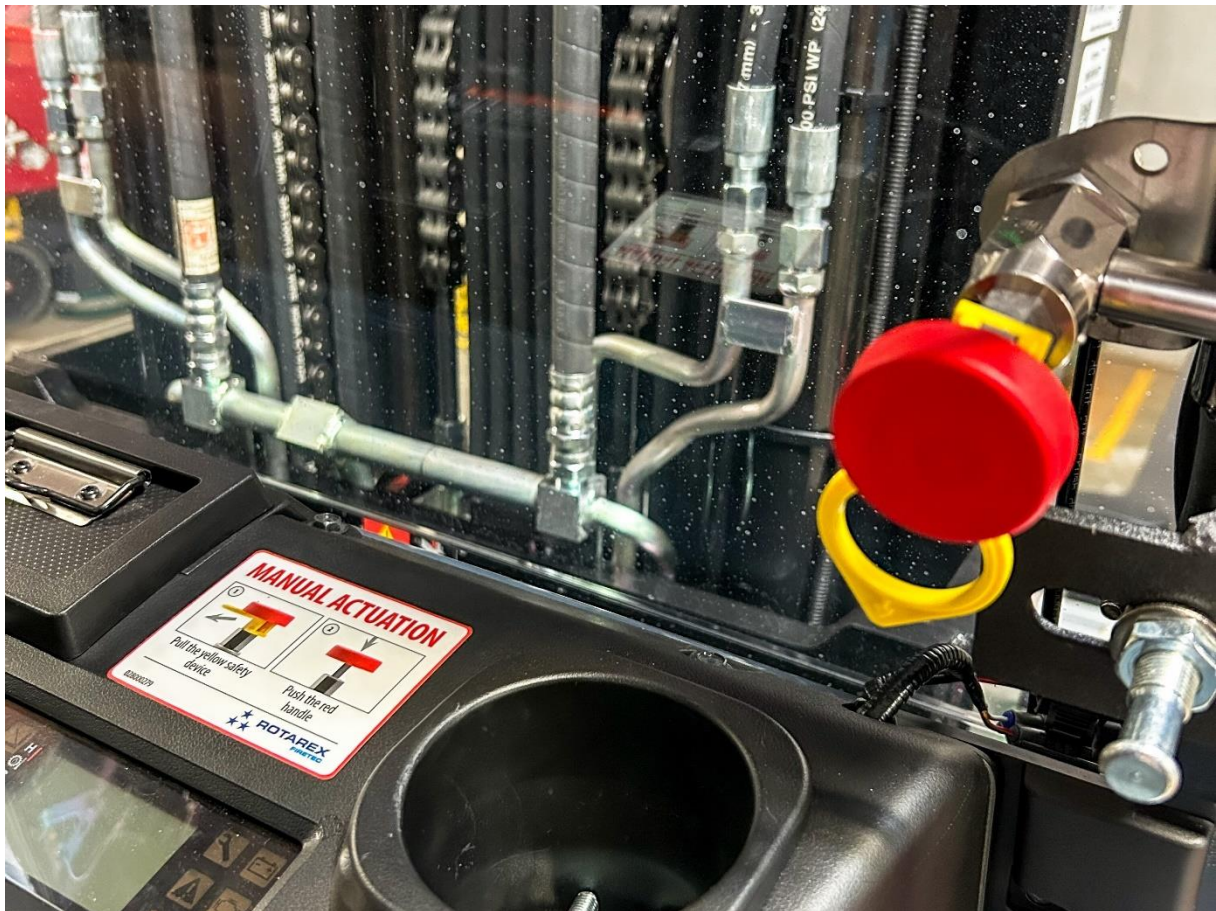
IMPLEMENTATION

Manual Override for Added Safety

The system also includes a manual activation feature for added safety.

A red emergency button, conveniently placed within the operator's reach, allows the operator to override the automatic system.

If a fire is detected before the trigger line activates, the operator can press this button to instantly release the suppressant, providing an additional layer of fire safety.



Post-Discharge Maintenance

Once the fire suppression system is activated, it must be reset by an authorized service dealer.

The reset process includes refilling the suppressant container and replacing the trigger line, ensuring the system is fully operational and prepared for future use. Although this step is tedious, it is a small price to pay for the safety and security the system provides.



RESULTS

Elevating Workplace Safety

By implementing the Rotarex fire suppression system, Essity has significantly reduced the risk of fire-related damage.

This solution not only protects their equipment but also ensures the safety of their operators and surrounding environments.

This project highlights the importance of proactive safety measures in industrial settings. It showcases how even simple, yet effective engineering solutions can prevent disasters, protect valuable assets, and, most importantly, save lives.

