

Case Study: Storage Tank Rim Seal Fire Protection System



Industry
FIRE PROTECTION

CHALLENGE:

There are numerous hydrocarbon product storage tanks within a refinery. On the storage tank's roof typically sits a type of fire protection system (e.g., rim seal fire protection system) or FPS for short. This FPS detects incipient fire and pressure-discharges an extinguishing agent to mitigate the flame spread.

Three challenges arise for such an application:

- There is **limited real estate** on a tank roof, space is a premium and hence the FPS must be compact in design.
- The extinguishing agent is only as effective as its coverage on the tank roof. This is heavily dependent on the agent's discharge pressure. Hence the effective functioning of the FPS is hinged on the **reliability** of the pressure monitoring device on the FPS.
- **Maintenance** efforts required on top of these storage tanks can be a hazardous and labor consuming process.

Rim Seal Fire Protection System on top of a storage tank



12 SERIES
PRESSURE SWITCH



SOLUTION:

United Electric Control's (UE) All-Stainless-Steel, **compact** 12 series pressure switch was selected as the pressure monitoring device on the FPS. UE was chosen by the FPS original equipment manufacturer because it was known worldwide for its quality products used in safety, alarm and shutdown applications.

The 12 series was ideal for this application as it was compact enough to be fitted on the foam agent tank. At the same time, the 12 series' product performance was backed by over **20 years of proven-in-use technology**, ensuring reliability compared to low-cost local switches. Ultimately installing the 12 series reduced costly maintenance.



Compact 12 series fitted on extinguishing agent tank



Improved Reliability



Reduced Maintenance



Space Savings

