BIOREFINERIES

Biorefineries Solution to Fermentation Tank Vent Maintenance Woes

Distillers discover an affordable, hassle-free, ergonomic alternative and achieve immediate gains.

Affordable: Costs 50% Less

Hassle-Free: Easier To Source, Install & Service

Ergonomic: Comfortable To Maintain

APPLICATION
Enardo 2500 Series Emergency Relief Vent with Vacuum

CUSTOMER
Ethanol Biorefining Plants

CHALLENGE

The purpose of relief vents at biorefineries is to control evaporation losses, allow vapors to pass through, and protect fermentation tanks against excessive pressure or vacuum. However, the seals and springs on the equipment being used on many distiller's fermentation tanks are notoriously prone to corrosion, failures, and leaks, creating costly repair and maintenance headaches. This is because these pressure/vacuum vents were designed for bulk storage tanks containing dry materials, not for wet service.

Additionally, ethanol producers are required to repair pressure relief valve equipment in a timely manner to comply with Leak Detection and Repair (LDAR) program guidelines set forth by regulatory agencies like the Environmental Protection Agency (EPA) and the Department of Natural Resources (DNR) to reduce carbon dioxide (CO_2) emissions.

To address these repairs, maintenance workers must remove the equipment, usually with a lift, then transport it offsite for service, which can take days or even weeks, and costs the typical biorefinery $6,000 per unit/incident. Multiply that by the number of units at the site, plus lost production, and the costs add up.

SOLUTION

To ease the burdens caused by existing pressure/vacuum vents, ethanol producers throughout the Midwest are replacing this problematic equipment with new fermentation tank vents that are specifically designed for wet applications. Emerson's Enardo 2500 Series Emergency Relief Vent, has quickly gained popularity with maintenance managers due to its:

- Quick and easy maintenance
- Field replaceable components
- Corrosion-resistant coatings
- Advanced seal technology that exceeds industry leakage standard of 1 SCFH at 90% set point

Also, compared to other pressure/vacuum tank vents available, customers are saying that the Enardo 2500 is:

- **Affordable** — 50% less than the closest suitable alternative
- **Hassle-Free** — easier to source, install, and service
- **Ergonomic** — vents are at knee height/shin level so staff can comfortably maintain

OUTCOME

Biorefinery maintenance departments are reporting immediate satisfaction and gains resulting from the upgrade to Enardo 2500 Emergency Relief Vents, including:

- Increased Maintenance Lifecycle from every couple of months to over a year
- Reduced individual unit service/repair time to 30 minutes versus days/weeks
- Improved workplace conditions and morale for maintenance staff
- Eliminated maintenance service and repair costs of $6,000 per unit/incident contributing to 18 month payback period

VIEW THE ONLINE CASE STUDY
and connect with an expert