

Polymer company pilot project quickly provides phenomenal ROI

Challenge

A large polymer manufacturing company used steam for their critical assets such as heated hydraulic moulding presses. It was essential that the steam was kept at a very high pressure to ensure maximum efficiency and effectiveness of their machinery. They also have recently been focused on reducing energy costs and emissions rates. They diligently get inspections annually which left them very vulnerable to failures between audits but they didn't really know how much the failures cost in lost energy and production efficiency.



Solution

Polymer company started with a very minimal investment. They decided on a pilot installation of only 25 monitors. They installed monitors next to high pressure steam traps servicing presses, hot boxes, autoclave and the boiler room. They only required one gateway so installation was complete within 1 day. LTE connection ensured no bandwidth loss to their WIFI network and secure failure alerts instantly to their maintenance staff.

3 failures would have cost them over \$39k per year

They also save approx 300 tonnes of CO2

Benefits

- An open failure was initially detected during installation on a float type steam trap at 120 psi. Annual losses from this leak would have cost approx \$4,700
- During the third month, another open failure was detected on a thermodynamic trap at 140 psi. Annual losses would have cost approx \$3,500.
- A large leak was found in month 6, losses from this type of trap would cost approx \$31,000 per year.
- The calculated ROI of the pilot was about 667% in a matter of only 6 months.
- Due to the success of the pilot they decided to scale deployment across their plant to all steam traps
- They want to ensure they don't have any production downtime moving forward.
- They will be able to use their energy savings toward their carbon footprint reduction mandates.



"We are so relieved to have a failsafe system in place. It was the easiest installation we have ever done"