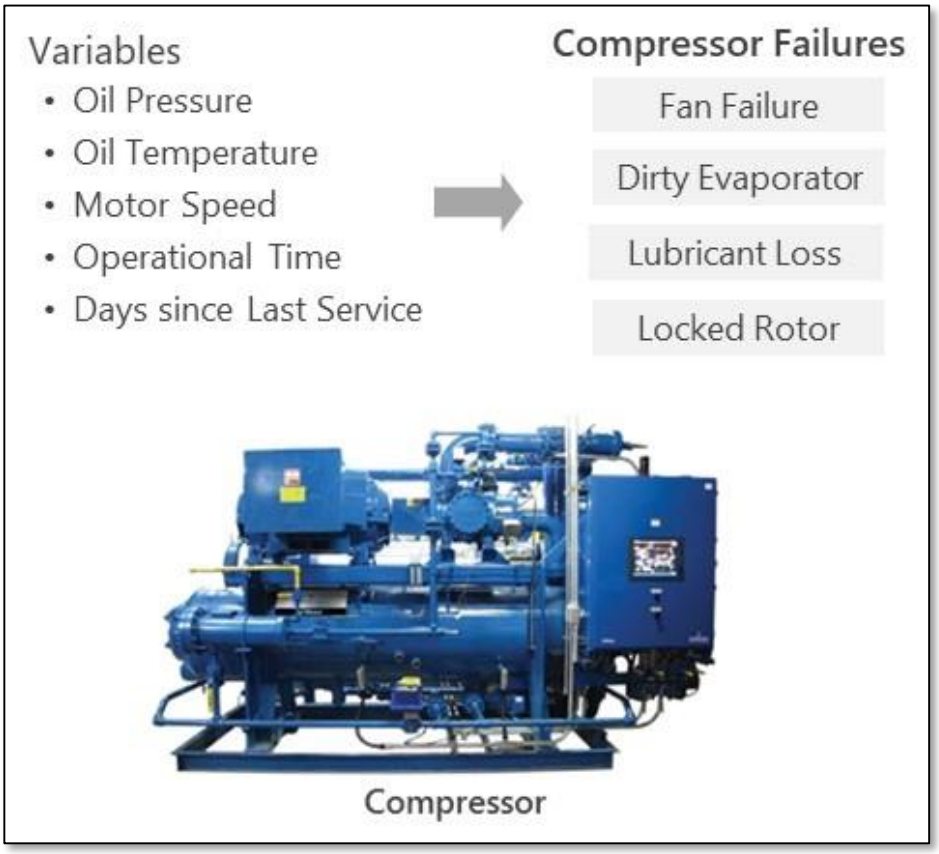
Multi-National glass manufacturer: Predictive maintenance for manufacturing equipment

CHALLENGES

The glass manufacturing company dealt with equipment failure problems that resulted in unexpected costs in the production process. They had to face high machine downtimes and low production availability, which resulted in lost production, delayed customer orders, and inefficient use of human resources. The managers faced challenges deriving insights from a growing volume of machine data captured throughout the manufacturing process.

SOLUTIONS

Neal Analytics helped the customer identify the key variables that influenced their equipment failures like pressure, current, and duty cycle by implementing Azure Machine Learning. We developed a classification model to predict future failures in equipment based on known failure events. The company used an anomaly detection technique to identify outliers in sensor data that could lead to equipment failures throughout the production process.



RESULTS

Using Neal Analytics' solution, the glass manufacturer reduced its total maintenance costs by better planning predictive maintenance programs. The company was able to identify the potential breakdowns with an 85% precision up to two days before equipment breakdown. They experienced a reduction in production downtime and increased asset utilization. The spare part supply chain planning became easier than before.