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PHARMACEUTICAL OPERATIONS

How Falkonry helped avoid costly losses from misprocessing

Loss of product

Insufficient information to control process

Rubber vulcanization and extrusion

Expensive downtime and product losses

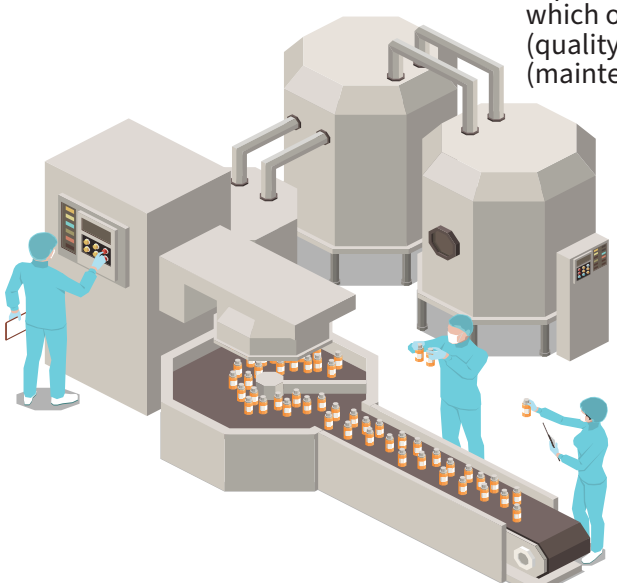
So, how to detect conditions that will cause quality and maintenance issues?

Some processes, like rubber vulcanization are very difficult to control. Loss of control results in production losses and equipment downtime in excess of $1.3M per year.

Condition monitoring using raw material weights, speeds, torques, pressures and temperatures do not provide enough information to control the process under all conditions. Therefore, alerts often come too late, when the extrusion equipment is already experiencing excessive loads which overwork the rubber (quality) and cause plugging (maintenance).

The vulcanization of rubber is particularly difficult to control because it completes downstream of where the ingredients were mixed and the reaction started.

When the reaction completes too soon, the rubber hardens early. This results in non-uniform material which must be scrapped and eventual plugging of the equipment requiring expensive disassembly and clean up.



Falkonry time series AI discovered and learned to **recognize patterns that indicate deviations from normal behavior.**

How?
Using Falkonry's suite of products, the customer was able to analyze process data involving the entire rubber extrusion line in several locations.

This enabled process engineers to recognize abnormal processing patterns more than 8 hours in advance and act on them before product losses occurred. Maintenance engineers were able to detect plugging precursors and use this information to inspect and adjust the equipment during product changes.

Together these helped to achieve the plant target of 10% capacity increase and reduced production losses by $1M.