MITSUBISHI ELECTRIC
FACTORY AUTOMATION

e-F@ctory

PHARMACEUTICAL

Predictive Analytics Solution
Pharmaceutical Industry Application

Solutions originating from the shop floor comprised of factory automation (FA) and Edge IT systems, leveraging the knowledge of shop floor and cutting-edge technologies to achieve the overall optimization of manufacturing.

e-F@ctory Promotes an "Open" Shift in order to accelerate collaboration and innovation in the manufacturing for Greater Sustainability

Production Equipments

The pharmaceutical industry has the most precise requirements and manufacturing guidelines in terms of quality. As a result, it is critical that pharmaceutical manufacturing equipment comply with good manufacturing practice (GMP).

Problem Statement:

The equipments mainly RMG, Fluid Bed Dryers, Blenders, Compression Machines etc. are heavily relies on rotary equipments such as Motors, pumps, fans etc. all equipment are critical to operations and is costly to maintain—and if failures occur, production output is dampened.

Solution:

Mitsubishi Electric's through its advanced algorithm detects anomalies in the capture data and enables user to take preventive action and avoid unplanned production downtime.

Benefits:

- Reduce Production losses by 10%
- Reduce equipment maintenance cost by 10%

Overall Cost Benefits of Predictive Analytics Solution

Cost Benefit Chart

Replacement of Equipment due to Failure	Cost Involved
Bearing, shaft or motor	Yes
Labor to replace entire unit	Yes
Hot shot service	Yes
Lost Production Time	Yes

70-80% Cost Reduction

Replacement of Only Damaged Component	Cost Involved
Bearing replacement	Yes
Labor to replace bearing	Yes

90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Equipment Failure Cost

Component Replacement Cost
(With Edge Analytics)

Reduces Equipment Cost ⬇

Reduces Labour Cost ⬇

Reduces Production Losses ⬇

Increases Revenue ⬆

Increases Safety ⬆

Increases Efficiency of Employee Time ⬆