



**Best Practices for
Shifting from Reactive to
Proactive Maintenance**

A blue-tinted photograph of an industrial manufacturing environment. In the center, a robotic arm is positioned over a workbench. The background shows various pieces of machinery, including what appears to be a CNC machine, and a grid-like safety fence. The floor is covered with a metal grating. The overall scene is dimly lit, emphasizing the industrial and technical nature of the setting.

Reactive fixes are
3 – 4x more expensive
than preventive maintenance.

Assessing Maintenance Maturity



Reactive vs. Proactive Approach

Reactive Maintenance	<ul style="list-style-type: none">▪ Repair it after it breaks	<ul style="list-style-type: none">▪ High costs▪ Overtime
Preventive Maintenance	<ul style="list-style-type: none">▪ Repair it before it breaks	<ul style="list-style-type: none">▪ Scheduled▪ Coordinated
Predictive Maintenance	<ul style="list-style-type: none">▪ Don't just repair it, improve it▪ Eliminate the root cause	<ul style="list-style-type: none">▪ Extend asset life▪ Reduce labor

Reactive Effects vs. Proactive Effects

Greater Downtime
(Unplanned and Planned)

vs.

Less Downtime

Higher Parts Costs

vs.

Reduced Employee Costs

Increased Costs Due to Reactive Fixes

vs.

Improved Asset Reliability

Growing Employee Costs

vs.

Increased Productivity and Efficiency

Building a Proactive Maintenance Culture



- Assess **Current State**
- Invest in **Training Programs**
- Define **Work Execution Process**
- Track Relevant **Metrics & KPIs**

Assess Current State

- Criticality Ranking
- 5-Why Analysis
- Bad Actor Analysis

Invest in **Training Programs**

- Set Expectations
- Offer Skill Development
- Scheduling Work & Performance

Define **Work Execution Process**

- Engage Workforce
- Communications Alignment
- Action Planning
- Enhance Strategic Focus

Track Relevant **Metrics & KPIs**

- Safety Metrics
- Performance Metrics
- Predictive Maintenance Metrics

Variety of Sensors

To Monitor Your Equipment



VIBRATION



TEMPERATURE



POWER
ALERT



AMPERAGE



HUMIDITY



LUBRICATION
PARTICULATE



FLUID LEVEL



AIR QUALITY



PH ACIDITY /
ALKALINITY



ULTRASOUND



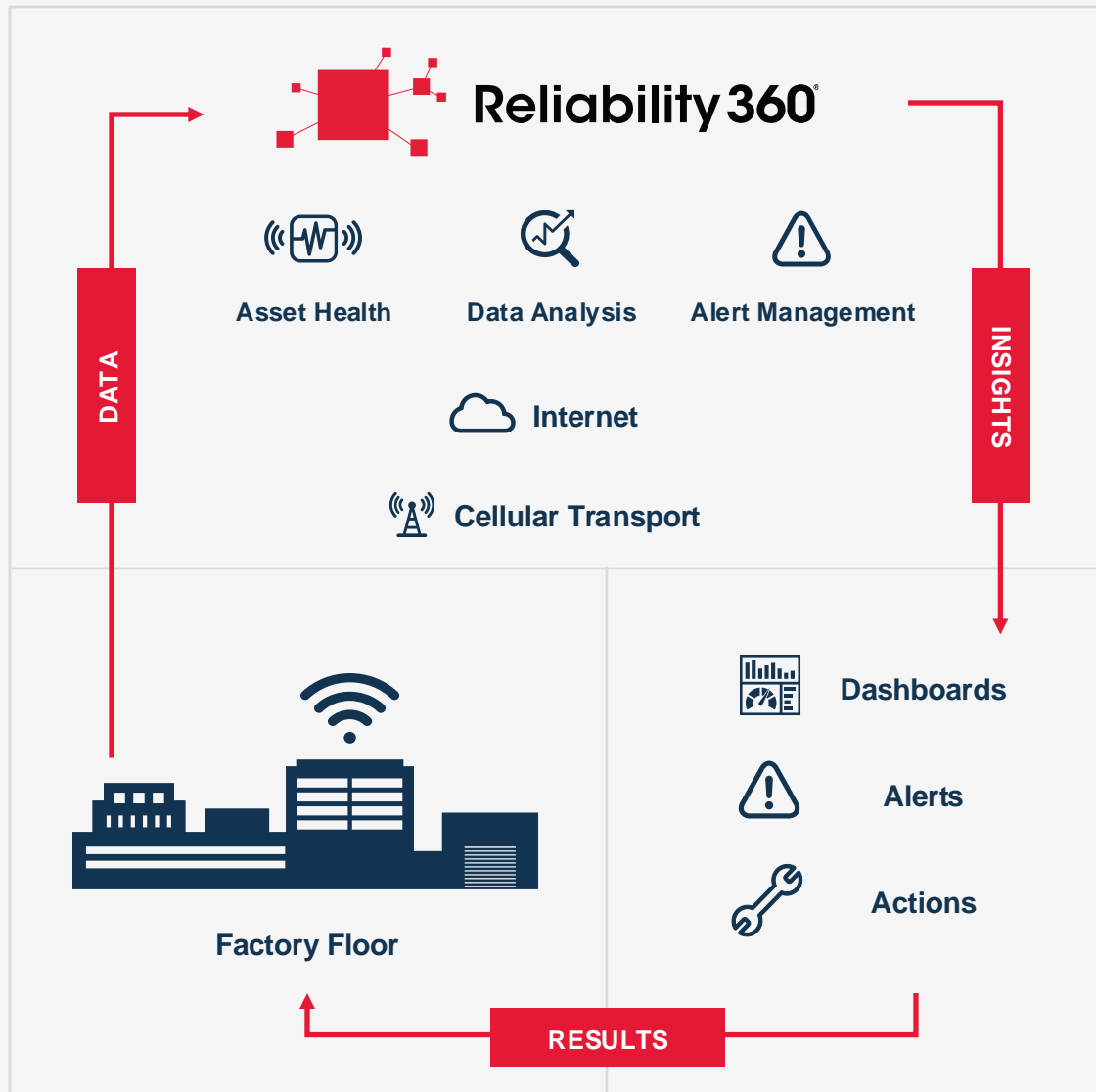
FLOW RATE
(GAS & FLUIDS)



PRESSURE

Machine Health Monitoring

How It Works



Thank You

Q & A

