



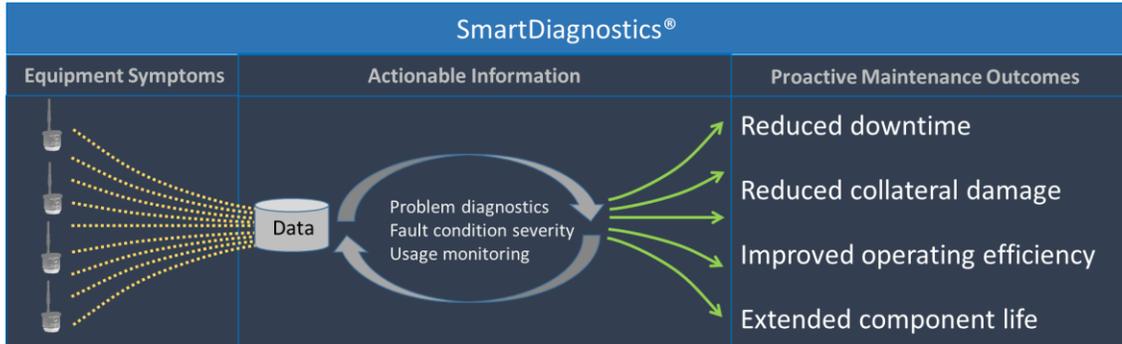
Smart Diagnostics® Application Note **Eliminate Reactive Maintenance**

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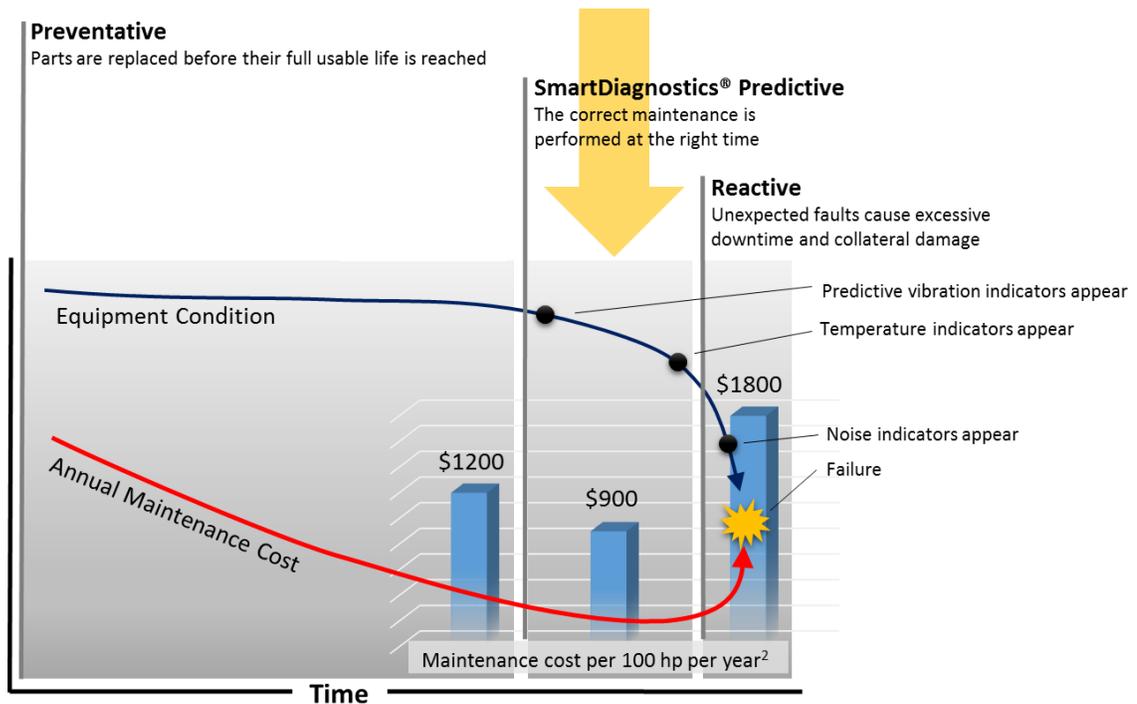
KCF Technologies, Inc.

Introduction

SmartDiagnostics® enables advanced predictive machine maintenance practices that are essential to maximizing profitability in competitive industrial markets. SmartDiagnostics' continuous health monitoring and analysis cuts traditional reactive maintenance cost in half by reducing failure-related collateral damage, increasing uptime, extending component life, and improving operating efficiency.



The US Department of Energy estimates that 55% of industrial maintenance is performed using high cost reactive approaches rather than using predictive or preventative methods.² SmartDiagnostics® not only diminishes reactive maintenance, but it further reduces cost through enabling best operating practices, which avoid problematic conditions such as critical operating speeds. When applied to a typical pump, SmartDiagnostics® predictive offers \$900 of savings per 100 hp annually compared to one maintained using reactive approaches.¹



In a typical application scenario, SmartDiagnostics® is used to identify the onset and track the progression of faults such as imbalance and bearing wear. When SmartDiagnostics® fault indicators approach critical thresholds, specific maintenance is scheduled to prevent failure events and the resulting unscheduled maintenance. With this approach, advanced and accurate fault diagnosis ensures that the correct parts are on hand to perform rapid targeted maintenance.



Give Your Machines **a Voice**



This maintenance method not only reduces direct maintenance cost, but it extends the overall machine life by minimizing the wear and tear that occurs in the lead up to a failure.

SmartDiagnostics[®] provides essential information for determining when 1) when maintenance needs to be performed in advance of terminal equipment faults, and 2) when high wear conditions are occurring that reduce operating efficiency and component life.

1. Sullivan, G. P., *et. al.*, *Operations & Maintenance Best Practices, A Guide to Achieving Operational Efficiency*, US Department of Energy publication, 2002.
2. Piotrowski, J. *Pro-Active Maintenance for Pumps*, PumpZone.com, Archives, 2001.