

Flowserve Integrated Solutions Consultants are specially trained to help customers identify life-cycle cost (LCC) savings opportunities and implement corrective actions to achieve best-in-class performance.

Consulting Services From Leading Pump and System Experts

Consultants can collaborate with customers in various manners depending on need. The primary tools used are assessments, audits and mentoring.

Assessments

Energy Assessments

With typically greater than 50% of a plant's energy usage consumed by pumps, the potential for LLC savings is significant. Experienced Flowserve Consultants are able to identify inefficiencies in pump systems that are robbing the bottom line. Whether requiring a detailed engineering study or a solution from a vast repository of proven technical solutions, energy assessments reveal specific pump or system issues and how to correct them. They also provide budget estimates and return on investment analyses.

Bad Actor Assessments

Typically, bad acting equipment comprises 80% of a plant's maintenance spend. As part of a bad actor assessment, Flowserve Consultants review equipment performance and maintenance records to identify pumps with persistent reliability issues and provide customers with a systematic plan to mitigate unscheduled downtime. All recommendations are supported with an economic justification.

Technical Assessments

In today's competitive environment, plant operators must strive to operate their systems and equipment at peak efficiency. World-class performance demands maximum equipment availability, predictable throughput and stable process quality.

Flowserve Consultants are well versed in the myriad factors that contribute to a system's overall performance and can identify opportunities to improve equipment efficiency or increase output from a process unit by:

- Debottlenecking underperforming systems
- Upgrading equipment to extend maintenance intervals
- Re-rating pumps and related equipment to as new or improved standards



Technical Services

LifeCycle Advantage™

Educational Services

CONSULTING

Technology Advantage™



Audits

Flowserve operational audits yield real savings opportunities. Whether a plant is looking to achieve performance on par with industry standards or elevate performance to world-class levels, a Flowserve audit provides the necessary foundation to achieving the goal.

Using well substantiated resources, including current industry reports and benchmarks, Flowserve Consultants work with plant management teams to document their business and operational processes and compare them to established industry standards. They also rigorously analyze and validate plant data to identify performance gaps and offer customized, cost-effective solutions to address them.

Mentoring

To help bridge the workforce gap in developing markets, Flowserve has implemented an innovative Mentoring Program that provides customers with direct, on-site access to pump experts. By placing a Flowserve Mentor on-site, customers benefit from immediate access to:

- Hands-on coaching for pump-related maintenance activities
- Real-time guidance concerning proper equipment operation
- Training programs to develop required knowledge skill sets within the customer workforce
- Life cycle cost reduction expertise
- A direct conduit to Flowserve subject matter experts across the globe

Flowserve Mentoring programs are quickly becoming the cornerstone of life cycle cost reduction programs for refiners and chemical manufacturers around the world.

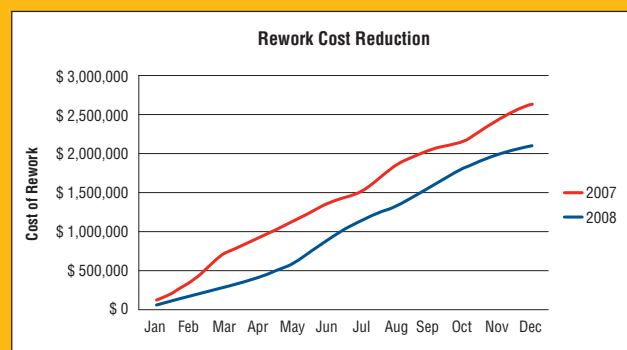
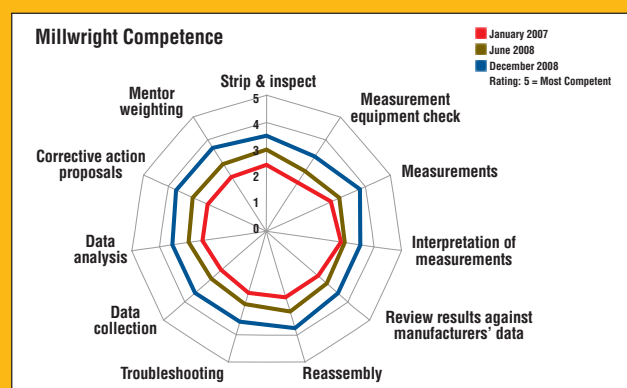
Success Story

Challenge: An ethylene, polyethylene and ethylene glycol plant in Saudi Arabia sought to improve the pump maintenance competency of 15 millwrights.

Solution: Flowserve consultants developed a program which included on-site classroom and on-the-job training about the best practices of pump maintenance.

Result: Subsequent job assessments and rework statistics indicate significant strides were made in one year:

- Millwright competence improved by an average of 40%
- Rework costs fell 20% to 50%, with an average of 28%



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To find your local Flowserve representative:

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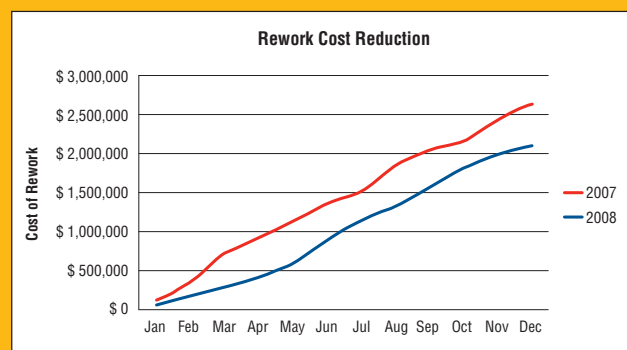
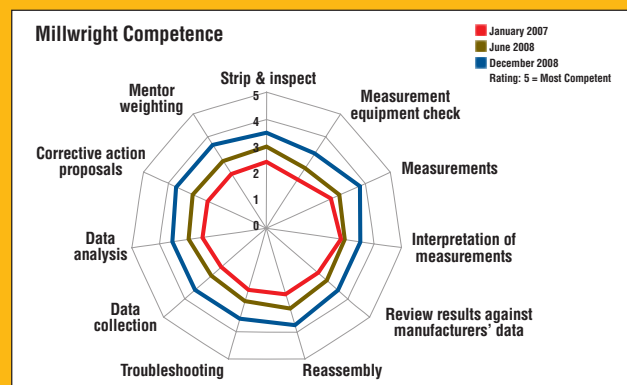
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