

Improve performance and reduce operating costs





ARC Advisory Group estimates the global process industries lose \$20 billion, or 5 percent of annual production, as the result of unscheduled downtime.

– ARC Advisory Group, March 18, 2011



What if you could...

Improve the integrity and reliability of your flow assets to ensure performance and compliance

- Reduce measurement uncertainty and sustain accuracy with regular maintenance and calibration
- Achieve plant balance and minimize losses with reliable and accurate data
- Improve decision making with diagnostic monitoring and reporting

Avoid unexpected incidents and improve regulatory and operational compliance to reduce operating costs

- Reduce emergency service requests and shutdowns
- Benefit from a comprehensive measurement system approach to service
- Manage regulatory documentation

Optimize the management of your assets to best protect your people, plant, and the environment

- Plan for upgrades, turnarounds, and flow system obsolescence
- Increase confidence with experienced installation and startup
- Develop personnel and improve safety with training and education



Performance

Optimizing your plant performance and achieving business goals

Reliability

Improving and preserving your asset reliability and investment

Maintenance

Keeping your plant operating safely, consistently and economically



Whether onshore or subsea, issues with flow measurement devices and systems can quickly interrupt operations. As a critical component to any process, you need to be able to rely on the integrity of your flow assets to maximize output, minimize cost, and manage risk. Emerson understands the challenges and offers services for every application.

Preventative Maintenance

- Scheduled annual site visit ensures your metering equipment is operating per specification
- Identify and rectify product, control loop, communications, or calculation issues
- Field verification of all critical flow devices or systems



Report Management

- Storage of installed base records, maintenance log of all service events, and preventative maintenance in a controlled database
- Revision-level maintenance reporting allows for optimizing the performance of metering equipment and systems

Software Upgrade and Revision Support

- Emerson field device and flow computer software revision management ensure your equipment stay secure and reliable for the life of the device
- Multi-tiered support delivers the appropriate level of software management

Remote Monitoring

- Remotely monitor flow equipment performance and receive recommended actions to alarms
- Allows monitoring of metering points from remote locations, anytime and anywhere
- Real-time health checks and remote assessment for device upgrades to minimize downtime, prevent offsets, and reduce total cost of ownership
- Log and store product benchmark data, quick record comparisons to reduce troubleshooting time and protect against data loss due to operator error, accidental deletion, and component failures

Emergency On-Site Response

- Highly trained technicians quickly return your operation to normal, reduce or eliminate downtime, and avoid potential unplanned outages
- On-site support including general operational support, troubleshooting, and repair
- Tiered emergency response provides either 48-hour or 24-hour emergency on-site response service
- Priority emergency support 24 hours / 7 days a week

Technical Phone Support

- Special 24-hour telephone support number for prompt, expert technical service center support
- Escalation path manages issues through team of dedicated engineering specialists or dispatching a field engineer where appropriate
- Unlimited telephone and email support for existing functions of the equipment
- Standard technical support is available normal business days 7am-6pm
- Priority technical support is available 24 hours / 7 days a week

Calibration and Proving Services

- ISO 17025-certified factory and field-based calibration services
- Metrological lifecycle reporting on all devices



Parts and Labor

- Inventory management focused on management of an optimized spare parts inventory
- Service contracts include parts and labor to minimize costly disruption to your operation
- A network of certified professionals are available to provide expert, priority response and support
- Performance Inventory Reviews improve management of current inventory and obsolescence planning

Source Management (Subsea service agreements only)

- Yearly source radioactive survey and wipe test where records of the results will be maintained for every test



From precision measurement to asset management, Emerson's Flow Solutions reduce risk, increase reliability, and improve operational performance with best-in-class technologies and services.

| SERVICES | Maintenance | Reliability | Performance |
|--|-------------|-------------|-------------|
| 24 Hour Phone Support | ● | | |
| Emergency Response Services | ● | | |
| Repair | ● | | |
| Parts Management | ● | | |
| Preventative Maintenance | | ● | |
| Calibration Services | | ● | |
| Obsolescence Planning | | ● | |
| Flow System Auditing Services | | | ● |
| Operating Procedure and Manual Development | | | ● |
| Report Management | | | ● |
| Remote Monitoring | | | ● |
| Educational Services | | | ● |
| Process Verification and Testing Services | | | ● |

FLOW TECHNOLOGIES

Emerson provides the best fit-for-purpose flow technologies that utilize inherent device data to deliver early insight and enhance the performance of critical process units in the most cost effective manner.

FLOW SYSTEMS

Utilizing proven system design processes, best-in-class measurement and control technologies, and field-proven best practices, Emerson's flow systems enhance operational effectiveness and improve capital efficiency.

FLOW SERVICES

Emerson's flow consulting, commissioning, installation, calibration, maintenance, and education services ensure long-term asset sustainability and performance to effectively help manage operations for the life of the field.

Flow Lifecycle Service support these world-leading Emerson brands:

Daniel Measurement & Control

METCO

Micro Motion

Rosemount

Roxar

**Emerson Process Management
Daniel Measurement & Control**
11100 Brittmoore Park Drive
Houston, TX 77041 USA
T: +1 (713) 467 6000

**Emerson Process Management
METCO**
Emerson House
Kirkhill Drive
Kirkhill Industrial Estate
Dyce
Aberdeen AB21 0EU
T: +44 (0)1224 215700

**Emerson Process Management
Micro Motion**
7070 Winchester Circle
Boulder, CO 80301 USA
T: 1 800 522 6277
T: +1 (303) 527 5200

**Emerson Process Management
Rosemount, Inc.**
8200 Market Boulevard
Chanhassen, MN 55317 USA
T: 1 800 999 9307
T: +1 (952) 906 8888

**Emerson Process Management
Roxar**
6005 Rogerdale Road
Houston, TX 77072 USA
T: +1 (281) 879 2600

www.EmersonProcess.com/Flow

©2014 Emerson Process Management. All rights reserved. The Emerson logo is a trademark and service mark of Emerson Electric Co. DeltaV is a mark of one of the Emerson Process Management family of companies. All other marks are the property of their respective owners.