Measurement and measurement-related operations have been estimated to account for between 3% and 6% of the GDP of industrial countries. The risks and costs of erroneous measurement are in most cases much higher than the cost of calibration.
Ensuring accurate measurement performance – over time – is one of the greatest challenges facing fiscal measurement applications. Because meter performance can be affected by many factors, measurement systems must be regularly verified against a traceable reference to prove compliance to accuracy and repeatability requirements.

Emerson’s Flow Technologies, Systems & Services expertly address critical operations and production processes to help

<table>
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<th>What if you could...</th>
<th>Realize in-the-field improvements...</th>
<th>With Emerson Flow Technologies, Systems and Services...</th>
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</table>
| Utilize the best proving solutions to meet your specific needs | • Maximize proving accuracy  
• Optimize total ownership cost with cost-effective solutions  
• Improve repeatability  
• Minimize initial investment cost | ✓ Wide and complete range of solutions to meet all possible applications and solve different challenges such as:  
• Very high accuracy requirements  
• Limited space available  
• Necessity of high mobility and on time availability  
• Various meter sizes and large volumes to be calibrated  
• Short payback time and low initial investment  
• Extreme conditions, such as LNG |
| Consistently comply to proving standards and regulation requirements | • Ensure an effective and efficient validation process  
• Ensure ongoing compliance to local regulations for proving systems  
• Avoid internal/external audits and reduce adjustments for incorrect measurement | ✓ Engineering, design, and optimization of proving systems  
✓ Proving systems, flow labs, and calibration services following global industry standards and regulations  
✓ Worldwide system and network metrology service and support for all oil and gas applications  
✓ Effective solutions to ensure the ongoing accuracy of your metering system |
| Ensure proving system lifecycle sustainability and reliability | • Optimize maintenance and operations procedures and reduce cost  
• Improve operations insight  
• Guarantee remote accessibility to all data | ✓ Lifecycle services and maintenance programs  
✓ Worldwide metrology service and support  
✓ Industry-leading instrumentation for all operating parameters  
✓ Advanced meter diagnostics for early insight into the health of the system  
✓ Flexible and scalable flow computers, RTU platforms with configurable software applications |
PROVING & CALIBRATION FOR LIQUID HYDROCARBONS

Emerson’s Flow Technologies, Systems & Services Guide

TURNKEY SOLUTIONS

| PIPE PROVERS & COMPACT PROVERS | Bi- and uni-directional ball provers and compact provers provide tailored solutions for every installation need |
| MASTER METERS SYSTEMS | Complete systems for Master Meters solutions |

MASTER METERS

| TURBINE METER | Master metering solutions to cost-effectively improve proving repeatability and operational uncertainty with varying operating conditions |
| MICRO MOTION CORIOLIS METER | |

VALVES & INSTRUMENTATION

| MICRO MOTION DENSITY METERS | High performance measurement for better insight and correction to reference conditions |
| ROSEMOUNT PRESSURE & TEMPERATURE | |
| BACKPRESSURE CONTROL VALVES | Effective back pressure control, in compliance with industry standards, and improved throughput for stable and repeatable proving, and for the efficient and accurate measurement of fluid movements |
| FISHER BACK PRESSURE REGULATORS & CONTROL VALVES | |

CONTROL & DATA MANAGEMENT

| Emerson Control Systems | Efficiently and effectively monitor and manage all processes and measurement data across asset geographical locations |
| REMOTE AUTOMATION SOLUTIONS | RTUs, SCADA Systems |

FLOW LIFECYCLE SERVICES

| FLOW LABS | Accredited and certified flow labs for national and internationally traceable calibration services |
| ENGINEERING | Fiscally optimized system designs and operational processes |
| LIFECYCLE SERVICES | System consultation, design, installation, start-up, training, maintenance, and audit services |
Emerson’s Flow solutions deliver what you need

FLOW TECHNOLOGIES
Using the best fit-for-purpose flow technology, leveraging field-proven best practices, and utilizing device diagnostics and analytics ensures early insight and enhances the performance of critical process units.

FLOW SYSTEMS
Utilizing best-in-class technology, proven system design processes and practices, and global project support enhances measurement system operational effectiveness and capital efficiency.

FLOW SERVICES
Applying consulting, commissioning, and maintenance services assures long-term asset sustainability and fiscal assurance.

CUSTODY TRANSFER IS CRITICAL AT A REFINERY IN INDIA AS FLOW MEASUREMENT ERRORS OF ONLY 0.2% COULD COST THE REFINERY UPWARDS OF $50 MILLION PER YEAR.

A LARGE SOUTH AMERICAN E&P COMPANY UTILIZED EMERSON’S TECHNOLOGY AND SYSTEMS TO PURCHASE A LACT UNIT COMPLETE WITH A COMPACT PROVER, DECREASING INSTALLATION AND MAINTENANCE COSTS.