

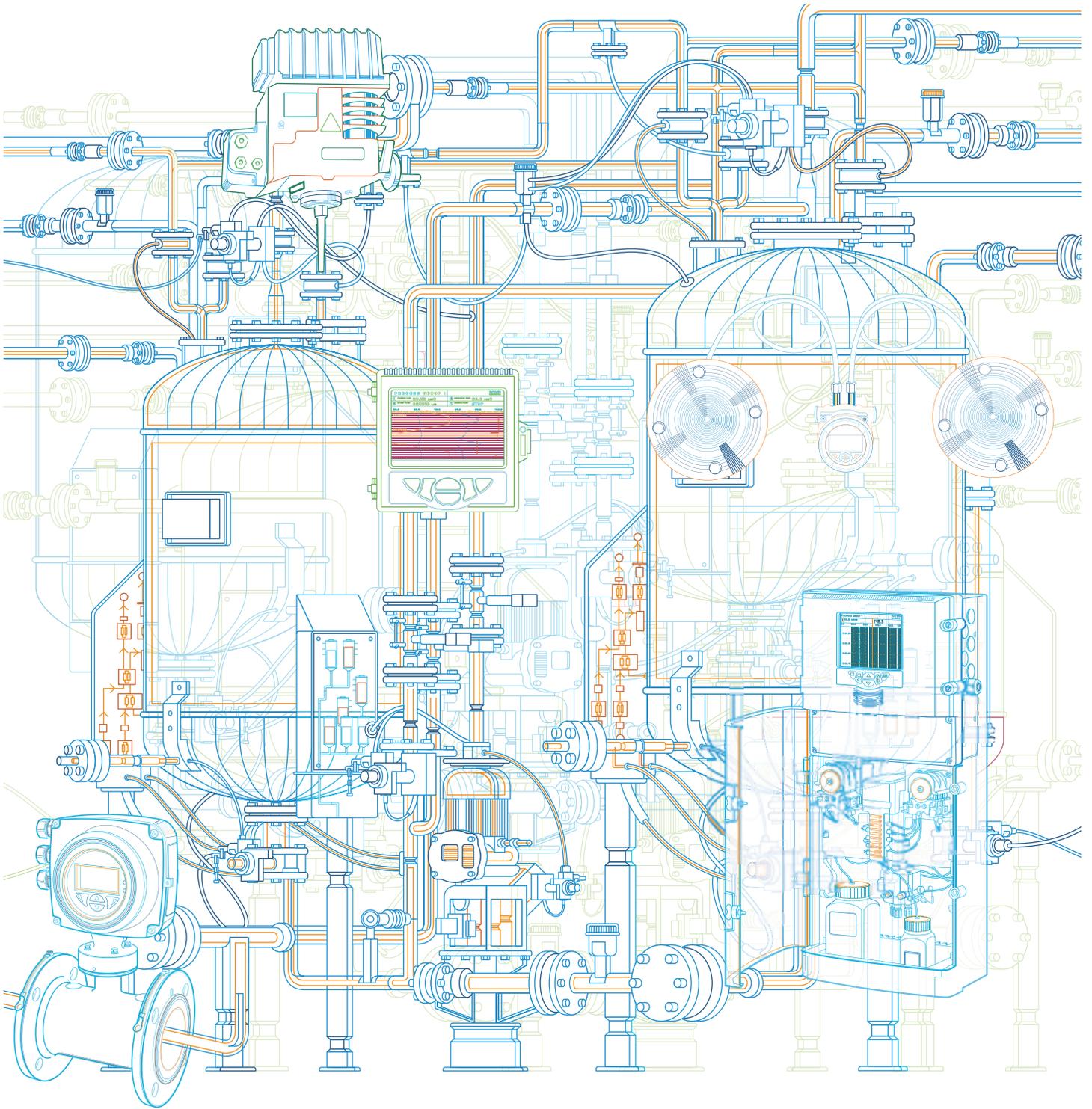


ABB Instrumentation

# Instrumentation calibration services Optimize performance of existing assets

Power and productivity  
for a better world™





## Did you know?

- In 1998 ABB introduced the world's first in situ flowmeter calibration verification solution for magmeters.
- ABB has calibrated over 1 million flowmeters.
- ABB's calibration lab holds 100,000 gallons of water pumped up to 7,000 gallons per minute.
- ABB calibrates flowmeters made by any manufacturer.



# ABB Instrumentation Calibration Services

The greatest value from your capital investments can only be achieved if optimal measurement performance of field devices is maintained.

The six benefits of ABB calibration services are:

- **Process Optimization** – Reduce raw material cost, increase process speed & data accuracy
- **Quality** – Calibration certified and traceable to National Institute of Standards & Technology (NIST)
- **Safety** – Regular calibration, consistent intervals and record keeping help minimize accidents
- **Cost Reduction** – Plug the knowledge gaps, reduce training and maintenance costs
- **Regulatory Compliance** – Independent verification of calibrations, record keeping & calibration to NIST standards
- **Custody Transfer** – Improved accuracy, independent verification of calibration

Choose ABB to service our heritage brands below:

*Taylor*

**TBI**

FISCHER  
& PORTER **F**

**K** Kent

SENSYCON

**Bailey**

**K**-Flow

**Hartmann & Braun**



# On-site electromagnetic flowmeter calibration verification

## Why is on-site calibration important?

It is prudent to carry out periodic tests to ensure that performance has not deviated significantly from specified tolerances. This is especially important for custody transfer or billing applications where significant cost can be avoided or income generated.

## What is available?

ABB has developed a unique in situ verification tool—CalMaster™—to enable these tests to be carried out without having to remove the flowmeter.



## The following service options are available:

- **CheckMaster Flowmeter Validation Service:** In situ checking of a MagMaster or AquaMaster flowmeter during installation/commissioning.
- **CalMaster2 Flowmeter Verification Service:** In situ flowmeter calibration verification of installed MagMaster and AquaMaster flowmeters is lower cost than full removal and wet calibration of flowmeter.
- **Flowmeter Fingerprint Verification Service:** More advanced verification service which enables in situ fingerprint verification to +/- 1% using ABB's unique CalMaster2 IRIS technology.
- **AquaProbe Validation Service:** ABB's AquaProbe is a point velocity electromagnetic flowmeter that is easy to install. This validation service provides reassurance that AquaProbe has been installed correctly.





# On-site calibration

## What can be calibrated on-site?

### Analytical Instrumentation

Analytical instruments are complex devices that require regular maintenance, calibration and supplies to operate effectively. ABB provides full service maintenance and calibration contracts for the following analytical devices from all manufacturers:

- Ph/ORP
- Conductivity
- Dissolved Oxygen
- Hydrazine
- Turbidity
- Sodium
- Fluoride
- Ammonia
- Silica and Phosphate
- Water Hardness
- UV Organics
- In situ Oxygen
- SMA Oxygen and COe
- Hydrogen Purity

### Pressure and Temperature Transmitters

Pressure and temperature transmitters require regular checks to verify the accuracy of the transmitter system. We recommend that calibration be carried out annually to ensure accuracy and availability. ABB provides full service maintenance and calibration contracts for the following pressure and temperature devices from all manufacturers:

- Absolute Pressure
- Gauge Pressure
- Pneumatic Pressure
- Differential Pressure
- Multivariable Transmitters
- Safety-Critical Transmitters
- Field Mounted Temperature Transmitters
- Head Mounted Temperature Transmitters
- Rail Mounted Temperature Transmitters

### Valve Actuators and Positioners

Actuators and positioners often require regular and routine maintenance to ensure peak operating efficiencies are maintained. The actual diagnostics and maintenance needed depends on plant age, on the type of actuator or positioner installed and the experience of plant personnel. ABB provides full service maintenance and calibration contracts for the following actuators and positioners from all manufacturers:

- Linear Actuators
- Pneumatic Actuators
- Part-Turn Actuators
- Electric Actuators
- Intelligent Actuators
- Electro-Pneumatic Positioners
- Pneumatic Positioners
- I/P Converters

### Flowmeters

It is routinely necessary to check the integrity and accuracy of a flowmeter system. Flowmeters vary in complexity and application which often requires extensive training and certification. Whether it's changing pipe conditions or adhering to a regulatory or plant standard, ABB has the skill, and latest tools available to meet your demand. ABB provides full service maintenance and calibration contracts for the following flowmeters from all manufacturers:

- Electromagnetic
- Variable Area
- Differential Pressure (orifice plate, flow tube, venture, wedge)
- Mass (Coriolis and Mass)
- Positive Displacement
- Turbine
- Vortex (including swirl)
- Ultrasonic



# Factory calibration

## The only way to ensure maximum flowmeter performance

ABB is a world leader in instrumentation and your single source for flowmeter calibration services. You are assured high quality results as our flow calibration rig is one of only a few in the US that is NIST traceable in an ISO 9001:2000 facility.

### Why is factory calibration important?

It is important to maintain your instruments and processes at peak performance to ensure efficiency, maximize productivity and meet regulatory approvals. Over time, flowmeter accuracy will degrade affecting performance. The only way to fully re-calibrate a flowmeter to original factory specifications is to send it to a certified calibration lab for re-calibration.

### Why ABB's calibration lab?

ABB's calibration lab is located at its instrumentation factory outside Philadelphia and has been operating for over 50 years. All calibration test equipment is NIST traceable and is operated in accordance with ANSI Z540.

### What types of flowmeter does ABB calibrate?

We calibrate flowmeters from any manufacturer, including our heritage brands such as Fischer & Porter and Kent-Taylor.

Types of flowmeter calibrated include:

- Coriolis Flowmeter
- Mass Flowmeters
- Primary Flow Differential Pressure
- Variable Area Flowmeters
- Electromagnetic Flowmeters
- Thermal Mass Flowmeters
- Vortex and Swirl Flowmeters

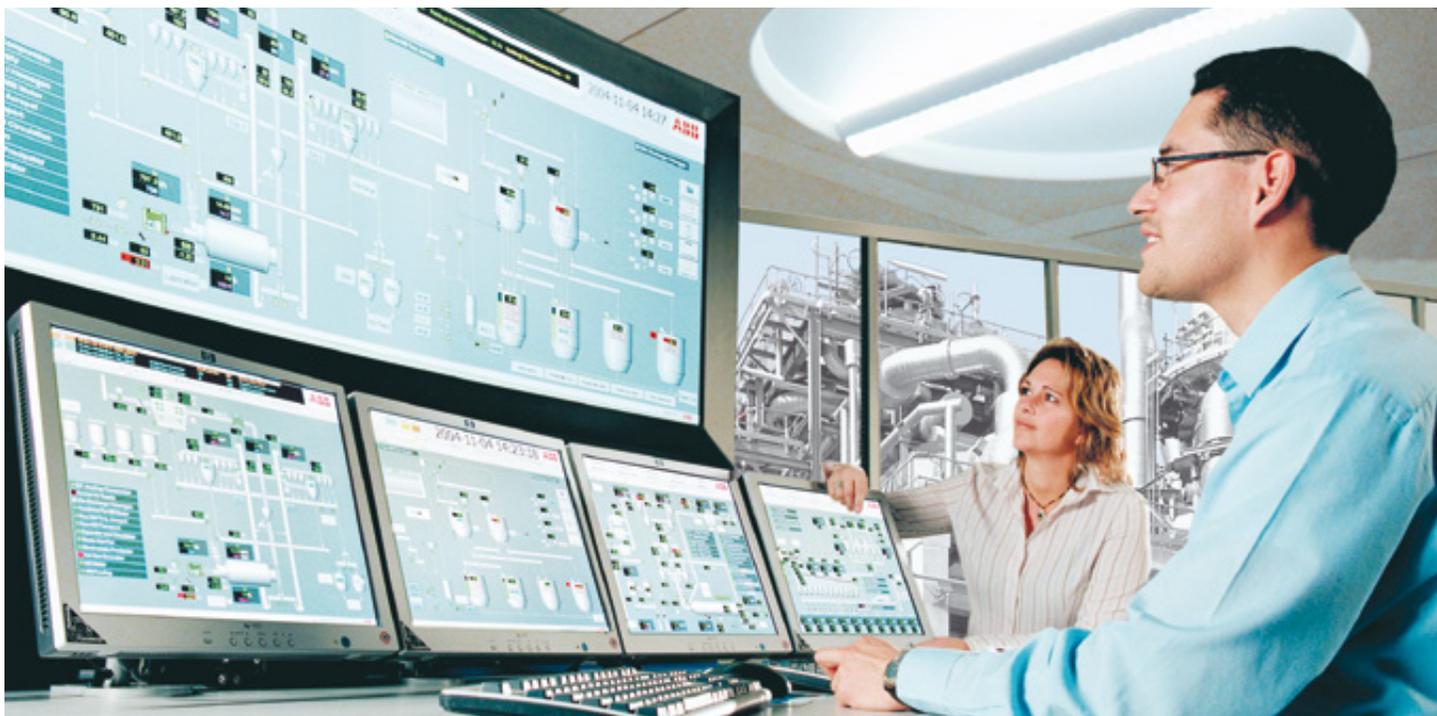
### What else do I need to know?

ABB's calibration lab delivers the highest quality service at a very competitive price. A wide variety of flow criteria can be accommodated including:

- A wide range of sizes: from 1/25" to 24"
- Water and gas calibration
- Complete test reports provided with each calibration

### What else does your factory calibrate?

- We also fully re-calibrate pressure transmitters to original factory specifications to return them to full accuracy. ABB calibrates transmitters from all manufacturers and returns them to original specification.



# Device management and other services

## Scalable Device Management

ABB offers a full-line of device management products and systems designed to work with intelligent devices from any manufacturer to help you calibrate your intelligent field devices, manage and optimize their lifecycle maintenance. Our service team can use these tools to manage the device management program for you or provide training if you decide to invest in these products and systems and operate them yourself.

## Products Offered:

**Mobility Handhelds** - Configuration, calibration and documentation devices.

**Asset Vision Basic** - FDT Frame Application system offering basic configuration, diagnostics and maintenance of intelligent field devices.

**Asset Vision Professional** - Asset optimization and device management application with FDT/DTM capabilities, CMMS connectivity and calibration management.



## Getting started

For further information about our calibration services and device management solutions, contact your local ABB representative.

For help from an ABB customer service representative, call 1-800-435-7365 or 1-800-HELP-365.

# Contact us

## **ABB Inc.**

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To return a flowmeter for calibration  
please contact your local sales  
representative for a "Return  
Authorization Number" (RAN) or  
visit [www.abb.com/instrumentation](http://www.abb.com/instrumentation)

Contact ABB Instrumentation for  
details on other services we offer  
including:

Analytical Services  
Damper Drive Upgrades  
Device Management  
Repair Services  
Start-up & Commissioning

**For service call:  
1-800-HELP-365**

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