



# UK instrumentation service Life cycle support and services

# Service options for instrumentation equipment

For further information on the services contained within this brochure, please call 01480 488080 or e-mail [abb.service@gb.abb.com](mailto:abb.service@gb.abb.com)

As a leading manufacturer of instrumentation for over 100 years ABB understands what customers are looking for from an asset – high performance throughout its life cycle. Building on this experience, ABB offers its customers an extensive range of knowledge-based solutions. ABB provides tailored solutions to meet specific industry applications, standards and customer's unique needs.

To achieve a high level of economic and operational performance ABB provides three levels of service for your instrumentation equipment:

- **InstrumentationAdvantage**
- **InstrumentationActive**
- **InstrumentationActive+**

## InstrumentationAdvantage

- An entry level service package for non-complex instruments
- Support includes start up, validation and spares
- Local service support

## InstrumentationActive

- Provides optional round-the-clock support, backed by a high level of technical expertise typically required in more complex instruments and applications
- Engages the customer with knowledgeable, certified service professionals to deliver the appropriate level of service
- Delivers a highly effective life cycle performance on all current and classic instruments
- Goes beyond routine maintenance to maximise reliability, accuracy and performance of instrumentation equipment

## InstrumentationActive+

- A highly specialised portfolio of complementary services
- Offers customised solutions delivered exclusively by ABB's expert centre
- Full cradle-to-cradle management programme
- Focuses on maintaining and enhancing performance
- Adopts the most effective maintenance and upgrade methodology for the specific application and product



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W Return to workshop option (available for most products)

W Workshop only



## Field start-up

Field start-up is a cost effective option to ensure that your instrumentation is properly installed and ready for use. This service is aimed typically at our entry level products and single instrument applications, where traditional commissioning is unnecessary.

### Primary features

- Start-up and configuration of single instrument applications
- Reinstatement of instruments returned to service following repair
- On-site testing to ensure equipment is functioning correctly

### Key customer benefits

- Quick, low cost and effective option
- Instrument reinstated to process parameters for trouble free start-up
- Assurance and confidence in equipment performance

## Flow meter validation

The overall accuracy of any flow meter system depends upon correct installation and configuration. Failure to ensure this is correct during the initial commissioning can lead to long-term unnecessary costs and operational issues. Therefore, it is very important that the accuracy is validated during the installation



phase. ABB offers an in-situ validation service covering its MagMaster and AquaMaster product families.

### Primary features

- Start-up and configuration of single instrument applications
- Reinstatement of instruments returned to service following repair
- On-site testing to ensure equipment is functioning correctly

### Key customer benefits

- Reduced operational and economic risk from poor installations
- Accuracy of validation through use of certified test equipment without disrupting the process
- Certification to prove the validation and support regulatory requirements

## AquaProbe validation

An AquaProbe is an economic alternative to full bore flow meters. It can be hot-tapped into place without interrupting flow.

To validate whether a probe is working correctly ABB offers an on-site validation service.

### Primary features

- Validation of instrument performance by certified engineers at initial installation or during instrument relocation
- Validation of instrument performance using ABB's non-intrusive, CheckMaster test equipment
- Visual inspection of installation plus validation report

### Key customer benefits

- Reduced operational and economic risk from poor installations
- Accuracy of validation through use of certified test equipment without disrupting the process
- Certification to prove the validation and support regulatory requirements







## Telephone support

This remote service provides backup to your own technical personnel dealing with complex issues associated with the application and performance of an instrument. This time based subscription service is aimed at adding real value by extending your knowledge base. This can negate the higher cost of on-site call out and intervention.

### Primary features

- Easy access to ABB's expert technical support
- Coordination and escalation of additional support needs i.e. spare parts
- Response and availability matched to need

### Key customer benefits

- Extends your knowledge to minimise time-to-resolution
- Assurance of backup to effect repair in a timely manner
- Fits with operational and economic requirements

## 24/7 support

This service is designed for emergency support requirements where an instrument failure may result in loss of production, reduced quality or unsafe operations.



### Primary features

- Immediate support for problems
- Coordination of service and spare part needs
- Accessibility and response options available for business needs

### Key customer benefits

- Guaranteed response with appropriate service to minimise risk of impaired quality, regulatory non-compliance and exposure to hazardous conditions
- Availability of appropriate resource and parts to result in a rapid solution
- Cost matched to business needs

## Installation & commissioning support

If the equipment is incorrectly installed or commissioned, no amount of maintenance will achieve the desired performance. ABB's installation and commissioning service ensures your instrument will meet the designed specifications within its defined application.

### Primary features

- Installation and commissioning performed by certified engineers
- Instruments installed and commissioned to achieve application specific duty
- Set up, testing and recording of parameters to meet application specification and to support future maintenance and validation

### Key customer benefits

- Assurance of long term reliability and performance
- Well managed installation and commissioning programmes for new equipment, simplifies management and budgeting
- Correct application of settings for optimum life cycle performance





## Planned preventative maintenance W

ABB's planned preventative maintenance programme is aimed at achieving an effective life cycle performance in terms of longevity, quality, reliability and cost of ownership.

### Primary features

- Ensures the correct maintenance for the instrument and its application
- Identification and provision of the correct consumables, part replacements and reagents
- Certified engineers to help maintain the validity and compliance of instrument functions

### Key customer benefits

- Maximises performance by reducing failure and loss of quality
- Maintains the instrument quality through its life cycle, avoiding potentially expensive failures
- Ensures regulatory compliance

## Performance verification W

In order to trust the results, you need to have confidence in the performance of your instruments. This service verifies the performance of your equipment against the original

manufactured specification either on site or at ABB service facilities for bench testing.

### Primary features

- Certified engineers verify the instrument's performance against original specification
- Advice on maintenance methodology based on environmental factors and other application issues
- Full function testing of the instrument under normal conditions

### Key customer benefits

- Quality assurance of equipment performance
- Avoidance of expensive and unscheduled repairs
- Proof that instrument works correctly and accurately against process dynamics

## Repair service W

This service is designed to offer a fast and effective repair service either on site or back at ABB's repair workshop as appropriate. The service is offered on classic and current products backed up by our nationwide repairs and logistics operation. Response options can be customised to suit your operational requirements.

### Primary features

- Nationwide offering of on site or workshop repair or replacement
- Customised offering across all product life cycle stages
- Repair in certified centres

### Key customer benefits

- Minimised downtime
- Choice of most appropriate repair option
- Quality assurance and guarantee





## Calibration and certification W

ABB provides a calibration and certification service performed on-site or back in its calibration centre. To ensure equipment delivers the best possible accuracy and repeatability in everyday use, ABB only uses certified and fully traceable test equipment.

### Primary features

- Provision of UKAS traceable calibration results/certificates
- Scheduled or on demand calibration services available
- Certified engineers, certified centres and certified test equipment

### Key customer benefits

- Compliance with quality assurance and industry regulatory standards
- Maintaining equipment performance with a simple management and budgeting process
- Professional assurance of continued accuracy and repeatability



## Flow meter verification W

Flow meters should be checked periodically to ensure they are giving accurate readings and remain compliant with regulatory standards. However, taking them off line to verify performance is expensive and time consuming. To avoid this, ABB offers a more cost effective on-site verification service.

### Primary features

- Specialist checks of installed/operational flow meters using latest technology, CalMaster2 IRIS Units
- Verification Certificate
- Optional History Management Programme including benchmarking and historic trending of verifications

### Key customer benefits

- Enables verification of units in their current, installed location with no disruption to flow or need to excavate
- Maintain regulatory conditions and integrity supported by documentary evidence of verification
- Historical trending to identify deviations and early diagnosis of potential problems





## Hardware and software upgrades W

With the shortened cycle time of today's products, it can be expensive to change equipment every time a new version comes on the market. In order to access new features without necessarily replacing full products, ABB offers a technical evolution path to upgrade existing products.

### Primary features

- Alteration or replacement of hardware and/or software as required
- Certified engineers working in adherence to design specification guidelines for equipment upgrades
- Approved ABB upgrade paths

### Key customer benefits

- Enhances equipment functionality, operation and life cycle
- Quality assurance of equipment performance
- Security of design

## Furnace and oven surveys

Increasing regulation in a growing number of industries has extended the need for regular in-situ testing of furnaces and ovens. The survey provides independent reassurance that the oven is working within specification and is fulfilling your

quality assurance requirements, and also helps to identify any specific problems such as temperature gradients and oven failure, etc.

### Primary features

- Detailed temperature survey report
- Test equipment calibration traceable to UKAS Accredited Laboratory
- Certified engineers, certified centres and certified test equipment

### Key customer benefits

- Provides reassurance that furnace/oven is performing to specification and certified
- Demonstrates compliance with quality assurance and industry regulatory standards
- Maintains equipment performance with a simple management and budgeting process

## Service exchange W

ABB's exchange programme offers an expedient and flexible service for the supply of replacement units or parts.

### Primary features

- Replacement of customer's returned instrument with new or fully functional refurbished unit
- Supply of ABB approved parts
- Inspection and recording of the parameters and programming of replacement as required

### Key customer benefits

- Choice and flexibility
- Quality assurance and adherence to original design specification
- Maximised up-time and continuous operation through rapid replacement of instrument







## Life cycle audit

A life cycle audit highlights the condition of your equipment, its revision status and necessary maintenance needs for its operating environment. This helps formulate the best maintenance programme and identifies the appropriate migration points.

### Primary features

- Site survey of installed instrumentation equipment
- Evaluation of life cycle status and product condition
- Comprehensive inventory and life cycle report including recommendations

### Key customer benefits

- Provides knowledge of the equipment condition and revision status to aid maintenance planning and costing
- Helps set out a life cycle management plan to prolong equipment life and avoid premature failure
- Assists customer with life cycle planning including budgeting

## Life cycle management

When the exact condition of your equipment is known, ABB offers a life cycle management service to provide effective maintenance, migration and obsolescence planning rolled into one easy to manage programme.



### Primary features

- Implements recommendations from life cycle audits
- Coordination and implementation of integrated support functions
- Extends operating life

### Key customer benefits

- Enhanced condition and reliability
- Correct resources and parts available to implement upgrades
- Lower cost of ownership and minimal disruption

## Flow meter fingerprint verification

The flow meters are capable of outstanding accuracy, which is backed by UKAS accredited calibration rigs and a factory 'fingerprint' during manufacture. Factory fingerprinting gives a point of reference for all subsequent on-site verification tests but is not always specified by customers at time of purchasing. In order to obtain improved verification accuracy, ABB offers an in-situ verification fingerprint service for flow meters that have not been fingerprinted during manufacture.

### Primary features

- Specialist fingerprint of installed flow meters using ABB's CalMaster2 IRIS in-situ verification tool
- Verification certificate (+/- 1%)

### Key customer benefits

- Increases verification accuracy
- Quality assurance and regulatory compliance





## CalMaster recertification [W](#)

ABB's CalMaster in-situ verification device enables 1% verification of installed, fingerprinted operational flow meters. In order to retain the unit's certification it is a necessary requirement to recertify the device annually. To support this requirement, ABB has introduced a managed return to base service where CalMaster systems are fully function tested, calibrated and updated with the latest operating software.

### Primary features

- Annual recertification of CalMaster (including cables)
- Firmware/software updates to the latest specification
- One year's access to free technical support and assistance and extended warranty of CalMaster (unit only)

### Key customer benefits

- Maintains unit certification
- Maintains unit to latest software version and features
- Product support and access to technical experts



## AquaProbe recalibration [W](#)

This service provides recalibration of AquaProbes at ABB's calibration centre using calibration flow test rigs (both UKAS accredited and traceable) to test performance against instrument specification.

### Primary features

- Full function test and recalibration of flow meter to design specification
- Inspection and repair (where appropriate)
- Supply of calibration certificate

### Key customer benefits

- Ensures regulatory compliance and process integrity
- Returns a maintained and fully operational instrument
- Quality assurance of equipment performance

# InstrumentationAdvantage, InstrumentationActive and InstrumentationActive+



## Analytical services

Our range of analytical services applies to the Advantage, Active and Active+ service levels. Analytical instrumentation is widely used in the power, water and many other industries and performs a key role in the efficient operation of an industrial plant. The complexity of product design has increased significantly in recent years, leading to superior performance and functionality and reduced time schedules for maintenance, etc.

However, these technology improvements have not totally removed the need for regular maintenance and careful consideration should still be given to the most effective way of ensuring optimum analyser performance through regular maintenance.

In support of this statement, ABB has introduced a range of scalable and complementary services designed for the specific operational applications of ABB, Aztec and third party analytical instruments.

This range of services can be tailored to meet both economic and operational needs and realises a variety of value added benefits:

- Maximises uptime and continuous operation
- Maintains quality assurance and regulatory standards
- Options to suit your budget and technical needs
- Simple coordination and management
- Protects equipment lifecycle

Although the exact scope is customisable, typical Analytical services are outlined below:

## Start Up Services

### InstrumentationAdvantage

#### Advantage StartUp

Basic start up service aimed at the fundamental actions required to bring the analyser into operation. Includes initial parameterisation and configuration, power up and operational testing.

### InstrumentationActive

#### Active StartUp

Start up service aimed at the fundamental actions required to bring the analyser into operation plus additional start up consumables supply and installation

## Maintenance and Support Services

### InstrumentationActive

#### Active Care

For peace of mind and to ensure backup is available when you need it, this service offers telephone technical support, scheduled inspection visits and periodic diagnostic remote checks (subject to analyser type and availability of dial-up connection). Optional assistance in managing reagent use (either planned order schedules or on demand orders) and software management to ensure any software updates are made available and installed where appropriate are also available.

### InstrumentationActive+

#### Active+ Total Care

Where you may need help across all aspects of support for your product including supply, installation, commissioning and maintenance etc., ABB offers an all-inclusive package that meets your specific needs. Typically this may include managing the logistics of consumable spares and reagents, regular inspection, periodic fault diagnosis and automatic software updates. Guaranteed response times to problems and inclusive spare part options add value to this service option.

#### Expert Commissioning

Professional commissioning ensures that you get the best out of your investment, protecting reliability and reducing downtime risk. Delivered by certified service engineers, ABB's expert commissioning service opens up a number of other preferential options, extended warranty and discounts on the support packages listed above.



# InstrumentationAdvantage, InstrumentationActive and InstrumentationActive+



## Temperature services

ABB has over 125 years of experience in temperature measurement spanning everything from medical refrigeration (e.g. cold stores, blood fridges, FFP freezers) and pharmaceutical production through to heat treatment for industrial and aerospace processes. This experience enables the company to offer high levels of expertise in the calibration and thermal mapping of temperature chain equipment at hospitals and pharmaceutical wholesalers and distributors throughout the UK.

- Furnace and oven surveys: The survey provides independent reassurance that the furnaces and ovens are working within specification and are fulfilling customers' quality assurance requirements. The survey also helps identify specific problems such as temperature gradients, oven failure etc. Temperature uniformity surveys (TUS) and system accuracy testing (SAT) can be performed to any specification requirements including AMS 2750.
- Cold chain mapping: This service carries out the mapping and calibration of refrigerated storage equipment (blood fridges in hospitals amongst others) in line with the guidelines of the UK MHRA (Medicines and Healthcare products Regulatory Agency). Under MHRA requirements, all cold chain storage equipment must be tested for its ability to provide stable refrigeration within a set temperature range depending on the type of sample being stored. This service ensures that a site's refrigerated equipment is properly tested to MHRA guidelines and will provide a comprehensive post survey that can be used as proof of testing during an MHRA inspection.

### Primary features

- Calibration of temperature monitoring and logging equipment in line with industry guidelines/recommendations
- Validation and temperature mapping of plant or asset along with any associated ancillary systems
- Fully traceable and detailed survey reports

- Remote monitoring solutions and asset audits
- Ambient/environmental solutions
- Use of fully competent and certified engineers

### Key customer benefits

- Pass guarantee - ABB pledges that any work undertaken will satisfy an auditors requirements
- If any non-conformance on ABB's services occur, ABB will address them at no cost to the customer
- Full traceability of all calibration equipment is detailed on the report giving measurement confidence and full completion of the audit trail
- Unparalleled experience from one of the world's leading temperature measurement and recording equipment manufacturers
- Provides reliable solution for monitoring equipment and reduces time burden on staff.

## Environmental services

ABB offers a variety of services which assist with meeting the guidelines set out by the UK environmental agencies. For example, as part of ABB's range of service offerings, it assists with achieving MCERTS (Environment Agency's Monitoring Certification Scheme) or SEPA (Scottish Environmental Protection Agency) permit compliance for effluent flow monitoring systems.

### Primary features

- Flow metering services for MCERTS effluent discharge flow monitoring
- Flow meter verification and analytical instrument maintenance for SEPA compliance

### Key customer benefits

- Expert guidance and maintenance support on environmental regulatory compliance
- Automatic service interval reminders to ensure compliance to a quality management system
- Meter verification using a variety of techniques ensures the use of best available techniques (BAT).

# InstrumentationAdvantage, InstrumentationActive and InstrumentationActive+

## Customised and Total Care packages

ABB can customise its services to create a tailor made solution that provides part or total care of your equipment. One or more services can be combined to suit your specific needs, giving cost-effective delivery of a range of important benefits, coordinated under one simple contract.

To discuss options available please call 01480 488080 to arrange a visit to discuss your exact needs.



## Typical service contract options:

<b>Basic service options:</b>		<b>Validation and verification options:</b>	
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■ 24/7 support	page 5	■ AquaProbe validation	page 4
■ Installation and commissioning support	page 5	■ Performance verification	page 6
<b>Repair options:</b>		■ Flowmeter verification	page 7
■ On site and workshop repairs	page 6	■ Calibration and certification	page 7
■ Service exchange	page 8	■ Flowmeter fingerprint verification	page 9
■ Analytical services	page 11	■ CalMaster recertification	page 10
<b>Maintenance options:</b>		■ AquaProbe recalibration	page 10
■ Telephone support	page 5	<b>Temperature services:</b>	
■ Planned preventative maintenance	page 6	■ Oven and furnace surveys	page 12
■ Furnace and oven surveys	page 8	■ Cold chain mapping	page 12
■ Life cycle audit	page 9	<b>Environmental services:</b>	
■ Life cycle management	page 9	■ MCERTS/SEPA	page 12
<b>Upgrade options:</b>			
■ Hardware and software upgrades	page 8		

# InstrumentationAdvantage, InstrumentationActive and InstrumentationActive+



## Get the right service from our national Instrumentation Repair and Calibration Workshops.

For more information regarding our return to base services please call 01453 853372

## A heritage to be proud of

ABB's ability to satisfy its customers' instrumentation needs has never been greater, being built upon the leading names and brands in the automation world:

Bailey, Bush Beach Engineering, Fischer & Porter, Hartmann & Braun, Kent, Schoppe & Faeser, Sensycon, Taylor, TBI-Bailey.



Hartmann & Braun



Schoppe & Faeser

Kent

Taylor

TBI-Bailey



# InstrumentationAdvantage, InstrumentationActive and InstrumentationActive+

ABB has three instrumentation workshops located within our factories and dedicated to return to base calibration and repair services. A wide range of products, from analysers through to flow meters, temperature probes and data recorders are supported from these centres - see table below.

**Workshop Repairs or Calibration by product.**  
**Call 01480 488080 for the workshop you require**

<b>Actuators (All types)</b>	<b>Liquid Analysers</b>
<b>Controllers</b>	(All types) including:
Commander Range	pH, Conductivity, Dissolved
(C50,100,250 etc)	Oxygen, Turbidity, Sodium, Ammonia,
Digitric, Protronic,	Nitrate, Chloride, Silica, Phosphate.
53MC..., ECA...	4500,4600, AX Series.
<b>Electrodes (All Types)</b>	6775, 803*, 82*, AV400, 9435, 6775
<b>Flowmeters</b>	<b>Positioners</b>
MagMaster 1-600mm	TZID, TZIM
MagMaster >600mm	<b>Pressure Transmitters</b>
AquaMaster (All)	(All types)
AquaProbe	264/364/600T, H&B, Bailey, AS etc
XM/XE/XL/SM/ES/CD2 etc	<b>Recorders</b>
10D...Primaries	(Roll/Fanfold Chart, Circular Chart)
F&P and 3rd Party Meters	Commander Range (SR/MR/PR100,
Sensyflow (VT / P)	250 1900 etc).
Triowirl / Triomass / Trumass	Videographic (SM*)
Turbine Meters	Videographic Recorders SM500F,
Variable Area (VA)	SM1000, 2000 & 3000
Simulators (ABB)	Mini/Line/Arucomp,
Simulators (F&P)	Line/Pointmaster
CalMaster	Signal Converters (I-P)
<b>Gas Analysers</b>	<b>Temperature Probes</b>
Zirconia (ZMT, ZDT, ZFG2,	RTD, Thermocouple, Thermowells
EXFG, ZGP2, EXGP, AZ100)	<b>Temperature Transmitters</b>
Katharometer / Purge Gas (AK100, 65**)	(All types)

# Contact us

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