



Calibration solutions
for improving
efficiency and quality.

beamex
WORLD-CLASS CALIBRATION SOLUTIONS™



Beamex® Integrated Calibration Solution

The most integrated, automated calibration system available.

The Beamex® Integrated Calibration Solution improves the quality and efficiency of the entire calibration system through faster, smarter and more accurate management of all calibration assets and procedures. Beamex calibrators, workstations, calibration software and professional services form the most integrated, automated calibration system available.



Beamex® Integrated Calibration Solution

Improve efficiency and quality with the most integrated, automated calibration system available.

Software-based calibration management

- Create, manage and store calibration data efficiently
- Automate calibration work from start to finish
- Share database with other plants worldwide
- Integration into MMS (e.g. SAP®, Maximo®)
- Paperless calibration data management
- Regulatory compliance (e.g. ISO 17025, ISO 9001, FDA)
- Seamless communication with documenting calibrators
- Manual entry, Pocket PC interface and weighing instrument calibration

Accurate and efficient calibration

- High accuracy portable calibrators and workstations
- Replace several individual devices and cut recalibration costs with Beamex® multifunctional calibrators
- Automated calibrations, documenting capability and automatic error calculations
- Reliable and robust calibrators, Ex-version available
- Seamless communication with calibration software
- Support for many different instruments and protocols, such as HART®, Profibus and Foundation Fieldbus

CORPORATE-LEVEL

CALIBRATION
MANAGEMENT

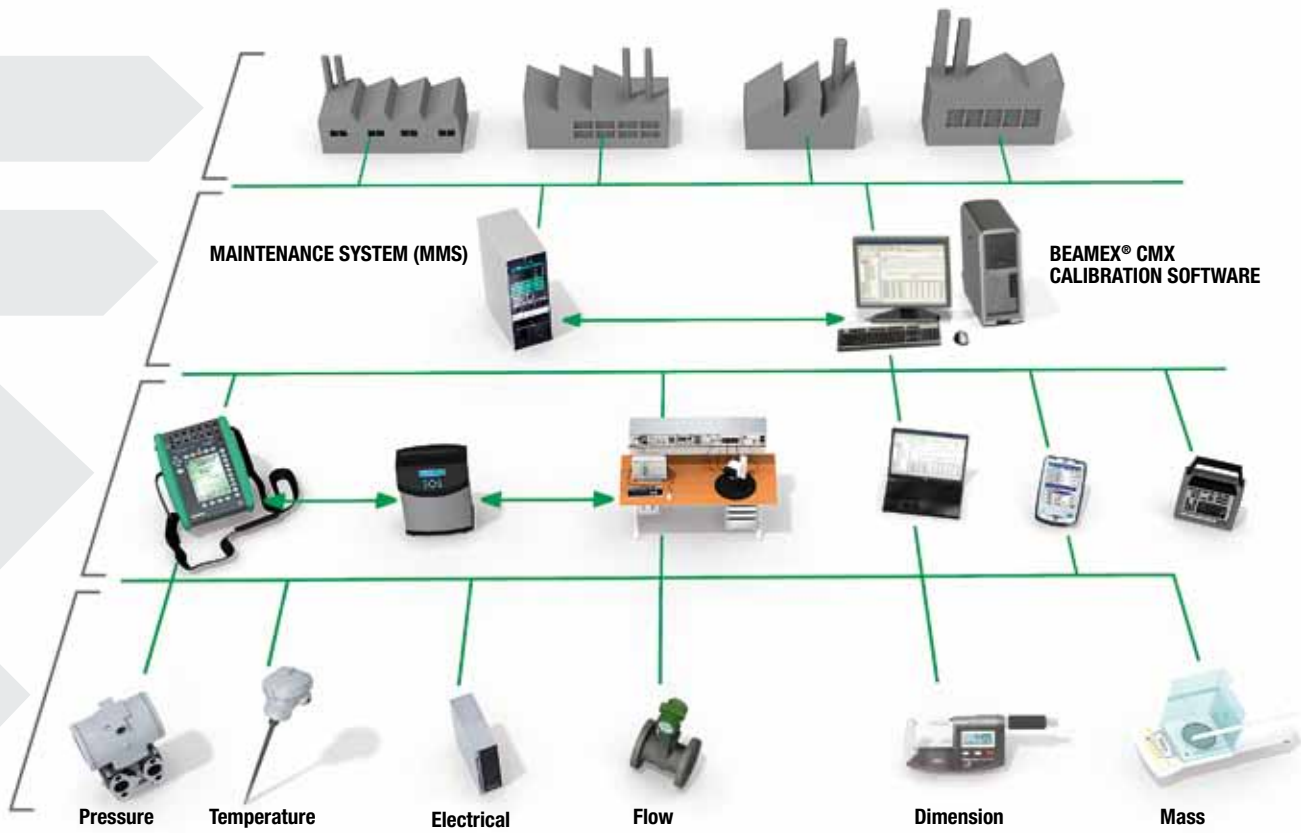
CALIBRATION AND DOCUMENTING TOOLS

- Beamex® MCS Calibrator
- Temperature bath / Pressure controller
- Beamex® MCS100 Workstation
- Manual entry in Beamex® CMX
- Pocket PC interface for Beamex® CMX
- 3rd party calibrator support

INSTRUMENTS:

- Conventional
- HART
- Profibus PA
- Foundation Fieldbus H1







Improve efficiency. Save costs. Improve quality.

The Beamex® Integrated Calibration Solution is unique compared to any other calibration system by having seamless communication between calibrators and calibration software, integration possibility into a maintenance management system (MMS), multifunctional calibrators that can perform automated calibrations fast and efficiently as well as calibration software that allows smart analysis and management of all calibration data.

Improve efficiency

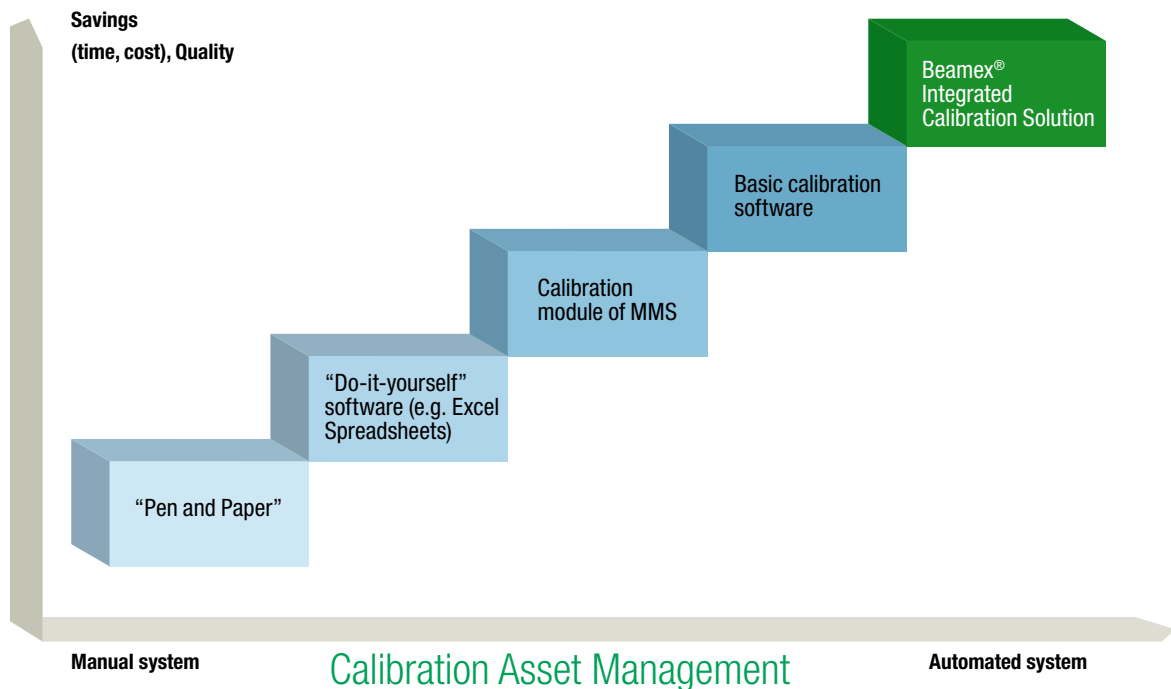
- Beamex® calibrators and calibration software are fast and easy to use
- Simplify and automate calibration work from start to finish
- Cut production down-time

Save costs

- Analyze whether you need to increase or decrease calibration frequency
- Replace paper with electronic records, share database with plants worldwide
- Cut recalibration costs with Beamex® multifunctional calibrators

Improve quality

- Regulatory compliance (e.g. ISO 17025, ISO 9001, cGMP, 21 CFR Part 11)
- Create, manage and store calibration data safely and efficiently
- Minimize human errors related to documentation of calibration data



Beamex® Multifunction Calibrators and Calibration Software work together to streamline and improve quality of the entire calibration process.

BEAMEX® CALIBRATION PROCESS, STEP-BY-STEP

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1.

The Beamex® CMX alerts what needs to be calibrated and when.

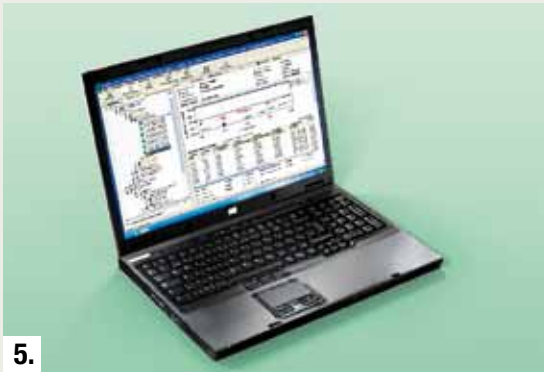
- Easy, fast and efficient
- No need to search archived paper files



2.

Download calibration procedures and instructions from the Beamex® CMX Calibration Software to Beamex® Multifunction Calibrators.

- Fast procedure
- No pen, paper or notepads needed



5.

Create, store and manage calibration information safely and efficiently with the CMX.

- All calibration data is stored and managed in the CMX database
- Print calibration certificates, reports and labels in electronic format, on paper or both
- All documentation and procedures in the CMX are in auditable and traceable format (e.g. ISO17025, cGMP, 21 CFR Part 11)



6.

Integration to a maintenance management system (MMS).

- Plant hierarchy and work orders are stored in MMS (e.g. SAP®, Maximo®) and from there transferred to the CMX, which stores all calibration procedures, standards and results
- When calibration work has been performed, the CMX sends acknowledgement of the calibration back to MMS.



3.

Perform instrument calibration and data collection with all-in-one calibrators.

- Beamex® Calibrator replaces many individual measurement devices and calibrators
- Automated calibration is fast
- Calibrator performs automatically error calculations
- Calibrator informs if the calibration is PASSED or FAILED
- All calibration are results stored in the memory of the calibrator



4.

Upload calibration results to the Beamex® CMX Calibration Software.

- Download automatically calibration results back to calibration software
- Data transfer is fast and efficient
- Writing mistakes are eliminated





What the customers say

- **98%** will probably recommend Beamex to a colleague.
- **94%** of calibration software customers say that using Beamex products has improved efficiency.
- **4 out of 5** say that using Beamex products has resulted in cost-savings.
- **9 out of 10** say that using Beamex products has improved the quality of their calibration system.



“Before purchasing Beamex® CMX Light Calibration Software we would have to record calibration results on paper first, and then in a document on our network. Using CMX Light to directly download the results to a computer, enables us to save time (and money) by eliminating double recording of calibration results.”

PETER VANDENBERG, SENIOR TECHNICAL OFFICER INSTRUMENTATION & CONTROLS, AGL TORRENS ISLAND PTY LTD, AUSTRALIA

“According to suppliers of maintenance systems, we introduced the most effective, automated and validated calibration process known in the pharmaceutical industry.”

ANDERS ÅNLIND, CALIBRATION MANAGER AT ASTRAZENECA SWEDEN OPERATIONS, SWEDEN

“I have been using our new Beamex® MC2 Calibrator for about 4 months now and don't really want to use my other calibrators any more!”

KEVIN GUY, GKN AEROSPACE SERVICES, UK

“Beamex equipment was chosen because the Beamex® MC5 Multifunction Calibrator offered the most options as far as module ranges, devices that could be calibrated and put into the database, HART® communications, and database functionality.”

JEFF CASON, SENIOR INSTRUMENTS AND CONTROLS TECHNICIAN, GEORGIA POWER'S PLANT YATES, USA



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Key customer segments

Beamex serves the calibration needs of various different industries.

- Power & Energy
- Oil, Gas & Petrochemical
- Pharmaceutical
- Chemical
- Pulp & Paper
- Food & Beverage
- Service
- Metal & Mining

Industry leaders choose Beamex

From the world's best racing teams to Fortune 500 corporations, industry leaders calibrate with Beamex.

- Companies that need to improve both efficiency and quality of their calibration system
- Companies that have high standards and demands for calibration equipment
- Companies that must meet industry-specific calibration requirements

PETROCHEMICAL & CHEMICAL Croda Chemicals Europe Ltd., UK

Major efficiency improvements with a total calibration solution.

Croda International Ltd is a supplier of speciality chemicals to a wide range of market areas. Originally, the instrument calibration procedures at the Rawcliffe Bridge site were developed to meet both business needs and compliance with industry standards, archiving hard copy certificates within box files for each manufacturing area. Beamex was approached to introduce their products and

how they may be used to aid the annual calibration tasks at the site. The focus was to improve the calibration methods at the site and improve efficiency in the management of documentation.

Main benefits:

- Calibration software that provides a good level of security, industry-accepted certificate formats and an adaptable database.
- Ability to reduce significantly the time taken to complete a set list of tasks and file the paperwork. The average savings of time per technician is 4 weeks in man-hours / year.

Beamex solution:

- Beamex® MC5-IS Intrinsically Safe Multifunction Calibrator
- Beamex® CMX Calibration Software
- Beamex® PGV and Beamex® PGM Calibration Pumps

POWER & ENERGY Georgia Power, Plant Yates, USA

Increasing plant performance through calibration.

Southern Company, the parent firm of Georgia Power, is one of the largest producers of electricity in the United States. The plant has seven generating units, with a total capacity of 1,250 megawatts. When Yates was completed in 1952, it was the largest steam generating plant in Georgia. Over the years, Plant Yates has been maintained to increase reliability, sustain efficiency and keep its operations

compatible with increasingly strict environmental standards. Calibration of process instruments is considered essential at Plant Yates. Proper calibration ensures the best possible plant performance, increases efficiency, and reduces risk of problems.

Main benefits:

- High-accuracy calibration equipment.
- Ability to reduce the amount of equipment and paperwork that has to be taken out in the field.
- Easy upload of calibrations to a PC and easy-to-read calibration certificates.
- Proper calibration ensures the best

possible plant performance, increases efficiency, and reduces risk of problems.

Beamex solution:

- Beamex® MC5 Multifunction Calibrator
- Beamex® Calibration Software
- Beamex® PG-Series Calibration Pumps

PHARMACEUTICAL AstraZeneca Sweden Operations, Sweden

Introducing an automated and validated calibration system.

The starting situation was challenging and the company had many demanding requirements for the new calibration system. First of all, a calibration system should save money for the company by reducing the time it takes to perform calibration and the time production lines are shut down due to calibration. Multiple calibration processes existed due to 12 different databases and

4 to 5 different workflows. The amount of calibrations was extensive. AstraZeneca Sweden Operations made more than 21,000 calibration certificates in total on a yearly basis. They needed to reduce the time from start to finish. There was also a need for a tool that would highlight adverse trends in calibration. Likewise, if the item delivers good performance, it is justified to reduce the calibration frequency. Finally, the system should provide quick and easy access to data.

Main benefits:

- Calibration process now more efficient and cost-effective.

- Ability to automatically produce fully auditable and traceable calibration certificates.
- 21 CFR Part 11 compliant calibration system with full Audit Trail.
- Short investment payback time on the project.

Beamex solution:

- Beamex® MC5 Multifunction Calibrator
- Beamex® CMX Calibration Software



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Ex II IC T4
(Tamb = 50°C)
VTT 02 ATEX 002 X
Ex II IC T4
(Tamb = 50°C)
VTT No. Ex 02.011 X

U: 30 V
I: 210 mA
P: 1 W

22.5.2002 3:32 PM
DATA LOGGING
1 0.1 Gauge mbar
2 1007.0 Abs mbar
3 -0.02 Gauge mbar
4 0.084 mbar
5 20.96 K NiCr/RAI °C
6 21.42 Pt100 α385 °C
Count
← Back Start Logging MENU

beames
MULTI-GAS ANALYZER CALIBRATOR **MC5-1S**

Beamex® MC5 Multifunction Calibrator



Absolute accuracy.

- High accuracy all-in-one calibrator
- Replaces several individual devices
- Calibration capabilities for pressure, temperature, electrical and frequency signals
- Reliable and robust calibrator with a long lifetime
- Documenting - communicates with calibration software



Beamex® MC5-IS Intrinsically Safe Calibrator



Made for extreme environments.

- High accuracy all-in-one calibrator
- Designed for use in potentially explosive environments
- Calibration capabilities for pressure, temperature, electrical and frequency signals
- Certified in accordance with the ATEX directive and IECEx scheme
- Documenting - communicates with calibration software



Beamex® MC4

Documenting Process Calibrator

Document as you go.

- Automated and documented calibrations can be made quickly and easily
- Calibration capabilities for pressure, temperature, electrical and frequency signals
- Compact size and design
- Documenting – communicates with Beamex calibration software



Beamex® MC2-IS

Intrinsically Safe Multifunction Calibrator

Practical tool for calibration in hazardous environments.

- ATEX-certified Intrinsically Safe Multifunction Process Calibrator
- Connects to almost 20 available Beamex intrinsically safe external pressure modules
- Compact size and design
- User-friendly



WORKSTATIONS

Beamex® MCS100 Workstation

The calibration workshop solution.

- A workstation is ideal when most maintenance and calibration tasks are performed in the workshop
- Modular design allows configuration based on user-specific requirements
- Many different types of applications
- Safe, ergonomic and versatile workstation



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ACCESSORIES

Beamex® PG-Series

Pressure and vacuum sources for field use.

The PG-series includes hand-held, lightweight pressure and vacuum sources for field use. The PG-series of hand pumps are ideal pressure/vacuum generators to be used as accessories for pressure and vacuum calibration.



Beamex® External Pressure Modules (EXT)

Increases your configuration possibilities

- Possibility to calibrate even more pressure ranges with just one calibrator
- Pressure ranges from vacuum to 1000 bar / 14 500 psi



Professional Services

Re-calibration and Service

Beamex offers service and re-calibrations through its Accredited Calibration Laboratory.

Installation and training

Beamex provides worldwide services for installation and training.

Spare part services

Beamex provides spare parts for its calibrators.

Software Service Agreement (SSA)

Software Service Agreement (SSA) provides valuable benefits for Beamex® CMX customers, such as free upgrades and Help Desk services.

Validation services

Support for pharmaceutical companies in the implementation of Beamex® CMX Calibration Software.

Integration services

Available for integrating Beamex® CMX into a maintenance management system.

Database conversions

Available for converting your previous calibration database(s) to modern and efficient Beamex® CMX calibration management database.



Why is Beamex better

Accuracy assured

Accuracy is assured when you decide to purchase a Beamex® calibrator. They are all delivered with a traceable, accredited calibration certificate.

Integrated calibration solutions

Beamex calibrators, workstations, calibration software and professional services form an integrated, automated system.

Industry pioneer with global presence

A forerunner in developing high-quality calibration equipment and software, with global customer base and partner network.

High customer satisfaction

Constantly improving understanding of customer needs and developing solutions to meet them.

Support

Installation, training, validation, system integration, database conversion, Help Desk and re-calibration services available.



About Beamex

- One of the world's leading providers of calibration solutions.
- Develops and manufactures high-quality calibration equipment, software, systems and services for the calibration and maintenance of process instruments.
- Certified in accordance with the ISO 9001:2000 quality standard.
- Comprehensive product range includes portable calibrators, workstations, calibration software, accessories, professional services and industry-specific solutions.
- Products and services available in more than 60 countries. More than 10,000 companies worldwide utilize Beamex's calibration solutions.
- Customers from wide range of industries, such as automotive, aviation, contractor engineering, education, food and beverage, manufacturing, marine, metal and mining, nuclear, oil and gas, petrochemical and chemical, pharmaceutical, power and energy, and pulp and paper.
- For customers with requirements for accuracy, versatility, efficiency, ease-of-use and reliability.



PORTABLE CALIBRATORS



WORKSTATIONS



PROFESSIONAL SERVICES



CALIBRATION SOFTWARE



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WORLD-CLASS CALIBRATION SOLUTIONS™

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