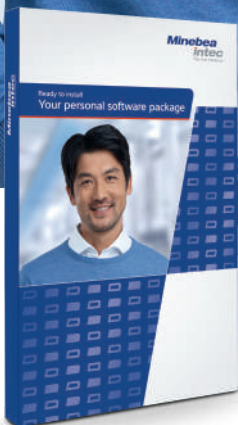


Software SPC@Enterprise

Statistical process and pre-packaging checking

Upgrade to 4.0 –
expanded equipment
connection, improved
performance



Safe, legally compliant and easy to use: SPC@Enterprise combines statistical process control and pre-packaging checking in one innovative tool. The software efficiently supports the optimisation of production processes and enables seamless, documented control of filling quantities. SPC@Enterprise thus makes an important contribution to increasing efficiency and maintaining consistent product quality.

The true measure

Minebea Intec is a leading manufacturer of industrial weighing and inspection technologies. Our mission is to increase the reliability, safety and efficiency of our customers' production processes. To do this, we provide high-quality products, solutions and services that ensure a high level of safety.

Minebea Intec's excellent performance is based on 150 years of experience, our distinct German Quality and continuous investments in the development of innovative technologies. Our strong global presence and an extensive network of distribution partners ensure that our customers can rely on top Minebea Intec quality – any time, anywhere. Our goal is to set strong standards in all areas of our company, which is reflected in our brand slogan, 'the true measure'.

By purchasing Minebea Intec products, every day, customers all over the world are choosing more than just innovative technologies: they are also choosing top-quality service performance and comprehensive support throughout the entire life cycle of their product. Our aim is to fulfil our customers' requirements no matter what the industry, and to be the first port of call for weighing and inspection technologies. In short: the best expert you could have!

Products and solutions from Minebea Intec are firmly established in many sectors





The MinebeaMitsumi group

The MinebeaMitsumi group is a global precision electromechanical components manufacturer, providing products for various industries. Minebea was founded in 1951 in Japan, Mitsumi in 1954. The company currently employs around 80,000 people and has more than 120 production sites and sales and service locations around the world. For many products, the MinebeaMitsumi group is No. 1 in terms of its global market share.

- Minebea Intec Sales - Service
- Minebea Intec Production - Sales - Service
- Distribution Partners (size refers to amount of Partners)
 - up to 5
 - up to 20
 - above 20

Everything in one innovative solution: Pre-packaging checking plus statistical process control

Microsoft Partner

SPC@Enterprise was developed using Microsoft tools and therefore conforms to the standard for the production and office software used.

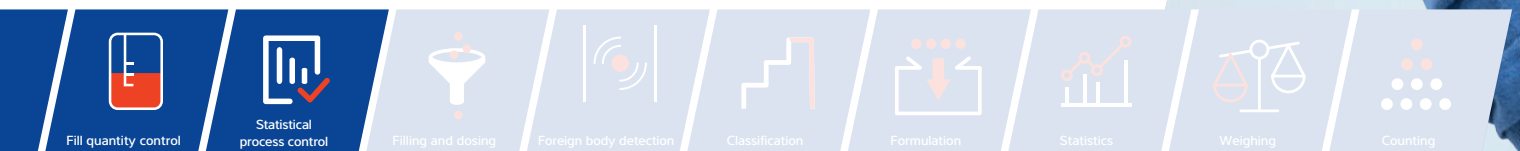
Minebea Intec offers a comprehensive portfolio of weighing and inspection technologies for a wide range of industries. This includes innovative software solutions that support customers to comply with and document compliance with legal provisions. In addition, our solutions increase process reliability and open up optimisation potentials in relation to efficiency and product quality. With SPC@Enterprise, our customers can rely on our decades of experience in the areas of weighing and inspection – and also on the innovative capacity of a leading global technology manufacturer.

One of the most efficient tools for quality control and production optimisation

The continuous recording of all relevant parameters in the production process not only ensures conformity with legal regulations, it is also a crucial basis for identifying weak points. SPC@Enterprise (SPC = Statistical Process Control) thus lays the foundations for the ongoing improvement of production processes. SPC@Enterprise benefits users in a variety of ways:

- **Less production rejections**
SPC@Enterprise helps prevent packages/products from being overfilled.
- **Fewer risks**
Safe and legally compliant: with SPC@Enterprise, the monitoring of critical CPs is carried out as per the requirements of HACCP and in compliance with IFS, BRC and other standards. The consistent quality achieved prevents product recalls.
- **Optimised work processes**
Customised inspection routines, simplified communication and automatic notifications save time and therefore also money.
- **Fewer operational costs and less downtime**
SPC@Enterprise helps to identify deviations quickly and reliably, thus increasing efficiency in production.
- **Avoiding redundancies**
Thanks to the centralised data management, master data is stored centrally and can therefore be accessed by all equipment.
- **Straightforward integration**
The modular design of SPC@Enterprise and the server-client structure ensures straightforward installation in system environments and a high level of data security in MS SQL databases. It is also possible to communicate with superordinate systems (ERP, MES, LIMS, OEE, etc.).
- **Up-to-date information – any time, any where**
The system can be configured to send email notifications of alarms to a freely selectable mailing list, this increasing the transparency of the production status.
- **Flexible and universal connection**
With the FlexConnector, a wide range of equipment from other providers can be integrated into the software.
- **Short amortisation period**
The optimisation of processes and the prevention of over filling shortens the return on investment.

Always the right solution for each of these applications:



Why Minebea Intec?

Minebea Intec is a byword for quality and cutting-edge technology. Our innovative German Quality solutions have proved themselves all over the world, handling the very toughest of conditions and the strictest of requirements. We offer on-site support and services throughout the entire life cycle of our products. This means our customers always have the best possible solution for their requirements.



German Quality



„SPC@Enterprise offers me a 360° overview of my production and packaging process so that I can intervene quickly if there are any deviations.“

Would you like to know more about statistical process control? You can download our **white paper** here!



No compromises when it comes to efficiency in pre-packaging checking

All over the world, packaged goods regulations govern the checking of packaged food at the producer's premises. The aim here is to demonstrate and document a defined, consistent level of product quality. Without standardised digital inspection processes, it is often difficult to carry out regular checks on filling quantities. Using the software SPC@Enterprise, inspections can be carried out easily and as part of defined checking routines: standardised, needs-based and documented.

Based on samples, the software SPC@Enterprise provides information on:

- All previously detected measurement results
- The process performance
- Compliance with standards

The user therefore benefits from optimal transparency in the production process and can react quickly to any deviations.



Bench and floor scale CombiCS® with software SPC@Enterprise





Bench scale Signum® with touchscreen-optimised PC data acquisition from SPC@Enterprise

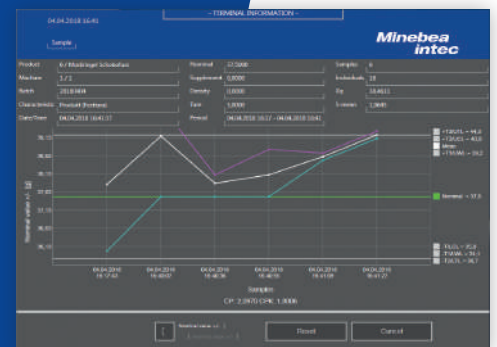


For more detailed information, please visit our website or contact spcenterprise@minebea-intec.com

SPC@Enterprise pre-packaging checking with a static scale

For pre-packaging checking with static checkweighers, samples are weighed manually. The measurement data is assessed in SPC@Enterprise, then documented and stored in the MS SQL database.

- Operating processes adapted according to individual requirements
- Customised display of inspection plans and inspection orders as per the respective requirements
- Workflows for inspection routines with SPC@Enterprise
- Simplified operation through display of product images



After samples are weighed, graphical evaluations are displayed to the operator, giving an overview of the production status



Scan the QR code and see how filling quantity control is simplified using SPC@Enterprise and a static scale – includes documentation for government authorities.

Overview of the features of the software SPC@Enterprise

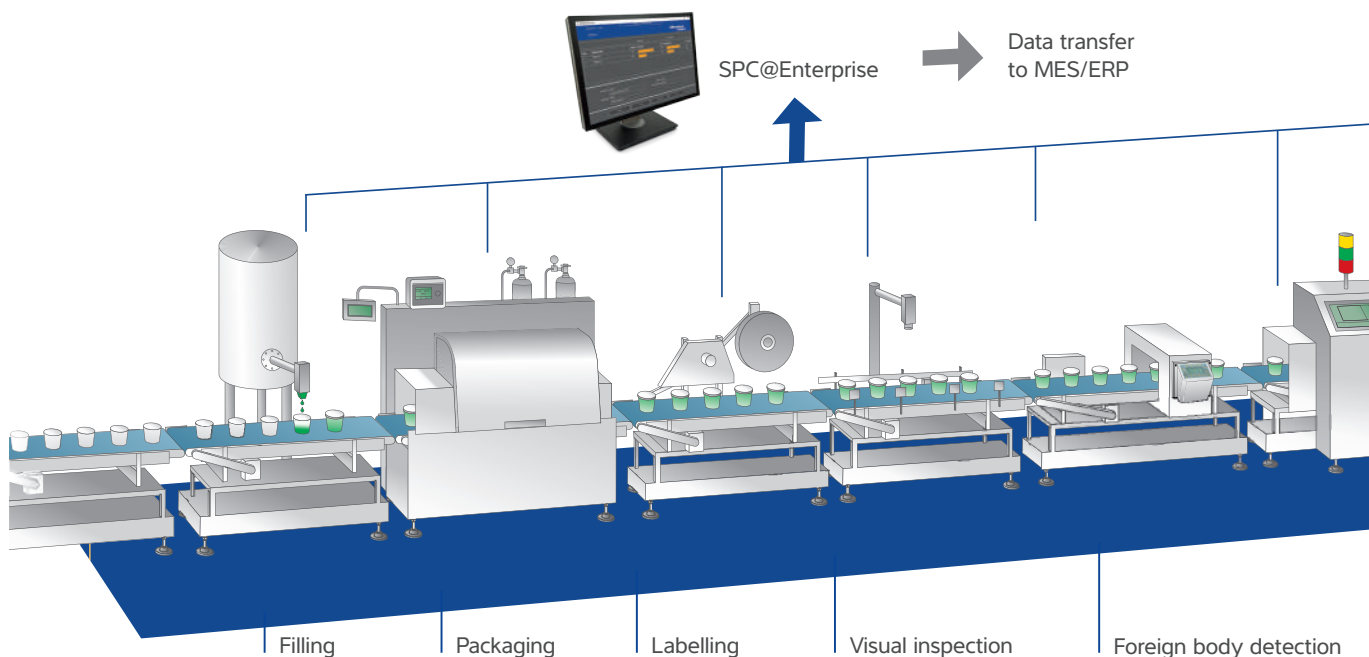
SPC@Enterprise offers the user a wide variety of benefits for pre-packaging checking and statistical process control.

Pre-packaging checking

- Logging of all kinds of critical process parameters
- Net content monitoring: average weight/minimum filling quantity
- Inspection of solids and liquids
- Tare modes: fixed (average) tare, variable tare, destructive tare determination
- Test weighing for setting up batches without official logging
- Definition of standards: tolerances are edited and enhanced to take into account new requirements
- Multiple filling head control
- Freely selectable statistics periods and further filter criteria for individual analyses
- A wide range of data can be processed, printed or exported (PDF, Excel, Word)



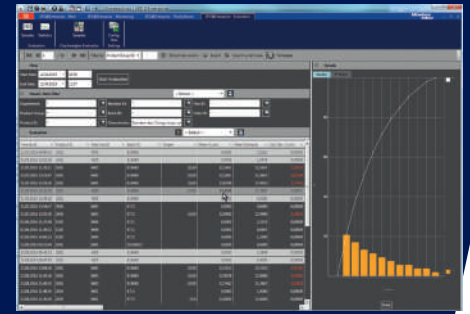
Simple pre-packaging checking in one view



Attributive tests

Attributive tests enable the monitoring of important quality criteria. The evaluation of these packaging and environmental criteria is essential to the quality of a product. Examples of attributes include:

- Upside-down labels
- Incorrect packaging
- Barcode not readable

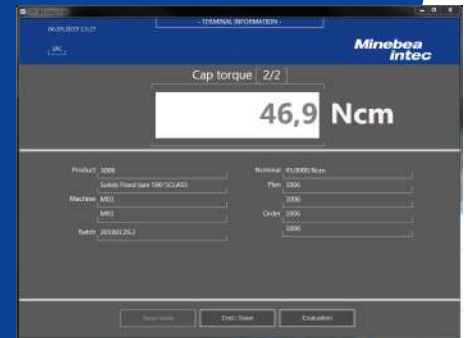


Attributive test results can be produced quickly

Statistical process control

Statistical process control records and monitors quality samples with the aim of optimising processes and keeping them within certain limits.

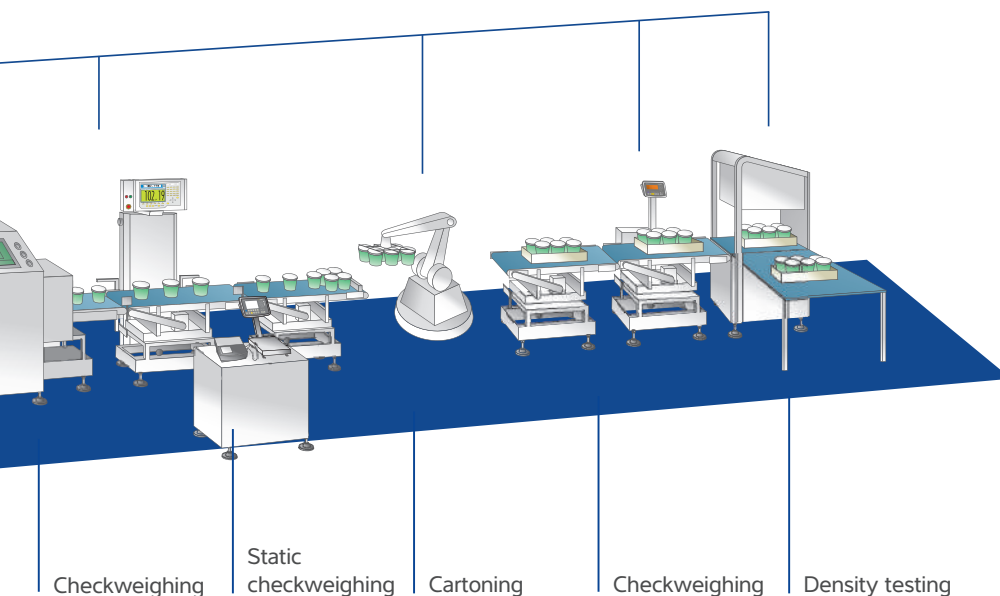
- Process optimisation via statistical process control with freely definable attributes and checks
- Flexible integration of different measurement systems with freely definable areas, resolutions and units
- Data integration via flexible interfaces to HOST systems (MES/ERP systems)
- Configuration of freely definable attributes and checks



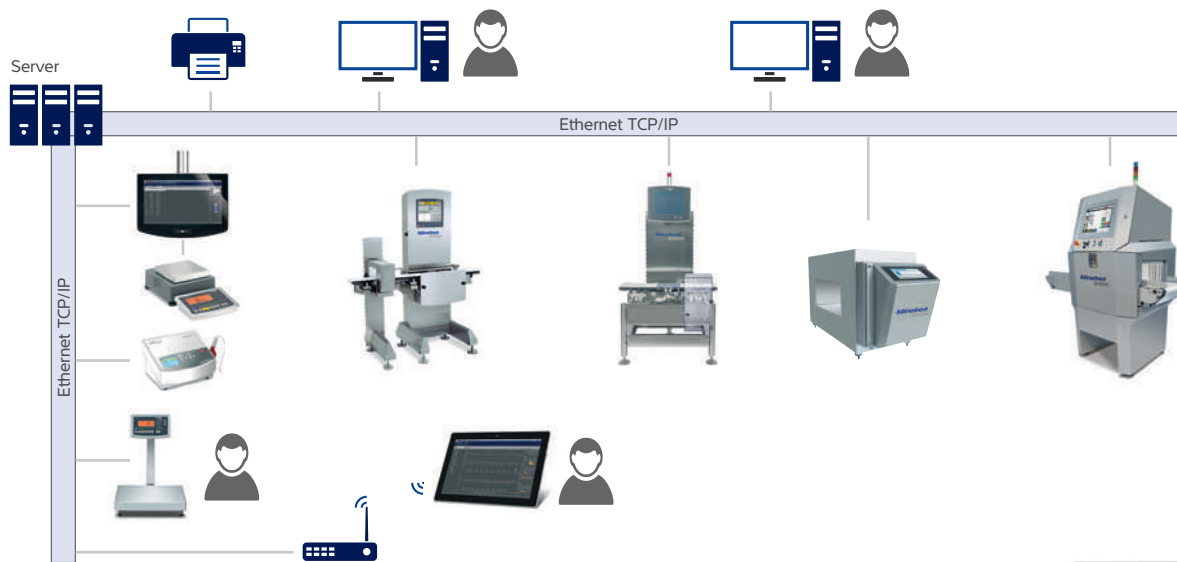
PC data acquisition supports the user in SPC tests

Validatable software

- SPC@Enterprise was developed in line with pharmaceutical industry regulations (FDA, GAMP)
- Complete audit trail covering all software activities
- IQ/OQ services for software qualification available on request
- Validation handbook supports conduct of performance qualification



Measurement systems and interfaces for SPC@Enterprise



All measurement systems can be directly networked via TCP/IP for communication with SPC@Enterprise

Bench and floor scale Combics® 3

- Reliable, precise weighing and filling head-related logging of samples
- Easy recording of attributive tests
- Transmission of all data and statistics to SPC@Enterprise
- Calculation and update of sample tare values
- Density updated via manual entry
- Dynamic adjustment recommendation and statistical summary after every sample



Bench and floor scale Combics®

SPC@Enterprise is supported by the bench and floor scale Combics® 3 with Ethernet interface and option H6

Bench scale Signum® with SPC@Enterprise PC data acquisition

In conjunction with PC data acquisition, data can be logged in an intuitive, extremely user-friendly and virtually error-free manner.

- Reliable, high-precision weighing of samples
- Simple, intuitive operation
- PC-based logging of values for assessments subject to calibration regulations as part of pre-packaging checking
- Logging of data using bar code reader and product image display on the PC



Bench scale Signum®

All high-resolution bench scales Signum® support SPC@Enterprise

Checkweigher

Direct TCP/IP networking with bidirectional communication for full control of the production line

- Straightforward transmission of product data and test data to the device
- Easy logging and evaluation of sample data in SPC@Enterprise
- Central equipment status list provides information about the status of the checkweigher in SPC@Enterprise
- Supports the equipment functions for Packaged Goods Regulation and classification with 3 and 5 classes, as well as adjustable specification of goods classes
- Transmission of equipment status, error notifications and events for central monitoring system in SPC@Enterprise



Scan the QR code and see how filling quantity control is simplified using SPC@Enterprise and a checkweigher – includes documentation for government authorities.



Checkweigher Flexus®

All current Minebea Intec checkweighers, metal detectors and X-ray inspection systems are supported by SPC@Enterprise.

Metal detector Vistus®

Direct TCP/IP networking with bidirectional communication:

- Transmission of product data and test data to the equipment
- Transmission of metal detections and equipment tests with test specimens to the database
- Transmission of equipment status, error notifications and events for central monitoring system in SPC@Enterprise



Metal detector Vistus®

X-ray inspection systems

Unidirectional connection via TCP/IP:

- Interval logging of foreign body detections
- Documentation of equipment tests with test specimens



X-ray inspection system Dymond

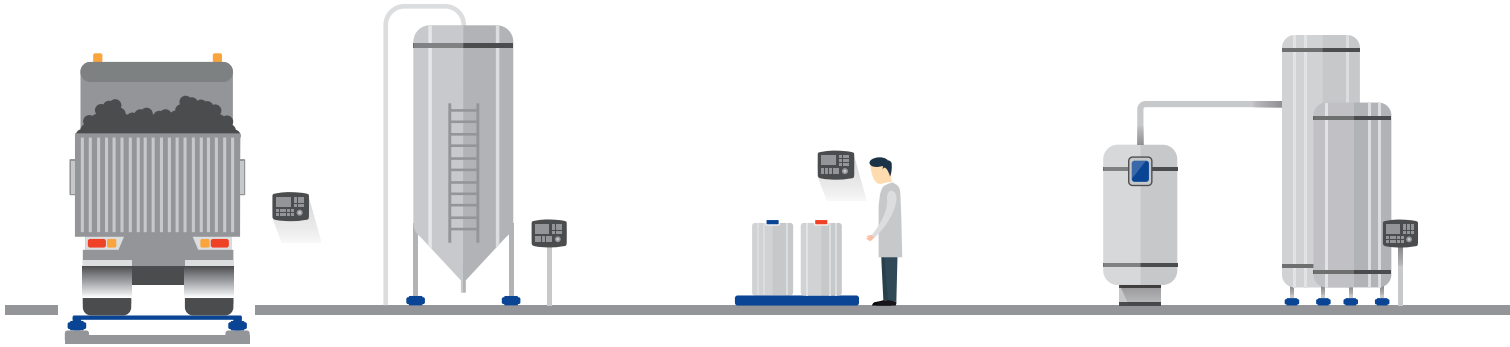
Flex Collector – the innovative universal interface for additional machines and sensors

With SPC@Enterprise, measurement devices from almost all manufacturers can be seamlessly integrated. The following test modes are possible:

- Filling quantity control (e.g. checkweighers or filling machines)
- Attribute testing (e.g. foreign body detection or documentation of device tests)
- Statistical process control (e.g. moisture meters, residual oxygen measurements)

The FlexCollector supports data acquisition of a wide range of measurement values via TCP/IP.

Our product portfolio



Acceptance and storage of loose materials

Incoming goods

Acceptance of piece goods

Automated production systems

Reliable checking of supplied and stored materials

For complete process control



Components and solutions for vehicle weighing (analogue/digital)



Components and solutions for silo weighing



Batching and formulation



Foreign object detection (metal detection/X-ray inspection)

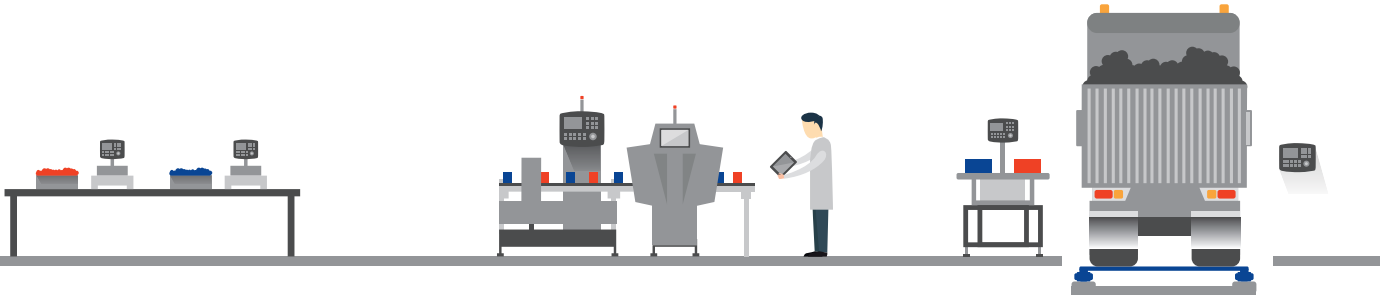


Weighing of incoming goods



Components and solutions for vessel weighing (analogue/digital)

This is a cross-section of our extensive product portfolio. We offer tailor-made solutions for a range of requirements: from simple to complex; from explosion protection solutions to hygienic design.



Manual production

Solutions that ensure accuracy and traceability



Portioning and checkweighing



Formulation and formulation weighing

Packaging

Guaranteeing product quality and food safety



Checkweighing/metal detection



X-ray inspection



Pre-packaging checking and statistical process control

Outgoing goods

Quality assurance of final product



Weighing/order picking of outgoing goods



Checkweighers for heavy loads



Components and solutions for vehicle weighing (analogue/digital)

Our services

Via our world-wide presence, we and our certified partners stand beside our customers across the globe throughout the entire life cycle of our products and solutions, from choosing the right equipment and systems to upgrades, replacement parts and training.

Engineering Support and Global Solutions – ensuring optimal solutions

- Consultation on selecting the best products and solutions with regard to the desired performance, precision and costs
- Design-in support for the integration of our products and solutions in existing constructions
- Customer-specific products or solutions – tailored to individual requirements



For more detailed information, please visit our website or contact info@minebea-intec.com



engineering support
by Minebea Intec



Commissioning – for a timely start to production

- Mechanical and/or electrical installation, commissioning and training on set-up and use
- Calibration or conformity assessment of equipment and systems according to statutory requirements for measuring technology
- Equipment qualification (IQ/OQ)

Upgrades – to update systems and improve performance

- Hardware and software upgrades
- Equipment refurbishment

Training courses – to improve skills

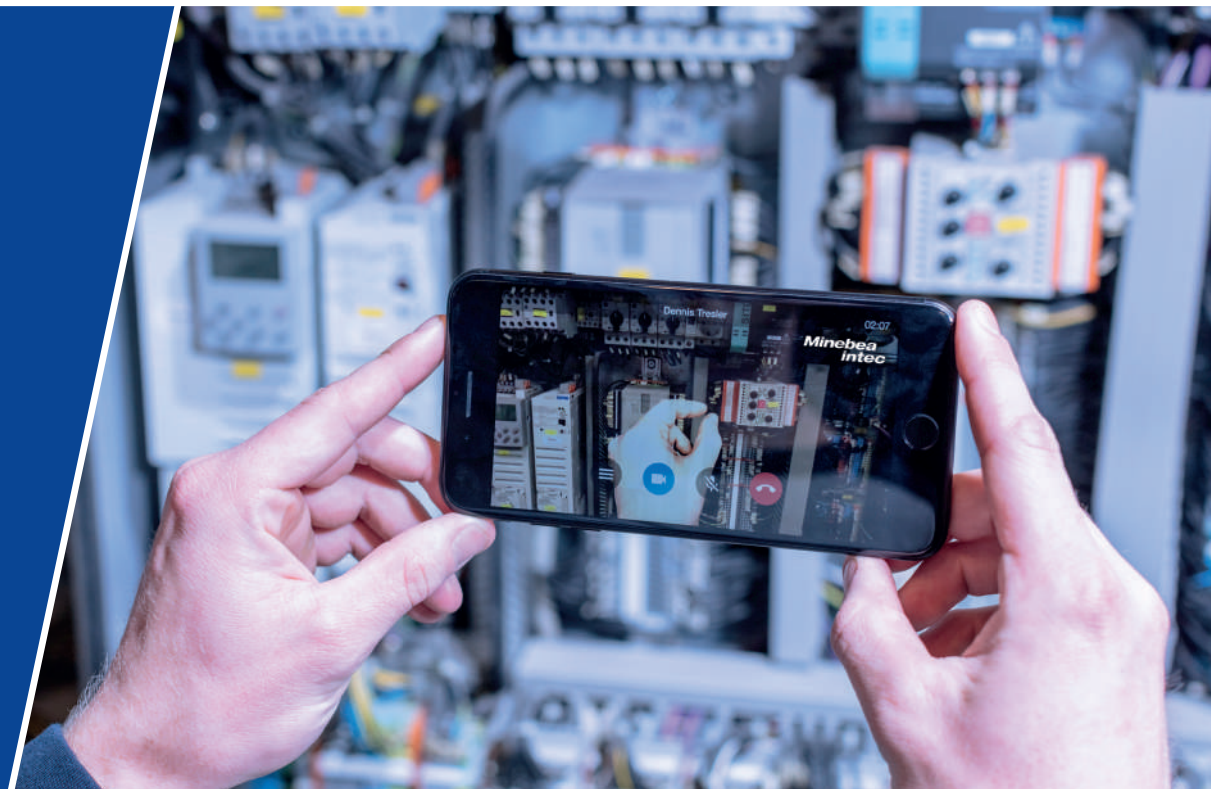
- Practical training content that reduces operating errors, downtime and maintenance costs and therefore increases the performance of the equipment and the efficiency of the line
- Seminars providing knowledge of regulations and technologies

academy
by Minebea Intec



Maintenance and repair – for guaranteed availability and performance

- Calibration or verification preparation of equipment and systems according to statutory requirements for measuring technology
- Preventative maintenance safeguarding continued availability and performance
- Repair services, including emergency service contracts for a guaranteed response time
- Professional replacement parts service
- Remote services such as the service tool miRemote based on augmented reality – for first-line support on site



Everything from a single source

Minebea Intec provides products, solutions and services to improve the reliability, safety and efficiency of production and packaging lines in virtually all industries.

From goods receipt to goods issue – our portfolio comprises a variety of automatic and manual weighing and inspection solutions, software and services for a wide range of applications and industries.

Process weighing and automation

- Vessel and silo scales
- Components for truck scales
- Bench and floor scales
- Batching and formulation

Quality assurance

- Checkweighers
- Metal detectors
- X-ray inspection systems
- Statistical process control

Services

- Technical support
- Commissioning
- Maintenance and repair
- Upgrades
- Training courses



Minebea Intec Bovenden GmbH & Co. KG

Leinetal 2, 37120 Bovenden, Germany

Phone +49.55 1.309.83.0

Email sales.industry@minebea-intec.com

www.minebea-intec.com



Minebea
intec
The true measure