

Fruit & Vegetables

Industrial Weighing and Measuring



3 News

Net Weight Under Control Preventive Quality Assurance

Atlanta AG, a group of companies based in Bremen, is the European market leader in the fresh fruit sector, specializing in the import, ripening and distribution of bananas. Atlanta chooses statistical net weight control from METTLER TOLEDO for preventive quality assurance at its premises.



The German distributor is a member of the group Chiquita Brands International Inc., and maintains its own procurement offices in Germany, Spain, France, Italy and Brazil, as well as a worldwide network of fruit agencies. The quality of Atlanta's products and services lies at the heart of its corporate strategy. QA and IFS certification of Atlanta's premises underpins the trade requirements for an integrated, comprehensive, preventive quality assurance system.

Stringent control of incoming goods

In addition to banana-ripening facilities, the premises have large order picking areas, pallet racking, combination cold rooms and a fruit packing station, which are capable of meeting all of the demands of the trade in regard to pre-packed goods.

Precise control of incoming goods to DIN EN ISO 9002 is taken for granted in the Atlanta premises. Depending on the item, up to 200 control points have to be handled in Incoming Goods. This is carried out as an Atlanta service in conformity with the customers' guidelines and prescribed control mechanisms.

In Atlanta's Habeco Fruchthandel establishment in Munich, weighing solutions from METTLER TOLEDO support efficient processing of this succession of checks of incoming goods.

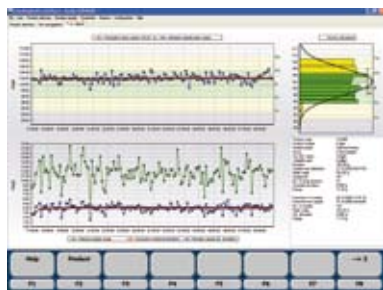
Pallet weight checked

Parameters such as quality, temperature and weight (gross weight of the pallets and net weight of the packaged products) of all incoming deliveries are assessed on a



METTLER TOLEDO

Test station for net content control with BBK462 compact scale connected to the PC-based Statistical Quality Control system FreeWeigh.Net®



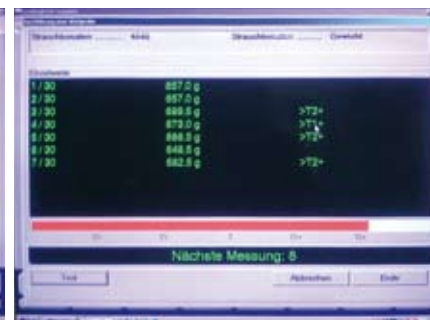
Typical FreeWeigh.Net® monitoring screen showing net weight of test samples



FreeWeigh.Net® test sample screens



First sample: net weight within tolerance



Seventh sample: overfilled

random basis and entered on a record of accepted goods. The cleanliness of the delivery vehicle and any damage or infestation by pests or vermin are also checked to the HACCP criteria. These parameters are recorded in the materials management system. The consignment is only released if everything is in order. Any complaints are clarified with the supplier or the goods rejected.

The trade has mandatory requirements in regard to the maximum height, number of boxes, weight, etc. of a pallet. Pallet weight is therefore checked on receipt and dispatch. A robust METTLER TOLEDO floor scale with strip printer to document the results is used to check the weight of the delivered pallets.

Statistical net weight control

The net weight of pre-packed consignments with fixed weights (e.g. tomatoes) is checked on a random basis in Incoming Goods. A test station with a BBK462 compact scale connected to the PC-based Statistical Quality Control software FreeWeigh.Net® carries out this task to the complete satisfaction of Manfred Zipka, Habeco Fruchthandel's Munich Warehouse Manager. A total of 30 operators work at the station. The test report printed out immediately after weighing of the sample is passed on to Administration together with the delivery note. Here as well, any complaints are clarified with the supplier before the goods are released. Mr. Zipka explains: "The scales always operate perfectly despite the high workload. All of our operatives find FreeWeigh.Net® very

quick and easy to operate. They only have to be shown once. We also benefit from the excellent service provided by METTLER TOLEDO, which ensures the necessary high level of system availability."

Automated control

FreeWeigh.Net® offers a highly automated solution for controlling net weight. All the operator has to do is weigh the packaged products. The sample is then statistically analyzed by the system and checked to ensure it conforms to the applicable regulations. A report configured to Atlanta requirements is generated automatically after each sample is taken. With FreeWeigh.Net®, Atlanta has an extremely effective answer to the challenge of providing the preventive quality control measures required by the trade.

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Wet and Frosty Production Environment? No Problem for Our Scales and Terminals

Oerlemans Foods has its roots in the south of the Netherlands. As a grower, producer and supplier, Oerlemans Foods specializes in 'freshly frozen' vegetables, fruit and potato products. The innovative assortment consists of more than 1000 products and varieties.

Oerlemans Foods is a 'global player', with sales in over 50 countries. A significant part of the weekly 800 tons production volume of the plant in Waalwijk is exported to Great Britain.

Strict quality control

Incoming vegetables underlie a stringent quality control. Parameters like moisture or nitrate content are determined to guarantee quality, fulfilling regulatory requirements. With the BBA330 operators have a simple-to-operate and precise compact scale to determine the base weight for probes.

Production in the refrigerating house

After quality control vegetables are washed, cut, mixed and frozen. At the mixing station a METTLER TOLEDO DNE1500 floor scale with the new IND449 weighing terminal check if the correct amount of vegetables is batched into the mixing machine. The dark and extremely cold environment in the refrigerating house represents no problem for the terminal. In contrary, the large backlit LC display with +/- checkweighing bargraph enables a comfortable reading off the weight by the pallet truck driver. And the terminal withstands the extremely frosty environment!

Scales and terminals for harsh environment

Both the BBA330 bench scale and the

IND449 weighing terminal combine the advantages of equipment designed after the EHEDG and NSF guidelines. The complete stainless steel constructions (AISI 304, 1.4301) with no hidden holes and a smooth hygienic surface are easy-to-clean helping to improve food safety. With the IP69k protection they withstand high pressure water jet cleaning and are completely dustproof.

With METTLER TOLEDO weighing solutions dedicated for use in harsh environments, Oerlemans Food has the freedom of fast and precise weighing results combined with a maximum uptime. Mr. Yves Huÿbnegt, Head of the Technical Department, confirms: "We are very satisfied with the performance of the METTLER TOLEDO scales and terminals in our demanding cold and wet production environment."



Fast facts IND449 weighing terminal

- Full stainless steel, IP69k
- Checkweighing, totalizing, user identification, date & time
- Foil-keypad, scratch resistant, numeric block
- Display: LCD backlight, bargraph
- Optional battery pack
- Interfaces: RS232, optional: RS422, RS485, Ethernet, WLAN, USB (Slave), Digital I/O
- Connect up to 2 scales

IND449 weighing terminal



DNE1500 floor scale



BBA330 bench scale





Classifying and Quality Control Automated, Fast and Efficient

Being one of the top banana exporters in the world with a 30% share, Ecuador has strived to elevate their banana industry to the highest quality level, assuring a year-round supply of bananas to the Global market. METTLER TOLEDO and its partner Espinosa Páez S.A. have provided an innovative solution to serve the quality system requirements of Ecuadorian banana producers and exporters.

Espinosa Páez S.A. has long been serving the needs of major banana producers in Ecuador with their Bana-Scale system solution. The Bana-Scale helps users to quickly and accurately weigh, classify and collect quality related data on the various types of bananas produced.

The system had originally incorporated the METTLER TOLEDO JagXtreme® terminal with custom JagBasic programming. While the JagXtreme® has reliably performed throughout the years, its successor the IND780 terminal brings even more power and flexibility into the system to meet the ongoing customer demands for automation and productivity improvements.

0.5 seconds per stem maximizes throughput

Productivity is of major importance for banana producers in Ecuador. Approximately 4 000 banana stems weighing 140 000 kg go through a mid-sized checking station daily.

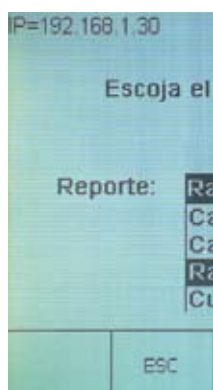
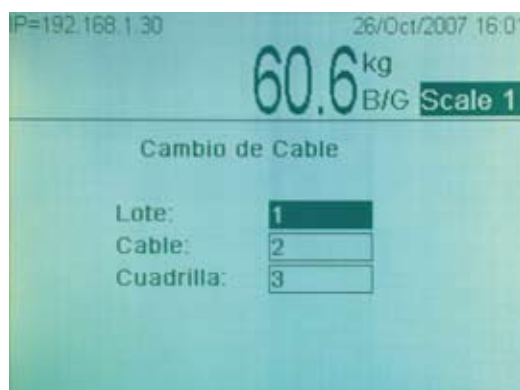
The Bana-Scale is connected to an analog weighing bridge that dynamically weighs 100% of the banana stems harvested. With the IND780 terminal's fast scale A/D update rate, advanced filtering technology and multi-tasking processor, the system is able to weigh accurately up to speeds of 0.5 seconds per stem. This helps to maximize production throughput.

Effective production and quality control management

During the production process, many different types of bananas are checked and classified based on their weight, color and quality. The Bana-Scale system allows the operator to easily capture all the necessary information to facilitate the classification process.

To monitor the production, weight totals are automatically accumulated and assessed for the day, color code, lot and cable numbers. Furthermore totals are generated for each individual harvesting crew and this data is used to calculate the wages for the crew members.

IND780 monitoring screens with on-screen view of the process status





BanaScale-780 at Pongarbel S.A., Hacienda San José, Ing. Jorge Marun Ramirez owner and manager of the banana plantation

Rejection reasons and weight totals for rejected stems are also captured to assist the user in their quality analysis and to rectify problem areas. Operators are also required to capture sample data on other quality measurements such as the calibration of the second and last hands of a stem, finger lengths and number of hands.

User friendly operator interface

IND780 comes with a bright 145 mm QVGA graphical LCD display available in monochrome or Active TFT Color. Opera-

tors can appreciate the clear and intuitive on-screen view of the process status while it is running. Large pushbuttons, help instructions and local language operation are provided by the system. As a result, minimal training is required to operate the system without errors.

Customizable platform for full operational flexibility

Utilizing the IND780 terminal's new and improved programmable platform TaskExpert™, Espinosa Páez S.A. is able to develop a solution customized to the end users' needs. Making modifications to a program is made easy with the flow chart based TaskExpert development tool.

The true multi-tasking architecture allows TaskExpert programs to be executed simultaneously. The dynamic weighing process can be running in the background while the operator performs reporting tasks or data entry saving precious operation time.

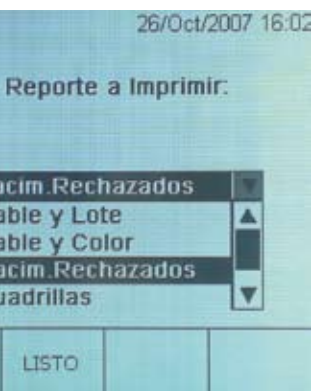
Efficient on-line data management and accessibility

IND780 provides a built-in SQL CE database that allows easy data storage and report generation on the production process. Different combinations of data can be easily compiled and reported based on fields such as the date, lot, cables and color code as an advantage of the relational database structure.

With up to 200 MB of flash memory, long term records are stored and can be retrieved as historical data or accumulated for a historical analysis.

Reports are generated on a printer positioned at the production line for the operator's convenience. Supervisors and production manager retrieve their reports at a PC connected to the system via Ethernet TCP/IP.

This ease of data management and accessibility improves evaluation of the banana plantation's operational performance and gives traceability of the processes.



Bench and Mobile Weighing For Your Routine Applications in Dry Areas

The BBA221 is a scale for your routine applications in dry areas, such as your receiving department or warehouse.

The terminal with its large display is fast and easy to operate. The scale offers over/under checkweighing, portioning, classifying and counting functions. It features a RS232 interface to cover your data communication needs. Furthermore, it is powered either by 4-C size batteries or optionally by a rechargeable battery pack, which enables the scale to be used flexibly across the whole premises.

Choose from a wide range of accessories: roller track, ball platter, stand or wall fixture for the terminal. The 500 x 650 mm and 600 x 800 mm size weighbridges can also be mounted on a cart and used as mobile scales.

Easy to operate

For manual portioning or checkweighing applications the BBA221 features a straightforward and easy to handle threshold definition system. Activate the application by F function key, store the target weight as well as the predefined tolerances and you are ready to go. Automatic taring allows operation without pushing the tare button. After placing the empty container on the weighing platform, the weight is automatically saved as the tare weight (net indicator appears), this allows fast and time-saving operation and also results in less failure.

The weight value

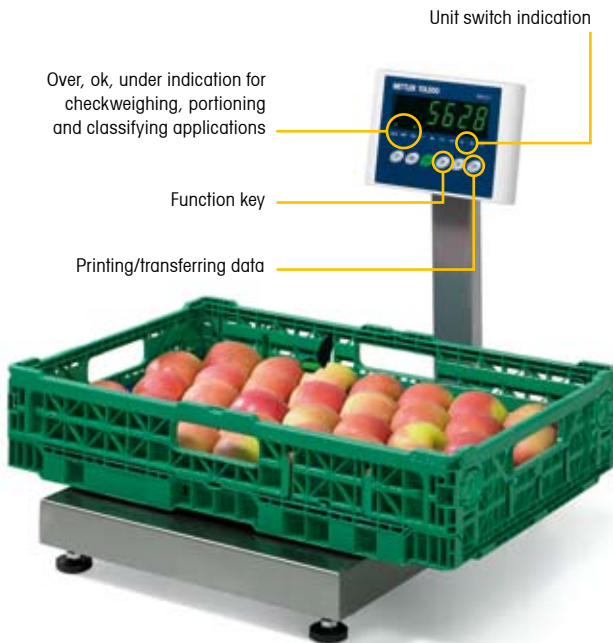
For higher precision measurements the terminal features a x10 function, which displays the received value with a higher resolution (x10) for approximative 20 seconds (not Weights & Measures approved).



Mobile weighing:
IND221 with cart



x10 Function for higher resolution



Over, ok, under indication for checkweighing, portioning and classifying applications

Function key

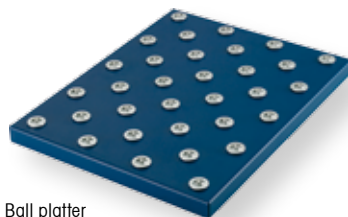
Printing/transferring data

Unit switch indication

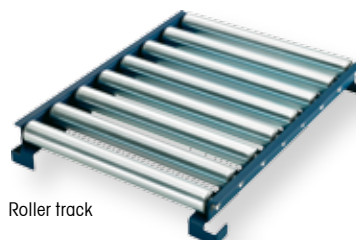
BBA221 bench scale
Functional design allowing easy, intuitive operation

Key benefits and facts BBA221

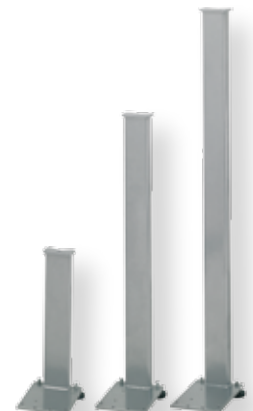
- Easy to perform accurate checkweighing, portioning and classifying measurements
- Weighing range 6 to 300kg or 13.5 - 660lb
- Max. Resolution: 30000d, OIML 3000e NTEP 5 000d
- Fast indication of the weighing result on the big LED display (< 1s)
- High mobility due to integrated 4-C size batteries or optionally a rechargeable battery pack and cart
- Standard RS232 Interface
- Rugged, painted carbon steel platform with 6 integrated overload stops
- Optional: Stainless steel terminal (IND226), internal rechargeable battery pack, cart, roller track, ball platter



Ball platter



Roller track



New Wash Down Statistical Quality Control Terminal Waterproof to IP69k – Hygienically Designed

With this stainless steel terminal, METTLER TOLEDO adds a new model to its SQC16 product line and supplies the ideal stand-alone solution for sampling based net content control for environments where hygiene is paramount.

The IND469SQC terminal plus applicable weighing platforms and strip printers has a rugged and waterproof design, which enables this system to be used even in exposed locations.

Ingress protection and hygiene

The smooth stainless steel surface and the design according to EHEDG and NSF guidelines for use in hygienically sensitive areas, allows the terminal to be easily and thoroughly cleaned. It is dust- and waterproof to IP69k (DIN40050), so a pressure cleaner can be used.

Easy to use

The design of the terminal and the ease of use of the SQC application are ideal for use within the food industry.

Clear graphic display

The clear graphic display consistently provides the user with essential information concerning the product, random sample results or long-term statistics.

Printed reports are protected

Reports on random samples are printed automatically. The paper strip can exit the printer housing for tearing off or remain protected against water by remaining enclosed within the printer, depending upon your requirements. All statistical results required by law are saved in the system and can be printed out at any time, along with the complete item list. The same data

can also be saved on a computer using the optional BR16 backup/restore software.



Fast facts IND469SQC

- SQC16 Application for net content control of up to 300 articles
- Stainless steel terminal with IP69k ingress protection for easy cleaning with a pressure cleaner
- Connectivity of wash down
 - IDNet or analog weighbridges
 - Strip printer

Your benefits

- Compliance with net content control legislations (e.g. e-mark labeling)
- Significant reduction of overfilling costs
- Compliance with EHEDG and NSF – guidelines for equipment used in hygienically-sensitive areas
- Standalone solution (no extra infrastructure required)
- Very low effort for training and maintenance



European
Council
Directive



Dustproof and suitable
for cleaning with high-
pressure equipment



European Hygienic
Engineering and
Design Group



National
Sanitation
Foundation (US)

A Wide Range of Solutions to Improve Processes

1. Hi-Speed Cornerstone™ Beltweigh/CM/Combo
2. BBA449 over/under check scale with colored backlight

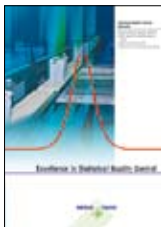


Share our Knowledge

Learn from our specialists – our knowledge and experience are at your disposal in print or online.

Learn more about all of our solutions for the fruit and vegetables industry on our website. You can find information on a wide range of topics to improve your processes, including case studies, application stories, return-on investment calculators, plus all the product information you need to make an informed decision.

1. Statistical Quality Control/Statistical Process Control solution
2. 4 series check scales (BBA4x9, IND4x9)
3. BBA221 Bench Scale
4. Industrial Weighing Catalog 2008



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