

## CI-VISION

Vision Inspection

## HI-SPEED

Checkweighing

## SAFELINE

Metal Detection & X-ray Inspection



## Reliable Product Inspection

Improving Quality and Productivity

**METTLER TOLEDO**

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## Comprehensive Solutions for complete product inspection



### World-renowned brand names:

The CI-Vision, Hi-Speed, and Safeline brands go hand in hand with product inspection solutions. They represent years of knowledge and experience in machine vision inspection, checkweighing, metal detection, and x-ray inspection. Our tailored systems include a diverse range of dynamic checkweighers, the most sensitive metal detection and x-ray inspection equipment and highly sophisticated vision inspection solutions. Regardless of your industry, the application and the working environment, our product range can help provide an edge over your competition.



- **Food industry** – Solutions for in-process applications and end-of-line packaging.
- **Pharmaceutical industry** – Solutions for product weighing and inspection for contaminants and package integrity.
- **Cosmetics/chemical industry** – Diverse solutions for liquids, powders and granules.
- **Special tailored solutions** – Systems for use in many other industrial applications, including the paper and textile industries and the automotive sector.



## CI-VISION

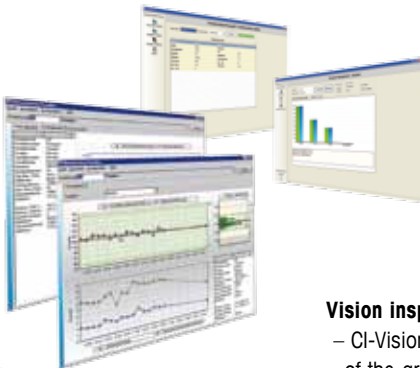
Vision Inspection

## HI-SPEED

Checkweighing

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### Collection of data for complete process control:

The latest connectivity software solutions from METTLER TOLEDO enable data to be collected from all inspection equipment. The collected information can be easily networked and integrated with all leading factory management systems to provide valuable process history, traceability and proof of due diligence.

### Vision inspection

– CI-Vision state-of-the-art vision inspection solutions



### Checkweighing

– Hi-Speed dynamic checkweighing systems



### Metal detection technology

– Safeline integrated metal detection systems



### X-ray inspection

– Safeline x-ray inspection technology



## CI-Vision

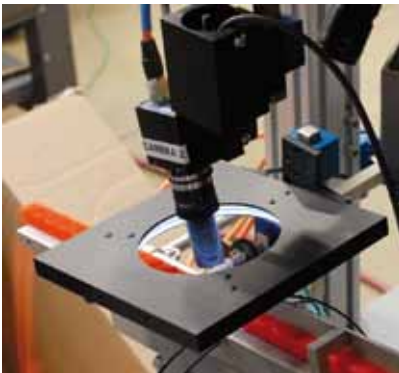
METTLER TOLEDO CI-Vision is a leader in the design, manufacture and installation of machine vision inspection systems for the food, beverage, pharmaceutical, packaging, personal care and household chemical industries.

CI-Vision inspection systems ensure that products consistently meet manufacturers' quality standards and specifications resulting in perfect product presentation every time.



## Closure Vision Inspection System

- The Closure Vision inspection system is a complete, ultra high-speed inspection system that ensures the integrity of a closure before it is placed on a bottle



## Container Vision Inspection System

- The Container Vision inspection system is a complete high-speed, stand alone empty container inspection system. It automatically inspects empty containers of all kinds including glass and plastic bottles, tubs, tubes, cans and all other rigid containers



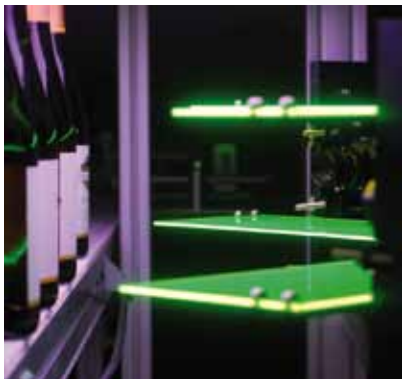
## Integrity Vision Inspection System

- The Integrity Vision inspection system is a high-speed package inspection system that automatically inspects filled bottles, trays, pouches, cases, cartons, kits and other packages to verify that the packaging process was satisfactorily completed



## Label Vision Inspection System

- The Label Vision inspection system is a complete in-line, high-speed package inspection system that ensures perfect product presentation every time. It automatically inspects labels on all containers including bottles, vials, boxes, cans, trays and tubs



## Print Vision Inspection System

- The Print Vision inspection system is a complete in-line, high-speed inspection system that verifies that human readable, barcode and 2D matrix codes are present, correct and readable. Print Vision applications include: barcode and OCR/OCV on lot, product and expiry codes

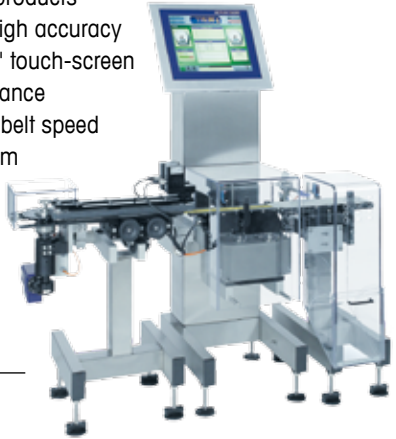


## Checkweighing

METTLER TOLEDO Hi-Speed is the world-leading checkweighing brand providing a wide range of dynamic weighing systems. Our systems can ensure 100% quality control, minimize costly giveaway and give you total peace of mind.

### XS1

- The smallest Hi-Speed checkweigher – with a weighing range up to 200g while delivering milligram accuracy
- Small footprint is ideal for tight spaces, designed specifically for small, lightweight products
- Fast throughput and high accuracy
- Large, easy-to-use 15" touch-screen for clear operator guidance
- Continuously variable belt speed with constant maximum torque



### XS2

- Meets even higher demands with a weighing range up to 600g
- Modular concept allows ease of servicing and ensures that it can easily be enhanced by further options
- Easy-to-use 15" touch-screen with modern navigation approach and "user profiles" for clear operator guidance, avoiding errors and increasing line efficiency





## XS2 Pharma

- Optimal for pharmaceutical and cosmetics industries with a weighing range up to 600g
- Easy to use 15" touch-screen with modern navigation approach; password protected access levels ensure the highest safety standards
- Numerous options and accessories such as validation package
- Possible to network a number of checkweighers
- Audit trails can be produced for individual checkweighers



## XS3

- Modern navigation approach and a weighing range up to 6,000g
- Large 15" easy-to-use touchscreen with "user profiles" for clear operator guidance
- Weighing terminal can be tilted for optimum visibility and ergonomics
- Network connectivity for central statistical quality control and production documentation



## XE2



- The economic solution for weights up to 600g
- Flawless operation with the clear user interface with more than 20 "dialogue languages"
- Narrow design requiring little space in a production line

## XE3

- Weighing range up to 6,000g
- Flawless and quick operation with clear screen menus and prompts
- Flexible – a wide range of options can be added to perfectly configure the system for any application



## XC3

- Weighing range up to 3,500g
- Designed for simple weighing tasks.
- Proven weighing technology and a compact design
- Three weight zones for classification with the option of continuously transmitting the individual weight values to a data capture system



## Beltweigh XC

- Weighing range up to 6,000g to suit a wide range of packages
- Three zone operation with 100-product memory
- Speed and timing presets for fast, error-free changeovers
- Ideal for wet and washdown applications where basic checkweighing ensures compliance and prevents costly product giveaway



## Cornerstone® SA™

- Built to demanding Dairy, Meat, & Poultry industry requirements for sanitary construction for raw, unwrapped or packaged product
- Heavy duty IP69K CIP or COP construction – perfect for harsh washdown and cleaning regimens
- Intergration-ready XS control delivers ease of use plus the information and interfaces needed to enhance overall process productivity
- Complete offering of package handling and sorting mechanisms to handle even the toughest of applications



## Cornerstone® XS



- Variety of sizes and capacities through 7,000g – ideal for small to heavy packages
- Heavy duty painted or stainless steel construction to suit the environment
- Intergration-ready XS control delivers ease of use plus the information and interfaces needed to enhance overall process productivity
- Complete offering of package handling and sorting mechanisms to handle even the toughest of applications

## Cornerstone® XE

- Variety of capacities through 7,000g – ideal for small to heavy packages
- Heavy duty construction in either painted or stainless steel to suit the environment
- Integration-ready XE control delivers ease of use plus the information and interfaces needed to enhance overall process productivity
- Complete offering of package handling and sorting mechanisms to handle even the toughest of applications



## Chain Checkweigher



- Weighing range up to 1,200g and throughput in excess of 800 products per minute
- Open, easy access design simplifies cleaning process
- Suitable for use in wet environments where high demands on hygiene must be met (such as weighing of open cans)
- Product changeover is simple and easy – saving precious time

## CS3600 Case Scales

- Ideal for weighing cases and other heavy packages up to 100kg in either painted or stainless steel construction
- Maintenance friendly design with quick change belts for high reliability and maximum uptime
- Integration-ready XE or XS control delivers ease of use plus the information and interfaces needed to enhance overall process productivity
- Complete offering of auxiliary conveyors, package handling, and sorting mechanisms



## XE40/100



- State-of-the-art dynamic weighing technology at an economical cost with a weighing range up to 40kg or 120kg
- Modular design concept makes XE40 and XE100 particularly service friendly, requiring little maintenance
- Operator-friendly screen menus and prompts plus a weighing terminal that can be tilted for optimum visibility

**XS40/100**

- A wide range of options and accessories to tailor the checkweigher for an optimum match with your requirements
- Weighing range up to 40kg or 120kg
- Large 15" touch-screen with modern navigation approach and user profiles for clear operator guidance
- Weighing terminal can be tilted for optimum visibility
- Particularly service friendly requiring little maintenance

**Cornerstone® CombiChecker**

- Heavy duty construction in either painted or stainless steel to suit the environment
- Integration ready XS or XE control delivers ease of use plus the information and data interfaces needed to enhance overall process productivity
- Safeline metal detector ensures maximum brand protection on a common easy to install frame
- Complete offering of package handling and sorting mechanisms to handle even the toughest of applications



## XS2 CombiChecker™ & XS3 CombiChecker™

- Weighing range up to 6,000g
- In-line weighing and metal detection in one process with central operation on a single terminal
- Shared product setup for quick and easy product changeover at the touch of a button
- Single or dual frequency technology for highest metal detection sensitivity



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## Beltweigh XC CombiChecker™

- Ideal for wet and washdown applications where basic checkweighing and metal detection ensures compliance, protects your brand, and prevents costly product giveaway
- Three zone operation for packages up to 6,000g for flexible operation
- METTLER TOLEDO Safeline metal detector with patented ZMFZ metal detector technology delivers superior inspection in tight spaces





## **XE2 CombiChecker™ & XE3 CombiChecker™**

- In-line weighing and metal detection in one process for best protection of consumers and your brand
- Weighing range up to 6,000g
- Numerous options allow tailoring this unit to your unique application
- Two rejecting devices for separate rejection of over/underweights and metal-contaminated products



## **XC3 CombiChecker™**

- Compact design minimizes line space and allows centralized management of nonconforming product
- Simple to operate, product set-up and changeovers are fast and error free
- Three zone checkweighing up to 3,500g to suit a wide range of packages



## XS3 AdvanChek CombiWeigher

- In-line weighing and X-ray inspection in one process with central operation on a single terminal
- HACCP compliant with a weighing range up to 6,000g
- Numerous options to tailor this x-ray and checkweigher combination system for an optimum match with your requirements
- Compact design saves space in production lines



## Starweigh™

- Weighing range up to 2,000g
- Perfect solution for round, oval, and even rectangular shaped packages, delivering milligram accuracy at a throughput up to 400 weighings/minute
- Save time and money – no line cuts, simple installation by simply straddling the existing conveyor
- Minimized downtime – product changeover time is reduced to an absolute minimum
- Quick changeover of starwheels, requiring no tools



## XMV Mark + Vision System

- Marking, verification and sorting
- Minimizes the risks inherent to the pharmaceutical industry
- Generates the crucial data required for tracking and tracing products via serial number, by meeting "E-pedigree" and "Track & Trace" requirements
- Product codes printed with inkjet print systems are verified for accuracy and legibility
- Optimum printing of unique series of digits or datamatrix codes / barcodes



## XS2 MV Checkweighing, Mark + Vision System

- Accurate weighing, laser marking or ink jet printing and vision verification to ensure global traceability and assist fraud protection
- Product codes printed are verified for accuracy and legibility and serve as a key for legally required quality certificates
- Weighing range up to 300g
- Process reliability and high production volume



## Metal Detection

METTLER TOLEDO Safeline is the world leading metal detection brand providing inspection solutions predominantly for the food and pharmaceutical markets.

### PowerPhasePRO

- Optimal sensitivity across a broad range of products utilizing high performance multi-frequency operation
- Single machine setting for multiple products using "Change-Free running mode"
- Maximized operator efficiency through intuitive, full color touch-screen display
- Suitable for all environments – stainless steel or painted aluminum finish and sealing up to IP69K standard
- Fully customized material handling system available



### PowerPhasePLUS

- Optimal metal detection sensitivity for lines that run multiple product types using optional dual frequency design
- Maximum operator efficiency through rapid set-up procedures using a menu driven LCD/LED display
- Stainless steel or painted aluminium finish and sealing up to IP66 standard
- Fully customized material handling system available



## PowerPhasePRO RB

- Ideal for large bulk or packaged products including dry, wet or loose products
- Easily integrated into process lines
- Most advanced product inspection systems on the market with unequalled detection sensitivity, stability and ruggedness
- Special high-frequency technology, state-of-the-art detector housing geometry and new, improved filter software ensure an unparalleled detection sensitivity for a vast range of applications
- Fully customized material handling system available



## PowerPhasePLUS RB

- The highest metal detection sensitivity available on large bulk or packaged products including dry, wet or loose products
- Optimal metal detection sensitivity for lines that run multiple product types using optional dual frequency operation
- Maximum operator efficiency through rapid set-up procedures
- Fully customized material handling system available



## Certus



- Highly reliable, cost-effective metal detection for dry applications
- Stainless steel unit offers high sensitivity with automatic product set-up
- Easy to use LCD/LED display with a membrane key pad
- Available with either a heavy duty or standard duty stainless steel conveyor system

## Compact

- Narrow design and integrated operator interface and power supply unit
- Color touch-screen PowerPhasePRO interface or cost saving PowerPhase technology, user log and continuous condition monitoring display
- Standard conveyor system available



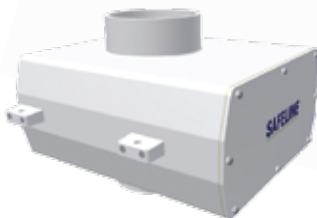
## Vertical Packing Systems



- Reduced vertical space requirements between weighers and bagger/filling machines through patented ZMFZ technology and customized support frames
- Easy integration with weighing and VFFS bagmakers for rapid installation
- Intuitive operation – available with interfaces built on the PowerPhase or PowerPhasePRO software platforms

## Super Throat

- Unites the advantages of Throat metal detectors with PowerPhase technology and significantly increased detection sensitivity
- A signal strength histogram allows for optimum product settings without false rejections
- ZMFZ technology for optimum installation in bag form/fill/seal machines ensures trouble-free operation



## Gravity Flow HD Systems

- Heavy duty gravity fall system for bulk powders, granules and other dry, bulk products
- Easy-clean reject device with tool-free, rapid strip-down and assembly
- Reduced vertical space requirements and minimized interference from other equipment due to ZMFZ technology



## Gravity Flow SD Systems



- Suitable for free-flowing powders, granules and other dry, bulk products
- Easy-clean reject device with tool-free, rapid strip-down and assembly
- Reduced vertical space requirements and minimized interference from other equipment due to ZMFZ technology

## Pipeline Systems

- Customized designs to meet specific application needs
- Hygienic design suited to heavy wash-down conditions
- Multiple reject valve options to suit variable product characteristics
- Maximum operator efficiency through rapid set-up procedures using PowerPhase or PowerPhasePRO technology user interface



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## HDS Pipeline Systems



- Designed specifically for the sausage industry
- Maximized product quality through the use of short throughput tubes
- Easy integration with all leading vacuum fillers and sausage process equipment
- Robust construction for harsh environments – stainless steel construction with sealing to IP69K standard



## Tablex-PRO

- Highest metal detection sensitivity for tablet and capsule inspection
- Compact, flexible, mobile design allows easy movement and installation in restricted spaces
- Easy-clean design with no-tool adjustment, dismantling and re-assembly
- Very high detection sensitivity for non-spherical contaminants such as screen and sieve wire, swarf and slithers of metal



## Pharma GF-PRO

- Designed to inspect fine pharmaceutical powders
- Compact design for easy integration into limited spaces under feed hoppers and at the discharge end of bulk feed conveyors
- Maximum operator efficiency through rapid set-up procedures using PowerPhasePRO technology user interface



## X-ray Inspection

METTLER TOLEDO Safeline is the world leading x-ray inspection brand providing inspection solutions predominantly for the food and pharmaceutical markets.

### PowerChek Plus

- Contamination detection and in-line quality checks including measuring mass, counting components, identifying missing or broken products, detecting products trapped in the seal and checking for damaged packaging
- Reliable, high performance, inspects multiple lanes, with customized software or multi-function inspections
- Inspects packaged or bulk products
- Robust customizable material handling system featuring Allen Bradley controls
- Optional ability to withstand harsh wash down environment and upgrade to an elevated sanitary specification



### PowerChek

- Contamination detection and in-line quality checks including measuring mass, counting components, identifying missing or broken products, detecting products trapped in the seal and checking for damaged packaging
- Suitable for single or multiple lane inspection



## SmartChek Plus



- Provides reliable performance, simple intuitive operation and low cost of ownership, without the complexities normally associated with X-ray inspection
- Robust material handling system and optional ability to withstand harsh wash down environments
- Detects metal, stone, glass, bone and some rubbers or plastics at speeds up to 250-fpm
- Inspects packaged or bulk products
- Material handling system can be customized to fit application

## SmartChek

- Outstanding contamination detection of metal, stone, glass, bone and high density plastic of up to 500 packs per minute
- Can detect ferrous, non-ferrous and stainless steel contaminants inside foil or metallized film packaging
- Custom design offerings enable the system to be readily retro-fitted into existing production lines



## Certus XR

- Provides reliable performance, simple intuitive operation and low cost of ownership, without the complexities normally associated with x-ray inspection
- Detects metal, stone, glass, bone and some rubbers or plastics at speeds up to 150-fpm
- Minimal space requirements, as little as 40 inches
- Lowest cost of ownership and lifetime costs in marketplace



## GlassChek Plus

- GlassChek Plus utilizes four X-ray beams and detectors generating four views of container being inspected, each view capable of rejecting container
- Can be installed over existing production line reducing integration costs
- Utilizing an encoder input, equipment can accommodate varying line speeds with no effect on performance



## SideChek

- This range includes SideChek, SideChek Plus, SideChek SB and SideChek AFD is for customers who require reliable performance inspecting product on high throughput production lines. System can be installed over existing production line reducing integration costs
- Package types include metal cans, plastic containers, composite containers, brickpaks and glass jars
- SideChek SB utilizes a split X-ray beam and two detectors for optimal inspection of metal cans
- SideChek AFD incorporates an automatically adjusted focal distance to optimize inspection on high throughput lines with varying can sizes



## PipeChek

- High performance inspection of pumped solids, liquids or slurries in harsh wash down environments
- Simple modular design for ease of operation, maintenance and sanitation
- High throughput and small footprint
- Can be configured in pipe sizes 2-6"



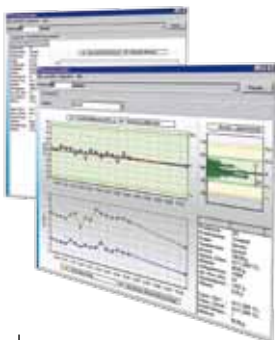
## Bandoleer

- Inspects products in a continuous web for contamination and simultaneously for weight control
- Equipment can also provide filler feedback control
- High throughput – can inspect up to 1500-ppm
- Modular design can be refit into existing line or integrated into a new line



## FreeWeigh.Net

- Provides valuable and essential information about current production quality at your desk – saving both time and money
- Powerful Windows® based software package for production monitoring and documentation for prepackaged products and fill processes
- Production analysis and documentation is possible even for lengthy time periods, including graphic reports for hour, day, week, month and year
- Data capture from:
  - static scales
  - checkweighers
  - metal detectors
  - x-ray inspections systems



## LogIn-Server

- LogIn-Server: PC controlled access log for checkweighers
- Monitoring system creating a personalized, traceable log of when and by whom any particular machine was accessed
- Specific access authorization can be assigned to each user (hierarchy levels)
- 21 CFR Part II compliant



# ProdX

## Enhanced Product Inspection Software

ProdX from METTLER TOLEDO delivers monitoring and data management on your new or existing Hi-Speed Checkweighers, Safeline Metal Detectors or Safeline X-ray Inspection Systems to increase system productivity, improve product quality, enhance process security, and deliver complete clarity of your product inspection program.



- **Productivity:** Centralized product set-up and changeovers reduces operator errors, shortens set-up time, and increases production uptime
- **Quality:** Dashboard monitoring for early warning indication of key inspection processes to ensure product quality is never compromised
- **Security:** Events monitoring tracks device alarms, events, and changes for process security. Robust user management means only authorized personnel have access to critical product and production information
- **Clarity:** Graphical user screens with machine state status icons, active reject monitoring by device complete with comprehensive reporting capabilities ensure you have complete clarity of your product inspection program



ProdX is scalable to meet your needs whether monitoring a single packaging line or monitoring numerous lines from multiple production sites and is supported by the largest team of Product Inspection sales and service professionals in the world.



## Raising expectations – taking your service experience to a higher level

METTLER TOLEDO has adopted a proactive, 3-level approach to your performance, productivity and support requirements. We've named these 3 levels **Response**, **Responsibility** and **Compliance** – successfully transforming our service promise into an active, results-based pledge. A pledge that says up time sits at the commercial heart of any process and we will work with you to turn that commodity into profitability. Turning up time into business-wide opportunity.



### Response



The METTLER TOLEDO reactive platform deals with day-to-day operational needs – optimizing every minute of up time by guarding against equipment breakdown, parts failure and general wear and tear.

As the name implies, our **Response** level concentrates on communications to provide effective response and response times via phone and e-mail, operator training, and finally, in-house parts list availability.

- **Quick reactive response times**
- **Fast phone and e-mail support**
- **Emergency operator training**
- **In-house parts list**

### Responsibility



As we move further up the service experience, **Responsibility** focuses on continuous productivity improvement as the central customer requirement and manages this challenge through real client partnership.

Our service team takes full ownership of in-process production issues wherever our systems are deployed by putting the building blocks in place and taking full

responsibility for the outcomes. These building blocks include Spare Parts Kits, Preventative Maintenance, Product Upgrades, Maintenance Training and Quality Training.

Responsibility Service covers:

- **Spare part kits**
- **Preventative maintenance**
- **Product upgrades**
- **Maintenance training**
- **Quality training (in line with HACCP and Pharma equivalent)**

### Compliance



100% compliance to laws, regulations and supplier standards is a requirement all over the world! As doors open to new world markets you have to be fully compliant in every marketplace, every region, or you will miss huge opportunities.

Performance Verification is an integral part of our **Compliance** offering which brings together HACCP guidelines, annual Critical Control Point certification and up-to-date food standards. It links IPac with HACCP during any 'Due Diligence' processes.

It ensures metrological data is reliable and it provides certification that is valuable, recognizable, and understood by large multinational customers during their audit processes.

Compliance Service covers:

- **Equipment audits and performance validation**
- **On-site training**
- **Certification programs**
- **Annual performance evaluation programs**

## Service Solution Packages – the cornerstones of our service offering

### Installation and Performance Verification Package (IPac)

The IPac qualification package ensures that new machines immediately provide a return on investment and help you meet your compliance obligations. Our service technicians verify that your system was installed properly and then commission it to ensure it meets the highest performance parameters in active service. Operators are trained to ensure the system maintains optimum efficiency in your processes.



#### IPac provides:

- A framework that meets the needs of ISO and HACCP standards
- Assurance from start-up that your system is operating at peak performance
- The tools to monitor critical control point performance
- A systematic approach to record-keeping and documentation



**Preventative Maintenance (PM)**

With a Preventative Maintenance package, our service technicians examine your processes in depth including product throughput, packaging variables, contaminant identification and other key variables. This determines the appropriate level of maintenance to keep systems 100% operational, 100% of the time. Routine maintenance visits will then be scheduled as part of a standard, extended or tailored service agreement.

**Performance Verification (PV)**

With a Performance Verification Package, our service technicians will audit the performance of your systems to insure they meet the requirements of your HACCP plan and up-to-date legislative and regulatory requirements. It ensures that meteorological data is reliable and it provides certification that is valuable, recognizable and understood by auditors. Performance Verification visits can be scheduled separately or as part of a standard, extended or tailored service agreement.



# 24/7 Customer Support









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Printed in USA 10/10 US

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