CORPORATE PROFILE

MMAAZZ

Smart In-Line Sensors.

Find the source of packaging damage in seconds

VISIT US ONLINE

Powered By MASITEK

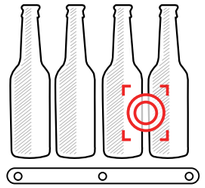
> MMAAZZ offers a complete suite of products that really give the whole picture of what is going on with a filling line. Pressure, impact, scuffing/friction and vertical load are all important in their own, but much more powerful when you can measure all of them together in a particular filling line.”

Jane Tinning, Senior Packaging Expert
Carlsberg

READ THE CASE STUDY

Understand your packaging operation like never before.

Smart in-line sensors empower innovative packaging and bottling operations like AB InBev, Coca-Cola and Unilever by visualizing and quantifying the damaging forces subjected to their containers.



We’re the global leader in smart in-line sensing technology for bottling and packaging industries.

Smart in-line sensors improve efficiencies and solve the challenges faced by manufacturers and handlers in food & beverage, consumer goods, and pharmaceutical industries.

On any given packaging line, many mechanical forces are at play:

- The force of one container hitting onto another causing dents or breakage.
- The pressure that the container receives when they are transported in conveyor belts and accumulation tables.
- The vertical force of the capper or seamer causing crush damage or breakage.
- The pressure and spin causing aesthetic damage.

MMAAZZ solutions include sensor-enabled replicas of containers which are placed on the line to identify the root cause of failures related to shock, pressure, and vertical load in bottling and packaging processes.

Clients report up to 80% cost associated savings from reduced downtime and improved process efficiencies.

Other applications include research and development projects as well as deployment for knowledge-based services.

A division of Masitek Instruments Inc., MMAAZZ™ exports through a network of agents around the globe.

Carlsberg · Unilever · DIAGEO · ABInBev · E&J Gallo Winery · SUNTORY · SAB MILLER

Why smart sensors?

Boost line efficiency through fast issue resolution:

Increase efficiency by isolating and resolving the root cause of damage, breakage and performance loss caused by impact and pressure on containers.

Reduce breakage from shock and impact:

Understanding root cause of shocks in production, measured in Inches Per Second (IPS), enables fillers to improve line efficiency and reduce container damage.

Measure and control scuff to prolong the life of recyclable glass:

White wear on a bottle, known as scuffing, is an undesirable blemish and a major factor when processing returnable glass containers.

Minimize packaging damage from line pressure:

High levels of pressure on conveyors can compact containers, resulting in costly aesthetic damage such as label tearing, scuffing and crush damage.

Shorten calibration of capping, corking, and seaming equipment:

Vertical load is an important factor to measure to ensure quality. An excess force can cause neck damage and downtime while insufficient force will result in an improper seal.

Monitor shipping to mitigate transportation loss:

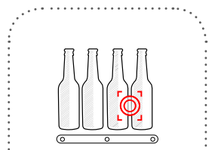
Quantifying product damage from plant to distribution center, through to its final destination, enables optimization of the entire transportation process.

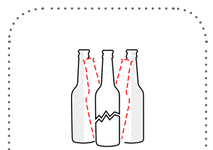
Test packaging designs and shorten design cycle:

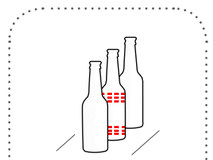
Accurate design testing not only shortens the design cycle, but also provides the agility and data required to optimize both the container design and processing variables.

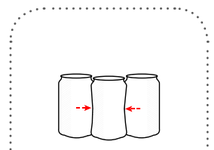
Inform knowledge-based services and line commissioning:

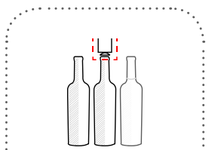
Knowledge-based services offer a revenue stream and build customer relationships. A data-driven approach to the mechanical forces affecting line performance can give the competitive edge to any OEM or industry service provider.

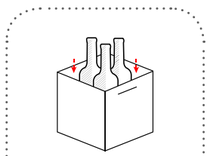

LINE EFFICIENCY

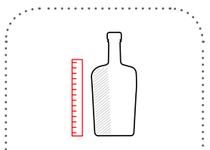

IMPACT & IPS

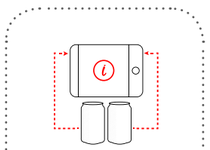

SCUFF


PRESSURE


VERTICAL LOAD


TRANSPORTATION


KNOWLEDGE-BASED SERVICES


RESEARCH & DEVELOPMENT

From line efficiency to R&D, smart in-line sensors empower teams to proactively resolve the challenges of a changing industry landscape including new equipment, expediting new container designs and light-weighting initiatives.

Packaging engineers have to keep the line running, while also keeping focus on efficiency targets and continuous improvement initiatives.

Dealing with today's breakage and damage while looking to find long-term efficiencies is difficult without the right tools to uncover the unknowns of the line.

How smart in-line sensors work:

Smart in-line sensors embedded in exact replicas of your containers are deployed on your production line to accurately measure your container's experience during processing.

1 Exact replicas of your containers are enabled with smart sensors.

2 Smart in-line sensors travel through the line to monitor the entire process.

3 Indicators such as impact, IPS, G-force, scuff, vertical pressure, spin and tilt accurately measure a container's experience during processing.

7 LIV™, Line Intelligence Visualization analyzes and visualizes trends by container, line, site, and country.

6 An easy-to-use web interface can be used to compare data runs and generate reports from anywhere.

WATCH THE VIDEO

5 Each run is configured on the solution tablet and corresponding app, with integrated photo and video capture to document notable events.

4 Wireless, location tracking Bluetooth beacons pinpoint the location of damage and opportunities to improve line efficiency.

Smart sensors for every type of mechanical force.

Industry-leading features include:

- Impact & IPS Measurement
- Scuff Measurement
- Pressure Film Technology
- Line Intelligence Visualization
- Video & Location Tracking
- Interchangeable Pod System
- Adjustable Height Sensors
- Transportation Mode

ShockQC™

Reduce glass breakage by 80% with industry's only IPS measurement.

Why ShockQC?

- Reduce breakage and damage by 80%.
- Cut downtime by 60% with consistent use.
- Improve line efficiencies, targeting downtime and maintenance.
- Measure IPS (Inches Per Second) strength-rating for glass containers.
- Calculate a rating of line impact performance.

MORE

ScuffQC™

Minimize scuff damage and prolong the life of returnable glass.

Why ScuffQC?

- Extend the life of returnable glass up to 4 years.
- Significantly reduce scuffing and aesthetic damage.
- Identify areas of potential glass breakage and damage to cans.
- Determine maintenance and capital investment priorities.
- Improve efficiency of line changeovers.

MORE

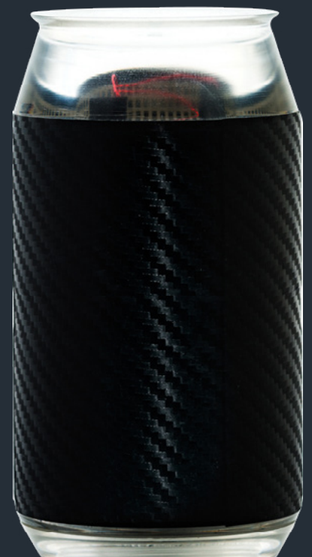
PressureQC™

Prevent crush damage and premature equipment wear.

Why PressureQC?

- Relieve areas of high pressure causing premature equipment wear.
- Determine maintenance and capital investment priorities.
- Improve line efficiency including the frequency of downtime events.
- Identify areas of potential container damage, particularly for aluminum cans.

MORE



VerticalQC™

Quickly and accurately calibrate seamer machines and capping heads.

Why VerticalQC?

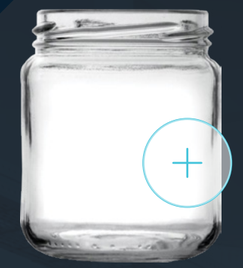
- Reduce calibration time for capping and seaming equipment.
- Avoid damage from undersealing or excess downward force.
- Improve process and results of lightweight engineering projects.
- Identify damage from over-stacked pallets in storage and shipping.
- Test new machinery and processing lines.

MORE

*Some features may not be available on all products

Resolve damage to all types of packaging material.

Packaging relies on lightweight glass, PET and aluminum containers, all practical volume solutions but subject to damaging forces such as pressure, vertical load and impact. Afflicting many types of damage, these forces can greatly affect filling line efficiency.



Glass

A sustainable material with superior preservative characteristics and premium brand connotations, glass is a reliable container choice but dictates a precise production process

Trends such as luxury finishes, complex bottle designs and light-weighting can affect production efficiency when using glass containers. And while many factors can affect the efficiency of a filling line, breakage and downtime are two of the issues that can be located, measured, and corrected.

Cans

Lightweight and cost-effective, aluminum cans are an increasingly popular choice for producers, but the container is prone to denting, aesthetic, and crush damage.

The characteristics of aluminum containers provide protection against light, moisture, oxygen and various other contaminants. Innovations in aluminum such as light-weighting and the increased availability of various shapes and sizes of containers has affected the complexity of processing and handling.

Aerosol

Today's aerosols are lightweight and environmentally friendly, but thin walls are susceptible to denting and creating a proper seal can prove challenging.

Aerosol packaging has undergone a major transformation. Aerosol cans are now available in unique shapes and sizes with various dispensing technology. Depending on the look brands are aiming for, lightweight aerosol container designs can feature curves, printed decorations or labels.

PET

PET is one the most dynamic container formats in the packaging industry, accounting for 77% of packaging unit volume gains from 2004-2009.

The benefits of PET containers are extensive. Lightweight designs are cost effective to produce, require less energy to transport and are a sustainable choice which satisfies consumer demand. In addition, flexibility in PET container design enables producers to build a distinct brand identity.

GET THE GUIDE TO PACKAGING DAMAGE ON THE LINE

Learn how to control mechanical forces in production to boost efficiency in bottling processes

GET MY COPY

> The PressureQC™ sensor, on top of being a new and innovative tool for our corporation, has become a key part in all activities aimed to improve safety as well as reducing filling costs.”
>
> Operations
> Heineken Mexico Monterrey

HEINEKEN

Scuffing and a high number of bottle explosions were becoming problematic at Heineken’s Mexico Monterrey plant.

Bottle scuffing is a mechanical degradation of the surface of the glass that manifests as white lines above and below the label. These white lines are unattractive to consumers meaning bottlers are forced to remove affected bottles from circulation.

A 50% increase in the life of a bottle through reducing scuffing on the filling line results in yearly savings in the millions of dollars for most brewers.

Any increase in the amount of time bottles can stay in circulation reduces the number of ‘new’ recyclable bottles that must be introduced to meet the production demand.

Explosions of bottles in the filling line can cause worker injury and present a very serious ongoing safety risk. It can also be a significant cost in downtime and clean-up efforts.

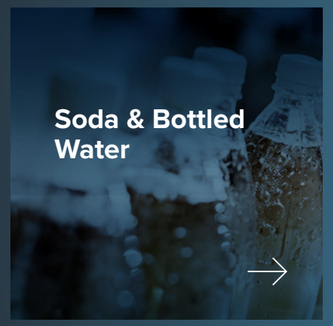
Recognizing that a high number of explosions was occurring on the line, Heineken needed to identify areas where too much pressure was being applied to bottles and take action to reduce that pressure.

PressureQC™ was used to pinpoint high-pressure areas in the filling line, as well as areas where significant scuffing was occurring. In these areas, some re-engineering of the line was performed and changes were made to the conveyor belt design and control logic.

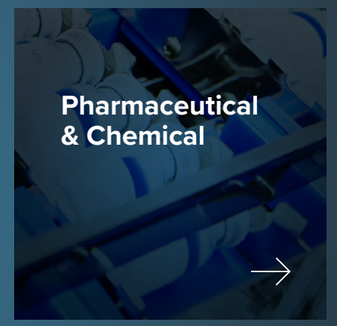
READ THE CASE STUDY

Beer

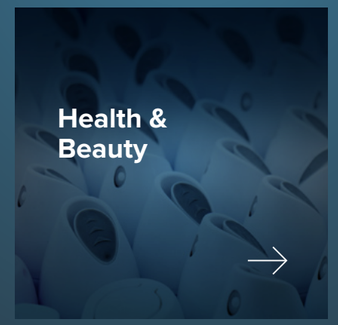
Spirits & Alcoholic Beverages



Food Processing



Glass Manufacturing



OEM

Did you know?
4 out of 4 top breweries use smart in-line sensors.

RESULTS

“ShockQC™ is a very useful tool that we use to diagnose issues on customer filling lines. Having the ability to measure impacts in-line, wirelessly in real time has provided data to improve our customer’s filling operations.”

Michel Alesi, Vice President of Operational Excellence
O-I Europe

“As an engineering firm whose principal focus is quality control within the beverage industry, MMAAZZ adds value for both our bottling clients and glass manufacturers.”

Ricardo Rodriguez, General Manager
ROVI Ingeniería

“It’s very easy to use the tool. It comes with a tablet already loaded with an app that allows us to see the measurements and results in real-time.”

Operations,
Heineken Mexico Monterrey

Hundreds of deployments across 40 countries.

We distribute our smart in-line sensors through a network of agents around the globe with a client base that includes bottling and packaging giants, AB InBev, Nestle, Heineken, Pepsi, Coca-Cola, Diageo, Unilever, Carlsberg and others.

MMAAZZ Powered By MASITEK

FIND AN AGENT

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