LEAK DETECTION
PRESSURE/VACUUM MEASUREMENT
Ideal to ensure product compliance with the quality standards checking vacuum presence or correct internal pressure in closed containers.

A complete range of “sensor based” solutions for the pressure/vacuum inspection in order to identify leaks or non compliant products. The technology, structure and sensor technology will change according to the container and closure kind.

**Available Solutions**

(Standard model/configurations)

- **VP600-AS** [Acoustic Sound Technology Based]
  - Leakage Detection
  - Vacuum Presence Check
  - Pressure Presence Check

- **VP600-PX** [Inductive Proximity Technology Based]
  - Leakage Detection
  - Vacuum Presence Check
  - Pressure Presence Check

- **TBS000** [Inductive Proximity Technology Based + X-Ray/RF]
  - Leakage Detection
  - Correct Pressure Control
  - Fill Level Control

**Features**

- Maximum flexibility in the used technology
- No change to the existing line for installation
- Independent structure for eliminating noise and vibration and ensuring maximum accuracy and minimum maintenance
- Designed to be integrated with additional inspections
  - Minimum/maximum level control
  - Label presence
  - Monitoring

**Advantages**

- **Improve Productivity**
  - Reduction of the number of rejects in case of malfunctioning of the capper through the control on consecutive rejects

- **Improve Quality**
  - Eliminate customer complaints related to pressure leak
  - Eliminate customer complaints related to product deterioration for vacuum leak
  - Ensure product quality

**Type of Container**

- Crown cap, twist-off cap, cans
  (In association with the correct sensors configuration)
Ideal for the detection of leaks. This system is based on a patented technological platform. It checks the pressure and measures the filling level, combining the results into a single value for the maximum precision of the inspection. This unique solution avoids false rejections due to consistency and filling level variability, which is congenital within containers.

This system is available in different configurations. Different technologies of level control can be used according to the type of container and product. On the basis of the characteristics of your containers we recommend the ideal combination of modules required, making the system suitable to detect leaks in your specific products.

**STANDARD INSPECTION**
- Closure tightness
- Microholes on bottle neck area
- Under/over pressure

**FEATURES**
- Analog inductive sensor technology for measuring the pressure
- High Frequency or X-Ray technology for measuring the fill level
- Wizard software for quick product setup
- Hygienic Design oriented
- Squeezer Group fully washable
- Easy maintenance
- No water or lubricants on belts
- Simple belt replacement
- Automatic belt tensioning system
- Designed to be integrated with additional inspections
  - Label presence
  - Monitoring

**ADVANTAGES**
- **Improve Productivity**
  - Reduction of the number of rejects in case of leak through the control on consecutive rejects
- **Improve Quality**
  - Eliminate customer complaints related to product leak
  - Eliminate customer complaints related to product deterioration for incorrect tightness
  - Ensure product quality

**TYPE OF CONTAINER**
- All types of flexible containers
  (in association with the correct sensors configuration)
Direct PRESSURE measurement and contact-less LEAK DETECTION system. Its innovative technology is completely INDEPENDENT of the TYPE OF CLOSURE AND CONTAINER, thus allowing to measure the pressure or the vacuum degree in the products which would otherwise be impossible to inspect through the other systems currently on the market.

Innovative in-line application of Laser Spectroscopy technology. The analysis of a laser beam passing through the headspace of a container is able to provide the information related to the pressure present in the headspace. This method enables a direct measurement which is not affected by physiological changes of the closure and container itself. The patented calculation algorithm guarantees a precise and reliable result on the 100% of production.

**STANDARD INSPECTION**
[depending on configurations]
- LEAK DETECTION
- CORRECT INTERNAL PRESSURE

**FEATURES**
- Laser technology (measure based on the CO2 molecules)
- Inspection for products added with CO2
- Independent of the type of closure and container
- Without color limitation (5% transparency required)
- No change to the existing line for installation
- No mechanical wear
- Independent structure for eliminating noise and vibration and ensuring maximum accuracy and minimum maintenance
- Designed to be integrated with additional inspections
  - Level control
  - Cap/closure presence
  - Label presence
  - Monitoring

**ADVANTAGES**
- **IMPROVE PRODUCTIVITY**
  - Reduction of the number of rejects in case of malfunctioning of the carbonation systems (or pressurization systems) through the control on consecutive rejects
- **IMPROVE QUALITY**
  - Eliminate customer complaints related to incorrect carbonation or pressure
  - Eliminate customer complaints related to product deterioration for leak
  - Ensure product quality
- **SPECIFIC FOR “Champagne” or “Classic Method” INDUSTRIES**
  - Identification of “fermentation problems” before the “degorgement” phase
  - Identification of leak after the final capping phase
  - Avoid cap ejection or bottle burst due to the too high pressure inside the bottles
  - Ensure to respect the legal requirements in terms of CO2 pressure

**TYPE OF CONTAINER**
- All types of closures, all types of containers with at least 5% of transparency
Direct VACUUM/PRESSURE measurement and contact-less LEAK DETECTION system. Its innovative technology is completely INDEPENDENT of the TYPE OF CLOSURE AND CONTAINER, thus allowing to measure the pressure or the vacuum degree in the products which would otherwise be impossible to inspect through the other systems currently on the market.

Innovative in-line application of Laser Spectroscopy technology. The analysis of a laser beam passing through the headspace of a container is able to provide the information related to the pressure or vacuum present in the headspace. This method enables a direct measurement which is not affected by physiological changes of the closure and container itself. The patented calculation algorithm guarantees a precise and reliable result on the 100% of production.

STANDARD INSPECTION
[depending on configurations]

- LEAK DETECTION
- CORRECT INTERNAL PRESSURE
- CORRECT INTERNAL VACUUM LEVEL

FEATURES
- Laser technology (measure based on the water vapour molecules H2O)
- Inspection of products added with nitrogen
- Inspection of vacuum packed/pasteurized products
- Independent of the type of closure and container
- Without color/material limitation (5% transparency required)
- No change to the existing line for installation
- No mechanical wear
- Independent structure for eliminating noise and vibration and ensuring maximum accuracy and minimum maintenance
- Designed to be integrated with additional inspections
  - Level control
  - Cap/foil presence
  - Label presence
  - Monitoring

ADVANTAGES
- IMPROVE PRODUCTIVITY
  - Nitrogen doser monitoring for a reduction of the consumptions
  - Reduction of the number of rejects in case of malfunctioning of the nitrogen dosing systems (through the control on consecutive rejects)
  - Reduction of the number of rejects in case of malfunctioning of the pasteurizer (through the control on consecutive rejects)
  - Reduction of the number of rejects in case of malfunctioning of capping/closing systems (through the control on consecutive rejects)
- IMPROVE QUALITY
  - Eliminate customer complaints related to incorrect internal pressure
  - Eliminate customer complaints related to product deterioration for vacuum leak
  - Eliminate customer complaints related to product leak

TYPE OF CONTAINER
- All types of closures, all types of containers with at least 5% of transparency

Installation example
Principle - vacuum [hot-filled product]
Example - pressure Nitrogen Dosed product
Example - vacuum [hot-filled + pasteurized]
Graphical results
Automatic settings procedure
Automatic settings of rejection levels
FT SYSTEM

Founded in 1998, FT SYSTEM has specialised in the design and production of quality control monitoring systems along the entire bottling and packaging line. From the inspection of empty containers and caps to fill levels, from accurate capping analysis to leakage detection, from measuring internal pressure of the container to weight control, from label control to laboratory analysis, FT SYSTEM guarantees the quality of your products, while optimising the production process and supporting the overall cost reduction.

In 2009 FT System joined Arol S.p.A. giving rise to the Arol Group.

Since 2019, FT System is part of Antares Vision.

INTEGRATED AND TOTAL QUALITY SOLUTIONS

The simple and intuitive multiple inspection stations along the entire packaging process can also be integrated into a single control panel for a total overview of the quality and production performance.

LASER SPECTROSCOPY DIVISION

L PRO GAS SENSING is the FT SYSTEM division dedicated to the laser spectroscopy technology. A revolutionary and innovative method, which has enabled the development of non-destructive instruments of analysis and measurement of gas inside sealed containers. The main fields of application of LPRO technology are the beverage (with specific solutions dedicated to the bottling of wine, beer, water and soft drinks), along with the food and pharmaceutical industries.

About ANTARES VISION

Antares Vision guarantees the process of protecting products throughout their lifecycle, through the most comprehensive and scalable global solutions in Inspection Systems, Track & Trace and Smart Data Management for the most demanding industrial sectors such as pharmaceuticals, medical devices, food, beverage, cosmetics and fashion. With its products and services, Antares Vision reaches more than 60 countries worldwide with three Italian branches (Brescia, Parma, Latina), eight foreign branches (Germany, France, Ireland, USA, Brazil, India, Russia and Hong Kong), two Innovation Centers located in Italy and Ireland (Galway) and a worldwide network of more than 30 partners. With a 20 year experience in vision technologies, Antares Vision is the supplier of 10 of the world’s top 20 pharmaceutical companies: more than 25,000 inspection systems ensure every day product safety and quality, while over 2,500 serialization lines are installed all over the world to guarantee the tracking of more than 5 billion products across the whole supply chain.

Antares Vision has been listed on the Italian Stock Exchange since April 2019 - the AIM Italia/ Alternative market segment is dedicated to dynamic and competitive SMEs. At the end of September 2019 Antares Vision acquired 100% of FT System, leader of the control and inspection in the beverage sector. Emidio Zorzella and Massimo Bonardi have been awarded with the Best Entrepreneur of The Year Award for innovation by Ernst & Young.
FT SYSTEM HAS A COMPLETE RANGE OF INSPECTION AND TRACKING SYSTEMS in order to ensure the high quality of your product allowing the optimization of your production reducing costs

**FOR YOUR... PLASTIC LINE**

- **BLOW MOLDER**
- **Capper**
- **Filler**
- **Monitoring**
- **Application Angle Inspection**
- **Brand Inspection [printed on cap]**
- **Leak [squeezer based]**
- **Leak Detection Pressure/Vacuum**
- **Robot-QCS**
- **Rejector**
- **Labelling**

**FOR YOUR... GLASS LINE**

- **WASHER**
- **Filler**
- **Monitoring**
- **Application Angle Inspection**
- **Brand Inspection [printed on cap]**
- **Ejector**
- **Cap Quality [OT]**
- **Capping**

**FOR YOUR... CANS LINE**

- **FILLER SEAMER**
- **Pasteurizer**
- **Monitoring**
- **Filling pressure check**
- **Cans pressure check**
- **Ejector**
- **Diverter**
- **Checkweigher for single product**

**EVO-CO2**
- Total pressure [CO2 partial CO2 dissolved]

**EVO-O2**
- O2 concentration [NON pressourized products]

**EVO-N2**
- Total Pressure [Nitrogen dosed products]

**EVO-P**
- O2 concentration

**EVO-V**
- Vacuum level [Hot-filled and pasteurized products]

**EVO-TRACE**
- Very low concentration of CO2

**EVO-N**
- Total Pressure [Nitrogen dosed products]

**LABELLING**
- [SLEEVER]

**FOR YOUR... LABORATORY NON-DESTRUCTIVE ANALYZERS**

- **FT SYSTEM HAS A COMPLETE RANGE OF  INSPECTION AND TRACKING SYSTEMS in order to ensure the high quality of your product allowing the optimization of your production reducing costs**