



**Bonfiglioli**™  
Engineering



# NON-INVASIVE AND NON-DESTRUCTIVE PACKAGE INTEGRITY INSPECTION SYSTEMS



*Bonfiglioli Engineering is the worldwide leader in Quality Inspection Solutions for all packaging requirements in Pharmaceuticals, Metal Cans and Aerosols, Food & Beverages and Chemicals and Personal Care.*

*Established in 1974, in Ferrara, Italy, Bonfiglioli Engineering has continuously invested, innovated and evolved, making new breakthroughs in leak testing while offering a vast product portfolio for all packaging requirements.*

*Bonfiglioli combines its remarkable engineering expertise with proactive solutions and technological developments to create superior Quality Control Solutions for customers.*

*Bonfiglioli Engineering provides its clients with customized solutions based on quality, expertise, flexibility and global customer service support.*



# COMPANY HISTORY

1974

Founded in Ferrara, Italy, with first ingenious leak testing machine for plastic containers.

1985

Bonfiglioli begins producing package integrity equipment for the cans and aerosol market.

1988

Bonfiglioli, engineered and manufactured its first patented pharmaceutical package testing in-line rotary equipment.

2012

Acquisition by Tasi Group.

2013

Innovation into Visual Inspection Technology with the launch of PK-VIS in-line rotary series.

2014

Breakthrough in all-in-one solutions combining Headspace Gas Analysis with Vacuum Decay Method.

2019

Relocation to a modern and larger premise (11,000 sq. meters) for optimizing production capacity.

Bonfiglioli Engineering adheres to **4 main pillars**:



QUALITY



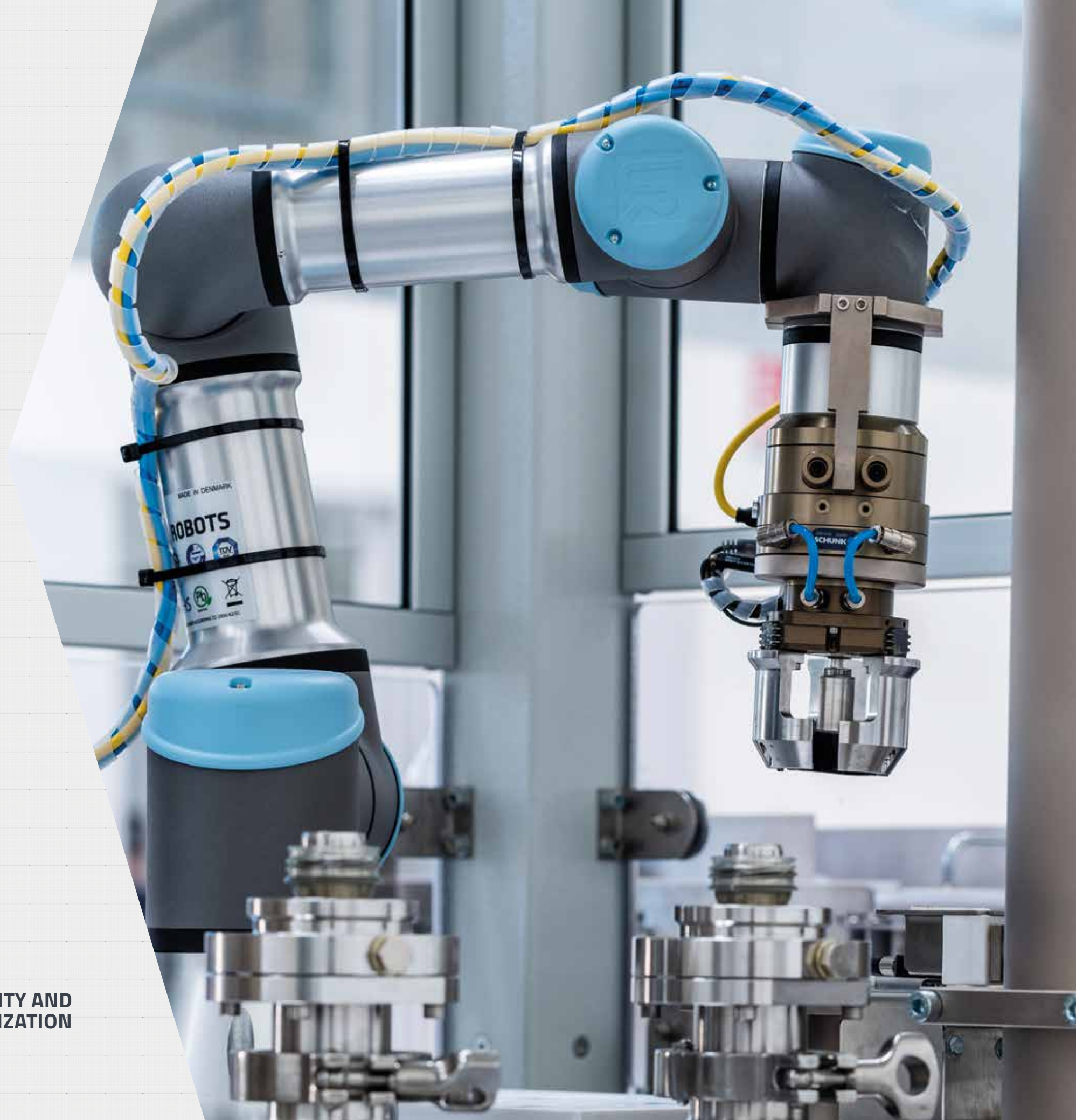
INNOVATION



EXPERTISE



FLEXIBILITY AND CUSTOMIZATION



# INDUSTRY SECTORS

Bonfiglioli proudly serves all packaging sectors. We specialize in the use of the most advanced technologies, covering a diverse set of container types and dimensions.

**PHARMACEUTICAL**

- Vials
- BFS/FFS
- Ampoules
- Pre-Filled Syringes
- Bags and Pouches
- Sachets/IV Bags
- Bottles
- Cartridges
- Flowrapped Devices
- MDI/MDPI
- Monobloc
- Medication Tubes



**METAL CANS AND AEROSOL**

- Composite cans
- Monobloc
- 2/3-piece cans
- Pails
- Drums
- Easy Open Ends
- Empty Tubes
- Aerosol Dispensers



**FOOD AND BEVERAGE**

- General Line
- Food Cans
- Food Trays
- Cups
- Ready meals
- Stick Packs
- Induction Sealed
- Doy Packs
- Bottles



**CHEMICAL & PERSONAL CARE**

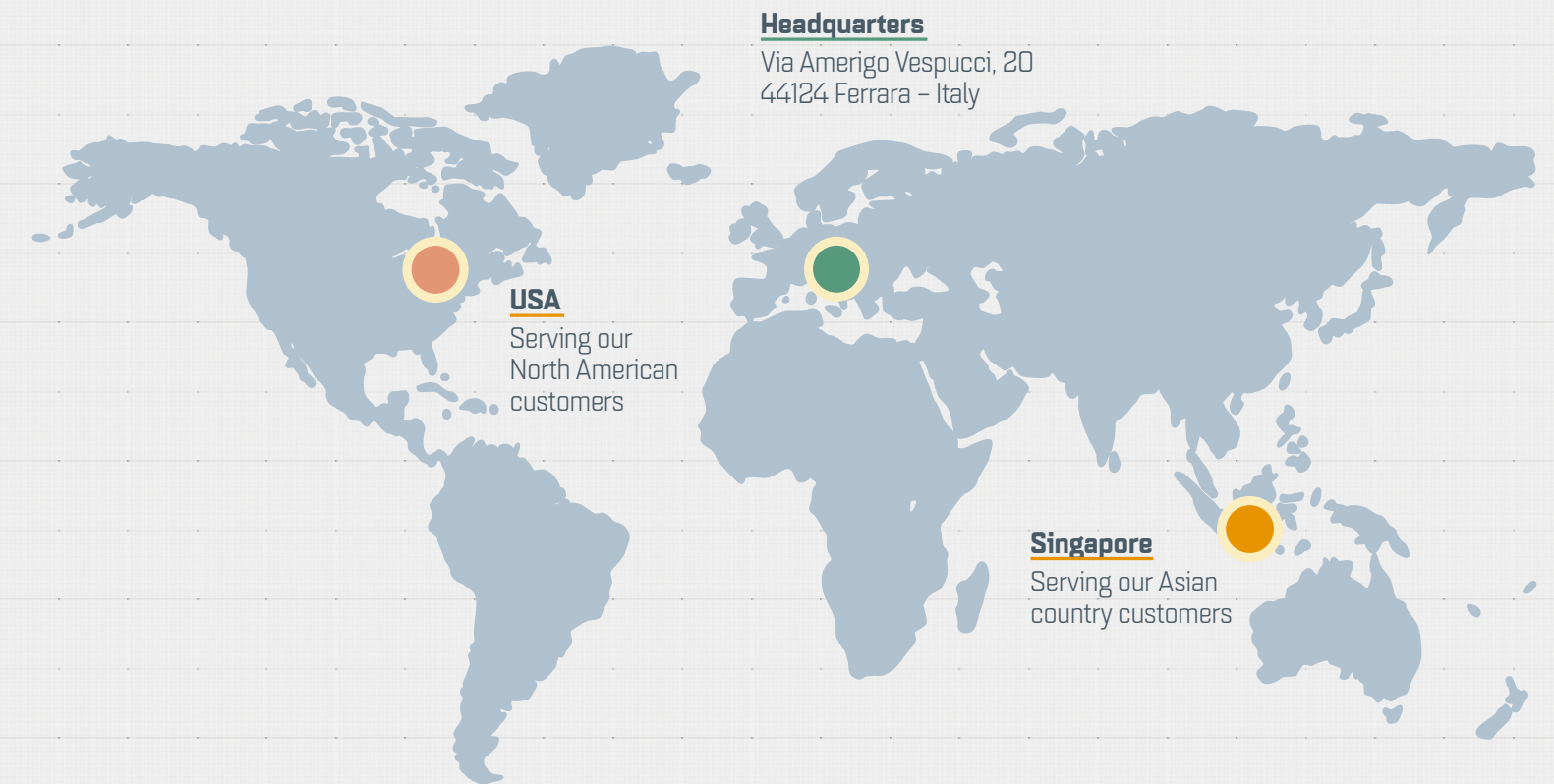
- Jars
- Tubes
- Cans
- Drums
- Vials/Ampoules
- Bottles



# GLOBAL PRESENCE

**Bonfiglioli Engineering** is present in over 75 countries worldwide, making an impact on the efficiency and the safety of customers served by the packaging industry worldwide.

Every customer is a priority and receives prompt and reliable assistance throughout the entire equipment life cycle.



**Assistance via Phone and E-mail** to collaborate with customer's on-site technician.

**Service Line for services and support information**, staffed with qualified experts to provide services from 7:30am to 9:00pm Central EU time. Extendable times to help answer queries in every part of the world.

**Trouble Shooting Support** to help identify causes of breakdown and provide remedies.

**On-Site Field Visits** solve problems at the site with technical support.

**Remote Assistance**, Bonfiglioli Engineering Specialists have direct access to diagnose problems promptly, change parameters, evaluate images and analyze software performance.



# TECHNOLOGIES ADOPTED

Bonfiglioli offers only non-invasive & non-destructive technologies in its package integrity solutions ensuring:

- ABSENCE OF LEAKS
- INTEGRITY OF HEADSPACE GAS CONTENT
- ABSENCE OF VISUAL DEFECTS

## Container Closure Integrity Testing (CCIT):

Vacuum & Pressure Decay methods based on the principle of operation set by ASTM F2338-09 (Standard test method for non-destructive detection of leaks in packages).

## Headspace Gas Analysis (HGA):

Non-invasive & non-destructive method based on TDLAS. It guarantees the maintenance of sterility and stability in filled and finished containers. It is ideal for checking the integrity of freeze-dried products & oxygen-sensitive liquid products, according to USP General Chapter (1207) "Package Integrity Evaluation - Sterile Products."

## Visual Inspection (VI):

Automated camera based measurement technology detecting visual defects such as: presence of foreign particulate matters, cosmetics defects, false fill level & product color, according to USP General Chapter (790) "Visible particulates in injections" and USP General Chapter (1790) "Visual inspection of injections."



# PRODUCT PORTFOLIO

Bonfiglioli Engineering provides dedicated solutions for Pharmaceuticals, Food and Beverages, Plastic, Metal Cans and Aerosols, Chemicals and Personal Care and more, effectively meeting all industrial needs with state-of-the-art technology.

Also available are 100% non-destructive solutions for laboratories as well as in-line applications.



LAB EQUIPMENT



IN-PROCESS CONTROL



IN-LINE/OFF-LINE MACHINES



COMBI MACHINES



# WHY CHOOSE BONFIGLIOLI ENGINEERING

- | 100% CUSTOMIZED INSPECTION SOLUTIONS
- | CUSTOMER-CENTRIC FOCUS,
- | WIDE PRODUCT PORTFOLIO  
COVERING ALL SECTORS & CONTAINERS
- | LONG TERM EXPERTISE
- | CUSTOM COMBINATION SOLUTIONS
- | EXPERIMENTATION AND FEASIBILITY STUDIES
- | PRODUCT AND MAINTENANCE TRAINING
- | GLOBAL AFTERMARKET SALES SUPPORT

**QUALITY AND PRECISION**



# QUALITY ASSURANCE AND REGULATIONS

Bonfiglioli Engineering is an active participant in international industry associations, interest group communities and task forces, which support the pursuit of absolute quality, attested by our ISO 9001:2015 quality standard certification.

The solutions that Bonfiglioli Engineering designs, develops and delivers are meant to comply to norms and regulations such as:

## PHARMACEUTICALS

- | ASTM F2338-09 (Vacuum Decay Leak Testing)
- | USP 1207 (Container Closure Integrity Testing)
- | FDA 21CFR PART 11 – ELECTRONIC RECORDS;  
ELECTRONIC SIGNATURES
- | EUDRALEX VOLUME 4 - ANNEX 15 – QUALIFICATION AND VALIDATION
- | EUDRALEX VOLUME 4 - ANNEX 11 – COMPUTERIZED SYSTEMS
- | GOOD MANUFACTURING PRACTICES AND GAMP

## AEROSOLS

- | ADR (Aerosol Dispensers)
- | FEA (European Aerosol Federation)
- | DOT REGULATIONS

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*Company with management  
system of certified quality  
according to the norms ISO  
9001:2015*







**YOUR CHALLENGE.  
OUR SOLUTIONS.  
YOUR SUCCESS.**



**YOUR PARTNER IN PACKAGE  
INTEGRITY INSPECTION SYSTEMS**





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