

Aircontronic MSM

Detection system for foreign matter

 **KRONES**

You have got to be certain



A returnable container can experience many things between two cycles – and not all of it is pleasant. This is why it is all the more important to play it safe before refilling it again. Could there potentially be a substance in the container that the bottle washing system was unable to remove? The Aircontronic MSM has the answer. With its detection systems, it can reliably trace a variety of foreign substances and contaminations – and gives you the assurance: In the next cycle too, the containers will only hold exactly what they are intended to hold.

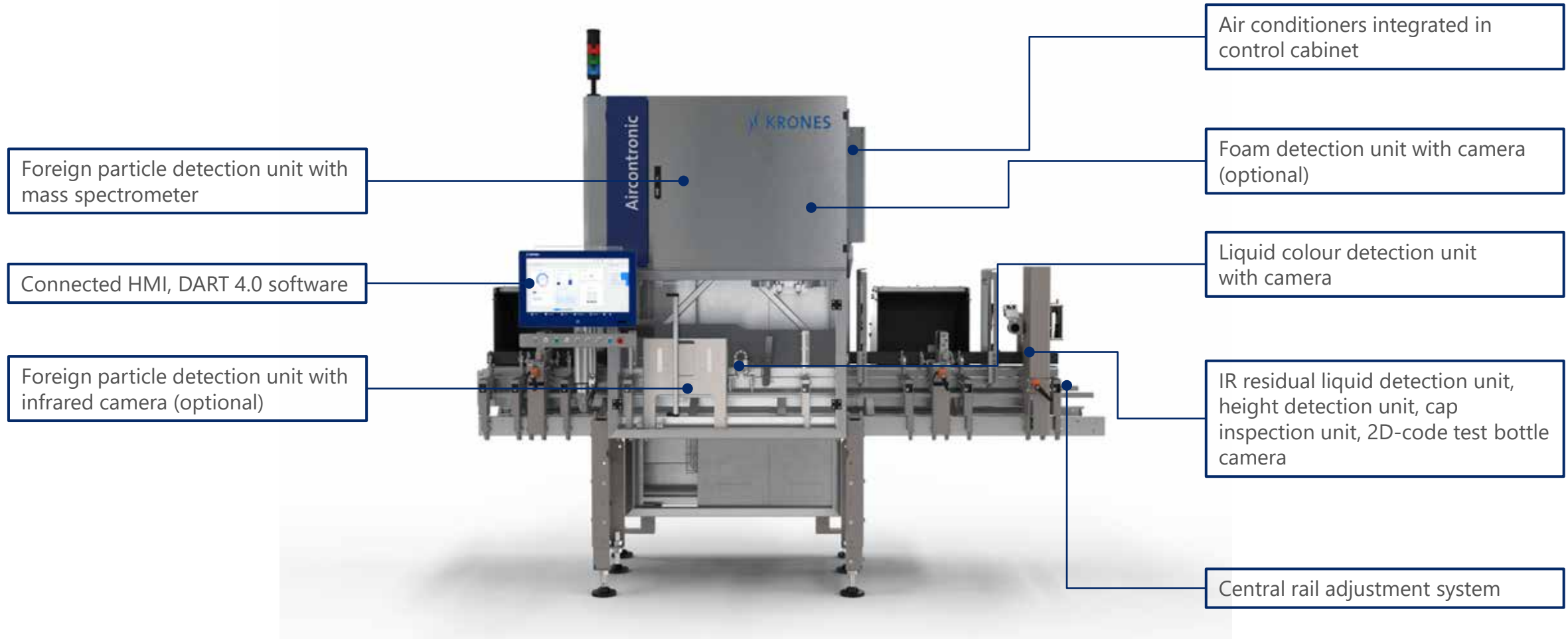
At a glance

- Inspection of empty containers
- Suitable for returnable PET
- Inspection systems:
 - Foreign particle detection unit with mass spectrometer
 - Liquid colour detection unit with camera
 - And at the container infeed: IR residual liquid detection unit, height detection unit, cap inspection unit, 2D-code test bottle camera

MSM: Mass spectrometer



Machine structure



Foreign particle detection unit with mass spectrometer



Method of operation

- Pure air is blown into the container.
- The air is drawn out of the container and mass spectrometry used to check the bottle for contamination.



Liquid colour detection unit with camera



- Equipment: Colour camera and LED lighting
- Method of operation: Inspection of the liquid using the transmitted light method
- Result: Detection of odourless turbid and coloured liquids



Foam detection unit with camera (optional)



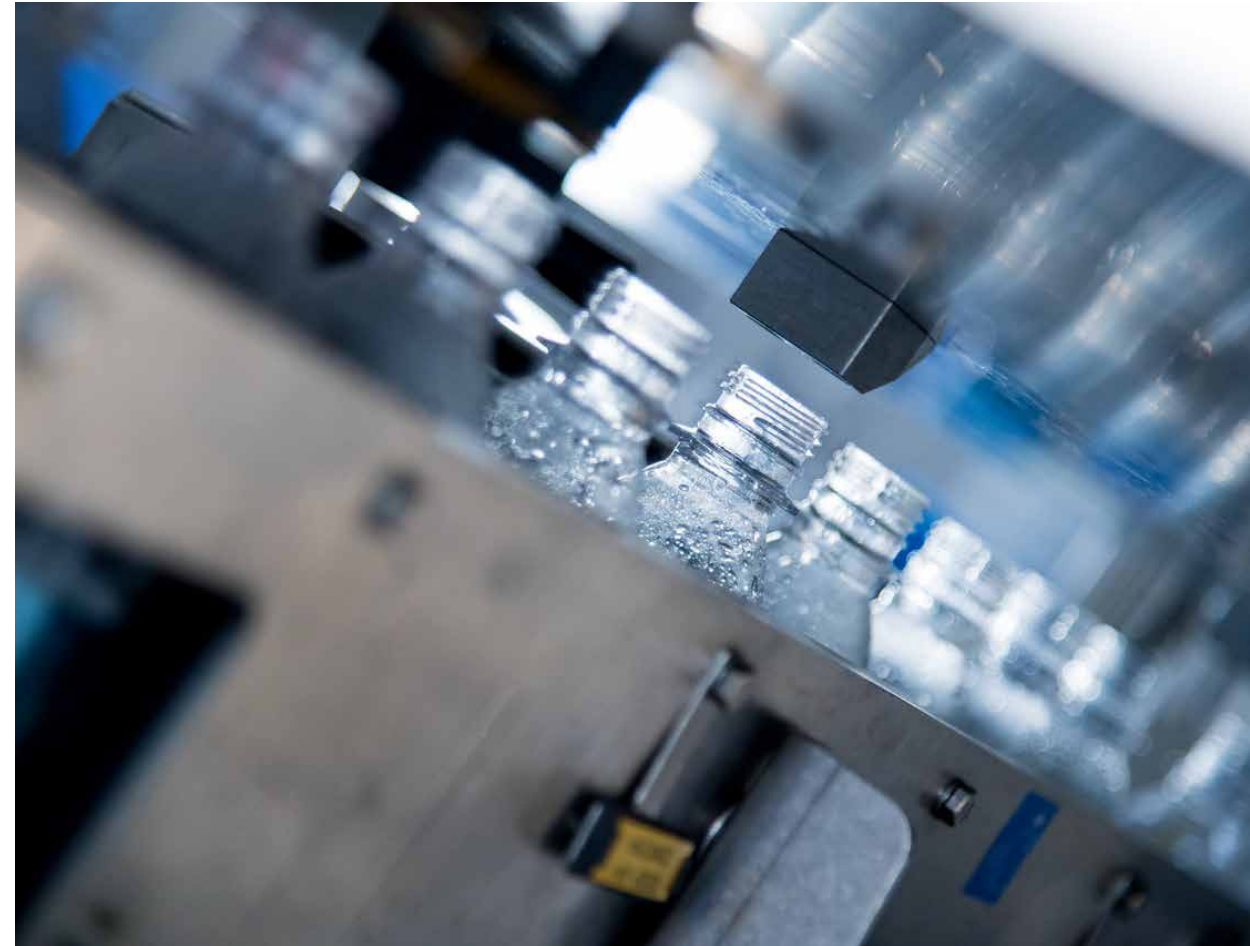
- Equipment: Colour camera and LED lighting
- Method of operation: Container base inspection using the reflected light method
- Result: Detection of residual foam on the container base



Foreign particle detection unit with IR camera (optional)



- Equipment: Black and white camera with LED lighting
- Method of operation: The residual liquid is inspected in the infrared range
- Result: Detection of cannulas and other foreign matter located in light and dark liquids



Rejection systems



The Krones rejection system conveys containers found to be faulty reliably and easily from the production flow. You can choose from a number of different systems depending on the application and line layout.

Varioglide

- Electrical rejection unit
- Suitable for empty PET containers
- Containers are rejected onto a rejection table or parallel conveyors
- Container sorting possible
- Energy-saving operation without compressed-air consumption



Ecopush

- Electrical rejection unit
- Rejection of the bottles into a collecting bin
- Energy-saving operation without compressed-air consumption
- Low noise level
- No maintenance work needed



Safety management



Password protection with transponder

- Logon of an authorised person prior to start of production
- Permanent password protection with automatic logout function
- Logon via uniform transponder technology, e. g. filler, labeller, etc.

Test container program with 2D code

- Very high product safety
- Easy, inexpensive test container manufacture

Rejection monitoring

Monitoring of the rejection unit



Safety management

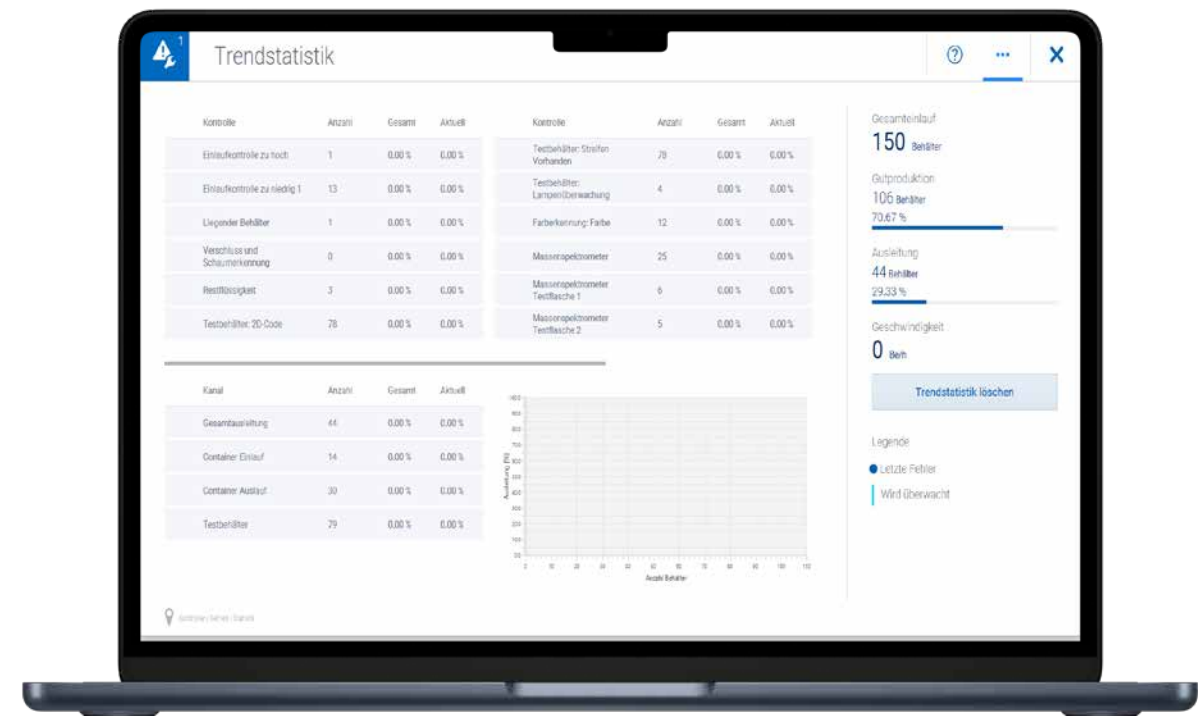


Data backup

- To ensure continuous traceability, the following production data is saved automatically:
 - Production data
 - Parameter changes
 - Malfunctions
 - Results of the test container program

Trend statistics

- You can see what is currently going on in the Aircontronic at any time at the Connected HMI. The displayed data includes the following:
 - Changes in the container pool
 - Deviations in ambient conditions, e.g. dirt on the protective glass covers
 - Rejection rate – the user is also automatically warned or the machine is stopped if the deviation is too great



Benefits to you



Safety for you and your products

Whether you are dealing with petrochemicals, flavourings or other forms of contamination: The Aircontronic traces the most widely varied foreign matter and reliably rejects contaminated containers.

Hygienic inspection

No immersion, no touching: The Aircontronic inspection units never come into contact with the containers or their content.

Efficient method of operation

When directly compared to conventional rotary machines, the linear Aircontronic immediately scores points with multiple benefits: It only requires one single sample, its processes can be better reproduced and its functions can be checked with considerably fewer test containers.

Flexible, sturdy, low-maintenance

The machine has no moving parts, thus ensuring malfunction-free and low-maintenance operation. No handling parts need to be changed to process different container sizes.

Reliable for every container size

Thanks to its mass spectrometer technology, the system detects even the smallest quantities of foreign matter – even in small containers.

Requesting a new machine

You can easily send a request for a non-binding quotation in our Krones.shop.



Everything from a single source



Training sessions at the Krones Academy – trained personnel for an increased efficiency of your line

The multifaceted offer by the Krones Academy ranges from operation, servicing and maintenance courses through to management training. We will gladly also create your individual training programme.

Krones Lifecycle Service – Partner for Performance

It goes without saying that also after the purchase of new machines, Krones takes care of your lines: The Krones LCS experts are always there to help you reaching your goals and turn your wishes into optimal LCS solutions.



**SOLUTIONS
BEYOND
TOMORROW**

