

The empty bottle-full inspection

for small and medium-sized companies





For systems with an operational performance of up to 24,000 bottles/h, we deliver optimally-tailored inspection machines at a special price-performance ratio.

Simple operation

The user-friendly interface permits quick detection and high acceptance amongst operating personnel as a result of its schematic representation of the system. Inspection of the machine functionality according to allocated criteria and automatic requests with logged checks.



Empty bottle full inspection in hygienic design

The new full inspection machine by Nagel Automations-technik in Kaufungen distinguishes itself through a completely transparent tube substructure, which allows the already-compact machine to appear even more inconspicuous and smaller in the space available.

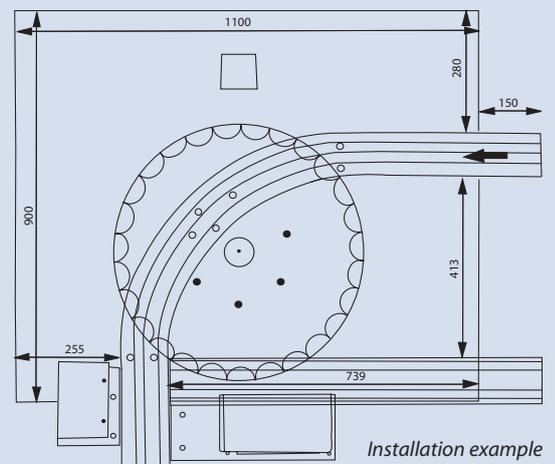
Our empty bottle full inspection provides you with the reliability and flexibility, which you need to stay competitive. Within the smallest space, we can install a high-quality inspection system for you featuring the latest camera technology.

With space requirements of merely 1.10 m x 0.90 m, you can achieve the highest detection precision and ensure the quality of your production.

We have developed one of the smallest empty bottle inspection systems on the market, which provides you with the complete performance scope of a full inspection over only approx. one square metre floor space.

Sorting via flap technology, up to 12,000 bottles/h

The bottles are reliably guided to the discharge area via two flaps in the star component. Reliable discharge also for top-heavy-headed bottles (e.g. flip-top bottle 0.33 l)



Sorting via pusher of up to 24,000 bottles/h on transition table



■ Bottle base inspections

Detection of damage, contamination and foreign bodies at the base of the bottle. Maximum recognition precision in a sensitive area. Reliable detection of known problems, e.g. yeast remains, cigarette films, needles, etc.



■ Bottle mouth inspection

Recognition of defective bottle mouths; no bad products as a result of oxygen contact. No risk of injury as a result of broken-off, defective bottle mouths.



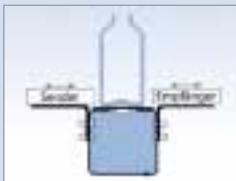
■ Multiple sidewall inspections

Detection of damage and contamination of the side walls. The inspections of the side wall are performed via a **full bottle rotation**, whereby depending on the bottle diameter, 4-10 images are performed. Detection examples: Straws, masonry dirt, label remnants, mould (only full inspection).



■ Thread inspection

For the reliable recognition of defective and extremely worn threads. Prevention of cut injuries or grinding when opening screw closure bottles as a result of defective threads (only full inspection).



■ High frequency residual fluid and alkaline solution inspection

High recognition precision also of minimal quantities of residual fluid and alkaline solutions by means of high-frequency sender-receiver measurement principles.



■ Flip-top inspections

Recognition of whether the bracket is present, rubber seal is present and the correct colour of the rubber. Recognition of label remnants on the neck of the bottle in the area of the flip-top closure (only full inspection).



■ Print logs

Production data, test bottle logs and machine conditions are available in clear-layout logs and can be printed out automatically or when called up. The logs can - according to statutory stipulations - be stored over years (only full inspection).



■ Remote-service

Condition and error diagnostics of the inspection machine via Internet. Adjustments to the recognition functions can be performed. Quick support in case of function problems, free of charge service employee travel. House-internal remote display of the machine data via the company network.



■ Test bottle operation

Inspection of the machine functionality according to permanently assigned criteria and automatic request. Each check is logged and serves as verification of the machine functionality during executed productions (only full inspection).



■ IR residual fluid inspection

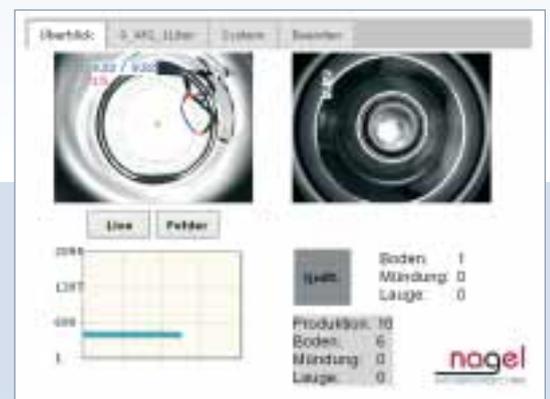
Infrared measurement procedures for the recognition of organic fluids (e.g. oils).

The benefits of the system

Thanks to favourable acquisition costs and direct installation on the conveyor belt, our Mini Inspector is also suited for filling companies who previously had to forego a bottle inspection for cost and space reasons, yet do not wish and cannot accept compromises regarding reliability and product quality.

The minimal installation and integration effort ensures short downtimes and cost-effective installations. The system is commissioned by our experienced employees within a short time and guarantees you optimum error detection and safeguarding against failure during operation.

Essentially, no subsequent costs arise in maintenance and operation as a result of the device featuring almost no wearing parts. The intuitive and easy-to-understand user interface ensures the quick and simple induction of operating personnel.



The Mini Inspector with camera technology

The Mini Inspector is a modern and specially-developed system for very small systems to inspect bottle bases, alkaline solutions and bottle mouths. It is based on the tried and tested technology of the full inspection system and therefore guarantees maximum inspection precision. The components of the system can easily be installed on the conveyor belt of approx. 600 mm in length; as a result, both the installation effort as well as the space requirements are reduced to a minimum.

With this system, a reliable inspection system is available to fillers who have previously been forced to forego bottle inspection for space and cost reasons, therefore enabling production reliability at a low investment cost.

- Bottle base inspections
- Alkaline solution inspections
- Bottle mouth inspections
- Remote service
- Automatic sorting



Interesting facts

- Specialised in empty bottle inspection since 1995
- Machine setup in hygienic design
- Gigabit Ethernet CCD camera
- Fanless computer for wide-range temperature application incl. SSD
- Windows 7 operating system
- Wear-free LED technology for the illumination
- Use of conventional brand components for guaranteed spare part availability
- Transparent substructure for the most flexible installation possibilities e.g. superstructure possibility for the Inspector
- Minimum space requirements, approx. 1 m²
- Wearing part expenses are minimal
- High-performance service

Company

In 1995, Nagel Automationstechnik acquired the empty bottle inspection division of Ponndorf. Established on the technology of the Ponndorf machines and based on this know-how, the system was adapted to the market demands of today through continual further development.

Concentrating on a complete system for small and medium-sized filling companies with first-class service and great commitment was the decisive step for high acceptance amongst our customers. Only those who know their customers and the specific requirements of the small and medium-sized companies, and who dare to conduct the daily balancing act between economic efficiency and quality can address their customers directly and supply a system to them which corresponds exactly to their needs.

Inexpensive, effective, compact and reliable.

Investment security also plays a significant role which is why small and medium-sized filling companies in particular rely on a partner who knows the products as well as them, who advocates a system and its performance with great commitment and who is not distracted by short-term market considerations.

Only those who act with conviction for the benefit of their target group have a long-term chance in the market. We have shown this conviction since 1995 through the creation of state of the art bottle inspection systems with high-quality automation technology.



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