Quality assurance Prewash inspection for water containers

INSPECTO
AUTOMATION AG

Canis 220CL Contamination Detection and leak Detection

Proved: Combined two functions in one machine

Odour Inspection for a large range of contaminations

Leak detection fine cracks and holes 0,2 mm2

Advantages
-Favorable machine price
-Low maintenance
-high efficiency
-simple installation
-low maintenance cost

More products: Camera inspection for Pet-Preforms and Recyling PET inspection

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Canis 120C to 420C Sniffer (Contamination Detection)

Functional description of the Sniffer Canis:
Canis 120C to 420C is a contamination detection system with 1-4 bottle station. First the bottles must pass the Decapper; bottles full with water shall be removed. The bottles shall be transported on a conveyor.

The bottles are stopped in the Sniffer by the bottle stopper. The sniffing nose is lowed down into the bottle and takes a gas sample even from the base of the bottle. The vacuum pump transports the sample trough a flexible pipe to the odour sensor. Then the stopper is releases the bottle and waits for the next bottle.

The bottles are supposed to smell nothing, humidity and air does not give a signal. If the sensor detects a gas component, it results in a rising signal and if this signal exceeds the threshold, then the bottle is marked for rejection. The Bottle is pushed sideways down from Conveyor. The sniffing process needs 2.5 second, the conveying time shall be accelerated by the built in Frequency inverter. The display on the PLC shoes the sensor output signal and the statistics; it counts the number of produced and rejected bottles per day and permanent. Bottles with cap are not measured and will be ejected.

Option: Pneumatic height adjustment for two different bottle sizes. If two different sizes of bottles are used, then height can be changed with a pneumatic or electric cylinder. However the bottle diameter shall be the same.

Maintenance:
The Sensitivity shall be tested every day with a test bottle. The sensor needs no maintenance. The small and inexpensive filter shall be changed every two week. There is no big cleaning effort for maintenance needed. Optionally a calibrated gas can be used for an accurate measurement of the sensitivity. Two Sensors are installed in order to have highest operation safety and no production stop in case of very high contamination.

The inexpensive odour sensors shall, be changed between after 12 to 18 month.

Machine Types:
Canis 120-C with 1 head, speed up to 800 bottles/h
Canis 120-CL Sniffer and leak detection 600 B/h
Canis 220-CL with 2 heads Sniffer and Leak detection combined 1000 max 1200 B/hour
Canis 320-CL with 3 heads, Sniffer and leak detection combined 1500 B/hour
Canis 420-CL 4 heads 2000 B/h
Canis 420-C 4 Heads 2500 B/h

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Canis 220 CL detection system with 2 stations, production 1000 bottles per hr Leak detection combined with Contamination Detection (Sniffer)

The Sniffer with the vertical nose movement detects odours even in the bottom of the Bottles. The Leak detection detects holes similar to a 0.6 mm diameter hole with 100% probability. The unique new combination of leak detection and Sniffer is faster as common Leak detectors.

Functional description for Canis 220CL Contamination and Leak detector

The Machine has two heads. Two separate stoppers are stopping the incoming bottles. The two heads are lowered on the bottle neck, sealing on the bottle mouth. Then the Sniffing process and the Leak measurement are performed the same time. After 5 second the 2 bottles are released. If one of the two bottles has been identified as a leaking bottle or as contaminated, then the bottle will be rejected by the following pusher. The holes we can detect are equivalent to a 0.6 mm hole. Cracks in the bottle will open with the air pressure and represent a much bigger hole. Defects on the bottle neck and finish will be detected as leak.

The Sniffer heads in the C-type machine are of a new type. The Canis 220 Machine with the C-Sensors has been tested and approved Coca Cola®, and by Nestlé Waters Vittel PTC Water. The sensitivity for the tested contaminants is equivalent to other products and sufficient for the bottle Inspection. The stability is better than with the common detectors. Two sensors per station double the already high operation safety. The biggest advantage is the reliability and the low price of the sensor maintenance. The second advantage is that the sensors must not be cleaned; the sensors are replaced after 12 to 18 month. The absolute minimal maintenance saves money and the replacement of sensors is simple.

Canis 220-CL is the new and the unique combined machine on the market. The small space requirement, the combination of leak detection and Sniffer in one machine, the small maintenance cost and mainly the small price of the machine makes it the most attractive machine for Bottle Quality inspection. The machine has passed the field test and has shown no problem while inspecting 2.5 Million bottles. The high reliability at low cost and maintenance is unbeatable advantage.
Canis 220-CL has a high performance to price rate and covers you needs.

Sensitivity better than:	
Benzene:	0.5 ppm
Naphthalene	4 ppm
Ammonia:	0.05%
Ethanol, (Alcohol)	2.5 ppm
(About one drop in a bottle)	

Detection of Contaminants like
Gasoline, Diesel, Benzene, Motor Oil, White Spirit
Solvents: Acetone, Toluene, Colour solvents
Ammonia NH_3, Cigarettes, Garlic, Vinegar
Soft Drinks, Cola, Lemmon, fruit juice
Alcohol like Wine, fermented fruit juice, Beer,
Glass cleaner, Washing products etc

Canis Water Bottle Inspectors

1. Canis-120-CL
- Combined Leak detection and Contamination
- Automatic Processing
- 1 measurement station
- Equipped with Pressure/leak measurement and two contamination detectors
- Production Speed 550 up to 600 Bottles per hour

2. Canis-120-C
- Contamination detection system
- Automatic Sniffer for (5) Gallon Water Bottles
- 1 measurement station
- Equipped with 2 chemical odour sensors
- Production 750 up to 800 Bottles per hour

3. Canis-100-C Light-Version
- Contamination Detection
- Automatic Processing
- 1 measurement station
- Equipped with 1 odour measurement
- No options no height change available
- Production Speed up to 400 Bottles per hour

Canis-100C

4. Canis-220-CL
- Combined Leak detection and Contamination detection
- Automatic Processing
- 2 measurement stations
- Equipped with Pressure/leak measurement and 4 contamination detectors
- Machine speed 950 up to 1050 Bottles per hour

5. Canis-220-C
- Contamination detection Sniffer
- Automatic Processing
- 2 measurement stations
- Equipped with 4 contamination detectors
- Production Speed up to 1600 Bottles per hour

6. Canis-320-CL
- Combined Leak detection and Contamination detection
- Automatic Processing
- 3 measurement stations
- Equipped with Pressure/leak measurement and 6 contamination detectors
- Production Speed 1500 up to 1550 Bottles per hour
  Machine speed up to 1500 B/Hour

7. Canis-320-C
- Contamination detection
- Automatic Processing
- 3 measurement stations
- Equipped with 6 contamination detectors
- Production Speed 1800 up to 2000 Bottles per hour

8. Canis-420CL
- Canis 420 CL max 2000 B/h with leak
- Canis 420C max 2650 B/h pure sniffer
- 4 measurement stations