



Do you know where
the missing parts
of the bottle
are?



BBULL PROTECX

Filled Bottle Inspector for the Beverage Industry

PRODUCT SPECIFICATIONS



General

Possible causes for contamination of filled products:

- bottle bursts in the filler
- misadjusted filling valves
- faulty caps
- bad bottle material
- missing or insufficient empty bottle inspection

In case such bottles, contaminated with foreign bodies, reach the customer undesired and expensive complaints, call back actions up to claims for damages can not be excluded. The resulting damage of the image for the product and the brand is an unpredictable risk that should be avoided best possible.

Prevention

Traditional prevention procedures as bottle burst management or optical inspections are only temporarily solutions or insufficient or expensive.

The descending of the critical foreign bodies (glass splinters) to the bottom of the bottle disables the efficiency of standard X-Ray systems, that radiographs the containers on the side whereby sufficient results can be reached only with extraordinary effort.

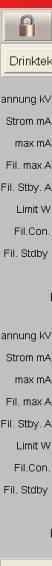
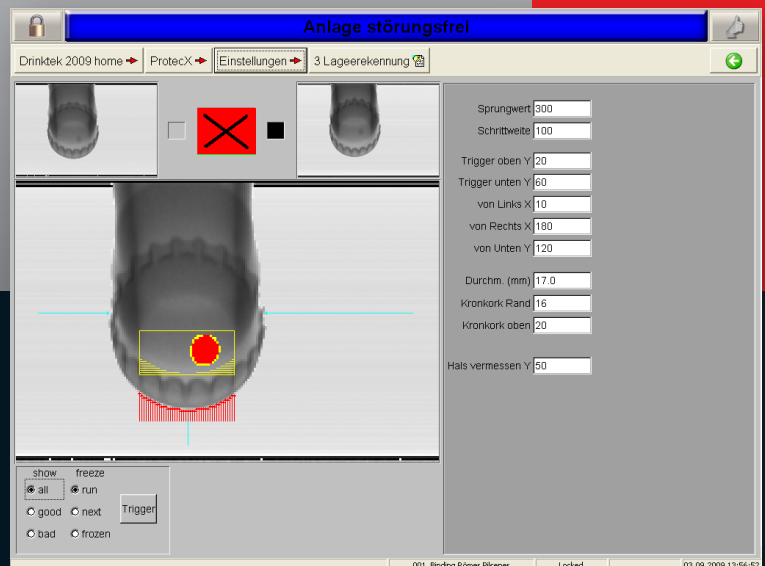
Solution

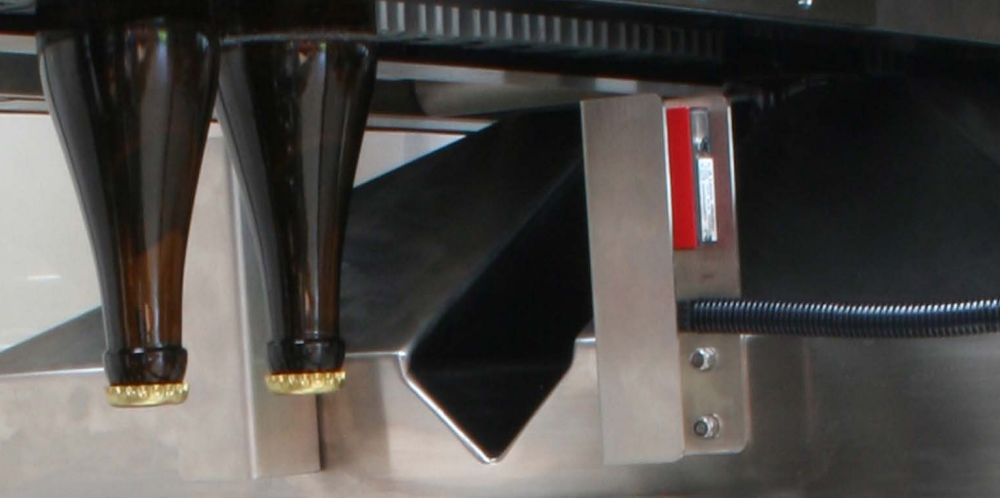
In **BBULL PROTECX** the bottles are turned upside down by a clamp conveyor. After sufficient time the heavy foreign body has descended from the bottle bottom to the closure where it will be detected reliably with X-Ray technology. The radiograph of the top of the bottle has the advantage of constant conditions as well as less energy is needed for the inspection.

Before turning the bottle an optional image processing system can be included which inspects the top area of the bottle for floating foreign bodies (floaters).



Bottle bursts in the filler





Features

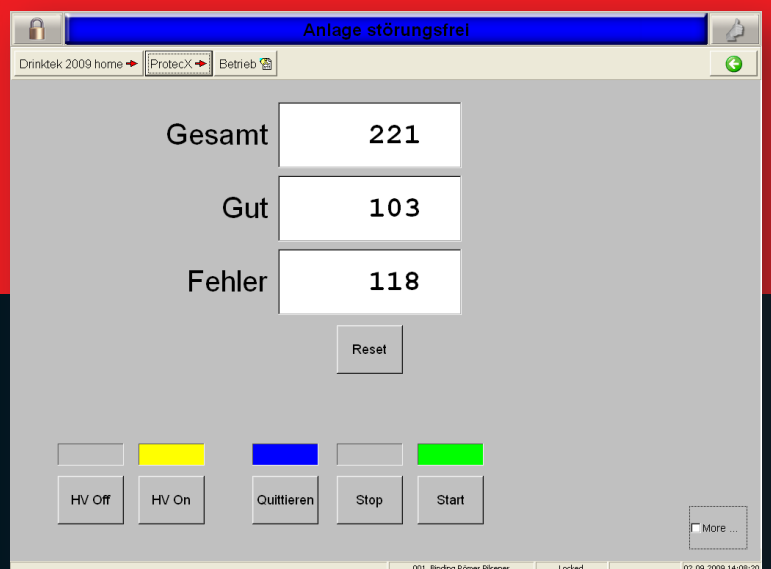
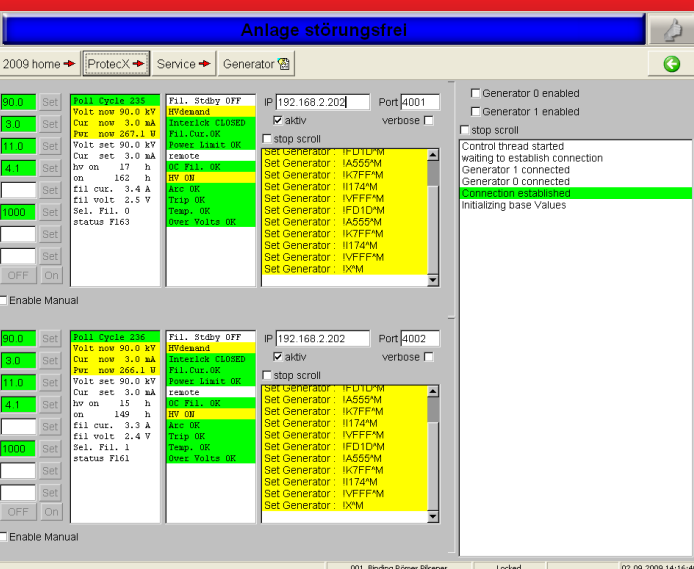
- low X-ray radiation for ultimate performances
- linear, low-cost detector cells
- low maintenance and spare part costs
- minimum effort for changing the format
- short-time changeovers, no change parts
- automatic contrast calibration for self-adjustment of the inspection software
- continuous teach-in of test samples during running process
- integrated tracking module for tracing the bottles through the system
- scalable system design for different performances
- modular design for integration of additional detections:
 - floating particle detection (floate)
 - Fill level and cap inspection
 - Filler management
 - Rejection system
- reliable and robust engineering
- safe lifting and returning of the bottle

Application

- detection of foreign bodies in filled and closed beverage bottles
- detection of glass objects down to 2 mm diameter
- detection of metal bodies down to 1 mm diameter
- detection of dense plastic and rubber parts
- detection of floating particles by image processing



BBULL
PROTECX



Technical Data



Performance:	_____	up to 72.000 b/h
X-ray technology:	_____	2 x 1000 keV
Detector	_____	
Pixel size:	_____	0,4 mm
Scan rate:	_____	4000/s
Generator:	_____	90 KV, 11 mA
Cooling system:	_____	water cooling unit , closed circuit
Performance:	_____	1,6 m/s

STRATEC CONTROL-SYSTEMS GmbH • Ankerstrasse 73 • 75203 Königsbach-Stein
Telefon (+49) 72 32- 40 06- 0 • Telefax (+49) 72 32- 40 06- 25 www.bbull.com

BBULL **CENTRO** **STRATEC** **SYMPLEX**
INFORMATIK & INDUSTRIE KONTROLLSYSTEME CONTROL-SYSTEMS VISION SYSTEMS
ELEKTRONIK