

# BBULL<sup>®</sup> TECHNOLOGY

## BBULL CL-AX

Filling-Quantity Detection by analogue X-Ray Technology for PET-, Glass-and Canning-Lines



**BBULL**  
INFORMATIK & INDUSTRIE  
ELEKTRONIK

**CENTRO**  
KONTROLLSYSTEME

**STRATEC**  
CONTROL-SYSTEMS

**SYMPLEX**  
VISION SYSTEMS

# General Introduction

The heart of every filling line is without doubt the filler/labeller area. The filler/labeller dictates the performance of the whole bottling line. Thus an increasing of the productivity of the filler means consequently an improvement of the complete filling line.

**BBULL TECHNOLOGY** offers with the line performance inspection system **BBULL CL-AX** an unique instrument to detect the filling quantity in a container. **BBULL CL-AX** is based on analogue x-ray technology and allows the statistical detection of the fill level in the inspection area. The analogue measuring of the liquid quantity is supporting the supervision of the filling process which was not possible with conventional detection principles, before.

An inspection for underfill and overfill can be executed with one single bridge and can be adapted to different container sizes simply by changing the inspection parameters.

Especially developed evaluation software eliminates the negative influencing factors, like foam or variations of the glass thickness, which can lead to faulty measurements with conventional inspection methods.

Stored volumina tables allow the conversion of the detected liquid level to the real filling volume. Thus an optimized adjustment of the filling quantity can be done. The minimizing of the statistical overfilling causes consequently to a financial saving of product and money for the user. Thus the purchase of the unit will be repaid soon.

Inspection bridge and control unit are situated in one single housing.

The system is easily operated by means of 4 push buttons.

The most important production data as well as statistical evaluations are retrievable by LCD-display.

The system is installed on the conveyor, after the filler, pasteurizer or labelling machine.

The basic system contains a fill level inspection for underfill and overfill, as well as a tracking module to control a rejection of faulty containers.

Additionally **BBULL CL-AX** can process external sensory such as cap or label presence inspection on the conveyor.

The adaption to varying container heights is done easily by hand or by automatic height adjustment (option).

## Technical Data

|  |                      |
|--|----------------------|
| Production speed in containers per hour: | 80.000               |
| Power supply in volt/herz:               | 230/50               |
| Power consumption in voltampere:         | 80                   |
| Air supply in bar:                       | 4 - 5                |
| Measurements (BxHxD) in millimetre:      | 150x640x310          |
| Weight in kilogramme:                    | 22                   |
| Enclosure:                               | IP 65                |
| Radiation source:                        | compact x-ray module |
| High voltage max. in kilovolt:           | 65                   |
| Anode accurent in milliampere:           | 0,1                  |
| Accuracy in millimetre:                  | 1 - 3                |
| Inspection area in millimetre:           | 40                   |

# Application

**STRATEC CL-AX** is the perfect system for an installation in all bottling lines, where additional to the pure quality assurance, by simple methods, an improvement of the productivity and effectivity of the complete filling process should be realised.

Especially for those customers, that fill high-grade products and have high production speeds, the installation of an analogue-proportional fill-quantity detection system will be repaid in short time, by the reduction of production cost.

Varying glass thickness, caused by production faults, will be reliable detected, which minimizes the number of faulty rejections.

## Main Features

- Inspection bridge and control unit built in one single housing.
- Fill level inspection underfill and overfill in one single bridge
- Precise detection of the fill level in the inspection area, reduction of product-loss by optimizing of the filler adjustment
- Evaluation of the fill level in **real-volume** by volumina-tables
- Foam compensation possible
- Compensation of varying glass quality
- Fill Level inspection with **x-ray** technology, thus:
  - No problems with nuclear waste disposal
  - No transportation restrictions
- Simple 4-button operation
- Monitoring of the most important production data and statistical evaluation by LCD-display
- Free inputs to control external sensory
- Self diagnosis
- Fault signal in case of sequential faults
- Interface operating data acquisition (Option)
- Up to 16 different bottle types, changeable by switch
- Automatic height adjustment possible (Option)
- Simple operation
- Easy installation and setup
- Low maintenance



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