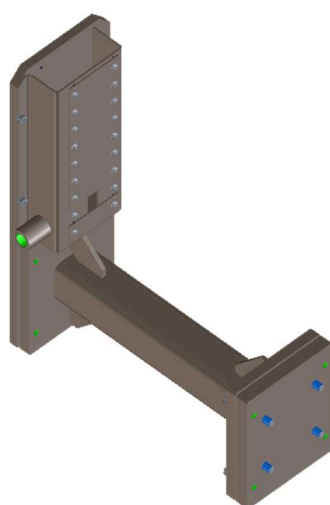


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Technical Bulletin

Conveyor Ware Detector (CWD Version 5)



Advantages

-  Continuous air blade cleaning
-  Stable air-cooling system
-  Quick & simple adjustment during the process
-  Easy maintenance

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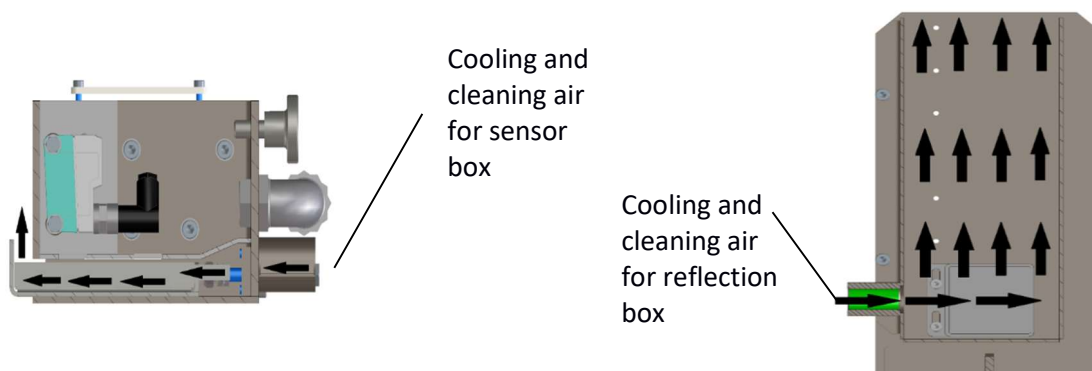
Introduction

The new CWD (Conveyor Ware Detector) defect control mechanism guarantees high system efficiency by reducing the intervention time of machine operators dedicated to transport control, improving safety: reducing the risk of accidents due to blockages, and consequently allows machine operators to devote more time to improving the production process.

An improved cooling system, automatic and effective cleaning and a simple adjustment procedure are the new key features of the CWD v.5.

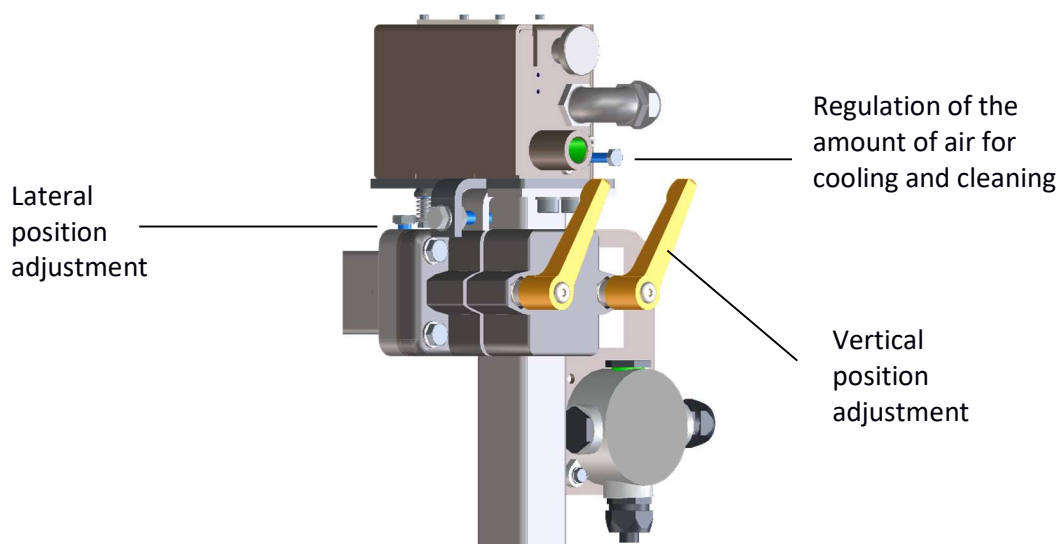
Description

Optical clarity and temperature stability of the sensor are essential for accurate and reliable readings. To enhance both the cleaning and cooling of the sensor and its reflector, the internal air circulation system within their housing has been redesigned. The new configuration improves air flow and distribution while maintaining the same inlet pressure as the previous version 4. An air blade system, for both the sensor and the reflector, prevents dirt and heat from influencing the reading, consequently improving the detection capacity.



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Thanks to the streamlined adjustment and quick-release design of the sensor case, maintenance is faster and more efficient.



Specifications

The detection distance between emitter and receiver can be adjusted from a minimum of 840mm to a maximum of 1000mm while the sensor has a maximum focusing distance of 100mm.

This system employs a laser sensor for detection and measurement.

The technical specifications of the instrument are detailed below:

Emitter data:	
Assembly NR:	P-20-CWD5A
Power supply:	24 V DC
Max current consumption	0.35 mA
Output circuit:	PNP
Detection time:	<0.25 ms
Laser class:	1
Laser type:	Pulsed red laser diode
Protection rating:	IP 67

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Installation

For new installations, the emitter mounting plate must be welded so that the receiver is positioned 50 mm higher than the emitter. This configuration allows the sensor to align with the conveyor belt surface, where most bottles reach their maximum diameter and where the most defects typically occur.

After installing the mechanism and making the electrical and pneumatic connections, it will be necessary to check that the sensor is powered on. The operator must then align the emitter with the receiver using the adjustments.

Technical data for installation	
Pressure cooling air	6 Bar
Connector	4 Pin M8
Operating temperature	From -10°C to 50°C
Supply piping:	3/8" rigid pipes

Usually, this mechanism works together with the Bottle Ejection System p/n: P-20-EBS1 which is standard on BDF Conveyor systems.

In case of installation on existing conveyors, it is interchangeable with the P-20-CWD4.

Features

Benefits

 Effective continuous cooling	 Improved detection repeatability
 Quick release of emitter housing	 Easy and quick maintenance
 Precise sensor centering adjustment	 Reduced emitter/receiver calibration time