Application Scenarios:
Steel mills / Ports / Mines / Power Plant / Cement



Product Series: BTZN-GK5121

The system adopts 3D modelling and imaging technologies to acquire real-time data of the transverse material flow profile, 3D morphology and position of materials on the conveyor belt. Via intelligent algorithms, it dynamically calculates the offset of the material flow relative to the conveyor belt centre line and drives the matched deviation-correcting device to adjust the running posture of the conveyor belt in real time, so as to achieve continuous centred transportation of materials on the belt. By mitigating material eccentric loading at the feeding source, the system effectively reduces potential faults including conveyor belt deviation, material spillage and belt abrasion damage, and improves the stability of material transportation and long-term operational reliability of equipment.

Conveyor Belt 3D Vision Dynamic Material Centering System



Main Features

- **Stably identify material flow profiles under all weather conditions and collect transverse material flow profiles in real time.**
- **Interlock with deviation correction equipment to adjust conveyor belt posture and keep material flow centred, forming closed-loop control of monitoring and correction.**
- **Support storage and query of historical material flow monitoring data and alarm records for tracing material flow trends and abnormal events.**
- **Improve material loading offset, reduce belt deviation, material spillage and belt wear, enhance conveying stability and ensure long term reliable equipment operation.**



Unattended Operation

7×24h continuous operation, no manual intervention

Closed-loop Automatic Control

Interlock with correction devices for automatic material flow regulation

High-speed Response

Sampling frequency ≥10Hz, real-time dynamic detection

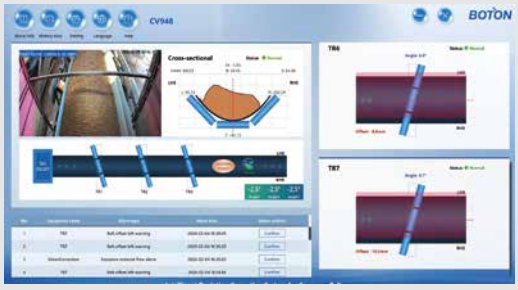
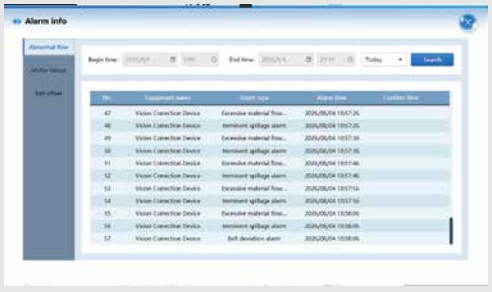
Data Traceability

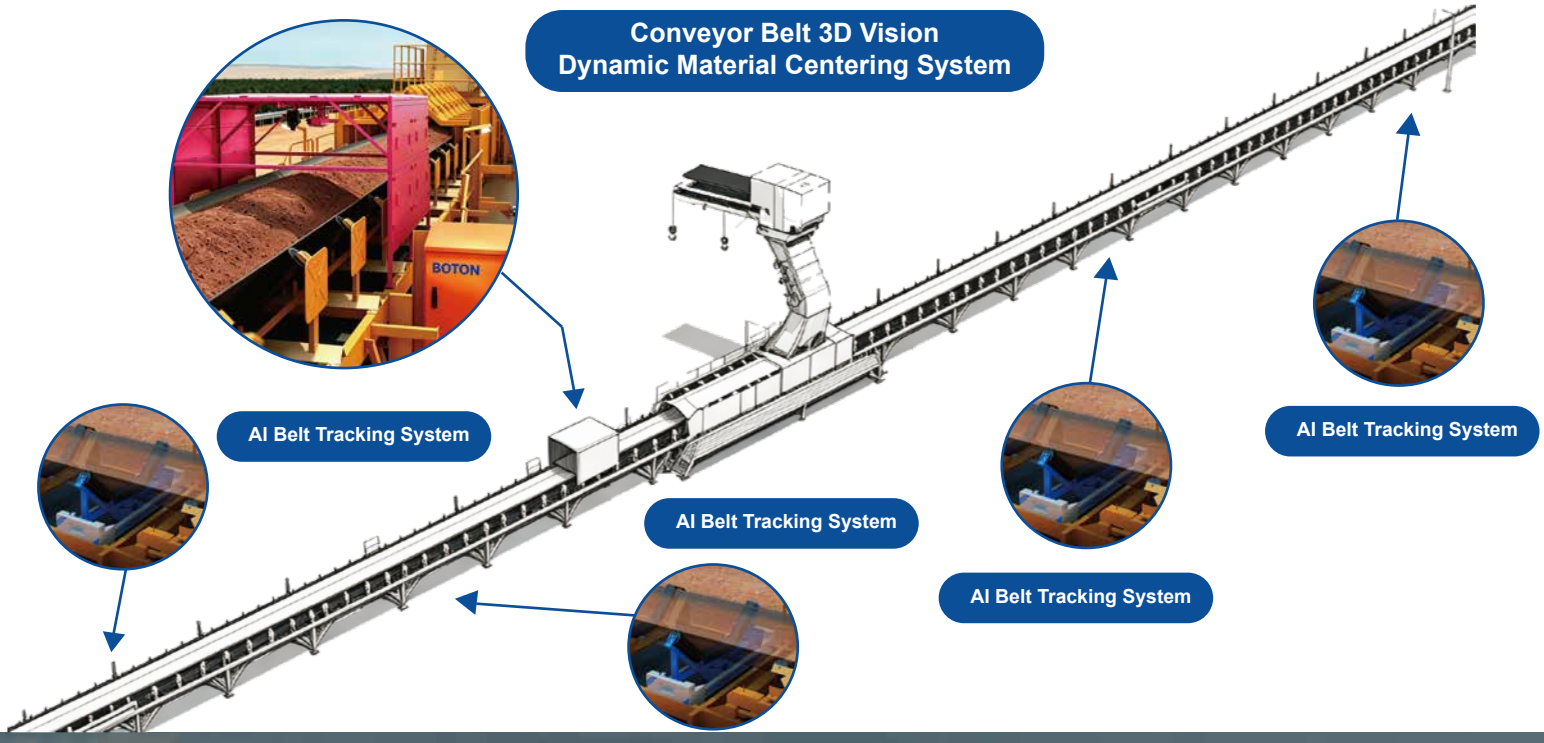
Archived monitoring data, full event traceability

Main Technical Parameters

Category	Parameters	Category	Parameters
Applicable belt speed	0-10m/s	Scanning frequency	≥10Hz
Applicable belt width	650-3000mm	Working temperature	-30 - 60℃
Atmospheric pressure	80-106Kpa	Storage temperature	Storage temperature
Working power supply	85-264VAC（customized）	Relative humidity	0.1μm
Ingress Protection Rating	IP66		

Software Platform

Main Interface	Alarm Interface
	



www.boton-tech.com

Email：btzn@boton-tech.com | Address: No.19, Zhanggong Rd., Xinwu District, Wuxi City, Jiangsu Province, China，214142

Boton focuses on providing intelligent service solutions for industrial bulk material handling. Our main business includes intelligent turnkey service, overall solutions for intelligent conveying, aim for energy saving, environmental protection and green transformation etc. Boton takes the lead in launching a new model of "integrated general contracting services for conveying systems" in China which changed the situation of different value orientations in the traditional product sales model. This new model speeds up marketization of new technology & new products and has been recognized by many clients domestically and globally.