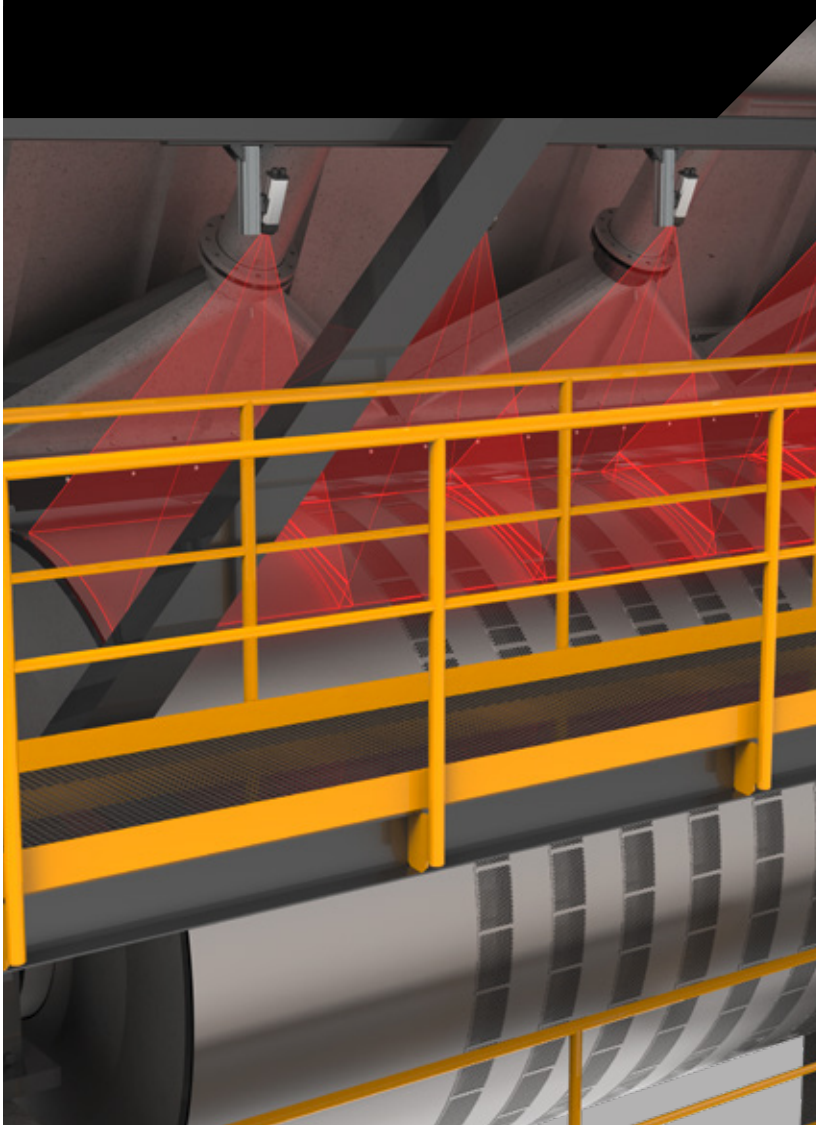


# Metso:Outotec

## BeltGuard



Metso Outotec BeltGuard is a proven, intelligent, and hard-wearing machine-vision solution that enables continuous monitoring of steel belts to support uninterrupted sintering furnace operation and improve plant availability. The solution uses cameras to monitor the entire belt width and is compatible with a variety of reporting and analysis tools.

### Intelligent solution for preventive action

By comparing belt and process data, a root analysis of damage can be made to enable preventive action to be taken. The solution immediately notifies the operator when a defect is identified. On initial identification defects are classified by the operator and taught to the system, after which the solution automatically classifies them.

To avoid costly data transfer to the cloud, Metso Outotec BeltGuard is installed on site. Results can still be sent to the cloud for integration with company-wide systems if required.

The solution is fully tested prior to delivery to ensure easy assembly on-site and smooth ramp-up.

### Benefits

- Continuous steel-belt monitoring
- Early warning of belt defects
- Quick and easy to install, commission, and start-up
- Easy to integrate with plant automation system
- Robust, maintenance-free solution

# Intelligent solution for preventive action

## Operating principle

Metso Outotec BeltGuard uses modern industrial cameras to monitor the entire width of the steel belt surface. The solution is a machine-learning system based on a convolutional neural network and it identifies deviations according to rules it has been taught.

The solution consists of cameras (the number of cameras required depends on the width of the steel belt), a field cabinet, and a computer. The operator display is located in the control room.

All communication between the cameras and the control room is performed via Ethernet protocol to ensure reliable data transfer. Alarms and information can be checked via an OPC connection to the plant automation system.

The delivery includes a support beam dimensioned according to the belt width and the required fittings for camera installation.

Metso Outotec experts will provide support during commissioning as well as training for operators and management. A remote connection enables rapid user support and software upgrades as required.

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