

# E-Z Tec 9000 Metal Detectors



**The E-Z Tec 9000 range of Metal Detectors incorporates high sensitivity, balanced coil technology for detecting and removing ferrous, non-ferrous and stainless steel metal contaminants, ensuring product purity and machinery protection.**

## Features

- Easy operation
- High sensitivity - balanced coil technology
- Single printed circuit board for ease of servicing
- Surface Mount Technology (SMT) for increased reliability
- Self-monitoring
- Integral circuitry for remote operation and monitoring of reject devices
- Compliant with CE - EMC regulations
- Available in paint finish or stainless steel\*
- Push button selection of controls via on-board micro-controller\*
- Storage of up to 10 product settings\*
- Password protected\*
- 2 line LCD display of selected parameters\*
- Product compensation\*

## Applications

Typical industry applications include:

- Aggregates and Mining
- Plastics and Rubber
- Recycling
- Glass
- Chemicals
- Food
- Textiles
- Wood

\*Features only available on the 9000



## E-Z Tec 9000 R

The E-Z Tec 9000 R Metal Detector incorporates a fully enclosed aperture and offers a high level of sensitivity for a range of applications. Each system is manufactured in accordance with individual requirements and is either manufactured from mild steel or aluminium (with a paint finish) or stainless steel (natural finish).

The detector can be supplied as a single unit, combined with a declined chute or fitted on a purpose built conveyor system.

Fully automated reject systems can also be incorporated.

Detection sensitivities of these models are dependant upon the aperture dimensions and are available on request.

## E-Z Tec 9000 RD

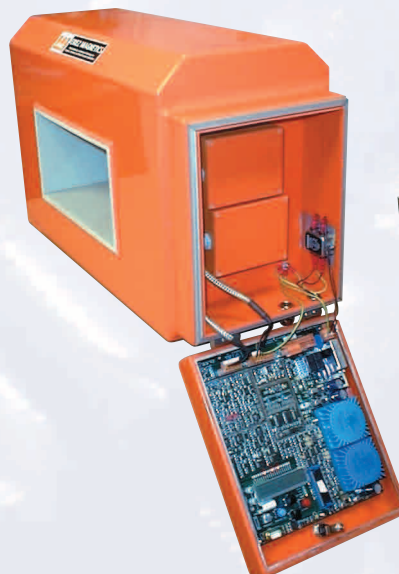
The E-Z Tec 9000 RD Divisible Metal Detector has an innovative design which allows the unit to be separated into two parts. This enables a simple installation on existing conveyors without the need for cutting the conveyor belt. Its rugged design allows it to be installed in a range of environments for checking a variety of products, whilst maintaining a high level of sensitivity.



E-Z Tec 9000 RD



E-Z Tec 9000 R on side



E-Z Tec 9000 R



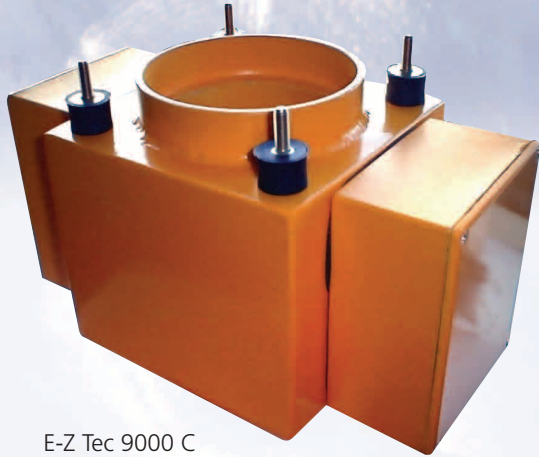
E-Z Tec 9000 R on conveyor



## E-Z Tec 9000 C

The Model 'C' has a special circular aperture search head allowing it to be used in pipeline systems, whether for free falling product or pressure systems.

Each unit is custom built and it is therefore available in a range of different sizes, making it an ideal solution to both standard and non standard applications.



E-Z Tec 9000 C

## E-Z Tec 9100

The E-Z Tec 9100 combines balanced coil technology with a pneumatic reject system, ensuring the detection and rejection of sub-millimetre metal contaminants from free falling material.

Specifically designed for simple installation, the unit can be supplied with a small in-feed hopper, or alternatively with standard Jacobs fittings for connection to existing customer machinery.

The sensitivity of this detector will be determined by the diameter of the pipe and the type of product being processed.

For general guidance refer to the following table:

Model and Internal Aperture Dimension	9100.30	9100.45	9100.70	9100.85	9100.100	9100.120
Estimated Sensitivity Figure (based on dry free flowing material)	0.3mm	0.5mm	0.7mm	0.8mm	1.0mm	1.2mm

Notes: For throughput data, please consult our sales office.



Reject outlet

Cross section of E-Z Tec 9100 showing principle of operation



E-Z Tec 9000 C

## Specifications



### Mechanical

The standard metal detector search heads are manufactured from mild steel or aluminium and then painted, however stainless steel models are available. Full dimensional drawings of the equipment are available upon request.

#### Protection:

- ~ IP65 (Nema 4 painted)
  - ~ IP65 (Nema 4X stainless steel)
- E-Z Tec 9000 Models
- ~ IP40 - E-Z Tec 9100 Models
  - ~ IP54 - E-Z Tec 9100 Electronic Enclosure

#### Operating Temperature:

- ~ 0°C to +50°C

### Electronics

#### Controls

The controls for the metal detector are very simple and incorporate push buttons operated via a micro-controller.

**CB25** - available on all models, this incorporates controls to adjust the sensitivity and reject time and a front door reset button.

**CB24** - additional features to above include product compensation (phase) and filtering. These electronics will only be supplied with the E-Z Tec 9000 R, RD & C Models.

#### Displays

- ~ PCB Mounted Displays
- ~ 'Power On' LED
- ~ 'Detect' LED
- ~ 'Fault' LED
- ~ Timer delay and active LEDs
- ~ Signal monitor - LED bar graph\*
- ~ Product settings - 2 line LCD display\*

The lamp display on the front door incorporates 'power on', 'detect' and 'fault' status.

#### Outputs

- ~ Pressure sensor to monitor air supply (E-Z Tec 9100)
- ~ External (remote) reset switch
- ~ 24V DC (300mA) upon detection
- ~ Fault relay
- ~ Detect relay with delayed output (0.1 to 20 secs)

#### Optional Inputs:

Inputs for the CB24 only, can be received from any of the following:

- ~ Photo sensor for product monitoring
- ~ Magnetic sensor to monitor reject mechanism / operation
- ~ Pressure sensor to monitor air supply
- ~ External (remote) reset switch

#### Frequency Range

- ~ Variable, 1 to 500 KHz
- ~ 115 - 230 VAC, 50 or 60Hz

\* Displays only on 9000 electronics  
For the E-Z Tec 9000 R models the electronics are normally integrally mounted. They can be remote if required.



### Ancillaries

These include:

- ~ Visual alarms
- ~ Audible alarms
- ~ Combined alarms
- ~ Mains filters
- ~ Reject counter (optional)
- ~ Conveyor systems (E-Z Tec 9000 R & RD)
- ~ In-feed hopper (E-Z Tec 9100)
- ~ Special input / output flanges (E-Z Tec 9100)



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