



## PMG GRAVITY FEED METAL DETECTOR



PMG Equipment has been designing and supplying metal detectors for various industrial applications. These detectors are largely used for free flowing material with gravity. The metal contaminant that comes through the raw material or in the processes is classified as ferrous, non ferrous and Stainless steel. These contaminants become part of the processes or finished goods and can end up in damaging expensive machineries like extruders, calendaring machines, crushers etc or can reach the consumer for consuming

The Gravity Feed Metal Detectors works on Automatic balance coiled principle which eliminates all set up controls and gives a consistent performance. A high frequency electromagnetic alternating field is generated. If any metal contaminant object passes through the Gravity feed metal detector, the detector experiences a change in the field based on the magnetic and electrical properties of the metal object. All type of metal contaminant (Ferrous, Non Ferrous and stainless steel) is detected. To remove the metal-contaminant, the Metal Detector is provided with a pneumatic / electrical solenoid valve. These contaminants are rejected by a flap type reject mechanism. The detector and its reject valve are fixed to a stand and are mounted upon wheels for easy mobility.

PMG gravity feed metal detectors are available in standard size of 50 mm ,100mm,150mm and 200mm in dia. We also have the competency to designs and manufacture to meet most applications of free flowing material. PMG Equipment can customize and also provide solution that can be a long term cost effective to the client. This Metal detectors can be mounted in between pipe line or suspended along a line to work effectively without hindering the online production. It can also be used as an off line system. Stainless steel Metal Detector, construction can be supplied with throughput rates up to 25,000 Kgs. Per Hour



## Features

- ▶ Automatic Balance Coil Principle
- ▶ 8 Keys membrane Touch pad is provided
- ▶ Tamper proof controls
- ▶ Password protection for unauthorized settings (Digital Detector).
- ▶ Product code batch code and operator code entry (Digital Detector)
- ▶ 20 characters and 4 Lines LCD for clear information (Digital Detector)
- ▶ LED Bar graph to display the status of coils.
- ▶ Stainless steel construction
- ▶ Detects Ferrous, Non-Ferrous and Stainless Steel
- ▶ Quick recovery after detection of metal contaminant
- ▶ Solid state Relays for arc free switching.
- ▶ Dually Automatic product effect compensation
- ▶ Digital Signal processor
- ▶ Individual operating and reject parameters up to 100 different products can be stored in a non-volatile memory (For Digital Detector)
- ▶ Detection and Rejection Counters (Digital Detector)
- ▶ Reject confirmation and indication for irregularities (Digital Detector)
- ▶ Logging capability to a printer for HACCP and ISO 9001 Documentation (Digital Detector)





### **Key Pad set up**

The setup mode is a touch panel membrane keypad. It is simple, user friendly, easy to operate, menu driven and requires minimum operator training.

### **Password protected Access**

The unit is protected with a password. This will help in avoiding tampering with the settings by the operators. Separate levels of access are provided for making changes.

### **Product storage memory**

There is provision to store data of 25 products. The product with its name, sensitivity, rejection time with corresponding to real time can be retrieved when required.

### **Auto test validation**

There is provision provided to set the self test of the equipment. The Tablet metal detector during the self test mode will automatically check for its performance. The frequency of the self test can be fixed from a minute to 999 minutes in real time. The results are documented in real time.

### **Compatibility with External Port:**

This function allows the detector to transmit data related to equipment using and Rs 485 or RS 232 interface (Optional).





### APPLICATION

**Food Ingredients**  
**Chemicals & Dyes**  
**Spices**

**Food Processing**  
**Pharmaceuticals**  
**Dough**

**Plastic Pellets**  
**Bulk Drugs**  
**Namkeens**

**Rubber Granules**  
**Dehydrated Materials**  
**Free flow Powders**

## Technical Specifications

Technical Specifications	Model : PMG GFMD (Digital )	Model : PMG GFMD(Analogue )
Electrical Supply	230 V AC single phase with earth;50 Hz to 60 Hz	230 V AC single phase with earth;50 Hz to 60 Hz
Rejection Mechanism	Pneumatic / Electrical Solenoid	Pneumatic / Electrical Solenoid
Relative Humidity	20% to 80% non-condensing	20% to 80% non-condensing
Current consumption	Max 0.75 A	Max 0.75 A
Outputs	01 No.PFC relay Changeover. 5A Rating. ( Optional)	01 No. PFC relay Changeover.5A Rating.( Optional)
Operating Temperature	-50C to + 600C	-100C to +750C
Communication Port	Configurable: RS232 / RS485 or Serial / Parallel Printer Port	Not Available
Continuous AutoTest	Yes	Not Available
Construction	Stainless steel 316 / 304	Stainless steel 316/ 304
Reject Confirmation	Yes	Not Available
Sensitivity	0.5mm Ferrous and 1.0mm Non Ferrous & Stain- less Steel ( For model GFMD-50 (D)	0.5mm Ferrous and 1.0mm Non Ferrous & Stainless Steel ( For model GFMD-50 (D)
Aperture Size	50mm Diameter Aperture. Others on request and are Custom Built	50mm Diameter Aperture. Others on request and are Custom Built
Product Flow Rate	Up to 1000 Kgs per Hour ( On Line)	Up to 1000 Kgs per Hour ( On Line)
Air Supply	4.0 Bar	4.0 Bar

