

PHARMA METAL DETECTOR

**MDV / MSV / PMD
3018**



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

►► Conveyor Based Metal Detectors:

- Protecting your machines from damage
- Protecting your company's reputation
- Enhancing your product quality
- Protecting you from possible customer's legal resources

Ideal for Food, Pharmaceutical, Beverage, Dairy, Chemical, Rubber, Tobacco, Personal Care, Textile Industries etc.

►► MDV Series

►► Standard Features :

- Designed For Control Of Packaged & Unpackaged Goods
- Detecting Theory : Balance Coil / Electromagnetic Induction
- HACCP, GMP & FDA Approved
- MDV-A Series : Detect ALL Ferrous & Non-Ferrous including S.S
- MDV-F Series : Detect ALL Ferrous in Foil Packaging
- MDV-AF Series : Detect ALL Ferrous in Foil Packaging & ALL Non-Ferrous including SS in Non Foil Packaging (Toggle Switch)
- MOC : MS Powder Coated / SS 304 / SS 316, Non Metallic Parts made from Polypropylene (Food Grade)
- Display : Analog / Digital / Touch Screen
- Advance DSP Technology with Digital Signal Filter
- Based on 32 Bit High Speed CPU
- Multi Function Operating System
- Improved Product "Self-Learning" Functions
- Auto PA and Auto Balance
- Product Effect Compensation
- Automatic Adjustment for Temperature Variation and Static Metal
- Multiple Level Password Protection for Safe Use (3 Levels)
- Built-in Power Stabilizer
- 100 Products Preset, Easy to Edit & Recall
- RS-232 Interface (Optional)
- Data Storage & Data Printout ready
- Easy Integration in Existing Production Lines
- Adjustable Belt Speed
- Imported High Duty Rollers, Belts Sensors, Coils and Motor
- Buzzer & Indicator Lamp Alarming
- Reject Systems: Belt Stop, Air Jet, Pusher, Belt Compression
- Comprehensive Manual with IQ/OQ/PQ and Validation Kits with Certificates for Validation Test
- High IP Standards to give maintenance free resistance
- Durable for Continuous Working



►► Gravity Feed Metal Detectors

Ideal for Food Ingredients, Plastic, Spices, Chemical, Rubber, Pharmaceutical Industries.

►► MSV-A Series

►► Standard Features :

- Designed For Control Of Unpackaged Goods
- Suitable for ANY FREE FLOW GRANULES AND POWDERS
- Detect ALL Ferrous & Non-Ferrous including S.S
- Detecting Theory : Balance Coil
- HACCP, GMP & FDA Approved
- MOC : MS Powder Coated / SS 304 / SS 316, Non Metallic Parts made from Polypropylene (Food Grade)
- Display : Analog / Digital / Touch Screen
- Advance DSP Technology with Digital Signal Filter
- Based on 32 Bit High Speed CPU
- Multi Function Operating System
- Improved Product "Self-Learning" Functions
- Auto PA and Auto Balance
- Product Effect Compensation
- Automatic Adjustment for Temperature Variation and Static Metal
- Multiple Level Password Protection for Safe Use (3 Levels)
- Built-in Power Stabilizer
- 100 Products Preset, Easy to Edit & Recall
- RS-232 Interface (Optional)
- Data Storage & Data Printout ready (Optional)
- Easy Integration in Existing Production Lines
- With Wheels for Easy Mobility
- With Feeding Hopper Included
- Imported High Duty Sensors and Coils
- Automatic Rejection of Contaminated Product
- Quick Flap Reject System with Buzzer & Indicator Lamp Alarming
- Reject Confirmation
- Comprehensive Manual with IQ/OQ/PQ and Validation Kits with Certificates for Validation Test
- High IP Standards to give maintenance free resistance
- System Available Without Stand too to Install on Existing Pipe
- Durable for Continuous Working



►► Models :

MSV-A Series	Usable Pipe Diameter	Sensitivity*			
		Ferrous	Non-Ferrous	Stainless Steel	
MSV-A 100	100mm Dia	0.8mm	1.0mm	1.2mm	
MSV-A 150	150mm Dia	1.0mm	1.5mm	2.0mm	
MSV-A 200	200mm Dia	1.5mm	1.2mm	2.5mm	

Sensitivity Depends upon the Nature of the Product, Speed, Transport Behavior and Environmental Conditions

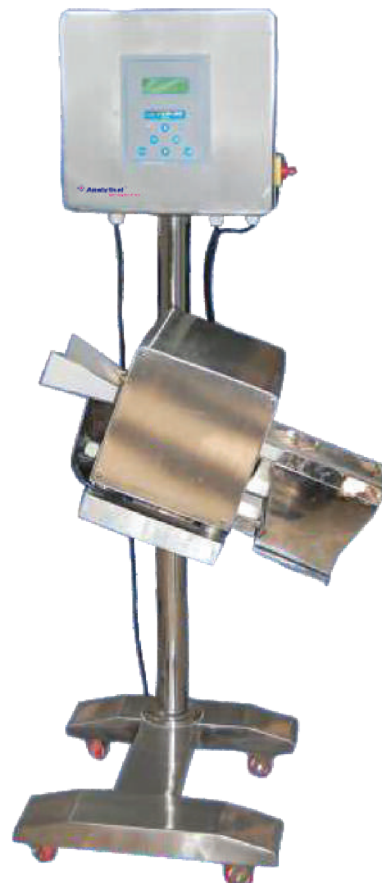
►► Gravity Feed Metal Detectors

Ideal for Tablets, Capsules, Powder & Granules Industries.

►► PMD-TC Series

►► Features :

- Detection Theory : Balance Coil
- According to CGMPs Compliance
- Very High Thruput : Check Upto 5000 to 7000 Tablets / Capsules Per Minute
- Designed to Detect : ALL FERROUS, ALL NON-FERROUS & SS PARTICLES
- Aperture/Tunnel Size : 100mm (W) x 30mm (H)
- MOC : SS 304 with Contact Parts SS 316; Non-metallic Parts made from Polypropylene (Food Grade)
- Display : 4 x 20 Character LCD with Back Light Display (Optional)
- 100 Products Memory (Optional)
- 3 Level Security Code (Optional)
- Rejection Option : Quick Flap System with Rejection Bin
- Reject Mechanism De-attachable Type for Easy Cleaning & Washing
- Buzzer & Indicator Lamp Alarming
- DSP Technology with Digital Signal Filter
- Dual Channel Operation
- Easy Height Adjustment to Match the De-Duster Machine
- System can be Rotate 360° at place
- Auto PA and Auto Balance
- Product Effect Compensation
- Automatic Adjustment for Temperature Variation and Static Metal
- Indigenously Developed Customized Software to provide up to Date Records for all Products and for Validation of the Machine (Optional)
- Imported Sensors and Coils
- High IP Standards to give Maintenance Free Resistance against Moisture, Dust & Water
- In Sturdy Shock Proof Wooden Box Export Packaging
- Comprehensive Manual with IQ/OQ/PQ and Validated Test Calibration Kits with Certificates for Validation Test)



Aperture Size	Sensitivity*		
100mm x 30mm	Fe Ø0.2mm	Non-Fe Ø0.4mm	SS Ø0.6mm

Series	MPV-TC Series
Detection Method	Balanced Coil
Sensitivity Adjustment	Automatic or Manual
Standard Diameter	100mm x 30mm
Alarm	Buzzer and Lamp (Optional)

Reject System	Rapid Flap System
Power Supply	AC110V/220V 50-60Hz
Rated Output	100W
Dimensions	700mm(L) x 760mm(W) x 1200 ± 10mm(H)
Weight: Appr	78kg

►► Gravity Feed Metal Detectors

APERTURE WIDTH (in mm)	APERTURE HEIGHT (in mm)											
	50	100	150	200	250	300	350	400	450	500	550	600
	Fe / SS	Fe / SS	Fe / SS	Fe / SS	Fe / SS	Fe / SS	Fe / SS	Fe / SS	Fe / SS	Fe / SS	Fe / SS	Fe / SS
50	0.3 / 0.45											
100	0.3 / 0.6	0.5 / 0.8										
150	0.5 / 0.8	0.6 / 0.9	0.8 / 1.2									
200	0.6 / 0.9	0.7 / 1.0	0.9 / 1.4	1.2 / 1.8								
250	0.7 / 1.0	0.8 / 1.2	1.0 / 1.5	1.3 / 1.9	1.4 / 2.0							
300	0.8 / 1.2	0.9 / 1.3	1.1 / 1.6	1.4 / 2.0	1.6 / 2.4	2.0 / 3.0						
350	0.8 / 1.2	1.0 / 1.5	1.2 / 1.8	1.5 / 2.2	1.8 / 2.8	2.0 / 3.0	2.2 / 3.5					
400	0.8 / 1.2	1.1 / 1.7	1.3 / 2.0	1.6 / 2.4	2.0 / 3.0	2.2 / 3.5	2.3 / 3.5	2.6 / 4.0				
450	0.8 / 1.2	1.2 / 1.8	1.4 / 2.0	1.8 / 2.8	2.0 / 3.0	2.3 / 3.5	3.0 / 4.5	3.0 / 4.5	3.0 / 4.5			
500	0.9 / 1.3	1.2 / 1.8	1.4 / 2.0	2.0 / 3.0	2.0 / 3.0	2.5 / 3.8	2.6 / 4.0	3.0 / 4.5	3.2 / 4.8	3.4 / 5.5		
550	0.9 / 1.3	1.3 / 2.0	1.6 / 2.4	2.0 / 3.0	2.2 / 3.5	2.6 / 4.0	2.8 / 4.5	3.0 / 4.5	3.4 / 5.5	3.8 / 5.8	4.0 / 6.0	
600	0.9 / 1.3	1.3 / 2.0	1.6 / 2.4	2.0 / 3.0	2.2 / 3.5	2.6 / 4.0	3.0 / 4.5	3.3 / 5.0	3.5 / 5.3	4.0 / 6.0	4.2 / 6.3	4.5 / 6.8
650	1.0 / 1.5	1.4 / 2.0	1.8 / 2.8	2.0 / 3.0	2.3 / 3.5	2.8 / 4.5	3.0 / 4.5	3.4 / 5.0	3.6 / 5.5	4.0 / 6.0	4.4 / 6.5	4.8 / 7.2
700	1.1 / 1.7	1.4 / 2.0	1.6 / 2.4	2.2 / 3.5	2.4 / 3.5	2.8 / 4.5	3.0 / 4.5	3.5 / 5.3	3.6 / 5.5	4.4 / 6.5	4.4 / 6.5	5.0 / 7.5
750	1.2 / 1.8	1.5 / 2.5	1.8 / 2.8	2.3 / 3.5	2.5 / 3.8	3.0 / 4.5	3.2 / 5.0	3.6 / 5.5	4.0 / 6.0	4.2 / 6.3	4.6 / 7.0	5.3 / 8.0
800	1.2 / 2.0	1.6 / 2.5	1.8 / 3.0	2.4 / 3.5	2.6 / 4.0	3.1 / 4.5	3.4 / 5.0	3.8 / 6.0	4.0 / 6.0	4.6 / 7.0	4.8 / 7.5	5.4 / 8.0
900	1.2 / 2.0	1.6 / 2.5	1.9 / 3.0	2.4 / 3.5	2.8 / 4.5	3.2 / 5.0	3.5 / 5.5	4.0 / 6.0	4.4 / 6.5	5.0 / 7.5	5.2 / 8.0	6.2 / 9.5
1050	1.3 / 2.0	1.8 / 3.0	2.1 / 3.0	2.6 / 4.0	3.0 / 4.5	3.6 / 5.5	3.8 / 6.0	4.4 / 6.5	4.7 / 7.5	5.3 / 8.0	5.5 / 8.5	6.2 / 9.5
1200	1.4 / 2.0	1.9 / 3.0	2.2 / 3.5	2.9 / 4.5	3.2 / 5.0	3.8 / 6.0	4.2 / 6.5	4.8 / 7.5	5.1 / 8.0	5.7 / 8.5	5.8 / 9.0	6.6 / 10.0
1350	1.5 / 2.5	2.0 / 3.0	2.3 / 3.5	3.1 / 4.5	3.4 / 5.0	4.1 / 6.5	4.4 / 6.5	5.0 / 7.5	5.2 / 8.0	6.0 / 9.0	6.3 / 9.5	6.9 / 10.5
1500	1.6 / 2.5	2.2 / 3.5	2.6 / 4.0	3.3 / 5.0	3.6 / 5.5	4.3 / 6.5	4.7 / 7.0	5.3 / 8.0	5.3 / 8.0	6.5 / 10.0	6.7 / 10.0	7.5 / 11.0
1650	1.8 / 3.0	2.5 / 4.0	2.9 / 4.5	3.5 / 5.5	3.9 / 6.0	4.5 / 6.5	5.0 / 7.5	5.7 / 8.5	6.0 / 9.0	6.9 / 10.5	7.1 / 10.5	8.2 / 12.5
1800	2.0 / 3.0	2.8 / 4.5	3.2 / 5.0	3.9 / 6.0	4.3 / 6.5	5.0 / 7.5	5.3 / 8.0	6.1 / 9.0	6.4 / 9.5	7.3 / 11.0	7.7 / 11.5	9.0 / 13.5

►► Top Ten Metal Detector FAQ's

1. WHAT IS A METAL DETECTOR AND HOW DOES IT WORK?

A metal detector is an electronic device for detecting the presence of unwanted metal contamination. Basically, a metal detector is made up of a transmitter and a receiver antenna. As metal passes through the electrical field generated by the transmitter the signal picked up by the receiver will change. The electronics of the metal detector "look" at the signal change and "decide" if the change is caused by metal or some other reason.

2. WHY DO I NEED A METAL DETECTOR?

There are only two reasons for using a metal detector: 1) To protect your expensive and critical processing equipment, and 2) to protect the integrity of your final product. If a piece of tramp metal finds its way into your grinder, chopper, mill, cutter, etc., not only will you lose production time and money to repair the machine but now the metal is smaller and harder to find. Maintaining your product integrity can be far more important. A small piece of metal in your final product can be devastating to your company image and reputation.

3. WHERE SHOULD I PUT THE METAL DETECTOR?

If the detector is intended to protect machinery then the detector should be located as close to the infeed section of the machine as practical, while still allowing ample space to stop the machine before metal can enter. If the metal detector is used to inspect your final product then the detector should be located as close as possible to the end of the production line - ideally, after the product has been packed since the chance of contamination after packaging is remote. This may not be practical if the package itself contains metal or if the final package is too large to allow good sensitivity.

4. HOW DO I CHOOSE A METAL DETECTOR?

ATL metal detectors are very sensitive, reliable, rugged & accurate. The primary objective is to choose a metal detector that is designed for your application. Make sure that the aperture is sized correctly for the various products to be tested and that the detector is in the right location. We are a metal detector manufacturer you can depend on for support and expertise.

5. WHAT IS PRODUCT EFFECT?

Virtually all products will create some type of signal in the metal detector as they pass through the electrical field. Factors that can contribute to this "product effect" signal are: moisture content, fat content, acidity, temperature, salinity, orientation, and mass. In general, smaller product effect signals allow for better metal detector sensitivity. The ability of a detector to compensate for product effect can also increase sensitivity to metal.

6. WHAT IS SENSITIVITY?

Metal detector sensitivity is defined as the minimum diameter sphere that can be consistently detected at the center of the metal detector opening. Sensitivity can be stated as "maximum" or "in-product". Maximum sensitivity is the best sensitivity that a metal detector can achieve under ideal conditions. In-product sensitivity is much more meaningful as it is the sensitivity a metal detector can achieve when actually inspecting product.

7. WHAT FACTORS AFFECT SENSITIVITY?

Metal detector sensitivity can be affected by many factors: product effect, size and shape of metal contaminants, type and orientation of metal contaminants, metal detector opening size, and the environment of operation.

8. WHAT ARE THE DIFFERENT TYPES OF METALS?

Ferrous metals are magnetic type metals such as steel and iron and are the easiest for metal detectors to find. Non-ferrous metals are non-magnetic metals such as copper, aluminum, brass, bronze, and are almost as easy to detect as ferrous metals. Non-magnetic stainless steel such as types 302, 304, and 316 are by far the most difficult of metals to detect. In general, a piece of nonmagnetic stainless steel must be 1½ to 2 times larger than a ferrous piece of metal to be detected by a metal detector.

9. WHAT SHOULD I DO IF THE METAL DETECTOR FINDS METAL?

Many metal detector systems are equipped with an automatic rejection device that will remove the suspected product from the production line. These should be collected and examined to find the metal contaminant and trace the metal to its source. Small metal pieces can be an early warning sign of a major breakdown. If an automatic reject device is not practical then the product should be manually removed from the line and the same procedure should be followed.

10. HOW DO METAL DETECTORS HELP WITH HACCP REGULATIONS?

The main purpose of the HACCP initiative is to develop a procedure that identifies possible locations in your production line where product contamination can occur and to create a method of inspecting those locations on a regular basis to prevent contamination. Documentation of these inspections is a major feature of any HACCP plan. Our Metal Detectors have a record keeping ability to provide a history of contamination incidents.

Regulatory compliances



Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



Analytical Foundation

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

Reach us @



 **Analytical**®
Technologies Limited

HPLC Solutions MultipleLabs Analytical Bio-Med Analytical Distributors Analytical Foundation (Trust)

Corporate & Regd. Office:
Analytical House, # E67 & E68,
Ravi Park, Vasna Road, Baroda,
Gujarat 390 015. INDIA

T: +91 265 2253620
+91 265 2252839
+91 265 2252370
F: +91 265 2254395

E: info@hplctechnologies.com
info@multiplelabs.com
info@analyticalgroup.net
info@analyticalbiomed.com

W. www.analyticalgroup.net
www.hplctechnologies.com
www.multiplelabs.com
www.ais-india.com

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