Metal Detection

Profile Gravity Fall Metal Detector
For Powders and Granules

Effective Compliance

Gravity fall metal detector with full-color touchscreen operator interface. It is optimized to deliver superior sensitivity for inspecting free falling products such as flour, sugar, coffee, tea, fertilizer and other powders and granular products.

Superior Sensitivity and Performance
Multiple ultra-high tuned frequencies combined with Enhanced Vibration Immunity (EVI) and Enhanced Noise Immunity (ENI) deliver exceptional sensitivity to consistently detect more metal. The Profile Gravity Fall Metal Detector benefits from optimized coil geometry for improved detection capability.

Maximum Uptime
Condition Monitoring and Reduced Test mode support maximum performance over time and allow a reduction in scheduled Performance Monitoring Tests.

Intuitive Use and Easy Integration
The full-color touchscreen delivers enhanced operation, whilst Zero Metal Free Zone technology enables installation close to other metal structures without compromising sensitivity performance. Choose from a comprehensive range of rejection options including: Open Diverter, Sealtite and Y-Valve systems.

Optional Test Kit
Automatic Test System (ATS) offers a non-invasive method for testing centerline performance of gravity fall metal detectors.

Optimized Configurations
Choose from stainless steel or painted finishes to suit all your application requirements.

METTLER TOLEDO

Easy to Operate
Gravity-fed Inspection

- **Supports compliance with regulatory and industry standards**
- **eDrive™ technology delivers improved spherical sensitivity**
- **Sealed to IP66 for effective cleaning**
- **ProdX™ enabled for essential processes including monitoring, reporting and data collation activities in real-time**
- **Innovative reject confirmation system reduces false rejects and product waste**

Open Diverter technology provides a cost effective solution for non-dusty products where insertion space is limited. Can be upgraded to Sealtite standards retrospectively.

Sealtite system features a dust tight seal to virtually eliminate good product going into the reject channel and reduce product waste. Ideal for high value, dusty products in explosive environments, where space is limited.
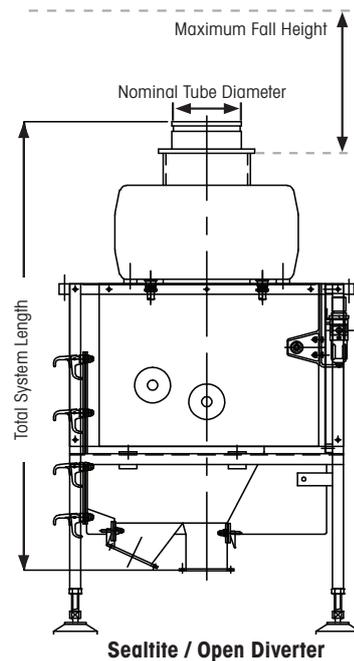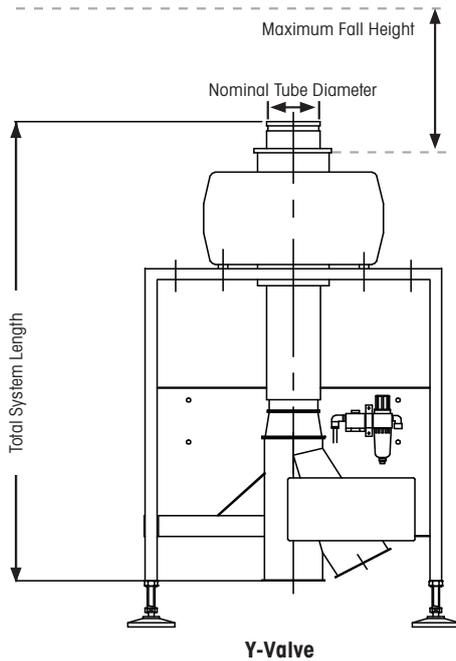
Y-Valve system has a quick release and captive reject mechanism that simplifies cleaning. An internal seal helps to reduce product discharge into the reject channel. Suitable for applications with frequent product changeovers with regular cleaning between production batches.

Lifetime Service Support
METTLER TOLEDO Global Service capability can support you with correct installation, setup, and maintenance, to maximize your return on investment.

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Y-Valve

Sealtite / Open Diverter

Product Data

Model	Nominal Internal Tube Diameter	Typical Throughput Kg/hr*	Overall Insertion Distance**		Max Fall Height***
			Sealtite / Open Diverter	Y Valve	
GF 50	50 mm	1500	720 mm	850 mm	350 mm
GFRH 50	50 mm	1500	650 mm	730 mm	300 mm
GF 75	75 mm	3500	873 mm	1000 mm	550 mm
GFRH 75	75 mm	3500	650 mm	810 mm	300 mm
GF 100	102 mm	6000	873 mm	1000 mm	550 mm
GFRH 100	102 mm	6000	650 mm	810 mm	300 mm
GF 125	121 mm	9500	1050 mm	1075 mm	800 mm
GFRH 125	121 mm	9500	850 mm	900 mm	500 mm
GF 150	145 mm	13,500	1050 mm	1150 mm	800 mm
GFRH 150	145 mm	13,500	850 mm	1000 mm	500 mm
GF 200	200 mm	24,000	1217 mm	1400 mm	800 mm
GFRH 200	200 mm	24,000	1100 mm	1200 mm	500 mm
GF 250	250 mm	37,500	1385 mm	1500 mm	800 mm
GF 300	300 mm	56,000	1630 mm	1650 mm	800 mm

*   Actual rates will depend on the bulk density of the product and its flow characteristics.
**   Overall insertion distance, excluding test kits and heavy duty wash down (HD) systems.
*** Distance from inlet flange of the detector to the point where the product starts to fall.

Sealtite model: Larger round and rectangular GF systems are available on request for applications that require larger throughput rates.

ATS Installation Notes - If an ATS is installed, achievable sensitivities, actual throughput rates and system length may be different to the figures quoted in this brochure. For further details on ATS, please refer to the ATS datasheet.

Profile Gravity Fall Metal Detector
Tailored Solutions

Technical Details		Profile Gravity Fall Metal Detector
Sensitivity Features	Operating frequency	Tuned, single or dual frequency operation up to 800 kHz User configurable with up to 2 single frequencies as standard
	eDrive technology™	Patented technology to improve sensitivity
	Standard aperture diameters	50 – 300 mm
Productivity Features	Human-machine interface (HMI)	5.7 inch QVGA touchscreen
	Languages (menus, prompts)	33; metric and imperial units
	No. of user accounts	32
	Product memories	100
	Setup	Simple auto-setup
	Reject Confirmation System	Reject not confirmed and slow reject warnings
	Performance Verification Routine (PVR)	PVR Alarm with "test due" notification, Standard PVR Routine, Advanced Performance Monitoring Routines
	Condition Monitoring	Reduces unplanned downtime risk
	Manual test facility	Hole with bung and removable test grid for inserting and retrieving test pieces (Option)
	Automatic Test System (ATS)	IP65 rated: 3 metals (FE, NFE, SS), 4 metals (FE, NFE, SS and AL)
Environment Features	Zero Metal Free Zone (ZMFZ)	As standard to reduce overall insertion space
	Ingress protection rating	Light Duty IP65; Medium Duty IP66
	Impact rating	IK08
	Surface material and finish	Painted Aluminum and 304 (Standard) 316 Stainless Steel (Option)
	Operating temperature	-10 to 40 °C
	Electrical (metal detection head)	100 to 240 VAC, 50 to 60 Hz, 100 VA, single-phase
Compliance Features	Logs	Standard: PVR Log, QA (PVR) Test report, Settings report, Shift report
	Inputs and outputs	Standard: 7 inputs, 3 fixed outputs, 3 programmable outputs
	Performance indicator	Color-coded bar graph and digital display
	Connectivity	Serial Comms (RS232): Printer, Network, Direct, Ethernet, PackML, Emulation (VNC); Fieldbus, Ethernet/IP, Modbus TCP, Profinet IO
	USB Port	Optional – exports reports; facilitates system upgrades and software updates
	ProdX integration	Enabled
	Performance Verification (PV)	Optional – Annual Performance Verification Service
Service Features	Lifetime Service Support	Optional – tailored service packages, for example Care Contracts
	Training and Assistance	Optional – modules for bespoke solutions to maximize performance

METTLER TOLEDO Service with global reach and tailored care solutions

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www.mt.com/metaldetection

For more information