ASN 6000/9000

Profile Advantage 9000

Increasing Productivity

Reducing Costs

Meeting Compliance Needs

Conveyorised Solutions
Superior Performance, Total Compliance

METTLER TOLEDO

Integrated Solutions
For Increased Profitability

The comprehensive range of ASN 6000/9000 & Profile Advantage 9000 systems provide a flexible, fully integrated choice of metal detection solutions for small to medium sized inspection applications.

Particularly suited to high quality food production environments, the product range provides a versatile, space saving solution for the in-process and end-of-line inspection of a wide variety of food stuffs.

The ASN 6000/9000 & Profile Advantage 9000 range delivers the benefits of improved operational efficiency, increased competitiveness and the lowest overall cost of ownership for maximised profitability. The highest detection sensitivity combined with operational stability provides the peace of mind that your customers and your brand are given the best possible protection.

Proven Design Expertise

Our design team have extensive knowledge of the food processing and packaging industries. The use of sophisticated computer modelling techniques and rigourous endurance test programmes has enabled the team to develop systems that deliver true customer benefits.

Long Term Reliability

For wet environments, reliable, efficient product transfer is achieved through the use of superior duty, maintenance free, AC motors, high quality rollers and sealed bearings. Robust frame and search head construction help to provide high performance even in the most demanding applications.

Choice of Belt Options

Available with a choice of modular or polyurethane belt options. The modular belt is perfect for transporting small to medium sized packed product including fresh / frozen meat and seafood. Hygienically designed, the open construction allows for easy cleaning and ensures full HACCP compliance.

Belt Tracking

A simple, robust conveyor belt tracking system maximises uptime. Enhanced compact and safe design protects operators from injury.

Easy to Dismantle

Maintenance procedures and routine cleaning are made easy through the use of a "tool free" quick release skid plate and conveyor design. This means the complete system can be rapidly dismantled, thoroughly cleaned and re-assembled with minimal downtime.

Hygienic Design

The combination of a fully welded "open design" conveyor frame with a search head free of dirt traps supports HACCP compliance. All contact parts are made from food grade materials ensuring there is no potential for product contamination.

Safety Assurance

We build safety into our equipment and our design personnel are qualified to internationally recognised standards. This allows us to provide products that meet global requirements as a matter of course, with no additional time or cost.

Minimised Product Liability
Choosing the Right System

ASN 6000/9000 & Profile Advantage 9000 are available in a broad range of variants with a comprehensive selection of optional upgrades. This means there is a solution available to suit most in-process and end-of-line food inspection applications.

Stainless steel detectors are suitable for harsh working environments. These systems are suited to heavy wash down conditions fulfilling the most challenging HACCP requirements. In less demanding, dry applications, detectors with a painted finish can be used.

Dual, triple or Multi-Simultaneous Frequency (MSF) technology enable widely differing products in a diverse selection of packaging materials to be inspected. This means that all dry and wet products with large product-effect signals as well as those packed in metallised films can be accommodated.

All METTLER TOLEDO metal detectors support compliance with the Global Food Safety Initiative (GFSI) standards, major retailer codes of practice and key legislation including the Food Safety Modernization Act (FSMA).

Profile Advantage 9000 Series 1200	ASN 9000 Series 800/1200	ASN 6000 Series 800/1200
• Up to 50% improved sensitivity for challenging applications with MSF technology	• Multi, Ultra-high and Tuned frequency operation provides the highest levels of sensitivity in dry applications	• Uses one or multiple Tuned frequencies to deliver high levels of sensitivity in a variety of applications
• Highest brand protection and compliance to GFSI standards and FSMA	• Conveyor belt control is fully integrated into the touch screen interface through a dedicated on-screen icon.	• Conveyorized detection solution with product reject
• Cost reduction and increased productivity with fewer false rejects for improved OEE	• On-board diagnostics, condition monitoring and reporting	

ASNE 6000/9000 Series 800 End Mount

- A tailored version of the ASN 6000/9000 Series systems, designed for the inspection of taller packs and products
- Available with a choice of operating platforms

Automatic Reject Options

Automatic reject devices are available to suit most product inspection applications. These systems provide fast and efficient removal of contaminated product without the need to stop the production line providing enhanced levels of contaminated product control.

Additional Options

Additional options are available enabling all systems to be configured to suit your specific needs. These options provide elevated levels of operator safety, reject control and efficient product transfer through the system.

Customer Support

Our sales and service engineers provide valuable guidance on selecting the correct system solution to suit your needs. Full professional commissioning, training and support is also available for immediate return on investment. IPac helps to comply with internal and external standards.

Operating Platforms
Tailored to the Application

METTLER TOLEDO's range of conveyorised metal detection solutions use a variety of operating platforms, tailored to specific inspection requirements. Proven reliability, ease of use and stability are standard - choosing the right platform depends on the application requirements.

Signature technology - for less demanding applications

Profile technology - advanced metal detection

Profile Advantage technology - for challenging applications

ASN6000 systems use the Signature operating platform featuring a robust, push button membrane key panel operating system. Auto-Balance Control and on-board fault reporting combine to deliver a stable operating platform to reduce potential downtime.

ASN9000 systems use proprietary Profile software technology with full colour touchscreen to deliver advanced metal detection capabilities. The intuitive, easy to use interface simplifies procedures and places valuable process information at the fingertips of the whole manufacturing team.

Profile Advantage 9000 systems are ideal for the inspection of products that are wet, hot, chilled, cooling, or packed in metallized film. MSF and Product Signal Suppression technology combine to deliver up to 50% improved sensitivity on any challenging product effect application.

Flexible Connectivity

Profile and Profile Advantage detectors can be configured with a range of data collection facilities from USB memory sticks to full Ethernet connectivity. Data harvesting from the detector delivers total operational visibility, aids the decision making processes and supports due diligence needs.

- USB port enables effective data transfer to other devices
- Ethernet adapter provides network connectivity for real time data transfer, collection and integration into factory management systems

- Fieldbus Interface Module (FIM) enables real time communication, data transfer and collection via industry-standard Fieldbus protocols including EtherNet/IP, Modbus TCP and Profinet IO

Profile technology makes compliance easier

The use of ultra-high frequency operation enables the signals given off by all metallic contaminant types to be identified and amplified to aid detection and removal. Built-in software routines and data displays can be used to support quality management processes to meet compliance requirements. New **Emulation** technology leverages Virtual Network Computing (VNC) protocols to enable remote access to and control of the metal detector HMI from networked devices to deliver operational efficiencies.

Built-in performance monitoring routines

Missed performance monitoring tests can compromise quality standards and lead to non-compliance issues. Metal detectors with Profile technology advise when test routines need to be performed and when testing is overdue via highly visible screen messages.

Secure login access - greater process control

The control of manufacturing processes is supported through an automated user access log facility. This feature enables data to be reviewed to establish when system access was made and by whom. This helps with the management of line personnel and ensures enhanced levels of due diligence can be exercised.

Ensuring uptime

Condition Monitoring technology constantly analyses the performance of major detector components. Adverse trends are identified and highlighted as an early warning of a potential problem in advance of actual failure to reduce downtime and increase efficiency.

Profile Advantage detects more metal, minimizes false rejects

For challenging inspection applications Profile Advantage technology provides the ultimate in metal contaminant detection capability. All metal contamination including ferrous, non-ferrous and even the most difficult to detect non-magnetic stainless steels are readily detected.

The Profile Advantage 9000 platform includes the same built-in software routines and Condition Monitoring technology as Profile ASN9000 systems. However, in addition, it offers several other unique features that deliver significant benefits.

MSF technology delivers up to 50% improvement in the spherical operating sensitivity. enabling considerably shorter lengths of irregular shaped contaminants such as wire and swarf to be detected. This improvement significantly increases brand protection through the detection and removal of more real-life contaminants.

Product Signal Suppression technology is applied to each product that it inspects, rather than simply comparing the signal from the inspected product to that of the signal captured during the auto set-up mode. Differences in the product signal which could cause conventional metal detectors to trigger are virtually eliminated, dramatically reducing false rejects while maintaining optimum sensitivity and productivity.

Intuitive Clustering technology, grouping multiple products on the same setting, allowing seamless product changeovers without the impact on the metal detector availability.

Fully automatic set-up routine allows the user to configure all operating parameters.

Compact Inspection Solutions
Meeting Compliance Requirements

ASN6000 and ASN9000 systems are designed for integration with a wide range of processing and packing line applications, or as freestanding systems at Critical Control Points (CCPs) to meet regulatory requirements.

Both ASN6000 and ASN9000 systems are available in 2 standard lengths - 800mm and 1200mm. The variable pass height facility provides enhanced sensitivity performance. For added convenience, Series 1200 systems can be configured with a choice of polyurethane or modular conveyor belts

Detector Selection

Max Pass Width (mm)	Max Pass Height (mm)		Detector Finish	Detector Product Code	System Environment
	PU	Modular			
210	45	*		ASN 9024P	
300	75	*		ASN 6031P/ASN 9031P	
	115	*		ASN 6032P/ASN 9032P	Dry Environments Wipe Down Cleaning IP44
	175	*	Painted Silver (P)	ASN 6033P/ASN 9033P	
450	75	*		ASN 6041P/ASN 9041P	
	115	*		ASN 6042P/ASN 9042P	
	175	*		ASN 6043P/ASN 9043P	
210	45	40		ASN 9024S	
300	75	70		ASN 6031S/ASN 9031S	
	115	110	Stainless Steel (304)	ASN 6032S/ASN 9032S	
	175	170	Beadblast Finish (S)	ASN 6033S/ASN 9033S	
450	75	70		ASN 6041S/ASN 9041S	
	115	110		ASN 6042S/ASN 9042S	
	175	170		ASN 6043S/ASN 9043S	Wet Environments Jet Wash Cleaning IP66
210	45	40		ASN 9024M	
300	75	70		ASN 6031M/ASN 9031M	
	115	110	Stainless Steel (304)	ASN 6032M/ASN 9032M	
	175	170	Mirror Polish Finish (M)	ASN 6033M/ASN 9033M	
450	75	70		ASN 6041M/ASN 9041M	
	115	110		ASN 6042M/ASN 9042M	
	175	170		ASN 6043M/ASN 9043M	

* Modular belt not offered as standard on Painted Detector Systems. Consult with your METTLER TOLEDO representative for special configurations.

Series 800

System Belt / Length (mm)	Fixed Belt Speed (m/min.)	Belt Height (mm)	Variable Pass Height (mm)	Detection Action
PU / 800	30 or 36	700 to 850	-20, -40	Belt Stop

Series 1200

System Belt / Length (mm)	Fixed Belt Speed (m/min.)	Belt Height (mm)	Variable Pass Height (mm)	Detection Action
PU / 1200	30 or 36	700 to 850	-20, -40	Belt Stop
Modular / 1200	30 or 40	700 to 850	-20, -40	Belt Stop

System Outline Dimensions

Detector Series	System Width (mm)	Belt Width (mm)		System Height (mm)
		PU	Modular	
ASN 9024	700	180	178	1060 +/- 75
ASN 6031/ASN 9031	700	200	203	1090 +/- 75
ASN 6032/ASN 9032				1130 +/- 75
ASN 6033/ASN 9033				1190 +/- 75
ASN 6041/ASN 9041	850	350	347	1100 +/- 75
ASN 6042/ASN 9042				1140 +/- 75
ASN 6043/ASN 9043				1200 +/- 75

### Tailored Solution for Foil-based Applications

Ferrous-In-Foil system option for ASN6000 (ASNF Series) is specifically designed to detect ferrous and magnetic stainless steel contaminants in aluminum foil packed products such as foil food trays, foil wrapping and pouches.


Series 800

Series 1200

Mechanical / Electrical Specification

Maximum Weight on Belt		10 kg
System Frame Construction		Stainless Steel (304) - Brushed Finish
Belt Material	PU	Food Grade Polyurethane (PU)
	Modular	Food Grade Polyethylene (PE)
Emergency Stop		Fitted as standard except Series 800 End mount
Variable Speed		Fitted as standard for IP44 system and cost option for IP66 system
Operating Temperature		-10°C to +40°C (Relative Humidity 30 to 85% non-condensing)
Storage Temperature		-10°C to +50°C
Power Requirements		For IP44, Single Phase 100-220VAC +/- 10% 50/60Hz For IP66, Single Phase 220VAC +/- 10% 50/60Hz
800 Series System Weight (approx.)		115 kg (ASN 903X), 125 kg (ASN 904X), 100 kg (ASN 9024)
1200 Series System Weight (approx.)		150 kg (ASN 903X), 200 kg (ASN 904X), 130 kg (ASN 9024)
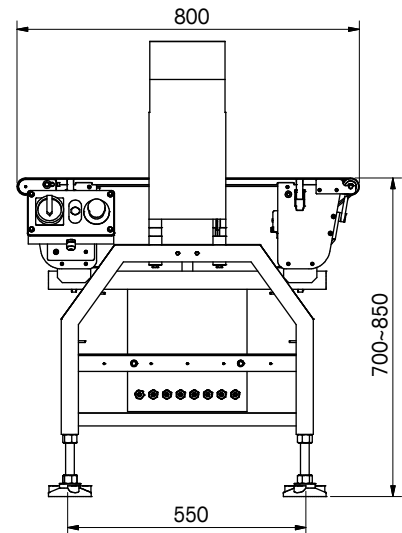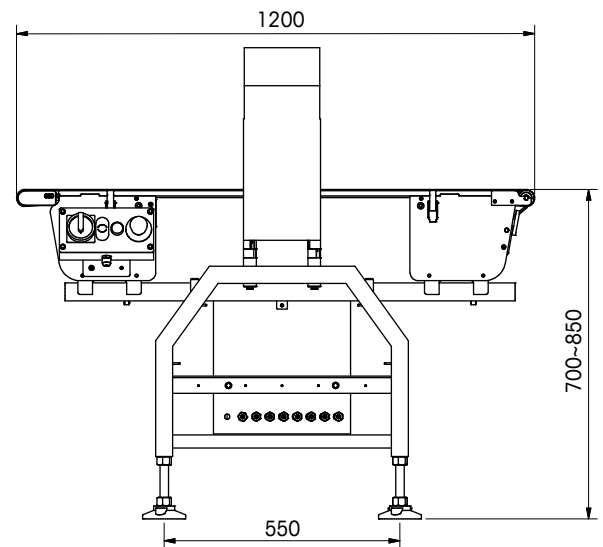
Automatic Reject Options:
- Air Blast (AB)
- End Flap (EF)
- Diverter Arm (DA)
  - excluding ASN 9024
- Pusher (PU) - Series 1200 only

Other Options:
- Pack Sensor (PS)
- Reject Bin (RB)
- Product Guides In-feed (PGI)
- Product Guides Full Length (PGF)
- Beacon / Sounder (BS)
- Variable Speed (VS)
- Wheels (WH)
- System Options (SO)

Detecting More Metal
For Compliance and Brand Protection

A compact, space-saving solution, the Profile Advantage 9000 system provides a flexible, fully integrated metal detection solution for the inspection of small to medium sized packed products. Designed for the inspection of wet, frozen or fresh foods and those products packaged in metallized film the Profile Advantage 9000 provides a versatile, space saving solution for both in-process and end-of-line inspection.

In challenging applications, Profile Advantage 9000 delivers improved brand protection, increased productivity and enhanced compliance compared to traditional metal detection technology. The highest detection sensitivity combined with operational stability provides the peace of mind that your customers and brand are given the best possible protection. With a choice of **32 user languages** and **5 levels of access**, Profile Advantage 9000 ensures your critical control points (CCP's) are managed and controlled to the highest levels.

Profile Advantage 9000 system is available in a compact 1200 mm length

Detector Selection

Product Max Pass Width (mm)	Product Max Pass Height (mm)		Detector Construction Finish	Detector Product Code*
	PU Belt	**Modular Belt**		
200	75	70	Stainless steel beadblast finish **IP66**	PA 300 x 100
	125	120		PA 300 x 150
	175	170		PA 300 x 200
350	75	70		PA 450 x 100
	125	120		PA 450 x 150
	175	170		PA 450 x 200

*PA refers to Profile Advantage Series systems

Conveyor Specification

System Belt / Length (mm)	Belt Speed (m/min.)	Belt Height (mm)	Variable Pass Height (mm)	Detection Action
PU / 1200	30 or 36	700 to 850	-20, -40	Belt Stop
PU / 1200	Variable 10 to 60			
MB / 1200	30 or 40	700 to 850	-20, -40	Belt Stop
MB / 1200	Variable 10 to 60			

System Outline Dimension

Detector Series*	System Width(mm)	Belt Width (mm)		System Height(mm)
		PU	Modular	
PA 300 x 100	838	200	203	985 +/- 75
PA 300 x 150				1035 +/- 75
PA 300 x 200				1085 +/- 75
PA 450 x 100	988	350	347	985 +/- 75
PA 450 x 150				1035 +/- 75
PA 450 x 200				1085 +/- 75

*PA refers to Profile Advantage Series systems

Mechanical / Electrical Specification

Maximum Weight on Belt	10 kg
System Frame Construction	Stainless Steel (304) - Brushed Finish - IP66
Belt Material	Food Grade Polyurethane (PU) or Modular Food Grade Polyethylene (PE)
Operating Temperature	-10°C to +40°C (Relative Humidity 30 to 85% non-condensing)
Storage Temperature	-10°C to +50°C
Power Requirements	Single Phase 220 to 240 V AC +/-10% 50 / 60 Hz
E stop	Fitted as standard
Series System Weight (approx.)	200 kg (PA 603X); 250 kg (PA 604X)

Other Options:

- USB Port
- Ethernet Adaptor
- Pack Sensor (PS)
- Product Guides In-feed (PGI)
- Product Guides Full Length (PGF)
- Beacon / Sounder (BS)
- Variable Speed (VS) 10 - 60 m/min
- Adjustable height wheels (WH) 780 to 930 mm

Modular Belt

PU Belt
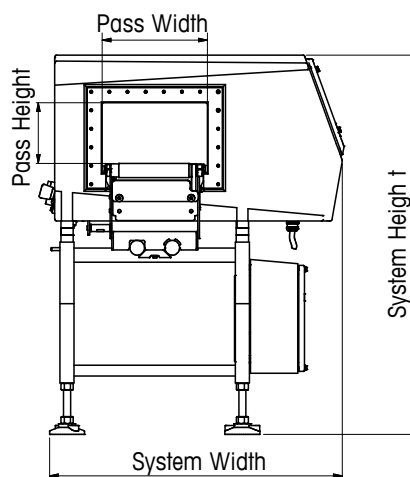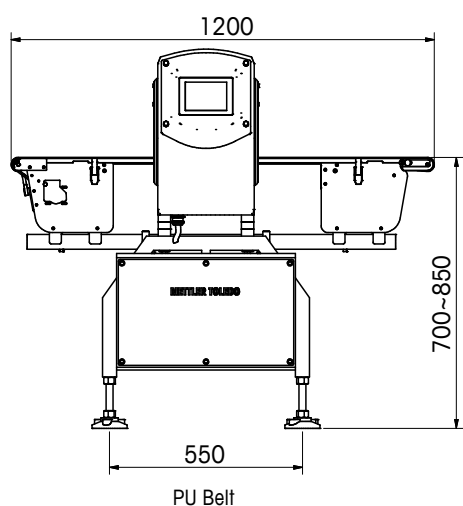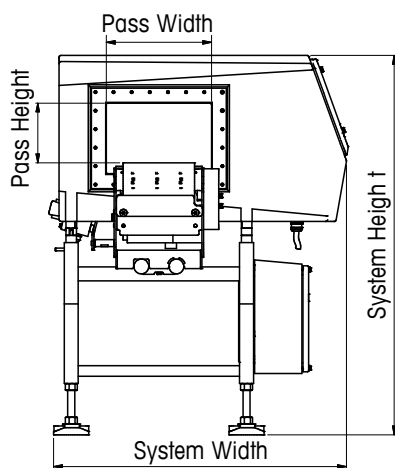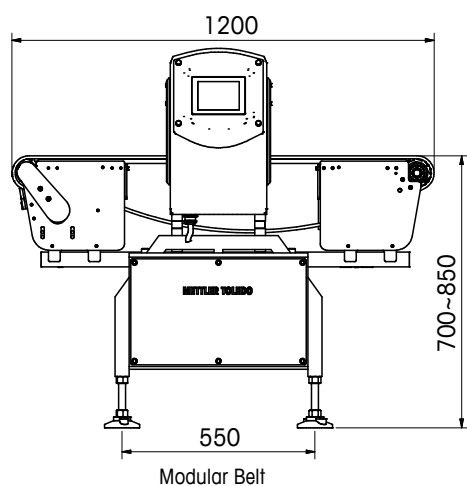
End Mount Option
For Taller Products

A flexible range of fully integrated solutions designed for the inspection of tall, narrow packs such as bottles and tall cartons.

Ideally suited for installation in processing and packing lines, these systems can be easily integrated into production lines and assist in meeting the needs of industry standards and regulatory compliance.

Detector Selection

Max Pass Width (mm)	Max Pass Height (mm)	Detector Finish	Detector Product Code	System Environment
95	275	Painted Silver (P)	ASNE 6031P/ASNE 9031P	Dry Environments Wipe Down Cleaning IP44
135			ASNE 6032P/ASNE 9032P	
195			ASNE 6033P/ASNE 9033P	
95	425		ASNE 6041P/ASNE 9041P	
135			ASNE 6042P/ASNE 9042P	
195			ASNE 6043P/ASNE 9043P	
100	275	Stainless Steel (304) Beadblast Finish (S)	ASNE 6031S/ASNE 9031S	Wet Environments Jet Wash Cleaning IP66
140			ASNE 6032S/ASNE 9032S	
200			ASNE 6033S/ASNE 9033S	
100	425		ASNE 6041S/ASNE 9041S	
140			ASNE 6042S/ASNE 9042S	
200			ASNE 6043S/ASNE 9043S	
100	275	Stainless Steel (304) Mirror Polish Finish (M)	ASNE 6031M/ASNE 9031M	
140			ASNE 6032M/ASNE 9032M	
200			ASNE 6033M/ASNE 9033M	
100	425		ASNE 6041M/ASNE 9041M	
140			ASNE 6042M/ASNE 9042M	
200			ASNE 6043M/ASNE 9043M	

Series 800 End Mount

System Belt / Length (mm)	Fixed Belt Speed (m/min.)	Belt Height (mm)	Variable Pass Height (mm)	Detection Action
PU / 800	30 or 36	700 to 850	No	Belt Stop

System Outline Dimensions

Detector Series	System Width (mm)	Belt Width (mm)	System Height (mm)
ASNE 603XP/ASNE 903XP	655	X = 1 - 80 X = 2 - 120 X = 3 - 180	1110 +/- 75
ASNE 604XP/ASNE 904XP			1125 +/- 75
ASNE 603XS/ASNE 903XS			1250 +/- 75
ASNE 604XS/ASNE 904XS			1275 +/- 75
ASNE 603XS/ASNE 903XS			1250 +/- 75
ASNE 604XS/ASNE 904XS			1275 +/- 75
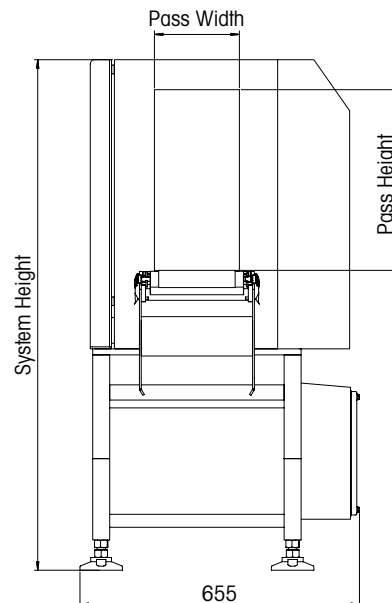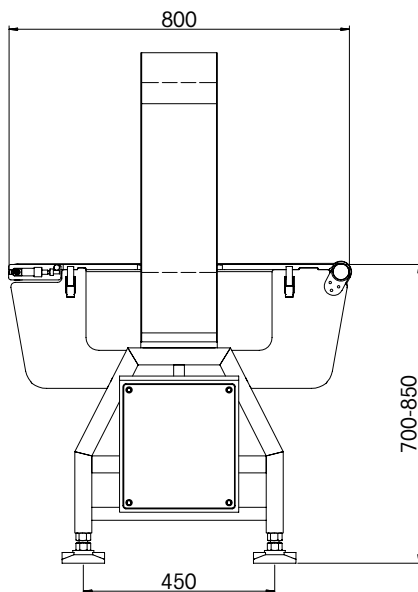
Mechanical / Electrical Specification

Maximum Weight on Belt	10 kg
System Frame Construction	Stainless Steel (304) - Brushed Finish
Belt Material	Food Grade Polyurethane (PU)
Operating Temperature	-10°C to +40°C (Relative Humidity 30 to 85% non condensing)
Storage Temperature	-10°C to +50°C
Power Requirements	Single Phase 220 to 240 V AC +/-10% 50 / 60 Hz
System Weight (approx.)	115 kg (ASNE 903X), 125 kg (ASNE 904X)

Automatic Reject Options:
- Belt Stop on Detect Only

Other Options:
- Pack Sensor (PS)
- Product Guides In-feed (PGI)
- Product Guides Full (PGF)
- Beacon / Sounder (BS)
- Emergency Stop (ES)
- Variable Speed (VS)
- Wheels (WH)
- System Options (SO)

Automatic Reject Options
## for efficient product removal

Automatic reject devices are available to suit most product inspection applications. These systems provide fast and efficient removal of contaminated product without the need to stop the production line, providing enhanced levels of contaminated product control.

Diverter Arm (DA) Specification

	DA3	DA4
System Width	460 mm	610 mm
Belt Width	200 mm	350 mm
Max Product Size	300 (L) x 200 (W) x 180 (H) mm	300 (L) x 350 (W) x 180 (H) mm
Max Product Weight	5 kg	5 kg
Typical Product Rate*	150 packs / min.	150 packs / min.
System Weight (approx.)	50 kg	80 kg

* Actual pack rate is dependent upon product length, spacing, and system speed

System Height	700 to 850 mm	
System Length	800 mm	
Frame Material	Stainless Steel 304 - Brushed Finish	
Skid Plate Material	Stainless Steel 304	
Belt Material	Food Grade Polyurethane (PU)	
Protection Class	IP66 (washdown environment) or IP44 (dry environment)	
Motor Drive	Superior Duty AC Motor	
Belt Speed	**Standard**	Fixed Speed 30 or 36 m/min.
	Option	Variable Speed 10 to 60 m/min.
Air Supply	0.4 to 0.9 MPa, 4L / min.	
Air Supply Fitting	Push Fit - 8mm Dia Polyurethane Tube	
Power Supply	Single Phase 220 to 240 V AC +/-10% 50 / 60 Hz	
Diverter	**Standard**	Single diverter arm specified as LH or RH reject (when viewed down infeed)
	Option	Dual divert arms. To allow for independent product rejection of both metal and weight (when combined with checkweigher)
Compatible Systems	ASN Series 800 & 1200, Profile Advantage Series 1200, ASN6000 Ferrous-in-Foil (ASNF) systems	
Typical Applications	Light-to-medium-weight, random, non-orientated, discrete packs Light-to-medium-weight, spaced, orientated discrete packs	
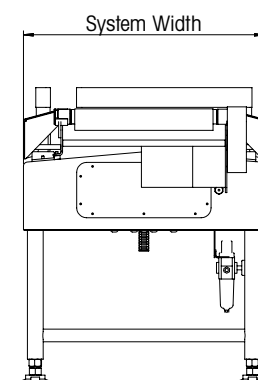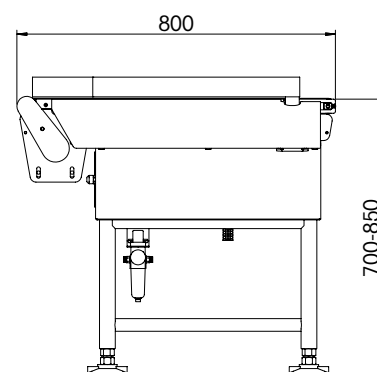
Air Blast (AB) Specification

	AB
Max Product Weight	300 g
Max Product Size	300 (L) x 200 (W) x 180 (H) mm
Typical Product Rate*	200 packs per minute
System Weight (approx.)	3 kg

* Actual pack rate is dependent upon product length, spacing, and system speed

Pack Sensor	Fitted as standard
Protection Class	IP66
Supply Voltage	24V DC supplied from system
Air Supply	0.4 to 0.9 MPa, 16L / min.
Air Supply Fitting	Push Fit - 8mm Dia Polyurethane Tube
System Integration	Can be mounted on RHS or LHS when viewed down infeed
Compatible Systems	ASN Series 800 & 1200, Profile Advantage Series 1200, ASNF Series 1200 Ferrous-in-Foil
Typical Applications	Light-weight, spaced, orientated, discrete packs

Pusher (PU) Specification

	PU2	PU3	PU4
Max Product Weight	5 kg	5 kg	5 kg
Max Product Size	300 (L) x 160 (W) x 40 (H) mm	300 (L) x 200 (W) x 180 (H) mm	300 (L) x 350 (W) x 180 (H) mm
Typical Product Rate*	150 packs per minute	150 packs per minute	150 packs per minute
Additional System Width	100 mm (ASN 903X)	100 mm (ASN 903X)	250 mm (ASN 904X)
System Weight (approx.)	8 kg	8 kg	10 kg

* Actual pack rate is dependent upon product length, spacing, and system speed

Pack Sensor	Fitted as standard
Protection Class	IP66
Supply Voltage	24V DC supplied from system
Air Supply	0.4 to 0.9 MPa, 4L / min.
Air Supply Fitting	Push Fit - 8mm Dia Polyurethane Tube
System Integration	Can be mounted on RHS or LHS when viewed down infeed
Compatible Systems	ASN Series 1200, Profile Advantage Series 1200, ASNF Series 1200 Ferrous-in-Foil
Typical Applications	Light-to-medium-weight, spaced, orientated, discrete packs

End Flap (EF) Specification

	EF2	EF3	EF4
Max Product Weight	600 g	600 g	1000 g
Max Product Size	200 (L) x 160 (W) x 40 (H) mm	200 (L) x 200 (W) x 100 (H) mm	200 (L) x 350 (W) x 100 (H) mm
Max Product Rate	100 packs per minute	100 packs per minute	80 packs per minute
Additional System Length	300 mm	300 mm	300 mm
System Weight (approx.)	8 kg	8 kg	10 kg

* Actual pack rate is dependent upon product length, spacing, and system speed

Protection Class	IP66
Supply Voltage	24V DC supplied from system
Air Supply	0.4 to 0.9 MPa, 4L / min.
Air Supply Fitting	Push Fit - 8mm Dia Polyurethane Tube
System Integration	300 mm loss in outfeed height
Compatible Systems	ASN Series 800 & 1200, Profile Advantage Series 1200, ASNF Series 1200 Ferrous-in-Foil
Typical Applications	Light-weight, random, non-orientated, discrete packs Light-weight, spaced, orientated discrete packs

Additional Options
For a Customised Solution

Additional options are available enabling systems to be configured to suit your specific needs. These options provide elevated levels of operator safety, improved reject control and efficient product transfer through the system.

Variable Speed (VS)

Speed Range	10 to 60 m/min.
Speed Control	Variable frequency drive in system enclosure Speed control via HMI

Variable Speed is standard on all IP44 systems and an optional extra for IP66 systems

Beacon / Sounder (BS)

| Beacon	Red Flashing Lamp
Sounder	80 dB
Reset	Push Button
Protection Class	IP66
System Integration	Pedestal Mounted for Maximum Visibility
Compatible Systems	ASN Series 800 & 1200, ASNE Series 800, PA Series 1200, ASNF Series 1200 Ferrous-in-Foil
Typical Applications	Alarm to notify QA / Supervision of a reject or fault event

Pack Sensor (PS)

Device	Photocell and reflector
Protection Class	IP66
Compatible Systems	ASN Series 800 & 1200, ASNE Series 800, PA Series 1200, ASNF Series 1200 Ferrous-in-Foil
Typical Applications	Improved control of automatic reject timing for spaced and orientated discrete packs

Fitted as standard with Air Blast (AB) and Pusher (PU) automatic reject options.
Cost option on all other systems.

Reject Bin (RB)

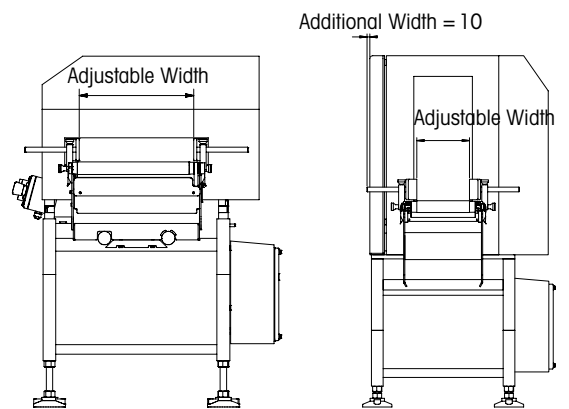|	Series 800	Series 1200
Length (L)	170 mm	270 mm
Width (W)	280 mm	280 mm
Height (H)	460 mm	510 mm
Max Reject Product Length	110 mm	180 mm
Material	Acrylic	
Locking Device	Optional	
System Integration	Mounted on RHS only when viewed down infeed	
Additional System Width	118 mm (No additional width for PA Series 1200)	
Compatible Systems	ASN Series 800 & 1200, PA Series 1200, ASNF Series 1200 Ferrous-in-Foil	
Typical Applications	Additional control to prevent rejected product from re-entering process	

Additional Width = 118
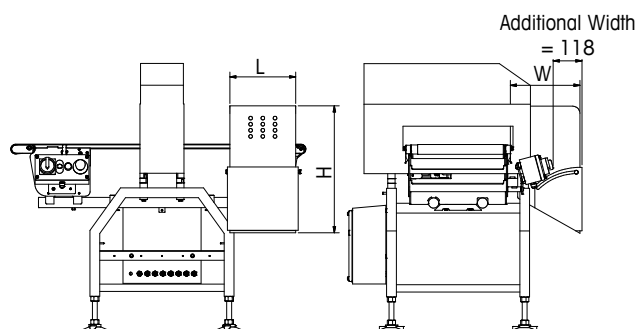
Product Guides In-feed (PGI) & Full (PGF)

Base Mount	ASN 9024	ASN 903X/603X	ASN 904X/604X
Adjustable Width	0 to 180 mm	20 to 220 mm	150 to 350 mm
Additional System Width	-	-	-
Compatible Systems	ASN Series 800 & 1200, ASNF Series 1200 Ferrous-in-Foil		
Typical Applications	PGI to guide product into detector aperture PGF to guide product into and out of detector aperture		

End Mount	ASNE 90X1/60X1	ASNE 90X2/60X2	ASNE 90X3/60X3
Adjustable Width	20 to 80 mm	20 to 120 mm	20 to 180 mm
Additional System Width	-	-	10 mm
Compatible Systems	ASNE Series 800		
Typical Applications	PGI to guide product into detector aperture PGF to guide product through detector aperture		

Additional Width = 10

Adjustable Width

Adjustable Width

Base Mount	PA 903X	PA 904X
Adjustable Width	20 to 220 mm	150 to 350 mm
Additional System Width	-	-
Compatible Systems	PA Series 1200	
Typical Applications	PGI to guide product into detector aperture PGF to guide product into and out of detector aperture	

System Options (SO)

Reject Bin Lock	Mechanical Lock
Power Cable	3 m Length
Power Supply	110 to 115 VAC +/-10% 60 Hz
USB	USB 2.0 Compatibility not available for ASN6000 and ASNF
Ethernet Adapter	ASN9000, PA Series 1200
Printer Port	Only available for PA Series 1200

Wheels (WH)

Material of Wheel	Thermoplastic Polyurethane (TPU)
Material of Housing	Stainless Steel 304
Wheel Diameter	75 mm
Type	360° Rotation With Lock/Brake (x4)
Additional System Height	60 mm

Enhanced Due Diligence
To Meet Food Safety Standards

The starting point for compliance with standards, regulations and legislation is conducting a HACCP audit, followed by the establishment of necessary critical control points (CCP's) to mitigate the risks identified. Once the need for a metal detection system is established, then attention should focus on specifying the system correctly.

More Than Just a Metal Detector

Although installing a metal detection system can reduce the risk, the opportunity for metal contamination reaching the end consumer is still too high in some cases.

It is often procedural and system failure rather than metal detector failure that is the main cause.

The "due diligence" enhancements from METTLER TOLEDO Safeline improve the level of control and management of the inspection system.

These ensure the critical control point (CCP) delivers not only high performance metal detection, but also an increased level of failsafe functionality that improves the capability and performance of the complete system.

Meeting Standards, Minimising Costs

Requirements differ from standard to standard. To be sure of meeting compliance needs and maximising the opportunity to prove due diligence, a metal detection system should be correctly specified. A well designed system will include a high quality detector and an array of control equipment, sensing devices and failsafe systems.
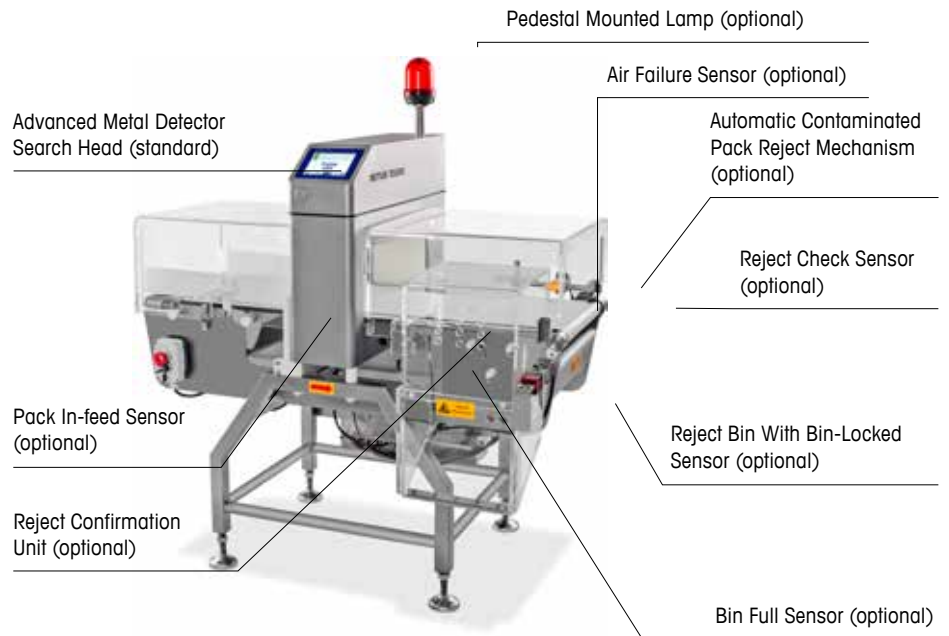
Even the smallest product recalls can be costly. As the scale increases, so does the potential for damage to your business. Physical recall costs are relatively easy to calculate. Much more difficult to understand is the hidden cost of damage to your brand and hard earned reputation.

Due Diligence System Features

A well designed system will include a high quality, reliable metal detector and an array of control equipment, sensing devices and failsafe systems.

Supporting International Retailers' Standards

In addition to the standard and optional features listed (see image at right), system performance and security can be further improved by including additional failsafe features (see table below) to support compliance with specific international retailer standards.

Advanced Metal Detector Search Head (standard)

Pedestal Mounted Lamp (optional)

Air Failure Sensor (optional)

Automatic Contaminated Pack Reject Mechanism (optional)

Reject Check Sensor (optional)

Pack In-feed Sensor (optional)

Reject Bin With Bin-Locked Sensor (optional)

Reject Confirmation Unit (optional)

Bin Full Sensor (optional)

Model illustrated features optional In-feed & Out-feed Tunnel Guards (Fixed), Bin Full Test Facility, RCU Test Facility and Pedestal Mounted Lamp (Red).

Feature	Availability	Description
Metal Detector Seach Head	Standard	Critical to the performance of any metal detection system; Profile ASN and Profile Advantage systems feature condition Monitoring technology, high security Operator Access and Event logging, and discriminated detection event logging as standard
Pack In-feed Sensor	Option	Essential for the optimum timing and operation of the reject device. Ensures the correct contaminated pack or packs are removed from the line regardless of the size and position of the contaminant in question.
Reject Confirmation Unit	Option	Some metal detection system fault conditions can allow metal contaminated product to pass through the system without being rejected. To minimise the risk of this, a reject confirmation system should be utilised. Upon detection of metal, the system can be configured to expect a further signal from the reject confirmation sensor that a pack or number of packs has been rejected. If confirmation is not received, the system will alarm and stop the conveyor.
Pedestal Mounted Lamp	Option	Provides a visual indication of any fault or warning conditions to quickly alert operators to specific fault conditions.
Air Failure Sensor	Option	Provides an early warning should the pneumatic supply fail or drop to a level that could prevent a successful rejection taking place.
Automatic Contaminated Pack Reject Mechanism	Option	A choice of rejection mechanisms are available dependent on line speed, pack speed, pack weight, pack dimensions and the nature of the packaging material.
Reject Check Sensor	Option	The addition of a reject check sensor provides real-time monitoring of the pack in-feed sensor. This in turn monitors the performance of the reject check sensor itself. Therefore, the sensors constantly monitor each other. If failure of either sensor occurs, the system alarms (conveyor stops) allowing the necessary corrective action to be undertaken.
Reject Bin With Bin-Locked Sensor	Option	Reject bins on ASN Profile metal detectors are available with either mechanical or electro-mechanical locks. The electro-mechanical lock option includes a unique bin locked feature which allows entry into the reject bin for a preset time only. If the bin is left unlocked and the open-time is exceeded, a signal is generated raising an alarm and shutting down the conveyor system.
Bin Full Sensor	Option	When / if the reject bin becomes full, the conveyor will automatically stop until the bin is emptied where the conveyor can be restarted.
Key Reset Switch	Option	Key operated reset switch provides additional security to minimize the risk of unauthorized re-start.

Equipment Safety Process
For Metal Detection Solutions

METTLER TOLEDO Product Inspection has developed an Equipment Safety Process to ensure our equipment meets the needs of our customers around the globe. We build safety into our equipment and have qualified our design personnel in the practice of national and international standards. This allows us to provide solutions that meet global requirements as a matter of course, and not an extraordinary event.

Risk Assessments

METTLER TOLEDO personnel are trained and practiced in risk assessment through our Equipment Safety Process.

Risk Assessments are completed on all Metal Detection equipment.

This assists greatly in our customers' efforts to perform task-based assessments for their production line, as described in ANSI B155-2011 and the Machinery Safety Directive.

Identify
Hazard
Areas

Identify
Hazards,
Harms,
Initial
Risk Score

Safety Circuits (optional)

Our equipment has safety designed-in. Our safety circuits are compliant with ISO 13849-1 and ISO 13849-2, and Category 1 is our default level for motorized systems. Systems and hazard areas are Category 3 as required. We have developed the internal competency to design, qualify, and validate these circuits, and are a recognized leader in our industry.
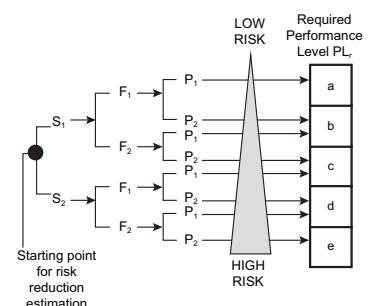
Power Introduction and Disconnect
Our primary electrical interface for the customer is the disconnect device. Disconnects are all rotary style, and lockable in the 'open' state. Both interlocked and standard forms are applied.

E-stops
E-stops are standard for our product inspection equipment. The default is Category 0, dropping power to all electromotive and pneumatic devices on the E-stop event. E-stops – like all electrical practices - meet the requirements of the Machinery Safety Directive, EN 60204-1, and NFPA 79.

Identify Personnel Involved, Product Lifecycle

Assess S, F, P – PLr, Safety Circuit Involved (Y/N)

Risk Reduction Steps, Verification

Identify Residual Risks, Inform the User or Integrator

Hazard Notification
METTLER TOLEDO has developed a method that ties the risk assessment identification of hazards, and the risk scoring to consistently identify the hazard icon and the signal word to raise the appropriate level of concern.

Easier Compliance
Enhanced Levels of Automation

To comply with the latest regulations and quality standards, it is no longer sufficient to rely on paper based record keeping processes. ProdX™ software delivers monitoring and data management, making processes more streamlined, more accessible and more efficient.

Productivity

Centralized product set-up and changeovers reduces operator errors, shortens set-up time, and increases production uptime.

Record Keeping for Compliance

ProdX software delivers an automated, reliable and comprehensive solution to performance monitoring record keeping. The latest metal detector regimes including those recommended by major retailer groups are incorporated into the software as standard.

Also included is the ability to enter incidents (rejects, alarms and warnings), along with a reason and corrective action.

Quality

Dashboard monitoring provides early warning indication of key inspection process issues to ensure product quality is never compromised.

Security

Events monitoring tracks device alarms, events, and changes for process security. Robust user management means only authorized personnel have access to critical product and production information.

Clarity

Graphical user screens with machine state status icons, active reject monitoring by device, complete with comprehensive reporting capabilities ensure you have complete clarity of your product inspection program.

ProdX is scalable to meet your needs whether monitoring a single packaging line or monitoring numerous lines from multiple production sites and is supported by the largest team of Product Inspection sales and service professionals in the world.

Service Support
Where and When You Need It

When you invest in a piece of METTLER TOLEDO equipment, you are assured of the highest build quality, consistent performance and maximum reliability, but that is just the start of the relationship.

Our sales teams provide initial guidance on selecting the correct system solution to suit your needs. Once your system is up and running, you can be sure that a METTLER TOLEDO trained service expert is never far away. Our global team of expert service technicians is ready to give ongoing support throughout the life of the system.

Full product lifecycle support for your metal detection equipment:

- Start-up support
- Certified test samples
- Initial & ongoing performance verification
- Spare parts & spares kits
- Equipment repairs
- Upgrades and refurbishment
- Operator, Quality & Maintenance training

Visit our Comprehensive
Online Expertise Library

Browse our library and discover valuable resources on best practices, safety, compliance, global certification, research, product inspection applications and much more.

Your Knowledge Centre for Lab, Manufacturing and Product Inspection Resources

▶ **www.mt.com/library**

www.mt.com/metaldetection

For more information