

# Metal Detection



## **ASN 6000**

Maximum Protection

Operational Efficiency

Long Term Reliability

## **ASN 6000**

Simple, Reliable Compliance

**METTLER TOLEDO**

# Integrated Solutions for increased profitability



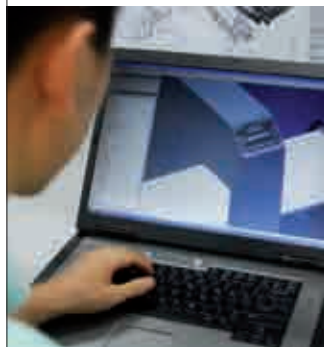
**The comprehensive range of ASN 6000 systems provide a flexible, fully integrated choice of metal detection solutions for small to medium sized inspection applications.**

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 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.

System Benefits

**Proven Design Expertise**



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

**Maximum Protection**



Unrivalled detection capability is delivered through advanced digital signal processing and dual channel technology. This enables all metals to be detected including ferrous, non ferrous and even the most difficult to detect non-magnetic stainless steels.

**Operational Efficiency**



An intuitive, multiple language interface maximises operator efficiency and minimises training requirements. The operating system provides rapid auto set-up, product change-over and in-built performance verification routines for reduced production downtime.



### Long Term Reliability



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

### Auto-Tracking & Tensioning



A simple, robust, automatic conveyor belt tensioning and tracking system maximises uptime. Once set, the system will automatically compensate for belt wear and lateral forces. The innovative design facilitates quick release of the tensioning roller to assist in rapid strip-down.

### 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 quality materials ensuring there is no potential for product contamination.

# Minimised Product Liability choosing the right system

**ASN 6000 is 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 frequency operation is standard in all search heads enabling 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.

## ASN 6000 Series 800



A compact metal detection solution with a short overall length of just 800 mm. These systems are ideally suited for integration into existing automated production lines but can also be used for stand alone applications where space is limited.

## ASN 6000 Series 1200



A compact metal detection solution with a longer overall length of 1200 mm. These systems are ideally suited for stand alone operations where manual loading or off-loading is required. They can also be integrated into existing automated production lines.

## ASNE 6000 Series 800 End Mount



A compact metal detection solution with a short overall length of just 800 mm. These systems are intended for the inspection of taller packs and products. They are ideally suited to automated production lines or other installations where space is limited.



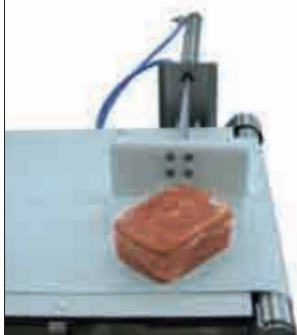


### ASNF 6000 Series 1200 Ferrous-in-Foil



A solution specifically designed to detect ferrous and magnetic stainless steel contaminants in aluminium foil packed products. With an overall length of 1200mm, these systems are ideally suited to production integration situations similar to Series 1200 conveyors.

### 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.

# Series 800 & 1200

## compact inspection solutions

Available in two standard lengths, Series 800 and 1200 systems are designed for use in a wide range of processing and packing line applications.

Systems are suited for integration into production lines or stand alone applications, providing assistance with increasing productivity, reducing overall costs and fulfilling regulatory compliance requirements.

Series 800 systems include a variable pass height facility for enhanced sensitivity performance in certain 'wet product' or 'product-effect' applications.



### Detector Selection

Max Pass Width (mm)	Max Pass Height (mm)	Detector Finish	Detector Product Code	System Environment	
300	75	Painted Silver (P)	ASN 6031P	Dry Environments Wipe Down Cleaning IP44	
	115		ASN 6032P		
	175		ASN 6033P		
450	75		ASN 6041P		
	115		ASN 6042P		
	175		ASN 6043P		
300	80		Stainless Steel (304) Beadblast Finish (S)	ASN 6031S	Wet Environments Jet Wash Cleaning IP66
	120			ASN 6032S	
	180			ASN 6033S	
450	80	ASN 6041S			
	120	ASN 6042S			
	180	ASN 6043S			
300	80	Stainless Steel (304) Mirror Polish Finish (M)		ASN 6031M	
	120			ASN 6032M	
	180			ASN 6033M	
450	80		ASN 6041M		
	120		ASN 6042M		
	180		ASN 6043M		

Series 800  
Series 1200

## Series 800

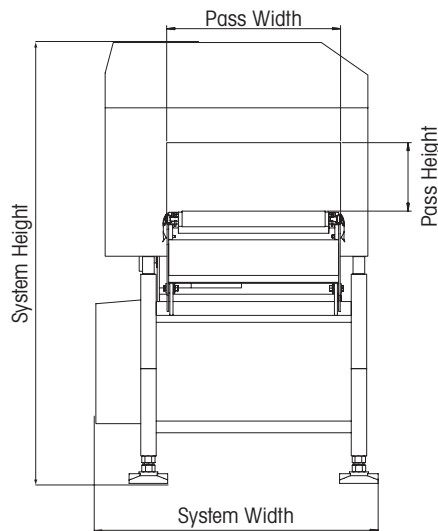
System Length (mm)	Fixed Belt Speed (m/min.)	Belt Height (mm)	Variable Pass Height (mm)	Detection Action
800	30 or 36	700 to 850	Yes +20, +40 or +60	Belt Stop

## Series 1200

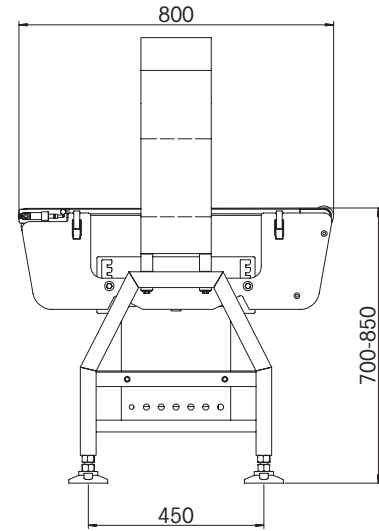
System Length (mm)	Fixed Belt Speed (m/min.)	Belt Height (mm)	Variable Pass Height (mm)	Detection Action
1200	30 or 36	700 to 850	No	Belt Stop

## System Outline Dimensions

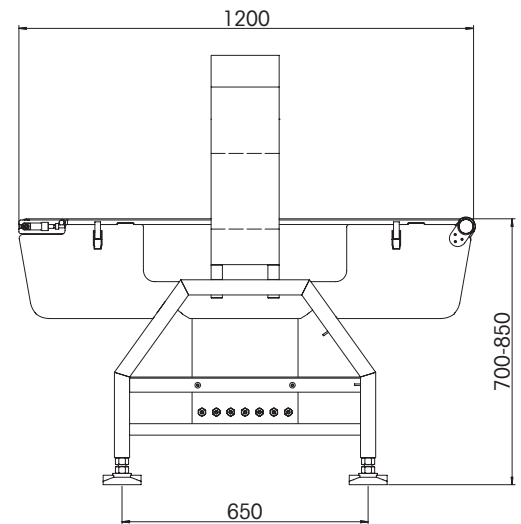
Detector Series	System Width (mm)	Belt Width (mm)	System Height (mm)
ASN 6031	605	200	1090 +/- 75
ASN 6032			1130 +/- 75
ASN 6033			1190 +/- 75
ASN 6041	755	350	1100 +/- 75
ASN 6042			1140 +/- 75
ASN 6043			1200 +/- 75



## Series 800



## Series 1200



## 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
800 Series System Weight (approx.)	115 kg (ASN 603X), 125 kg (ASN 604X)
1200 Series System Weight (approx.)	150 kg (ASN 603X), 200 kg (ASN 604X)

### Automatic Reject Options:

- Air Blast (AB)
- End Flap (EF)
- Diverter Arm (DA)
- 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)
- Emergency Stop (ES)
- Variable Speed (VS)

# Series 800 End Mount 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 deliver increased productivity, overall cost savings and assistance 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	Dry Environments Wipe Down Cleaning IP44
135			ASNE 6032P	
195			ASNE 6033P	
95	425		ASNE 6041P	
135			ASNE 6042P	
195			ASNE 6043P	
100	280	Stainless Steel (304) Beadblast Finish (S)	ASNE 6031S	Wet Environments Jet Wash Cleaning IP66
140			ASNE 6032S	
200			ASNE 6033S	
100	430		ASNE 6041S	
140			ASNE 6042S	
200			ASNE 6043S	
100	280	Stainless Steel (304) Mirror Polish Finish (M)	ASNE 6031M	
140			ASNE 6032M	
200			ASNE 6033M	
100	430		ASNE 6041M	
140			ASNE 6042M	
200			ASNE 6043M	

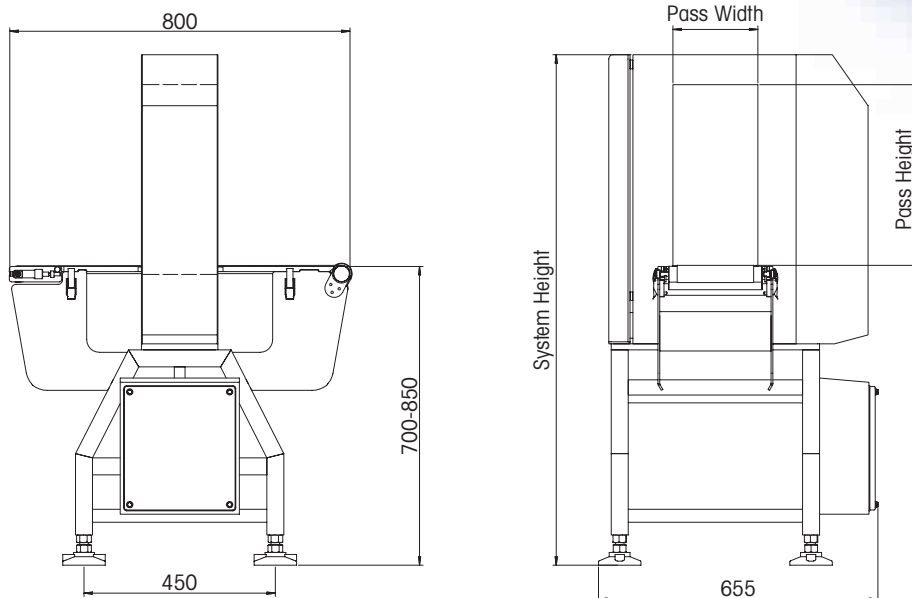


## Series 800 End Mount

System Length (mm)	Fixed Belt Speed (m/min.)	Belt Height (mm)	Variable Pass Height (mm)	Detection Action
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	655	X = 1 - 80 X = 2 - 120 X = 3 - 180	1110 +/- 75
ASNE 604XP			1125 +/- 75
ASNE 603XS			1250 +/- 75
ASNE 604XS			1275 +/- 75
ASNE 603XS			1250 +/- 75
ASNE 604XS			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 603X), 125 kg (ASNE 604X)

### Automatic Reject Options:

- Belt Stop on Detect Only

### Other Options:

- Product Guides In-feed (PGI)
- Product Guides Full (PGF)
- Beacon / Sounder (BS)
- Emergency Stop (ES)
- Variable Speed (VS)

# Series 1200 Ferrous-in-Foil

## for aluminium foil-packed products

**A range of systems specifically designed to detect ferrous and magnetic stainless steel contaminants in aluminium foil packed products such as foil food trays, foil wrapped products and foil retort pouches.**

With an overall length of 1200mm, these systems can be used in stand alone applications where manual loading or off-loading is required. They can also be integrated into existing automated production lines.



Series 1200  
Ferrous-in-Foil

### Detector Selection

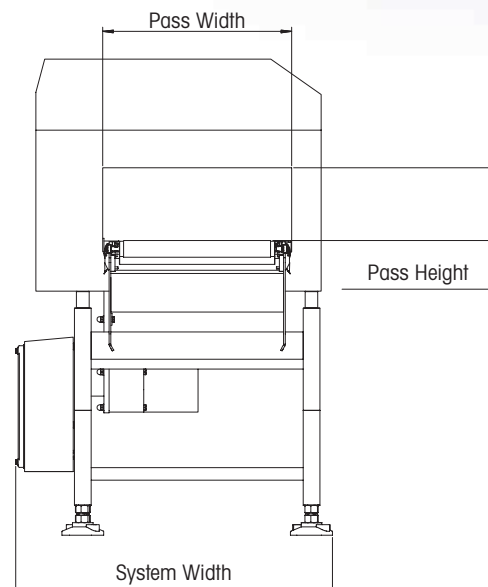
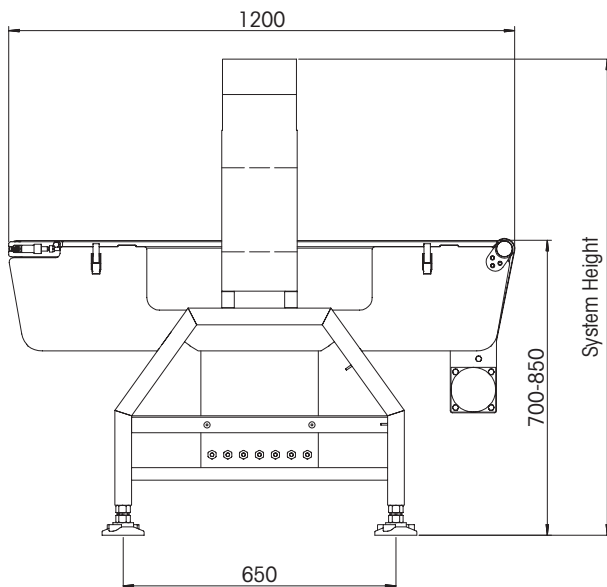
Max Pass Width (mm)	Max Pass Height (mm)	Detector Finish	Detector Product Code	System Environment
300	30	Painted Silver (P)	ASNF 6034P	Dry Environments Wipe Down Cleaning IP44
	55		ASNF 6035P	
	80		ASNF 6031P	
	130		ASNF 6036P	
450	30		ASNF 6044P	
	55		ASNF 6045P	
	80		ASNF 6041P	
	130		ASNF 6046P	

## Series 1200 Ferrous-in-Foil

System Length (mm)	Fixed Belt Speed (m/min.)	Belt Height (mm)	Variable Pass Height (mm)	Detection Action
1200	30 or 36	700 to 850	No	Belt Stop

## System Outline Dimensions

Detector Series	System Width (mm)	Belt Width (mm)	System Height (mm)
ASNF 603XP	605	200	995 +/- 75
ASNF 604XP	755	350	1020 +/- 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.)	150 kg (ASNF 603X), 200 kg (ASNF 604X)

### Automatic Reject Options:

- Air Blast (AB)
- End Flap (EF)
- Diverter Arm (DA)
- Pusher (PU)

### Other Options:

- Pack Sensor (PS)
- Reject Bin (PB)
- Product Guides In-feed (PGI)
- Product Guides Full (PGF)
- Beacon / Sounder (BS)
- Emergency Stop (ES)
- Variable Speed (VS)

# Automatic Reject Options for efficient product removal

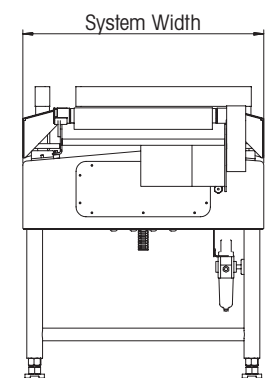
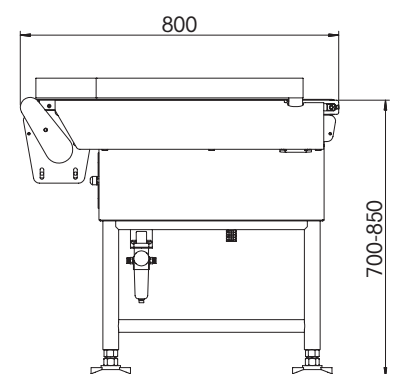
Automatic reject devices are available to suit most product inspection applications. These systems provide fast and efficient removal of contaminated product without the need to stop the production line, providing enhanced levels of contaminated product control.

## Diverter Arm (DA) Specification

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

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

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

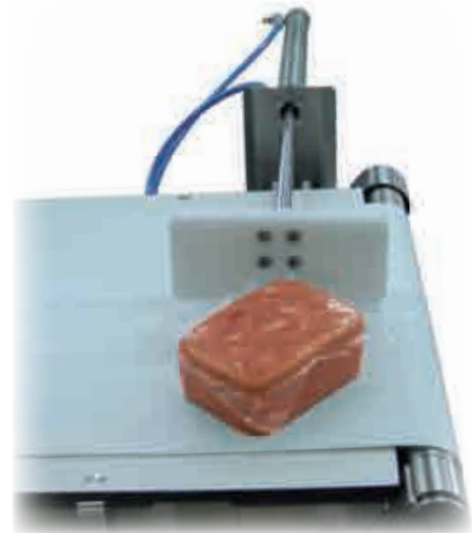


## Pusher (PU) Specification

	PU3	PU4
Max Product Weight	5 kg	5 kg
Max Product Size	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
Additional System Width	100 mm (ASN 603X)	250 mm (ASN 604X)
System Weight (approx.)	8 kg	10 kg

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

Pack Sensor	Optional
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, ASNF Series 1200 Ferrous-in-Foil
Typical Applications	Light-to-medium-weight, spaced, orientated, discrete packs



## End Flap (EF) Specification

	EF3	EF4
Max Product Weight	600 g	1000 g
Max Product Size	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	80 packs per minute
Additional System Length	300 mm	300 mm
System Weight (approx.)	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, 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)

<b>Speed Range</b>	10 to 60 m/min.
<b>Speed Control</b>	Variable frequency drive in system enclosure

## Emergency Stop (ES)

<b>Device</b>	Red emergency stop button for additional safety
<b>Protection Class</b>	IP66
<b>Compatible Systems</b>	ASN Series 800 & 1200, ASNE Series 800, ASNF Series 1200 Ferrous-in-Foil
<b>Typical Applications</b>	Enhanced operator safety



## Beacon / Sounder (BS)

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



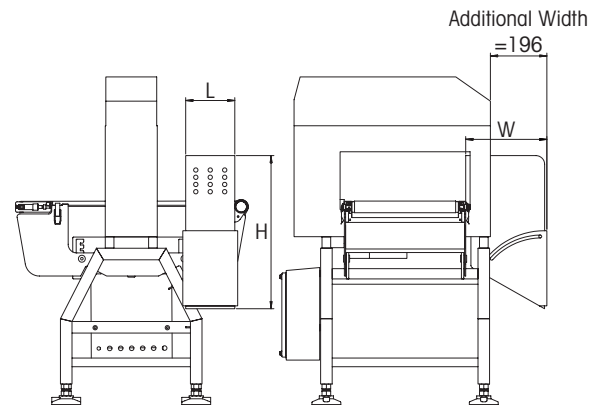
## Pack Sensor (PS)

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



## Reject Bin (RB)

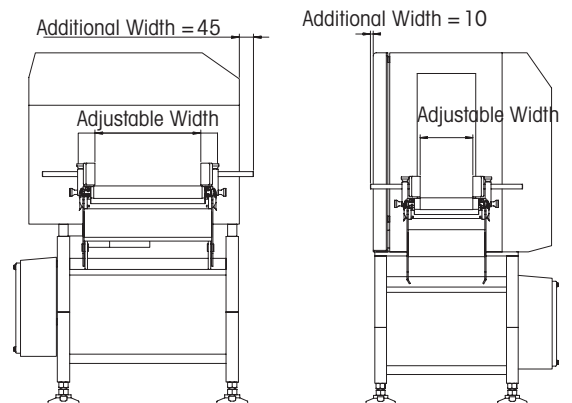
	Series 800	Series 1200
<b>Length (L)</b>	170 mm	270 mm
<b>Width (W)</b>	280 mm	280 mm
<b>Height (H)</b>	530 mm	530 mm
<b>Max Reject Product Length</b>	110 mm	180 mm
<b>Material</b>	Acrylic	
<b>Locking Device</b>	Optional	
<b>System Integration</b>	Mounted on RHS only when viewed down infeed	
<b>Additional System Width</b>	196 mm	
<b>Compatible Systems</b>	ASN Series 800 & 1200, ASNF Series 1200 Ferrous-in-Foil	
<b>Typical Applications</b>	Additional control to prevent rejected product from re-entering process	



## Product Guides In-feed (PGI) & Full (PGF)

Base Mount	ASN 603X	ASN 604X
<b>Adjustable Width</b>	20 to 220 mm	150 to 350 mm
<b>Additional System Width</b>	45 mm	45 mm
<b>Compatible Systems</b>	ASN Series 800 & 1200, ASNF Series 1200 Ferrous-in-Foil	
<b>Typical Applications</b>	PGI to guide product into detector aperture PGF to guide product into and out of detector aperture	

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



# Customer Support

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 and service engineers provide initial guidance on selecting the correct system solution to suit your needs.



Once your system has been installed and commissioned, you can be sure that a METTLER TOLEDO trained service expert is never far away. Our team is ready to give ongoing support throughout the life of the system.



The full service and support package available from METTLER TOLEDO includes:

- Installation & commissioning support
- Operator & maintenance training
- Certified test samples
- Initial & ongoing performance verification
- Spare parts & spares kits
- Equipment repairs

Customer  
Support

[www.mt.com/metaldetection](http://www.mt.com/metaldetection)

For more information

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