Yamato

Metal Detector
ME6100

Easy setting and operation

3 Inspection screens

Easy setting and operation

Multiple display modes, such as Level meter display, Inspection results display, Distribution display are available.

1 Level meter display

METAL DETECTOR ME6100 Yamato
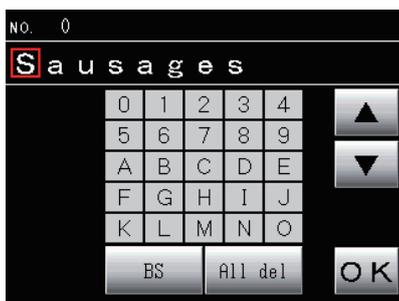
2 Inspection results display

3 Distribution chart display
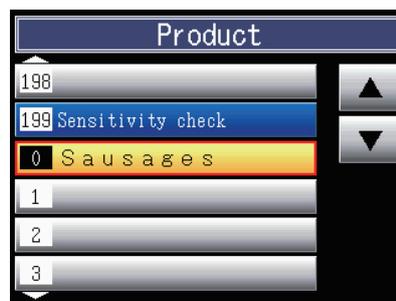

One-touch display change
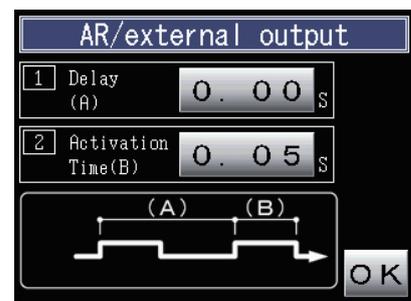
Comfortable operation with large touch screen

Product name input screen
Easy inputs of product name

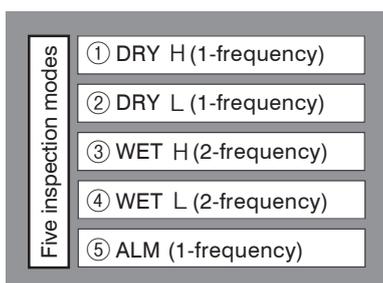

Product select screen
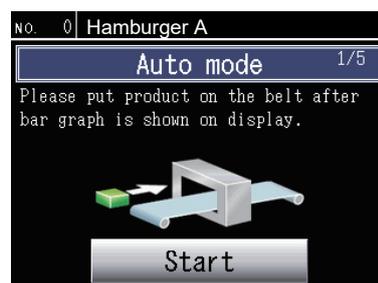Easy confirmation of registered products

Reject device setting screen
Easy-to-understand explanation with illustration and graph

Auto sensitivity setting

Five inspection modes
① DRY H (1-frequency)
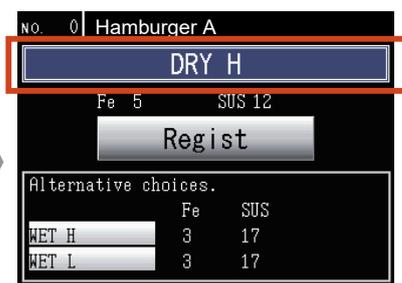② DRY L (1-frequency)
③ WET H (2-frequency)
④ WET L (2-frequency)
⑤ ALM (1-frequency)

Past model had 5 steps of inspection mode.

The new one just follows to instruction on screen.
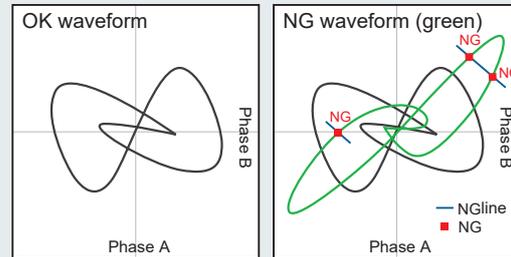
Anyone can set the best sensitivity.

6 Inspection functions

Sophisticated basic performance

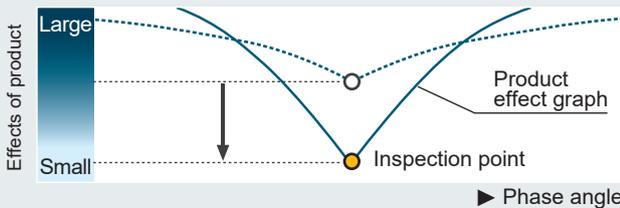High sensitivity is backed by leading-edge technology

1 " V mode inspection "

Multiple phases visualize the product characteristics, and achieve high sensitivity even fine changes.

OK waveform

Phase B / Phase A

NG waveform (green)

NG, NG, NG

Phase B / Phase A

— NGline
■ NG

2 Advance ECP function

In the ME6100, the ECP function has been further advanced using the leading edge data analysis technology. Use of this function makes it possible to precisely detect products containing water content or salt content with large effects as well as products with small effects.

Effects of product — Large / Small

Product effect graph
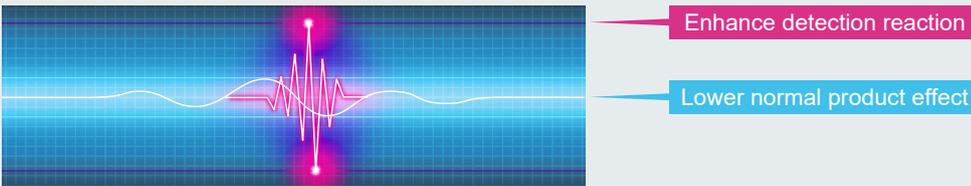
Inspection point

▶ Phase angle

3 2-frequency inspection

New high sensitivity detective including multi-frequency function offers practical range of sensitivity by minimizing the effect of product. Minimum $\phi 0.4mm$ (Fe) and $\phi 0.7mm$ (SUS304) are detectable.

Image of 2-frequency inspection

Low frequency(For ferrous foreign bodies)
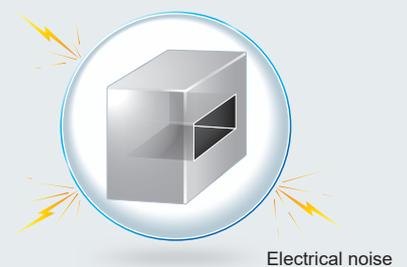
High frequency(For nonferrous foreign bodies)

4 New inspection mode " E mode "

" E mode " inspection by new algorithm uses original unique digital signal processing technology, and enables amplification of detection reaction to metal contamination. Use of this new function makes higher practical sensitivity possible. New inspection mode " E mode " is especially effective against products containing water contained or salt contained.

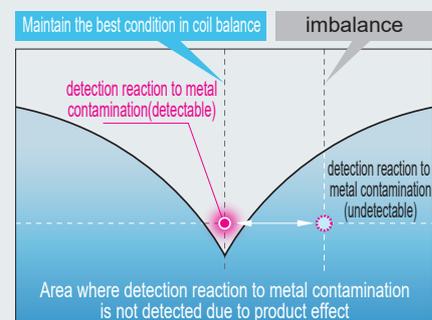Enhance detection reaction

Lower normal product effect

5 High electrical/vibration noise resistant coil

New design metal detector coil is equipped with various unique structures to block out electrical/vibration noise. High electrical/vibration noise resistant coil brings about positive effect on stable and high sensitivity operation, and contributes to reduce food waste due to false detection provided by electrical/vibration noise.

Electrical noise

6 Preserving mechanism for peak performance (Automatic adjustment in coil balance)

Automatic adjustment in coil balance makes it possible to prevent coil imbalance due to aging and brings about positive effect on long-term stable sensitivity operation.

Maintain the best condition in coil balance | imbalance

detection reaction to metal contamination(detectable)

detection reaction to metal contamination (undetectable)

Area where detection reaction to metal contamination is not detected due to product effect

Extensive management functions

USB data control (option)

Inspection history data are transferred to PC for the management. 10,000 data can be saved.

| 2014/03/12 11:43 Inspection start | No.1 | Product name sausage 2 |
| Date and time of inspection start | Product No. | Product name |

| 2014/03/12 11:44 P | LV=40.0 | AD=400 |
| Date and time of NG detection | NG level | NG value |

| 2014/03/12 11:45 Inspection end | TOTAL=53 | OK=50 | NG=3 |
| Date and time of inspection end | Total of inspection | OK number | NG number |

2014/03/13 10:36:54 Inspection start No. 2 Product name Hamburger A
2014/03/13 10:36:54 F LV=10.0 AD=100
2014/03/13 10:36:55 Inspection end TOTAL=35 OK=80 NG=2

※Image of display on PC

History data retrieve function

Inspection history

| Event | Work history, such as machine setting change |
| Error | Machine and software error history |

Statistic display

General history from the inspection start to the inspection end. This display is used as inspection result daily report.
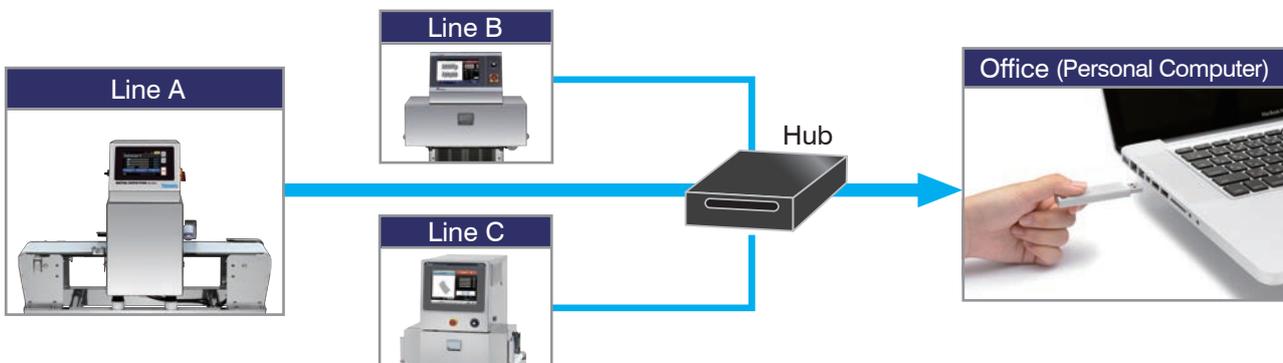

Maintenance history

The final inspection records remain and can be checked later. This inspection history is also effective as prevention of missing periodic inspection.

Network data management (option)

The data of multiple machines can be managed with PC through LAN.

Line B

Line A

Line C

Hub

Office (Personal Computer)

Administration mode

User mode

Pass word is required to change access mode

Access mode selection

Protect from incorrect settings by inexperienced operators. Pass word is required to change access mode.

Extended communication function

4 serial ports and LAN port is available for communication with PC, interlock with labeling machine, bar code, printer, etc.
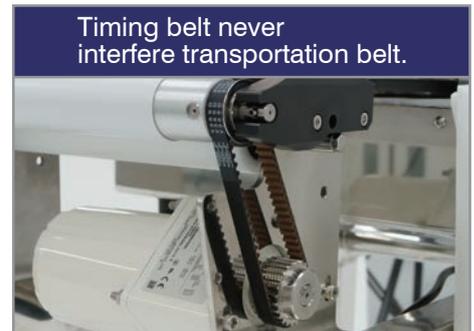
Easy Cleaning
HACCP compatibility

Easy cleaning

One-touch detachment/attachment of the conveyors requiring the frequent cleaning ensures the sanitary system.

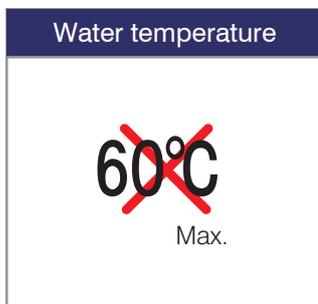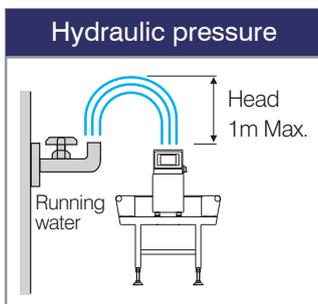| Small size metal detector	Large size metal detector (Option)

Simple structure

Waterproof model has simple frame structure made with stainless steel. It provides easy cleaning and high hygiene. Timing belt is located outside of frame, so that it never interferes transportation belt.

Easy cleaning frame	Timing belt never interfere transportation belt.

IP66 compliant dustproof and waterproof performance

The waterproof model is capable of handling lines involved with water with sufficiently high sensitivity. It can be cleaned with water.

Hydraulic pressure	Water temperature	Detergent	Cleaning tools
Head 1m Max. Running water	60℃ Max.	**Neutral detergent** Consult us if ozone sterilization, alkaline/acid detergent or salt water is to be used.	Soft plastic brush Waste cloth Metal wire brush

Importance of the quality control increases further.
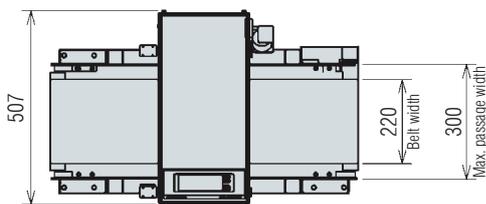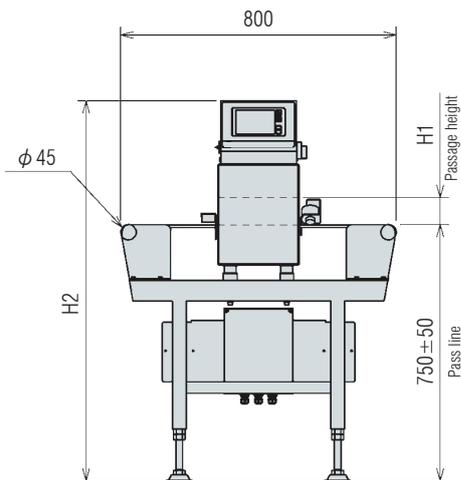
PL (Product Liability)

ISO (International Organization for Standardization)

HACCP (Hazard Analysis & Critical Control Point)

PL
（Product Liability）

When it is proven that the defect of the product has the casual relationship with the damage if the customer had the threat to life, personal injury, or property damage caused by the defect of the product, the manufacturer shall accept responsibility regardless of the intentional or negligent detect.

ISO
（International Organization for Standardization）

International standards to promote the distribution of goods and services. For example, there are quality assurance standard ISO9000 for the quality assurance management from the design phase to the after-sales service and environmental management standard ISO14001 for the production, service, and management.

HACCP
（Hazard Analysis & Critical Control Point）

Hazard that may occur in the food processing is analyzed (HA) and critical control point needing particular measures for the hazard is found (CCP). This point is monitored strictly to maintain the safety.
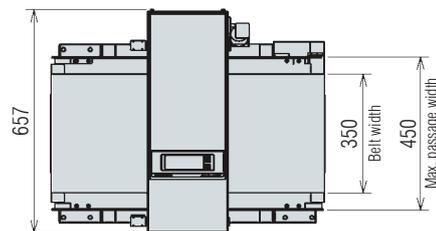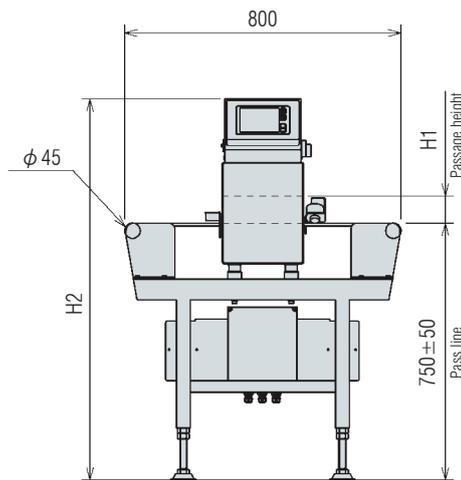
YD3P-30 Type

	H1	H2
YD3P-3008D/W	80	1112±50
YD3P-3012D/W	120	1152±50
YD3P-3015D/W	150	1182±50
YD3P-3018D/W	180	1212±50

Unit: mm

Model (YD3P-XXXXD/W)		3008	3012	3015	3018
Max. passage width		300mm			
Max. passage height		80mm	120mm	150mm	180mm
Detection sensitivity	Fe	ϕ 0.4mm	ϕ 0.5mm	ϕ 0.55mm	ϕ 0.6mm
	SUS304	ϕ 0.7mm	ϕ 0.9mm	ϕ 0.95mm	ϕ 1.0mm
Belt speed		20～60m/min			
Conveyor size		800mm(Length)×220mm(Belt width)			
Upon detection of metal		Belt stop、Buzzer warning or Reject device(Option)			
Transport weight		3kg			
Power requirements		AC100V±10%、50/60Hz、200VA			
Mass		82kg	84kg	86kg	88kg

YD3P-45 Type

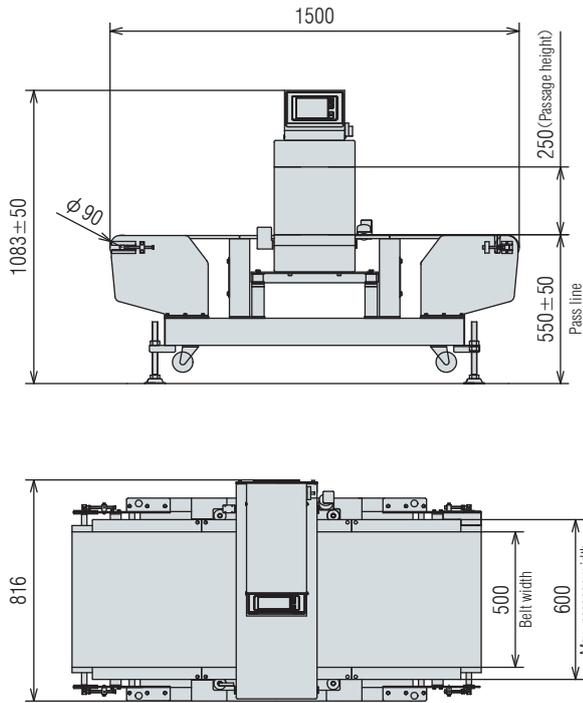|	H1	H2
YD3P-4508D/W	80	1112±50
YD3P-4512D/W	120	1152±50
YD3P-4515D/W	150	1182±50
YD3P-4518D/W	180	1212±50

Unit: mm

Model (YD3P-XXXXD/W)		4508	4512	4515	4518
Max. passage width		450mm			
Max. passage height		80mm	120mm	150mm	180mm
Detection sensitivity	Fe	ϕ 0.45mm	ϕ 0.55mm	ϕ 0.6mm	ϕ 0.7mm
	SUS304	ϕ 0.8mm	ϕ 1.0mm	ϕ 1.1mm	ϕ 1.2mm
Belt speed		20～60m/min			
Conveyor size		800mm(Length)×350mm(Belt width)			
Upon detection of metal		Belt stop、Buzzer warning or Reject device(Option)			
Transport weight		3kg			
Power requirements		AC100V±10%、50/60Hz、200VA			
Mass		107kg	109kg	112kg	115kg

D: non-waterproof / W: waterproof (SUS304)

*Appropriate measures are taken so that no products are brought in contact with the inside of the passage port.

*The detection sensitivity may vary depending on the product and/or operating environment.

*The specifications are subject to change without prior notice due to improvement.

YD3P-6025D/W

Model	YD3P-6025D/W
Max. passage width	600mm
Max. passage height	250mm
Detection sensitivity Fe	φ0.8mm
Detection sensitivity SUS304	φ1.5mm
Belt speed	24m/min±10% (50Hz) 29m/min±10% (60Hz)
Conveyor size	1500mm (Length) ×500mm (Belt width)
Upon detection of metal	Belt stop、Buzzer warning or Reject device (Option)
Transport weight	30kg
Power requirements	AC200V±10%、50/60Hz、550VA AC220V±10%、50/60Hz、550VA
Mass	204kg

YD3P-8030D/W

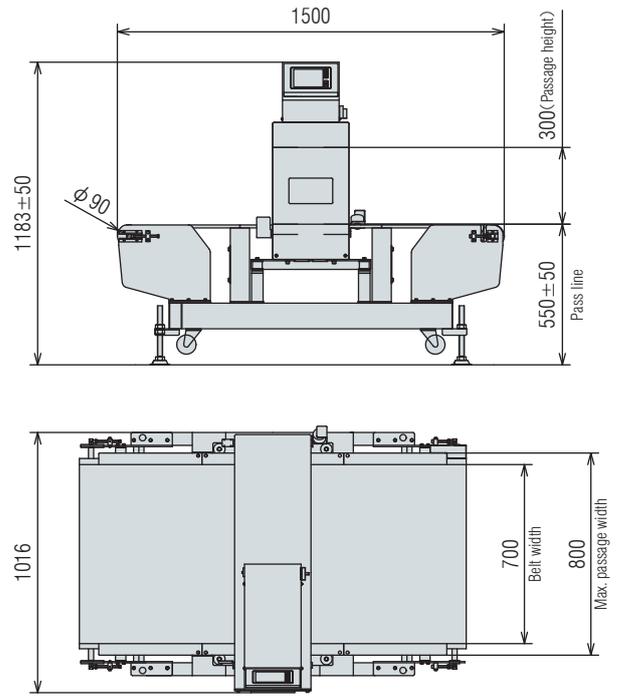| Model	YD3P-8030D/W
Max. passage width	800mm
Max. passage height	300mm
Detection sensitivity Fe	φ1.5mm
Detection sensitivity SUS304	φ2.4mm
Belt speed	24m/min±10% (50Hz) 29m/min±10% (60Hz)
Conveyor size	1500mm (Length) ×700mm (Belt width)
Upon detection of metal	Belt stop、Buzzer warning or Reject device (Option)
Transport weight	30kg
Power requirements	AC200V±10%、50/60Hz、550VA AC220V±10%、50/60Hz、550VA
Mass	245kg

D: non-waterproof / W: waterproof (SUS304)

*Appropriate measures are taken so that no products are brought in contact with the inside of the passage port.
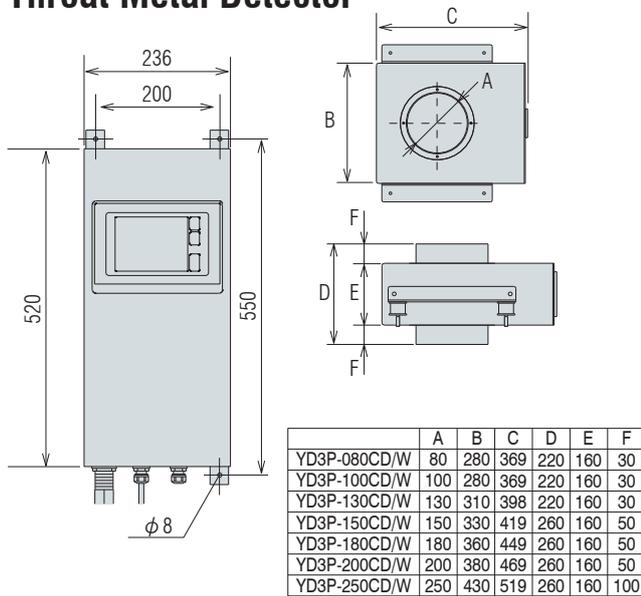*The detection sensitivity may vary depending on the product and/or operating environment.
*The specifications are subject to change without prior notice due to improvement.

Throat Metal Detector

	A	B	C	D	E	F
YD3P-080CD/W	80	280	369	220	160	30
YD3P-100CD/W	100	280	369	220	160	30
YD3P-130CD/W	130	310	398	220	160	30
YD3P-150CD/W	150	330	419	260	160	50
YD3P-180CD/W	180	360	449	260	160	50
YD3P-200CD/W	200	380	469	260	160	50
YD3P-250CD/W	250	430	519	260	160	100

Unit: mm

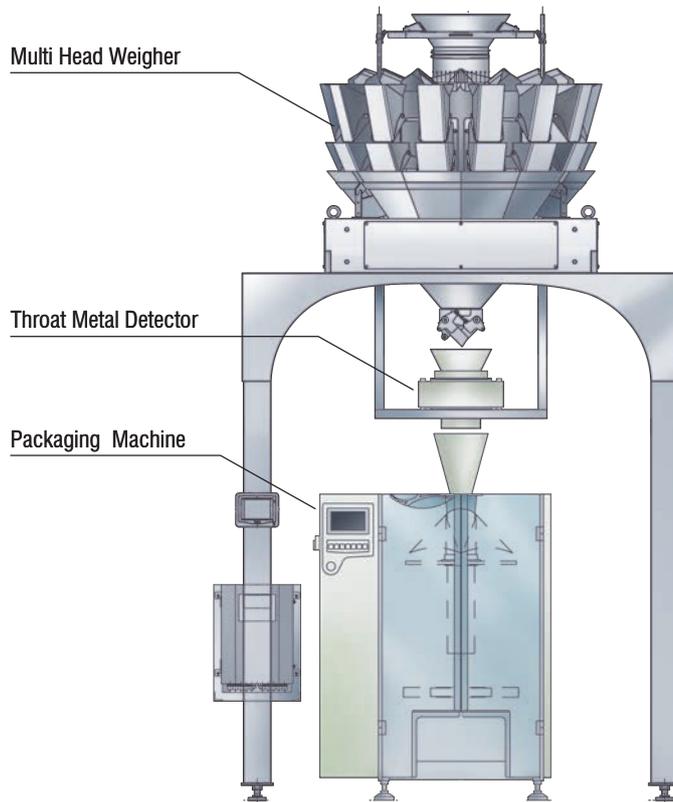| Model (YD3P-XXXXCD/W)	080	100	130	150	180	200	250
Coil diameter(mm)	φ80	φ100	φ130	φ150	φ180	φ200	φ250
Product passage diameter (Reference value)(mm)	φ60	φ80	φ110	φ130	φ160	φ180	φ230
Detection sensitivity (mm) Fe	φ0.4	φ0.4	φ0.5	φ0.5	φ0.6	φ0.7	φ0.8
Detection sensitivity (mm) SUS304	φ0.7	φ0.7	φ0.8	φ0.8	φ1.0	φ1.2	φ1.5
Amount of processing (Reference value) Minute powder	1t/h	2t/h	3.5t/h	5t/h	7t/h	9t/h	15t/h
Amount of processing (Reference value) Soybean	2t/h	4t/h	7t/h	10t/h	14t/h	18t/h	30t/h
Upon detection of metal	Buzzer warning, detection signal						
Power requirements	AC100V±10%、50/60Hz、120VA AC200V±10%、50/60Hz、220VA AC220V±10%、50/60Hz、220VA						
Mass(kg)	35	37	45	50	52	53	58

D: non-waterproof / W: waterproof

*Appropriate measures are taken so that no products are brought in contact with the inside of the passage port.
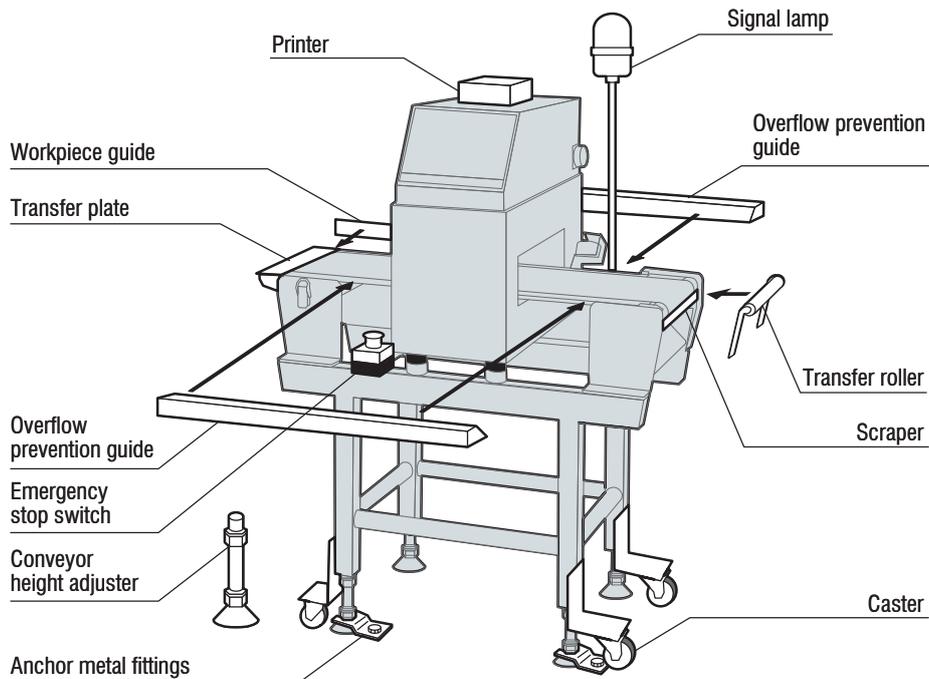*The detection sensitivity may vary depending on the product and/or operating environment.
*The specifications are subject to change without prior notice due to improvement.

Multi Head Weigher

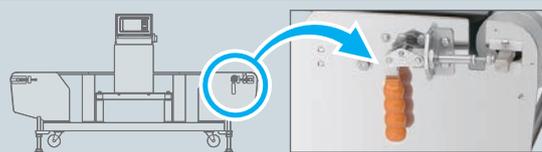Throat Metal Detector

Packaging Machine

YD3P Series detectors are particularly suitable in instances where aluminum-deposited-film packaging materials are used in vertical form, fill and seal bagging operations. Inspection of the product takes place immediately before it enters the bag overcoming any limitations created by the wrapping materials ensuring the highest levels of sensitivity are achieved.

Options

Printer

Signal lamp

Workpiece guide

Overflow prevention guide

Transfer plate

Overflow prevention guide

Transfer roller

Scraper

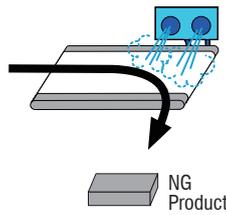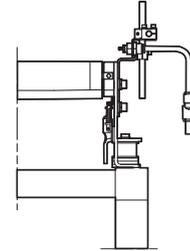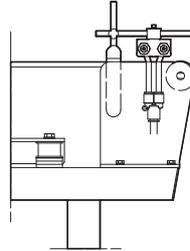Emergency stop switch

Conveyor height adjuster

Caster

Anchor metal fittings

Conveyor belt easy attach and remove system

Air blast reject

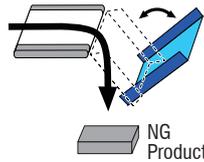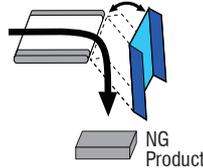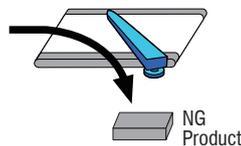| Model	AR001
Sorting direction	2directions
Transport weight	～0.3kg
Compressed air source	0.5Mpa～0.85Mpa
Air consumption	16L/time(ANR)
Mass	3kg

NG Product

Chute reject

Downward

NG Product

Model	DS220D/W	DS350D/W	DS500D/W
Sorting direction	2directions		
Transport weight	～5kg		
Compressed air source	0.5Mpa～0.7Mpa		
Air consumption	0.5L/time(ANR)		
Mass	7kg	8kg	10kg

Upward

NG Product

Model	US220D/W	US350D/W	US500D/W
Sorting direction	2directions		
Transport weight	～5kg		
Compressed air source	0.5Mpa～0.7Mpa		
Air consumption	0.5L/time(ANR)		
Mass	7kg	8kg	10kg

Diverter reject

NG Product

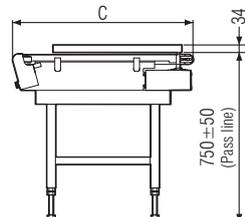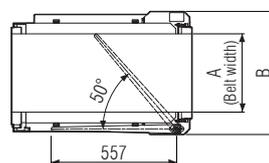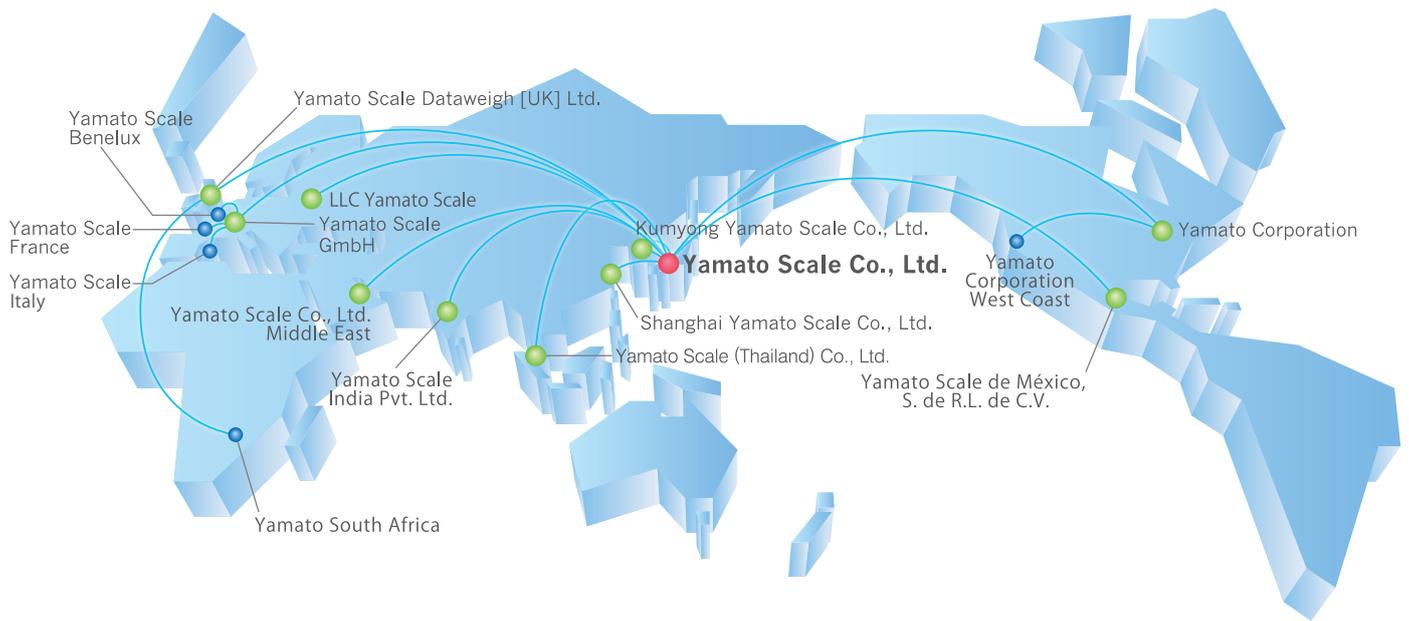| Model	FL220D/W	FL350D/W
Sorting direction	3directions	
Transport weight	～3kg	
Compressed air source	0.5Mpa～0.7Mpa	
Air consumption	0.4L/time(ANR)	
Mass	50kg	70kg
Dimension	W400×L700	W550×L800

	FL220D/W	FL350D/W
A	220	350
B	400	550
C	700	800

50°
557
A (Belt width)
B
C
34
750±50 (Pass line)

Worldwide Sales & Service Network

Yamato is the only manufacturer of multihead weighers and checkweighers with wholly owned operations in America, Europe and Asia.

Yamato Scale Dataweigh [UK] Ltd.
Yamato Scale Benelux
LLC Yamato Scale
Yamato Scale GmbH
Yamato Scale France
Yamato Scale Italy
Yamato Scale Co., Ltd. Middle East
Yamato Scale India Pvt. Ltd.
Kumyong Yamato Scale Co., Ltd.
Yamato Scale Co., Ltd.
Shanghai Yamato Scale Co., Ltd.
Yamato Scale (Thailand) Co., Ltd.
Yamato Corporation
Yamato Corporation West Coast
Yamato Scale de México, S. de R.L. de C.V.
Yamato South Africa

Spare Parts & Service

Yamato Spare Parts and Service are subject to the same high demands in quality as the machines themselves.

Yamato Yamato
GENUINE | BLUE ORIGINAL
PARTS AND SERVICE

The listed specifications are standard values. Other specifications are also available. Please contact Yamato for details.
This machine is covered by a number of patents worldwide.
All illustrations, specifications, and descriptions are subject to change without notice.

Yamato Scale Co., Ltd.

5-22 Saenba-cho, Akashi, Japan 673-8688
URL : www.yamato-scale.co.jp
Telephone : +81 78 918-5566·5567·5568
Telefax :   +81 78 918-5552

Yamato Corporation

6306 W. Eastwood Court
Mequon, WI 53092, U.S.A.
Telephone : +1 262 236 0000
Telefax :   +1 262 236 0036
URL :   www.yamatoamericas.com
E-mail : info@yamatoamericas.com

Yamato Corporation West Coast Office

20451 James Bay Circle
Lake Forest, CA 92630, U.S.A.
Telephone : +1 949 238 4500
URL :   www.yamatoamericas.com
E-mail : info@yamatoamericas.com

Yamato Scale de México, S. de R.L. de C.V.

Av. Dr. Gustavo Baz 191, Bodega F
Col. El Mirador, CP. 54080, Tlalnepantla
de Baz, Estado de México, México
Telephone : +52 55 2628 6140
URL :   www.yamatoamericas.com.mx
E-mail : info@yamatoamericas.com.mx

Yamato Scale Dataweigh (UK) Ltd.

Unit 6B, Millennium Way, Leeds,
West Yorkshire, LS11 5AL, U.K.
Telephone : +44 113 322 1546
Telefax :   +44 113 350 2020
URL :   www.yamatoscale.co.uk
E-mail : sales@yamatoscale.co.uk

Yamato Scale GmbH

Hanns-Martin-Schleyer-Str. 13,
D-47877 Willich, Germany
Telephone : +49 2154 9159-0
Telefax :   +49 2154 40626
URL :   www.yamatoscale.com
E-mail : sales@yamatoscale.com

Yamato Scale France

3 Avenue du Canada, Bâtiment Gamma,
91940 Les Ulis, France
Telephone : +33 1 64 53 24 40
Telefax :   +33 1 69 07 26 79
URL :   www.yamatoscale.fr
E-mail : vente@yamatoscale.com

Yamato Scale Benelux

Edisonstraat 4a, 5051 DS, Goirle,
The Netherlands
Telephone : +31 13 220 11 17
Telefax :   +31 13 460 90 81
URL :   www.yamatoscale.nl
        www.yamatoscale.be
E-mail : ysb@yamatoscale.com

Yamato Scale Italy

Via Scirea 5/A
43122 Parma, Italia
Telephone : +39 521 1475 488
Telefax :   +39 521 1475 336
URL :   www.yamatoscale.it
E-mail : sales-it@yamatoscale.com

LLC Yamato Scale

Office 50,51,59-65 Building 32A
Khoroshevskoe shosse
123007 Moscow, Russia
Telephone : +7 495 620 4870
Telefax :   +7 495 620 4877
URL :   www.yamatoscale.com
E-mail : salesru@yamatoscale.com

Shanghai Yamato Scale Co., Ltd.

368, Qingda Road, Heqing Industrial Field, Pudong,
Shanghai, 201201, China
Telephone : +86 21 5897 3377
Telefax :   +86 21 5897 3737
URL : www.yamatosh.com

Yamato Scale India Pvt. Ltd.

B-104, Okhla Industrial Area, Phase-Ⅰ,
New Delhi 110020, India
Telephone : +91 11 4607 2882
Telefax :   +91 11 4607 2881
URL :   www.yamatoscale.co.in
E-mail : info@yamatoscale.co.in

Yamato Scale (Thailand) Co., Ltd.

88/6 Moo 23, Soi Thidinthai, Thepharak Rd.,
Bangpleeyai, Bangplee , Samutprakarn 10540, Thailand
Telephone : +66 2 136 9773

Yamato Scale Co., Ltd. Middle East (Branch)

Dubai Airport Freezone, UAE
LIU-A07,   P.O Box : 371911
Telephone : +971 4295 2730
Telefax :   +971 4295 2729
E-mail : yamato@yme-01.ae

Yamato South Africa

Unit 3, 19 Silverstone Crescent,
Kyalami Business Park, Kyalami,
South Africa
Telephone : +27 10 534 8144
Telefax :   +27 86 572 4403
URL :   www.yamatoscale.co.za
E-mail : salessa@yamatoscale.co.uk