



# INSPECTION MACHINE SERIES



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AGENT



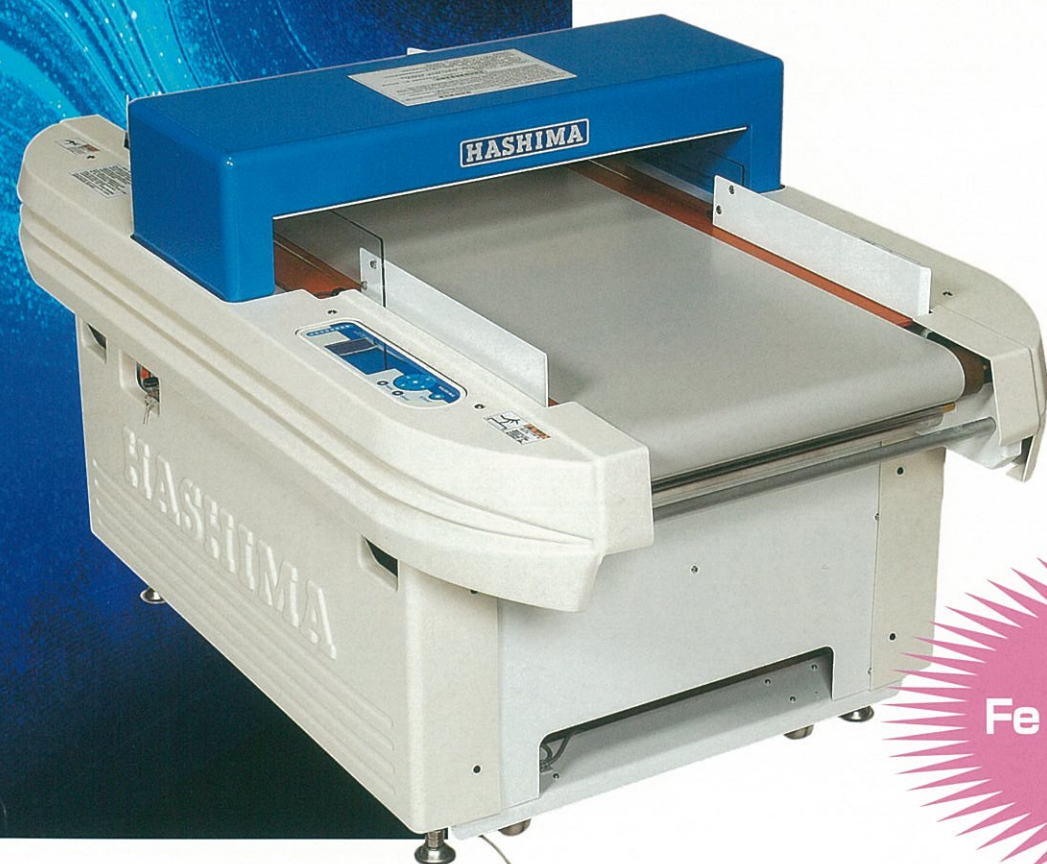
# HASHIMA®

## FULL LINE UP! HASHIMA NEEDLE DETECTOR SERIES.

### New Global Standard, Detect $\phi 0.8\text{mm}$ Ferrous ball by 120mm Sensor Height.

#### CONVEYOR TYPE NEEDLE DETECTOR **HN-870C/HN-780G**

#### TWIN HEAD CONVEYOR TYPE NEEDLE DETECTOR **HN-2870C/HN-2780G**

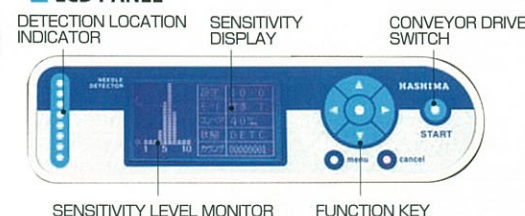


DETECTION  
 $\text{Fe } \phi 0.8\text{mm}$   
SPHERE

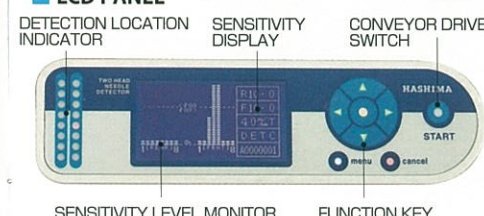
#### OPERATION PANEL



#### LCD PANEL



#### LCD PANEL



#### SPECIFICATION

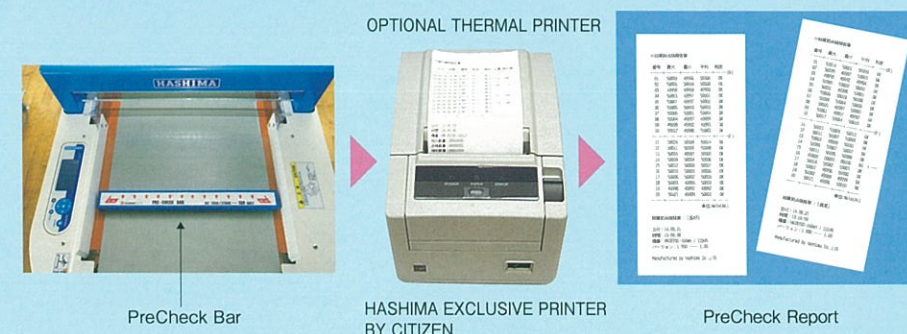
Model	HN-870C	HN-780G	HN-2870C	HN-2780G
Detection Method	Magnetic induction system			
Detection Ability	Fe φ0.8mm sphere or above			
Detection Levels	100 Levels			
Detection Width	600mm			
Detection Height*	120mm(870C) standard 100mm(780G)		120mm(2870C) standard 100mm(2780G)	
Alarm Method	Buzzer & position lamp			
Belt Speed	25m / 30m / 40m / min			
Power Source	110V / 220V			
Rated Output	140W			
Dimensions	1,650(L)×1,050(W)×920(H)mm		2,450(L)×1,080(W)×930(H)mm	
Weight	250kg		360kg	
Product Guider	Option	Standard	Option	Standard
Counter	Standard			

※ Use non ferrous metal accessories for garments.  
 ※ Read instruction manual & test machine sensitivity before using.  
 ※ The specification is under standard test condition.  
 ※ We have no responsibility that needle chip, iron chip etc. come out after detecting under non-standard condition.

Innovative sensor checking system by  
**Auto PreChecker™**  
for saving your time!

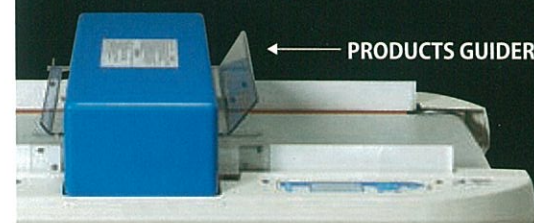
#### Auto PreChecker™

Auto PreChecker makes sensor checking more accurate and quicker. By using PreCheck Bar (Specialized test block) & system, you do not need to check each coil one by one, the system checks sensors automatically. Also you can keep the PreCheck result if you prepare the optional printer. (※PATENT PENDING, TRADEMARK REGISTRATION PENDING.)



#### FEATURES

- **New developed Sensor**  
Ability for detection of foreign object is upgraded by new developed search coils and optimizing magnet position.
- **Catch 0.8mm ferrous ball by 120mm height sensor.**  
0.8mm ferrous ball was only detected by 100mm height sensor previously. This time new sensor system make it possible to detect 0.8mm ferrous ball with 120mm height sensor.
- **Enlarged Sensitivity Equality**  
Dispersion sensitivity is equalled, it makes "Material effect" decreased and products passage improved.
- **Large sized LCD**  
The blue LCD has improved the visibility and operatively, compared to our previous model. This has enabled various settings such as the sensitivity, language mode and etc., and can show current machine conditions on the display as well.
- **Needle position indication**  
Machine inform us location of the broken needle, so you can find easier.
- **Foot switch and restart function**  
Equipped with a foot switch as standard equipment. And restart function is useful for starting the conveyor belt without pushing start button.
- **New convenient function for sensor test.**  
For two head conveyor type needle detector, front sensor can be inactivated during rear sensor test.
- **Product counter**  
Product counter is now standard equipment.
- **OPTION**
- **Printer**  
It can print the inspection record and counter result.
- **Product guider**  
Product guider is optional equipment on HN-870C, 2870C. Product guider is standard equipment on HN-780G, 2780G.



## CONVEYOR TYPE

#### FACTORY OPTION

Model	Detection Height	Sensitivity	Guider
HN-780G	100mm	Fe $\phi 0.8\text{mm}$ over or above	Standard
	120mm	Fe $\phi 0.8\text{mm}$ over or above	Option
	140mm	Fe $\phi 1.0\text{mm}$ over or above	Option
HN-870C	160mm	Fe $\phi 1.2\text{mm}$ over or above	Option
	180mm	Fe $\phi 1.5\text{mm}$ over or above	Option
HN-2780G	100mm	Fe $\phi 0.8\text{mm}$ over or above	Standard
	120mm	Fe $\phi 0.8\text{mm}$ over or above	Option
	140mm	Fe $\phi 1.0\text{mm}$ over or above	Option
HN-2870C	160mm	Fe $\phi 1.2\text{mm}$ over or above	Option
	180mm	Fe $\phi 1.5\text{mm}$ over or above	Option



## TABLE TOP TYPE NEEDLE DETECTOR

# HN-450N

LIGHT & EASY OPERATION  
NEW FUNCTION & COMPACT DESIGN

Control panel



Sensitivity adjustment SW



## TABLE TOP TYPE

### FEATURES

- As indicator on control panel is indicating the position of broken needles, it is easy to find broken needles.
- As detecting adjustment can be changed by 6 steps, it is easy to adjust in accordance with the sizes and kinds of accessories.

### ATTENTION

Table top needle detector is designed to detect magnetic metal objects in ladies, children's and men's clothes.

### OPTION

#### Table for HN-450N

HN-450N can be built in this optional table, the surface of table and needle detector is same height by this table, this is helpful for detecting works.

### SPECIFICATIONS

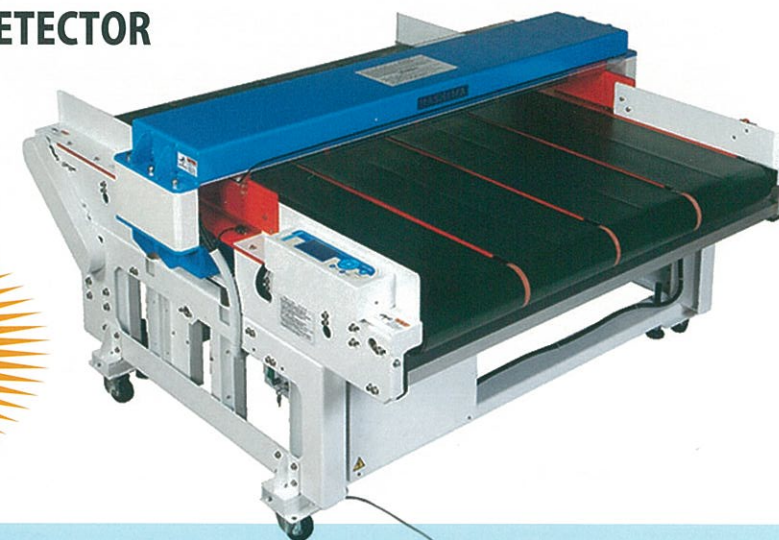
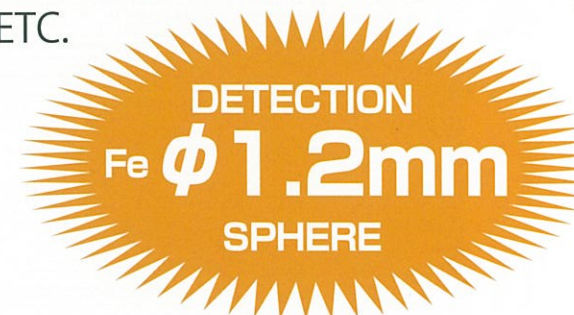
Model	HN-450N
Detection Method	Magnetic induction
Detection Sensitivity	MAX 110mm height by steel needle (φ0.6×L33)
Detection Levels	6 Levels
Alarm Method	Buzzer
Detection Width	80mm×450mm
Power Source	Single phase
Rated Output	(appr.) 10W
Dimension	590 (L) × 400 (W) × 82 (H) mm
Weight	(appr.) 9kg

\*Use non ferrous metal accessories for garments.  
\*Read instruction manual & test machine sensitivity before using.  
\*The specification is under standard test condition.  
\*We have no responsibility that needle chip, iron chip etc. come out after detecting under non-standard condition.

## LARGE SIZE CONVEYOR TYPE NEEDLE DETECTOR

# HN-1370C/HN-1570C

SUITABLE FOR BED SPREAD & HOME TEXTILE ETC.



## CONVEYOR TYPE

### 特長

#### Adoption of new developed detecting sensor

φ1.2mm steel is detected by detecting height 130mm type.

This needle detector has detecting width 1300mm and suitable for large size products like futon, bed spreader, etc.

#### Improvement of performance for an outside noise

New detecting sensor unit has also good noise reduction performance. when new type is compared with previous type, 30% reduced influence by an outside noise.

#### Belt speed 30m/min(50/60Hz)

This belt speed that connect to detecting ability is No.1 on this class.

#### Return device

This machine has return device that the products return to a operator after making alarm when the machine detects foreign object in a products.

### SPECIFICATIONS

Model	HN-1370C/HN-1570C
Detection Method	Magnetic induction
Detection Ability	Fe φ1.2mm Sphere or above
Detection Levels	Step-less
Detection Width	1,300mm / 1,500mm
Detection Height	130mm
Alarm Method	Buzzer, lamp
Belt Speed	(appr.) 30m./min
Power Supply	Single phase
Dimension	1,865 (D) × 1,760 (W) × 1,080 (H) mm (1370C)
Weight	(appr.) 400kg
Product Guider	Standard

\*Use non ferrous metal accessories for garments.  
\*Read instruction manual & test machine sensitivity before using.  
\*The specification is under standard test condition.  
\*We have no responsibility that needle chip, iron chip etc. come out after detecting under non-standard condition.

## HANDY TYPE NEEDLE DETECTOR

# HN-30

LIGHT & EASY OPERATION

DETECTION  
Fe φ0.8mm  
SPHERE



## HANDY TYPE

### FEATURES

#### φ0.8 mm steel is detected

This new handy type needle detector can detect φ0.8 mm steel at 5mm height from detecting unit surface.

#### Battery save function

Under stand by, battery mode is changed to save mode automatically and save battery consumption. When take it in hand, the machine starts automatically. new designed detecting circuit is low electric consumption.

#### Light weight

The weight is only 190g that is more light 10% than previous model. new designed body help you to grip for long time without fatigue.

#### Large size LED lamp

It is easy to check the detecting result by adapting large size LED lamp.

#### Sensitivity select switch

The new handy type needle detector adopts hi/low sensitivity select switch.

### SPECIFICATIONS

Model	HN-30
Detection Method	Magnetic induction
Detection Ability	Hi : Fe φ0.8mm Sphere or above at 5mm height from detecting surface. Low : Fe φ1.0mm Sphere or above at 5mm height from detecting surface.
Detection Levels	2 Levels
Detecting Area	25mm(W) × 50mm(D)
Alarm Method	Buzzer, LED lamp
Power Supply	1.5V dry cell battery×2(AAA)
Dimension	58 (W) × 195 (L) × 50 (H) mm
Weight	212g

\*Use non ferrous metal accessories for garments.  
\*Read instruction manual & test machine sensitivity before using.  
\*The specification is under standard test condition.  
\*We have no responsibility that needle chip, iron chip etc. come out after detecting under non-standard condition.

## HANGER TYPE NEEDLE DETECTOR

# HN-5000

SPEEDY AND SMOOTH  
NEEDLE DETECTION

DETECTION  
Fe φ1.0mm  
SPHERE



## HANGER TYPE

### FEATURES

#### Speedy and smooth needle detecting

This machine can detect products 4800pcs /day. (8hours/day) It is possible to detect the products with hanger at 6sec/pc

#### Improvement of detecting precision

φ1.0mm steel is detected by detecting width 120mm

Detecting precision is improved by adopting new developed detecting sensor. detecting length is 130cm. so long size products (suit, coat, pants, etc.) can be detected.

#### Improvement of performance for an outside noise

New detecting sensor unit has also good noise performance. when new type is compared with previous type, 30% reduced influence by an outside noise.

#### New sensitivity level monitor

A level monitor adopts new design and is more easy to check the sensitivity level. detecting position lamp is divided to 20 pieces so that it is also possible to shows foreign object exactly. detecting position exactly.

#### Auto assortment

This needle detector can assort goods products or not automatically on the processing bringing-----set out-----detecting-----assorting. the operator can do needle detecting efficiently without stop the system.

#### Data collection

The detecting result is able to collected to your computer (windows XP) by optional software from the needle detector. the collected data can be used for each purpose.

### SPECIFICATIONS

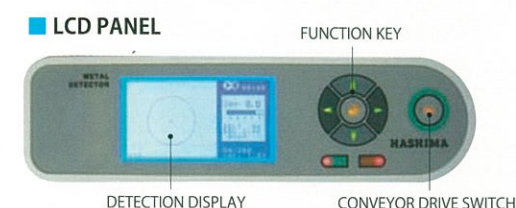
Model	HN-5000
Detection Ability	Fe φ1.0mm Sphere or above
Detection Width	Height 1,300mm Width 120mm
Detection Speed	600pcs/h
Power Source	1 phase 220V-240V
Rated Output	200W
Air Pressure	5kg/cm2
Dimension	2,400 (L) × 1,120 (W) × 2,055 (H) mm
Weight	(appr.) 600kg

\*Use non ferrous metal accessories for garments.  
\*Read instruction manual & test machine sensitivity before using.  
\*The specification is under standard test condition.  
\*We have no responsibility that needle chip, iron chip etc. come out after detecting under non-standard condition.



# CONVEYOR TYPE METAL DETECTOR HM-6000/HM-8000

HIGH PERFORMANCE & DETECTION  
FOR ALL METAL.



HM-6000

## ■ FEATURE

### ●Detection for all metal

Any metallic foreign object can be detected regardless of kinds of metal.

### ●Precise detection by original designed sensor

Achieved precise & accurate detection by original designed sensor.

### ●Display metal phase angle on the monitor

Depending on the metal, display different metal phase angle. It can be used for detail investigation.

### ●Large-sized LCD

By blue LCD has provide the visibility and operatively. This has enabled various settings such as the sensitivity, language etc.

### ●Precise sensitivity adjustment

There are 100 steps sensitivity adjustment, and the best sensitivity can be set for the respective items.

### ●Peak hold function

Detecting level will be hold at peak. It can be used for detail investigation easier.

### ●Conveyor reverse function

Conveyor belt will be reversed after detection. The default items will not mix.

### ●Option Software

Option Software will be helped for the products inspection smoothly.

# CONVEYOR TYPE METAL DETECTOR



HM-8000-200

## Option Software



## ■ SPECIFICATIONS

Model	HM-6000	HM-8000
Detection Method	Electric Induction System	
Detection Ability	Fe φ0.8mm Sphere / SUS304 φ2.0mm Sphere or above (HM-6000-100mm / HM-8000-100)	
Detection Levels	100 Levels	
Detection Width	600mm	800mm
Detection Height*	100mm (Standard)	
Alarm Method	Alarm, Lamp & Conveyor Reverse function	
Belt Speed	20m/min	
Power Supply	Single phase	
Rated Output	140W	
Machine Dimension	1,600(L)×1,050(W)×920(H)mm	1,600(L)×1,250(W)×920(H)mm
Machine Weight	250kg	300kg

※Read instruction manual & test machine sensitivity before using.

※The specification is under standard test condition.

※We have no responsibility that needle chip, iron chip etc.  
come out after detecting under non-standard condition.

## ■ FACTORY OPTION

Detection height	Sensitivity	Remarks
100mm	Fe φ0.8mm sphere, SUS304 φ2.0mm sphere or above	Standard
150mm	Fe φ1.0mm sphere, SUS304 φ2.5mm sphere or above	Option
200mm	Fe φ1.2mm sphere, SUS304 φ3.0mm sphere or above	Option
250mm	Fe φ1.5mm sphere, SUS304 φ3.0mm sphere or above	Option

Standards of shoes  
and bags inspection  
"Dual X-Ray  
Inspection".



## Features

### ■Double Directions Shooting with 25 degree (DS Model)

Double Directions Shooting will be helped to find out small foreign objects with different angles photos.

### ■Full-automatic operating environment

Automatic start up and shut down with any complicated operation.

### ■High-precision sensor

With high-precision X-ray linear sensor, image of 300 μm size foreign object can be taken.

Note: It may show unclear image, depends on the inspected material.

### ■Dual monitors (3360,3360DS)

2 monitors are included as standard. During the inspection, up to 6 images can be displayed at a time.

### ■Full-color display

Full-color inspection screens make the detection of foreign objects easier.

### ■Adjustable-speed photographing

Photographing speed can be adjusted for each products.  
(3levels: Hi speed, Normal speed, Low speed - more accurate)

### ■Memory function

Setup condition for each product class (X-ray intensity, screen setting, auto detection, conveyor speed, image range) and images can be saved to the memory. (up to 30 product classes)

# X-Ray

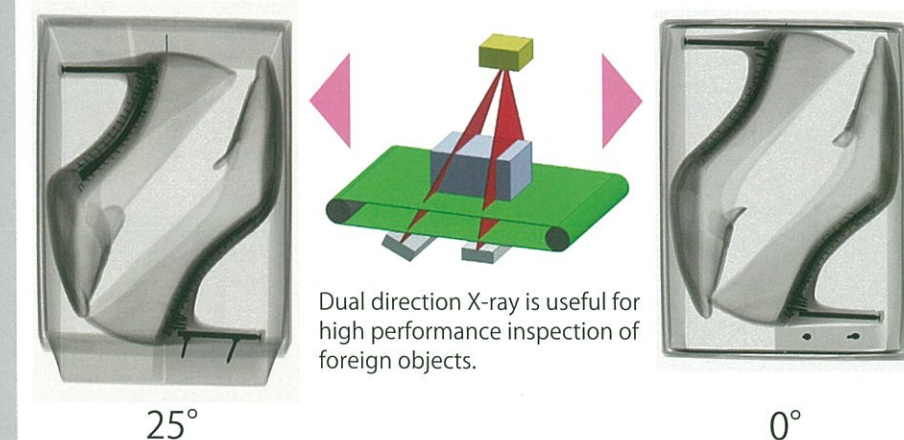
X-ray inspection system

## INSPECTION MACHINE

**HNX-6630**  
**HNX-6630DS**

- Inspection time of Dual X-ray inspection is equal to usual single X-ray system.
- Easy to operate and can be equipped with useful peripheral items.

**Dual X-ray angle of 25 degrees is much effective to the market demand.**



Dual direction X-ray is useful for high performance inspection of foreign objects.



# X-Ray INSPECTION MACHINE

X-ray inspection system

**X-ray inspection machine for finished products and production process.**

## HNX-300/300HD HNX-400/400HD

■ Space saving, easy to operate and can be equipped with useful peripheral items.

**For structural examination and foreign object inspection by high resolution X-ray image.**

### Features

#### ■ Traceability

All image data are saved and the matching label for each product can be printed out with the optional label printer. Images can be color printed. Also, via computer network, images can be transferred.

#### ■ Multilanguage display

Come equipped with Japanese, English, Chinese display.

#### ■ Large size LCD display

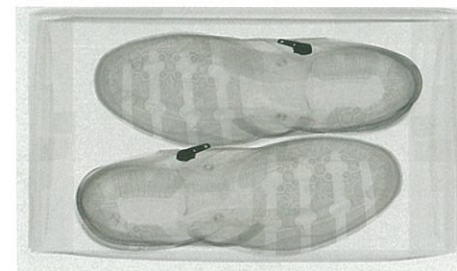
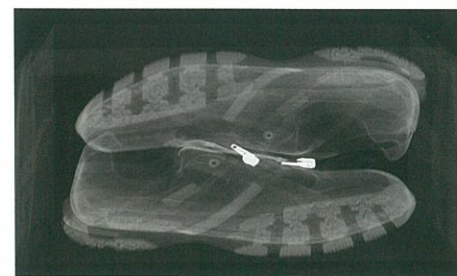
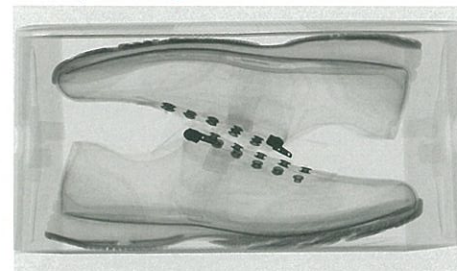
In addition to the 2 screens, large size LCD on the main body also shows the operation condition, availability etc.

#### ■ X-ray protection function

For the longer operating life of X-ray tube, "Auto aging" and "Auto cooling" functions save the X-ray, and X-ray dosage is controlled during each inspection.

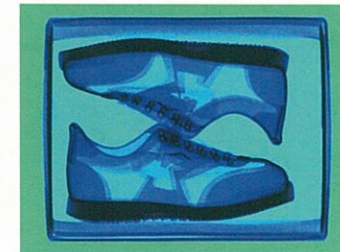
#### ■ Inspection

Products can be put in from both sides. (right or left) required setting.

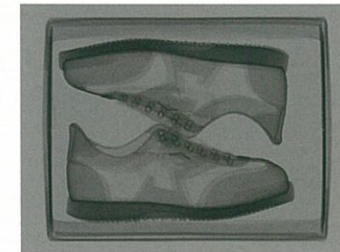
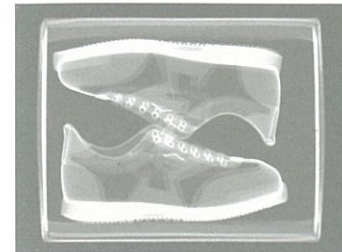


#### ● Full color display

Full-color inspection screen facilitates the detection of foreign objects.



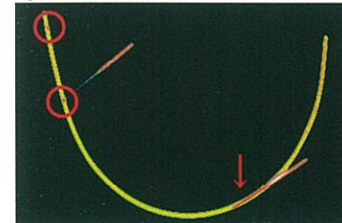
Shoe(Color)



Shoe(Mono)

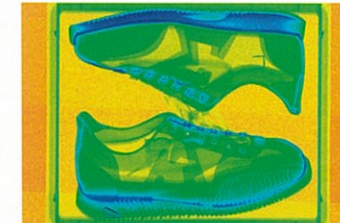
#### ● Overlapped image processing

Hashima's original image processing technology makes it easier to recognize overlapped objects. (eg. Wire of Brassiere)



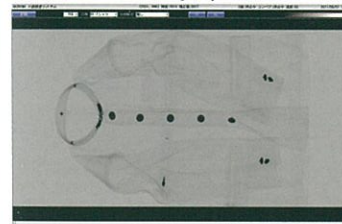
#### ● Color adjustment

Easy to find out the foreign object if you reverse the color.

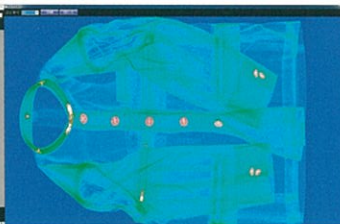


#### ● Dual screen display

Dual screen can display two different images at a time.



Mono



Color

#### ● Split-screen display

Sections with small accessories, corners etc. can be zoomed and displayed on 4 split screens for better inspection.



Bag Mono

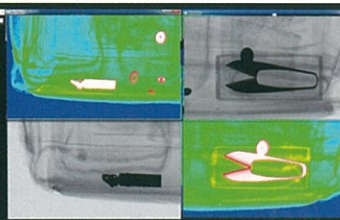
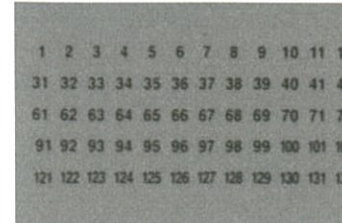


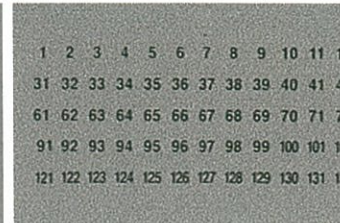
Image magnification by 4 separated windows

#### ● Edge emphasizing function

Long hours of work with blurred images often causes eyestrain and reduces concentration. Sharp image with edge emphasizing clear these problems.



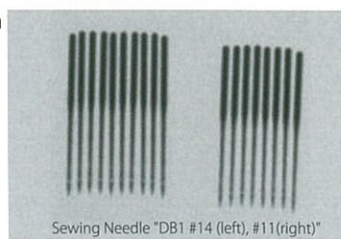
Unreinforced



Reinforced

#### ● High resolution display

Hyper resolution X-ray sensor can recognize eye and needle hole, point of a nail and provides clear images.



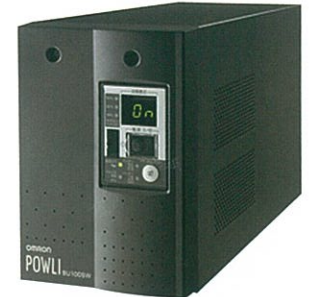
Sewing Needle "DB1 #14 (left), #11(right)"

## OPTION



#### ■ Color printer

Require for Windows(64bit) compliant  
(Prepare by customer)



#### ■ Uninterruptible Power Source(UPS)

Incase of electrical outage, prevent the trouble



#### ■ Label Printer

Print labels to trace the objects.  
(Recommend above models)



#### ■ Remote controller (HNX-6630DS)

Remote control switch for easy operation instead of mouse operation on PC.

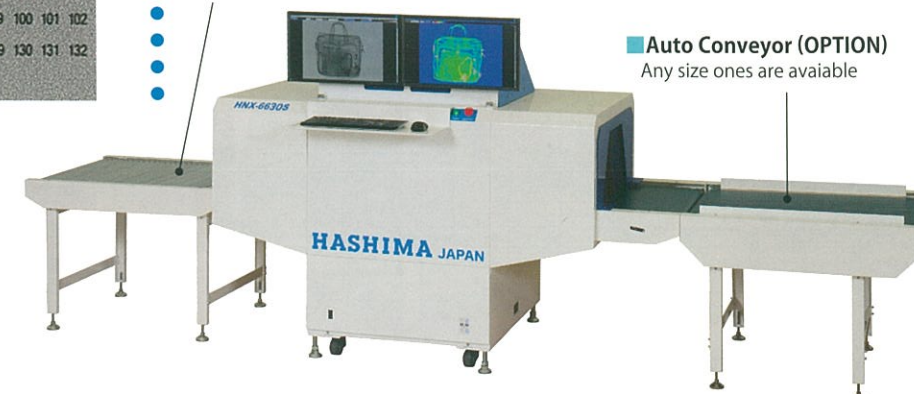
#### ■ Roller Conveyor

Any size ones are available



#### ■ Roller Conveyor

Any size ones are available



#### ■ Auto Conveyor (OPTION)

Any size ones are available



X-ray inspection system

# X-Ray

INSPECTION MACHINE

- Features
- Full-automatic Operating Environment

■ Selectable X-Ray Sensor

■ Ultrafast Imaging Processor

■ Full-color Imaging

■ Adjustable Belt Speed

■ Memory Function

■ Data Traceability

■ Simple Measuring Function

■ Simple Automatic Inspection

■ Multilingual Supported Operation

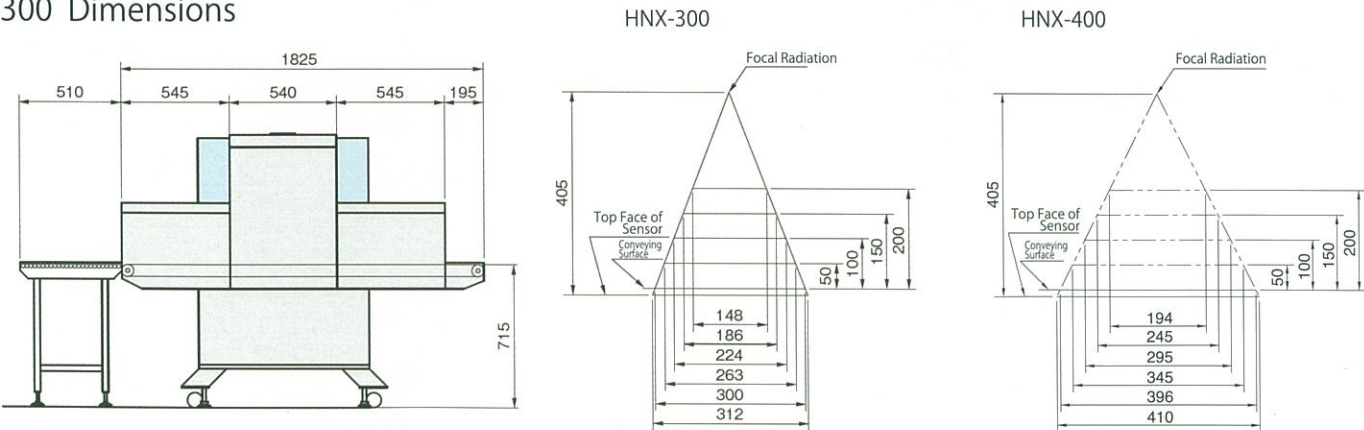
■ Safety Considered Design

■ X-ray Protection Functions

Model	HNX-300		HNX-300HD	HNX-400	HNX-400HD
X-ray Angle	0° (Single Direction )				
Tunnel Size	400 (W) × 300 (H) mm				
Belt Width	370mm				
Belt Speed	10m/min、15m/min、20m/min (Adjustable)				
Feeding	Right or Left Feeding ( Changeable)				
Object Length	Max 520mm				
Object Weight	Max 2kg				
X-ray Sensor	Straight Type Line Sensor				
Sensor Length	307mm			410mm	
Sensor Pixel Size	0.4mm	0.2mm		0.4mm	0.2mm
Sensor Pixel Number	768pixels	1,536pixels		1,024pixels	2,048pixels
X-ray Tube Voltage	30～65kV	30～75kV		30～65kV	30～75kV
X-ray Tube Current	0.2mA～0.5mA	0.5mA～2.0mA		0.2mA～0.5mA	0.5 mA～2.0mA
Operating System	Windows8.1 (64bit)				
Memory	8GB				
Hard Disk	2TB				
Condition Preset	30Sets Settable				
Auto Judgement System	Simple Automatic Judgement				
Image Processing	Brightness, Contrast, Sharpness, Zoom				
Data Saving	Automatic or Manual Saving				
Data Format	TIFF/BMP/JPEG (Plurally Selectable)				
Display	23.8Inch Full Definitions LCD				
Display Pixel Number	1,920×1,080pixels				
Image Data Print	Automatic or Manual Printing				
Safety Sensor	Hand Insertion Sensor				
Dimensions	1,825 (W) × 730 (D) × 1,375 (H) mm				
Weight	300kg				
Power Supply	AC90～115V / 210～240V 50/60Hz ( Selectable at Factory Setting)				
Power Consumption	0.8kVA	0.9kVA		0.8kVA	0.9kVA
X-ray Leakage	≦ 1 μSv/h				
Operating Temperature	5～35℃				
Operating Humidity	20～80%RH ( With Non Condensation)				
Standard Accessories	Instruction Manual, Test Piece				
Optional Accessories	Touch Panel, PC Printe (r Selectable) , Label Printer, Roller Conveyor, Signal Light, Monitor Stand, Putting Guide, UPS				

Model	HNX-6630	HNX-6630DS
X-ray Angle	0°	0° 25° (Dual Direction)
Tunnel Size	665 (W) × 300 (H) mm	
Belt Width	660mm	
Belt Speed	15m/min、20m/min、25m/min ( Adjustable )	
Feeding	Right or Left Feeding ( Changeable)	
Object Size	Refer to the Drawing Below ( W, H)	
Object Weight	Max 20kg	
X-ray Sensor	Straight Type Line Sensor	
Sensor Length	665.6mm	
Sensor Pixel Size	0.4mm	
Sensor Pixel Number	1,664pixels	
X-ray Tube Voltage	30~80kV	
X-ray Tube Current	0~3mA	
Operating System	Windows 8.1 (64bit)	
Memory	8GB	
Hard Disk	2TB	
Condition Preset	30 Sets Settable	
Auto Judgement System	Simple Automatic Judgement	
Image Processing	Brightness, Contrast, Sharpness, Zoom	
Data Saving	Automatic or Manual Saving	
Data Format	TIFF/BMP/JPEG ( Plurally Selectable)	
Display	23.8Inch Full Definitions LCD	
Display Pixel Number	1,920×1,080pixels	
Image Data Print	Automatic or Manual Printing	
Safety Sensor	Hand Insertion Sensor	
Dimensions	2,130 (W) × 990 (D) × 1,475 (H) mm	
Weight	650kg	
Power Supply	AC90~120V / 210~240V 50/60Hz ( Selectable at Factory Setting)	
Power Consumption	0.9kVA	
X-ray Leakage	≤ 1 μSv/h	
Operating Temperature	5~35℃	
Operating Humidity	20~80%RH ( With Non Condensation )	
Standard Accessories	Instruction Manual, Test Piece	
Optional Accessories	Touch Panel, PC Printe (r Selectable) , Label Printer, Roller Conveyor, Electric Conveyo (r Put/Carry Out) , Signal Light, Monitor Stand, Putting Guide, UPS	

■ HNX-300 Dimensions



■ HNX-6630 / HNX-6630DS Dimensions

