

KD74XX Series

## X-ray Inspection System



*Evolving from “Contaminant Detection” to “Assuring Overall Product Quality, Customer Safety and Brand Loyalty”*

# X-ray Inspection System

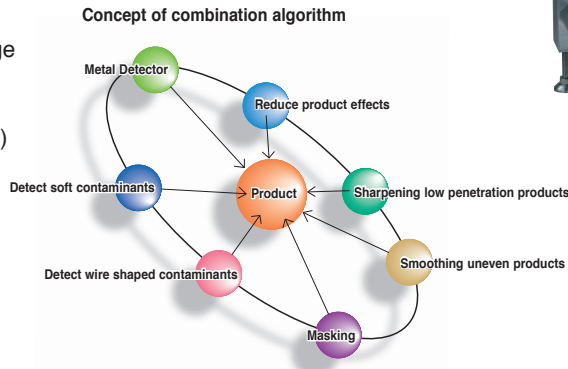
The KD74XX series provides Product Safety and Assured Quality for customers

## 1. Simultaneous Product Checks to Ensure Safety

The KD74XX X-ray Inspection System inspects correct product weight, quantity, placement and shape while constantly monitoring for the presence of contaminants.

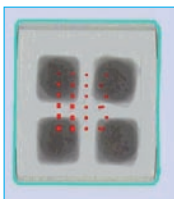
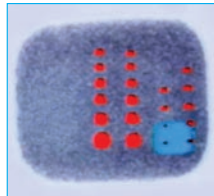
### ● Pursuing High-sensitivity, High-stability Contaminant Detection

Anritsu's long track record in contaminant detection forms the basis of a unique image processing algorithm to detect both soft contaminants (bones, plastics, etc.) and wire-shaped contaminants (fine wires, etc.) at high sensitivity and high stability.



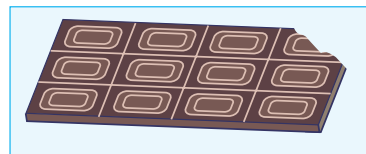
### ● Masking Technology

This function eliminates the dense area from the inspected image, such as packaging, clips or deoxidizer sachets, consequently improving the detection sensitivity in the remaining area of a product.



### ● Shape Detection Technology

X-ray images of products into various physical indices, such as perimeter, area, and weight, using the image processing technique.



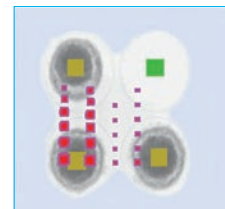
Chocolate bar with missing corner



Biscuits, including one with a missing part

### ● Missing Product Detecting Technology

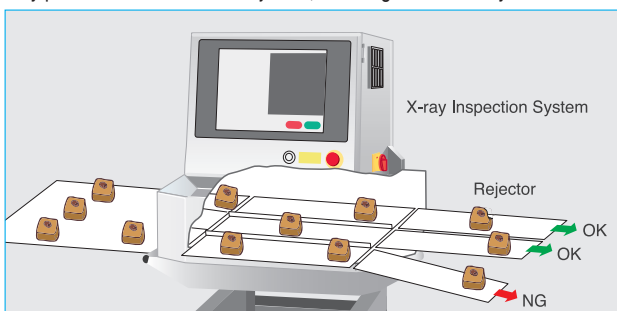
"Relative Mass" function has been employed to inspect missing product.



The complete product presence can be inspected by checking the density of product in specific area within a pack. Contaminant detection and missing product detection can be performed simultaneously, increasing efficiency of quality control.

### ● Multi-line Inspection Technology

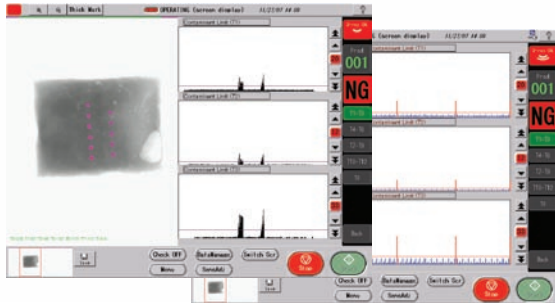
Individual products produced on multiple lane conveyors can be inspected simultaneously. When a non-conforming product is identified in one line, only product from that line is rejected, ensuring line efficiency is maximised.



## 2. Easy Control and Maintenance

### ● Projection Monitor

Simultaneous On-Screen imaging and operating adjustment providing convenient control and adjustment.



### ● Quick release conveyor belt

The conveyor belt can be safely removed/attached, allowing easy cleaning.

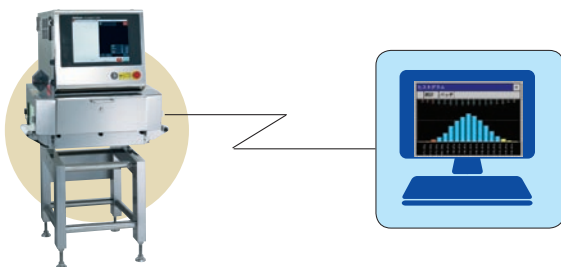


- No Tools
- 1 minute
- Safe
- Simple

## 3. Seamless Information Transfer and Data Recording

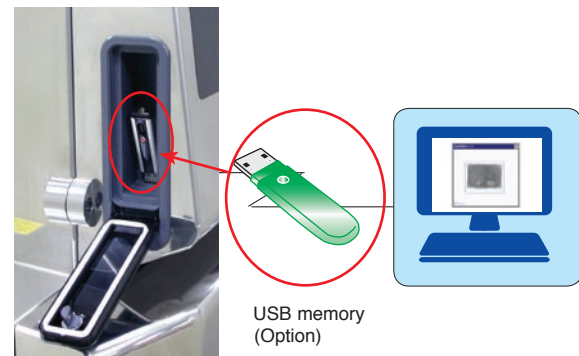
### ● Ethernet <sup>Note1</sup>

Industry standard Ethernet communication is employed to produce live production data and reports, as well as uploading and refreshing product data.



### ● USB compliant <sup>Note1</sup>

USB port provides the capture of data on memory sticks, without the need for networking.



USB memory (Option)

Note 1: This is only for the KD74 series.

## 4. A Variety of Models for Individual Applications

| Product Size  | Form       | Product to be inspected              | Recommended model   | Applicable System |
|---|------------|--------------------------------------|---|-------------------|
| <div>Large</div> <div>↑</div> <div>Product Size</div> <div>↓</div> <div>Small</div> | Packaged   | Large powder sack /Meat block        | KD7337AW  |                   |
|   |            | Retail Pack / Foil-top Tray          | KD7405AWH<br>KD7405BWH<br>KD7416AWH<br>KD7416BWH<br>KD7417BWH |                   |
|   | Unpackaged | Fresh chicken fillet or Burger patty | KD7405ACWH<br>KD7416ACWH                                      |                   |
|   | Bulk       | Grain and Seafood                    | KD7405ABWH<br>KD7416ABWH                                      |                   |
|   | Liquid     | Soup / Sauce without container       | KD7481AWH<br>KD7483AWH<br>KD7483AFWH                          |                   |



# X-ray Inspection System

## Safety in design

**Priority is given to prevention of X-ray leakage.  
Operator safety is of utmost importance.**

### ANRITSU safety mechanism

#### Emergency stop switch

The power supply is cut off by pressing a switch, then the rotating part is stopped and the X-ray irradiation completely stops.

#### X-ray irradiation ON/OFF key

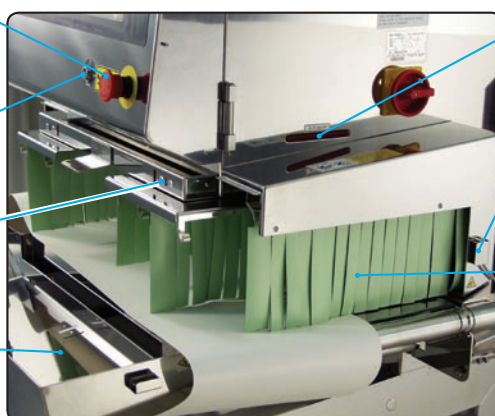
Turning the key to OFF stops X-ray irradiation completely.

#### X-ray shield cover open/close sensor

X-ray radiation completely stops when the cover opens.

#### X-ray shield cover

The cover opens by the ON/OFF key of the X-ray irradiation. The X-ray irradiation completely stops due to the action of the cover open/close sensor when the cover opens.



#### X-ray irradiation display

The lamp is lit during X-ray irradiation.

#### Monitoring sensor for hand

When the sensor is interrupted for a certain period of time, X-ray irradiation is stopped.

#### Leakage prevention curtain

Prevent X-ray leakage. When inspecting unpacked products, additional covers made of SUS are furnished instead, to avoid possible contact of product with lead.

## Safety management

X-ray Inspection System has been designed to fully satisfy the safe operation. However, to ensure even higher safety, use the safety procedures outlined below.

### 1. Periodic measurement and storage of X-ray leakage dose data

### 3. Additional Safety Measures

Depending on the product shape, weight and packaging, it may be necessary to furnish X-ray leakage prevention covers to the upstream and downstream conveyors, instead of using X-ray leak prevention curtains.

### 2. Management of the working hours of operators

### 4. No disassembly or modification

NEVER modify or disassemble the main unit, covers, X-ray leak prevention curtains, safety covers, safety interlocks, etc., otherwise the X-ray leak-proof design may no longer be functional.

## Safety of X-rays and regulatory constraints

### (1) Safety of checked products

- WHO concluded in 1980 that "food products irradiated with 10 kGy or lower level of X-rays present no problem in terms of toxic level, nutritional value, and microbiological aspects".
- The maximum X-ray irradiation level by our X-ray inspection system to the inspected product is 0.002 Gy or less, which is much lower than the value designated by WHO.
- If the product being inspected stops inside the system during X-ray irradiation, X-ray irradiation is stopped to keep the irradiation level to 0.1 Gy or below.

### (2) Safety for humans

- We are always exposed to radiation; In the natural world, we receive irradiation of 1100  $\mu\text{Sv}$  a year on average, and 300  $\mu\text{Sv}$  from a chest X-ray. (The unit  $\mu\text{Sv}$  [micro Sievert] indicates the radiation level of X-rays.)
- The X-ray leakage from our X-ray inspection system is 1  $\mu\text{Sv/h}$  or lower (1.3 mSv/3 months or lower)  
Note: 3 months = 13 weeks (52 weeks is one year)  
 $1 \mu\text{Sv/h} \times 10 \text{ hours} \times 5 \text{ days} \times 13 \text{ weeks} = 0.65 \text{ mSv/3 months}$

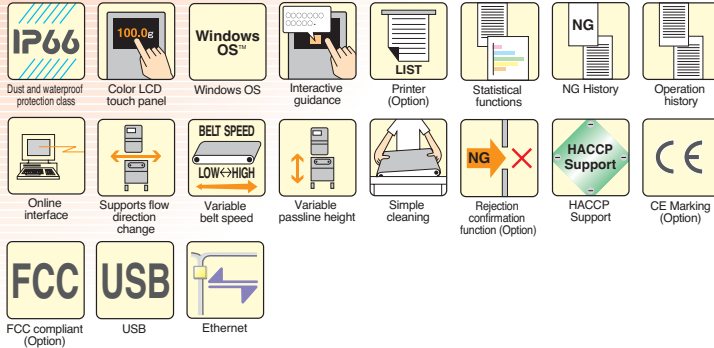
Note: Follow the local laws and regulations regarding the installation and use of X-ray Inspection Systems.

# X-ray Inspection System

## KD7405AWH/KD7405ADWH/KD7405BWH/KD7405BDWH

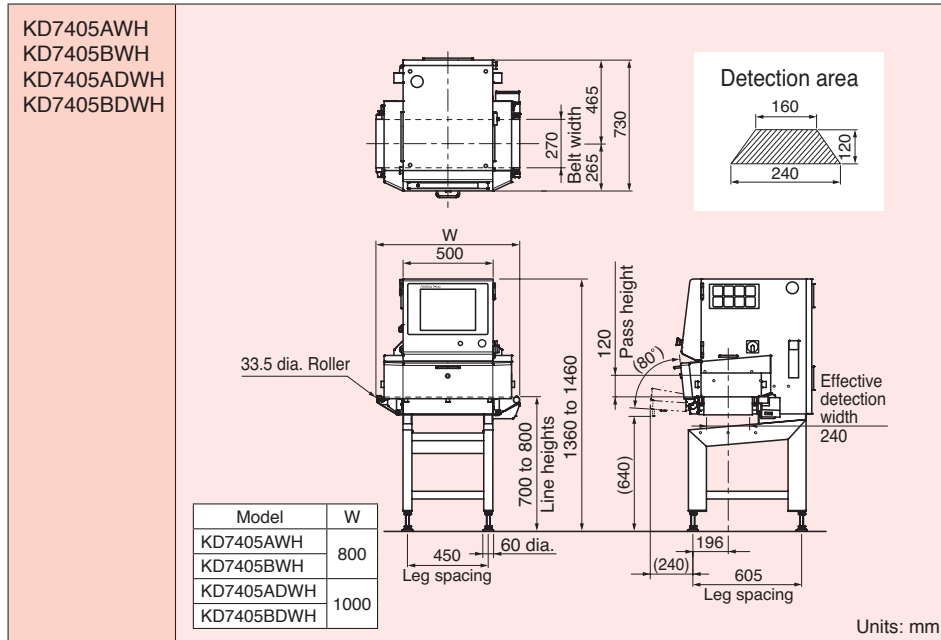
A stainless steel wire of 0.2 mm dia. and 2 mm long can be detected.  
High-sensitivity detection of individually packaged products is also supported.

See page 4 for safer operation.



KD7405AWH

### External Dimensions



### Specifications

| Model  | KD7405AWH   | KD7405ADWH | KD7405BWH   | KD7405BDWH |
|--|---|------------|---|------------|
| Detection sensitivity <small>Note 1</small>                                      | Fe sphere and SUS sphere 0.3 mm dia., SUS wire 0.2 mm dia. x 2 mm long  |            |   |            |
| X-ray output   | Tube voltage 25 to 60 kV, Tube current 0.3 to 7.0 mA, Output 7.5 to 210 W   |            | Tube voltage 25 to 80 kV, Tube current 0.3 to 7.0 mA, Output 7.5 to 210 W |            |
| Safety   | X-ray leakage: Maximum 1 $\mu$ Sv/h or less, Prevention of X-ray leakage by safety devices                                    |            |   |            |
| Display  | 15-inch Color TFT LCD (unified image monitoring screen and operation screen)  |            |   |            |
| Operation method   | Touch panel   |            |   |            |
| Product size <small>Note 2</small>   | Maximum width: 240 mm, Maximum height: 120 mm (Detection area is shown above.)  |            |   |            |
| Belt width   | 270 mm  |            |   |            |
| Masking function   | Equipped as standard  |            |   |            |
| Missing product detection function   | Equipped as standard  |            |   |            |
| Clip check function  | Equipped as standard  |            |   |            |
| Preset memory  | Maximum 100   |            |   |            |
| Belt speed <small>Note 3</small><br>Maximum product weight <small>Note 4</small> | 5 to 60 m/min, Maximum 5 kg   |            |   |            |
|  | 5 to 90 m/min, Maximum 2 kg   |            |   |            |
|  | 5 to 40 m/min, Maximum 10 kg (Option)   |            |   |            |
| Power requirements <small>Note 5, Note 6</small>                                 | 100 to 120 Vac $\pm$ 10%, or 200 to 240 Vac $\pm$ 10%, single phase, 50/60 Hz, 1 kVA, rush current 80 A (typ.) (5 ms or less) |            |   |            |
| Mass   | 210 kg  | 215 kg     | 220 kg  | 225 kg     |
| Environmental conditions <small>Note 7</small>                                   | Temperature 0° to 35°C (0° to 40°C with optional air conditioner), relative humidity 30% to 85%, non-condensing               |            |   |            |
| Protection class   | IP66 Compliance (for conveyor), IP40 Compliance (for other parts), Tool free belt removal                                     |            |   |            |
| Exterior   | Stainless steel (SUS304)  |            |   |            |

Note 1 : Actual sensitivity depends on the physical properties of products (contents and shape) and on the environmental conditions.

Note 2 : The entrance and exit may require covers depending on the length of a product.

Note 3 : Variable depending on Product No.

Note 4 : Sum total of product weight on the conveyor.

Note 5 : Selectable by switching terminals. Note that the rush current shown above is at an AC voltage of 200 V. It varies according to voltage.

Note 6 : Installing the air-conditioner option changes the displayed power consumption.

Note 7 : The air-conditioner option may be required depending on the operating environment.

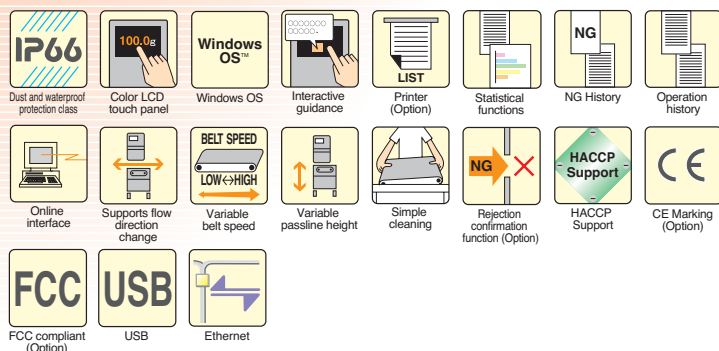
# X-ray Inspection System

## KD7416AWH/KD7416ADWH/KD7416BWH/KD7416BDWH

Contaminants in large and wide products can be detected with high sensitivity.

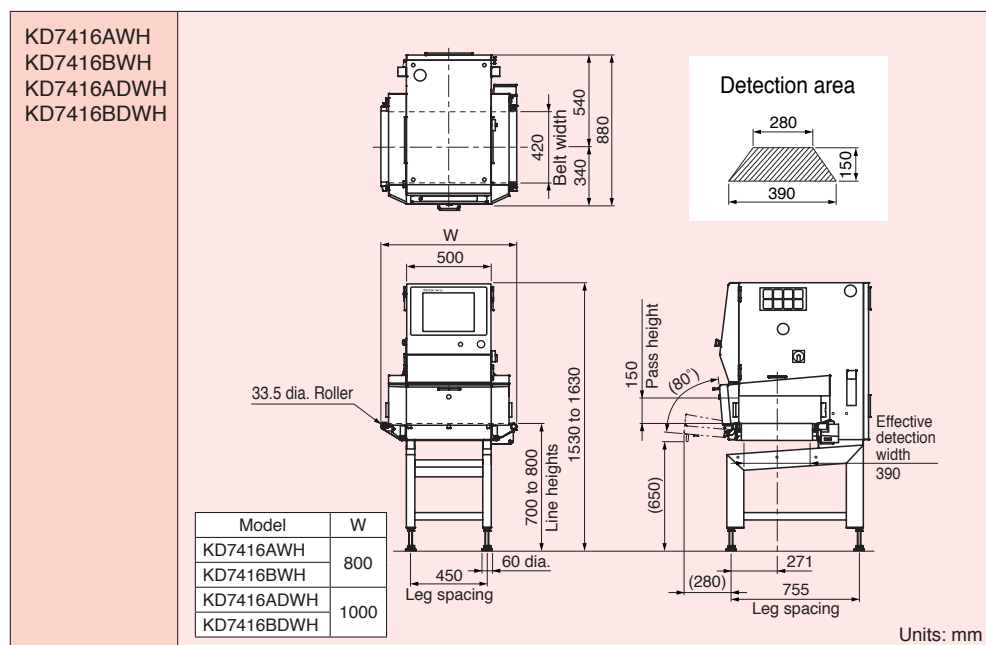
Contaminants in bulk products can also be detected.

See page 4 for safer operation.



KD7416AWH

## External Dimensions



## Specifications

| Model  | KD7416AWH   | KD7416ADWH | KD7416BWH   | KD7416BDWH |
|--|---|------------|---|------------|
| Detection sensitivity <small>Note 1</small>      | Fe sphere and SUS sphere 0.3 mm dia., SUS wire 0.2 mm dia. x 2 mm long  |            |   |            |
| X-ray output                                     | Tube voltage 25 to 60 kV, Tube current 0.3 to 7.0 mA, Output 7.5 to 210 W   |            | Tube voltage 25 to 80 kV, Tube current 0.3 to 7.0 mA, Output 7.5 to 210 W |            |
| Safety   | X-ray leakage: Maximum 1 $\mu$ Sv/h or less, Prevention of X-ray leakage by safety devices                                    |            |   |            |
| Display  | 15-inch Color TFT LCD (unified image monitoring screen and operation screen)  |            |   |            |
| Operation method                                 | Touch panel   |            |   |            |
| Product size <small>Note 2</small>               | Maximum width: 390 mm, Maximum height: 150 mm (Detection area is shown above.)  |            |   |            |
| Belt width                                       | 420 mm  |            |   |            |
| Masking function                                 | Equipped as standard  |            |   |            |
| Missing product detection function               | Equipped as standard  |            |   |            |
| Clip check function                              | Equipped as standard  |            |   |            |
| Preset memory                                    | Maximum 100   |            |   |            |
| Belt speed <small>Note 3</small>                 | 5 to 60 m/min, Maximum 5 kg   |            |   |            |
| Maximum product weight <small>Note 4</small>     | 5 to 40 m/min, Maximum 10 kg (Option)   |            |   |            |
| Power requirements <small>Note 5, Note 6</small> | 100 to 120 Vac $\pm$ 10%, or 200 to 240 Vac $\pm$ 10%, single phase, 50/60 Hz, 1 kVA, rush current 80 A (typ.) (5 ms or less) |            |   |            |
| Mass   | 255 kg  | 260 kg     | 265 kg  | 270 kg     |
| Environmental conditions <small>Note 7</small>   | Temperature 0° to 35°C (0° to 40°C with optional air conditioner), relative humidity 30% to 85%, non-condensing               |            |   |            |
| Protection class                                 | IP66 Compliance (for conveyor), IP40 Compliance (for other parts), Tool free belt removal                                     |            |   |            |
| Exterior   | Stainless steel (SUS304)  |            |   |            |

Note 1 : Actual sensitivity depends on the physical properties of products (contents and shape) and on the environmental conditions.

Note 2 : The entrance and exit may require covers depending on the length of a product.

Note 3 : Variable depending on Product No.

Note 4 : Sum total of product weight on the conveyor.

Note 5 : Selectable by switching terminals. Note that the rush current shown above is at an AC voltage of 200 V. It varies according to voltage.

Note 6 : Installing the air-conditioner option changes the displayed power consumption.

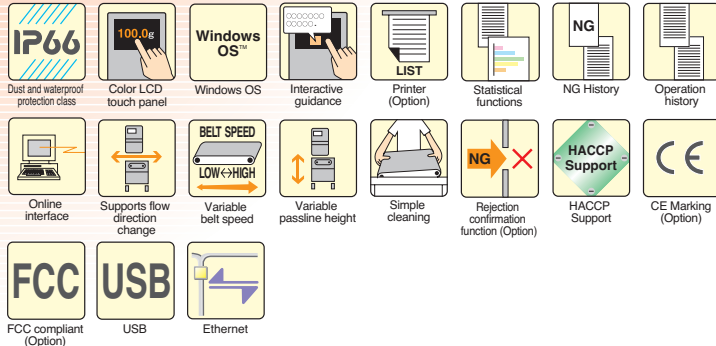
Note 7 : The air-conditioner option may be required depending on the operating environment.

# X-ray Inspection System

## KD7417BWH

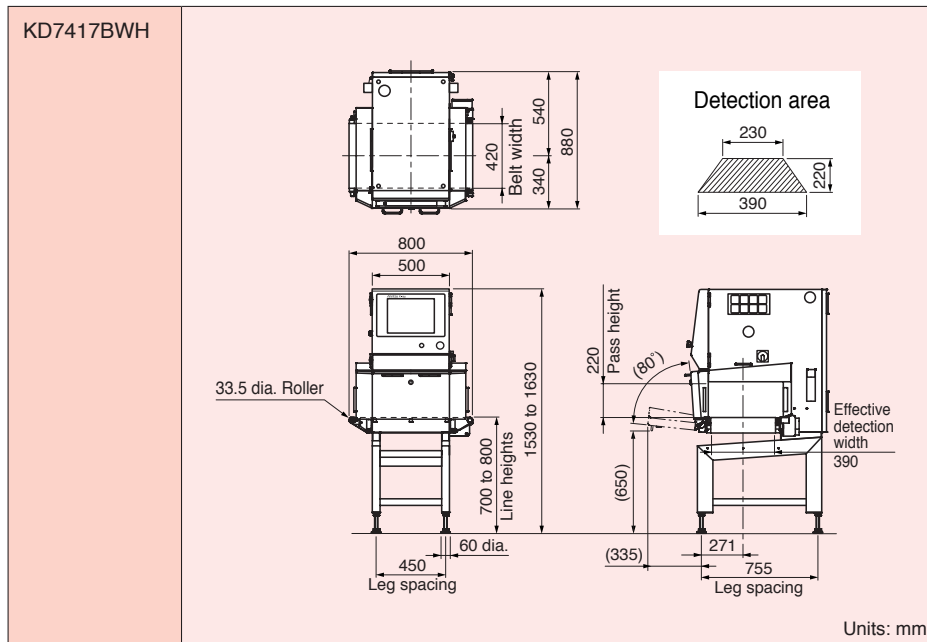
Contaminants in large and wide products can be detected with high sensitivity.  
Suitable for tall products.

See page 4 for safer operation.



KD7417BWH

### External Dimensions



### Specifications

|  |   |
|--|---|
| Model  | KD7417BWH   |
| Detection sensitivity <sup>Note 1</sup>      | Fe sphere and SUS sphere 0.3 mm dia., SUS wire 0.2 mm dia. x 2 mm long  |
| X-ray output                                 | Tube voltage 25 to 80 kV, Tube current 0.3 to 7.0 mA, Output 7.5 to 210 W   |
| Safety                                       | X-ray leakage: Maximum 1 $\mu$ Sv/h or less, Prevention of X-ray leakage by safety devices                                    |
| Display                                      | 15-inch Color TFT LCD (unified image monitoring screen and operation screen)  |
| Operation method                             | Touch panel   |
| Product size <sup>Note 1</sup>               | Maximum width: 390 mm, Maximum height: 220 mm (Detection area is shown above.)  |
| Belt width                                   | 420 mm  |
| Masking function                             | Equipped as standard  |
| Missing product detection function           | Equipped as standard  |
| Clip check function                          | Equipped as standard  |
| Preset memory                                | Maximum 100   |
| Belt speed <sup>Note 3</sup>                 | 5 to 40 m/min, Maximum 10 kg  |
| Maximum product weight <sup>Note 4</sup>     |   |
| Power requirements <sup>Note 5, Note 6</sup> | 100 to 120 Vac $\pm$ 10%, or 200 to 240 Vac $\pm$ 10%, single phase, 50/60 Hz, 1 kVA, rush current 80 A (typ.) (5 ms or less) |
| Mass   | 265 kg  |
| Environmental conditions <sup>Note 7</sup>   | Temperature 0° to 35°C (0° to 40°C with optional air conditioner), relative humidity 30% to 85%, non-condensing               |
| Protection class                             | IP66 Compliance (for conveyor), IP40 Compliance (for other parts), Tool free belt removal                                     |
| Exterior                                     | Stainless steel (SUS304)  |

Note 1 : Actual sensitivity depends on the physical properties of products (contents and shape) and on the environmental conditions.

Note 2 : The entrance and exit may require covers depending on the length of a product.

Note 3 : Variable depending on Product No.

Note 4 : Sum total of product weight on the conveyor.

Note 5 : Selectable by switching terminals. Note that the rush current shown above is at an AC voltage of 200 V. It varies according to voltage.

Note 6 : Installing the air-conditioner option changes the displayed power consumption.

Note 7 : The air-conditioner option may be required depending on the operating environment.

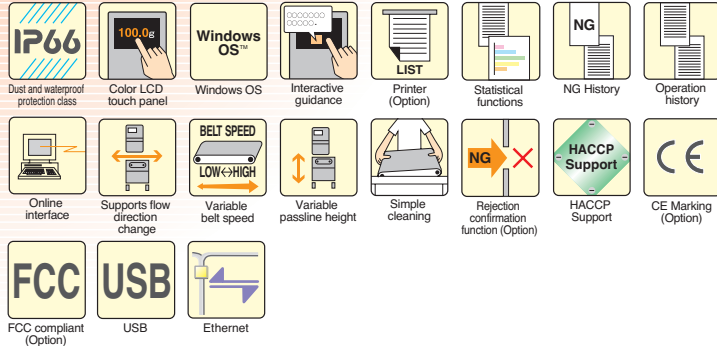


# X-ray Inspection System

## KD7405ABWH/KD7416ABWH

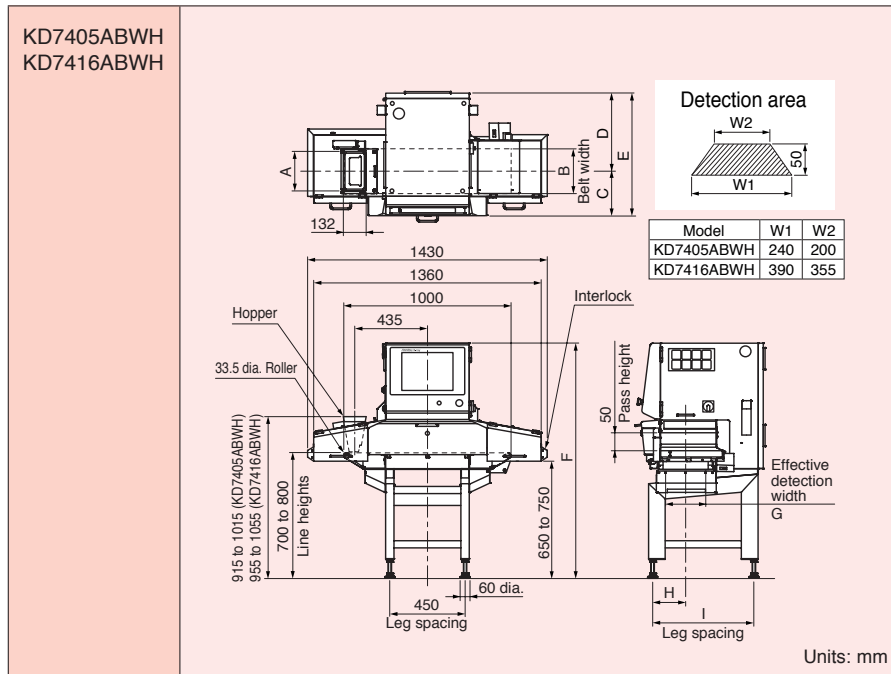
Suited to unpackaged products, such as meat and fish, with which leakage prevention curtains cannot be used.

See page 4 for safer operation.



KD7405ABWH

### External Dimensions



The chute rejector is an option.

|   | KD7405ABWH   | KD7416ABWH   |
|---|--------------|--------------|
| A | 232          | 382          |
| B | 270          | 420          |
| C | 265          | 340          |
| D | 465          | 540          |
| E | 730          | 880          |
| F | 1360 to 1460 | 1530 to 1630 |
| G | 240          | 390          |
| H | 196          | 271          |
| I | 605          | 755          |

### Specifications

| Model  | KD7405ABWH  | KD7416ABWH                                   |
|--|---|--|
| Detection sensitivity <sup>Note 1</sup>      | Fe sphere and SUS sphere 0.3 mm dia., SUS wire 0.2 mm dia. x 2 mm long  |  |
| X-ray output                                 | Tube voltage 25 to 60 kV, Tube current 0.3 to 7.0 mA, Output 7.5 to 210 W   |  |
| Safety                                       | X-ray leakage: Maximum 1 $\mu$ Sv/h or less, Prevention of X-ray leakage by safety devices                                    |  |
| Display                                      | 15-inch Color TFT LCD (unified image monitoring screen and operation screen)  |  |
| Operation method                             | Touch panel   |  |
| Product size <sup>Note 2, Note 3</sup>       | Maximum width: 240 mm, Maximum height: 50 mm  | Maximum width: 390 mm, Maximum height: 50 mm |
| Belt width                                   | 270 mm  | 420 mm                                       |
| Masking function                             | Equipped as standard  |  |
| Missing product detection function           | Equipped as standard  |  |
| Clip check function                          | Equipped as standard  |  |
| Preset memory                                | Maximum 100   |  |
| Belt speed <sup>Note 4</sup>                 | 5 to 50 m/min, Maximum 5 kg   |  |
| Maximum product weight <sup>Note 5</sup>     | 5 to 40 m/min, Maximum 10 kg (Option)   |  |
| Power requirements <sup>Note 6, Note 7</sup> | 100 to 120 Vac $\pm$ 10%, or 200 to 240 Vac $\pm$ 10%, single phase, 50/60 Hz, 1 kVA, rush current 80 A (typ.) (5 ms or less) |  |
| Mass   | 230 kg  | 280 kg                                       |
| Environmental conditions <sup>Note 8</sup>   | Temperature 0° to 35°C (0° to 40°C with optional air conditioner), relative humidity 30% to 85%, non-condensing               |  |
| Protection class                             | IP66 Compliance (for conveyor), IP40 Compliance (for other parts), Tool free belt removal                                     |  |
| Exterior                                     | Stainless steel (SUS304)  |  |

Note 1 : Actual sensitivity depends on the physical properties of products (contents and shape) and on the environmental conditions.

Note 2 : The detection area is shown above.

Note 3 : The entrance and exit may require covers depending on the length of a product.

Note 4 : Variable depending on Product No.

Note 5 : Sum total of product weight on the conveyor.

Note 6 : Selectable by switching terminals. Note that the rush current shown above is at an AC voltage of 200 V. It varies according to voltage.

Note 7 : Installing the air-conditioner option changes the displayed power consumption.

Note 8 : The air-conditioner option may be required depending on the operating environment.

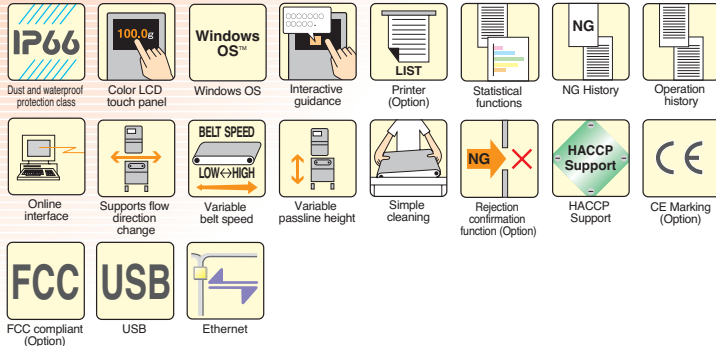


# X-ray Inspection System

## KD7405ACWH/KD7416ACWH

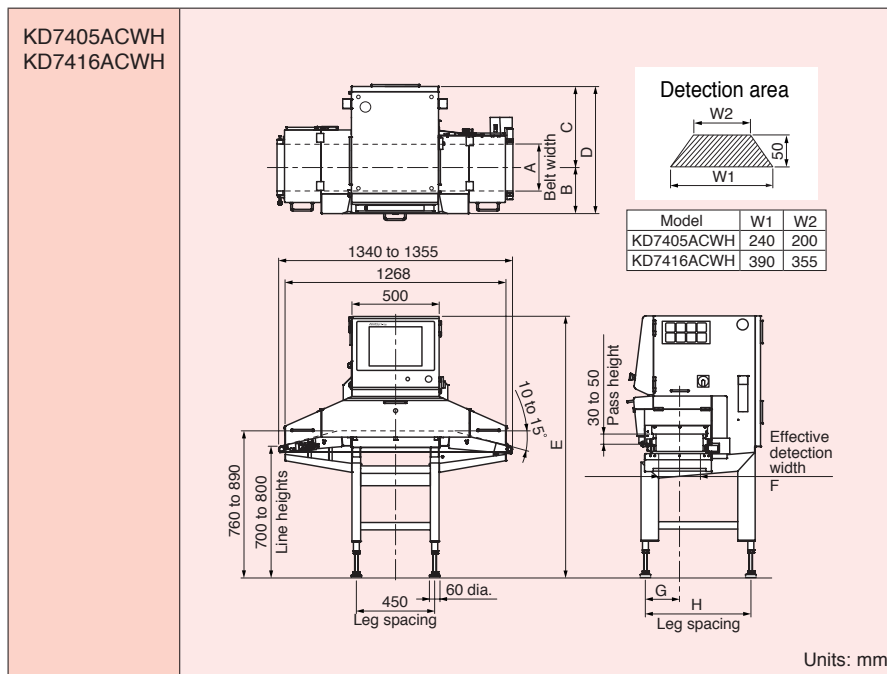
This system is ideal for detecting contaminants in lightweight products and those in small bags that tend to be caught by the x-ray leakage prevention curtains while being conveyed.

See page 4 for safer operation.



KD7405ACWH

### External Dimensions



The shuttle rejector is an option.

|   | KD7405ACWH   | KD7416ACWH   |
|---|--------------|--------------|
| A | 270          | 420          |
| B | 265          | 340          |
| C | 465          | 540          |
| D | 730          | 880          |
| E | 1420 to 1550 | 1590 to 1720 |
| F | 240          | 390          |
| G | 196          | 271          |
| H | 605          | 755          |

### Specifications

| Model                              | KD7405ACWH  | KD7416ACWH                                   |
|------------------------------------|---|--|
| Detection sensitivity Note 1       | Fe sphere and SUS sphere 0.3 mm dia., SUS wire 0.2 mm dia. x 2 mm long  |  |
| X-ray output                       | Tube voltage 25 to 60 kV, Tube current 0.3 to 7.0 mA, Output 7.5 to 210 W   |  |
| Safety                             | X-ray leakage: Maximum 1 $\mu$ Sv/h or less, Prevention of X-ray leakage by safety devices                                    |  |
| Display                            | 15-inch Color TFT LCD (unified image monitoring screen and operation screen)  |  |
| Operation method                   | Touch panel   |  |
| Product size Note 2, Note 3        | Maximum width: 240 mm, Maximum height: 50 mm  | Maximum width: 390 mm, Maximum height: 50 mm |
| Belt width                         | 270 mm  | 420 mm                                       |
| Masking function                   | Equipped as standard  |  |
| Missing product detection function | Equipped as standard  |  |
| Clip check function                | Equipped as standard  |  |
| Preset memory                      | Maximum 100   |  |
| Belt speed Note 4                  | 5 to 50 m/min, Maximum 5 kg   |  |
| Maximum product weight Note 5      | 5 to 40 m/min, Maximum 10 kg (Option)   |  |
| Power requirements Note 6, Note 7  | 100 to 120 Vac $\pm$ 10%, or 200 to 240 Vac $\pm$ 10%, single phase, 50/60 Hz, 1 kVA, rush current 80 A (typ.) (5 ms or less) |  |
| Mass                               | 230 kg  | 285 kg                                       |
| Environmental conditions Note 8    | Temperature 0° to 35°C (0° to 40°C with optional air conditioner), relative humidity 30% to 85%, non-condensing               |  |
| Protection class                   | IP66 Compliance (for conveyor), IP40 Compliance (for other parts), Tool free belt removal                                     |  |
| Exterior                           | Stainless steel (SUS304)  |  |

Note 1 : Actual sensitivity depends on the physical properties of products (contents and shape) and on the environmental conditions.

Note 2 : The detection area is shown above.

Note 3 : The entrance and exit may require covers depending on the length of a product.

Note 4 : Variable depending on Product No.

Note 5 : Sum total of product weight on the conveyor.

Note 6 : Selectable by switching terminals. Note that the rush current shown above is at an AC voltage of 200 V. It varies according to voltage.

Note 7 : Installing the air-conditioner option changes the displayed power consumption.

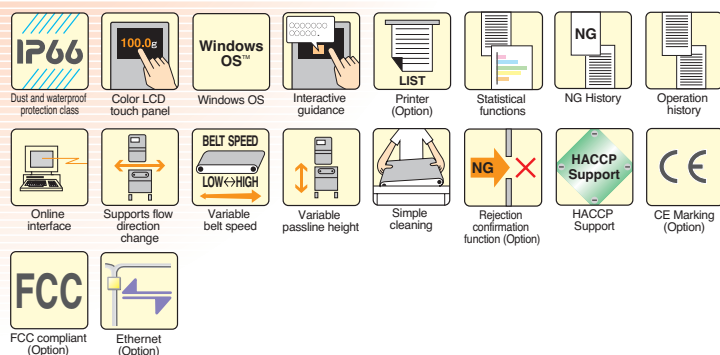
Note 8 : The air-conditioner option may be required depending on the operating environment.

# X-ray Inspection System

## KD7337AW/KD7337AWH1/KD7337AWH2

This model with a 690-mm wide and 250-mm high aperture offers high-efficiency detection of contaminants in large bags and boxes.

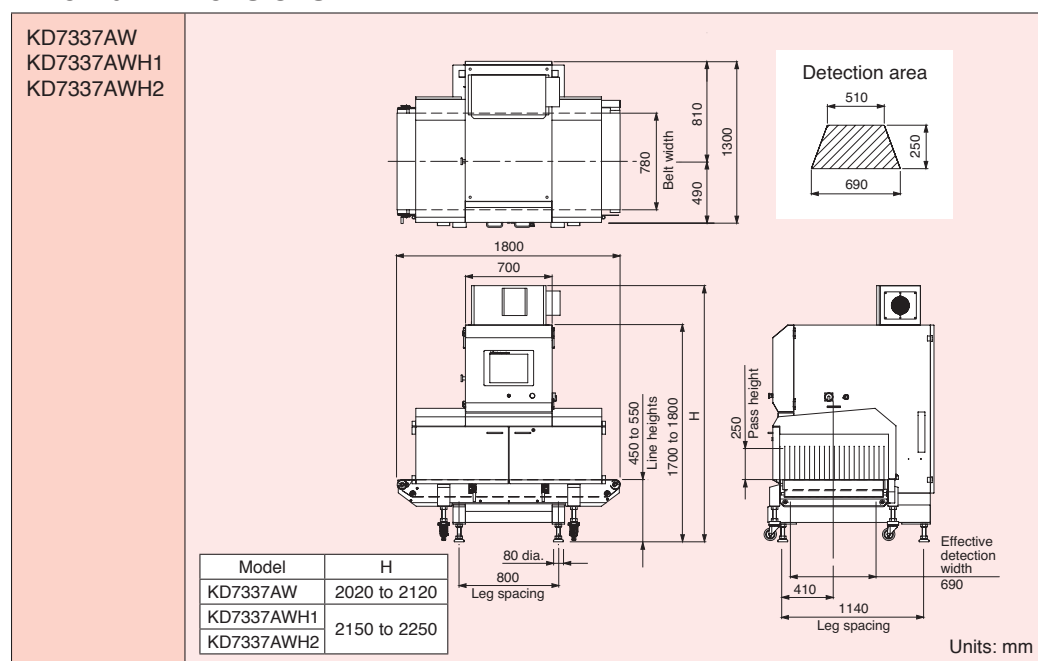
See page 4 for safer operation.



Air conditioner is equipped as standard.

KD7337AW

## External Dimensions



## Specifications

| Model                                    | KD7337AW   | KD7337AWH1 | KD7337AWH2  |
|--|--|------------|---|
| Detection sensitivity <sup>Note 1</sup>  | Fe sphere and SUS sphere 0.5 mm dia.   |            |   |
| X-ray output                             | Tube voltage 30 to 60 kV, Tube current 0.3 to 7.0 mA, Output 9 to 210 W                          |            | Tube voltage 30 to 80 kV, Tube current 0.3 to 7.0 mA, Output 7.5 to 350 W |
| Safety                                   | X-ray leakage: Maximum 1 $\mu$ Sv/h or less, Prevention of X-ray leakage by safety devices       |            |   |
| Display                                  | 15-inch Color TFT LCD (unified image monitoring screen and operation screen)                     |            |   |
| Operation method                         | Touch panel  |            |   |
| Product size                             | Maximum width: 690 mm, Maximum height: 250 mm (Detection area is shown above.) <sup>Note 2</sup> |            |   |
| Belt width                               | 780 mm   |            |   |
| Masking function                         | Equipped as standard   |            |   |
| Missing product detection function       | Equipped as standard   |            |   |
| Clip check function                      | Equipped as standard   |            |   |
| Preset memory                            | Maximum 100  |            |   |
| Belt speed <sup>Note 3</sup>             | 10 to 30 m/min, Maximum 50 kg  |            |   |
| Maximum product weight <sup>Note 4</sup> | 10 to 35 m/min, Maximum 40 kg  |            |   |
| Power requirements                       | 200 Vac $\pm$ 10%, single phase, 50/60 Hz, 1.8 kVA, D class grounding                            |            |   |
| Mass                                     | 700 kg   | 750 kg     |   |
| Environmental conditions                 | Temperature 0° to 40°C, relative humidity 30% to 85%, non-condensing                             |            | Temperature 0° to 35°C, relative humidity 30% to 85%, non-condensing      |
| Protection class                         | IP66 Compliance (for conveyor), IP52 Compliance (for other parts)                                |            |   |
| Exterior                                 | Stainless steel (SUS304)   |            |   |
| Cooling system                           | Air conditioner (Standard equipment)   |            |   |

Note 1 : Actual sensitivity depends on the physical properties of products (contents and shape) and on the environmental conditions.

Note 2 : 350 mm pass height is also available. Contact our sales representatives for details.

Note 3 : Variable depending on Product No.

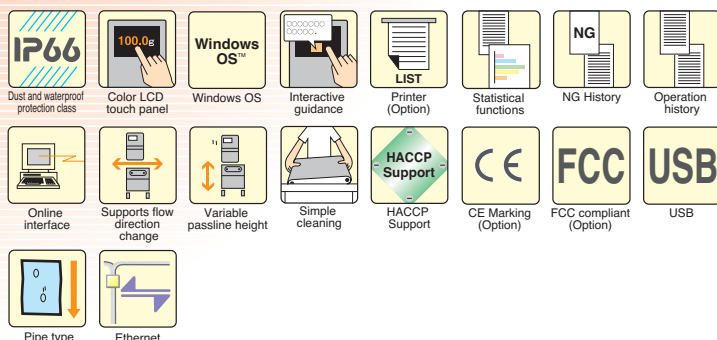
Note 4 : Sum total of product weight on the conveyor.

# X-ray Inspection System

## KD7481AWH/KD7483AWH/KD7483AFWH

Designed to inspect fluid flowing in pipes.

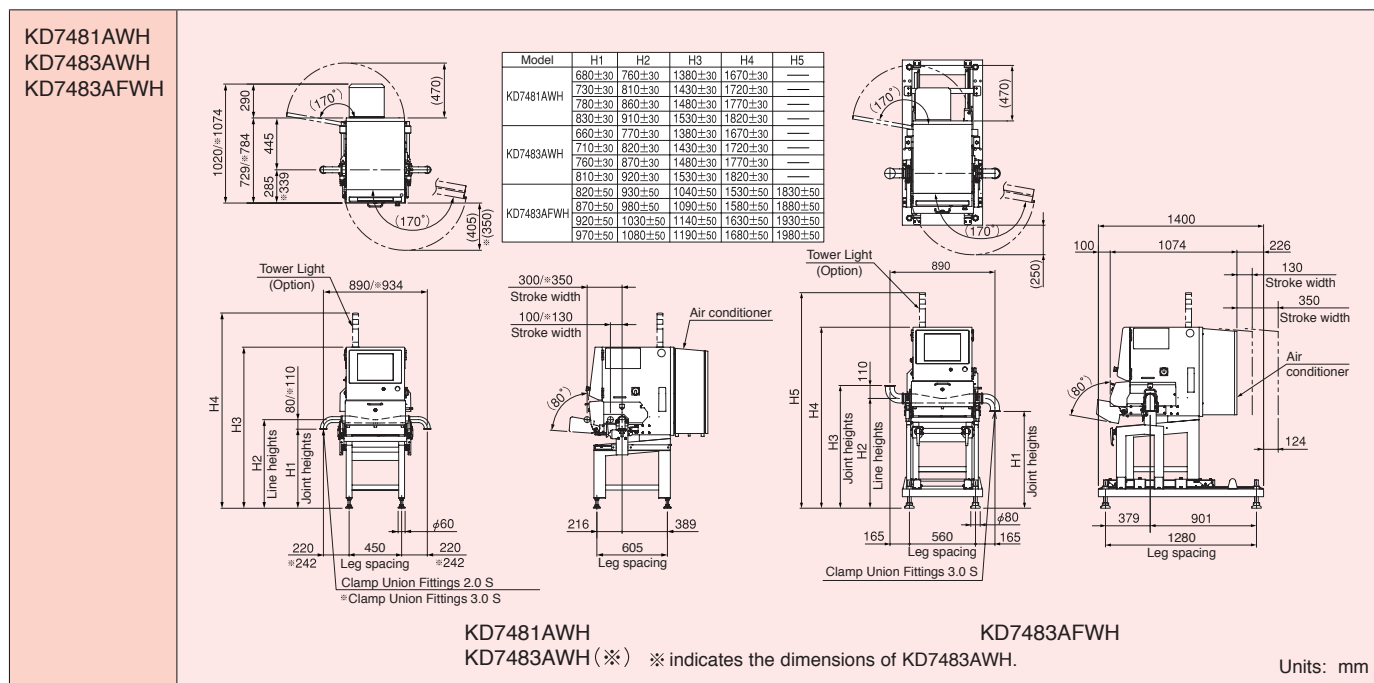
See page 4 for safer operation.



Air conditioner is equipped as standard.

KD7483AFWH

### External Dimensions



### Specifications

|   |   |  |   |
|---|---|--|---|
| Model                                       | KD7481AWH   | KD7483AWH  | KD7483AFWH                                      |
| Detection sensitivity <small>Note 1</small> | Fe sphere and SUS sphere 0.6 mm dia. (When only water is conveyed)                    |  |   |
| X-ray output                                | Tube voltage 25 to 60 kV, Tube current 0.3 to 7.0 mA, Output 7.5 to 210 W             |  |   |
| Safety                                      | X-ray leakage: Maximum 1 μSv/h or less, Prevention of X-ray leakage by safety devices |  |   |
| Display                                     | 15-inch Color TFT LCD (unified image monitoring screen and operation screen)          |  |   |
| Operation method                            | Touch panel   |  |   |
| Product size<br>Product: solids in fluid    | 7 mm or smaller<br>(Less than 1/3 of the minimum height of the inspection section)    | 12 mm or smaller (Less than 1/3 of the minimum height of the inspection section) |   |
| Transfer pipe dimension                     | 2-inch (50.8 mm) dia.   | 3-inch (76.2 mm) dia.  |   |
| Inspection section pass height              | 20 to 30 mm (variable)  | 35 mm (fixed)  |   |
| Position change at sensitivity adjustment   | Pipe position change to the front   |  | Main unit position change (Pipe position fixed) |
| Preset memory                               | Maximum 100   |  |   |
| Processing capacity (flow)                  | 5.4 kℓ/ h   | 11.0 kℓ/ h   |   |
| Power requirements                          | 100 to 120 Vac ±10%, or 200 to 240 Vac ±10%, single phase, 50/60 Hz, 1.6 kVA          |  |   |
| Mass  | 230 kg  | 235 kg   | 340 kg  |
| Environmental conditions                    | Temperature 0° to 40°C, relative humidity 30% to 85%, non-condensing                  |  |   |
| Protection class                            | IP66 Compliance (product transfer pipe)   |  |   |
| Exterior                                    | Stainless steel (SUS304)  |  |   |
| Cooling system                              | Air conditioner (Standard equipment)  |  |   |

Note 1 : Actual sensitivity depends on the physical properties of products (contents and shape) and on the environmental conditions.

# Rejector

\*The speed varies depending on a product to be rejected.

## Flipper type

| Model                           | KW4103AW   | KW4104AW                                      |
|---------------------------------|--|---|
| Classification                  | 3  |   |
| Maximum product size and weight | 220 W × 300 L × 200 H mm, 2 kg [3 kg] Note 1   | 350 W × 600 L × 500 H mm, 10 kg [5 kg] Note 1 |
| Maximum speed                   | 150 products/min [120 products/min] Note 1   | 45 products/min [70 products/min] Note 1      |
| Belt speed                      | 10 to 102 m/min [10 to 77 m/min] Note 1  | 10 to 49 m/min [10 to 77 m/min] Note 1        |
| Power requirements              | 100 to 120 Vac +10% -15% or 200 to 240 Vac +10% -15%, single phase, 50/60 Hz, 200 VA |   |
| Air requirements                | 0.4 to 0.9 MPa, 4 ℓ/min [A.N.R.]   |   |
| Air supply inlet                | Tube having outer diameter 6 mm  |   |
| Protection class                | IP66 compliance  |   |
| Mass                            | 45 kg  | 70 kg   |

Note 1 : Figures in [ ] are optional.



## Dropout type

| Model                           | KW4672DW   | KW4676DW                       |
|---------------------------------|--|--------------------------------|
| Classification                  | 2  |                                |
| Maximum product size and weight | 230 W × 300 L × 130 H mm, 3 kg   | 350 W × 450 L × 210 H mm, 3 kg |
| Maximum speed                   | 70 products/min  | 30 products/min                |
| Belt speed                      | 7 to 36 m/min  | 10 to 26 m/min                 |
| Power requirements              | 100 to 120 Vac +10% -15% or 200 to 240 Vac +10% -15%, single phase, 50/60 Hz, 200 VA |                                |
| Air requirements                | 0.4 to 0.9 MPa, 30 ℓ/min [A.N.R.]  |                                |
| Air supply inlet                | Tube having outer diameter 6 mm  |                                |
| Protection class                | IP66 compliance  |                                |
| Mass                            | 29 kg  | 37 kg                          |



## Air jet type

|                                 |                                       |
|---------------------------------|---------------------------------------|
| Model                           | KW4866BW-205317                       |
| Classification                  | 2 [3] Note 1                          |
| Maximum product size and weight | 230W × 300L × 160H mm, 300 g Note 2   |
| Maximum speed                   | 220 products/min                      |
| Belt speed                      | 9 to 91 m/min                         |
| Air requirements                | 0.5 to 0.9 MPa, 16 ℓ/min [A.N.R.]     |
| Air supply inlet                | Tube having outer diameter 10 mm      |
| Power requirements              | Supplied from X-ray Inspection System |
| Power consumption               | 200 VA                                |
| Protection class                | IP66 compliance                       |
| Exterior                        | Stainless steel (SUS304)              |

Note 1 : Figures in [ ] are optional.

Note 2 : The maximum product weight at a belt speed of 75 to 120 m/min is 100 g.



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ISO 9001 CERTIFICATE No.JQA-0566

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- Follow the local laws and regulations regarding the installation and use of X-ray Inspection Systems.
- In addition to daily inspection, an annual maintenance check should be carried out.
- To ensure proper operation, read the Operation Manual before using the machine.

Specifications are subject to change without notice.

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