For more information, contact our office listed below.
The contents of the specifications are subject to change without prior notice due to continual improvement.
**Functions and features**

### Operator friendly operability
Everyone can operate the system.

### Continuous improved basic performances
Always aiming at leading-edge high sensitivity.

#### Advanced ECP function
In the MetaHawk3, this 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.

#### 2-frequency inspection
Both Fe and SUS foreign objects can be detected with high sensitivity. (System Square incorporated this 2-frequency inspection technology into the mass-production machines, first in the world and already has 10-year past experiences.)

### Example of detection sensitivity
The detection sensitivity may vary depending on the product.

#### Surimi
- Fe: φ0.6mm ~ φ0.7mm
- SUS: φ1.5mm ~ φ2.0mm

#### Sausage
- Fe: φ0.5mm ~ φ0.6mm
- SUS: φ1.0mm ~ φ1.5mm

#### Sliced ham
- Fe: φ0.8mm ~ φ1.0mm
- SUS: φ2.0mm ~ φ2.4mm

### Easy automatic sensitivity setting
Select suitable coil because using large coil for small products causes worse sensitivity.

### To get better sensitivity
- Make thickness of products flat, or make thickness of products thin.
- Keep temperature of product as low as possible. Avoid temperature change of product. Product effect becomes bigger and bigger if temperature of product becomes higher and higher.

### Comfortable operation with large touch panel LCD
- Easy automatic sensitivity setting
- Easy inputs of products' name
- Easy confirmation of registered products
- Easy understanding with illustration and graph
- Better sensitivity can be expected with smaller coil

### Detection sensitivity
- Level meter display
- Inspection Q'ty display
- Inscription result magnification display
**Functions and features**

**USB data management (option)**
The inspection history data is transferred to PC for the management. (10,000 histories can be saved)

**Easy cleaning (HACCP compatibility)**
One-touch detachment/attachment of the conveyors requiring the frequent cleaning ensures the sanitary system.

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

**Simple structure**
Waterproofing 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.

**The IP66 dust protection and waterproof standard is satisfied**
The machine is capable of handling lines involved with water with sufficiently high sensitivity. It can be cleaned with water.

**Data management through network (option)**
The data of multiple machines can be managed with PC through the LAN network.

**Enhanced history function**
- **Inspection history**: Protect from incorrect settings by inexperienced operators. Pass word is required to change access mode.
- **Statistic display**: General history from the inspection start to the inspection end. This display is used as inspection result daily report.
- **Inspection history**: The final inspection records remain and can be checked later. This inspection history is also effective as prevention of missing periodic inspection.

**Extensive management functions**

**Access mode selection**
4 serial ports and LAN port is available for communication between PC, labeler, bar code, printer, etc.

**Enhanced communication function**

**Importance of the quality control increases further.**

**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.
Compact size Metal Detectors SD3-30Type

For inspection of small products, such as small snack bags
Applicable to a passage width of up to 30 cm

Model (SD3-XXXXD/W) | 3006 | 3008 | 3010 | 3012 | 3015 | 3018
--- | --- | --- | --- | --- | --- | ---
Detection sensitivity (mm) | Fe | 0.35 | 0.45 | 0.55 | 1.0 | 0.35 | 0.45 | 0.55 | 1.0 | 0.35 | 0.45 | 0.55 | 1.0 | 0.35 | 0.45 | 0.55 | 1.0
SUS304 | 0.65 | 0.7 | 0.8 | 0.9 | 0.95 | 0.95 | 1.0 | 0.95 | 1.0 | 0.95 | 1.0

Belt speed: 24m/min (50Hz)
Conveyor size: 800mm (length) × 210mm (belt width)
Upon detection of metal: Belt stopped, buzzer warning or automatic sorting (option)
Transport weight: 3kg
Power requirements: AC100V ±10%, 50/60Hz, 200VA
Mass (kg): 84, 82, 83, 84, 86, 88

Compact size Metal Detectors SD3-45Type

For inspection of products contained in larger trays
Applicable to a passage width of up to 45 cm

Model (SD3-XXXXD/W) | 4506 | 4508 | 4510 | 4512 | 4515 | 4518
--- | --- | --- | --- | --- | --- | ---
Detection sensitivity (mm) | Fe | 0.4 | 0.45 | 0.5 | 0.55 | 0.6 | 0.7 | 0.4 | 0.45 | 0.5 | 0.55 | 0.6 | 0.7 | 0.8 | 0.9 | 0.95 | 1.0
SUS304 | 0.7 | 0.8 | 0.9 | 1.0 | 1.0 | 1.1 | 0.4 | 0.45 | 0.5 | 0.55 | 0.6 | 0.7 | 0.8 | 0.9 | 0.95 | 1.0

Belt speed: 24m/min (50Hz)
Conveyor size: 800mm (length) × 350mm (belt width)
Upon detection of metal: Belt stopped, buzzer warning or automatic sorting (option)
Transport weight: 3kg
Power requirements: AC100V ±10%, 50/60Hz, 200VA

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.
Medium size Metal Detectors SD3-45B Type

For inspection of products contained in large boxes and bags, such as rice, wheat flour, and cereals, etc. It copes with conveyance of heavy items (30Kg). Applicable to a passage width of up to 60 cm.

<table>
<thead>
<tr>
<th>Model(SD3-XXXXBD/W)</th>
<th>4505</th>
<th>4507</th>
<th>4509</th>
<th>4511</th>
<th>4514</th>
<th>4517</th>
<th>4520</th>
<th>4525</th>
<th>4530</th>
<th>4535</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum passage width (mm)</td>
<td>450</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum passage height (mm)</td>
<td>50</td>
<td>70</td>
<td>90</td>
<td>110</td>
<td>140</td>
<td>170</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
</tr>
<tr>
<td>Detection sensitivity(mm)</td>
<td>Fe</td>
<td>0.4</td>
<td>0.45</td>
<td>0.5</td>
<td>0.55</td>
<td>0.6</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Belt speed</td>
<td>24m/min(50Hz)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conveyor size</td>
<td>1,200mm(length)×350mm(belt width)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upon detection of metal</td>
<td>Belt stopped, buzzer warning or automatic sorting (option)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport weight</td>
<td>30Kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power requirements</td>
<td>AC100V±10%, 50/60Hz, 300VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Large size Metal Detectors SD3-60 Type

For inspection of products contained in large boxes and bags, such as rice, wheat flour, and cereals, etc. Applicable to a passage width of up to 60 cm.

<table>
<thead>
<tr>
<th>Model(SD3-XXXXD/W)</th>
<th>6007</th>
<th>6009</th>
<th>6011</th>
<th>6014</th>
<th>6017</th>
<th>6020</th>
<th>6025</th>
<th>6030</th>
<th>6035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum passage width (mm)</td>
<td>600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum passage height (mm)</td>
<td>70</td>
<td>90</td>
<td>110</td>
<td>140</td>
<td>170</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
</tr>
<tr>
<td>Detection sensitivity(mm)</td>
<td>Fe</td>
<td>0.5</td>
<td>0.55</td>
<td>0.55</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Belt speed</td>
<td>24m/min(50Hz)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conveyor size</td>
<td>1,500mm(length)×500mm(belt width)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upon detection of metal</td>
<td>Belt stopped, buzzer warning or automatic sorting (option)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport weight</td>
<td>20Kg (In the case of AC200V, it is possible to cope under 30Kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power requirements</td>
<td>AC100V±10%, AC200V±10%, 50/60Hz, 300VA or Three-phase AC200V±10%, 50/60Hz, 550VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass (kg)</td>
<td>186</td>
<td>187</td>
<td>188</td>
<td>194</td>
<td>199</td>
<td>202</td>
<td>204</td>
<td>210</td>
<td>216</td>
</tr>
</tbody>
</table>

* 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.
### Large size Metal Detectors SD3-80Type

For inspection of larger box and bag products

Applicable to a passage width of up to 80 cm

- **Model (SD3-XXXXD/W)**: 8013, 8016, 8019, 8025, 8030
- **Maximum passage width (mm)**: 800
- **Maximum passage height (mm)**: 130, 160, 190, 250, 300
- **Detection sensitivity (mm)**:
  - Fe: φ0.8, φ0.9, φ1.0, φ1.2, φ1.5
  - SUS304: φ1.5, φ1.5, φ1.5, φ2.0, φ2.4
- **Belt speed**: 24m/min (50Hz)
- **Conveyor size**: 1500mm (length) x 700mm (belt width)
- **Upon detection of metal**: Belt stopped, buzzer warning or automatic sorting (option)
- **Transport weight**: 20Kg (In the case of AC200V, it is possible to cope under 30Kg)
- **Power requirements**:
  - AC100V±10%, AC200V±10%, 50/60Hz, 300VA or Three-phase AC200V±10%, 50/60Hz, 550VA
- **Mass (kg)**: 223, 226, 229, 237, 245

### Circular type Metal Detectors

For inspection of rice, wheat flour, bread crumbs, snack food, cereals, and pellets, etc.

This model is suitable for inspection of products that drop naturally. A compact coil can be assembled into the pipe line.

<table>
<thead>
<tr>
<th>Model (SD3-XXXXCD/W)</th>
<th>080</th>
<th>100</th>
<th>130</th>
<th>150</th>
<th>180</th>
<th>200</th>
<th>250</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coil diameter (mm)</strong></td>
<td>φ60</td>
<td>φ80</td>
<td>φ80</td>
<td>φ110</td>
<td>φ130</td>
<td>φ180</td>
<td>φ180</td>
</tr>
<tr>
<td><strong>Product passage diameter (Reference value) (mm)</strong></td>
<td>φ0.4</td>
<td>φ0.4</td>
<td>φ0.5</td>
<td>φ0.5</td>
<td>φ0.6</td>
<td>φ0.7</td>
<td>φ0.8</td>
</tr>
<tr>
<td><strong>Detection sensitivity (mm)</strong></td>
<td>φ0.7</td>
<td>φ0.7</td>
<td>φ0.8</td>
<td>φ0.8</td>
<td>φ1.0</td>
<td>φ1.2</td>
<td>φ1.5</td>
</tr>
<tr>
<td><strong>Amount of processing (Reference value)</strong></td>
<td>1th</td>
<td>2th</td>
<td>3.5th</td>
<td>5th</td>
<td>7th</td>
<td>9th</td>
<td>15th</td>
</tr>
<tr>
<td><strong>Minute powder</strong></td>
<td>Soybean</td>
<td>2th</td>
<td>4th</td>
<td>7th</td>
<td>10th</td>
<td>14th</td>
<td>18th</td>
</tr>
<tr>
<td><strong>Belt stopped, buzzer warning or automatic sorting</strong></td>
<td>Buzzer warning, detection signal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power requirements</strong></td>
<td>AC100V±10%, 50/60Hz, 120VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mass (kg)</strong></td>
<td>35</td>
<td>37</td>
<td>45</td>
<td>50</td>
<td>52</td>
<td>53</td>
<td>58</td>
</tr>
</tbody>
</table>
This model is suitable for inspection of products that drop naturally.

Sorting machine is incorporated. Pipe is detachable with one-touch operation and capable of easy cleaning.

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>SD3-100CD/W-DF1710</th>
<th>SD3-3008D/W-Y-DF3010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum passage width (mm)</td>
<td>φ87</td>
<td>82+282</td>
</tr>
<tr>
<td>Detection sensitivity (mm)</td>
<td>Fe : φ0.4</td>
<td>SUS304 : φ0.7</td>
</tr>
<tr>
<td>Sorting method</td>
<td>Integrated damper-type sorter</td>
<td></td>
</tr>
<tr>
<td>Power requirements</td>
<td>AC100V±10%, 50/60Hz, 120VA</td>
<td></td>
</tr>
<tr>
<td>Air supply source</td>
<td>0.5~0.7Mpa</td>
<td></td>
</tr>
<tr>
<td>Amount of processing (Reference value)</td>
<td>Minute powder...2t/h Soybean...40t/h</td>
<td></td>
</tr>
<tr>
<td>Mass (kg)</td>
<td>99</td>
<td>170</td>
</tr>
</tbody>
</table>

*The sections indicated with dotted line are option.*

Detection sensitivity may vary depending on the product and/or operating environment. Specifications are subject to change without prior notice due to improvement.

Pipe is detachable with one-touch operation and capable of easy cleaning.

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>SD3-100RW</th>
<th>SD3-100RW</th>
<th>SD3-100RW</th>
<th>SD3-100RW</th>
<th>SD3-100RW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum passage width (mm)</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Pipe size (inch)</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Height of inlet/outlet</td>
<td>750mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air supply source</td>
<td>AC100V±10%, 50/60Hz, 120VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auxiliary</td>
<td>Hook spanner, clamp</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1. The flow rate may drop as the selection valve change-over time is needed depending on the viscosity of the fluid to be used.
*2. The withstand pressure may vary depending on the operating temperature. Contact System Square for further information.*
Even magnetized needles used for baby pigs which cannot be detected conventionally can be detected accurately.

For inspection of block meat, such as beef and pork.

**Metal Detectors for needles**

**Special machines**

- Seal Inspection Machine with Metal Detecto
- Top seal
- Vertical type
- Tablet Products

**Options**

- Coaxial and opposed type (Two coil types are used.)
- Drop type
- Wide type

---

**Metal Detector Specifications**

<table>
<thead>
<tr>
<th>Model (SD3-XXXVW)</th>
<th>4505</th>
<th>6517P</th>
<th>9617P</th>
<th>11825P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Passage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height (mm)</td>
<td>750±50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width (mm)</td>
<td></td>
<td>750±50</td>
<td>750±50</td>
<td>750±50</td>
</tr>
<tr>
<td><strong>Power requirements</strong></td>
<td></td>
<td>AC100/140V 50/60Hz 400VA</td>
<td>Three-phase AC200/240V 50/60Hz 850VA</td>
<td></td>
</tr>
<tr>
<td><strong>Transfer plate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Transfer roller</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scraper</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Overflow prevention guide</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Conveyor height adjuster</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Anchor metal fittings</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Printer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Additional Notes**

- 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.
- D (non-waterproof) / W (waterproof)
- Appropriate measures are taken so that no products are brought in contact with the inside of the passage port.