

# SSV series Checkweigher



**SSV**  
series

# Much more than just weighing; The SSV series provides valuable process control information.

## SSV series

➕ **Additional benefit**  
Enhanced productivity  
by SMF and other  
features

➕ **Additional benefit**  
Improved operation  
through navigation  
system



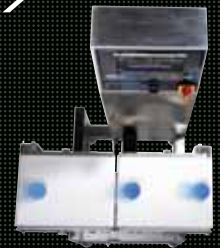
**Core function**  
Increased accuracy and  
stability by significantly  
enhanced weigh cell features

### Proprietary technology

#### SMF

Page 4 >

Prevents unnecessary  
rejection due to  
double product errors,  
while improving  
accuracy.



### HISTORY

Since 1964,  
Anritsu Checkweighers  
have continuously evolved.



1964

#### K501 series

First Anritsu checkweigher

[Main model: K501]

- Maximum speed: 150 products/min
- Scale value: 0.5 g
- Maximum accuracy:  $\pm 0.5$  g



1978

#### 8 (Eight) series

Was very successful thanks  
to its superior  
cost/performance ratio

[Main model: K528]

- Maximum speed: 150 products/min
- Scale value: 0.01 g
- Maximum accuracy:  $\pm 0.05$  g



1990

#### Hi series

Used high-speed and high  
accuracy electromagnetic force  
balance for the first time.

[Main model: K621B]

- Maximum speed: 150 products/min
- Scale value: 0.005 g
- Maximum accuracy:  $\pm 0.02$  g

2000

#### SV series

With over 800 different models,  
SV series becomes a long-selling  
product for over 10 years.

[Main model: KW6003BP03]

- Maximum speed: 310 products/min
- Scale value: 0.005 g
- Maximum accuracy:  $\pm 0.015$  g



2011

#### SSV series

[Main model: KWS6003BP03]

- Maximum speed: 310 products/min
- Scale value: 0.001 g
- Maximum accuracy:  $\pm 0.01$  g



**Easy to follow**

**Operation guidance**

Page 5 >

Enhanced intuitive navigation functions including Smart Guide make daily usage and maintenance simple.



**Enhanced accuracy and stability**

**New force balance**

Minimum scale value is 0.001g.  
 Maximum accuracy is  $\pm 0.01g$ .  
 Resolution quadrupled\*.  
 Temperature resistance improved.



\* In-house comparison

**Easy to use**

**Color LCD touch screen interface**

8.5" color LCD touch screen interface significantly improves daily use.  
 System has 6 selectable display modes.



**Useful features**

- USB interface
- Ethernet interface

**Equipped as standard**



# SMF

Improved Productivity

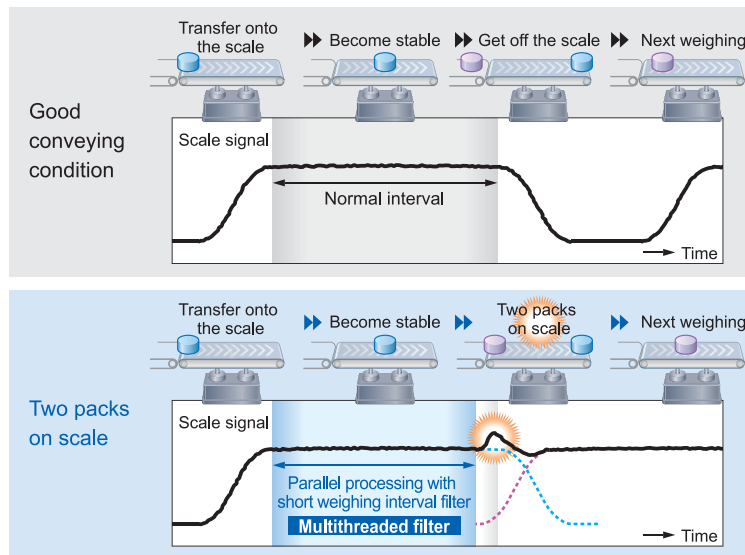
## Anritsu proprietary technology

Smart Measurement Function minimizes double product errors by using multi-threaded filters, achieving high accuracy.



### Point

## Accurate weighing



Conventional checkweighers use the weigh cell signal, after signal processing, to determine the weight of each product as it passes over the weigh table. If two packs are on the weigh table at the same time, a “double product error” will occur and the system is forced to reject both products since each individual product weight cannot be determined. Anritsu SSV series checkweigher advancements use innovative signal processing, multithreaded filtering, in conjunction with improved scale resolution to minimize “double product errors”. This simultaneously minimizes unnecessary rejects and maximizes line productivity.

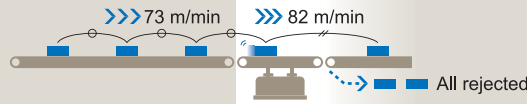


## Example Rejection down, yield up with SMF

High speed production line at 200 products/min

### Conventional checkweigher

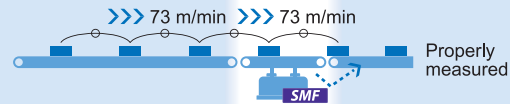
Product spacing is normally established by increasing the checkweigher conveyor speed, compared to the normal line speed, to prevent two products being on the weigh scale at the same time.



- Double products are all rejected. **Double products error rate is 0.15%**
- Due to increased conveyor speed, scale accuracy reduced to **0.75 g**

### SSV checkweigher equipped with SMF

Product spacing and checkweigher conveyor speed is maintained. By running slower, the SSV system provides higher accuracy even if two products are on the weigh scale at the same time.



- Double products rejection is down. **Double products error rate is 0.03%**
- Scale accuracy is maintained to **0.35 g**

### Improvement rate

• Double products error rate: **0.12%** • Scale accuracy: **0.4 g**

### Effect on productivity

In case of the total production per year of 28,8 million products,

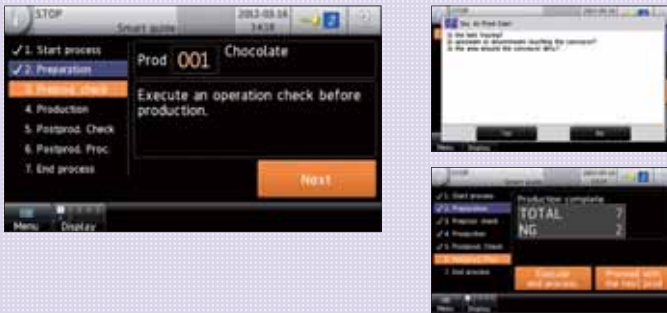
Calculated on 8 hours uptime per day, 25 days uptime per month, and uptime ratio of 100%.  
 $200 \text{ p/min} \times 60 \text{ min/hour} \times 8 \text{ hour/day} \times 25 \text{ day/month} \times 12 \text{ month}$

- 28,8 million products  $\times$  0.12% = **34,560 products / year**
- With change of feeding amount due to increased accuracy:  
 $28,8 \text{ million products} \times 0.4 \text{ g} = \mathbf{11,520 \text{ kg} / year}$

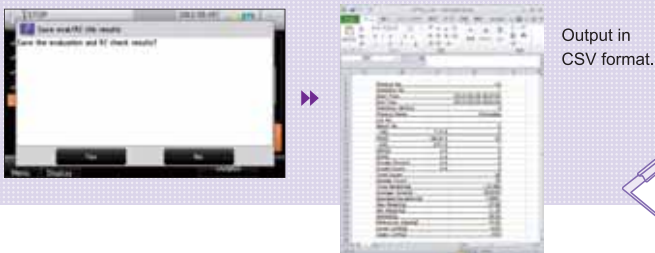
Note: This data was obtained with difficult products, unstable and having long settling times. Improvements will vary depending on packaging, product and SSV model.

**Point Smart Guide makes operation easy and avoids operator errors.**

• Easy-to-follow instructions make each operation simple



• Outputs e-Daily Report



Output in CSV format.



**Navigation and Supervision**

For checkweighers to function properly, operation checking must be performed correctly at each stage of the daily operation: at start-up, during production, and at the end of production. These procedures, although necessary, are not always strictly followed due to the time and effort involved.

Smart Guide navigates operation check and maintenance procedures in an easy-to-understand format. Moreover, when a procedure was performed incorrectly, Smart Guide will not allow to proceed further, ensuring correct operation management.

**E-Daily Report**

All checkweigher weight data and operation check (audit) records are saved local on the SSV checkweigher. At the end of production, the data and operation check log can be sent via **E-Reports**. The elimination of manual data collection minimizes possible errors and makes data and log management simple and efficient.

**Point**

**Product Registration Navigation simplifies parameter setting procedures with step-by-step illustrated instructions.**



• Product parameter setting




• Fine adjustment



On-screen illustrations help you understand each key procedure and are listed in a "step-by-step" methodology. If performed improperly, the navigation stops for corrective action.





# Operation Guidance

**Easy to follow**

Operator-oriented, easily navigated menu structure

# SSV series checkweigher

responds to issues arising from different positions.



We've increased the conveyor speed to prevent two packs getting on the scale simultaneously. Is this Okay ?

**A Maintain appropriate belt speed with SMF.**

Increasing the conveyor speed is not a recommended approach since when the flow increases, the weighing period decreases, which decreases weighing accuracy. With SMF, which minimizes weighing errors caused by two packs getting on a scale simultaneously, you can realize accurate weighing at proper speeds.

I use a checkweigher everyday. Ease of use is critical.



**A All SSV series checkweighers come with a color LCD touch screen.**

The SSV's standard 8.5 inch color LCD touch screen greatly enhances usability and system navigation. 6 standard view screens are available to quickly see product weight or trending information.



It's a bother to fill in daily reports everyday !

**A You can create e-Report with Smart Guide.**

The SSV checkweighers save the entire operation history onto themselves. At the end of the production, those can be output in a CSV file.

I don't want to read thick manuals, nor do I want to keep them in the facility.

**A SSV's navigation makes operation easy.**

With SSV's intuitive navigation, product creation and changes are quick and easy. Manuals are not required and simplicity minimizes user errors.

The navigation system also greatly aids for data collection and HACCP compliance.



Learning new equipment can take a lot of time.

**A Smart Guide minimizes training effort.**

Smart Guide navigation guides the user through basic system operation. Even inexperienced operators can quickly learn the system by following the on-screen instructions.



Can we use a checkweigher in wet environment?

**A IP66 rated waterproof models are suitable.**

SSV series has a wide lineup with different modules. Waterproof models are suitable for wet environment. The open frame structure allows for easy cleaning.



I'm concerned with increasing material costs.

**A SMF is effective for minimizing material waste.**

SMF reduces double product errors with the net benefit of lower product rejects and material costs.

I want to use a checkweigher in our overseas factory.

**A The SSV's control is multilingual.**

11 different languages are selectable on-screen for interface including English, Spanish, French, German, etc.



**Corporate manager**

I want a machine for high-mix low-volume production.

**A The SSV series checkweigher supports 200 different products.**

Operating parameters for up to 200 different products can be stored in the memory of SSV series checkweighers. The product registration is easy to perform thanks to Product Registration Navigation.

Even if my company consolidates its factories, I want operators to handle both new and old machines.

**A Operators should have no trouble with SSV.**

Although the SSV series features a lot of new functions, its basic settings are the same as those of previous models. It's easy to handle for operators who are familiar with the Anritsu's previous models.

How can we improve our quality control program ?

**A We recommend Smart Guide and QUICCA.**

Smart Guide prevents operator errors by stopping procedures until the instructions are followed correctly. USB port and Ethernet are equipped as standard. With QUICCA installed, you can optimize your quality control by using ID barcode scanning and video camera monitoring.

Refer to QUICCA brochure for detailed features.



**Quality control manager / Site supervisor**

What if unexpected events occur ?

**A Depend on Anritsu's global maintenance network.**

We offer comprehensive and responsive service network in over 50 countries, ensuring that service, maintenance and repairs are carried out quickly and efficiently.

**Q&A**

What is the difference in specifications between SV and SSV ?

**SSV KWS6205BP05**

Display: 8.5-inch color LCD touch screen  
 Weighing range: 1.2 to 600 g  
 Maximum accuracy: ±0.015 g  
 Scale interval: 0.01 g

**SV KW6205BP05**

Display: FDM panel display  
 Weighing range: 2 to 600 g  
 Maximum accuracy: ±0.02 g  
 Scale interval: 0.02 g

**A** Above is the specification comparison of comparable models. Aside from display, minimum value of weighing range, maximum accuracy, and scale interval are improved by the new scale features.

# Lineup

**High Accuracy**

**h**



## SSV-h series

Equipped with a high speed/high accuracy force balance load cell. Meets stringent accuracy and reliability standards in industrial and pharmaceutical products.

Control panel exterior	<input checked="" type="checkbox"/> Stainless steel	<input checked="" type="checkbox"/> Painted
Conveyor	<input type="checkbox"/> Waterproof	<input checked="" type="checkbox"/> Non waterproof
Balance	<input checked="" type="checkbox"/> Force balance	<input type="checkbox"/> Strain gauge
Frame	<input checked="" type="checkbox"/> Stainless steel	<input checked="" type="checkbox"/> Painted

**Waterproof**

**i**



## SSV-i series

Features waterproof and dustproof cabinet and components. Its hygienic design is perfect for unpackaged and fresh foods which require stringent sanitary control.

Control panel exterior	<input checked="" type="checkbox"/> Stainless steel	<input type="checkbox"/> Painted
Conveyor	<input checked="" type="checkbox"/> Waterproof	<input type="checkbox"/> Non waterproof
Balance	<input checked="" type="checkbox"/> Force balance	<input checked="" type="checkbox"/> Strain gauge
Frame	<input checked="" type="checkbox"/> Stainless steel	<input type="checkbox"/> Painted

**Versatile**

**f**








## SSV-f Series

Equipped with a highly versatile strain gauge load cell. Well suited for a variety of applications including heavy products.

Control panel exterior	<input checked="" type="checkbox"/> Stainless steel	<input checked="" type="checkbox"/> Painted
Conveyor	<input type="checkbox"/> Waterproof	<input checked="" type="checkbox"/> Non waterproof
Balance	<input type="checkbox"/> Force balance	<input checked="" type="checkbox"/> Strain gauge
Frame	<input checked="" type="checkbox"/> Stainless steel	<input checked="" type="checkbox"/> Painted

Refer to separate catalogs for specifications.

**Unit construction** Select the best combination

Control panel exterior	Conveyor	Balance	Frame	Display
<p><b>Stainless steel</b> High protection</p> <p><b>Painted</b> Low cost</p> 	<p><b>Waterproof</b></p>  <p><b>Non waterproof</b></p> 	<p><b>Force balance</b> High speed and high accuracy</p>  <p><b>Strain gauge</b> Low cost</p>  <p>(Non waterproof) (Waterproof)</p>	<p><b>Stainless steel</b> High protection</p> <p><b>Painted</b> Low cost</p> 	<p><b>Color LCD touch screen</b></p> 



■ **Option**

Contact our sales representatives for details.



**Tower light (with buzzer alarm)**  
Supports remote monitoring.



**Data printer**  
Prints inspection results.



**Emergency stop switch**  
Stops equipment in emergencies.



**Line height change**  
Line height is adjustable by changing screw legs.



**Plate for anchor**  
Secures units firmly in position.



**Remote indicator**  
Can be placed in more convenient location.



**Cross plate**  
Provides smooth product transitions and prevents product accumulation.



**Product guide**  
Provides accurate product positioning on conveyors.



**Wind shield (full cover)**  
Deflects air current from side, above and below.



**Wind shield (top)**  
Deflects air current from above.



**Wind shield (protector)**  
Deflects air current from side.

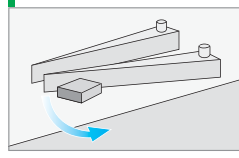

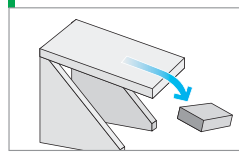

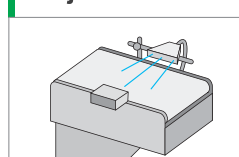

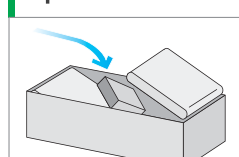

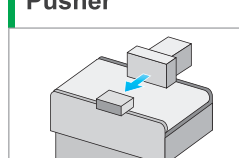

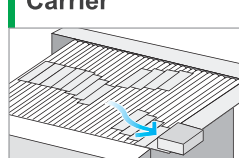



**Mobile monitor**  
Allows real-time viewing of measurement and evaluation data from remote location. (software only)



**CE**    **CE & FCC marking**

■ **Rejector**

<p><b>Flipper</b></p> 	 <p>Highly versatile</p> <ul style="list-style-type: none"> <li>Cartons</li> <li>Thick bags</li> </ul>	<p><b>Dropout</b></p> 	 <p>For thin products</p> <ul style="list-style-type: none"> <li>Thin bags</li> <li>Sheets</li> </ul>
<p><b>Air jet</b></p> 	 <p>High speed</p> <ul style="list-style-type: none"> <li>Light individual-packaged products</li> </ul>	<p><b>Up and Out</b></p> 	 <p>For thin products</p> <ul style="list-style-type: none"> <li>Thin bags</li> <li>Sheets</li> </ul>
<p><b>Pusher</b></p> 	 <p>Gentle handling</p> <ul style="list-style-type: none"> <li>Cartons</li> </ul>	<p><b>Carrier</b></p> 	 <p>For open-topped containers</p> <ul style="list-style-type: none"> <li>Cans</li> <li>Jars</li> </ul>



### Simplified Support

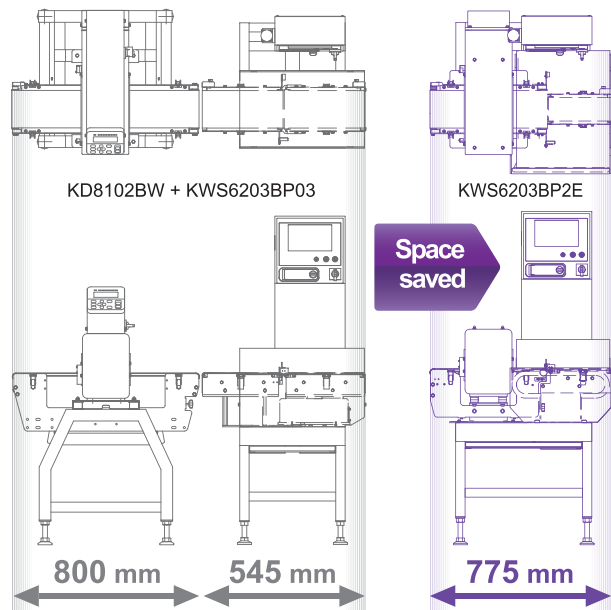
A single source technology, support and service provider ensures equipment consistency and reliability for the life of the system.

## Compact and Reliable Inspection

### Reduced space requirement

**Minimum system length of 775 mm**

Possessing an extremely small foot print, line space requirements are minimized and line integration is simplified.



### Simplified Operation

**User-friendly single touch screen**

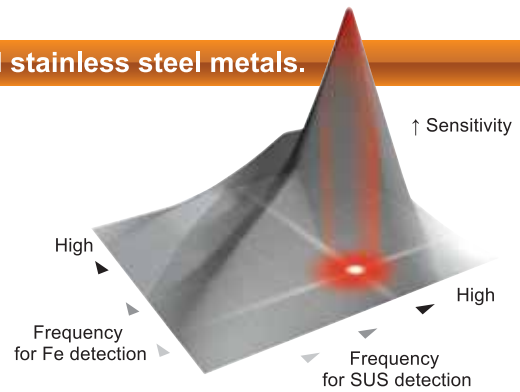
Both metal detector and checkweigher are controlled by the standard touch screen control panel.



## Anritsu's exclusive "dual-wave" technology

Proper frequency is chosen for ferrous, non-ferrous and stainless steel metals.

Since metals respond differently to different magnetic field frequencies, it is difficult for conventional single frequency systems to detect both ferrous and non-ferrous metals. Anritsu has patented a dual-frequency inspection system, which automatically determines the best frequencies to maximize sensitivity for both ferrous and non-ferrous metals simultaneously.



## Two Different Detection Heads

High sensitivity and functionality duw-h and standard duw.

### Standard duw

Simultaneous dual frequency metal detection — optimized for both stainless steel and ferrous metals at the same time.

### High Sensitivity duw-h

Enhancement to standard duw includes improved signal processing and head design for optimal sensitivity and system stability.



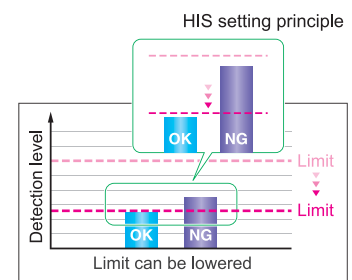
### Features of duw-h series

#### High sensitivity and high stability

The search head's design features a high resistance to mechanical vibration and electrical noise, creating an optimized magnetic field. With detection software tuned for the improved head, the duw-h series supports three times better signal to noise ratio and an increase in contaminant detection by two ranks (in-house comparison).

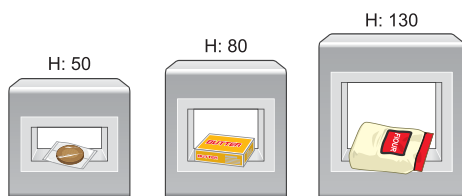
#### Enhanced automatic settings

- **HIS (High Sensitivity) setting**  
Automatically analyzes product and contaminant properties during the auto-learn process. Detection limits are set precisely and reliably for optimal contaminant detection.
- **Auto-limit function**  
Automatically set the best evaluation limit.
- **Auto-tracking function**  
Prevents false rejects by compensating for product/temperature changes.

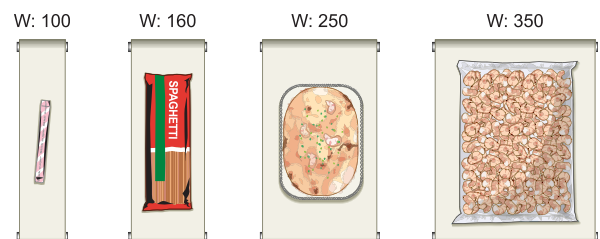


### A wide size range for various applications

#### ◆ Pass height of detection head (typical examples)



#### ◆ Belt width (typical examples)



\*The illustrations are examples of available applications only.



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- Some products shown in this catalog may not be available in your country or region. Contact our sales representatives for details.
- To ensure proper operation, read the Operation Manual before using the machine.
- In addition to daily inspection, an annual maintenance check should be carried out.

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