Anritsu

SSV series
Checkweigher

27.56 g

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

Improved Productivity

Operation Support
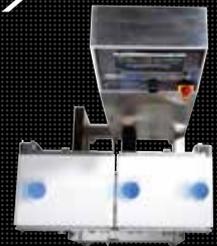
Weighing and Rejecting

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: ±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: ±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: ±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: ±0.015 g

2011
SSV series
[Main model: KWS6003BP03]
- Maximum speed: 310 products/min
- Scale value: 0.001 g
- Maximum accuracy: ±0.01 g

Easy to follow

Operation guidance

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 ±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
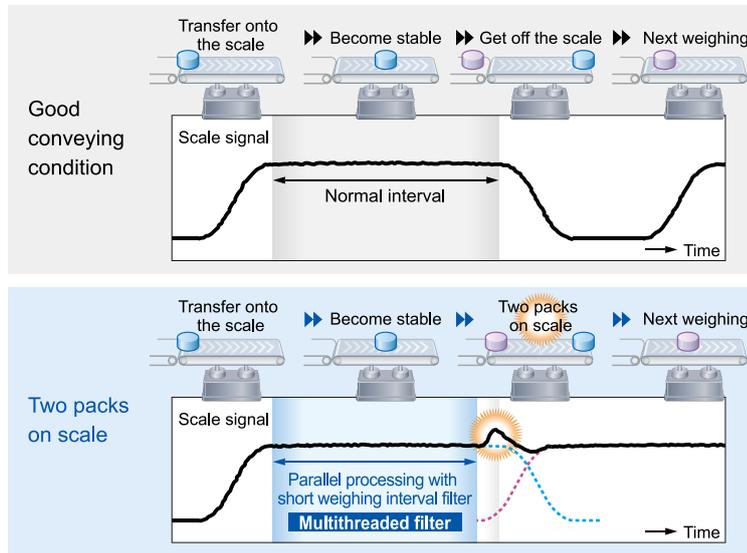Equipped as standard

SMF

Improved Productivity

Anritsu proprietary technology

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

Point

Accurate weighing

Good conveying condition

Transfer onto the scale ▶▶ Become stable ▶▶ Get off the scale ▶▶ Next weighing

Scale signal

Normal interval

Time

Two packs on scale

Transfer onto the scale ▶▶ Become stable ▶▶ Two packs on scale ▶▶ Next weighing

Scale signal

Parallel processing with short weighing interval filter

Multithreaded filter

Time

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.
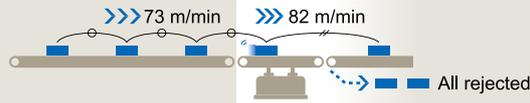

Example — Rejection down, yield up with SMF

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.

⟩⟩⟩ 73 m/min ⟩⟩⟩ 82 m/min

All rejected

● 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.

⟩⟩⟩ 73 m/min ⟩⟩⟩ 73 m/min

Properly measured

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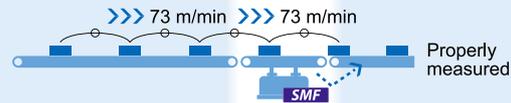
● Double products rejection is down. **Double products error rate is 0.03%**
● Scale accuracy is maintained to **0.35 g**

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 p/min × 60 min/hour × 8 hour/day × 25 day/month × 12 month

● 28,8 million products × 0.12% = **34,560 products** / year
● With change of feeding amount due to increased accuracy: 28,8 million products × 0.4 g = **11,520 kg** / year
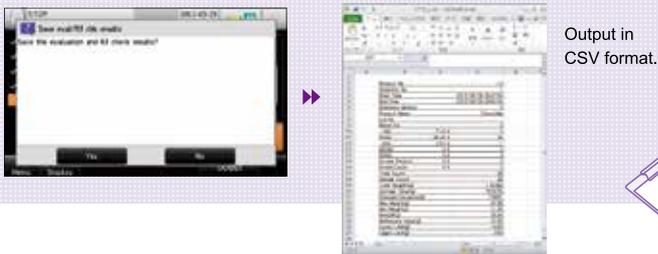
Note: This data was obtained with difficult products, unstable and having long settling times. Improvements will vary depending on packaging, product and SSV model.

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

● **Easy-to-follow instructions make each operation simple**
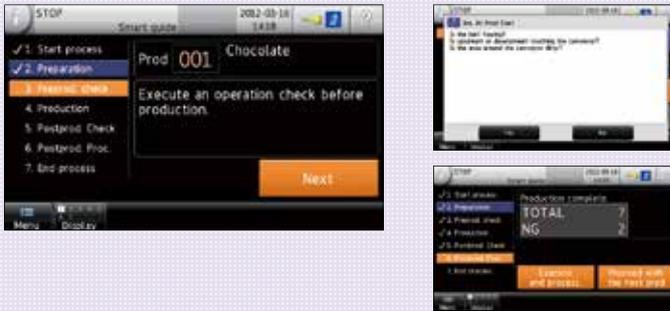
● **Outputs e-Daily Report**

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

Operation Support

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 ?

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

Operators

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.

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 !

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

Learning new equipment can take a lot of time.
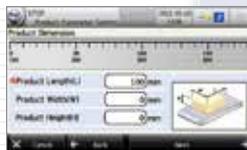
A **You can create e-Report with Smart Guide.**

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

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.

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.

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.

Can we use a checkweigher in wet environment?

Corporate manager

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.

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.

Quality control manager / Site supervisor

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.

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

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	☑ Stainless steel	☑ Painted
Conveyor	☐ Waterproof	☑ Non waterproof
Balance	☑ Force balance	☐ Strain gauge
Frame	☑ Stainless steel	☑ Painted

Waterproof

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	☑ Stainless steel	☐ Painted
Conveyor	☑ Waterproof	☐ Non waterproof
Balance	☑ Force balance	☑ Strain gauge
Frame	☑ Stainless steel	☐ Painted

Versatile

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	☑ Stainless steel	☑ Painted
Conveyor	☐ Waterproof	☑ Non waterproof
Balance	☐ Force balance	☑ Strain gauge
Frame	☑ Stainless steel	☑ Painted

Refer to separate catalogs for specifications.

Unit construction Select the best combination

Control panel exterior	Conveyor	Balance	Frame	Display
Stainless steel High protection **Painted** Low cost	**Waterproof** **Non waterproof**	**Force balance** High speed and high accuracy **Strain gauge** Low cost (Non waterproof) (Waterproof)	**Stainless steel** High protection **Painted** Low cost	**Color LCD touch screen** 479.99

■ Option
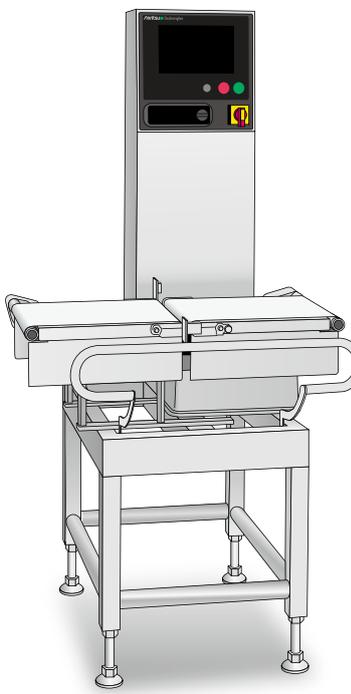
Tower light (with buzzer alarm)

Supports remote monitoring.

Data printer

Prints inspection results.

Emergency stop switch

Stops equipment in emergencies.

Line height change

Screw legs allow for easy height adjustment.

Anchor plate

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.

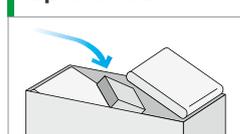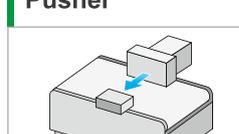**Wind shield (protector)**

Deflects air current from side.

Mobile monitor

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

CE & FCC marking

■ Rejector

Flipper

Highly versatile

Cartons
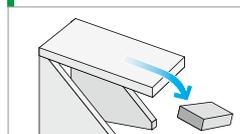
Thick bags

Air jet
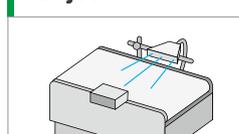
High speed

Light individual-packaged products

Pusher

General purpose

Cartons

Dropout

For thin products

Thin bags

Sheets

Up and Out

For thin products

Thin bags

Sheets

Carrier
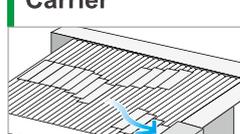
For open-topped containers

Cans

Jars

with Metal Detector

SSV series · **M6n** · **M5** Dual Wave

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.

KDS2105ABW + KWS6205BP05   KWS6205BP2G

Space saved

800 mm   545 mm   775 mm
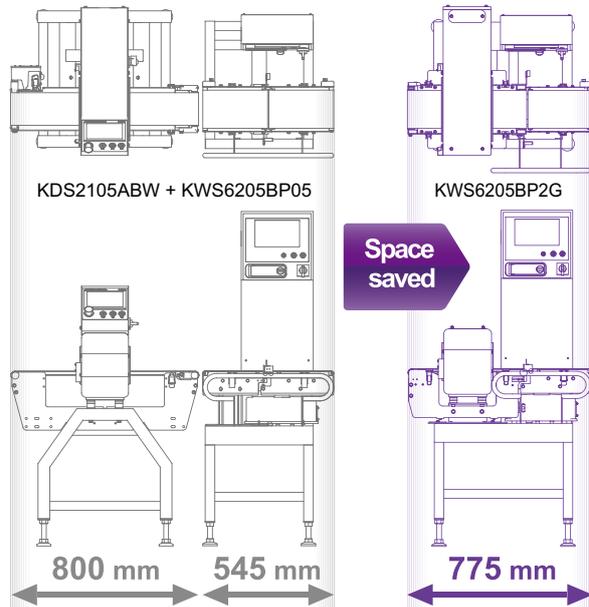
Simplified Operation

User-friendly single touch screen

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

Simplified Support

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

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.

↑ Sensitivity

High

High

Frequency for Fe detection

Frequency for SUS detection
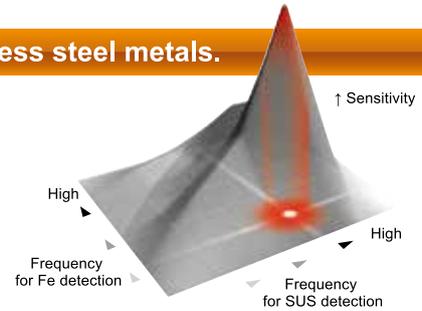
Two Different Detection Heads

High sensitivity and functionality M6-h and M5.

High Sensitivity
M6-h

Anritsu's unique dual-wave detection technology minimizes product effect to deliver high performance and stability.
The M6-h is the next evolution of the industry's first simultaneous 2 frequency detection systems.

Entry
M5

Built-in support features - Product Registration Navigation and Troubleshooting Help Screens - improve productivity and accuracy.

■Features of M6-h series

Advanced Digital Signal Processing

Built-in digital signal processing (patent pending) better isolates product effect and minimizes its impact on detection. Outstanding detection made easy.

Product effect value

Contaminants

Product

Time

Product effect value

Product effect reduction

Time
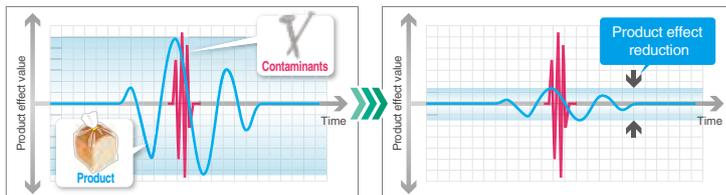
### Vibration and electrical noise resistant

Metal detectors look for fluctuations within magnetic fields when the product passes through the detector head. Since the magnetic fields are affected by external sources such as floor vibration and inverters from nearby machines, a metal detector must be designed to handle these challenges. With this in mind, Anritsu's detection heads are designed to provide high sensitivity without sacrificing repeatability and reliability.

■A wide size range for various applications

♦Pass height of detection head (typical examples)

H: 50

H: 80

H: 130
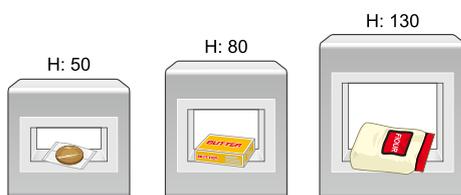
♦Belt width (typical examples)

W: 100

W: 160

SPAGHETTI

W: 250

W: 350
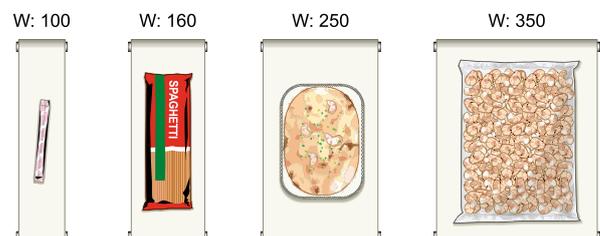
＊The illustrations are examples of available applications only.

Dual-Lane Checkweigher

SSV series

Optimize Your Production Line Efficiency

For tubes, pouches, and flow wrapped products

Ideal for dual-lane filling and packaging lines

Ideal for dual-lane filling and packaging lines for tubes, pouches, and flow wrapped products. Various weighing ranges, and conveyor lengths, widths and pitches available.

Same functions as single-lane checkweighers and excellent ease of use

Simple operation by a single indicator

● Operates each lane independently with just one indicator to meet daily production requirements.

● Statistical display of average weight and weight variations help the operator understand production trends for optimizing filling processes.

● Smart Measurement Function avoids double product error, minimizing unnecessary rejects and thereby maximizing line productivity (see page 4 for details).

● Advanced load cell ensures accuracy and repeatability as high as those of single lane checkweighers.

External View
KWS5265GW02

Unit: mm

NOTE
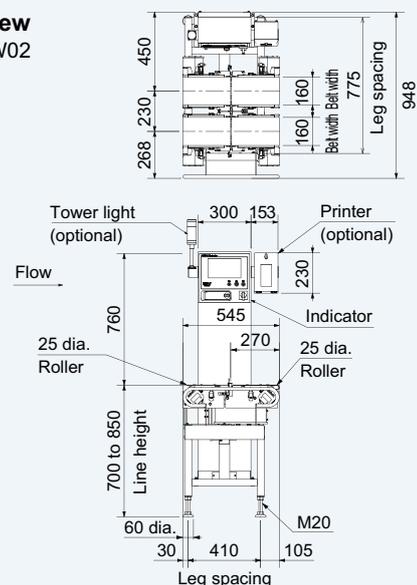
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