Anritsu

Pharmaceutical Metal Detector

for tablets and capsules

M6in

Anritsu Pharmaceutical Metal Detector with Three Leading-Edge Technologies Offers Advanced Quality Control.

Pharmaceutical Metal Detector
for tablets and capsules

Delivers on the actual production line

High Stability

▸p4

Industry-leading level

High Sensitivity

▸p5

Maintain high quality production

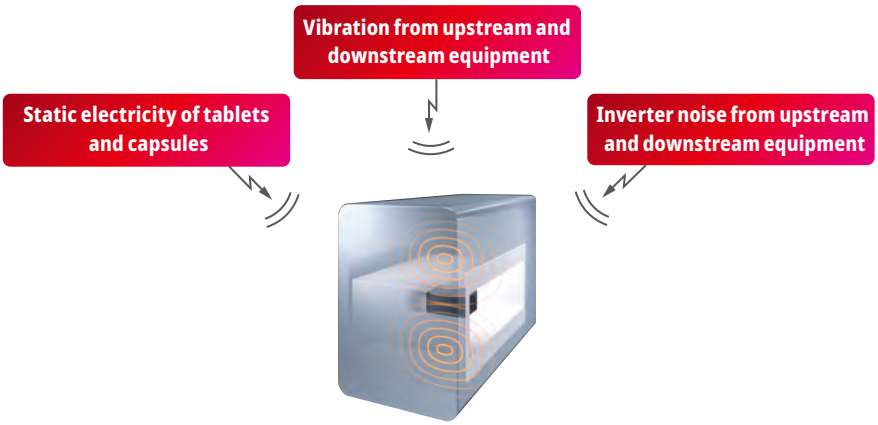
Validation

▸p6-7

Achieve advanced quality control

High Stability Supports Efficient Detection of Contaminants

The major causes of lower stability in metal detection are vibration, static electricity, and electrical noise from peripheral devices that destabilize the magnetic fields in detection heads. Anritsu Pharmaceutical Metal Detector enhances resistance to these negative factors, achieving stable and accurate detection of contaminants.



Vibration Resistant

Vibration from upstream and downstream equipment such as tablet machine, capsule filling machine, and powder removing machine can cause false rejection. Digital signal processing is equipped to minimize vibration noise, enhancing stability against vibration.

Measures for Static Electricity

Static electricity of tablets and capsules can cause false rejection. Anti-static chute (optional) reduces amplification of static electricity, minimizing incorrect operation.

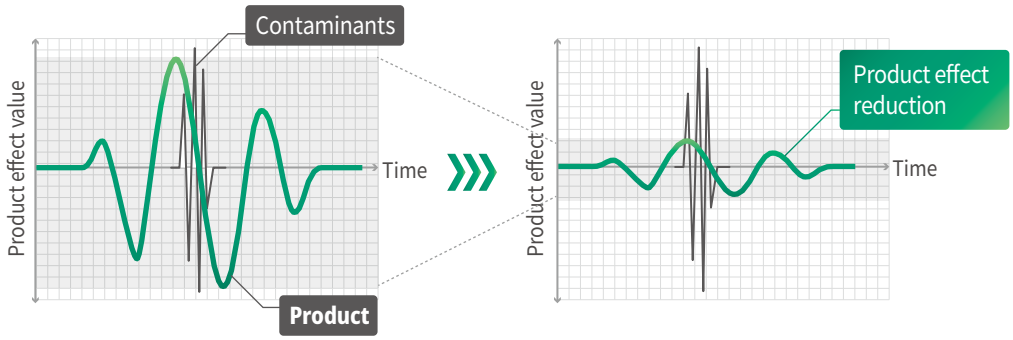
Resistance to Noise from Peripheral Devices

Inverter noise from upstream and downstream equipment can lower stability of metal detector. Enhanced signal processing increases resistance to inverter noise from upstream/downstream devices, providing stable detection sensitivity on your production line. Our metal detector is equipped with a unique function capable of avoiding noise by an operator.

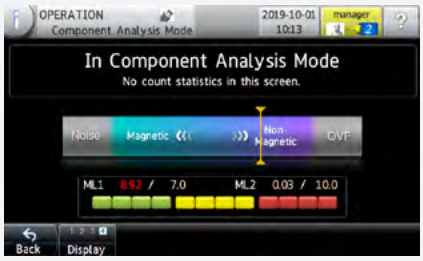
Industry Leading Level*
High Sensitivity Inspection

Detection head and signal processing specialized for the inspection of pharmaceutical products significantly reduce product effect, providing high sensitivity detection. For most tablets and capsules, no setting using sample products before the inspection is required. No complicated adjustments are required for achieving high detection sensitivity. Even those tablets and capsules containing hard-to-inspect ingredients such as iron content can be adjusted to optimum sensitivity by feeding a product only once.

*According to an in-house research



Instantly analyze magnetic and non-magnetic materials in metal contaminants.



Anritsu Pharmaceutical Metal Detector can look at whether the contaminant is magnetic material or non-magnetic material without breaking tablets and capsules. In a conventional method, a special inspection device is used to conduct the breaking test and identification of contaminants. However, it takes time to obtain the result with this method. This function helps the operator to check the property of contaminants before conducting the breaking test.

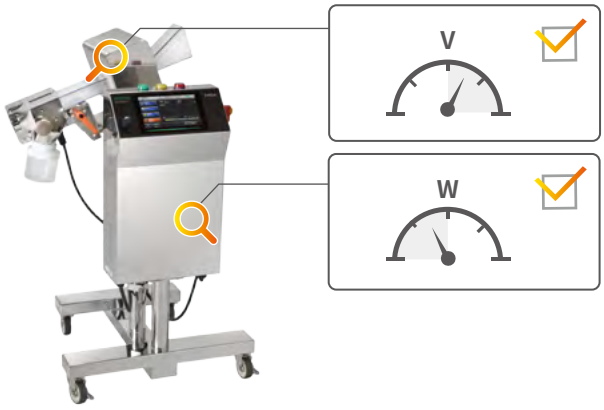
*Since it is not a stringent function performed by a calibration, analytical accuracy cannot be guaranteed.

Validation Provides Advanced Quality Control

Built-In Monitoring Function Verifies Correct Operation of Metal Detector.

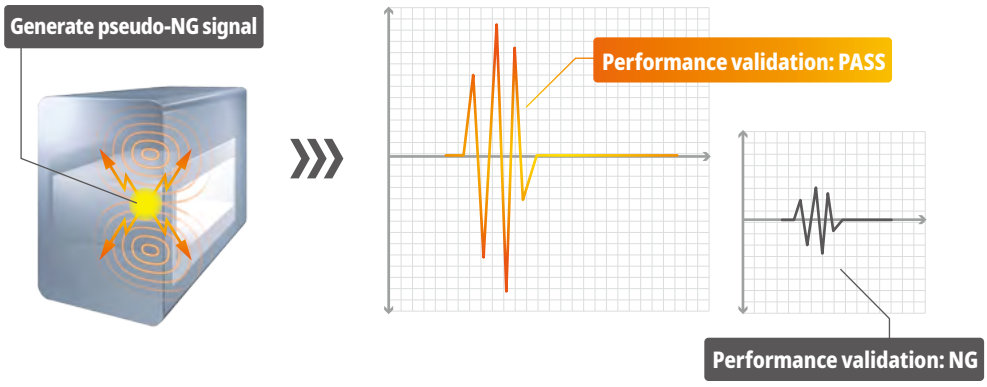
Continuous monitoring for internal machine

The built-in automatic monitoring function constantly monitors the internal machine during the production and gives an error notice instantly to alert the operator of a problem when it occurs.



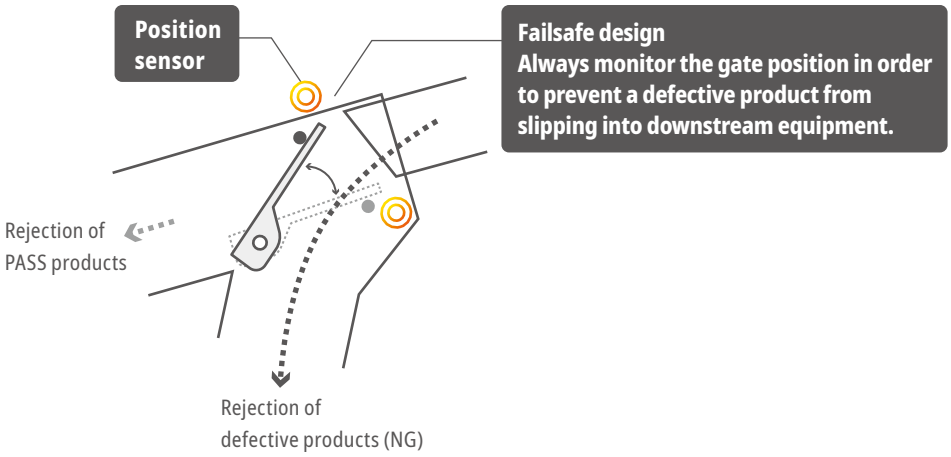
Self-diagnosis of detection performance

This diagnostic function allows the operator to check if the machine maintains the same performance level as was initially installed in the facility.



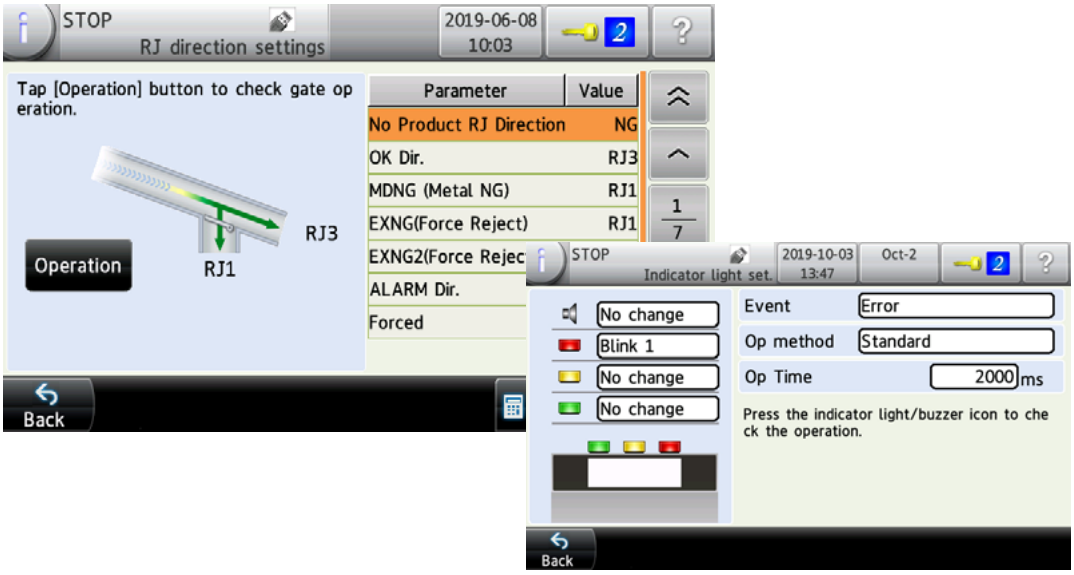
Duplex monitoring system for rejection gate operation

A rejection unit is equipped with a position sensor on both PASS and NG sides to perform position check at the time of starting the machine and detecting contaminants. The failsafe design enables the rejection unit to hold at the NG direction at the time of non electric conduction and occurrence of abnormality, preventing false rejection of faulty products as well as any product that does not satisfy the evaluation criteria to the PASS direction.



Support Functions for Validation Process Such as IQ/OQ

Support functions allow the operator to verify the operation check for rejection gates, and the proper setting of sensors on a screen for IQ and OQ process.



Supporting FDA 21 CFR Part 11 (Optional)

It is vital for pharmaceutical metal detectors to manage and record production and inspection data, not to speak of performing high precision inspection. Anritsu Pharmaceutical Metal Detector complies with FDA 21 CFR Part 11, including eligibility user authentication, audit trails, and data encryption/decryption.

Eligibility authentication (User management)

Authentication with user code and password is required for operating the metal detector. Access level can be individually set for each user to prevent unauthorized operations.

Audit trail

The history of operations and actions related to production and results of operation check are internally recorded. The data can be used to monitor fraudulent activity or incorrect operation and analyze the cause of such activity.

Data encryption and decryption

Data is automatically encrypted when saving it to a USB memory stick. When opening encrypted data on a PC, a dedicated conversion tool (software) is required to decrypt the data.

Tool Free Part Removal

Easy clean design

Parts that are in direct contact with pharmaceutical products such as transport chute, rejection box, and NG bottle can be easily removed and attached without tools.

Simple adjustment

The top, bottom, left, and right angles of the transport chute can be adjusted without tools.

Option Introduction

Left and right sorting mechanism

Vertical sorting mechanism of the standard model can be changed to the left and right sorting mechanism. It is useful when the connection height with the downstream equipment is low or the product to be inspected is fragile.

Static eliminator (Ionizer)

Removes static build-up on a transport chute, and the products. Using a static eliminator can prevent false rejection and feeding failure.

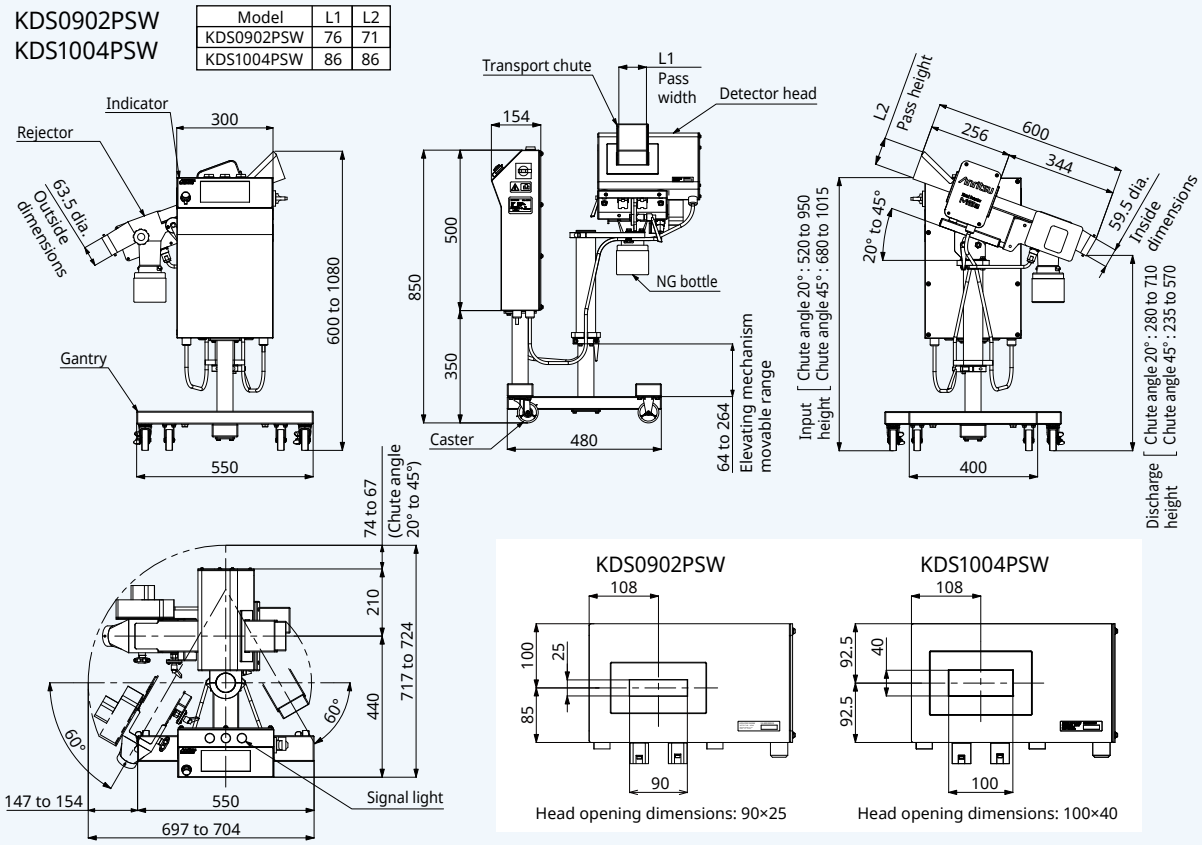
Test piece input/Rejector access window

The test piece can be easily fed through the removable inlet, even if there is no clearance between the metal detector and the upstream equipment. Also, you can access inside of the rejector and the rejection bin through the access window without moving the upstream/downstream equipment.

External Dimensions

KDS0902PSW
KDS1004PSW

Model	L1	L2
KDS0902PSW	76	71
KDS1004PSW	86	86



Units: mm

Specifications

Model		KDS0902PSW	KDS1004PSW
Opening inner diameter		90 mm × 25 mm	100 mm × 40 mm
Chute inner diameter		76 mm × 16 mm	86 mm × 31 mm
Detection sensitivity[1]	Fe	0.22 mm dia.	0.25 mm dia.
	Non-Fe	0.25 mm dia.	0.3 mm dia.
	SUS316	0.37 mm dia.	0.40 mm dia.
Display		7-inch color TFT LCD	
Operation method		Touch panel	
Preset memory		Maximum 200	
Product[2]		Tablets, soft capsules: thickness of 3 mm or more Hard capsules: capsule No. 000 to 5	
Maximum processing capacity[3]		580,000 capsules/h (9,700 capsules/min)	1,800,000 capsules/h (30,000 capsules/min)
Metal detection		Rejection	
Power supply		100 Vac to 120 Vac +10% –15% or 200 Vac to 240 Vac +10% –15%, single phase, 50/60 Hz	
Power consumption		120 VA, rush current 50A (typ.) (20 ms or less)	
Mass		55 kg	
Environmental conditions		0°C to 40°C (variation within ±5°C in the range of 0°C to 40°C), relative humidity 30% to 85%, non-condensing	
Protection class		IP65	
Exterior		Indicator, stand, detection head, and rejection unit: stainless steel (SUS304) Contact part: SUS316L (buff#400 and electro-polishing), FDA-enabled resin	
Data output		USB port as standard equipment Ethernet interface (100BASE-TX as optional)	

1: Maximum detection sensitivity within detection area. Detection sensitivity for actual use may vary depending on the type of contaminants, the physical property of product (temperature of goods, content, and shape) and the environmental conditions.
2: The inspection may not be carried out depending on the size of a product and the conveyance amount.
3: Depends on the product size.
Note: The noise level of the metal detector does not exceed 70 dB (A).

Pharmaceutical Quality Assurance based on GMP

We offer a wide range of inspection solutions including dynamic weighing, contaminant and shape detection for the pharmaceutical manufacturing and packaging process.

Filling control/Weight check

Seal check/Missing tablet check

Tablets

Capsules

Sachets / Sticks

Tubes

Bottles / Cans

Pharmaceutical Metal Detector

Capsule Checkwigher

Pharmaceutical X-ray Inspection System

Built-In Multi-Lane Weighing System

Multi-Lane Checkweigher

Aerosol Inhaler Checkweigher

*Non-conforming to CE marking

Small Bottle Checkweigher

*Non-conforming to CE marking

Supporting CSV guidelines :

Validation support

Anritsu also provides IQ/OQ checklists and on-site support during PQ process.

Supported by Anritsu

Specifications required	DQ	FAT	IQ	OQ	PQ	Completed book	PV
	Plan : Estimated product specifications Report : Specifications for approval	Plan : Report	IQ Checklist	OQ Checklist	On-site support	Submit documents based on specifications required	

Missing Biister pack check

Missing insert check (magnetic ink)

Missing pack check

Missing carton check

SSV-h Series Checkweigher conforming to CFR 21 Part 11

*MID approval

M Series Metal Detector

*Non-conforming to CE marking

SSV-h Series Checkweigher

*MID approval

Case Checkweigher

*Non-conforming to CE marking

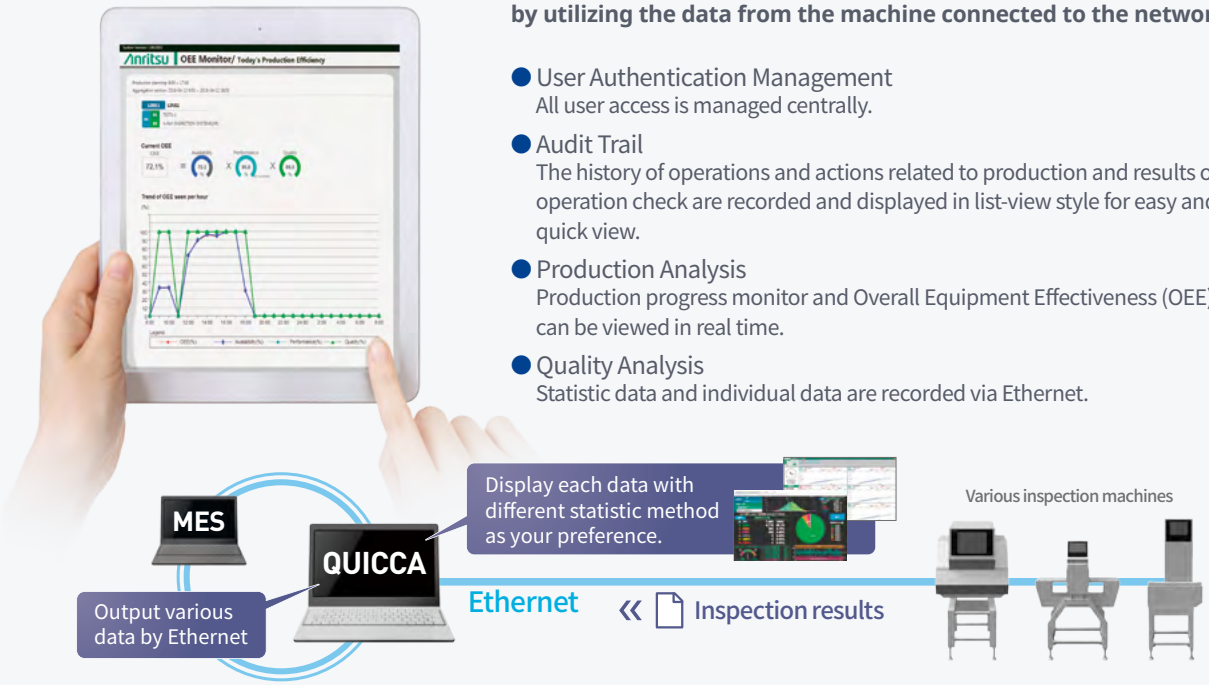
Quicca Pharma

Overall Quality Management and Control System for Pharmaceutical

Support making good use of data by various CFR 21 Part 11 complied funcitons.

Delivering Data Integrity as specified by CFR 21 Part 11 by utilizing the data from the machine connected to the network.

- User Authentication Management
  All user access is managed centrally.
- Audit Trail
  The history of operations and actions related to production and results of operation check are recorded and displayed in list-view style for easy and quick view.
- Production Analysis
  Production progress monitor and Overall Equipment Effectiveness (OEE) can be viewed in real time.
- Quality Analysis
  Statistic data and individual data are recorded via Ethernet.



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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, a full maintenance inspection should be completed annually.

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