

# Anritsu

envision : ensure

ANRITSU INFIVIS



## Corporate Brochure

## Providing reassurance: side by side, boundlessly and globally



President **Masumi Niimi**

Anritsu Infivis is a member of the established Anritsu Group, which boasts a history spanning over 120 years. Since the start of food industrialization in 1965, we have been working together with our customers in the foodstuffs and pharmaceuticals industries and cultivating advanced technical and on-site capabilities in quality inspection for over half a century. It is thanks to our customers that we have been able to accumulate such strengths. So I would like once again to express our gratitude.

The 2020 VISION outlines the shape of the Company in 2020. It has established the aim to “become a global market leader with world-class quality assurance solutions” through the provision of “products pursuing quality assurance” and “high-quality services” and by creating and developing together with our corporate clients.

Nowadays, consumers’ expectations for quality assurance in foodstuffs and pharmaceuticals are ever increasing. To meet these expectations, we must not only focus on the mass and contamination with foreign objects, but also on diversified and sophisticated inspection methods and devices that cover areas such as the shape, packaging and labeling of products. Furthermore, expectations are rising for quality assurance solutions such as traceability systems and information management systems with security systems by camera monitoring.

In order to meet these consumer needs, we are continuing to refine our “sincerity, harmony and enthusiasm,” which represent the spirit of Anritsu we have inherited, as well as our “Original & High Level” products and services, which are behind our successes. We are committed to working even more closely with our customers and business partners in the foodstuffs and pharmaceuticals industries so that we improve together and find sophisticated solutions for quality assurance issues.

We will continue to share our vision with customers and take up the challenges for realizing a stable supply of safe foodstuffs and pharmaceuticals by providing more advanced quality assurance. We are dedicated to realizing a future when people around the world can live safe, secure and prosperous lives.



# Infinite -vision

Realizing a safe and secure society where everyone can live a healthy and abundant life is a desire shared by all human race.

Since the industrialization of food began over half a century ago, we have been cultivating our high technological and on-site business capabilities of quality inspections with our customers engaged in the food and pharmaceutical product industries.

We will continue to share visions with our customers and strive to realize a stable supply of safe food and pharmaceutical products through enhancing quality assurance.

Infivis embodies  
Infi(nite) future possibilities in the  
-vis(ion) we share with our customers

We will continue to work towards realizing a future  
where all people can live safely, securely, and healthily.

Always by your side

**ANRITSU INFIVIS**



## Genuine One – the Heart of a Solution

Our X-ray Inspection Systems can detect contaminants in foodstuffs in sizes less than a millimeter. This vigilant protection of food safety and security is the result of fusion of Anritsu's X-ray and signal-processing technologies.

Anritsu designs and develops unique technologies that form the hearts of powerful solutions, such as our X-ray control units and signal-processing circuits. Inspection Equipment is a vital part of customers' quality-assurance frameworks. Its reliability must be unassailable.

In delivering our quality-assurance solutions to customers, we at Anritsu take pride in developing each system with our own hands, subjecting it to repeated and rigorous tests until we are absolutely confident of its quality. This is the spirit of true craftsmanship with a goal to exceed our customers' expectations.

From the hearts of true craftspeople emerge the hearts of true solutions. Anritsu takes pride in delivering solutions that proceed from this true nature.

A male technician with dark hair, wearing a white lab coat with green accents on the sleeves, is focused on adjusting a piece of electronic equipment. He is in a testing chamber with dark, pyramid-shaped acoustic or electromagnetic shielding. In the foreground, there is a computer monitor displaying a graph with green and blue lines. Various cables and components are connected to the equipment on the desk.

Electromagnetic compatibility (EMC) testing examines whether the electromagnetic waves generated by an electronic device adversely affect other electronics in their vicinity, or if the effect of external electromagnetic waves cause damage or malfunction in an electronic device. Anritsu subjects all of its devices to strict EMC proving tests, based on ISO standards. Our X-ray detectors, which incorporate high-frequency circuit boards, are obvious candidates for EMC testing. Anritsu conducts a battery of rigorous tests of the many combinations among the various components of these devices, ensuring that they can be used with complete peace of mind.



## Contaminant Inspection Solutions

Discover What You've Been Missing

**Commitment to real solutions yields sophisticated quality control.**

### X-ray Inspection

[Contaminant Detection]  
[Quality Inspection]

X-ray inspection renders visible things that cannot be seen directly. The applications are constantly expanding for this powerful technology, which is used not only for inspection for contaminants but also to detect defects in shape, quantity and other aspects. Always searching for greater reliability and sophistication in quality control, Anritsu continues to develop original solutions for X-ray inspection.



#### Product lineup

High Definition Models, Ultra High Definition Models, For unpackaged products, For large and wide products, etc.

**Unique ideas and technologies yield highly reliable metal inspection.**

### Metal Detection

[Detection of Ferrous/Nonferrous Metals]  
[Detection of Metals in Aluminum Packaging]

Anritsu boasts a long history in Metal Detectors as a basic means of inspecting for certain contaminants. Using the properties of magnetic fields, these systems detect metals such as iron, stainless steel and aluminum. Anritsu's original ideas and technology enable metal detection with outstanding sensitivity and stability.



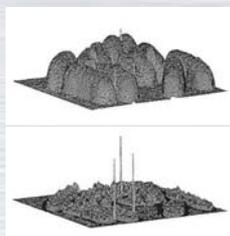
#### Product lineup

duw series: Standard models, High-sensitivity models, For bottles, etc.  
M series: For aluminum foil packaged products

#### Topics

**Anritsu's superior expertise in image processing and electronics open new horizons in high-sensitivity detection and fine customization.**

Before signal processing, X-ray images tend to suffer from considerable noise, deriving from the shape, consistency and other characteristics of the product. With the patient accumulation of original research, Anritsu succeeded in developing a number of powerful algorithms for signal processing and image analysis, enabling it to extract accurately just the signals generated by contaminants. Moreover, because we develop all our products in-house, we know the details of our products inside and out, so we can precisely tune each component to each customer's needs. The result is the delivery of customer-specific X-ray inspection solutions as only Anritsu can.

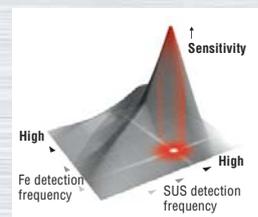


The image above is the unprocessed image; the image below shows the 3D image rendered after image processing. Different image filters highlight different contaminants.

#### Topics

**Magnetic-field control: A prescient technology, courtesy of our engineers' relentless spirit of inquiry.**

Anritsu Metal Detectors find contaminants by detecting fluctuations in magnetic fields, which are generated when contaminants pass across their sensors. Different metals have different characteristics, among which are the frequencies at which they react to magnetic fields. As one of the first companies to recognize the phenomenon, Anritsu quickly patented a series of technologies for high-precision detection of these various metals. After overcoming a procession of technological obstacles, Anritsu succeeded in developing commercial applications. This remarkable innovation in such a mature field was made possible by the relentless spirit of inquiry of Anritsu's talented engineers.



Simultaneous detection using two magnetic fields: Magnetic fields are generated at two frequencies to detect both Fe and SUS with high sensitivity.



**Solutions for Check-weighing**

From Scales to Checkweigher, Anritsu designs and develops all products in-house. This 'Total Integrated System enables Anritsu to develop highly flexible solutions, precisely meeting the needs of its customers.

**Weight Inspection**

- [Quantitative Inspection]
- [Missing Product Detection] [Automatic Grading]

Automatic Weight Inspection Equipment (Checkweighers) is indispensable in checking for product weight and missing products. Anritsu's Checkweighers not only weigh products with high speed and precision, but also easily link with data from fillers and packagers to serve a proving and recording function, supporting Good Manufacturing Practice (GMP) validation as well as quality-control systems such as Hazard Analysis and Critical Control Point (HACCP). To ensure accurate response to each customer's precise needs, Anritsu offers an extensive lineup of these systems, delivering comprehensive solutions for quality control.

**Product lineup**

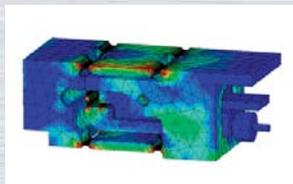
SSV Series: High accuracy and High speed models, Waterproof models, Versatility models  
 For large and wide products, For bottles, For capsules, For fresh fish, etc.



**Topics**

**An extensive track record: Anritsu's dynamic weighing technologies deliver exceptional speed and accuracy.**

Anritsu's electromagnetic balance can conduct up to 600 weight measurements per minute, with milligram-level precision. Using a highly rigid structure and Anritsu's original dynamic-filter technology, this system achieves unbelievable measurement speed and accuracy. Technologies such as these are the product of Anritsu's tradition of uncompromising design combined with repeated and patient simulation, testing and proving. Farsighted processes such as these are the key to Anritsu's success in technological evolution. Though each scale may be small, each represents over 40 years of painstaking progress in measurement technology at Anritsu.

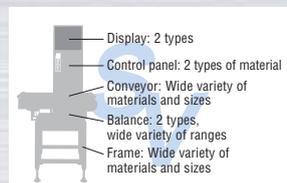


Hardness simulation using CAD

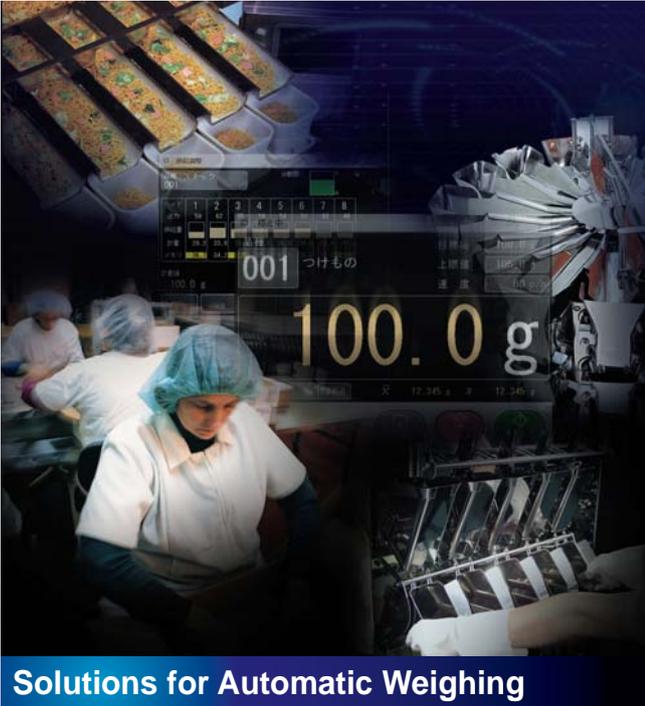
**Topics**

**A lineup of over 700 products: Close attention to customer needs led to the adoption of modular construction.**

Whatever the product, from candies of just a few grams to sacks of sugar weighing 30kg, Anritsu has the right weighing solution for each customer. The variety of customer needs is endless, varying by size, length and shape of items weighed, speed of the production line, and many other factors. Since its earliest days, Anritsu customers have demanded custom-made weight-measurement systems. To better serve this demand, Anritsu developed the SV Series Checkweighers, which are manufactured using a modular construction system. A series of units can be easily combined to furnish a highly varied lineup of over 700 device types, ensuring a perfect match for virtually any customer need.



Overview of the SV Series' modular construction system



**Solutions for Automatic Weighing**

**Gentleness is a key characteristic for Anritsu automatic-weighing products.**

**Automatic Combination Weighers**

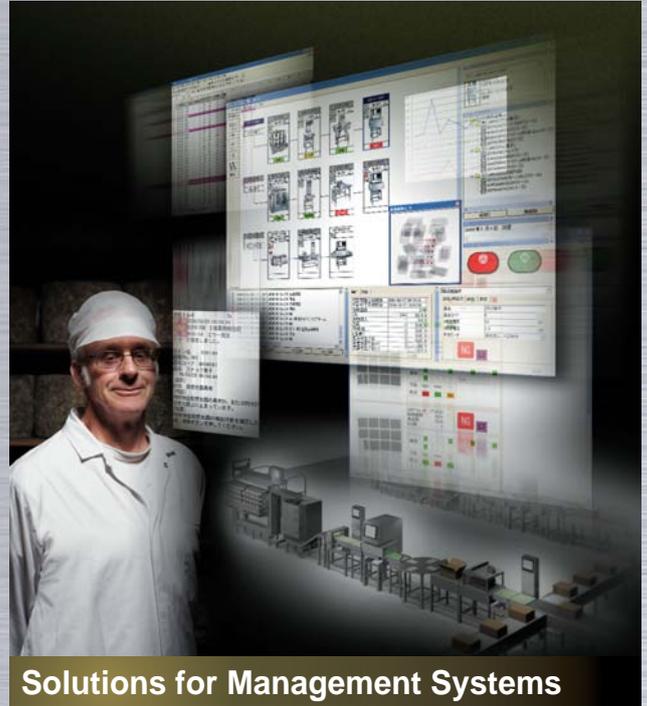
[Single-type weighing]  
[Mixed weighing]

The power of Automatic Combination Weighers is clearly evident in processes that fill and package specified weights of foodstuffs at high speeds. Anritsu Automatic Combination Weighers not only deliver high speed and precision, but also incorporate a wide palette of techniques for protecting food and maintaining hygiene. Our weighing solutions are gentle to customers in numerous ways.



**Product lineup**

For dry foods (snacks, candies, pasta, chocolates, etc.),  
For wet foods, For sticky foods, etc.



**Solutions for Management Systems**

**Anritsu supports superior quality control with system solutions tailored to each production site.**

**Production /Quality Management Systems**

[Comprehensive Production Management System],  
[Traceability System], etc.

Large-scale food-production lines incorporate dozens of processing devices and inspection devices. To ensure both productivity and quality, devices must be monitored in real time and carefully controlled. Drawing on a wealth of expertise, Anritsu creates system solutions that meet and exceed customer expectations in production and quality control.

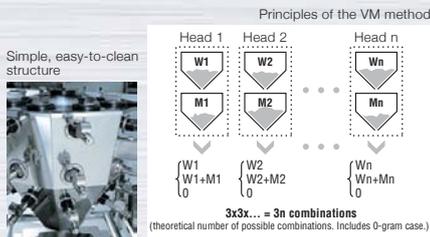
**Product lineup**

Quicca:Overall quality management and control system,  
Control and monitoring systems

**Topics**

**High performance in a simple structure: Excellence in Automatic Combination Weighers springs from original ideas at Anritsu.**

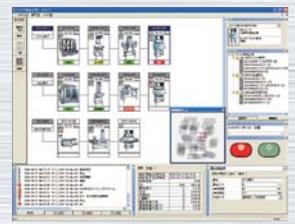
Generally, the faster a weighing system operates, the more complex its structure needs to be, and the greater grows the possible damage to the foodstuffs it measures. To solve this problem, Anritsu created the Vertical Memory (VM) method. This revolutionary system delivers a quantum leap in weighing precision while radically simplifying the structure, ensuring that the products measured are handled gently at all times.



**Topics**

**We add a rich mix of techniques and innovations to make production managers' burdens lighter.**

"Is there trouble anywhere? Are we maintaining quality?" The work of a production-line manager can take a considerable toll on the nerves, especially in the modern age of 24-hour, large-scale factory automation. Anritsu's comprehensive production management and control systems do far more than just gather production data. They also provide a basket of services to reduce managers' stress, such as remote control from the control office and alerts to mobile telephones in cases of trouble. These innovative tools alleviate the burden of production management and deliver powerful backup for excellent quality control.



Quicca:Overall quality management and control system

## Exceeding Customer Expectations

The cost of production equipment is not modest. If a company purchases equipment for its production line and then finds that the equipment does not fulfill expectations, it can face disaster. Mindful of this responsibility, we at Anritsu place high priority on our support services.

Beyond customer expectations requires more than just selling equipment. We pull out all the stops to add value before and after the equipment installation.

At Anritsu, that satisfaction is a solemn commitment.

This is sample test using a metal detector. Detection sensitivity and other benefits of installation are carefully confirmed, using the same model as the one the customer has decided to buy.

## Peace of mind before purchasing: Sample testing service

Before selling any inspection system, Anritsu conducts a battery of sample tests. Using actual products, we confirm the level of precision achieved under actual working conditions. Because detection accuracy and optimum conditions can be confirmed in

advance, customers can purchase Anritsu products with complete peace of mind. Even if the test results do not meet customer expectations, Anritsu can examine and propose solutions.

## Comprehensive support for quality control ensures maximum effectiveness: Technical seminars

One way we ensure optimum performance is through a wide range of technical seminars. These series of presentations cover an array of topics from operating principles and usage procedures to the latest trends in quality-control technology. Many seminars are presented regularly and are open to the

public, while more specialized seminars can also be prepared for the specific needs of individual customers. In each case, our goal is to provide comprehensive, multifaceted support for our customers' quality-control activities.

Various technical seminars



Anritsu performs product tests and offers technical seminars in various countries.



## Safe operation forever: Preventive-maintenance workshops

Inspection systems are precision machines. Maintaining them in good condition over the long term requires accurate knowledge and regular inspection. With this goal, Anritsu offers preventive-maintenance workshops, aimed at the operators who use the equipment on production lines. These

workshops offer knowledge on handling the products safely, routine maintenance procedures, and other useful tips. Because they deal with actual conditions on the customers' production sites, the workshops are consistently practical, easy to understand, and well-received.

# Comprehensive support, including excellent maintenance services, is our strength.

Even with the most careful use, machines inevitably become damaged and worn. That's why Anritsu offers a suite of maintenance services to ensure that Anritsu's high-performance products last longer and perform their best.



**In the production-equipment business, a product without a maintenance package is of little use**

In the production-equipment business, a product without a maintenance package is of little use. With every Anritsu product, our mission is to deliver tangible benefit to customers. After-sale service plays an important role in fulfilling this goal, maintaining equipment in good running condition and ensuring rapid response in the event of trouble. At Anritsu, when we sign a vendor contract

with an agency in any country, we ensure as a non-negotiable condition that the agency can provide top-notch maintenance service. We also offer service training in each region, improving the technique and knowledge base of service professionals. Whether the customer buys an Anritsu product from a local affiliate, an agency or Anritsu itself, dependable maintenance service is our promise.



This is a service training held in Japan. Technicians learn techniques and gain knowledge through both lectures and practical training.



Agents' technicians who receive our service training will be provided a certificate upon completion.

**Quality Control**

**Our customers' quality control begins with our quality control**

The Inspection Equipment we sell to customers is the foundation on which their quality-control efforts depend. Its stable performance must be assured at all times.

All Anritsu products are manufactured under rigorous quality control, based on the ISO 9001 quality management system.

This commitment ensures the highest standards always, without lapse or exception.

In environmental management systems, Anritsu is certified under ISO 14001, ensuring stringent control over the

environmental impact of our business activities.

Quality control in weight standards is also vital.

A strict traceability system, based on national reference materials, supports uncompromising uniformity in weight.

ISO9001/ISO14001



Metrological Standards Laboratory





Wherever you are in the world, Anritsu is by your side.

### A Global Maintenance Network

Anritsu is strengthening its maintenance network on a global scale. Our goal is to provide customers with the same consistent, high quality maintenance services everywhere in the world. With each passing year, our maintenance network is expanding; today it encompasses some 50 countries and regions. We recognize that customers with a global business reach require dependable maintenance services wherever in the world they operate.



### Service Network

#### Europe

- Austria
- Belgium
- Croatia
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Italy
- Latvia
- Lithuania
- Luxemburg
- Netherlands
- Norway
- Poland
- Portugal
- Russia
- Spain
- Sweden
- Switzerland
- United Kingdom  
(Subsidiary, Agency)

#### Asia and Oceania

- Australia
- China (Subsidiary, Factory)
- Hong Kong
- India
- Indonesia
- Japan (Head Office)
- Malaysia
- Philippines
- Singapore
- South Korea
- Taiwan
- Thailand (Factory, Agency)
- Vietnam

Anritsu Industrial Solutions Europe Ltd.





**Americas**

Argentina  
 Brazil  
 Canada  
 Chile  
 Costa Rica  
 Ecuador  
 Honduras  
 Guatemala  
 El Salvador  
 Mexico  
 Panama  
 Peru  
 United States  
 (Subsidiary, Agency)  
 Venezuela

**Africa and Middle east**

Saudi Arabia  
 South Africa  
 Turkey  
 U.A.E.

**Head office**

Address : 5-1-1 Onna, Atsugi-shi, Kanagawa-Prf., 243-0032 Japan  
 TEL: +81 46 296 6699 FAX +81 46 225 8387

Anritsu Industrial Solutions  
 USA Inc.



Anritsu Industrial Solutions  
 (Shanghai) Co., Ltd.



Anritsu Industrial Solutions  
 (Thailand) Co., LTD.



# Continuous innovation for assured safety and security

— Anritsu

● Anritsu products

- 1895 Sekisan-sha (later renamed Kyoritsu Denki Co., Ltd.) is established.
- 1900 Annaka Electric Company is established.
- 1931 Kyoritsu Denki and Annaka Electric Company merge to establish Anritsu Denki Co., Ltd.



**Applied weighing technologies**



- 1961 Anritsu develops the “electronic micrometer,” a device that measures tiny displacements using the principles of a differential transformer.
- 1964 The technology of the electronic micrometer is refined to develop the “Checkweigher”. Sales are brisk, buoyed by rapidly growing availability of bagged products as supermarkets expand.

**Quantitative measurement**

- 1969 The electronic measurement technology of the checkweighers is applied to the development of Automatic Combination Weighers.



—1975 The Industrial Machinery Division is launched.

- 1973 K513 series, a strategic, low-cost series of Checkweighers, is developed.
- ▽1973: Cumulative sales of Checkweighers reach 3,000 units.
- 1977 Eight series of Checkweighers is launched and becomes a hit product.

**Contaminant Detection**

- 1981 K470 series of Metal Detectors is developed using magnetic-sensing technology.
- ▽1984 Cumulative sales of Checkweighers reach 10,000 units.



—1985 The company name is changed to Anritsu Corporation



Advertises the change in national newspapers



- 1989 Hi series of Checkweighers is developed. The series passes rigorous tests set by public agencies in various Western countries, spurring exports.
- ▽1989 Cumulative sales of metal detectors top 4,000 units.

- 1991 KD80x series of Metal Detectors is developed. Becomes a hit product, with rapid growth in orders from foodstuff producers.



- 1994 FC series of Checkweighers is developed.
- 1994 Clean Cap Scale of Automatic Combination Weighers is developed. Capable of measuring even highly sticky foods, Wins numerous engineering and other awards both in Japan and overseas.



▽1995: Cumulative sales of Checkweighers reach 30,000 units.

—1996 Denshikiki Sangyou Co., Ltd., the Anritsu industrial-machinery sales company, changes its name to Anritsu Industrial Solutions Co., Ltd.



- 1998 IP series of Checkweighers is developed. IP66's water- and dust-resistant features meet HACCP standards.

- 1999 KD80xx series of Metal Detectors



- 2000 SVh series of Checkweighers is developed. GMP validation is obtained, and a wide-ranging lineup is created using modular construction.

- 2000 Clean Multi Scale of Automatic Combination Weighers is developed.



**X-ray Inspection**

- 2000 Anritsu develops X-ray Inspection Systems, ushering in a new age of x-ray and image-processing technologies.

—2002 Anritsu Corporation's industrial-machinery business is integrated into that of Anritsu Industrial Solutions.



- 2002 KD73 series of X-ray Inspection Systems is developed.



- 2003 SVf, SVi series of Checkweighers are developed.

- 2003 Cube series of Automatic Combination Weighers



- 2004 duw series of Metal Detectors
- M series of Metal Detectors



▽2005: Cumulative sales of Checkweighers reach 50,000 units.



- 2006 KD74 series of X-ray Inspection Systems



- 2008 duw-h series of Metal Detectors

- 2011 SSV series of Checkweighers

- 2011 Dual energy sensor technology X-ray Inspection Systems

- 2012 KDS series of Metal Detectors



- 2014 M5 series of Metal Detectors

- 2014 XR75 series of X-ray Inspection Systems



—2015 Anritsu Industrial Solutions Co., Ltd. changes its name to Anritsu Infvis Co., Ltd.

**X-Ray Inspection**  
Over 9,000 installed  
as of March 2016

**Metal Detection**  
Over 50,000 installed  
as of March 2016

**Checkweighing**  
Over 70,000 installed  
as of March 2016

©1968 Anritsu begins exports to Europe.

©1980 Anritsu begins exports to other Asian countries.

Automatic Combination Weighers in a Chinese food plant



©2003 A local affiliate is established in China.

©2005 Local affiliates are established in the United States and the United Kingdom.

©2008 Thailand plant begins its operations.



©2013 China plant begins its operations.

Steady accumulation of wireless technologies, measurement technologies and electronics technologies

Launch of industrial-machinery business

Expansion into overseas markets

Diversification of product fields

Rapid expansion in tandem with Japan's period of fast economic growth

Anritsu expands into contaminant inspection equipment. Consumers' increasingly demand for quality.

Increasingly strict international standards spur advancements in performance and function.

Hygiene management in foodstuff production lines becomes increasingly sophisticated.

Awareness of food-safety issues grows.

Anritsu Industrial Solutions becomes a separate company, reorganizes to enable more nimble operations.

Anritsu attains a truly global business presence.

Anritsu developed its first checkweigher in 1964. Since that time, Anritsu has unflaggingly pursued one technological breakthrough after another. Our products are used not only to measure weight and detect contaminants, but to inspect the quality of products themselves. We also offer a wide range of production and quality management systems and solutions, to establish traceability. By gathering together our wealth of accumulated technologies and solutions, and continually adding new technologies, we are contributing to the achievement of a safer, more secure society.



ANRITSU INFIVIS

<http://www.anritsu-infivis.com/en/>