CORPORATE PROFILE

RISO KAGAKU CORPORATION

Creating Fundamentally Unique Products

RISO KAGAKU CORPORATION (RISO) is a development-oriented company that provides unique products and services in the paper communication field.

Founded in 1946 as a mimeograph printing company, RISO subsequently commenced the development and manufacture of ink. Guided by its development policy of "Creating fundamentally unique products," RISO worked to develop new products and transformed the content of its business from producing office supplies toward being a manufacturer of printers. Currently, our mainstay *RISOGRAPH* digital duplicators and *ComColor* high-speed color printers are used widely in over 180 countries and regions worldwide.

RISO aims to create truly essential value that people might not even be aware of and transform this value into tangible products and services. By anticipating changes in the times, we seek to provide attractive products that strongly appeal to people's senses, making them realize that a certain product was in fact what they wanted and is extremely useful.

RISO will continue to take on the challenge of creating new products and services to pursue the possibilities of new print work and ensure the satisfaction of customers the world over.

Akira Hayama
President & CEO

ComColor

Refuting conventional wisdom in color printing and broadening the possibilities of business through the world's highest speeds and unique color solutions—*ComColor*

— Realizing office environments for large-volume color printing without cost concerns —

In the latter half of the 1990s, a common assumption was that "color printing is costly and time consuming." At this time, monochrome printers were the main type of printers used in offices, while color printers, which had high printing unit costs, were still out of reach.

RISO's *ComColor* high-speed color printers shattered this assumption and "made color even more accessible" with the same ease as monochrome printing. Thoroughly pursuing high speed and economic efficiency, *ComColor* achieves the world's fastest printing speed of 160 pages*[1] per minute and has a low running cost of 1.44 yen*[2] per page even for color printing. *ComColor* enables easy large-volume printing of previously unaffordable materials, including color leaflets with photos and presentation materials containing easy-to-read color-keyed graphs, without having to worry about costs. The unrivaled potential of *ComColor* ensures flexible handling of a wide range of print jobs, from conference materials and business forms to manuals, pamphlets, posters, direct mail materials and educational tools.

ComColor enables higher-grade, efficient print work and is being used in an extensive range of business settings around the world.

*1 *ComColor GD 9630/GD9631*: A4 long-edge feed, continuous printing, plain paper in standard mode, based on office color printers using cut sheet commercially available as of September 2016 (Source: RISO data). These printers have continued to extend their record for the world's highest print speed since being launched in 2003.

*2 A4 long-edge feed, simplex printing, using *RISO GD* F ink. Uses color pattern with 300dpi resolution that was designated by ISO/IEC24712 for measurement image and calculated using measurement method based on ISO/IEC24711. Uses monochrome pattern with 600dpi resolution that was designated by ISO/IEC19752 for measurement image and calculated using measurement method based on ISO/IEC24711. Cost of paper is separate.

High-speed color printers

ComColor™

RISOGRAPH

Used widely in over 180 countries and regions around the world, *RISOGRAPH* significantly expands the potentials of stencil printing.

— Enables easy high-speed and large-volume printing at low cost. —

The origin of the *RISOGRAPH* series is the mimeograph, a kind of stencil printing style reputed to be invented by Thomas Alva Edison. Over long years, RISO has continued to place emphasis on stencil printing technology. Stencil printing is a printing method that involves perforations in a master and pressing ink through the holes to transfer an image onto paper. Although this is an extremely simple process, producing the masters and carrying out printing requires significant amounts of time and labor.

To overcome these issues, RISO developed the all-new *RISOGRAPH* digital duplicator by fusing the principles of stencil printing in 1980 with its unique technology. These digital duplicators can be operated as easily as copiers by anyone without staining one's hands with ink. Compared with regular office printers, *RISOGRAPH* is exceptional in terms of cost and speed when printing the same document in high volume and can also handle a wide variety of paper quality and weights.

The *RISOGRAPH* features of "high-speed, large-volume printing, easy operation and low cost" have received broad support and this product is currently being used at educational institutions, government and public agencies, companies and stores in over 180 countries and regions of the world. RISO is continually advancing the *RISOGRAPH* series to respond to diverse requirements worldwide. Moreover, RISO will not only strengthen the *RISOGRAPH* from a functional perspective but will also enhance environmental performance such as by curbing power consumption.

Digital Duplicators
RISOGRAPH

Business Activities

R&D

Our development policy is "Creating fundamentally unique products." RISO's innovative manufacturing generates new value to create useful products.

Riso Research and Design Center

Three Core Technologies of RISO

CSR in development

ORPHIS FW series*1 wins award at Eco Mark Award 2016*2

The *ORPHIS FW* series of high-speed color printers won the Product of the Year award at Eco Mark Award 2016 sponsored by the Japan Environment Association. This award was received in recognition of technological capabilities that achieve reductions in Total Volatile Organic Compounds (TVOC) in addition to long years of efforts in areas such as developing eco-products and recycling products.

*1: *ORPHIS FW* series of high-speed color printers for the Japan market.
*2: The Eco Mark program, managed in accordance with ISO standards, is Japan's only type I environmental label awarded through third-party institution certification.

ORPHIS FW series

Ink Development Technology

In 1954, RISO succeeded in developing *RISO INK* as the first domestically produced emulsion ink. Since then, RISO has worked to develop a variety of ink technologies that create the "speed" and "beauty" of printers.

ComColor

Oil-based ink supports the world's highest-speed color printing.

Office and home-use inkjet printers use water-based inks. With water-based inks, the paper absorbs water and deformations such as waves and curls easily arise, which can easily lead to folds and wrinkles in high-speed printing. In contrast, oil-based inks used by *ComColor* cause no deformities immediately after printing and enable a smooth paper-feeding process, making oil-based inks suitable for high-speed printing.

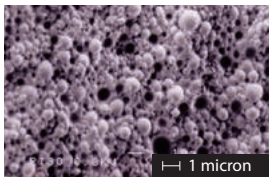
Oil-based pigment ink for minimal paper deformation

Deformations such as waves and curls easily arise with water-based ink.

RISOGRAPH

RISO developed Japan's first emulsion ink.

The *RISOGRAPH* uses emulsion ink that utilizes the actions of a surfactant (emulsifier) to preserve the two incompatible substances of oil and water in a stable liquid state. Some familiar examples of products using emulsifiers include mayonnaise, butter, milk, cosmetics cream and wood glue. RISO succeeded in developing an emulsion ink that does not dry out inside the printer, yet dries quickly after printing by optimizing the formulation balance of oil, water and pigment as well as the processing conditions.



Magnified photograph of emulsion ink

RICE INK®

Successful development of world's first rice ink

RISO has developed the world's first stencil ink that uses domestically produced rice bran oil. By effectively utilizing ordinarily discarded rice bran as a resource, RISO realized an environmentally conscious ink while raising the quality of ink.

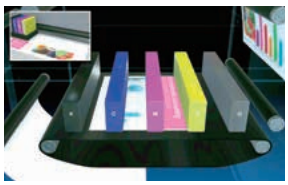
High-Speed Paper Feeding System Technology

"High-speed paper feeding system technology" that realizes "large-volume and high-speed printing" cultivated over long years in *RISOGRAPH* duplicators has also been integrated into *ComColor* high-speed color printers. We have continued to advance this technology as one of RISO's core technologies.

Realizes the world's fastest speed of 160 pages*1 per minute through reliable paper feeding technologies.

ComColor is a full-color high-speed printer that applies ink drops to paper fed at high speeds under an inkjet printing head. Timing mismatches between paper feeding and printing head ink discharging will result in poor image printing quality. Therefore, the accuracy of paper feeding is the key to realizing the world's fastest print speed, which is the chief characteristic of the *ComColor*.

*1 Available on *ComColor GD9630/GD9631*. A4 long-edge feed, simplex, continuous printing, plain paper in standard mode with world's highest speed for office color printers using cut sheet commercially available as of September 2016 (Source: RISO data).



In-line inkjet printing heads arranged in parallel

High-speed paper feeding system technology cultivated over long years realizes the world's fastest speed of 185 pages*2 per minute.

RISOGRAPH utilizes a stencil printing technique. With this technique, a master that is the basis of printing is wrapped around the print drum. Printing is performed by pressing and transferring images underneath paper fed at high speed under the rotating print drum. After the image transfer, the paper attached to the drum is quickly removed and sent to the paper receiving tray. This method smoothly performs a series of operations and applies ink uniformly, which has enabled high-quality printing with no irregularities.

*2 *RISOGRAPH SE* series. When using high-speed mode, with internal temperature of 20ºC or higher, 185 pages per minute for regular-form A4 or below sized paper. The industry's fastest office-use digital duplicator sold as of July 2016 (Source: RISO data).

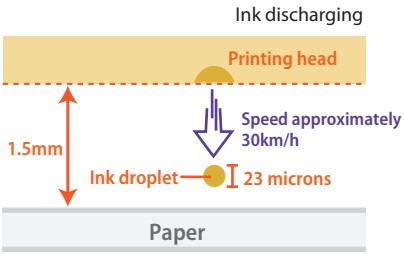
Paper is fed under the drum at high speed.

To raise print speed and print quality, developing consumables matched to the features of hardware and alternatively developing hardware compatible with the characteristics of consumables are extremely crucial. RISO undertakes such development that matches hardware and consumables as it continually works toward printing process optimization.

Printing Process
Optimization

Developing printers matched to the characteristics of oil-based ink

To realize fast printing with high image quality, it is necessary to control microscopic ink droplets from the inkjet printing head to ensure the droplets are sprayed rapidly and applied accurately. We evaluate the flight condition of the ink droplets and verify a variety of conditions and combinations as we optimize the printing process to ensure stable and high-speed printing.

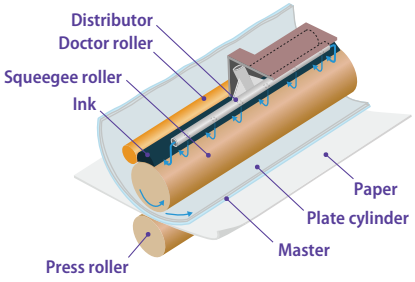


The ink discharges from the inkjet printing heads like a water gun onto the paper 1.5mm away at a speed of 7-10 meters per second (30km/h).

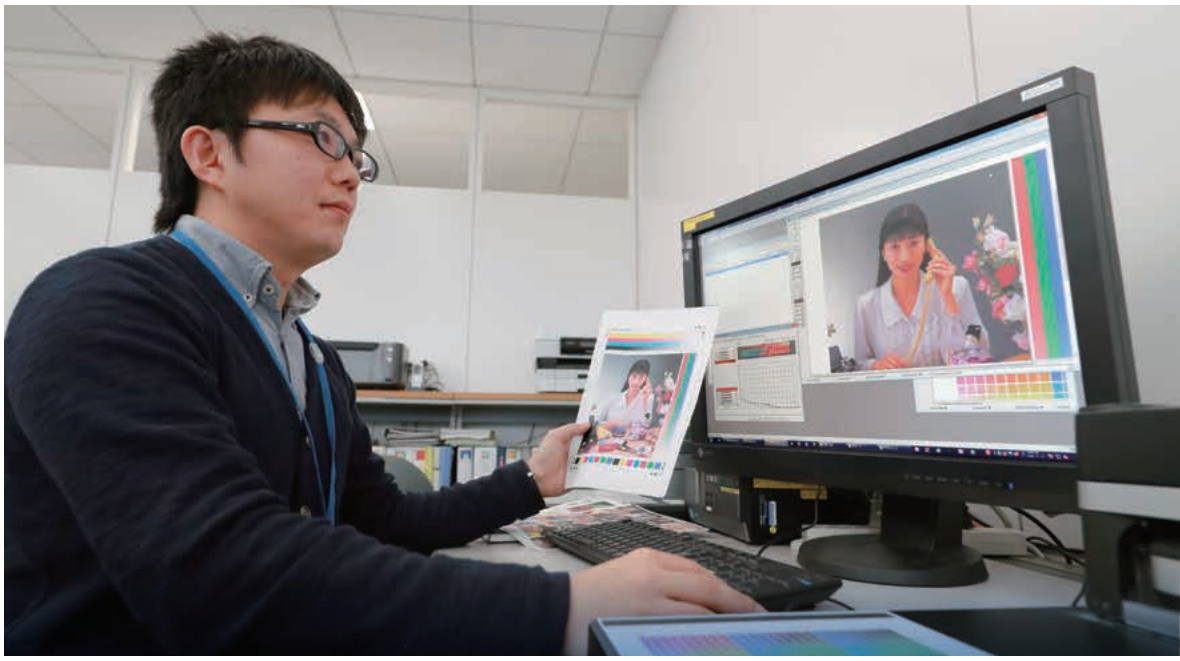
Developing printers matched to the characteristics of emulsion ink

Continually maintaining stable print quality of *RISOGRAPH* used around the world in a variety of climates and environments is a crucial issue. For this reason, RISO thoroughly evaluates the printing quality of its products for a range of print environments that include normal office environments.

Ink has the properties of softening in hot conditions and hardening when it is cold. To ensure uniform printing quality in accordance with these changes in ink properties, the *RISOGRAPH* hardware is automatically controlled.



Multi-layer structure of the print drum that uniformly transfers an optimal amount of ink



Business Activities

Production

Building a global supply chain to provide to customers worldwide

The RISO brand is earning high acclaim throughout the world. Besides domestic manufacturing bases in Ibaraki Prefecture and Yamaguchi Prefecture, RISO has set up overseas manufacturing bases in China and Thailand. As it proceeds with the globalization of its production, RISO is also deploying its domestic production technologies overseas and is providing technical guidance at overseas manufacturing bases to ensure the smooth startup of production and to maintain mass production. RISO is building a global supply chain and is thoroughly pursuing the essence of manufacturing amid all flows of business ranging from the procurement of materials to shipments.

As one initiative in this area, RISO has introduced concurrent engineering techniques aimed at sharing and quickly resolving various issues. The production departments collaborate with the development departments


Tsukuba Works

CSR in production


A recycled product molded with a *RISOGRAPH* ink bottle

Attaining a reuse and recycling rate of 99%*

RISO recognizes that used products "are not waste but precious resources" and has established a collection and recycling system that has attained a reuse and recycling rate of 99%*.

Used digital duplicators are disassembled and separated into reusable components and consumables. Only those reusable components that pass RISO's strict quality assurance standards are used in products. Collected used ink bottles are processed into small pellets and reused in a portion of ink bottles or as new plastic products.

Used ink bottles for *ComColor* are separated according to material. Exterior paper is recycled as raw material for paper making and other components of these bottles are recycled as shipping pallets and alternative fuel.

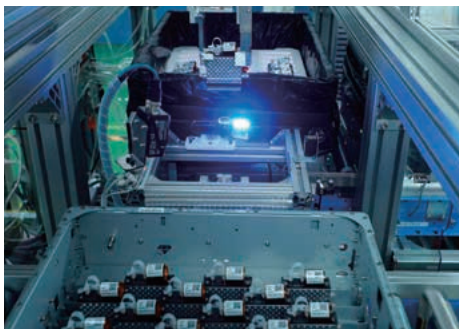
(*Calculated from fiscal 2016 production results)

the best quality

from an early stage of R&D and are building a production structure capable of undertaking highly efficient mass production with stable quality.

To maintain mass production and standardize quality, we also use 3D CAD to design and undertake in-house production of jigs (a production tool). RISO also carries out simulations to ensure that overall production flows smoothly and also performs production line design.

In production planning as well, the sales departments and the production departments share market data that has been closely analyzed and flexibly execute planning. By producing necessary products in the required amounts when needed, RISO is flexibly responding to market needs while working to conserve resources and energy and to reduce the environmental burden.


In-house manufacturing of assembly jigs for inkjet printing heads

Overseas Business Development

Stable consumable supply and maintenance high evaluation from customers worldwide.

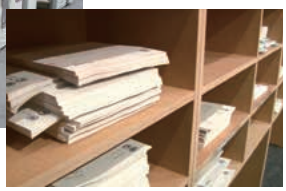
RISO's overseas business started on a full-scale basis in 1986, spurred by the strong desire of founder Noboru Hayama for RISO's *RISOGRAPH* to be of practical use in the field of school education around the world for the benefit of children, the leaders of tomorrow. Since then, RISO's products have been used by educational institutions, government and public agencies, companies and local communities in over 180 countries and regions that include Europe, the Americas, Asia, the Middle East and Africa. The name RISO has become synonymous with digital duplicators (stencil printers) and is known widely around the world.

We attribute our outstanding evaluation not only to the excellence and high quality of product performance but also to our enhanced consumable supply and maintenance systems. Customers are able to use our products with reassurance and for long periods of time thanks to the introduction of a

drupa 2016, the largest printing equipment exhibition in the world (Germany)

Overseas
CSR

COP21 printing room



RISO FRANCE S.A. selected as COP21 official partner

The Paris Agreement, which calls for continuous countermeasures against global warming, was adopted by 196 countries and regions in 2015. RISO FRANCE S.A., a RISO subsidiary, was selected as an official partner for the 21st Session of the Conference of the Parties to the United Nations (UN) Framework Convention on Climate Change (COP21), which was the stage for the Paris Agreement. RISO FRANCE supported printing operations for a total of 3 million pages of documents by lending eight *ComColor* high-speed color printers free of charge, dispatching a team of service engineers and handling maintenance and inspection work throughout the conference.

systems lead to

comprehensive consumable supply system and top maintenance system that complements the outstanding reliability of our hardware technology.

Only those dealers that have strong maintenance capabilities become RISO's business partners. In addition, we provide technical training at technical training centers in Japan, the United States, the United Kingdom and Thailand as we strive to improve our maintenance capabilities at all times.

The same finely tuned solutions business that we provide in Japan together with a global network that links approximately 3,600 RISO Group employees, including 26 overseas subsidiaries, and our dealers enable us to earn the trust of numerous customers.

Our aim is to realize true globalization rather than mere internationalization. It is our hope that the RISO brand is still going strong when the world becomes one, transcending borders as well as cultures, languages and customs.


Bangkok Training Center

History of RISO

Toward the global stage backed by leading-edge

1986
Introducing *RISOGRAPH* at education venues worldwide

RISO started full-scale overseas business development spurred by the strong desire of founder Noboru Hayama for RISO's machines to be of practical use in the field of school education around the world for the benefit of children, the leaders of tomorrow. Starting with its first overseas subsidiary, RISO, INC. (U.S. state of Massachusetts), RISO set up bases in various countries around the world. Today, the *RISOGRAPH* is widely used at educational institutions, government and public agencies, companies and local communities in over 180 countries and regions worldwide.

Actively taking on the challenge of hardware development and sales
– A huge leap forward toward becoming a comprehensive stencil printer manufacturer

1977 Launch of unprecedented hit product *PRINT GOCCO*

By integrating the plate-making and printing processes into a single unit, RISO developed this simplified personal card printer that is compact and can be easily used in homes. This product was named *PRINT GOCCO* to embody the desire for parents and their children to enjoy printing. Thanks to its features that enabled anyone to easily make beautiful cards, *PRINT GOCCO* recorded explosive sales and became an indispensable product for creating New Year's greeting cards.

Demonstration sales of *PRINT GOCCO* at a department store

The birth of "RISO" and the road toward becoming a manufacturer of printing equipment

RISO INK

1954 Development of Japan's first emulsion ink

At that time, founder Noboru Hayama strongly realized it was necessary to secure stable supplies of emulsion ink, which were available only through imports. In 1954, after one and a half years of trial and error, he succeeded in developing Japan's first emulsion ink called *RISO INK*. With this achievement, RISO took its first step from being a mimeograph company and moved toward becoming a manufacturer of printing equipment that focuses on "creating fundamentally unique products."

RISO OHP 750 (left)
RISO TRAPEN-UP TU230 (right)

Founder Noboru Hayama

1946
Establishment of the Company as "RISO"

Following the end of the war, founder Noboru Hayama, who was an army second-lieutenant, entered university in 1946. To provide for his educational fees and family finances, he began a mimeograph printing business in 1946. Hayama firmly believed that "people should not lose their ideals because then there would be no future for Japan as a nation. Thus, we must always pursue our ideals to ensure the future." Hayama incorporated this conviction into the company name and established "Riso-Sha," which means "ideal."

1972
Overcoming an unprecedented bankruptcy crisis by developing new products

In 1968, RISO received and accepted OEM contracts for *RISO MASTER* from overseas companies, viewing this as a major opportunity for global business expansion. RISO rapidly expanded its sales by receiving a large volume of orders. In 1969, RISO began construction of a new plant as it geared up to strengthen its production structure. However, orders then declined, pushing RISO to the brink of bankruptcy by the end of the year. Despite these precarious circumstances in which most people would be hesitant to take on new challenges, Hayama realized that the only way to overcome this crisis was to develop new products. Acting on this conviction, in 1972 Hayama developed audio-visual equipment, namely the *RISO OHP 750* overhead projector and the *RISO TRAPEN-UP TU230* thermal transfer OHP film printer. These proved to be innovative hit products that virtually transformed class lectures and meetings at schools and offices and enabled RISO to avert bankruptcy.

technologies

RISO, INC.

Pursuing our ideals

2013

Riso Research and Design Center established as new development base

Riso Research and Design Center

RISO established the Riso Research and Design Center in Tsukuba city, Ibaraki Prefecture, to integrate development bases that were spread out over a number of locations. By enhancing the efficiency of information communication and development and promoting smooth mutual communications, RISO has established a development structure capable of undertaking integrated development ranging from hardware to consumables and software. The center has become a base for creating the next "fundamentally unique products."

Developing high-speed inkjet printers that make color printing even more accessible

2003

Birth of the world's fastest color printer *ComColor*

A showcase of new products at Tokyo International Forum in 2003

Responding to the need for "lower-cost and easy-to-use color printing," RISO and Olympus Corporation jointly developed the high-speed color printer *ComColor HC5000*. This printer integrated a host of previously unavailable functions that include in-line inkjet printing heads and oil-based pigment ink optimally suited to high-speed printing. RISO created this novel high-speed color printer by combining high-speed paper feeding technologies cultivated in the *RISOGRAPH* digital duplicator business and thoroughly pursuing high speed and economic efficiency.

"One million page test" that was carried out in shifts by groups of two people and a progress chart on which each supervisor recorded test results

1980

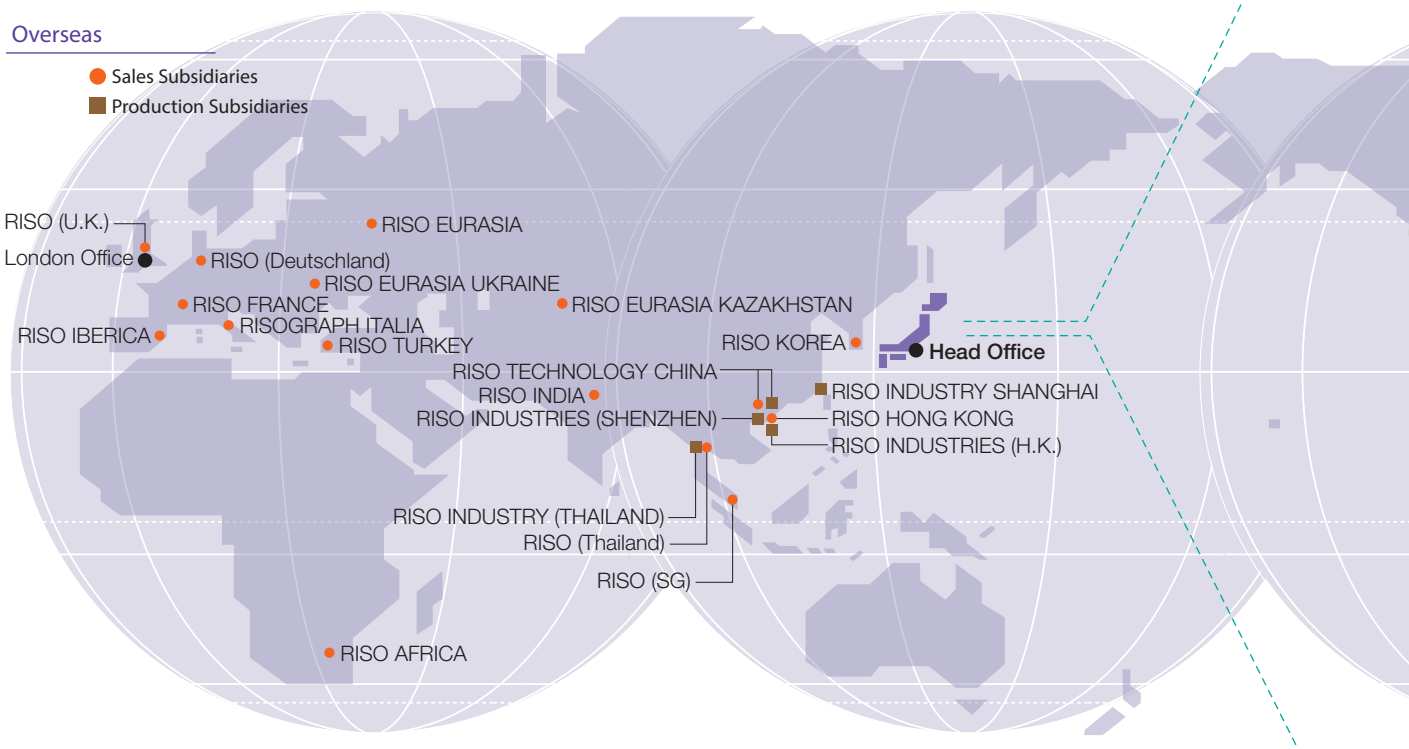
Birth of *RISOGRAPH* stencil printer

RISO commercialized a master maker that utilized its original emulsion ink and master. Nevertheless, most printers used in the market at that time were compatible only with oil-based ink and so the benefits of this RISO product could not be fully deployed. In response, RISO decided to independently create its own printers that were specifically suited to its own inks. Although the development of its first printer proved to be extremely difficult, RISO finally succeeded in developing *RISOGRAPH FX7200/AP7200* stencil printers after taking on the "one million page test" and repeatedly checking a prototype printer from a customer perspective.

For details, please access this Website.
http://www.riso.co.jp/english/company/history/

RISO Today

RISO Network (as of July 1, 2017)



Corporate Data

Corporate Name:	RISO KAGAKU CORPORATION
President & CEO:	Akira Hayama
Head Office:	5-34-7 Shiba, Minato-ku, Tokyo 108-8385, Japan
Established:	September 2, 1946
Incorporated:	January 25, 1955
Paid-in Capital:	14,114,985,384 yen (as of March 31, 2017)
Stock Listing:	First Section of the Tokyo Stock Exchange (Code: 6413)
Number of Employees:	1,716 (3,604 for the RISO Group) (as of March 31, 2017)
Subsidiaries:	28 companies (Domestic: 2 Overseas: 26) (as of March 31, 2017)
Main Banks:	The Tokyo Tomin Bank, Ltd., Sumitomo Mitsui Banking Corporation, The Bank of Tokyo-Mitsubishi UFJ, Ltd., Sumitomo Mitsui Trust Bank, Ltd.

Board of Directors and Auditors

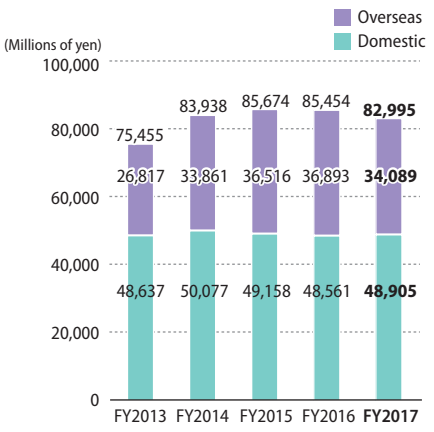
President & CEO (Representative Director) Akira Hayama
Director Yasunobu Takahashi
Director Shoichi Ikejima
Director Yoshiomi Narumiya
Director Kenji Oshima
Director Toshiaki Yatabe*
Standing Auditor Yasuo Tazawa
Standing Auditor Nobuyoshi Shirai
Auditor Yoshinari Iizuka*
Auditor Shinji Hatta*

Note: "*" refers to outside director and outside auditors, as stipulated under Item 15 and 16 of Article 2 of the Corporate Law. (as of June 27, 2017)

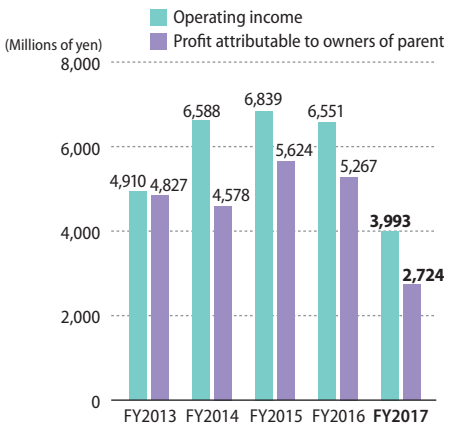
Financial Highlights

Note: Amounts less than the unit expressed are omitted.

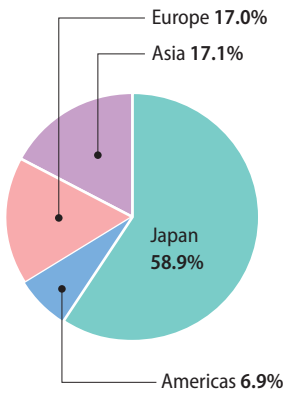
Net sales

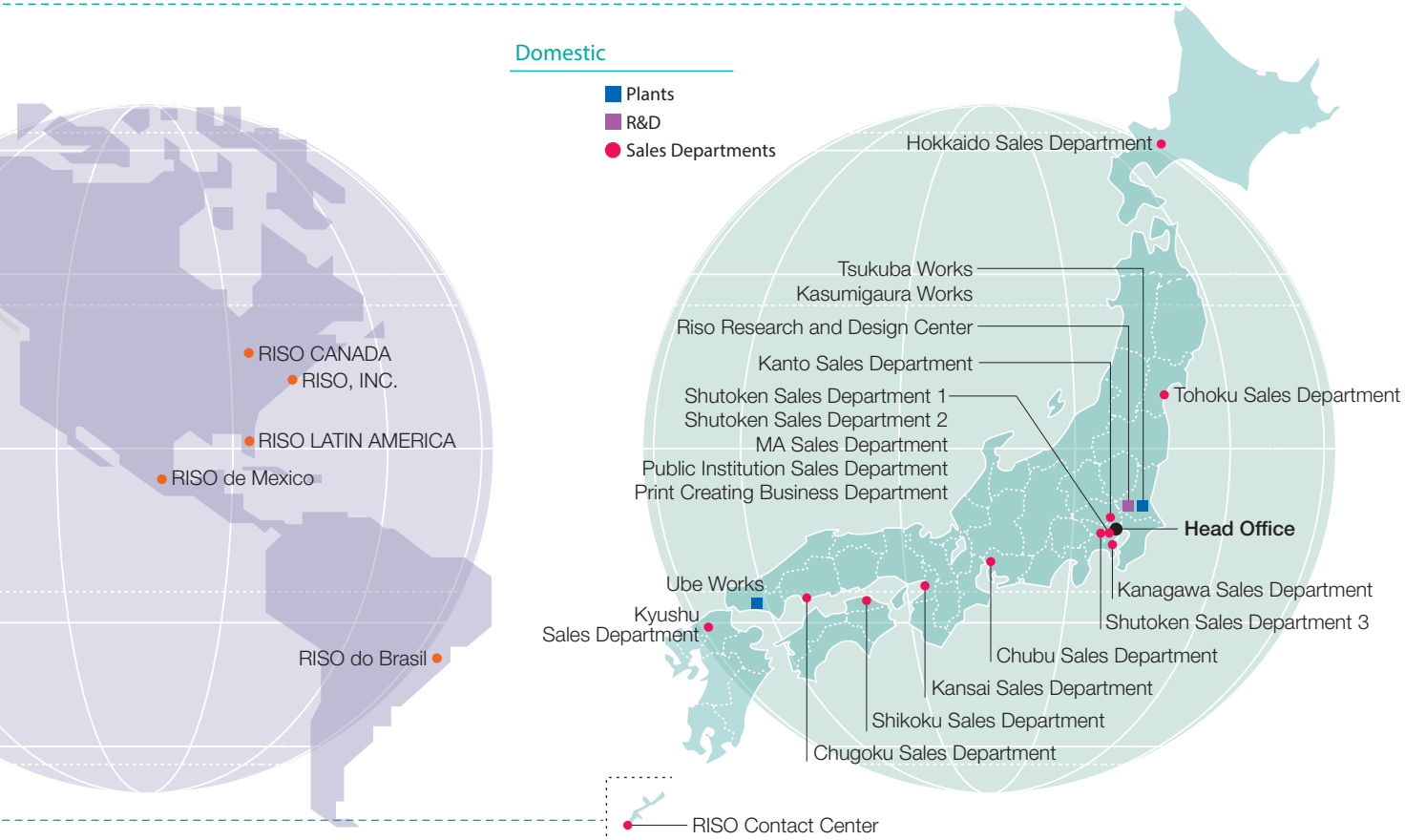


Operating income/ Profit attributable to owners of parent



Sales by region (fiscal year ended March 31, 2017)





Overseas Main Subsidiaries

RISO, INC.
RISO CANADA, INC.
RISO LATIN AMERICA, INC.
RISO de Mexico, S.A. de C.V.
RISO do Brasil Ltda.
RISO (U.K.) LTD.
RISO (Deutschland) GmbH
RISO FRANCE S.A.
RISO IBERICA, S.A.
RISOGRAPH ITALIA S.R.L.
RISO EURASIA LLC
RISO EURASIA KAZAKHSTAN LLC
RISO EURASIA UKRAINE LLC
RISO TURKEY BASKI COZUMLERI A.S.
RISO AFRICA (PTY) LTD.
RISO INDUSTRIES (H.K.) LTD.
RISO INDUSTRIES (SHENZHEN) LTD.
RISO TECHNOLOGY CHINA CO., LTD.
RISO INDUSTRY SHANGHAI CO., LTD.
RISO HONG KONG LTD.
RISO (Thailand) LTD.
RISO INDUSTRY (THAILAND) CO., LTD.
RISO INDIA PRIVATE LTD.
RISO KOREA LTD.
RISO (SG) PTE. LTD.

Facilities in Japan

Head Office

Production Facilities

Tsukuba Works
Kasumigaura Works
Ube Works

R&D Facilitiy

Riso Research and Design Center

Sales Departments

Hokkaido Sales Department
Tohoku Sales Department
Kanto Sales Department
Shutoken Sales Department 1
Shutoken Sales Department 2
Shutoken Sales Department 3
MA Sales Department
Public Institution Sales Department
Kanagawa Sales Department
Chubu Sales Department
Kansai Sales Department
Shikoku Sales Department
Chugoku Sales Department
Kyushu Sales Department
RISO Contact Center
Print Creating Business Department

Branches

Sapporo Branch
Sendai Branch
Koriyama Branch
Saitama Branch
Kumagaya Branch
Tokorozawa Branch
Tsukuba Branch
Niigata Branch
Maebashi Branch
Nihonbashi Branch
Asakusa Branch
Mita Branch
Chiba Branch
Funabashi Branch
Kashiwa Branch
Shinjuku Branch
Ikebukuro Branch
Shibuya Branch
Hachioji Branch
Mitaka Branch
Tachikawa Branch
Yokohama Branch
Kawasaki Branch
Atsugi Branch
Nagoya Branch
Mikawa Branch
Shizuoka Branch
Hamamatsu Branch
Gifu Branch
Kanazawa Branch
Mie Branch
Kita-Osaka Branch
Osaka Branch
Higashi-Osaka Branch
Sakai Branch
Nara Branch
Kyoto Branch
Kobe Branch
Takamatsu Branch
Hiroshima Branch
Okayama Branch
Fukuoka Branch
Kitakyushu Branch
Kumamoto Branch
Kagoshima Branch

Offices

Morioka Office
Yamaguchi Office

Sales Subsidiary

RISO OKINAWA CORPORATION

Note: Certain products and initiatives that are introduced in this corporate profile apply to the Japanese market only.

RISO KAGAKU CORPORATION

5-34-7 Shiba, Minato-ku, Tokyo 108-8385, Japan

http://www.riso.co.jp/english/

2017.7 Printed in Japan