

NS SLITTER
NISHI  MURA

Absolute Technology **for Your Expectations**

Support the World Through Slitter Rewinders

Since our development of the very first slitter rewinder in Japan in 1946, we, NISHIMURA MANUFACTURING COMPANY, have been dedicating ourselves to advancing slitting and rewinding technology to support the manufacturing and converting industries around the world.

The brand of “NS SLITTER” is characterized by its specialized models for individual types of materials and now well known as high-quality and high-performance slitter rewinders with the top-class share in Japan. What makes this happen are as follows: the technology acquired in the long history, the expertise from designers accounting for one-third of our staff, the capacity to manage the whole process from design, machine assembly to after-sales service, and the capacity to manufacture from small to large-scale machinery.

Thanks to the reliability led by our achievements so far, many customers of different industries come to consult us about slitting solutions as they develop new materials. We will continue committing ourselves to advance of our slitting and rewinding technologies to contribute to technical innovations pioneering the future of individual industry segments.





Technical Capabilities

Over 10,000 unit sales to more than 50 countries and regions in the 60-year history achieved. We embody our customers' ideals by taking advantage of the expertise from designers (one-third of the staff population) and our technology and knowledge gained in the long history. Assigning a mechanical designer and an electrical system designer to individual orders for manufacturing slitter rewinders, we can give a quick response to our customers' inquiries.

What We Can Do

Genuine Quality That NISHIMURA Professionals Create

Ever since the foundation, NISHIMURA has been consistently committing to the policy that says we design and manufacture excellent machinery that fulfills our customers' requests; dealing with every type of material and enhancing every production process and service from design, manufacturing to maintenance achieve our high-quality products and services.



Development Capabilities

We always have been making every effort to develop and advance technology to meet needs changing with the times. We have two machines in the testing room, where you can have slitting tests on your materials including newly developed ones. We work on evaluation tests of slitting and rewinding performance until our customers are satisfied and propose optimum slitting solutions.



Responsiveness

We have the after-sales service teams both in the headquarters and Tokyo branch office, covering our domestic and overseas customers. Thanks to all the drawings completely in custody since the foundation, we can provide repairing, improvement or renewal service. This is reflected by the fact that many of our customers have been using our products for as long as three or four decades.

4 Key Factors

Supporting NS SLITTER



Productivity

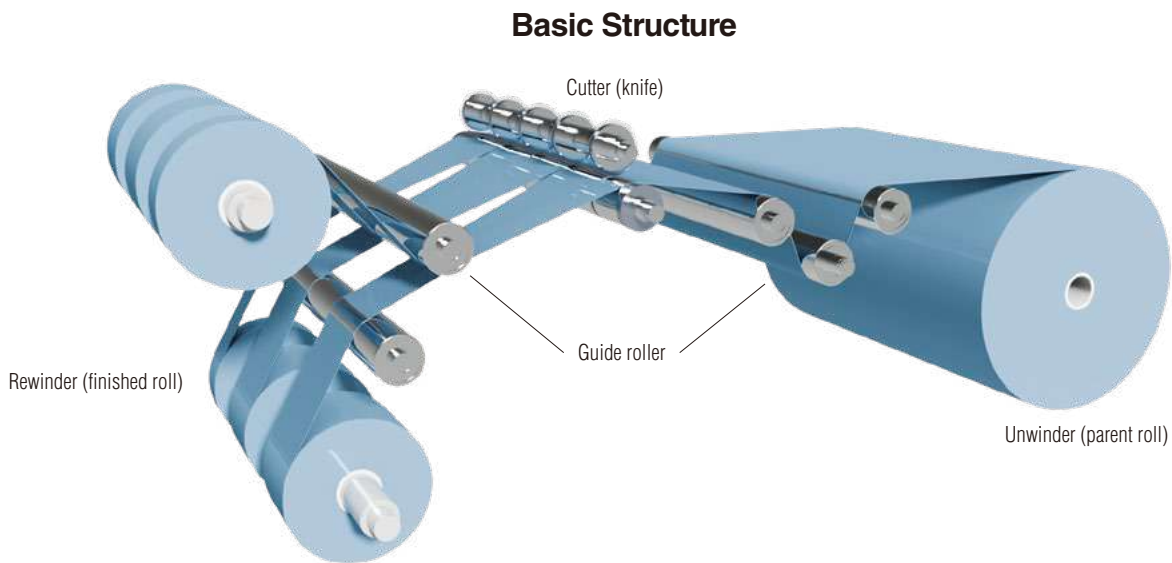
We have three machine assembly plants in the headquarters, and in Uji City, Kyoto, we have another machine assembly plant as well as one parts machining plant where we produce large-scale machine frames and rollers. Self-managing all processes from machine assembly, cabling to operation check, we produce machinery in different sizes, ranging from small-scale slitter rewinders for narrow width slitting to large-scale ones for materials of as wide as 8 meters.



Products

What is Slitter Rewinder?

A slitter rewinder is a roll-to-roll machine that unwinds a roll of a long sheet, slits it into strips of a particular width and rewinds them into rolls in a continuous action. Its fundamental structure consists of unwinder, guide roller, cutter, and rewinder. In the slitting and rewinding processes, optimum slitting conditions and balanced tension between the unwinder and rewinder play the most critical role. Applying a slitting method and tension control fitted to characteristics of each type of material achieves high-quality cut surfaces and rewind packages.



Applications of Slit Rolls



Plastic wrapping film



Diaper
(back sheet film, stretch tape)



Drink carton



Food packaging



Aluminum foil



Self-adhesive tape



Electronic components
(capacitor, flexible printed circuit)



Television
(display film)



Medical mask, Hygiene products, Filter
(non-woven fabric)



Thermal receipt paper



Label, Tag



Smartphone, Tablet
(display film, Li-ion battery)



Electric vehicle
(Li-ion battery)



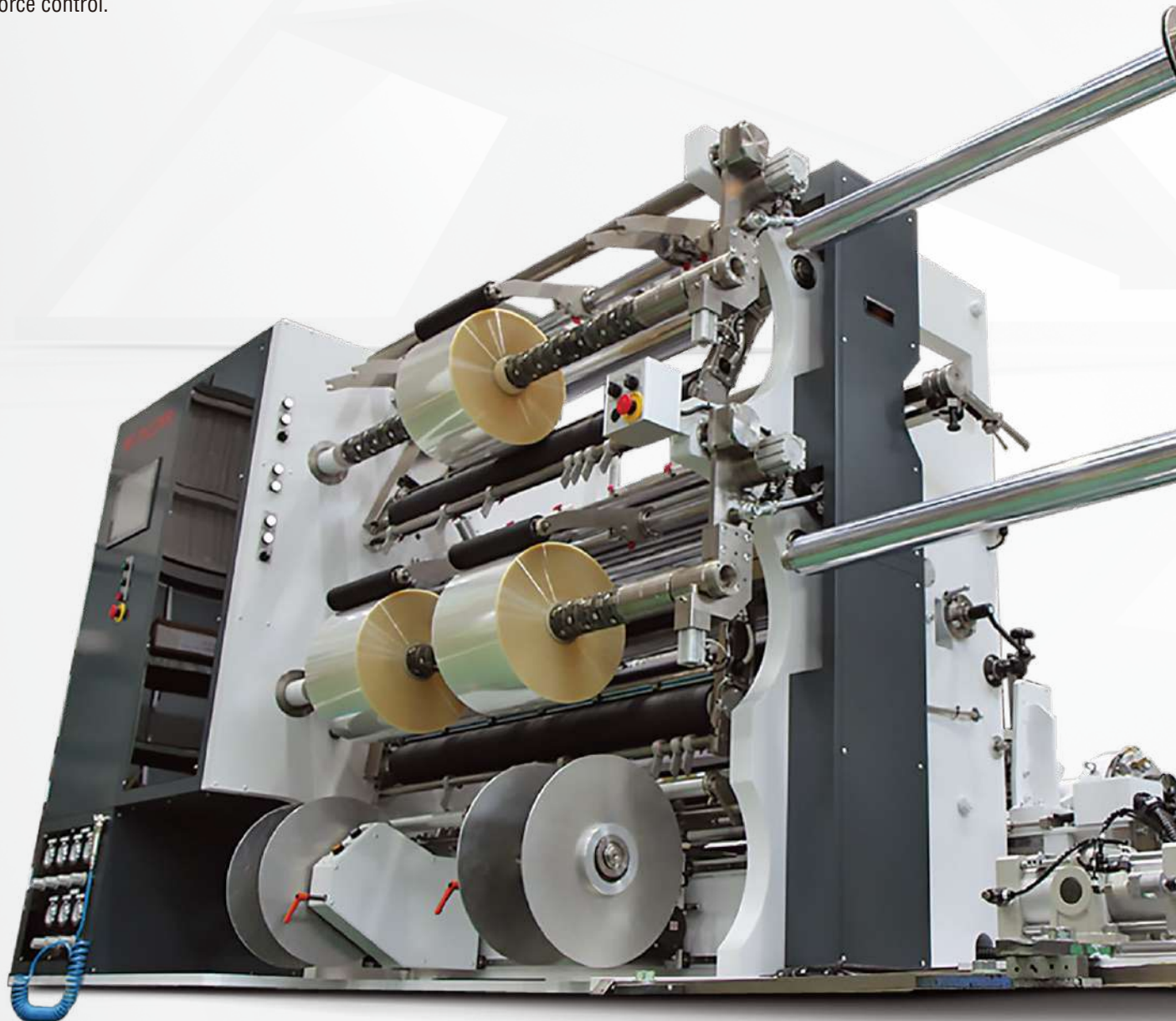
Aircraft, Sporting goods
(carbon prepreg)



Pharmaceutical packaging
(aluminum foil, medicine wrapper)

For Films

According to types of applications such as industry, lithium-ion battery (LIB), optics and packaging as well as film sizes, we offer optimum solutions from primary to secondary/tertiary slit rewinders. Our mechanical design tailored to film characteristics enables high quality finished rolls by stable web path and highly precise tension control and contact force control.



Model FN405E

Duplex rewinding | Touch rollers tracking in arc | Product unloader

Material: Packaging films, medical and hygiene films, optical films, electrical films



Model FH105E

Duplex rewinding | Linear tracking rewind stations

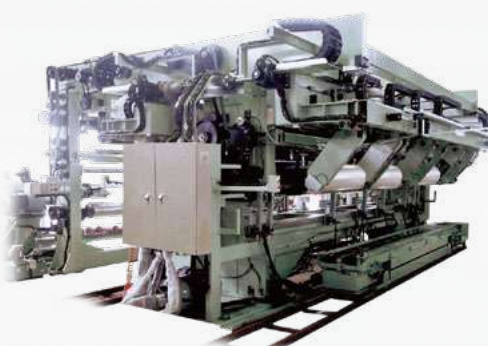
Material: Medical and hygiene films, optical films, electrical films



Model FQ523B

Primary | Shaft-less rewinding | Linear tracking rewind stations

Material: Medical and hygiene films, optical films, electrical films



Model FZ723B

Primary | Hanging type rewind arms | Shaft-less rewinding | Automatic knife/rewind arm positioning

Material: Packaging films, medical and hygiene films, optical films, electrical films



Model TH513J

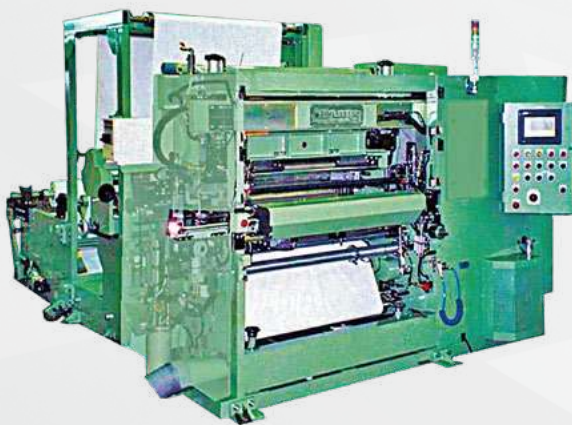
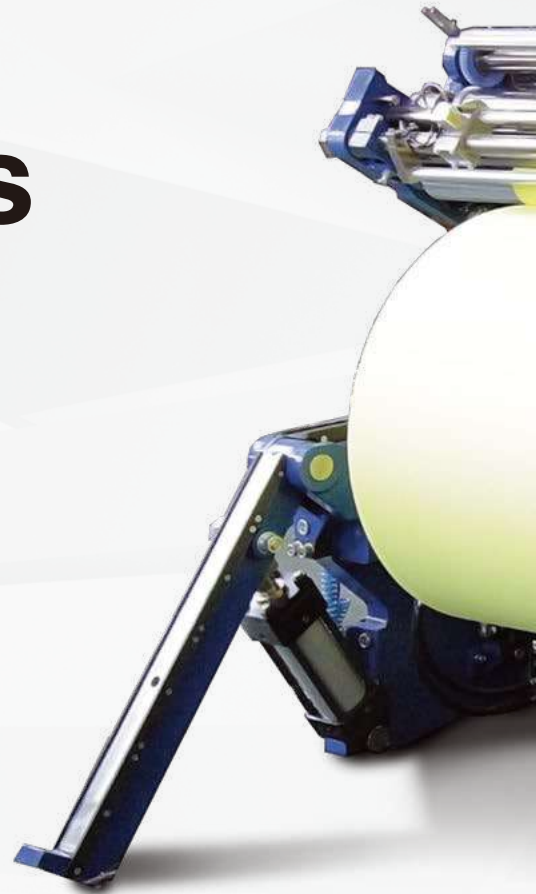
Individual rewind arms

Material: Metallized capacitor films, battery separator films

For Papers & Nonwoven Fabrics

Our paper slitler rewinders have a long history where the designs have been customized to individual paper industry segments' needs such as large diameter rewinding for paper manufacturers, high-speed, small diameter rewinding for thermal receipt papers, and multiple-slitting for label stock. Types of material to process include wood-free papers, thermal papers, pressure-sensitive papers, inkjet papers, siliconized papers, glassine papers, and self-adhesive papers.

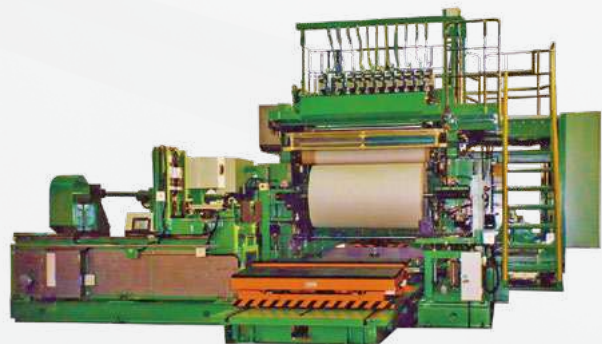
We also provide solutions for nonwoven fabrics made of glass fiber, resin, or cotton used in the applications of filters, separators, medical and hygiene products, and clothing labels. We offer mechanical designs tailored to material characteristics such as stretchiness and winding density.



Model UR131V

Fully automated | Small diameter, surface rewinding

Material: Pressure-sensitive papers, thermal papers,
kraft papers, nonwoven fabrics



Model DA25

Primary | High-speed, large diameter rewinding

Material: Wood-free papers, coated papers,
pressure-sensitive papers, thermal papers



Model SL4

Large diameter rewinding | Differential drive

Material: Papers, kraft papers, nonwoven fabrics



Model SY120C

Linear tracking cutter & roller sections

Material: Siliconized papers, label stock, glassine papers



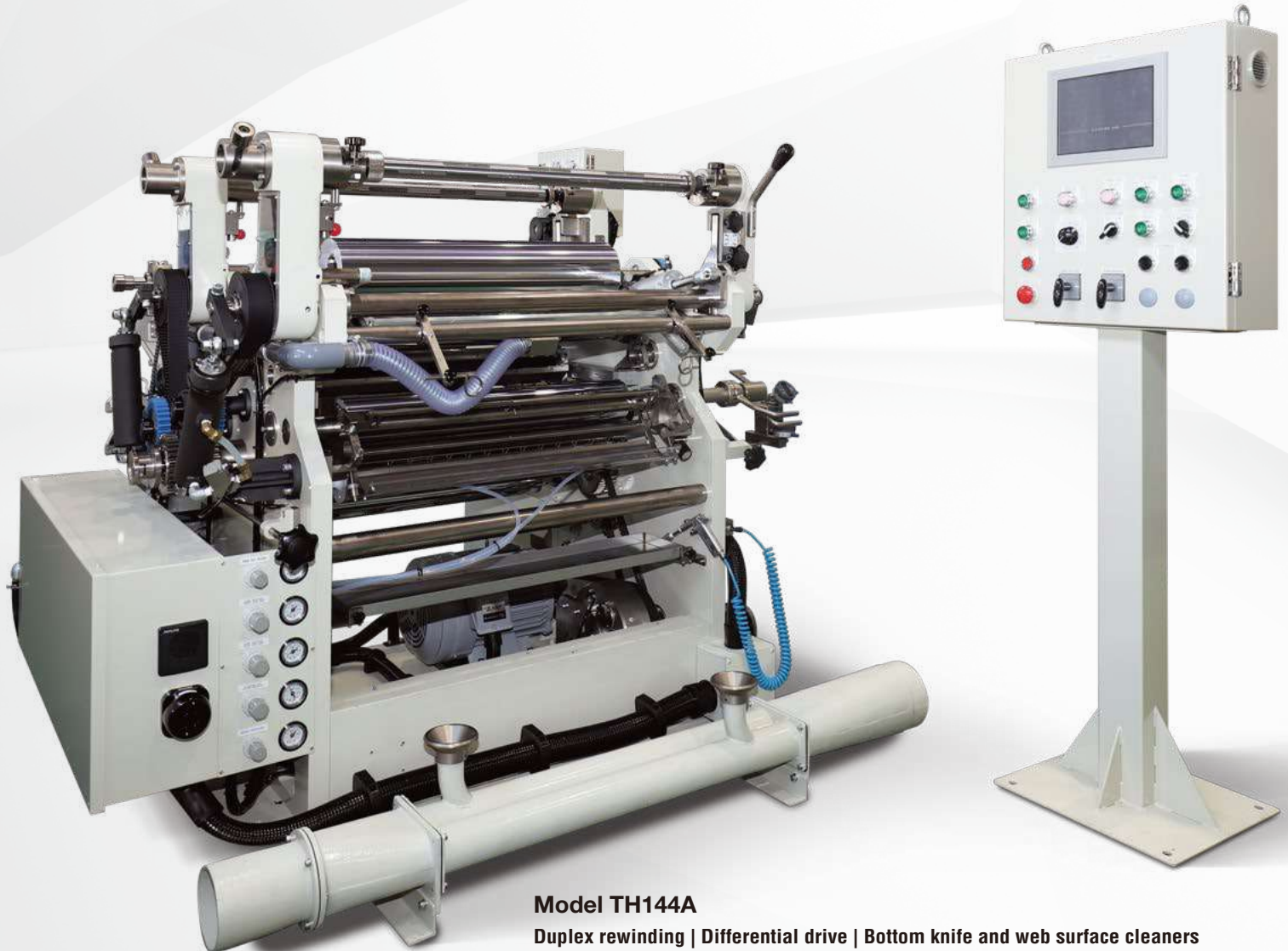
Model FN414E

Duplex, core friction rewinding

Material: Self-adhesive kraft papers

For Nonferrous Metal Foils

We have a diverse lineup of models for thin nonferrous metal materials such as aluminum foils, battery electrodes, FCCL and copper foils. Our slitter rewinders for the electrolytic capacitor aluminum foil application, in particular, mark the best sales performance throughout the industry. We realize sophisticated slitting quality through optimum slitting methods fitted to material characteristics and also offer solutions including multiple-slitting, half-slitting, and edge trimming.



Model TH144A

Duplex rewinding | Differential drive | Bottom knife and web surface cleaners

Material: Aluminum foils (e.g. electrolytic capacitor aluminum foils, EDLC)



Model TG194C
Special shear cutting

Material: Electrolytic copper foils, rolled copper foils



Model TG124E
Special shear cutting

Material: Battery electrodes (cathode & anode),
EDLC, CCL, FCCL



Model TD183J
Narrow width slitting | Multiple rewind shafts

Material: Special types of nonferrous metal foils
(e.g. solder foils, lead alloy foils)



Model TD16S
Narrow width slitting | Cantilevered

Material: Aluminum foils
(e.g. electrolytic capacitor aluminum foils)

For Others

Taking advantage of the experiences and achievements gained so far from the broad fields, we also can offer solutions for other particular slitting and rewinding purposes: inspection rewinders, traverse winders, film take-up winders, sheet cutters, inline cutters, and paper core cutters.



Model WA137A

Inspection rewriter with cameras

Material: Packaging films, medical and hygiene films



Model KL110N + WT021A

Narrow width slitting | Traverse winder

Material: Electrical insulation papers, electrical insulation films, ACF, carbon preregs



Model WA193A

Inspection rewriter with cameras

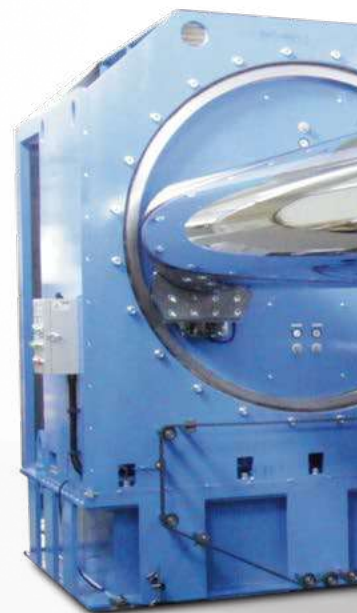
Material: Optical films



Model CV105A + WA192A

Film take-up winder

Material: Battery separator films





Model CV104A + WA191A

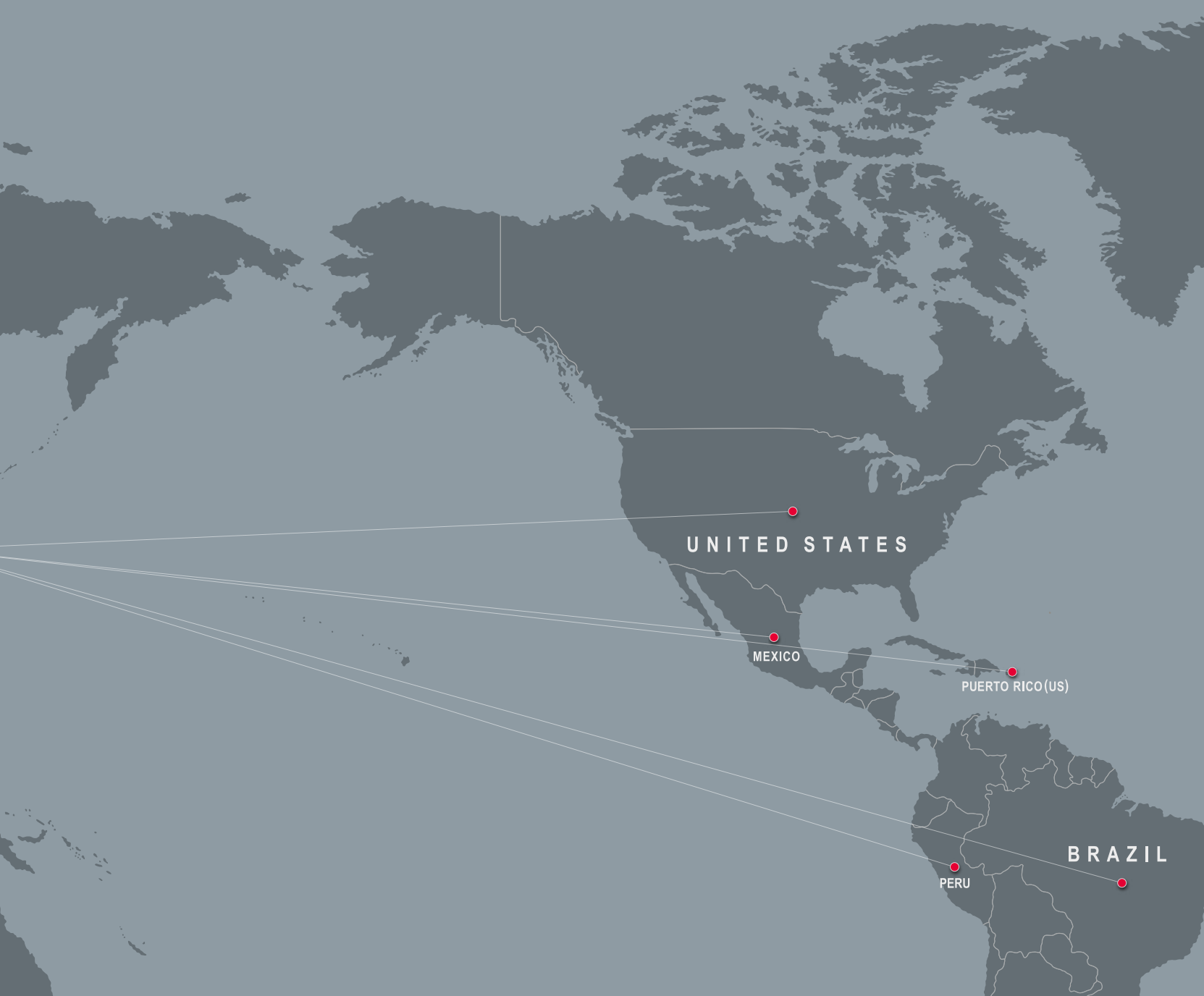
Film take-up winder

Material: Packaging films, medical and hygiene films, electrical films

NISHIMURA slitting and rewinding technologies that can process various types of material are rated highly in more than 50 countries and regions.



Blue Energy Co., Ltd.
Furukawa Electric Co., Ltd.
HOGY MEDICAL CO., LTD.
Hokuetsu Kasei Co., Ltd.
Hokuetsu Corporation
HOKKAICAN CO., LTD.
Horino Shiko GSK
Maxell, Ltd.
MARUTO SANGYO CO., LTD.
Marubeni Office Supply Co., Ltd.
Mitsui Chemicals Tohcelco, Inc.
Mitsubishi Aluminum Company, Ltd.
MITSUBISHI GAS CHEMICAL COMPANY, INC.
Mitsubishi Chemical Corporation
Mitsubishi Paper Mills Limited
Mitsubishi Electric Corporation
Mitsubishi Materials Corporation
Mihato Co., Ltd.
Murata Manufacturing Co., Ltd.
Meito Corporation
UACJ Corporation
UACJ Foil Corporation
UNITIKA LTD.
RIKEN TECHNOS CORPORATION
Ricoh Company, Ltd.
RISO KAGAKU CORPORATION
Lithium Energy Japan
LINTEC Corporation
Rubycon Corporation
REIKO Co., Ltd.
Rengo Co., Ltd.



UNITED STATES

MEXICO

PUERTO RICO (US)

BRAZIL

PERU

Rensol K.K.
YKK CORPORATION

[Korea]
Asahi Kasei E-materials Korea Inc.
Doosan Corporation Electro-Materials
HANKUK CARBON CO., LTD.
Hanwha Advanced Materials
HYOSUNG CORPORATION
LG Chem, Ltd.
LS Mtron Ltd.
Saehan Enertech Inc.
Samsung SDI Co., Ltd.
SAMYOUNG ELECTRONICS CO., LTD.
SKC Co., Ltd.
SK innovation Co., Ltd.
Toray Advanced Materials Korea Inc.
Toray Battery Separator Film Korea Limited
W-SCOPE KOREA CO., LTD.
YOULCHON Chemical Co., Ltd.

[China]
Boston-Power Battery (Jiangsu) Co., Ltd.
CHEMI-CON (WUXI) CO., LTD.
CHONGQING YUNTIANHUA NEWMI-TECH CO., LTD.
C-PAK Electronic Packaging (Suzhou) Limited
Foshan Jinhui Hi-Technology Co., Ltd.
GP Batteries (Shenzhen) Co., Ltd.
GUANGDONG SHENGYI SCI. TECH CO., LTD.
Harbin Coslight Power Co., Ltd.
Hefei Tongguan Copper Products Co., Ltd.

Huizhou BYD Battery Co., Ltd.
HUNAN CHINALY NEW MATERIAL CO., LTD.
KUNMING YUNTIANHUA NEWMI-TECH CO., LTD.
Polypore (Shanghai) Membrane Products Co., Ltd.
QINDAO SAMYOUNG ELECTRONICS CO., LTD.
Ricoh Thermal Media (Wuxi) Co., Ltd.
SHANDONG JINDU ELECTRONIC MATERIAL CO., LTD.
SHANGHAI CENAT NEW ENERGY COMPANY LIMITED
Shanghai Energy New Materials Technology Co., Ltd.
SHANGHAI ZIJIANG GROUP
Shenzhen BAK Battery Co., Ltd.
Shenzhen Selen Science & Technology Co., Ltd.
SHUANGHUI GROUP
Shuangyili (Tianjin) Xinnengyuan Limited Company
SINOMA Lithium Battery Separator Co., Ltd.
Tianjin Lishen Battery Joint-Stock Co., Ltd.
Ting Hsin International Group
Wuxi Murata Electronics Co., Ltd.

[Taiwan]
E-ONE MOLI ENERGY CORP.
Eternal Materials Co., Ltd.
Gold Peak Industries (Taiwan) Ltd.
Hitachi Chemical Electronic Materials (Taiwan) Co., Ltd.
Industrial Technology Research Institute
Kaisers Plastics
Lelon Electronics Corp.
Nan Ya Plastics Corporation
Optimax Technology Corporation
SYNergy ScienTech Corp.
Taiwan Lamination Industries, Inc.

Teapo Electronic Corp.
Toray Advanced Film Kaohziung Co., Ltd.

[Hong Kong]
Hitachi Chemical Co. (Hong Kong) Ltd.

[Indonesia]
PT Argha Karya Prima Industry Tbk
PT DNP Indonesia
P.T. INDONESIA CHEMI-CON
PT. Trias Sentosa, Tbk

[Singapore]
Murata Electronics Singapore (Pte.) Ltd.
New Toyo Aluminium Paper Product Co. (Pte) Ltd
NICHICON (SINGAPORE) PTE. LTD.
Rubycon Singapore Pte. Ltd.
Sonic Singapore Pte. Ltd.

[Philippines]
BROTHER INDUSTRIES (PHILIPPINES), INC.
CHIYODA INTEGRE (PHILIPPINES) CORPORATION
FINE Chemicals (Phils.) Inc.
Murata Electronics Philippines Inc.
Plastic Film Mfg.
Reynolds Philippine Corporation

[Malaysia]
CHEMI-CON (MALAYSIA) SDN. BHD.
CHIYODA INTEGRE CO. (JOHOR) SDN. BHD.
C-Pak Cergas Sdn.Bhd.

ELNA-SONIC SDN. BHD.
ITW Meritex Sdn. Bhd.
Penfibre Sdn. Bherhad

[Thailand]
Eternal Electronic Material (Thailand) Co., Ltd.
TANIN ELNA CO., LTD.
Thai Toyo Aluminium Packaging Co., Ltd.
Thai United Awa Paper Co., Ltd.

[India]
Garware Polyester Ltd.
Uflex Limited
Polyplex Corporation Ltd.

[Israel]
Tadiran Batteries Ltd.

[Germany]
Bayer Agfa-Gevaert
Siemssen
University of Münster

[Belgium]
Agfa-Gevaert

[France]
CEA
Kodak-Pathé SAS
Ricoh Industrie France SAS
SAFT

[United Kingdom]
Eastman Kodak Company

[Italy]
LITHOPS SRL

[Portugal]
KEMET Electronics Portugal, S.A.

[United States]
Celgard, LLC
Entek Membranes LLC
General Motors Company
Nakagawa Manufacturing (USA), Inc.
Ricoh Electronics, Inc.
SAFT America, Inc.
UNITED CHEMI-CON, INC.

[Mexico]
Industria Fotográfica Interamericana S.A. de C.V.

[Brazil]
Kodak Brasileira Com.
TDK Electronics do Brasil Ltda.

[Egypt]
Arab Company for Medical Appliances

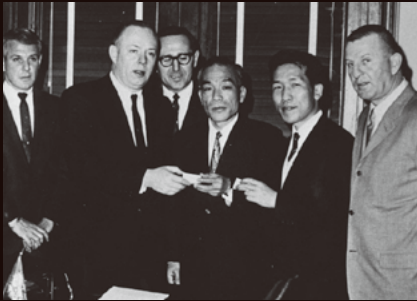
...and over 30 more countries

Growing with **Technological Development**

Being Essential All Through the Times and Contributing to Society

Our persistent efforts to develop new technologies to satisfy needs that vary with social changes have created NISHIMURA's history.

Our products, whose demand changes with the times, take the essential role all the time in supporting society.



(middle) Hisao Nishimura, Founder



Former main office in Sakyo-ku, Kyoto City



Tokyo International Trade Fair

- ▶ NISHIMURA MANUFACTURING COMPANY founded in Kyoto as a machine repairing and parts machining shop

1946

1953

- ▶ Started development of a prototype of a slitter rewriter

1954

- ▶ Developed the first Japanese slitter rewriter
- ▶ Launched T Series for papers and D Series for electrical insulation papers

Model T

1956

- ▶ Relocated the main office to Sakyo-ku, Kyoto City

1957

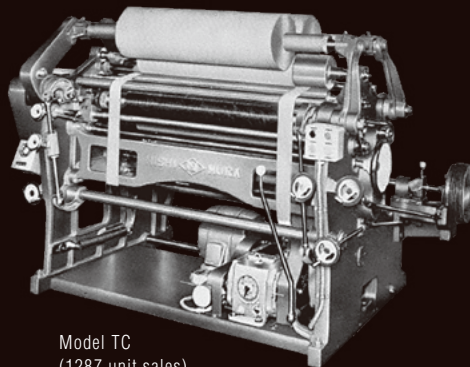
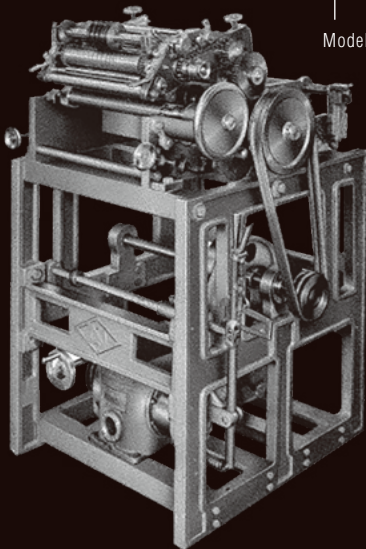
- ▶ Reorganized into incorporation

1959

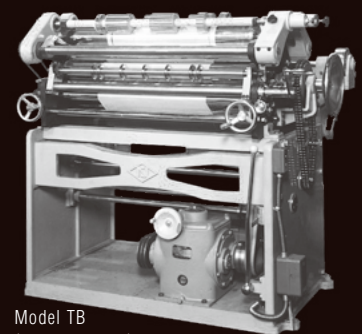
- ▶ Participated in the Tokyo International Trade Fair

1961

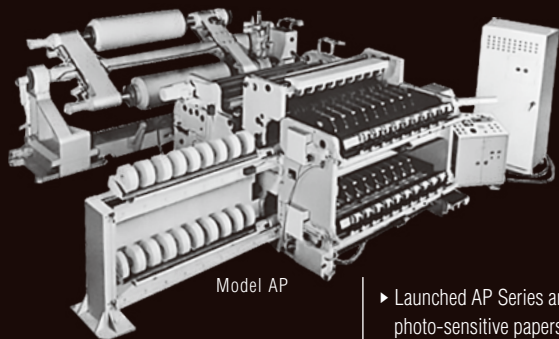
- ▶ Constructed the Jujo factory (the current main factory) in Minami-ku, Kyoto City
- ▶ Established the Tokyo sales office
- ▶ Launched U Series twin drum type winder
- ▶ Launched TB Series for electrical insulation papers and for electrolytic capacitor aluminum foils
- ▶ Launched TC Series versatile models for papers or films



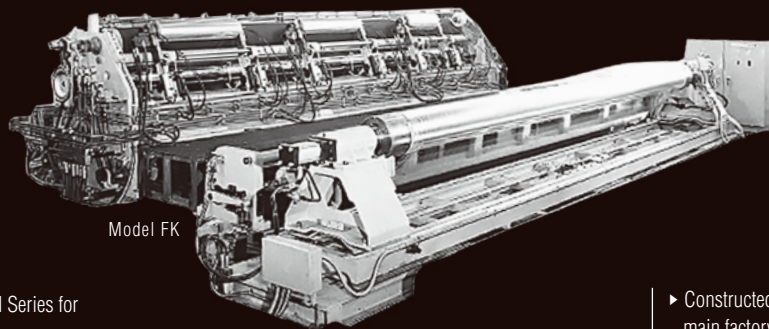
Model TC
(1287 unit sales)



Model TB
(701 unit sales)



Model AP



Model FK

- ▶ Launched AP Series and AM Series for photo-sensitive papers
- ▶ Launched FK Series for plastic films
- ▶ Reorganized the Tokyo sales office as Tokyo branch office
- ▶ Received the Export Contribution Company Award of the Year 1970

- ▶ Established the Tokyo service center (the current Service Division of Tokyo branch office)

- ▶ Constructed the fourth main factory containing a machine assembly floor and offices of the Engineering Department, Electrical System Department and Manufacturing Department

1970

1973

1986

1965

1969

1971

1978

1983

- ▶ Relocated the main office to the current location
- ▶ Constructed the first main factory (currently containing the Quality Control Division, testing room and multipurpose hall)

- ▶ Constructed the third main factory for machine assembly

- ▶ Received the Export Contribution Company Award of the Year 1971

- ▶ Took over the subsidiary corporation NISHIMURA SEIKO Co., Ltd. and converted it to the Uji factory

- ▶ Launched RT Series and VR Series for magnetic tapes

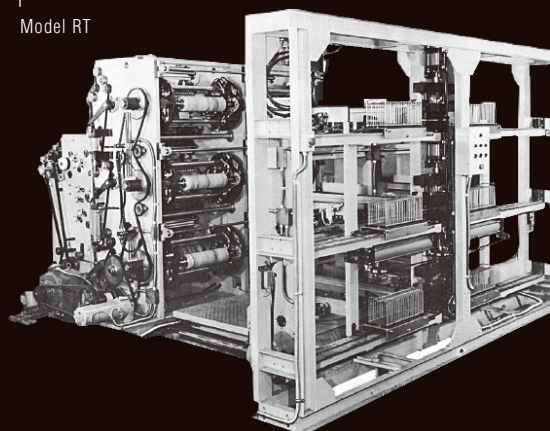
Panorama view of the main office and factory



Designers of those days



Model RT

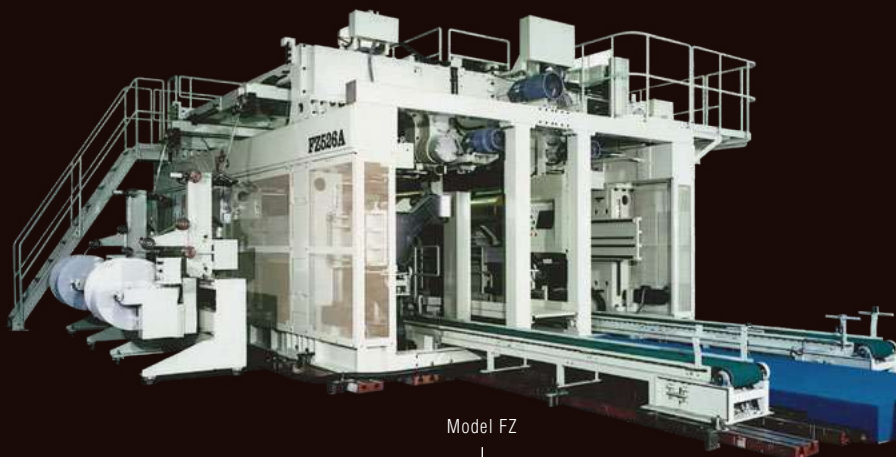




Model TH500 (350 unit sales)

- ▶ Launched TH500 Series for battery separator films

1995



Model FZ

- ▶ Launched FZ Series equipped with the hanging type rewind arms for a wide film
- ▶ Received the Kinki Regional Award of Invention and Innovation of the Year 2004

2004

1989

- ▶ Launched FZ Series for a wide film

1996

- ▶ Launched TG Series for battery electrodes and nonferrous metal foils
- ▶ Patented the individual friction type rewind shaft (NS-PX Shaft)

1998

- ▶ Constructed the Uji second factory for machine assembly

2001

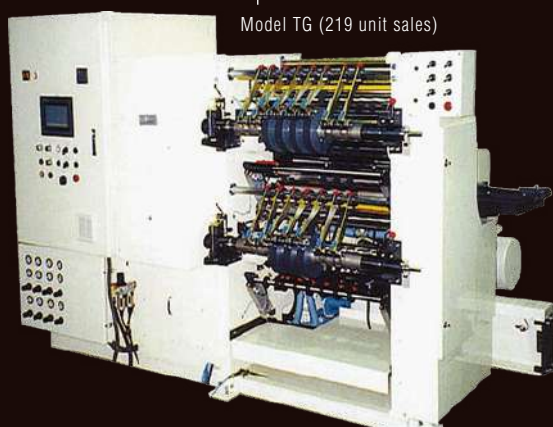
- ▶ Received the Kinki Regional Award of Invention and Innovation of the Year 2001

2002

- ▶ Received the Award from Commissioner of the Japan Patent Office of Intellectual Property Achievement Awards
No. of property and utility models: over 100
- ▶ Received the first prize of Kyoto SME for Technology

2010

- ▶ Selected as one of the Greatest 100 Manufacturing Companies in Kansai by the Japanese Ministry of Economy, Trade and Industry
- ▶ Constructed the testing room



Model TG (219 unit sales)



Testing room



Model FQ (80 unit sales)



Certificate of Selection of the Companies Leading the Future of Local Prosperity

- ▶ Received the first prize of Kyoto SME for Excellent Technology from Kyoto Sangyo 21

2011

- ▶ Launched FQ Series for battery separator films

2013

- ▶ Completed renovation of the Uji first factory (parts machining)

2016

- ▶ Selected as one of the Companies Leading the Future of Local Prosperity by the Japanese Ministry of Economy, Trade and Industry

2018

2012

- ▶ Completed renovation of the main factory
- ▶ Certified as Kyoto Heartful Company by Kyoto Prefecture
- ▶ Launched the individually-driven type top knife holder

2015

- ▶ Launched Model TQ140J with the rewind horizontal movement system for label stock

2017

- ▶ Selected as one of the 70 Unique Companies in Kyoto and Siga Prefectures Shining to the Future by Nikkan Kogyo Shimbun
- ▶ Launched Model CV+WA take-up winder for battery separator films

2019

- ▶ Completed the major remodeling construction at the main office and factory
- ▶ Extended the Uji second factory
- ▶ Selected as one of the 180 Good-Standing Companies That Are Loved Long Over Time in Kansai Area by The Nikkan Kogyo Shimbun

Individually-driven type top knife holder

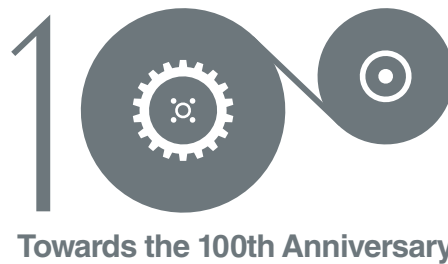


Model CV+WA



Entrance of the main office





Heading for the 100th Anniversary with Further Development of Technology

NISHIMURA was founded in 1946 and developed Japan's first slitter rewinder in 1954. Since then, we have sold over 10,000 units domestically and abroad. For those more than 60 years, we have been taking the role of a reliable slitting solution partner for our customers by striving to develop and advance our technology according to the times and also managing all the production processes by ourselves.

Succeeding the history established in this way, we will push ourselves further to improve our technology and service quality in order that we can reach our 100th anniversary.

Moreover, we will make further progress in the business by creating an employee-friendly workplace and encouraging individual employees to work actively.

Now that more corporate responsibility is required than ever to obtain a sustainable society, we will keep on contributing to the development and maintenance of society.

Hisato Nishimura
President

Corporate Profile

Company Name

NISHIMURA MFG. CO., LTD.

Founded

January 1, 1946

Incorporated

April 1, 1957

Representative

Hisato Nishimura, President

Number of Employees

129 (as of April 1, 2019)

Capital

376 million yen

Revenue

6,682 million yen (Fiscal Year 2018)

Business Activities

Designing, manufacturing, sales and maintenance of slitter rewinders and their related devices



Headquarters



Tokyo Branch Office



Uji 1st Factory



Uji 2nd Factory

Offices and Factories

Headquarters

21 Minaminawawshiro-cho, Kamitoba, Minami-ku, Kyoto 601-8113, Japan

Phone: +81-75-681-0351

Fax: +81-75-681-4610

E-mail: saleshd@ns-slitter.co.jp

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Phone: +81-3-5828-3571

Fax: +81-3-5828-3577

E-mail: salestky@ns-slitter.co.jp

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107 Fukemae, Makishima-cho, Uji City, Kyoto 611-0041, Japan

Phone: +81-774-22-5321

Fax: +81-774-22-5319

Uji 2nd Factory

126 Juichi, Makishima-cho, Uji City, Kyoto 611-0041, Japan

Phone: +81-774-28-2121

Fax: +81-774-28-2165



KES Step 1 certified.

KES stands for Kyoto Environmental management system Standards, which are the standards started from Kyoto where the Kyoto Protocol was concluded.



www.ns-slitter.co.jp/en