

SYL

Sharing Your Life

Muratec Customer Magazine 1 | 2021 | EN



The world's oldest yarn, discovered in Israel, is believed to have been made some 20,000 years ago. We cannot help feeling a sense of wonder and awe at the resourcefulness of the ancient people who invented yarn, a flexible, strong, and versatile material made of natural ingredients, and used it for making clothes and stone implements. After the epoch-making invention of yarn, numerous historical events took place over a long period of time, culminating in the Industrial Revolution in the 18th century. The revolution has eventually led to the present age in which spinning factories around the world can manufacture various types of yarn in huge quantities. Having played an indispensable role in our daily lives from time immemorial, yarn deserves to be called a "sustainable" material.

Now, let me briefly call your attention to the history of our company. In the field of automatic winder, we developed the Air Splicer in 1979, which has now become a standard feature in our spinning machinery. In 1983, we found a way to directly link the spinning frame to the automatic winder with the Link Coner that supplies bobbins on a tray. In spinning, we developed Murata Jet Spinner in 1978, which applied an airflow to spinning. Finally, through subsequent step-by-step improvement efforts, we came up with the present model of VORTEX Spinning Machine. While our corporate history is as short as the blink

of an eye compared to the history of yarn, we are determined to continue development efforts in the years ahead for the further advancement of spinning processes.

I believe you have put many ideas into action at your plants to keep pace with the sustainability awareness that has prevailed throughout the world in recent years. At our plants too, we place our technological development emphasis on fulfilling your needs in three focus areas—high production, high quality, and flexibility. Specifically, we make continuous, day-to-day efforts toward materializing highly efficient structures to minimize energy loss, intelligent operation to reduce alarms and operation time, and device technology to handle a wide variety of materials. Moreover, our Muratec Smart Support (MSS) system, which makes full use of IoT technology, one of our fortes, has been highly recognized and widely adopted across the world as a tool for maintaining a high level of machine efficiency in factories.

In the coming years, we will continue listening to your valuable feedback and make constant improvement efforts, thereby delivering even more attractive products to you. We sincerely hope that we will enjoy stronger and more "sustainable" ties with all of you for the generations to come.

Tetsuji Masai
Director, General Manager of
Textile Machinery Division



SYL 1 | 2021 | EN

CONTENTS

- 1 **MESSAGE**
- 3 **FEATURE**
- Possibility for Contribution to SDGs by VORTEX
- 7 **PARTNERSHIPS**
- Flame Resistant Fabric made of VORTEX Yarn
- 10 **EXHIBITION PREVIEW**
- We will participate in ITMA ASIA + CITME
- 11 **INTRODUCTION OF TRADITIONAL JAPANESE "CLOTH"**
- Woven fabric "Nishijin-ori"
- 13 **NEWS & TOPICS**
- MSS WEBINAR SERIES held in INDIA
/ Textile Machinery Showroom History Exhibit Introduction
- 14 **ABOUT MURATEC**
- Murata Overseas Scholarship Foundation
- 15 **NICE TO MEET JAPAN**
- "Wagasa"

Sharing Your Life
Muratec Customer Magazine May 2021

Published by Murata Machinery, Ltd.
Textile Machinery Division
Green-Bldg., 2-6-26, Kitahama,
Chuo-ku, Osaka, 541-0041, JAPAN
Website : www.muratec.co.jp
© 2021 Murata Machinery, Ltd.

Possibility for Contribution to SDGs by VORTEX

Our company also approves of and agrees with the Sustainable Development Goals (SDGs) aimed at the 2030 Agenda which were adopted at the UN summit in September 2015. As such, we carry out activities aimed at helping realize a sustainable society by working towards both company economic value and resolution of social issues through company business.

The Textile Machinery Division also aims to improve the welfare of people all over the world by contributing

to the production of the clothing which is essential for daily life and ensuring that the production processes for the clothing remain high quality while also saving energy, all through the development and provision of spinning process automation machinery.

We will introduce example VORTEX spinning processes which make it possible to contribute to SDGs through each production process from the raw material to finished textile product stages.



1 MATERIAL Dope Dyed Material

There is an increasing demand for dope dyed material. Dope dyed can save energy, chemicals and water compared to the conventional dyeing process. VORTEX can be most suitable system for dope dyed material, thanks to process saving, easy cleaning and high productivity. Furthermore, colored fiber tends to be manmade, which usually reminds the pilling issue.

2 MATERIAL Collaboration with raw material manufactures

VORTEX has its own unique spinning system, with high draft ratio using four rollers, twisting fibers by air and high speed. The newest machine can reach 550 meters per minute, and in this speed level, we need to study the fibers. We collaborate with fiber manufactures and finishing oil supplier to develop most suitable fibers for VORTEX. Sustainable materials are also important. We keep studying such materials.

3 PREPARATION IDF+ 1 Pass

As introduced in the last issue of SYL (2020 Vol.2 " IDF+1 VORTEX by Trützschler"), we are working with Trützschler to reduce second and third pass in the drawing process. The success will lead to further reduction in cans handling, space, energy, maintenance and so on. Our challenge continues to work not only for 100% single fiber, but intimated blend of multiple fibers. Please check the last issue!

4 SPINNING Process Saving

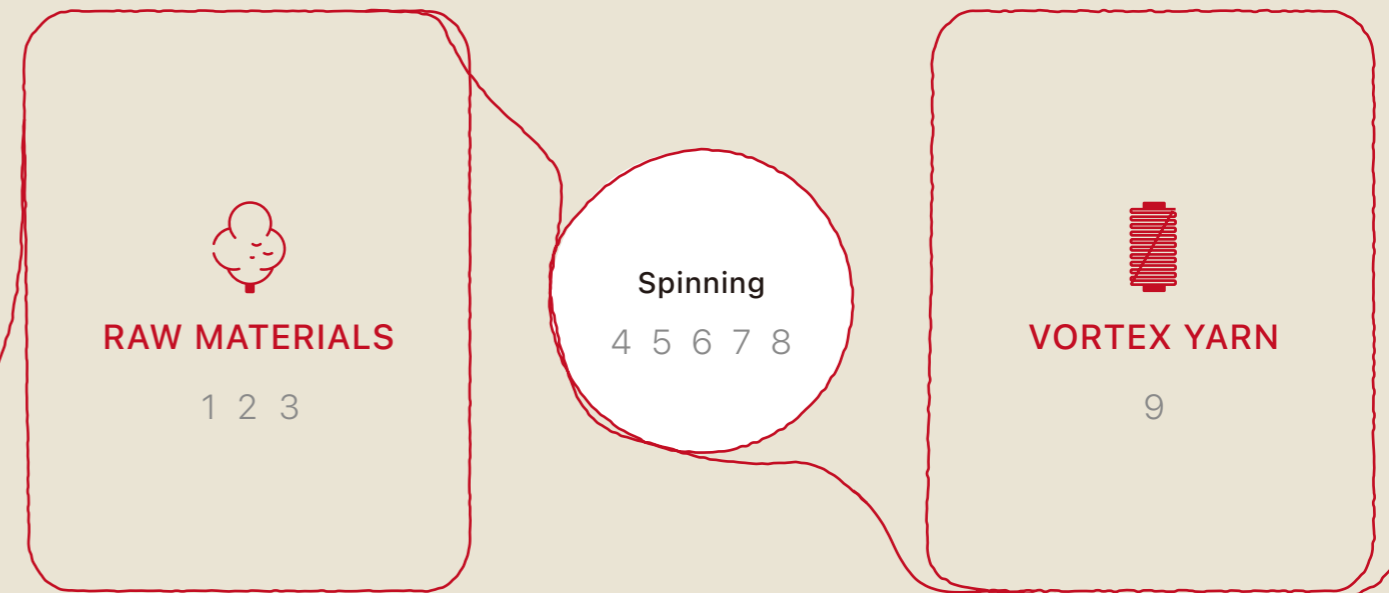
New Standard after the current situation will change the market. The production lot shall be smaller than before, but the market will request for the speed. The process saving shall be more important. All spinning methods request carding and drawing. VORTEX can be started just after the receipt of 96 cans, with highest spinning speed. Usually, other systems request more sliver cans, and more time for preparation and production.

5 SPINNING Flexibility (Fiber Length)

VORTEX has two different models. One is for Cotton and 38 mm fibers, and another is for 51 mm fiber (38 - 51 mm fiber). We believe that we can cover high percentage of the fiber market. There is 51 mm fiber market for specialty. Some are flame retardant, and some are for the market, expecting less pilling, and higher speed. For the former, we already have certain share, for the latter, VORTEX can solve even in 38 mm fibers.

6 SPINNING Flexibility (Yarn Count)

Ring spinning can cover the widest range of yarn count from coarse to fine in all spinning systems. However, ring spinning machine has different settings for bobbin length and ring diameter. Each ring spinning machine is designed for certain range of the count, e.g. for coarse, medium or fine count. Open end can reach very coarse count, but very rare in fine count. VORTEX can cover Ne10-80 in one machine, widest range amongst all spinning systems.



7 SPINNING Productivity

Now VORTEX can reach 550 m/minute at maximum. What is unique in VORTEX is there are couple of users who operate VORTEX in maximum speed. Many users in the world operates VORTEX setting its speed more than 90% of mechanical capacity. Other mechanical spinning systems have limitation in actual operation, like high energy consumption, high temperature and so on. Only VORTEX allows the customers to challenge in maximum capacity.

8 SPINNING Production Lot

How to decide the production lot is important, especially when the required lot is small or cleaning of machines is required. Time required for setting change and cleaning are the loss for the spinners. Therefore, it should be minimized. In this sense, the short process and easy cleaning may help to minimize the loss to re-start. Its saving in preparation time may bring more flexibility for small lot production.

9 VORTEX YARN Less Pilling

Since the introduction of our air-jet spinning machine, MJS (Murata Jet Spinner) in early 1980's, we have promoted "anti-pilling" character. VORTEX follows its character, adding less hairiness and others. Anti-pilling is more highlighted now. The trend for "anti-pilling" forces ring spinning to adopt compact system or siro-spinning. Both systems need additional investment. Moreover, siro-spinning needs further investment in preparatory due to less productivity.

10 KNITTING
Less lint in Knitting

Hairiness can be one issue for environment in next processes, like warping or knitting. It causes fluffs, lint. Especially the knitting machines are more sensitive for lint, and we found big difference in lint shedding, compared to ring yarn (Carded cotton 100%) Less lint ensures less cleaning. One customer says, the cleaning cycle is once per 3-4 months after using VORTEX yarn. (One or twice per month, when they use ring spun yarn)

11 KNITTING
Less Skewness in knitting

In knitted fabric, skewness is also an important factor. It comes from the twist torque in the yarn. After knitting, dyeing, the manufacturer adjust its skewness to keep its level within the standard. It depends on the setting in spinning condition, but VORTEX tends to have less skewness than other spinning systems. The fact that all fibers are not twisted, helps to reduce the skewness in VORTEX. Less skewness may lead to saving in further treatment or fabric loss.

12 WEAVING
Weaving Preparation

VORTEX yarn has many parallel fibers inside. This helps in quicker absorption and quick drying. In sizing process for weaving preparation, normal sizing parameters for ring spinning are not suitable for VORTEX. We recommend to reduce the sizing concentration. This will help to save the cost and cost of sizing and de-sizing. Heating temperature in sizing also can be reduced. We recommend 10-20% lower temperature compared to that of ring yarn setting. It may also help to reduce the running cost.

16 PRODUCTS
Less Pilling

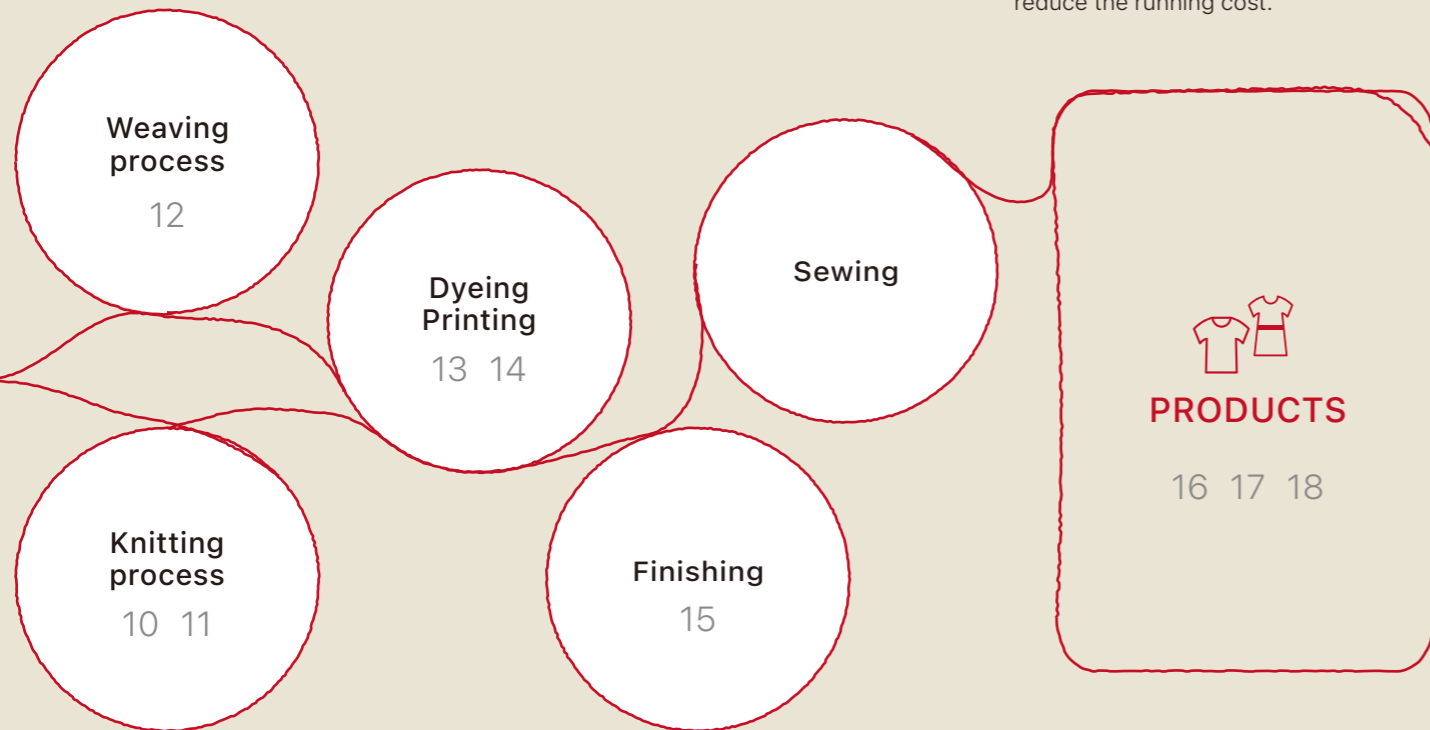
Less pilling is an important factor, because it decides the product life. Sensitive consumers seem to pay more attention to the environment, loss, waste and the Earth. Longer product life will help to consume less and reduce the waste. In the long run, it will help to save energy, water, chemical consumption. There are already many products in the market which promote longer life.

17 PRODUCTS
Wash Resistance

Wash resistance is another good point. It may sounds similar to less pilling, but we are emphasizing about the fiber pulling out during the wash. For example, cotton fiber is not so strong, and cotton fiber is cut or goes out from the fabric. There are lesser claims for pilling in 100% cotton products. VORTEX yarn structure holds fibers more tightly inside the yarn. When 100% cotton towel is compared after the wash, we can find the weight difference compared to ring. This shows, how VORTEX yarn keeps the fibers intact.

18 PRODUCTS
E-commerce changes the market

E-commerce shows rapid growth everywhere. This fact will change the market. Physical store has limitation in space, store hours, stocks and promotion. But E-commerce eliminates the limitation. At the same time, E-commerce will force the seller to promote more and more. The increasing requests from the buyer is the reason why they put the products in cart. VORTEX can be one of the reason for promotion, and there are already many such cases.



13 DYEING
Dyed fabrics

Less hairiness improves the character of dyed fabrics. We have many feedback, that knitted fabric with VORTEX yarn looks more deeper than that of ring yarn. We suppose that the hairiness affects the appearance of the dyed fabrics, because hairiness on the surface may cause diffused reflection. Also after couple of washing, still less hairiness can be observed. This helps the fabrics with VORTEX yarn for better color fastness than that of ring spinning.

14 PRINTING
Printing

Dyeing process was often picked up for environmental issues in textile process. After that, doped dyed fiber market is started growing, and also printing market expanded a lot, especially digital printing market. The fabrics made with VORTEX yarn have very few hairiness on the surface, and it fits to any style of printing. It is the best fabric for more precise digital printing.

15 FINISHING
Finishing

Some customers needs to have special finishing process, like singeing or special treatment to get the required pilling rate in the fabric. Special treatment is required in some special uniforms, which request NO dust at any time, but the products have shorter life. Less pilling materials are already proven in these fields, and VORTEX helps to reduce such process and makes the product's life longer.



Challenge for further energy reduction, higher speed, filament core yarn, further collaboration by MSS

We have been successful to save the energy every time when we introduce new model. will keep on developing new technologies keeping energy reduction in mind. Also, we continue to pay attention to air consumption.

Challenge for higher speed is also our target. Usually, higher speed requires higher energy, when mechanical rotation is involved. But twist by Air does not require linear increase of energy by speed-up. Furthermore the speed-up result in less twist by air and it brings softer hand feel. Speed up means higher productivity, and softness. This shall be the

background how VORTEX could expand the market.

Filament core yarn by VORTEX, we believe its possibility. VORTEX can offer, large is anotherly and 80-90% less splicing points compared to ring spinning. Let's put the function inside!

We have unique system, named MSS (Muratec Smart Support). Under agreement with the users, we collect the machine data via internet. Already around 400 VORTEX factories are connected, and the data help us to support the customer to send periodical report or remote support.

Flame Resistant Fabric made of VORTEX Yarn



Pilling resistance is required for flame resistant fabric. VORTEX spinning machines produce "yarns with low hairiness" through "stable high speed spinning" making them perfectly suited for satisfying this need. The MJS (Murata Jet Spinner)/MTS (Murata Twin Spinner) which were the forerunners to the VORTEX spinning machines were also capable of spinning 51 mm fibers, so Muratec's air spinning machines have been used for spinning of flame resistant fabrics for over 40 years.

Introducing collaborations between Muratec's VORTEX spinning machines, fabric manufacturer TenCate Protective Fabrics, and materials manufacturer Kaneka.

Who Is TenCate Protective Fabrics?

As the leading global producer of protective fabrics, TenCate Protective Fabrics enables millions of people worldwide to be great at what they do. Generations of industry professionals — servicemen and women in fire, healthcare, military and police — rely on our fabrics for safety, comfort and confidence.

TenCate, founded in Almelo, the Netherlands in 1704, expands production of 180 power looms to over 5,000 power looms in the early 1930' s. As the company grows, TenCate begins expansion into various industries.

In 1968/69, TenCate was the first company to engineer a way to spin aramid fibers into yarn to be woven into inherently flame and heat resistant fabrics. The very first aramid-based fabrics were used for turn out gear and introduced in 1970 at the Cleveland Ohio Fire Department. This changed the future of FR fabrics. The 2000s saw the introduction of two new fabrics that became the benchmarks for success in their respective markets.



Defender® M



Tecasafe® Plus

Defender® M

Launched to the market in 2006, Defender® M became the sole fabric of choice of the US military in all theaters. Engineered as an FR solution to address the threat of burn injuries from IED' s in the field, Defender® M is still going strong after more than a decade of service. In 2010, Defender® M crossed over to the Fire Service market to be used in an innovative thermal liner face cloth for firefighter turn out gear.

Tecasafe® Plus

Introduced in 2007, Tecasafe® Plus was engineered as an inherently FR blend for the industrial market that would provide inherent protection and enhanced comfort through an intimate blend of fibers. Tecasafe® Plus found enormous success in the industrial sector and became a cross-market phenomenon; finding uses in the Emergency Response and military markets as well. The Tecasafe® Plus family continues to flourish with new FR solutions that feel like every day apparel.



TenCate Protective Fabrics -US Union City, GA

Since the introduction of aramid fabrics to the Fire Service market, TenCate Protective Fabrics has been at the cutting edge of innovation for firefighters all over the world — from pioneering the use of inherent

blends, to new and innovative technologies like ENFORCE Technology™ to provide better strength and lighter weight fabrics. TenCate Protective Fabrics remains the leader in new FR solutions for first responders.

TenCate Protective Fabrics Today

In 2021 TenCate will begin to expand into new markets with truly intelligent textiles. A new fabric, Tecasafe One, will see a new era of affordable FR fabrics for an entire market that has been complacent about FR protection and comfort for too long. Oil and gas workers as well as electrical linemen will now have an affordable and effective FR solution at their fingertips.

The Fire Service market will see new lightweight and flexible outer shell options for structural firefighting and technical rescue. New advancements in thermal liner engineering will see fabrics that are more comfortable than

anything seen before in the market. TenCate will continue to raise the bar for base layer fabrics as well as stationwear options as we promote "Protection from the Skin Out" to make sure that firefighters have the complete protection they need.

Continuous improvements to the Defender® M product line will see new markets for TenCate in military applications all over the world. In an ever-expanding global market with new territories and regions becoming open to new opportunities, growth for TenCate military fabrics is a foregone conclusion.



The transition from Murata's Twin spinning frames to the new VORTEX 870 EX machines has improved yarn quality nicely.

James Floyd
Plant Manager, The Americas TenCate Protective Fabrics

TenCate Protective Fabrics will continue to invest in all manufacturing and laboratory testing facilities to make sure that we can deliver the cutting-edge technology to move FR fabrics into the future with continuous innovation and first-to-market solutions that will best serve the people who trust our fabrics every day.

John Stoehr
Marketing & Communications Manager, The Americas TenCate Protective Fabrics



KANEKA Factory

Kaneka, founded in 1949 in Japan, has businesses spanning applications in medical and health care, aerospace, bio-sciences,

Kaneka's fiber division has been producing modacrylic tow and staple fibers for over 60 years. Kaneka is the leading company of modacrylic fiber, targeted for use in synthetic hair and wig products, faux fur, and flame resistant protective textiles.

In the flame protective apparel market, Kaneka Protex® is modacrylic fiber that can be expected to add characteristics to fabrics for inherent protective performance, comfort, durability and garment appearance. Protex® modacrylic fiber has the property of imparting to the fabrics containing other flammable fibers such as cotton and other cellulose that would typically burn out without the presence of Protex® fibers the ability to prevent the spread of fire.

In the year 2000, Kaneka introduced Protex® modacrylic fiber to Southern Mills, Inc., later acquired as part of TenCate Protective Fabrics of North America in 2004. Kaneka has had a close relationship with TenCate supporting their efforts providing protective solutions to very demanding and hazardous worker environments.

plastics and functional additives, and a synthetic fiber division to name a few in major regions of the world.

This feature is important due to the increasingly challenging demands from wearers of flame protective garments requiring complex fabric blends.

The modern worker desires a high level of safety along with the same expectations for comfort, moisture management, style and fashion present in everyday clothing. Employers desire durable protective apparel technologies that can protect workers in multiple hazard situations, i.e. flash fire, arc flash, high visibility requirements, with a single garment.



We rely heavily on trusted partners like TenCate with their expertise and innovational capabilities to translate Protex® fiber characteristics, through yarn and fabric design optimization, into demonstrated performance solutions and benefits for the wearer.



Dennis Mater
Senior Product Development Manager,
Kaneka Americas Holding, Inc.

Kaneka Protex® modacrylic fiber



Protex® modacrylic fiber



Collaboration with TenCate

Coming Soon !

ITMA ASIA + CITME

Link to the Future

Muratec will exhibit at ITMA ASIA+CITME 2020 to be held in Shanghai China from June 12th to 16th 2021. Our exhibits will include actual demonstrations of 2 models of automatic winder, VORTEX spinning machines, and the Muratec Smart Support IoT solution.

SPECIAL WEB SITE WILL OPEN

For customers who cannot visit the venue in person, we will also be opening an online booth which introduces the exhibition contents via the Web beginning June 12th. We also plan to broadcast seminar videos which provide easy-to-understand explanations of the features and benefits of each product.

Release period : 2021.6.12-30

URL : <https://muratec.online/itmaasia>



Hall No.7 E01/02

1 Automatic Winder PROCESS CONER II QPRO EX VCF Advance type 24sp

A demonstration of Core Spandex yarn splicing using the Stretch Air Splicer. A VCF model will be exhibited which is capable of winding the rocket bobbins used in the manual doffing machines which are most common in China.

3 VORTEX Spinning Machine VORTEX 870 EX 16sp

An exhibit of the latest model VORTEX 870 EX. Demonstrations will feature high speed winding of 100% viscose and 100% polyester fine yarn counts of Ne50 to 60.

5 Muratec Smart Support

An introduction of system applications which support factory operation and support stable operation of automatic winders and VORTEX spinning machines by connecting machines with people, and customers with Muratec through ICT technologies.

2 Automatic Winder PROCESS CONER II FPRO EX Cone to Cone type Model-SR 12sp

The first exhibit of the Cone to Cone type Model-SR FPRO released in 2020 which is capable of high precision winding of a wide variety of package shapes.

4 VORTEX Yarn - Fabric & Apparel Sample

An exhibit of the latest fabric samples and product samples using VORTEX yarn which enables greater expansion of what materials can be spun as well as a wider range of applications.

6 Genuine Parts

An introduction of retrofit parts and maintenance pack items.



>>>INTRODUCTION OF TRADITIONAL JAPANESE "CLOTH"

西陣織

Nishijin-ori

The origin of Nishijin-ori (Nishijin brocade) can be traced back to the Heian Period (794-1185) when the capital was in Kyoto and the government was run by the Emperor and Imperial Court nobles. It is said to have developed from the production of the high grade twill weave, brocade and other textiles presented to the Imperial Court. In the mid-Heian Period, these type of government managed workshops began to decline, and the craftspeople who were no longer under the direct control of the Imperial Court began independently producing textiles, which became the origin of private sector Kyoto weaving.

The government later came under the control of warrior class, and Kyoto was desolated when it became the battlefield for the Onin War (1467-1477), where two armies battled, one from the west and one from the east, but after the fighting ended, the craftspeople who fled to other regions began to return to Kyoto and textile manufacturing resumed. Since the location was the former headquarters of the western army, this textile came to be called "Nishijin-ori (Nishijin brocade or "western army brocade"). November 11th was designated "Nishijin no Hi" ("western army day") as it was said to be the day when the war finally ended and peace returned, and even today, 550 years later, celebrations are still held on the date every year to pray for peace and the continued development of the textile industry.

One characteristics feature of Nishijin-ori is that it is yarn-dyed, figured cloth (textiles made using dyed yarns that has been dyed to create patterns and figures), and that it requires a large number of processes to finish. These processes are carried out through a division of labor, where specialized craftspeople use a high level of skill and specialized techniques to carry out the processes which they specialize in. Nishijin-ori products span a wide range of items, including items that have existed since ancient times, such as obi belts for kimono and kimono themselves, Noh costumes, clerical garments, and other Japanese clothing items; as well as more modern items such as neckties, shawls, and other western clothing items; curtains, car seats, hotel wallpaper, and other interior decoration items. While some workshops have modernized, there are also still some traditional handicraft workshops, and this type of high variety, low volume production is also another characteristic feature of Nishijin-ori (Nishijin brocade).

12 types of Nishijin-ori were designated Japanese Traditional Craft Industries in 1976. Nishijin-ori workshops have continually pushed to further the craft through creative designs and the capability to express those designs as textiles, and have continued to employ traditional methods while also developing next techniques and technologies as well. Such a wide variety of textile goods are produced in the style today that it is said that "there is nothing that cannot be woven in Nishijin-ori".

The craft faces a variety of issues when it comes to the traditional craft surviving in the future, including changes in lifestyle that have made kimono less common, the ageing of the craftspeople, and a lack of successors taking up the trade. However, recent initiatives aimed at helping to combat these problems are plans for a Nishijin-ori "Kimono Show" on YouTube and the establishment of online stores. Other initiatives

include the collaboration of the three leading Japanese clothing fabric production regions of "Nishijin-ori", "Tango Chirimen", and "Kyoto Yuzen", to open the "Kyo Kimono Monogatari" web-based exhibition site (<https://xr-kimono.kyoto/>) using XR technology. This site displays a variety of different collaboration stylings featuring kimono and obi belts from the three production regions in realistic presentation spaces featuring the scenery of Kyoto and the delicateness of kimono. It also features a "workshop tour" which allows visitors to enjoy a simulated experience like a real tour of a traditional dyeing and weaving industry workshop.



Kyo Kimono Narrative

Examples of traditional handicrafts

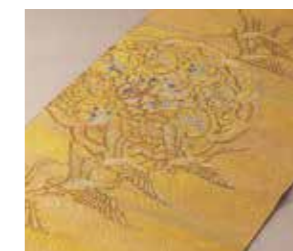
Nukinishiki

"Nishiki" is a collective term for textiles which use colored yarn to weave patterns and figures, and is said to be one of the most gorgeous of textile styles. It is produced with Jacquard hand looms using Jacquard pattern cards.



Tsuzure

This style uses a fabric made with plain weave onto which patterns and figures are then woven using weft yarn. It is woven using a very delicate process where the weaver's fingernails are filed into a saw-like toothed shape to rake the yarn and for more complex designs only 3 cm weaving in each direction can be completed in an entire day of work. This is one of the oldest of the Nishijin-ori techniques.



Imamiya Jinja Shrine is a sub-shrine for Nishijin and is the site of a shrine called "Orihime-Sha". The votive lantern monument in front of the shrine building is modelled on a shuttle, which is one of the essential tools for weaving, and the shrine is worshipped as ancestral deity for Nishijin-ori, and is highly revered by those who pray for improvement of their handiwork skills as a deity which presides over the beauty and skill of textiles. On Nishijin no Hi on November 11th, supplicants pray to express their gratitude to the deity of textiles and to wish for the continued prosperity of both textiles and Nishijin-ori.

Special thanks to Nishijin Textile Industry Association Nishijin Textile Center

Report from INDIA

MSS WEBINAR SERIES held in INDIA

In 2020, all of us witnessed the Global community and industries implement innovative measures to combat the COVID-19 Pandemic. The Indian Textile players too came up with different approaches to overcome the situation. In this situation, we, MIP (Murata Machinery India Pvt. Ltd.) realized the increasing acceptance of MSS products and such digital measures by our clients. Hence we decided to extensively promote MSS products through MSS WEBINAR SERIES. With India being a linguistic diverse country, we started off with small groups of ~15 customers in the Indian state of GUJARAT and targeted our audience using the local language of the Region. The response was over whelming and we increased the size of the participants in subsequent Webinars.

Our Webinars were focused on teaching customers about the features on MSS products and functionalities like Mobile Access, Troubleshooting guide, JOB list, Health Analysis reports (both Weekly and Monthly), machine grading index like iMW. We also talked about the various merits of the system.

Due to the Response and Appreciation shown by our customers, we hope to further conduct such Webinars across India and spread the good word of MSS system.



>>>Customer's voice



Mr. Nagadeepan
Real Spintex
General Manager

Opinion About MSS Webinar:

MSS webinar was useful, we got knowledge about how MSS will help us to connect with machines via web to communicate, to analyze the reports and to solve problems in smart way. In this pandemic situation, Muratec created this smart communication which saves time and is safer service to the users.

Suggestion to Muratec:

We suggest Muratec to have engineers especially for this type of webinar service, and conduct periodical meeting like once in a month with all the department heads and managers of every customers who have the Visual Manager.



Mr. Venkadesan
Sri Jayajothi and Company Private Limited
General Manager

Opinion About MSS Webinar:

MSS Webinar session was good and very useful, and this webinar may conduct to middle level technicians in mill.

MSS Products Helps:

It helped us improving our winding machine performance by increasing our machine efficiency. It is very helpful to get lots of benefits by following it e.g. for preventive maintenance which ensures consistent low warping breakage in the next process.

Introduction

Textile Machinery Showroom History Exhibit Introduction

The Textile Machinery Showroom at the Murata Machinery head office features an exhibit corner where visitors can experience the history of the Textile Machinery Division, from the time of the company's foundation to the present day.

The exhibit includes displays of actual machines which were a vital part of our company's history, including the jacquard machine which are our company's roots, the changes that winder units have undergone, an introduction to the Two-for-One Twister mechanism, the MJS (Murata Jet Spinner) world's first innovative air-jet spinning machine, and more.

In addition, from beginning of March 2021, the showroom now also displays a collection of catalogs of our past products.

In the next issue, we will introduce catalogs from the various fields which our company has worked on. We hope you look forward to it.



Providing a wide range of overseas opportunities to those who have a desire to learn - Murata Overseas Scholarship Foundation

Muratec Overseas Scholarship Foundation



The Murata Overseas Scholarship Foundation was established in 1970 in respect of the vision of company founder Mr. Teisuke Murata in order to provide opportunities for young people with a desire to learn to study overseas. This scholarship system was one of the first in Japan to be established as a private enterprise, and is still an extremely unique scholarship system today as it covers all expenses required for studying abroad, including everything from school fees during the study period, to round trip travel expenses, living expenses, and has no restrictions, limitations, or requirements regarding the scholar's chosen path once they return to Japan.

The scholarship attracts numerous applicants every year, and has provided support for 140 scholarship students over 50 years to study abroad at Oxford, Cambridge, Harvard, MIT, and other famous university and research institutions all over the world, helping to cultivate numerous human resources who can act and compete on a global platform.

"Our focus on applied technologies directly linked to economic growth resulted in neglect of investment in fundamental studies that can help build the foundation of our national capabilities. The existence of this foundation is important for discovering and cultivating human resources with an eye to the future." (Mr. Junichi Murata, Founder and Company Chairperson)



Muratec Overseas Scholarship Foundation 50th Anniversary Magazine



Continually creating innovative technologies for the fulfillment of a prosperous society



Textile Machinery
-Automatic Winder
-VORTEX Spinning System



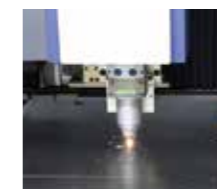
Logistics Systems / Factory Automation Systems
-Automated Storage & Retrieval Systems (AS/RS)
-Sorting System



Automated Material Handling Systems for Clean Rooms
-AMHS for Semiconductor Fab.
-MCS (Material Control Systems)



Machine Tools
-Twin spindle CNC chucker
-In-line opposed twin spindle CNC turning machine



Sheet Metal Machinery
-Laser punch press
-Press brake
-Fiber Laser cutting machine



Communication Equipment
-MFP (Multifunctional Peripheral)
-Facsimile

Wagasa

和伞



"Wagasa" are Japanese umbrellas which are made from "washi" traditional Japanese paper affixed to a framework of bamboo, wood, yarn and other materials. There are approximately 100 processing steps in the manufacturing of wagasa, with each process carried out by hand by expert craftspeople, including a "honeshi" who carves the bamboo that becomes the umbrella's frame, a "harishi" who affixes the washi Japanese paper to the umbrella, a "shiageshi" who coats the umbrella with oil and lacquer, and many more.

Wagasa were commonly used as daily necessities during the mid Edo Period to the Meiji Period (around 1700 to 1870). Wagasa designs and techniques

continue to evolve even today, and today they are still found through Japanese life in use as implements in plays and traditional events and as decorative items in "ryokan" traditional Japanese inns and "ryotei" traditional Japanese-style restaurants.

Although they are no longer commonly used as daily necessities, wagasa still possess the same qualities which made them so popular and perfect for enjoying a relaxing escape so long ago, including the sound the raindrops as they bounce off the umbrella and the beauty of the washi Japanese paper viewed from under the umbrella when lit by the sun on sunny days.

和伞指的是在用竹子、木头、丝线等做成的伞骨上贴上和纸的伞。其制作工序多达约 100 步，削竹做伞骨的骨师、在伞上贴和纸的贴纸师、涂油和漆的装饰师等等，每个工序都由匠人们手工制作完成。

和伞作为生活必需品而广泛被使用是在江户时代中期到明治时代（1700 ~ 1870 年左右）。今天，和伞的设计及技术仍在不断进化，近来除了作为表演或传统活动的道具使用外，也作为旅馆及日式餐厅的室内装饰，为日本的生活添姿增彩。

虽然很少作为日常品使用，但雨天雨滴打在伞上弹起的声音、晴天透出阳光的和伞之美等等，依然能够好好地享受日常某一时刻的美好，这也是一如往昔未曾改变的和伞特征之一。