

SYL

Sharing Your Life



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- NEWS & TOPICS
- ABOUT MURATEC
- NICE TO MEET JAPAN



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Looking Back on the History of ITMA, the Olympics of Textile Machinery

The largest event in the textile machinery industry, ITMA, was held in Barcelona this summer. I would like to express my gratitude for all of those who visited our booth during the show.

Muratec has exhibited at ITMA for many years since Basel in 1967, and I myself have attended every ITMA since then. The ITMA was a history of technological breakthrough, not only for our textile machinery engineering, but it has also positively influenced trends in the global textile industry. Now I would like to share some of my memories of ITMA with you.

Muratec entered its textile machine business in the late 1940s, when we adopted key technologies from Western textile machine manufacturers such as Abbott Co. and Gilbos NV. Until the rise of electrical and automobiles industries, the textile industry was the major industry for most of industrializing countries. The textile industry was supported by development of textile machineries, but Japanese textile machineries were behind Western machineries in this regard for a long time and the industry had to use mostly imported machineries.

From about 1960, by growing demand for developing competitive domestic textile machinery, I led our engineers to ITMA 1967 in Basel to learn about the global textile machinery industry, aiming to gain firm position in the market by having our own booth for the first time, rather than simply being a visitor. Our booth was very small and we exhibited only one two-for-one twister. Our attendants were all engineers except me and less than 10 members in total.

From this time, the driving force behind our development was to keep participating in ITMA, the quadrennial event like the Olympics for textile machinery industry, and create machinery that we could exhibit.

Participating in every ITMA gave me a valuable encounters to meet with many leaders of the Western textile machinery, such as the founders of Sussen in Germany, Rieter in Switzerland, and Savio in Italy, and they became my close friends. These personal acquaintances also had a positive influence on developing our textile machinery.



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>>>MESSAGE

Looking Back on the History of ITMA,
the Olympics of Textile Machinery

Our exhibition at ITMA 1979 in Hannover was a big turning point. Up until that time, European manufactures were technologically far ahead of us, but the revolutionary "Mach Splicer" air splicing mechanism unveiled by Muratec changed the trends of the industry.

The development of the Mach Splicer was successful by the slow and steady efforts of one engineer. When he was performing a demonstration in one booth, people started gathering and surprised with its revolutionary improvement that enables knotless weaving on its next process. This achieved a dramatic increase in sales of our automatic winders.

At the same time a competing textile machinery manufacturer also started developing similar mechanism, but we secured a patent slightly earlier than them. I still remember the competitor coming to our company immediately after ITMA and offering us money to use our technology. Providing them with a license to use our patent made our Mach Splicer being equipped in automatic winders around the world, and led Muratec to be recognized as a leading global textile machinery manufacturer.

ITMA has been growing more active as companies kept revealing revolutionary machines that impact on the world textile industry. ITMA 1991 in Hannover was the peak of the exhibition. The total exhibition area was the largest in history at 186,000 sqm, and Muratec exhibited an entire system for automating the spinning process, with package transfer system and a "Link Coner" directly linking a spinning machine and automatic winder at a booth as large as 3,000 sqm.

The textile industry was the core seed of industrial development, and its labor-saving, unmanned operations, and automation ended up spreading to industries such as the automobile and electrical machinery industries. As a matter of fact, many companies have their roots in the textile industry, including Japanese automobile manufacturer Toyota. It may seem that we have seen almost all conceivable technologies that can change the processes of the textile industry from their fundamentals, but I, as witnessing both the past and the present of the industry, eagerly wish to see machines again that will surprise and cheer the visitors at future ITMA exhibitions.

J. Murata

Junichi Murata
Chairman, Murata Machinery, Ltd.



murata machinery
KYOTO JAPAN

Muratec at the ITMA

Basle SWITZERLAND 1967
First participation at ITMA. Exhibited Two-for-One Twister for Filament "No. 300."

Milan ITALY 1995
First exhibition as Muratec brand Two-for-One Twister has reached 4 million spindle deliveries.

Paris FRANCE 1971
Exhibited automatic winder "No. 11" through technical cooperation with Gilbos, Belgium.

Paris FRANCE 1999
VORTEX spinning machine, "No. 851 Murata Vortex Spinner (MVS)" exhibited for the first time at a European exhibition.

Milan ITALY 1975
Exhibited pin twist type high-speed draw texturing machine, "No. 333 MACH CRIMPER."

Birmingham UK 2003
Exhibited new VORTEX spinning machine, "No. 861 MVS" and automatic winder, "No. 21C PROCESS CONER".

Hannover GERMANY 1979
Released nip twist draw texturing machine, "No. 333-II MACH CRIMPER." Exhibited automatic winder with Mach Splicer, "No. 7-II MACH CONER."

Munich GERMANY 2007
10th anniversary since the debut of the VORTEX spinning machine.

Milan ITALY 1983
Exhibited spinning machine direct-connected automatic winder, "No. 7-II LINK CONER."

Paris FRANCE 1987
Demonstrated package transportation using a Overhead Hoist Transfer, "SKY RAV."

Barcelona SPAIN 2011
Released new automatic winder, "PROCESS CONER II QPRO" and new VORTEX spinning machine, "VORTEX III 870."

Hannover GERMANY 1991
3,000sqm exhibited space, the largest ever. In addition to exhibited machines, we proposed total solutions for textile factory automation including computer-integrated production systems and process linkages using our own transfer technology.

Milan ITALY 2015
Exhibition commemorating the 80th anniversary of the company's foundation proved quite an event.

Barcelona SPAIN 2019
Exhibited new automatic winder, "PROCESS CONER II QPRO EX / FPRO EX" and new VORTEX spinning machine, "VORTEX 870 EX."

Both draw texturing machine and automatic winder have surprised the world as groundbreaking technology that has changed the history of textile industry.

Link to the Future

ITMA2019 Barcelona

Since our first exhibition in 1967, Muratec has continued to propose innovations at the ITMA that have changed and advanced the future of the textile industry.

At ITMA2019 in Barcelona, Muratec showed the future potential of evolving textile machines under the theme of "Link to the Future" as a leading industry innovator.



1 Automatic Winder - PROCESS CONER II Series

PROCESS CONER II QPRO EX Bobbin-tray 20sp (2kind yarn supply)
PROCESS CONER II FPRO EX Link Coner 12sp (4 of 12 spindles, magazine specification)
→ See P09-10

First exhibition of the latest models of the PROCESS CONER II series, "QPRO EX" and "FPRO EX" in Europe.

We introduced new functions and devices to contribute to improvements in maintainability and productivity such as the Bobbin Exchanger, splicer for CSY (Core Spandex Yarn) and Auto Balance function.

3 VORTEX Yarn - Fabric & Apparel Sample

→ See P07-08

In recent years, VORTEX yarns have been used for more materials and a wider variety of applications. We introduced examples using the latest fabric and product samples.

5 VORTEX Yarn - Yarn Booth

→ See P07-08

We setup a booth dedicated to VORTEX yarns in the Fibers, Yarns & Fabrics Sector to introduce the characteristics of VORTEX yarns to apparel manufacturers, etc.



2 Spinning System - VORTEX Spinning Machine

VORTEX 870 EX 16sp [NEW]
→ See P07-08

The world's first public demonstration of the latest model VORTEX spinning machine, "VORTEX 870 EX." A large crowd watched a demonstration of high-speed spinning at a speed of 550m/min that has broken the former model's world record of high-speed spinning. A large crowd was also gathered at a presentation to introduce the features of the new model in front of the actual machine.

4 VORTEX Yarn - Collaboration with other companies

→ See P07-08

We exhibited fabrics and product samples manufactured in collaboration with 33 companies (raw material manufacturers, knit manufacturers, etc.).

6 Muratec Smart Support

→ See P11

It is an IoT solution that supports stable operation of Muratec's automatic winders/VORTEX spinning machines. We introduced applications that support smooth factory operations using the latest IoT at the core of the operation data management system, "Visual Manager III" and "V-LABO III."

7 Genuine Parts

→ See P11

We introduced retrofit parts and maintenance pack items. We totally support processes from stable operation of machines to proposals of genuine parts after the introduction of a machine in cooperation with the MSS system.

8 Wireless Solution - silex technology

We introduced the industrial network device provided by Muratec's associated company "silex technology" that jointly developed the MSS specialized access point "MWE." The device offers an advantage in quality and can have a stable connection even in a complex communication environment of factory.

9 Carbon Nanotube Yarn

We exhibited "carbon nanotube spinning yarns" manufactured by processing extremely small carbon materials "carbon nanotube" to continuous yarn-like materials, taking advantage of spinning technology we have cultivated as a textile machine manufacturer. We introduced the latest activities of Muratec.

10 IDF+1 VORTEX - Trutzschler Booth

We realized a reduction of drawing processes (the previous processes of VORTEX spinning) in cooperation with Trutzschler. We exhibited the VORTEX spinning machines also in the Trutzschler's booth as "IDF+1 VORTEX."



NEW VORTEX Spinning Machine

VORTEX 870 EX

Higher-speed spinning machine, "VORTEX 870 EX" debut

The world's first public demonstration of "VORTEX 870 EX," the new model VORTEX spinning machine that can carry out the three processes of roving, spinning and winding on a single machine. We have achieved the maximum spinning speed of 550m/min based on the results and reliability of high-speed spinning we have accumulated until now.

There have also been rapid expansion in materials which can be spun and the applications for VORTEX yarns in recent years. We exhibited products manufactured in collaboration with 33 companies (material manufacturers and companies of other processes), as well as the latest fabric and

product samples which take advantage of the features of VORTEX yarns.

And Muratec developed "IDF+1 VORTEX" jointly with Trutzschler to reduce the number of drawing processes (previous processes) from 3 processes. Using VORTEX spinning characterized by high-speed spinning and high draft ratios, we improved production efficiency by reducing the number of processes while maintaining high-speed performance. This time, we carried out operation demonstrations using slivers produced by this method.



We demonstrated the spinning of Polyester/Cotton and Viscose on a daily basis. Operation at a maximum spinning speed of 550m/min attracted a great deal of attention. In the presentation, we introduced high spinning speed and cycle time reduction such as yarn splicing and doffing that are key points for improving production efficiency. Response to this model proved great, and we received a lot of questions about differences between the previous model, spinning materials, etc.



The exhibition corner of fabric/product samples of VORTEX yarns by material



Exhibited the VORTEX yarn dedicated booth in the Fibers, Yarns & Fabrics zone.



The exhibition corner of products by collaboration with 33 companies (material manufacturers, companies of other processes, etc.)



Trutzschler, "IDF+1 VORTEX" booth.

We challenged to speed and presented "VORTEX 870 EX" with maximum speed of 550m/min keeping the post of world's fastest spinning machine. Besides higher productivity, visitors were also pleased to see wide range of yarn count, blends and materials that 870 EX can produce on the same machine through easy & fast setup and suitable operation lay out. Our long years of experience in VORTEX technology, as well strong after sales & service were also pointed by visitors as differentials.



Marcio Andrade
Chief Engineer, MURATA DO BRASIL, LTDA.

Automatic Winder - Process Corner II series

QPRO EX / FPRO EX

The "PROCESS CONER II QPRO EX" and the "PROCESS CONER II FPRO EX" which evolved from the "PROCESS CONER II" series and equipped with various functions, were exhibited for the first time in Europe.

Maximize your Benefit - QPRO EX

The "QPRO EX" achieves energy savings of 5% or more compared to the previous model "QPRO Plus" by using an energy-saving drum drive and an upgraded blower motor control method. Utilizing the strengths of the "QPRO Plus," we have pursued advancements in automation and energy-saving performance that are indispensable to a spinning factory.

ARMS reaching out towards future technology - FPRO EX

"FPRO EX" can produce high-quality packages in optimal shapes without any ribbon by direct drive of the package and the linked traverse.

We demonstrated high-speed winding of uniform and low density packages with optimal traverse control and tension control.

Packages formed using this step precision winding offer superior high-speed unwinding and can be used for various applications.



We introduced the features of the exhibited machine, "FPRO EX" including the development history of the automatic winder. We demonstrated the operation of upper thread sensor and Bobbin Exchanger to show the effects.



We demonstrated yarn splicing using 4 types of splicers [S.A.S. (Stretch Air Splicer), Hot Splicer, Tencel Splicer and general purpose Air Splicer].



A newly developed "Stretch Air Splicer" solves the technical issues on yarn splicing of spandex yarns which is growing in demand for stretch materials for clothing.



Bobbin Exchanger removes and collects defective bobbins such as half-full bobbins discharged due to yarn quality factors to maximize machine efficiency.



We exhibited "FPRO EX" winding packages with a variety of functions such as 4-inch traverse, creeping, tapering, and edge compensation.

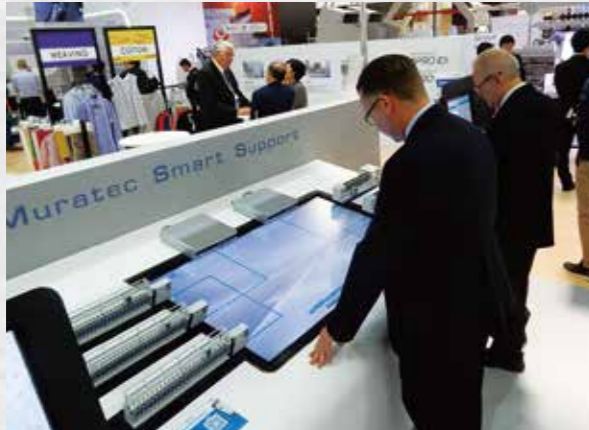
I was very excited to present our latest winding technologies in front of the world of textile manufacturing companies. Muratec is the pioneer in this kind of presentation in the exhibitions which are always appreciated by the visitors. During my presentations, I could find many visitors were eagerly listening to the explanation. This gave me another boost to be more convincing towards them and I tried my best to achieve that. After the presentation, I could feel that lot of interests were generated as there were lot of queries about the exhibits. Finally, I felt that we are innovating technologies which truly emphasises our tagline "Link To The Future....." .



Rajat Gangopadnyay
Deputy General Manager,
MURARA MACHINERY INDIA PVT, LTD.

IoT Solution

Muratec Smart Support



We introduced network images for the factory and usage of applications to support smooth factory operation.

“Muratec Smart Support (MSS)” is an IoT solution that supports stable operation of Muratec’s automatic winders and VORTEX spinning machines. We demonstrated the maintenance support app “MSS Web Applications” that enables even less experienced maintenance personnel to smoothly carry out work, and “MSS PORTAL” that enables monitoring of machine operating status from business trip destinations and outside the factory.

With the backdrop of world economy at yet another crossroad, our clients in the textile industry are looking forward anxiously to the proposals from the machinery partners to improve their factory utilisation. At Barcelona, ITMA 2019, we could see various concrete efforts from the industry on business intelligence and data management concepts. We, Muratec, had pioneered this effort years ago. At Barcelona, we showcased our latest MSS system which compliments and helps enhance our machinery performance. We could clearly sense an encouraging response to our new MSS portal, real time data display and sillex product. Our customers appreciated Murata’s sincere efforts to help them stabilize their machinery output by various functions such as job list, troubleshooting, alarm list, maintenance schedule and parts inquiry. Many clients eagerly signed up our MSS portal to assess their factory situation at their ease of time and location through internet.



Mohanraj Nandhi
Deputy General Manager,
MURARA MACHINERY INDIA PVT, LTD.

Customer Support

Genuine Parts



Video display of retrofit parts and exhibition of actual maintenance pack parts for automatic winders and VORTEX machines, and demo experience of estimation function linked to MSS system.

We introduced retrofit and maintenance pack items for existing machines. The retrofit for automatic winder 21D-X, 21C Bobbin Exchanger and QPRO upper thread sensor was presented by way of a video demo experience, and the actual maintenance pack items for automatic winders and VORTEX spinning machines were exhibited. We also demonstrated a parts estimation function of MSS Web Applications as total after-sales support linked to MSS.

Many customers were particularly interested in retrofit items and the video introduction drew large gatherings. We will continue to push forward with our efforts on optimizing operation stability and improvements in operating conditions for existing machines.



Yasutaka Nakayama
MURARA PARTS SALES, LTD.

ITMA2019 Amigos with a nice smile! Polite responses and “Otsukaresamadesu” at the end of the exhibition made me feel at ease every day! Gracias!
#ITMA Barcelona #Amigos #nice smile #feeling at ease #thanks

ITMA2019 Commemorative photos at the Photo Booth! Muratec’s overseas staff waits for commemorative photos with President Murata on the final day of the exhibition. Good vibes and good memories for the staff and visitors!
#Photo Booth #first challenge #commemorative photo

ITMA2019 Exhibited new technologies that offer potential for use in various fields from clothing to space.
#CNT #new technology #smart textile #space

ITMA2019 Muratec Members from various countries, reaffirming worldwide Muratec inspiration can be found at every exhibition Muratec participates in.
#worldwide #15countries #group photo

ITMA2019 Wireless Network technology available even in a factory environment. The day of working with a use of smart phones in the spinning factory is just around the corner!
#sillex #non-disconnected wireless #MWE #MSS

ITMA2019 The Muratec Party held at a designer hotel with “W” very visible from a distance! W means “Whatever/Whenever” (what you want / when you want it).
#W Barcelona #Party

ITMA2019 Terrace seats overlooking the sea provided an intriguing atmosphere with everyone enjoying conversation with food and drink surrounded by the evening sky and looking out to the sea against the night view of Barcelona.
#night view #sunset #terrace #along the beach

ITMA2019 The party warmed up with the rhythms of flamenco. Some of the attendees rushed onto the stage. I saw flamenco live for the first time. It aroused both heart and mind.
#flamenco #live performance #rushing onto stage

ITMA2019 Prosciutto, prosciutto, prosciutto... at any stand. Beer and prosciutto after work go hand in hand!
#stand #prosciutto #beer #blissful time

ITMA2019 Sagrada Família under a blue sky. I feel the history. Nearly completed?! Will I see it during my lifetime?
#Barcelona #Sagrada Família #Gaudi #complete in 2026

Division: Textile Machinery

New VORTEX Spinning Machine Launched

Murata Machinery, Ltd. announces the development and release of the new model VORTEX spinning machine "VORTEX 870 EX," and its world debut at the Textile & Garment Machinery Exhibition "ITMA 2019."

By improving the motor, shortening the cycle time and upgrading the throughput of each device, the new model 870 EX realizes high-speed spinning at 550m/min. (max.), exceeding the previous model "VORTEX III 870" at 500m/min to become the world's fastest. In addition, we have expanded the material that can be spun in response to the expanding use of VORTEX yarn, and the latest generation makes it possible for the use of the widest range of materials and counts as a single spinning machine.



Division: Textile Machinery

Showroom renewal (Headquarters in Kyoto)



There is a facility to welcome visitors called the "textile machine orientation room" in our main office in Kyoto. The orientation room introduces the spinning process flow, the history of our textile machines, and the latest machine functions, etc. In the sample corner, you can pick up and feel and see apparel products using VORTEX yarn. In addition, the laboratory located next to the orientation room allows you to see the actual operating state of a machine. A full-scale upgrade was carried out at the beginning of this year, and this resulted in a greater variety of samples being displayed and easier-to-understand exhibition contents. When you visit the main office in Kyoto, please drop by the orientation room.

Division: Logistics & Automaion

Announcement of Strategic Partnership with Alert Innovation, Inc

Murata Machinery, Ltd. has signed an agreement on a strategic partnership with US material handling system supplier Alert Innovation, Inc.

Alert, an American startup company, has developed ALPHABOT®, a unique picking solution system for delivery centers. As a strategic partner, Alert has collaborated with the major American grocery store chain Walmart and it has already started commissioning in some Walmart stores.

Murata Machinery will undertake a transfer of technical knowledge on the ALPHABOT® system, and will have exclusive rights to market and sell, design, manufacture, and service systems based on ALPHABOT® throughout Japan.



Once a year, the factory becomes a road race venue

In the Muratec Inuyama Plant, which is our largest technology & manufacturing base (in Inuyama City, Aichi Prefecture), there are about 50 factory buildings and office buildings and roads that run lengthwise and crosswise on the 390,000sqm premises.



Trucks and forklifts travel with safety foremost in mind, but on a Sunday in mid-June of each year, road bikes rule the roads at speeds of 40km/h. The plant is the venue for the "Criterium Road Race" hosted by the local cycling federation.

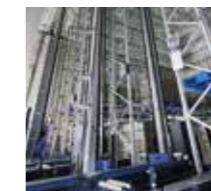
Criterium is a bicycle race where bikes circle the course, and time trial races and endurance races are held on the course that spans 2km. A range of racers from beginners to professionals and from kids to masters heat up the course each year.



Continually creating innovative technologies for the fulfillment of a prosperous society



Textile Machinery
-Automatic Winder
-VORTEX Spinning System



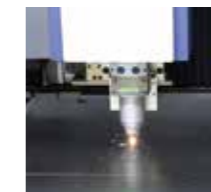
Logistics Systems / Factory Automation Systems
-Automated Storage & Retrieval Systems (AS/RS)
-Sorting System



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

Furoshiki

風呂敷



"Furoshiki" is a piece of cloth made in a wide variety of colors, patterns and materials. The Japanese word "furo" means bath in English and "shiki" is from the Japanese verb "shiku," which means to spread. It is interesting that the literal meaning allows us to imagine the origin; however, its usage nowadays completely differs from the usage of its original meaning. Furoshiki is a reusable wrapping material to wrap and carry gifts for the people who are dear to us. It can be folded into a compact size and can wrap items of any shape such as a bottle of wine. It can be kept in your bag as a spare bag that may be used when you have to carry extra items. It can be used in many unique ways.

Traditional etiquette is also important in the use and presentation of furoshiki, and requires a careful choice of color and pattern depending on the purpose: vermilion is for celebrations; purple shows respect; indigo blue is for mourning; and furoshiki with a "kamon (family crest)" is for formal

occasions. Materials and weaving vary depending on each occasion or usage. A representative example is real silk crepe called "Chirimen," which is similar in look and style to that of a formal kimono. There is a sense of quality and elegance in the puffy feel and luster. Furoshiki made of durable cotton is suitable for everyday use, and broadcloth, shantung, tenjiku cotton and other various fabrics are used according to taste. When wrapping things together with furoshiki, the ends of the furoshiki are wrapped together and knotted, so furoshiki made of a wrinkle-resistant chemical fiber fabric also comes in handy.

When wrapping a piece of cloth to be presented, people in Japan consider the appropriateness of place and feelings for the other person that expresses occasion and message, and this truly represents the mentality that the Japanese value.

丰富多彩的颜色图案和面料所构成的一块布“風呂敷（包袱布）”，根据文字本身的意思（風呂=洗澡(Bath)，敷=铺开(Spread))便能想象得出其来历，这一点颇有意思，但其用法却截然不同。風呂敷具有携带包裹送给亲朋好友的礼物之用途，是一种可重复使用的包装材料。折叠后十分小巧，可随意包裹物品，因此可以用来包红酒、作为行李增加时的备用包等等……風呂敷的独特用途越来越广泛。

喜事用红色，表示敬意用紫色，丧事用蓝色，正式场合要用带有“家徽”图案的……等等，还有根据目的选择颜色图案的传统礼法。不

同的场合和用途，面料和织法也各不相同。其中具有代表性的，便是采用与日式正装相称的纯丝且被称为“Chirimen（缩緬）”的Crepe织法织成的風呂敷。面料手感松软，富有光泽，高级感十足。结实的棉面料适合日常使用，根据喜好选用各种织布，如绒面呢、山东绸、汗布。边角需要打结，因此不易起皱的化学纤维也被视为珍宝。

包裹东西的一块包袱布，也蕴含着与场合相吻合或向赠人表达自己的心意，体现了日本人所珍惜的精神内核。