

# SYL

Sharing Your Life

Muratec Customer Magazine 1 | 2023 | EN



>>>MESSAGE

Let me express my heartfelt appreciation for your continuous patronage to Muratec's textile machinery.

I would also like to apologize for the great inconvenience we have caused to you recently due to difficulties in procurement of parts.

We are constantly striving to improve the situation by looking for alternative solutions and changing the mechanisms of our products, so that we will be able to procure parts more smoothly. We appreciate your kind understanding of this global situation and request for your continued cooperation.

As our major focus in product development, we continuously aim to develop machines that contribute to "high productivity, labor-saving, power-saving (UKG), automation and flexibility".

The VORTEX Spinning Machine is designed to shorten the manufacturing process. We are also developing technologies that reduce UKG for entire factory, by paying attention to the processes in the pre & post spinning areas. Where automation is concerned, we are working on the development of technologies such as automatic restoration of machines, alarm-less features, and automatic maintenance that will require less manpower.

With these technologies, we wish to provide solutions to recent challenges such as labor shortages and difficulties in passing on skills to younger generations of workers. Muratec Smart Support (MSS) System, a technology still in the process of ongoing development, is soon expected to feature functions such as production support by simplifying customer's production management, automatic machine diagnosis, and enhanced machine efficiency through predictive maintenance.

We hope that our customers will appreciate the value of this system and make use of it in their factory operation and management. Through these focuses on product development, we seek to ensure constant quality improvement.

In June this year, we are going to exhibit our new machines at the international exhibition to be held in Milan, Italy. We would very much appreciate your feedback regarding our exhibits. By sincerely listening to the voices and requests of our customers, we will develop even more new technologies, so that we can provide machines that will give them advantages over their competitors in product manufacturing.

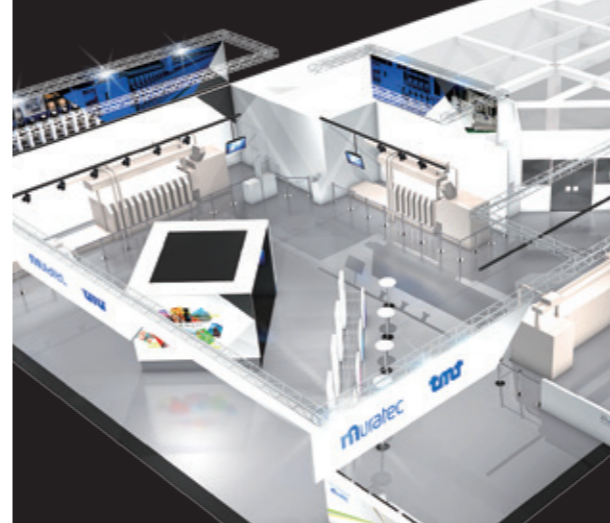
In addition to the above points, we are committed to address the social issues. Recently, the concept of the 3Rs (Reduce, Reuse, Recycle) has been drawing attention due to the growing public awareness of SDGs (Sustainable Development Goals).

In the years to come, we will need technologies for minimizing the waste of the textiles. These technologies will be used by our customers for converting the waste products into recyclable materials. As a textile machine manufacturer, we are willing to make substantial contribution in this field as well.

Based on the above observations, we will always listen to our customer's requests, evolve our key technologies further to fulfill their needs in a time bound manner, and aim to provide machines that will help them to manufacture products in a more profitable way.

Your opinions and suggestions are most welcome.

Osamu Hirao  
Operating officer,  
Chief Manager of Technical Department,  
Textile Machinery Division



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[Cover photo] Courtesy of Imabari Towel Industrial Association

# Right Choice. Bright Future

## Muratec will exhibit at "ITMA 2023"

Muratec will exhibit at ITMA 2023 in Milan, Italy from June 8th to 14th 2023. The unmissable item for this event will be the debut of the PROCESS CONER Alcone, our automatic winder which has undergone a full model change in approximately 12 years. We will also be exhibiting the FLcone, a completely new concept of automatic winder, and the VORTEX 870 EX spinning machine, which has been highly appreciated for its high performance and high functionality of the yarn it produces.

Operation of the machines will also be demonstrated at the exhibition venue in order to allow the visitors to have first-hand experience of the Muratec technologies which ensures high level of machine performance and product quality.

We will also be displaying Muratec genuine parts. In addition to that, we will be introducing the concept, history and features of the "Muratec Smart Support (MSS)" IoT solution.

In order to introduce VORTEX yarn features and samples, a dedicated booth will be set up in the "Textile, Yarn, Fabric" section, which will be in Hall 2. We will be showcasing some of the newest samples of products made with VORTEX yarn that can be utilized for a wide range of materials and a diverse selection of applications.

### ITMA 2023

8-14 June 2023

Fiera Milano (Milan, Italy)

#### The highlights of the exhibition

*New release product*

**Alcone**

*Reference exhibition*

**FLcone**

*Proven product*

**VORTEX**

*IoT Solutions  
User's Voices*

**MSS**

# Alcone

## PROCESS CONER Alcone Bobbin-tray 12 drums

"Augmented Intelligence," it is our confidence in developing Alcone.

As an industrial machinery manufacturer, we at Muratec have continued to innovate in automation, power-saving and labor-saving technologies. Underlying these activities is the idea of "expanding what machines can do to create an environment in which people can focus on creative work."

For more than 70 years since we entered the spinning machinery field in 1948, we have been developing machines that are easy for customers to use. Since the release of "Mach Coner" series, which breaks the mold in innovative technologies such as Splicers and Link Coners, it is Alcone to accumulate the enormous amount of experience and data that has been cultivated over 50 years.

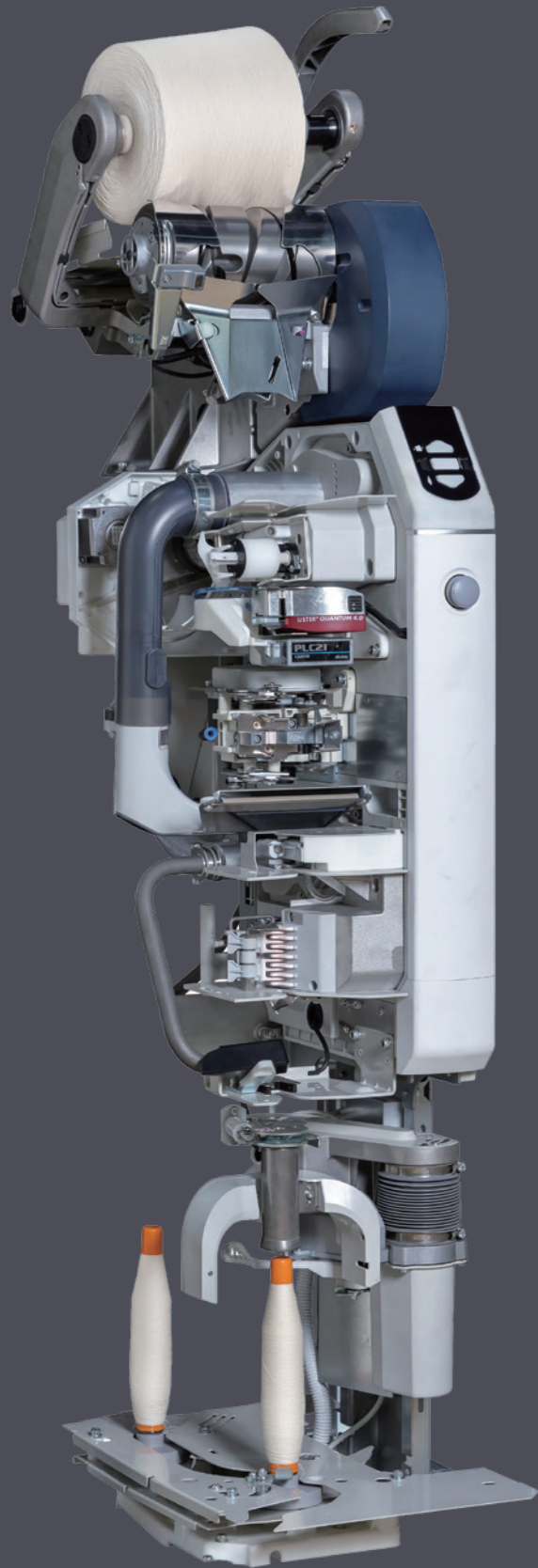
The new machine pursues further user-friendliness while maintaining the high productivity and labor-saving features inherited from the "No.21C PROCESS CORNER" and "PROCESS CORNER II QPRO" series.

The aim is to provide machineries that are easy to use and reliable for everyone, both for operators who directly operate the machine and for leaders who oversee the operation management of the entire plant. We continue to develop technologies.



# Unveiled a cutting-edge technology at ITMA 2023

**Alcone** PROCESS CONER Alcone Bobbin-tray 12 drums



Alcone is developed from a user-oriented perspective. As a leading company in automatic winders, we promise certain benefits to customers who prefer to have Alcone.



### Advantage

*The fastest way to win*

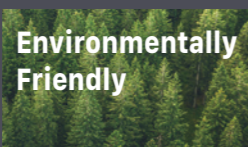
We support our customers' business strategies with the industry's top productivity, labor and power saving and quality. Our winder's identity, such as Bal-con and PC-module which have been highly appreciated in the past, is inherited and we aim for a more competitive, automatic winder, and we carefully redesign it. This achieves higher performance and quality than ever before. Investing in Alcone is a sustainable alternative to maximize profits.



### User Friendly

*Resilience and usability are the key*

Ease of use and early recovery from problems are essential for highly efficient factory operations. Our attitude of "being close to the factory site" is thoroughly reflected in the refinement of operability, ease of maintenance, and ease of cleaning. We use Muratec's unique creativity to shape up the valuable opinions we receive from our customers and make variety of ideas. User-friendly equipment approaches the issue of labor shortages. In addition to this, from 15 locations around the world, Muratec's highly experienced and trained staff will promptly support its valued customers.



### Environmentally Friendly

*For the Earth, for the next generation*

Because textile products are indispensable part of our daily lives, we are confronted with the problem of high environmental impact throughout their life cycles, from manufacturing to consuming and disposing them off. Solving this problem is now a challenge not only for the textile industry but also for the entire community. The trade-offs between high productivity and environmental hazards are not desirable in this modern era. As a part of the textile industry, we will review our manufacturing processes and materials and commit ourselves to sustainability throughout the supply chain. We are convinced that the selection of Alcone will lead to the enhancement of corporate value.

Automatic Winder

Reference exhibition

*Beyond the Apex.*

# FLcone

## FLcone Link Coner 8 drums

"Change the established perception of automatic winders."

As a pioneer in winding technology, Muratec began the development of "FLcone", "Frontier Leadership", for the purpose of challenging the leading technology in the field. Using the accumulated experience and knowledge gained over decades of work in spinning, we are confident that the FLcone will change the conventional wisdom of automatic winders and set a new global standard.

### Quality

*Flawless Package*

Flawless (FL) as in diamonds. Like a flawless diamond, FLcone creates the highest quality packages.

### Productivity

*Non-stop winding*

Muratec develops "Non-Stop" winding with innovative technology. FLcone enables yarn winding under more consistent tension, which can contribute to increasing winding speed.

### Saving Energy

*Newest ECO technology*

Our new technology eliminates the need for finding yarn ends on the package. This allows operation of the suction blower at very low static pressures, resulting in significant energy savings.

# Unveiled a cutting-edge technology at ITMA 2023

## The highlights of the exhibition

1

### VORTEX Spinning Machine VORTEX 870 EX 16 spindles

The VORTEX 870 EX has received high praise from all over the world since its release. At this ITMA event, we shall demonstrate the spinning of Tencel and recycled Polyester, for which there has been growing demand in recent years.



2

### VORTEX yarn Fabric and product samples

We will exhibit a diverse range of VORTEX applications for different materials. Visitors will be able to actually touch and feel samples to experience the functionality and quality of VORTEX.



3

### Muratec Smart Support (MSS) IoT Solutions

Muratec Smart Support is an IoT solution from Muratec which is one of the first in the industry to enable operation and management using IT, including remote monitoring and centralized management of machines. At this exhibition, a special area will be set up in the booth for video display to introduce the development history and "3 E" features of MSS - "Easy-Access, Easy-Solution, and Efficient-Support", as well as opinions and reviews from actual users.

#### User's Voice



President, Sri Cheran  
Mr. Muthu Lakshmanan

Muratec Visual Manager & VLABO signage reports and online data motivates our machine operators & technicians i.e., electrical, mechanical and quality staffs to achieve and perform in best way to get better results. We Pallava are proud to say that MSS is the way for GEN-X.



Hall 3  
D106 & D107

### 5 Automatic Winder **REFERENCE EXHIBITION** - FLCone Link Coner 8 drums

The FLCone is a completely new automatic winder which revolutionizes the concept of automatic winders compared to everything that has come before. The machine's concept is "non-stop" winding. We have leveraged Muratec's innovative creativity to design a high productive winder which does not stop winding even during yarn breakage and splicing. This is an automatic winder which is at the forefront of cutting-edge technology from a leading automatic winder manufacturer.

### 6 Genuine parts

We recommend the use of genuine parts in order to ensure the longest life and best possible performance for Muratec machines. In this exhibition we will be introducing products which fully leverage Muratec's original ideas and are practical applications of our detailed customer support, including simple Bobbin Strippers, sliver checkers, and more.

### 4 Automatic Winder **NEW** - PROCESS CONER Alcone Bobbin-tray 12 drums

Alcone is a new model which is the outcome of over 70 years of technology and knowhow cultivated since Muratec entered the spinning machinery industry. The design focuses on functions which are easy to use for customers, and also takes sustainability for the entire supply chain into consideration from the standpoint of a company which supports the manufacturing industry. This machine inherits the high productivity, energy saving, and package quality which proved so popular on the QPRO series of winders and improves all of these features to even greater heights. The machine to be exhibited will feature both drum unit and arm traverse unit. Demonstrations will introduce a wide variety of winding methods, including soft winding, round edge, and more.

### VORTEX Yarn Booth

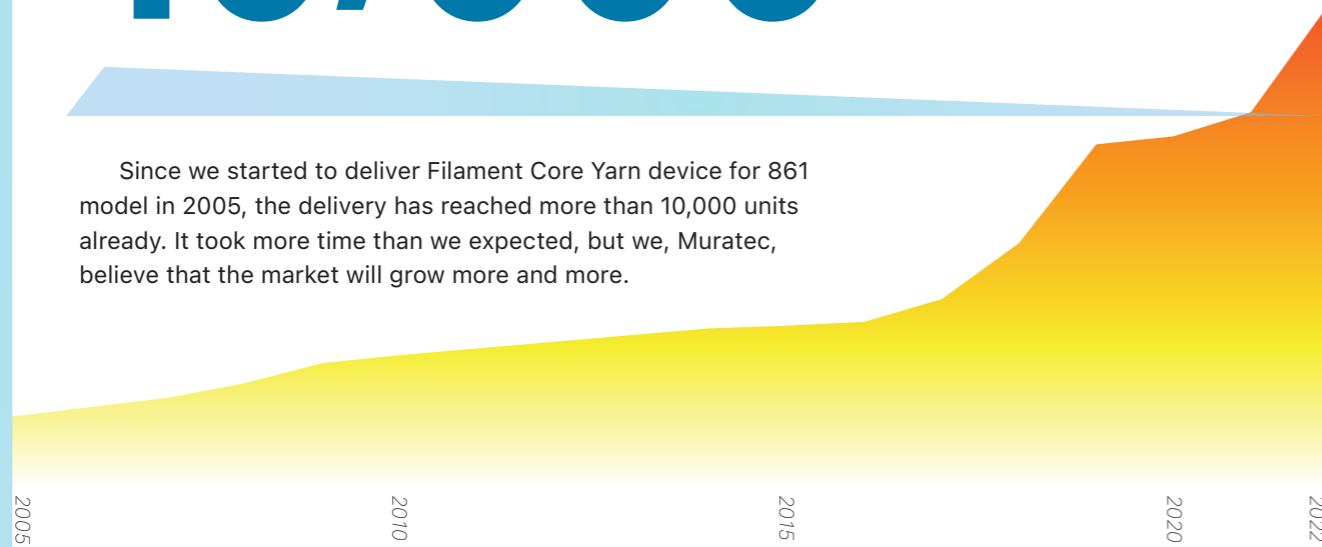
Hall 2 D208

We will be showcasing some of the newest samples of products made with VORTEX yarn that can be utilized for a wide range of materials and a diverse selection of applications.



# More than 10,000 Units!

Since we started to deliver Filament Core Yarn device for 861 model in 2005, the delivery has reached more than 10,000 units already. It took more time than we expected, but we, Muratec, believe that the market will grow more and more.



The filament core yarn market itself seems to be limited to very special applications, because of high labor requirement and lower productivity in conventional systems. VORTEX core yarn system offers bigger filament supply, 80% or 90% less spliced points and higher productivity. We believe VORTEX will change the image of filament core yarn production and help to create new market.

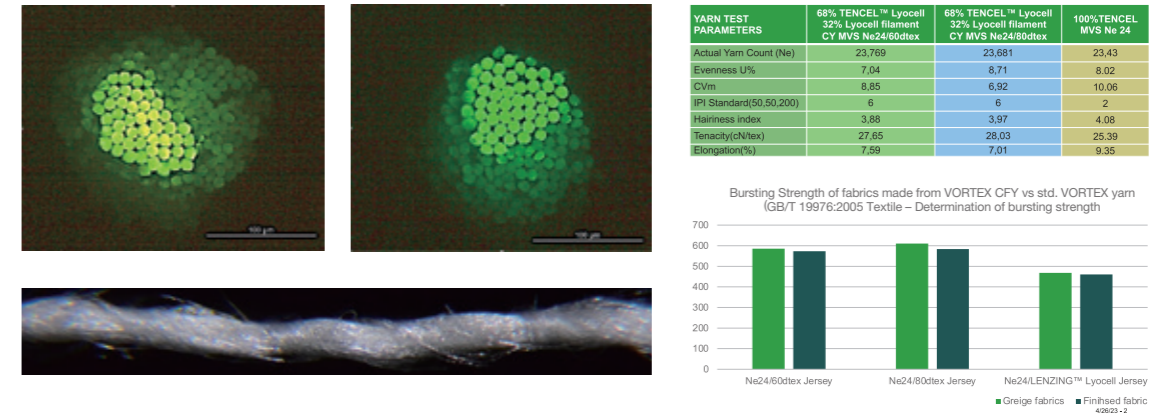
Lenzing supported Muratec for the trial in filament core yarn. The report shows the difference in yarn data and fabric data. Lenzing study using TENCEL™ fibers and TENCEL™ Luxe filament shows the improvement of strength to give us another possibility for the usage in the material and device.



Products by Filament Core Yarn in our showroom at Kyoto head office. Increasing samples encourage us. In ITMA23, we will exhibit some of them.

## VORTEX Core Spun Yarn with LENZING™ Lyocell fibers & LENZING™ Lyocell Filament

As part of the collaborative product and process development program Lenzing and Muratec has undertaken an initiative to explore potential for production of sustainable VORTEX core yarns based on LENZING™ Lyocell fibers and LENZING™ Lyocell Filament. The study was jointly conducted at Lenzing Centre of Excellence (LCOE) based in Indonesia. This leads to successful production of a range of high quality VORTEX core yarns at high speeds with potential for specialty textile applications.



LENZING™ Lyocell fiber based VORTEX core yarns found to have significantly enhanced mechanical and aesthetic properties. As much as 10+% increase of yarn tenacities and 30+% increase of fabric burst strength was observed with sample yarns and fabrics produced at LCOE. This in turn opened the possibility of use of these 100% bio-based core yarns beyond traditional apparel applications. The high tenacities & bursting strengths, combined with low pilling, high liquid transport rate and quick drying made these yarns especially suited for applications in shoes and active wears.

Being produced with LENZING™ Lyocell fibers the resultant fabrics can be dyed in wide range of colours with high degree of colour fastness even after repeated wash cycle.



The Lenzing Group stands for ecologically responsible production of specialty fibers made from the renewable raw material wood. As an innovation leader, Lenzing is a partner of global textile and nonwoven manufacturers and drives many new technological developments.

“ We are glad to hear that more than 10,000 units have been delivered to the world. Also, the collaboration with other partners gives us another point of view to expand its market. We would like to continue to develop the device.



Yuta Nakamura  
Technical department



Imabari towel

# 今治タオル

Imabari City in Ehime Prefecture is blessed by the lush and beautiful natural surroundings of the Seto Inland Sea, and the introduction of towel weaving technology to the city, which was already a prosperous cotton weaving town, in 1894 became the start of the history of Imabari Towels. The industry expanded thereafter, and grew into a production region which at one time boasted over 500 companies and a production volume of 50,000 tons, but reached its peak in 1991 and production volume has declined each year since due to the influx of low priced import products.

This shrinking of the industry evoked a sense of impending crisis, and the entire production area has worked together on creating the "Imabari Towel" brand since 2006. It was not easy at first for all of the individual companies to band together to create a regional brand. However, that sense of impending crisis served as a catalyst to push the production region to work together and adopt unique quality standards, develop official shops, and take other measures which have proven successful, with the region now being more well-known with approximately 80 plants participating in the initiative and maintaining the production volume for the entire production region.

A major characteristic of Imabari Towels is found in "water". The mild, soft water which is unique to Japan's geography is very gentle on yarn and fabric, and greatly contributes to bringing out delicate but vivid colors of fabric, and also accentuating the inherent softness of cotton. Jacquard looms are used to weave complex patterns from yarn-dyed yarns. The Imabari Towel Head Office operated by the Imabari Towel Industrial Association also features an interior design which is inspired by Jacquard looms, and a Jacquard loom is also on exhibition at the imabari towel LAB which is located next to the store. (We were very happy to find that the Jacquard loom on display was a Murata-Schleicher product.)



Pure white products were chosen for use in Imabari Towel PR. A strict branding which would not allow for any shortcuts or skimping was selected in order to truly showcase the moisture absorption properties and softness of Imabari Towels. The Imabari Towel Head Office shop also features rows of white towels on the shelves which are in display by various production companies. Explanations of the materials, manufacturing methods, and other aspects of production are provided row-by-row on the shelves.

Unique quality standards are imposed by the Imabari Towel Industrial Association in order to maintain the brand. The association has established 12 types of test items, for example, a "5 second rule" in which a piece of towel is dropped onto water to see whether or not it starts to sink within 5 seconds. Another unique initiative by the brand is the "Towel Sommelier Certification Test". This world's first system began in 2007. At present, there are approximately 3,663 certified individuals including everything from production craftspeople to sales staff.

Domestic products share of the apparel and clothing products market has stagnated at around 2%, however Imabari and Senshu combined hold an approximately 20% share of the domestically produced towel market. In addition, about 80% of the yarn used in Imabari Towels is still procured domestically, which helps to support the Japanese spinning industry. At the same time, the softness and moisture absorption of the towels have also garnered attention at exhibitions overseas as a prime example of Japanese Quality, and the recognition of Imabari Towels is spreading worldwide.

## Uosada Kamoboko Ten

Uosada Kamaboko fish paste sausage shop

"Kamaboko" is a uniquely Japanese processed food made by shredding fish, then shaping the shredded fish and steaming it. Uosada is a kamaboko shop with a distinctive atmosphere located within Imabari. The shop has continued to produce traditional kamaboko taking advantage of the bounties of the Seto Inland Sea since its foundation in 1871.

What is truly surprising is the shop's history of awards. The sign in front of the shop proclaims that it has won the Minister of Agriculture, Forestry and Fisheries Prize 10 times. In addition, while preserving the handmade taste, the shop also create innovative kamaboko that can be enjoyed as a snack, such as the crispy and fragrant "Nuts Kamaboko".



Special thanks to Imabari Towel Industrial Association

Division: Textile Machinery

## TITAS TAIWAN 2022-10-12 to 2022-10-14

Muratec exhibited at the Taipei Innovative Textile Application Show (TITAS) 2022, Taiwan's largest textiles trade show, which was held after 2 years.

367 companies from countries all over the world exhibited, and the event was attended by approximately 33,000 visitors.

Each company held exhibits on the theme of environmental friendliness, which is becoming an increasingly important issue for the textile machinery industry in recent years.

At Muratec's booth we exhibited VORTEX product samples and more, and introduced the potential that VORTEX has in contributing to sustainability.



## INDIA ITME 2022-12-08 to 2022-12-13



We exhibited at the India International Textile Machinery Exhibition (ITME 2022), India's largest international textile machinery trade show, which was held after a long gap of 6 years. Approximately 1,800 companies exhibited, and the event attracted over 110,000 visitors over its 6 day session.

Muratec exhibited and demonstrated the "PROCESS CONER II FPRO EX" automatic winder, and the "VORTEX 870 EX" VORTEX spinning machine. We also exhibited some of the newest VORTEX samples, and introduced VORTEX yarns which could be utilized for a wide range of materials and applications. In addition, in the corner for the Muratec Smart Support (MSS) IoT solution, we showed interviews with our customers who use MSS and promoted it as a system which supports smooth factory operation.

## DTG BANGLADESH 2023-02-15 to 2023-02-18

This exhibition was held after 4 years, having last been held in 2019, and truly conveyed the high potential of the synthetic fiber market in Bangladesh.

We successfully made our first attempt about a collaboration between Asia Pacific Rayon (APR), a fiber manufacturer, and VORTEX at the event. The APR booth exhibited fabrics made by VORTEX yarns as well as panels introducing VORTEX. The show proved to be a good venue for talks about future collaborations aimed at further expansion of the VORTEX market in Bangladesh in the future.

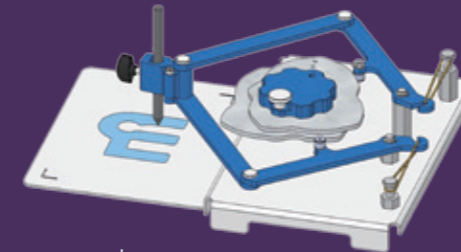
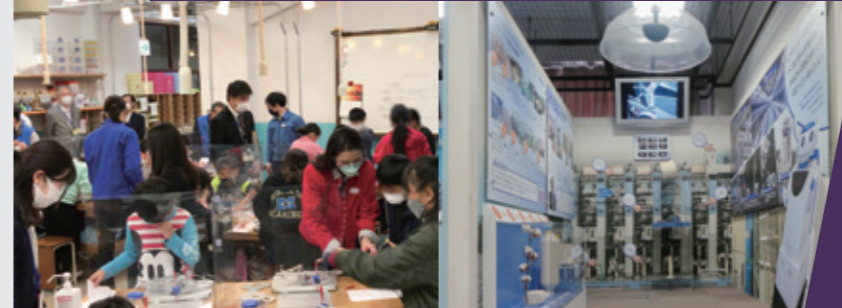


The government and local businesses in city area of Kyoto, where Muratec head office is located, are collaborating to provide a class program aimed at elementary students which utilize our company's technologies at the city facilities. The program has continually been implemented since 2010, however it was temporarily suspended due to COVID-19, and was then restarted last year as a renewed program with additional infection prevention measures.

## Implementation of experience-based classes for the students of local elementary school

How can machine development, which covers a diverse range of component technologies, be made into an experience which elementary school students can understand...? Our engineers racked their brains and used their combined knowledge to devise a device which uses a "cam" and "link" mechanism, which is also used in our company's products. Compact yet authentic devices were supplied in sufficient quantities that each child could operate a device without having to come into contact with each other, which has earned a deep level of gratitude from local government and the participating schools.

We have also set up company introduction booths at the city facilities where the children can learn about our company founder's ideas, as well as the technologies and products which are closely related to their daily lives, and more.



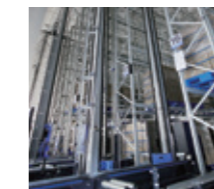
Device which uses cams and links to automatically write text



Continually creating innovative technologies for the fulfillment of a prosperous society



**Textile Machinery**  
-Automatic Winder  
-VORTEX Spinning System



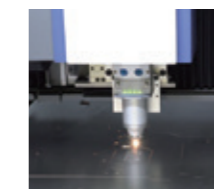
**Logistics Systems / Factory Automation Systems**  
-Automated Storage & Retrieval Systems (AS/RS)  
-Sorting System



**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

# Tea Ceremony

# 茶道



The Tea Ceremony is a traditional Japanese culture in which the host prepares matcha tea and serves it to guests according to traditional rules called "Saho".

Through the tea ceremony, visitors can experience various aspects of Japanese culture, such as tea utensils and other handicrafts, Japanese gardens, kimonos, hanging scrolls and flower arrangements in the alcove, and kaiseki cuisine and Japanese sweets.

At a tea ceremony, everyone participating is considered to be on equal status. The host prepares for his/her guests with all his/her heart, and the guests can enjoy the once-in-a-lifetime interaction between people as they spend a long time together in the same space while receiving the host's hospitality.

In Japan, it is common practice to entertain guests by serving them tea. The "spirit of hospitality" of the tea ceremony, which involves making a delicious cup of tea and cherishing interactions with others, is deeply rooted in daily Japanese life, even if it does not follow strict rules of etiquette.

茶道是日本的传统文化，由主人按照被称为“作法”的传统规则将抹茶泡好并献给客人。

通过茶道、茶道具等工艺品、日本庭园、和服、客厅装饰的卷轴及插花、还有怀石料理及和果子等，可以接触到丰富多彩的日本文化。

参加茶席的每个人都是平等的。主人精心为客人做好准备，客人接受主人的款待，在同一个空间长时间相处，享受人与人之间一期一会的交流。

在日本，客人来访以茶款待是日常生活中常见的情景。哪怕不是严格按照作法，也要泡出可口的茶，珍视与人交流的茶道“款待精神”，已深深扎根于日本的日常生活之中。