

Asian Textile Business

atb

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- Middle East Textile Business
- Apparel Machinery

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A photograph of a traditional Japanese street scene at sunset. A woman in a purple kimono with a green pattern is walking away from the camera down a narrow, cobblestone street. In the background, a large, multi-tiered pagoda is silhouetted against the bright orange and yellow sky. The street is lined with traditional buildings, and the overall atmosphere is peaceful and historical.

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Textile & Apparel Industries in Asia Vigorous Moves to Open Up New Markets

The sales channels of Japanese companies having offices and factories in several parts of Asia are mostly toward Japan. As the shrinkage of the Japanese market is inevitable, these overseas bases need to look for new markets with an aim to enlarge their business. Some also have a mission that is linked to expanding their business by opening up not only new countries and regions, but also new sectors. The following is a report on the new market development strategies of Japanese-affiliated companies in Vietnam, Indonesia and Thailand.

Vietnam Challenges Amid Continuing Economic Growth

Vietnam has further increased its presence as a destination for the relocation of production from China, due to rising labor costs in China, trade friction between the U.S. and China and the coronavirus pandemic. The production systems for fabrics and auxiliary materials are also being set up rapidly in the country. Vietnam's middle class is expanding with the economic growth. With domestic demand expected to grow, Japanese-affiliated textile and apparel companies are looking at Vietnam not only as a production base but also as a market. However, while exports are growing to the U.S. and Europe, there is also an issue of securing production space for apparel and other sewn products for the Japanese market. Stagnation of commercial distribution caused by the coronavirus is also a matter of concern.

Shortage of Personnel and Materials Cause Delivery Delays

Although Vietnam is attracting attention as a destination

for relocating production from China, the global economic downturn caused by the coronavirus is likely to have an impact on the country.

Due to the closure of schools, garment factories are suffering from a shortage of workers (because the parents cannot go to work), and the procurements of materials from China are behind schedule, thus causing delays in deliveries.

Japanese affiliates expressed their concern, with one of them saying, "The outlook is uncertain, and it is certain to have a negative effect on business."

Taking Advantage of the New FTA with EU

The free trade agreement between Vietnam and the EU is expected to come into effect this July. With this new FTA, it is certain that moves to develop the EU market will accelerate hereafter.

An official of Yagi Vietnam Co. Ltd. says, "Our mission is how to use the effectiveness of this FTA." The company will also set out on selling finished products in the Vietnamese domestic market through the Internet, and for developing the EU market, it intends to first strengthen product appeal.

Chori Vietnam Co., Ltd., which sells yarns and fabrics, considers that the impact would be weak if only fabrics are sold, so it is planning to propose package deals including Vietnam-made garments and other sewn products.

Shimada Shoji (Vietnam) Co., Ltd. also considers that the free trade agreement with the EU is a great challenge, and aims to gain customers with cooperation from group companies in Hong Kong and Shanghai which already have business with Europe.

Toyota Tsusho Fashion Express Vietnam Co., Ltd. is aiming at developing markets in Europe and the U.S., manufacturing garments at its own factories and subcontracting factories from refined fabrics supplied from the head company,

and considers the free trade agreement with the EU as a good opportunity for business.

Although it is still a minority in the country, there is strong demand for expanding sales in the Vietnamese domestic market. Prominent (Vietnam) Co., Ltd. of the Itochu Group considers that with the growth of the Vietnamese economy, the establishment of a system for expanding domestic sales is in urgent need, and is moving to develop human resources and reconstruct its organization.

Aside from current business sectors, moves are growing to develop new fields



Business continues to boom in Vietnam, but there are many matters of concern

of business as new markets. In addition to fabric converting business, Toray International Vietnam Co., Ltd. has started business in fibers and yarns, as well as in apparel and other sewn products. It plans to increase the number of staffers for its fiber and yarn business, with an aim to develop business in socks, bedding and nonwovens.

In response to the growing needs for sustainability-related products, Kurabo Vietnam Co., Ltd. is keen to cater to

these needs together with garment factories, etc.

Mitsui & Co., Ltd. aims to strengthen its business in the sport-type medium- and lightweight apparel market, uniform-related high value-added market and casual-based heavyweight and medium-to-lightweight garment items other than pants. Business is being developed by strengthening initiatives with garment factories and textile developments.

Kuraray Trading

- **Integrated Production in Vietnam Being Further Strengthened**
- **In Addition to General-Purpose Products, Value Addition Is Being Enhanced**

Kuraray Trading Co., Ltd. will strengthen its integrated production system ranging from yarns and fabrics to apparel in Vietnam. Outside Japan, its production is mainly in Vietnam. The production of apparel started about 20 years ago, and a production system is being established on the basis of subcontracting factories centering on two apparel makers and three fabric manufacturers. Production in Vietnam includes items such as sportswear and uniforms. In order to further increase the value addition of products, fabric production is being expanded not only for general-purpose items but also for sophisticated products. In regard to apparel production, the company will increase productivity, and will strengthen the production system for the printing of products.

The polyester filaments used in fabric production are mainly differentiated varieties produced at group company Kuraray Saijo Co., Ltd. In the future, it will also consider production of spun yarns using differentiated polyester staple fibers produced at Kuraray Tamashima Co., Ltd. Japanese engineers will be dispatched to subcontracting factories in Vietnam to enhance quality control and increase high value addition with the use of refined products.

The same applies to subcontracting factories for apparel manufacturing. In addition to increasing the apparel making capacity, it will consider the introduction of sublimation printing.

Kuraray Trading is focusing on value-added processing business. Especially in its textile business centering on apparel applications, it will promote value-added processing operations. Leveraging its strengths of being a synthetic fiber producer-affiliated trading firm, the company has been increasing its presence.

Currently, the sales of Kuraray products account for approximately 70% of its sales, and the remaining is original value-added processing business. This processing business accounts for slightly over 50% of operating profits. The expansion of this value-added processing business will be a task in the next medium-term management plan starting from fiscal 2021 (January to December 2021). Particularly in its textile business, this is the value-added processing business integrating raw yarns, fabrics and apparel.

While strengthening production in Vietnam, Kuraray Trading positions China as a consumer market. Exports to China account for 60-70% of its exports, and the company will attach greater importance to exports to China. In its textile business, it has started the supply of apparel through integrated production of apparel fabrics together with undertakings with customers, and the company is also aiming to expand materials for industrial applications as well.

Furthermore, Kuraray Trading is focusing on environment-friendly materials, and is switching its differentiated polyester filaments to environment-friendly varieties. In addition to partially bio-based polyester filaments, the company expects further expansion of Mintval water-soluble filaments as an eco-friendly material. Compared to water-soluble staple fibers, Mintval has enhanced fineness and less amount of dissolution, thus reducing the load on the environment, and the raw material is biodegradable.



The focus is on environment-friendly materials

Test Requests Continue to Increase

Japanese testing and inspection organizations are enjoying the development of the Vietnamese textile and garment industries. At the Vietnam Laboratory of Kaken Test Center, requests for tests continue to be vigorous due to the rapid establishment of production systems for fabrics and auxiliary materials in the country.

Its partnership with Bureau Veritas, a major French testing organization, has also helped to improve the reliability of the laboratory, which will continue to increase capital investments and customer support.

The Ho Chi Minh Testing Center of Boken Quality Evaluation Institute also reports a significant increase in test requests, thanks to active production in the country's upstream and midstream sectors.

As quality control operations are gradually being shifted to Vietnam, the center will increase quality evaluation tests as well as quality control support. For that purpose, it will conduct tours of laboratories and offer seminars, propose fabric lot management methods, audit garment factories, and offer guidance to dyehouses.

Thailand Surviving the Economic Slowdown

The Thai economy continued to slow down in 2019. Real GDP growth was 2.4%, down from 4.2% in the previous year. This was due to the sluggish economy caused by the decline in exports and cooldown of private consumption and capital investments. Currently, there is concern about the impact of the spreading coronavirus on tourism, as well as a slowdown of the global economy. In that respect, the Thai economy could face an even more severe situation this year. The following reports on what measures Japanese-affiliated textile companies operating in Thailand are taking to overcome these difficulties and their business strategies.

Strengthening Business in ASEAN Region

Thailand's GDP growth dropped to 2.4% in 2019 from 4.1% in 2018, and automobile production drastically decreased by 7% from the previous year to 2.01 million. It is widely believed that the GDP growth will drop further in 2020 with the impact of the coronavirus on tourism revenue. Meanwhile, export industries are expected to be in a tough situation as the Thai baht is likely to remain strong. Under such circumstances, Japanese-affiliated textile companies in Thailand are taking various measures.

Many Japanese synthetic fiber producers have production and sales bases in Thailand. For instance, there are Asahi Kasei Corporation; Asahi Kasei Asia Pacific Co., Ltd. (AKAP) providing business support services in ASEAN; Asahi Kasei Spunbond (Thailand) Co., Ltd. (AKST) manufacturing polypropylene spunbonded fabrics; Thai Asahi Kasei Spandex Co., Ltd. (TAS) producing spandex; and Asahi Kasei Advance (Thailand) Co., Ltd. (AKAT), which is a subsidiary of Asahi Kasei Advance Corporation and a producer of core spun yarns, etc.

AKAP was founded in August 2019. In fiscal 2020 when the foundation of business is being established, it will embody support to 16 group companies in five ASEAN countries, and positions the fiscal year as a period for visualizing the effects of business support and other benefits. At the same time, it will work on strengthening management administration from a headquarters perspective, such as governance, risk and compliance, and supporting the administration among the companies.

Forecasting a growth in demand in ASEAN and India, AKST will increase its spunbonded fabric production capacity to 50,000 ton/year in 2021 (about a 40% increase from the current level). In addition to pre-work for new products with improved softness, it will work on the development of environment-friendly products in cooperation with the R&D team in Japan.

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As a key plant producing Roica spandex, TAS will work to expand its production varieties and scale in order to establish a complementary system in global supply. In particular, sales are to be expanded in the ASEAN region (such as Vietnam and Indonesia) and West Asia (such as India, Bangladesh and Sri Lanka). For this purpose, logistics development is a task, such as the expansion of production varieties and on-site inventory operations.

According to AKAT, its core spun yarns are encountering competition with Chinese products. Twisted yarns and industrial materials are also affected by the sluggish automotive industry. In converting business, textiles are affected by the slump in Japan and appreciation of the Thai baht. In spite of concerns about the effects of the coronavirus, the company is working on improving productivity and rationalization to strengthen its structure.

Thai Unitika Spunbond Co., Ltd., a polyester spunbonded fabric manufacturing subsidiary of Unitika Ltd., has a task to achieve full-scale operation (10,000-ton/year production) by the end of fiscal 2021. It will expand original products, including the use of recycled materials.

Various New Markets on the Rise

With the shrinking Japanese market, Japanese affiliates in Thailand also have a growing desire to develop exports, domestic sales and new sectors.

Companies that intend to expand their exports are Asahi Kasei Spunbond (Thailand) Co., Ltd.; Thai Asahi Kasei Spandex Co., Ltd.; Thai Namsiri Intertex Co., Ltd.; Teijin Frontier (Thailand) Co., Ltd.; Thai Chori Co., Ltd.; Moririn (Thailand) Co., Ltd.; Tokai Dyeing Co., (Thailand) Ltd.; Thai

Thai Yamaki

- Supplying Dress Shirts of the Highest Quality Standard to the Market
- Factories and Business Operations Brave the Harsh Environment

Established on October 25, 1989, Thai Yamaki Co., Ltd., the Thai subsidiary of Yamaki Co., Ltd. manufacturing shirts and other garments, has been manufacturing and selling men's dress shirts for more than 30 years. Exports to Japan occupied the mainstay during the first 10 years, and Europe and the U.S. then became its main markets in the following two decades. Today, its main businesses include exports to Australia and other ASEAN countries and sales in the Thai domestic market.

In addition to production at its Thai factory, production began in Bangladesh in 2000, and the Laos factory commenced operations in 2006. A distinctive feature of the company is that it supplies dress shirts of the highest quality standard to the market.

Furthermore, Thai Yamaki boasts a production system and capacity that can supply dress shirts of all quality levels from top-end products to standard items, and one of its fortes is that it can cater to markets in any country or region around the world.

Despite the severe global market conditions this year, Thai Yamaki's factory and business operations are braving the situation with endurance, according to Managing Director Yuetsu Kagaya. The challenges are numerous, including how to cover the overall decrease in orders and how to secure profits with a smaller number of orders.

In regard to the worldwide rampant coronavirus, the Managing Director hopes to make a resurgence in the second half of this year, should this pandemic settle down by July and the market heads toward a recovery, but the outlook is extremely uncertain. If the market fails to make a recovery in 2020, business will be severe in terms of profits.



Yuetsu Kagaya
Managing Director
Thai Yamaki Co., Ltd.

The same can be said for Thailand, where the coronavirus has an immense impact on the economy. According to one analysis, the country is likely to be hit hard with its high dependence on tourism income. The GDP growth could be negative in 2020.

Europe is currently bottoming out, and any further deterioration of the market is unlikely to occur. Meanwhile, the EU no longer grants GSP preference to Cambodia, and the garment factory in Myanmar has been closed. The changes in production bases supplying the world markets will continue to have an impact in the future as well.

Kurabo Co., Ltd.; etc.

Moririn (Thailand) will expand sales of Japanese specialty materials to India, and Asahi Kasei Spunbond (Thailand) also has high expectations for India with its large population. Tokai Dyeing Co., (Thailand) is enthusiastic about developing markets in the U.S. and Europe. Thai Namsiri has started promoting sales of products made from recycled materials to American and European sportswear companies and original sophisticated products such as Solotex in cooperation with group companies.

Thai Asahi Kasei Spandex aims to expand sales in the ASEAN region, such as Vietnam and Indonesia, as well as in West Asia, such as India, Bangladesh, Pakistan and Sri Lanka. The company intends to expand the variety of production items and improve logistics including local reserves.

Teijin Frontier (Thailand) expects a revival of export trade rights to neighboring Asian countries, which were being lost due to the weakening of the Thai baht. Leveraging regional advantages, Thai Kurabo is expanding exports in cooperation with Kurabo Vietnam Co., Ltd.

Companies that have strategies for expanding domestic sales include Thai Namsiri and Teijin Frontier (Thailand). Thai Namsiri intends to gain new customers for uniforms and sportswear in cooperation with Teijin Frontier (Thailand). Teijin Frontier (Thailand) wants to do groundwork for expanding domestic sales in current times of an economic downturn.

There are also companies that are aiming at new sectors rather than by country or region.

According to Asahi Kasei Advance (Thailand) Co., Ltd., its competitiveness in general-purpose products

is declining in Thailand, so it considers advancement in the medical sector as an important task with the keywords being high quality and high functionality.

Catering to Higher Value Addition

Japanese inspection organizations are catering to environmental changes. The Thailand Laboratory of Kaken Test Center opened in January 2018 at partner BVCPSThailand Ltd. It inspects fabrics and finished products for the Japanese market, and provides technical consultation. Orders from neighboring countries continued to increase, but inspection requests are recently slowing down due to the impact of the coronavirus. Meanwhile, Thai companies are receiving more small-lot orders from Japanese companies, so it is also working more with its partner.

The Bangkok Testing Center of Boken Quality Evaluation Institute was established in 2014 through a business alliance with SGS. Since then, test requests have been increasing year by year. Inquiries have also been on the rise. In recent years, the number of tests associated with the expansion of production of high-value-added fabrics has been increasing, and requests for antibacterial tests, which the center can conduct, have been vigorous. With the increase in inquiries regarding quality control, support service has also started.

Concerns about a Global Economic Downturn

With the coronavirus showing no signs of convergence, deterioration of the global economy has become apparent, and this is expected to have an impact to some extent on the Thai economy and Japanese affiliates in Thailand.

According to Japanese affiliates in Thailand, the country's economy was expected to bottom out in the beginning of 2020, but the coronavirus pandemic has made the outlook uncertain. Japanese affiliates in Thailand are also likely to see a significant negative impact on their business performance from April, and there is a possibility that the impact might be enormous in the future.

Although the Thai government is preparing to support businesses, the coronavirus is expected to affect not only tourism but also the supply chain of companies.

In order to minimize the negative effects of external factors, Japanese-affiliated textile companies in Thailand are making all-out efforts to strengthen their corporate structure this year.



Auto production supports the Thai economy, but has been decreasing since May last year

Kaken Test Center

- Operations Being Strengthened in ASEAN & South Asia
- Customer First Policy

The impact of the wide-spreading coronavirus caused setbacks for Kaken Test Center, with delays in restarting operations in China. Nevertheless, operations have returned to normal as its laboratories resumed business in February. Because of the increasing risks in China, the center continues its shift toward ASEAN, and operations in South Asia are also being strengthened.

Operations in China Resumed in February

Kaken suspended operations in China in the wake of the spreading coronavirus, but its laboratories in China are now operating normally. At the time when the China's Lunar New Year holiday period was extended, the center including telecommuters in China all worked together to resume operations.

Kaken Hong Kong Laboratory was the first to resume operations on February 3rd, followed by Shanghai Kakon Inspection & Testing Service Co., Ltd.; Kaken Qingdao Laboratory and Kaken Dalian on February 10th. On February 21st, the Nantong branch company of Shanghai Kakon started operations, and laboratories in Ningbo and Wuxi Test Room also resumed operations by the end of the month. The fact that local partners were also active in negotiations for resuming operations led to an early restart of activities.

According to Kaken Hong Kong, test requests also came in from Guangdong Province from the middle of February, and tests were conducted including requests from India and ASEAN. Shanghai Kakon has been performing well since it resumed operations. The Nantong branch is also doing well as it has testing equipment.

The Kaken Dalian Laboratory also boasts testing equipment. When the coronavirus hindered transportation in China, such as road blockades, the laboratory in Dalian enabled the center to continue tests under such circumstances, which led to an increase of customers.

The Kaken Ningbo Laboratory is active as ever, and the Kaken Wuxi Laboratory was performing well even before being affected by the coronavirus, regaining its original momentum with the resumption of operations.

Stronger Ties with Business Partners

In ASEAN, Kaken has had a laboratory in Vietnam since 2005. A team of Japanese staffers is stationed at partner Bureau Veritas. Test requests are also received from Cambodia, but it is now refraining from conducting on-site inspections and seminars in Cambodia due to the coronavirus infection. The Vietnam Laboratory (BVPCS Vietnam Ltd.) is highly appreciated for conducting tests in Vietnam for a long period of time.

In Thailand, Kaken established a laboratory base in Bureau Veritas. Bureau Veritas also has a base in Myanmar, and with the cooperation of the company, Kaken is conducting tests for Myanmar companies in Thailand.

P.T. Kaken Indonesia is also performing well. Test requests are received from local, overseas Chinese and Japanese-affiliated companies. As Indonesia does not celebrate the Lunar New Year, test requests were received from abroad during the Chinese New Year holidays.

Kaken Indonesia is expanding its services, including shortening the delivery time, to further increase the level of satisfaction of customers. It will increase testing instruments including those for conducting functionality tests by the end of the current fiscal year.

In South Asia, a laboratory base was established in Dhaka, Bangladesh in 2014. In partnership with KOTITI of Korea, the Japanese team at KOTITI Bangladesh Ltd. is responding to requests and inquiries in Japanese. Japanese staffers were increased to two this April in response to the increasing number of tests.

The Kaken India Bangalore office was opened in January last year. The office receives tests, conducts test consultation, and offers technical advice, and as the number of test requests is increasing, it will look toward expansion in the future, with an intention of strengthening operations in South Asia.

Kaken will also conduct CSR factory audits in China. Shanghai Kakon will educate local staffers for carrying out CSR audits at factories. Training will be conducted based on the guidance of qualified licensees based on The International Register of Certificates Auditors (IRCA). In order to expand this area of operations in the future, staffers at other laboratories will be educated and trained.

As a testing organization specializing in textiles, Kaken is the largest in the world, and highly respects partner Bureau Veritas like a brother. In the future, Kaken intends to continue strengthening cooperation with Bureau Veritas in Asia.



Kaken Vietnam Laboratory

Indonesia Domestic Sales & Offshore Trade Become More Important

The impact of U.S.-China trade friction weighs heavily on the Indonesian textile and apparel industries. Competition has intensified with the influx of cheap yarns and fabrics from China. Nevertheless, many Japanese-affiliated textile and apparel companies are increasingly seeking ways to sell in the Indonesian domestic market, to other ASEAN members and offshore trade with Europe and the U.S. Behind this is a strong sense of crisis that they won't be able to survive by relying only on exports to Japan.

According to the International Monetary Fund (IMF), Indonesia's real GDP growth was 5.0% in 2019, down 0.1 percentage point from the previous year. As the slowdown of China's economic growth due to U.S.-China trade friction has spread to Southeast Asia, Indonesia was barely able to maintain its growth on the 5% level. However, business confidence has not really gained any momentum. It is symbolic that car sales dropped 10.5% in 2019 compared to 2018 to 1,030,126, according to the Indonesian Automobile Manufacturers Association.

The business environment of textile and apparel industries is even worse. In the aftermath of the U.S.-China trade dispute, cheap Chinese-made goods flowed into Asia, depressing the market. As a result, the number of local companies shutting down factories or closing down completely has increased. The Indonesian government saw the situation seriously, and took safeguard action on textile goods last November.

Under such circumstances, many Japanese-affiliated textile and apparel companies in Indonesia have attached greater importance to sales in the domestic market and ASEAN region, as well as offshore trade. Behind this is the sluggish textile and apparel markets in Japan. Many Japanese affiliates are feeling the limit in relying on the Japanese market.



The Indonesian economy has lost some of its momentum

Meanwhile, the relocation of garment production to ASEAN continues, and many of the companies commonly consider that the potential of sales in the ASEAN region is great. Indonesia's strength is that it has an integrated supply chain ranging from yarns and fabrics to garment manufacturing.

There are also the unique circumstances of Indonesia. The Indonesian government requires retailers to handle a certain percentage of domestically made products to protect the local industry. For this reason, private label apparel specialty stores (SPA) including Japanese SPAs that aim to expand sales in Indonesia have to increase production and procurements in Indonesia, and the expectations for such demands are high.

On the other hand, challenges are also great. Competition with Chinese products and other ASEAN countries, as well as with the products of local Indonesian companies is inevitable for both domestic sales and offshore trade. Japanese affiliates are inferior in terms of cost competitiveness. Accordingly, the key is how to produce and propose original products that no other company can produce. For that purpose, cooperation with Japan and other overseas bases is indispensable.

Expansion of Domestic Sales

As the apparel market in Japan is in a stagnant condition, Japanese-affiliated companies in Indonesia commonly recognize that their business is reaching its limit with just exports to Japan. For this reason, many companies intend to expand their sales of yarns and fabrics to garment manufacturers in the ASEAN region. For instance, P.T. Mermaid Textile Industry Indonesia (Mertex), a textile manufacturing subsidiary of Shikibo Ltd., has set up a system for expanding sales in cooperation with the Shikibo office in Vietnam.

Domestic sales are even more important. Indonesia's large population is attractive, but the hurdle is high due to competition with Chinese products. Therefore, P.T. Tokai Texprint Indonesia, an affiliate of Tokai Senko K.K., and the Nisshinbo Group are aggressively expanding sales of fabrics for traditional clothing items, such as batik and hijab, which have relatively less competition with overseas products.

Meanwhile, sales to private label apparel specialty stores (SPA) continue to be strong. Because Indonesian retailers are obliged to handle a certain rate of domestic products, Japanese SPAs which are expanding their local stores are forced to increase their production in Indonesia.

The Toray Group and other Japanese textile companies specializing in business toward SPA are expanding consistent production from yarn and fabric to apparel and other sewn products in Indonesia.

Although the scale is small, Japanese shirt and apparel companies are beginning to achieve results in domestic sales, and P.T. Toyobo Indonesia has succeeded in supplying original products such as "Z Shirts". Toyobo is also expanding Z Shirts toward locally licensed products of European and American brands.

Taiwan

Textile & Apparel Exports Post First Decrease in Three Years

According to the Taiwan Textile Federation, 2019 exports of textiles and apparel fell 8.92% compared to the previous year to US\$9,175.19 million. It was the first decrease in exports in three years since 2016.

As a result of U.S.-China trade friction and political turmoil in Hong Kong, exports fell to Mainland China and Hong Kong. The fact that Taiwanese companies in the upstream and middle-stream sectors have relocated their production to Vietnam and Indonesia is also a factor for the decrease.

Exports of fabrics (the largest category) decreased by 6.44% to US\$6,226.59 million. Exports of yarns were vigorous up to 2018, but dropped 14.16% in 2019 to US\$1,438.27 million. Exports of fibers fell 25.08% to US\$603.63 million.

In regard to exports to the top five destinations, exports to Vietnam were the largest, but decreased by 1.97% to US\$2,224.75 million. Exports of fabrics decreased by 0.85%, while those of yarns grew by 1.79%.

Exports to Vietnam sharply increased for fabrics in 2017 and for spun yarns in 2018, and both were items leading overall exports of textiles and apparel. The decreases in fabrics and yarns are because Taiwanese makers in the mid-stream sector are extending their operations to Vietnam.

Taiwan's Textile & Apparel Exports

| Item | January-December 2019 | | | |
|------------------------------------|-----------------------|------------------|-----------|------------------|
| | Ton | Y-o-Y Change (%) | US\$1,000 | Y-o-Y Change (%) |
| Fibers | 435,424 | -13.39 | 603,630 | -25.08 |
| Raw cotton | 3,666 | -10.80 | 3,213 | -5.02 |
| Manmade staple fibers | 429,302 | -13.29 | 575,647 | -24.21 |
| Wool & animal hair | 1,425 | -44.38 | 20,558 | -47.39 |
| Flax, jute, sisal, ramie | 246 | -38.40 | 780 | -19.32 |
| Raw silk | 1 | 244.87 | 10 | 930.00 |
| Others | 784 | 43.55 | 3,421 | 22.11 |
| Yarns | 527,860 | -10.11 | 1,438,274 | -14.16 |
| Cotton | 124,997 | -4.60 | 252,210 | -15.67 |
| Manmade staple fibers | 392,045 | -11.89 | 1,091,876 | -15.11 |
| Wool | 696 | 186.43 | 13,431 | 177.57 |
| Flax, jute, other vegetable fibers | 283 | 18.22 | 2,250 | 27.64 |
| Silk | 1 | 15.29 | 93 | -28.57 |
| Others | 9,837 | -8.76 | 78,414 | -5.93 |
| Fabrics | 784,399 | -7.91 | 6,226,586 | -6.44 |
| Woven | 257,879 | -7.26 | 1,954,168 | -6.05 |
| Knitted | 233,907 | -9.69 | 2,155,478 | -7.27 |
| Special purpose | 292,614 | -7.02 | 2,116,939 | -5.94 |
| Apparel | 24,544 | -7.52 | 470,953 | -7.74 |
| Woven garments | 5,378 | 4.38 | 72,814 | -0.19 |
| Knitwear | 5,808 | -8.12 | 134,367 | -7.44 |
| Accessories | 13,359 | -11.33 | 263,773 | -9.78 |
| Made-ups | 83,387 | -3.76 | 435,743 | 1.93 |
| Total | 1,855,614 | -9.70 | 9,175,185 | -8.92 |

Source: TTF

Hong Kong

2019 Re-Exports of Textiles & Apparel Drop by Over 10%

According to statistics on Hong Kong's exports of textiles and apparel, as compiled by The Hong Kong General Chamber of Textiles (HKGCT) based on data from the Hong Kong Census and Statistics Department, 2019 re-exports of textiles and apparel fell 12.2% compared to the previous year to HK\$145,372 million. The fall was 8.9 percentage points greater than in 2018.

Re-exports were affected by the worsening political situation in Hong Kong, trade friction between the U.S. and China and slowdown of the global economy.

Re-exports of apparel dropped 11.3% to HK\$95,969 million, and those of textiles declined by 13.8% in HK\$49,403 million.

By market, re-exports of textiles and apparel fell for all four major markets: the U.S., HK\$32,651 million (down 20%); EU, HK\$21,704 million (down 17.7%); Mainland China, HK\$31,474 million (down 12.3%); and ASEAN, HK\$21,903 million (down 5.2%).

Apparel re-exports to the U.S. fell 20.4% to HK\$31,670 million, along with those to the EU by 18.2% to HK\$20,717 million, while re-exports to Mainland China and the ASEAN region increased by 9.2% and 8.0%, respectively to HK\$9,275 million and HK\$5,395 million. As for re-exports to Mainland China, luxury goods from France and Italy and volume zone products from ASEAN are considered to have increased.

Taiwan's Textile & Apparel Exports to Top Five Destinations

| | | January-December 2019 | | | |
|-----------|---------|-----------------------|------------------|-----------|------------------|
| | | Ton | Y-o-Y Change (%) | US\$1,000 | Y-o-Y Change (%) |
| Vietnam | Total | 370,280 | -3.18 | 2,224,748 | -1.97 |
| | Fibers | 95,096 | -6.10 | 109,930 | -21.07 |
| | Yarns | 86,260 | 2.17 | 240,983 | 1.79 |
| | Fabrics | 178,752 | -3.33 | 1,763,794 | -0.85 |
| China | Total | 371,937 | -16.75 | 1,583,667 | -18.15 |
| | Fibers | 52,617 | -27.21 | 90,902 | -31.92 |
| | Yarns | 185,407 | -13.92 | 444,963 | -20.75 |
| | Fabrics | 129,478 | -16.10 | 973,852 | -15.99 |
| U.S.A. | Total | 102,466 | -0.20 | 698,480 | -2.70 |
| | Fibers | 12,409 | -5.62 | 19,621 | -14.99 |
| | Yarns | 21,892 | 8.76 | 59,217 | 1.71 |
| | Fabrics | 50,632 | -2.49 | 355,050 | -0.57 |
| Indonesia | Total | 64,733 | -12.08 | 481,177 | -6.67 |
| | Fibers | 4,778 | -48.97 | 8,519 | -38.32 |
| | Yarns | 9,432 | -7.28 | 25,917 | -7.42 |
| | Fabrics | 45,994 | -7.06 | 415,160 | -5.94 |
| Hong Kong | Total | 55,131 | -19.10 | 446,882 | -18.89 |
| | Fibers | 713 | -26.14 | 1,287 | -29.45 |
| | Yarns | 17,361 | -23.89 | 62,532 | -27.80 |
| | Fabrics | 35,341 | -17.30 | 338,551 | -18.39 |

Source: TTF

2020 Exports of Fabrics for Traditional Ethnic Wear to the Middle East

- Can SARS-CoV2 Be Overcome?
- A Market Recovery Depends on the End of Coronavirus

Japanese exports of fabrics for the traditional ethnic garment, thobe, to the Middle East were strong until 2016, but fell into a slump in 2017 and 2018, and it was not until 2019 that a recovery was finally made. The slump was mainly attributed to weak local consumption following the fall of crude oil prices. However, stocks have recently decreased, especially in Saudi Arabia, and contracts are higher than last year. Although the situation differs for each region, a recovery was able to be made from the two-year slump. The year 2020 got off to a good start, but a question is how the novel coronavirus "SARS-CoV2" will affect business.

The most recent peak in Japanese exports of fabrics for traditional ethnic wear to the Middle East was in 2016. Exports continued to decrease in 2017 and 2018 due to the above-mentioned factors, and a recovery was finally made in 2019. Business has been proceeding smoothly in 2020, and as of this March, contracts were almost completed for shipments up to September. Nevertheless, the impact of SARS-CoV2 has stopped processing instructions, and it is uncertain how much will actually be shipped.

Japanese textile manufacturers are responding to such an uncertain market environment. Recently, the manufacturers have been focusing on developing new fabrics. This includes the development of new yarns for thobe fabrics. For instance, efforts have been made to improve the texture using yarns with less fluffiness. Developments in dyeing and finishing techniques have also been made, and the manufacturers have been working hard to find new fabric hands.

The latest trends in thobe fabrics also include sustainability and eco-friendliness. Exports to the Middle East market, which

includes oil-producing countries, also reflect trends in the European market. More manufacturers are striving to ensure the safety of their products and sustainability of the supply chain, such as by using recycled yarns and manufacturing at factories that have acquired various international certifications.

The following reports on how Japanese suppliers are working toward exporting to the Middle East market in 2020.

Toyobo

- Soft Texture Processing Received Well
- Remarkable Presence in Product Variety

Toyobo is a leader in Japanese exports of thobe fabrics. According to manufacturer-cum-seller Toyobo STC Co., Ltd., the company has been exporting to the Middle East since the 1960s. Toyobo has increased its reputation in this market by replacing cotton with cellulosic fibers such as polynosic Tufcel as a means of differentiating itself from competitors. In addition, a basic lineup has been established, by developing polyester staple fiber/filament mix-woven fabrics and Super Rosanna mix-weaves of polyester/rayon blended yarns and polyester filaments.

Since the times of competition exclusively among Japanese products changed as a result of the sudden appreciation of the Japanese currency and emergence of overseas products in the late 1980s, pure polyester fabrics suffered setbacks. Under such circumstances, Toyobo once again made a radical review of its manufacturing operations leveraging its strengths. The company undertook the development of fabrics possessing the softness and suppleness required by customers, along with drape and body, and the fruit of their endeavors is Royal Mix, which has been well received despite being in the highest price range. The introduction of Royal Mix further heightened the evaluation of the Toyobo brand.

According to Takayuki Tabo, President, sales of thobe fabrics in fiscal 2019 (April 2019 to March 2020) increased by about 30% compared to fiscal 2018. A recovery was finally made after a slump in fiscal 2017 and 2018. Inquiries from the major markets of Saudi Arabia and Dubai were strong. As far as products are concerned, the trend shifted from products with hard texture, which the company specializes in, to those with a slightly soft texture, and business in the group of products meeting this trend was strong.

Even for fiscal 2020, business is progressing favorably, with contracts completed up to September shipments. The problem is the movement of novel coronavirus COVID-19. There are many uncertain factors, such as the closing of the wholesale district, so the company is paying close attention to the arrival



Toyobo has secured the highest status for its brand

of processing instructions.

Under these circumstances, the company plans to make in-house efforts for increasing the appeal of its products as a means of stimulating consumption, such as by increasing the product variation. For instance, it has been constantly developing new Super Rosanna fabrics by changing the yarn count, fabric density and texture every season. Furthermore, it intends to overcome the harsh environment in fiscal 2020 with an abundant variation of fabrics, including 100% spun polyester materials with slub- or bast fiber-like features.

Shikibo

- **Launching the New Brand SSBO**
- **Raising the Recognition of Konan Finish**

Shikibo Ltd. exports those fabrics mainly consisting of materials processed at the Konan Mill (Shikibo Konan). With the mainstream of fabrics changing from 100% cotton and cotton blends to 100% polyester from the late 1990s, the main lineup shifted to polyester products with plus α value addition. In 2005, the company launched Celgreen, a blend of HWM rayon modal that remains the top brand even today, and with this fabric, it has been expanding exports to the Middle East. A new brand, SSBO will be launched from shipments in the second half of fiscal 2020.

Shikibo strives to maintain its brand with original textures achieved by utilizing the group's processing techniques to the greatest advantage, as well as establishing qualitative aspects. Since 2014, new trials have begun, such as the introduction of the Super Anier deodorizing process. Even for markets, in addition to exports to the main market of Dubai, the company has stepped up efforts to raise brand awareness in the Qatar market, and the results have been remarkable since late 2018.

Exports of those fabrics were strong during fiscal 2019 (April 2019 to March 2020), resulting in higher sales and profits. In addition to the forte market of Dubai and the recovery of Qatar, sales toward Kuwait have been solid centering on Celgreen. As far as products are concerned, Celgreen continues to perform well, and Dual Action, which has penetrated the Japanese fashion market with its beautiful surface and clean feeling, has gained recognition with its sales heading upward. Furthermore, the soft processing, Quantum Leap was launched mainly in the U.A.E., and the results have been outstanding with orders growing favorably.

In regard to those fabric sales in fiscal 2020, Osamu Hirata, General Manager of Sales Dept. II, says, "In addition to the major product of Celgreen, Quantum Leap will be launched mainly in the U.A.E., and we also want to further raise the recognition of Dual Action. SSBO, which is positioned as a flanker brand to Celgreen, will be launched in the latter half of 2020."

The material of SSBO is mainly spun polyester, and it is processed at the Konan Mill. SSBO was named after the company's previous corporate name, Shikishima Boseki. Its price is considered to be slightly below mainstay Celgreen, with an aim at the market one zone higher than the volume zone. With an exten-



Shikibo products on sale at a wholesale store


sive range of differentiated products including Celgreen, SSBO, Quantum Leap and Dual Action, Shikibo is further raising the recognition of "Shikibo" and "Konan Finish" in the Middle East.

*High Resiliency and
Drapability finish*

EDOBAS

*GISEN's Unique and
Hight Processing Technologies*

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GISEN CO. LTD

Ichimura Sangyo

- **Expanding Products for Intermediate Zone**
- **North Africa Market Also in View**

Ichimura Sangyo Co., Ltd. is endeavoring to increase its share in the Middle East thobe fabric market by expanding its lineup of products in the intermediate zone between top-class products and the volume zone against the background of recent economic conditions. In the 2020 season, contracting has almost been completed for shipments up to September, and the company is preparing for the market after the coronavirus SARS-CoV2 pandemic.

Ichimura Sangyo has an advantage in manufacturing with its collaboration with Komatsu Matere Co., Ltd. In the case of thobe fabrics, the stability of fabric grade is enhanced with its easy-care property and wrinkle resistance, and the company has gained a certain share of the market with the IMA brand centering on the volume zone. This has been achieved with a strong development and sales system that supplies an average of 1.8 million square meters of fabrics each month.

According to Manabu Kitazumi, Assistant General Manager, Textile Dept. 1, sales of thobe fabrics in fiscal 2019 (April 2019 to March 2020) exceeded the previous fiscal year, with higher sales and profits secured. The main market of Saudi Arabia made a recovery, and the volume of orders significantly increased by 50% year-on-year. Sales to Kuwait and Oman also increased, although those for Dubai were sluggish.

In terms of products, items moving strongly were 100% spun polyester fabrics possessing a smooth touch and drape similar to filament fabrics and the Ultima series of fabrics, of which spun yarns are used for warp and filament yarns for weft. While the market for luxury goods shrank, fabrics catering to the market one zone higher than the volume zone were favorable.

In regard to fiscal 2020, contracting is almost completed for April-September shipments. An issue is the movement of SARS-CoV2. Should the situation prolong, processing instructions are expected to be delayed, and this might have an im-



Ichimura Sangyo is expanding sales with IMA brand

pact on the execution of contracts. Under such circumstances, Ichimura Sangyo is further strengthening product development for 2021. In the case of filament fabrics, the company is increasing the width of fabrics from the 38 inches of former major products to 58 inches, and tricot fabrics are also to be offered in a greater variety. In addition, the company will pursue finished products with the use of manufacturing bases in China and Vietnam.

Markets will also be diversified. Beside exports to Saudi Arabia, Dubai, Kuwait, Oman, Qatar and other Gulf countries, Ichimura Sangyo will strengthen development of the African market, mainly in the northern region such as Libya, Egypt, Sudan, Kenya, Nigeria and Algeria. The company is already strengthening ties with business partners in Dubai, who are strong in this market, for diversifying the markets from the Gulf to North Africa.

Teijin Frontier

- **Increasing Share by Deeper Relationship with Best Customers**
- **Expanding Variation of Commodity Products**

According to Teijin Frontier Co., Ltd., its textile exports to the Middle East in fiscal 2019 (April 2019 to March 2020) achieved higher sales and profits, partly due to higher export volumes compared to the previous fiscal year.

A major characteristic by country or region was that Saudi Arabia had difficulties with its new import customs clearance system "Al Saber", but business finally began to improve from the drop in market conditions caused by the strengthening of Saudization in 2017. The improvement of business is because new orders increased more than expected due to the reduction of inventory in the market.

Exports to the U.A.E. (Dubai) seemed to have been affected by uncertainties in the Middle East situation, and the sense of economic stagnation was remarkable as a whole. Wholesalers had been procuring based on anticipatory demand in the distribution sector, but are now conducting firm business with procurements made in line with actual demand, in order to avoid the risk of bad debts caused by delays in accounts receivable collection. This has led to a smaller scale of business than before.

Meanwhile, a major characteristic in terms of products is that demand for commodity products has grown remarkably, due to a sense of economic stagnation and decreases in income caused by various laws and regulations.

Under such circumstances, the company says that the coronavirus has made it difficult to forecast exports to the Middle East in the current fiscal 2020. In Saudi Arabia, the economic and export environment covering the entire Middle East market continues to be severe, with the ban on all businesses except for food and pharmacies from March 15th and preceding restrictions stopping foreigners, including pilgrims, from entering the country. A major point is when the market

will resume business, and the although it includes hopeful observations, Teijin Frontier expects sales to be about the same as the previous fiscal year.

In regard to the development of new products and priority business enhancement measures, business trips to the Middle East cannot be made due to the coronavirus, so products are developed with ideas acquired from customers through local agents. In addition, the company intends to increase the share of its products in stores by expanding the variation of commodity products that are in high demand and deepening its relationship with best customers.

As the outlook is uncertain at the moment, Teijin Frontier will focus on low-risk business with the previously mentioned deepening relationship with best customers. Thanks to the long-standing strong relationships with customers and the sales efforts of local agents, futures contracts are said to be progressing smoothly.

As for production and garments manufactured in third countries, although it has been an issue for a long time, the company considers in the current situation, it would be best not to take various measures and focus on selling Japanese products.

Gisen

- Focus on Wrinkle-Resistant Edobas
- Coexistence of Softness, Drape and High Resilience

The dyeing and processing company, Gisen Co., Ltd. specializes in the dyeing and processing of woven and knitted fabrics made of manmade fibers and their blends with natural fibers, as well as fabrics for thobe, which is a traditional ethnic garment worn in the Middle East. Japanese thobe fabrics are highly appreciated in the Middle East market. Supporting the high appreciation are Japanese dyeing and processing companies, and one of them is Gisen.

Gisen started dyeing and processing thobe fabrics in the late 1970s. A typical processing is LAN, which continues to be popular even today. The company focuses on such originally developed high-value-added processings, and has recently been focusing on Edobas.

Edobas is a further development of existing processing technologies. Using a special non-urethane resin, it has high resilience in addition to softness and drape. Depending on the processing, wet resilience or resilience with a crisp touch can be obtained. Another characteristic is that it is hard to wrinkle, with small wrinkles disappearing quickly. This processing technique can be applied not only to spun fabrics but also to filament materials. Developed in 2016, test sales of Edobas started in 2017, and the processing volume was 40,000 yards during the first year of production. The processing volume has been increasing year by year, reaching 100,000 yards in 2018 and 150,000 yards in 2019. Katsunori Goto, President & Chief Executive Officer



Teijin Frontier is focusing on making Zen an established brand

of Gisen, says, "Edobas is appraised for its high drape and resilience, as well as for wrinkle resistance, and is gradually gaining recognition in the Middle East market."

Founded in 1943, Gisen is known as the first company in Japan to industrialize wrinkle-resistant treatment for woven fabrics by resin processing. In addition to the processing of thobe fabrics, the company offers processings for providing refined taste and functionality to fabrics for fashion wear and uniforms, antibacterial processing for medical gowns and an extensive range of fabric dyeing and processing techniques for the uniforms of the Japan Self-Defense Force, police and firefighters. In addition, its dyeing and processing techniques for artificial leather and microfiber fabrics are highly evaluated both in Japan and overseas.

Of the total processing volume, the major sectors of fashion wear and uniform/workwear account for 30% each, and are followed by thobe fabrics at 15%. President Goto says, "Gisen specializes in the dyeing and processing of high value-added products utilizing various elemental technologies. We will continue to develop processing technologies following Edobas."

In addition to texture processing, functionality processing is also expected to increase even for thobe fabrics. Gisen is already performing antistatic processing, and also expects to receive inquiries for soil-resistant treatment and antiviral processing.



The volume of the new processing for thobe fabrics, Edobas is increasing year by year

Textile & Apparel Exports Down 1% in 2019

According to Japan Textiles Exporters Association statistics based on Ministry of Finance trade figures, exports of textiles and apparel in 2019 decreased by 1% year-on-year to US\$7,742.66 million.

Exports to Vietnam increased by 5% to US\$1,053.32 million.

Exports of textile fibers decreased by 1%. While exports of rayon staple fiber grew by 16%, those of polyester staple fiber declined by 3%, along with acrylic staple fiber also by the same 3%.

Yarn exports decreased by 8% with exports decreasing for rayon filament yarns, nylon filament yarns and polyester filament yarns. Exports of nylon filament yarns dropped 25%.

2019 exports of woven and knitted fabrics remained about the same as the previous year at US\$2,811.27 million, and those of coated fabric decreased by 4% to US\$458.54 million. Fabric exports increased for nylon filament fabrics, polyester filament fabrics and spun synthetic wovens, but decreased for cotton fabrics.

Exports of nonwoven fabrics remained firm, while exports of apparel grew by 9%.

By destination, exports to East Asia decreased by 2%, with those to China declining by 5%. Exports to Europe rose 3%, while those to the U.S. were down 1%. Exports to Oceania climbed 10%, but those to South America dropped 20%.

Dept. Store Sales Drop 12.2% in February

According to the Japan Department Stores Association, nationwide same-store sales (75 companies, 206 stores) dropped 12.2% in February compared to the same month of last year to 366,127 million yen, thus decreasing for five consecutive months.

As a result of the rampant coronavirus, shoppers decreased by about 10%. Inbound demand fell to a low level, and sales of winter articles remained stagnant due to the warm winter weather.

February sales of apparel (including apparel accessories) fell 15.9% to 95,107 million yen. Sales declined for all apparel items: women's wear, 60,541 million yen

(down 17.8%); men's wear, 20,312 million yen (down 9.8%); children's wear, 7,726 million yen (down 15.5%); and other garments, 6,526 million yen (down 15.5%).

Sales of shoes, bags and other miscellaneous articles dropped 16.7% to 45,097 million yen, with sales of sundries falling 18.9% to 69,901 million yen.

Chain Store Sales Post First Rise in Five Months

The Japan Chain Stores Association (55 firms, 10,548 stores) reported that same-store sales in February 2020 increased by 4.1% over the same month of last year to 937,621 million yen, thus increasing for the first time in five months.

Sales increasing factors included the facts that February 2020 had 29 days as 2020 is a leap year, and that the coronavirus increased sales of food in the second half of the month as more people stayed at home.

Sales of apparel continued to show a decrease (down 3.9% in February to 51,198 million yen). Sales of women's and men's wear suffered setbacks, as shoppers were reluctant to buy outerwear.

Sales of women's wear decreased by 21.3% to 14,757 million yen, along with those of men's wear by 2.3% to 7,336 million yen, and other garments and accessories by 20.7% to 1,596 million yen.

Fast Retailing Revises Operating Profit Forecast 43.7% Downward

Fast Retailing Co., Ltd. has revised its forecast for consolidated operating profits during the current fiscal year ending this August 43.7% downward compared to the previous fiscal year to 146 billion yen.

The company expects a drastic drop in revenues up to this May due to the impact of COVID-19.

As for its consolidated business performance during the first half of the current fiscal year (September 2019 to February 2020), revenues decreased by 4.7% compared to the previous fiscal year to 1,208,512 million yen. Operating profits dropped 20.9% to 136,736 million yen, along with net profits by 11.9% to 100,459 million yen.

Textile & Apparel Exports

| | January-December 2019 | | | |
|---|-----------------------|------------------|------------------|------------------|
| | Quantity | Y-o-Y Change (%) | US\$1,000 | Y-o-Y Change (%) |
| Total | — | — | 7,742,656 | -1 |
| Textile fibers | 214,552 | 0 | 827,343 | -1 |
| Rayon staple fiber | 17,602 | 23 | 73,230 | 16 |
| Polyester staple fiber | 14,434 | 3 | 38,817 | -3 |
| Acrylic staple fiber | 125,732 | -5 | 534,291 | -3 |
| Yarn | 109,104 | -13 | 956,055 | -8 |
| Rayon filament yarn | 11,077 | -9 | 151,522 | -7 |
| Nylon filament yarn | 27,006 | -31 | 178,962 | -25 |
| Polyester filament yarn | 14,213 | -1 | 103,209 | -5 |
| Total of woven & knitted fabrics | 880,760 | -3 | 2,811,267 | 0 |
| Total of coated fabrics | 23,282 | -1 | 458,535 | -4 |
| Rayon filament fabrics | 39,555 | -8 | 180,581 | -6 |
| Nylon filament fabrics | 88,694 | 5 | 220,103 | 8 |
| Polyester filament fabrics | 240,207 | -3 | 605,737 | 1 |
| Spun synthetic fabrics | 139,881 | 1 | 352,645 | 5 |
| Cotton fabrics | 102,776 | -5 | 398,228 | -5 |
| Wool fabrics | 16,155 | -13 | 178,966 | -6 |
| Knitted fabrics | 161,424 | -5 | 583,152 | -3 |
| Nonwoven fabrics | 940,955 | 1 | 767,059 | 0 |
| Apparel | — | — | 536,970 | 9 |

Notes:

1. Unit: ton for textile fibers, yarn and coated fabrics; 1,000 m² for woven and knitted fabrics and nonwoven fabrics.

2. Rayon staple fiber includes acetate tow.

Source: Japan Textiles Exporters Association, based on MOF trade statistics

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Japanese Apparel Machinery

Production & Exports of Industrial Sewing Machines

Decrease in 2019

2019 was a difficult year for Japanese sewing machine makers with production and exports decreasing compared to the previous year. As a result of the prolonged trade conflict between China and the U.S., demand for apparel machinery remained low, and garment makers in China and other parts of Asia assumed a cautious attitude toward making capital investments.

According to statistics released from the Japan Sewing Machinery Manufacturers Association (JASMA), based on statistics from the Ministry of Economy, Trade and Industry (METI), the nation's production of household and industrial sewing machines in 2019 decreased by 14.7% in volume and 22.5% in value compared to the previous year to 132,354 machines worth 24,382 million yen.

2019 production of household sewing machines dropped 6.7% and 10.8%, respectively to 49,467 machines valued at 2,324 million yen.

The production of industrial sewing machines also fell 18.8% and

Production, Sales & Inventory of Sewing Machines

| | January-December 2019 | | | |
|--|-----------------------|------------------|-------------|------------------|
| | No. of Machines | Y-o-Y Change (%) | Million Yen | Y-o-Y Change (%) |
| Household sewing machines | | | | |
| Production | 49,467 | -6.7 | 2,324 | -10.8 |
| Sales | 49,493 | -6.9 | 2,326 | -11.3 |
| Inventory | 207 | -10.0 | | |
| Industrial sewing machines | | | | |
| Production | 82,887 | -18.8 | 22,058 | -23.5 |
| Single-needle straight line stitching | 8,116 | 22.4 | 694 | 8.3 |
| Top stitching | 9,680 | 5.2 | 1,699 | 17.8 |
| Others | 65,091 | -24.6 | 19,665 | -26.5 |
| Sales | 124,505 | -26.2 | 27,186 | -23.0 |
| Single-needle straight line stitching | 7,989 | 15.2 | 669 | -0.7 |
| Top stitching | 37,395 | -35.2 | 3,648 | -16.4 |
| Others | 79,121 | -24.0 | 22,869 | -24.4 |
| Inventory | 11,037 | -7.6 | | |
| Single-needle straight line stitching | 405 | 45.7 | | |
| Top stitching | 6,229 | -9.0 | | |
| Others | 4,403 | -8.7 | | |
| Total of household & industrial sewing machines | | | | |
| Production | 132,354 | -14.7 | 24,382 | -22.5 |
| Sales | 173,998 | -21.6 | 29,512 | -22.2 |
| Inventory | 11,244 | -7.7 | | |

Source: JASMA, based on METI statistics

23.5%, respectively to 82,887 million machines worth 22,058 million yen. Production increased for single-needle straight line sewing machines

and top stitching machines in terms of volume and value, but other types fell 24.6% in numbers and 26.5% in value.

Sales of household and industrial sewing machines were down 21.6% and 22.2%, respectively to 173,998 machines worth 29,512 million yen. Sales of household sewing machines decreased by 6.9% and 11.3%, respectively. Sales of industrial sewing machines fell 26.2% and 23.5%, respectively, with sales increasing only for the quantity of single-needle straight line sewing machines.

Based on Ministry of Finance (MOF) trade statistics, 2019 exports of industrial sewing machines fell 20.3% in volume and 25.3% in value to 124,138 machines worth 27,816.17 million yen. Exports of automatic types drastically decreased by 25.4% and 25.9%, respectively, and those of other types were down

Industrial Sewing Machine Exports

| | January-December 2019 | | | |
|---|-----------------------|------------------|-------------------|------------------|
| | No. of Machines | Y-o-Y Change (%) | 1,000 Yen | Y-o-Y Change (%) |
| Automatic type (A) | 23,819 | -25.4 | 11,352,926 | -25.9 |
| Single-needle straight line stitching (for fabrics) | 4,916 | -24.4 | 694,532 | -12.8 |
| Single-needle straight line stitching (others) | 0 | — | 0 | — |
| Overlock | 5,766 | 2.4 | 203,161 | -19.9 |
| Others | 13,137 | -33.6 | 10,455,233 | -26.8 |
| Other types (B) | 100,319 | -19.0 | 16,463,240 | -24.9 |
| Single-needle straight line stitching (for fabrics) | 9,636 | 19.3 | 849,638 | 20.0 |
| Single-needle straight line stitching (others) | 9,098 | 8.6 | 1,405,998 | -0.3 |
| Overlock | 15,322 | 5.9 | 1,845,649 | 9.2 |
| Others | 66,263 | -28.6 | 12,361,955 | -31.7 |
| Total of automatic and other types (A+B) | 124,138 | -20.3 | 27,816,166 | -25.3 |
| Parts (C) | — | — | 12,491,979 | -10.6 |
| Bobbin cases | 3,132,188 | -13.4 | 666,547 | -3.9 |
| Shuttle races & hooks | 2,462,595 | -30.3 | 3,969,669 | -21.9 |
| Others | 0 | — | 7,855,763 | -4.1 |
| Total incl. parts (A+B+C) | 124,138 | -20.3 | 40,308,145 | -21.3 |

Source: JASMA, based on MOF statistics

19.0% and 24.9%, respectively.

By region, exports of industrial sewing machines decreased to almost all regions both in quantity and value. Exports to the Middle East increased by 29.2% and 34.5%, respectively, and those to Africa rose by 1.5% in terms of value.

By country, exports of industrial sewing machines were the largest for Singapore with 28,500 machines (down 23.7%) valued at 7,419.27 million yen (down 27.3%). Coming in

second was Hong Kong with 14,603 machines (down 22.8%) worth 6,222.11 million yen (down 11.5%), followed by China with 12,742 machines (down 41.8%) valued at 2,947.14 million yen (down 46.7%).

Meanwhile, Japanese imports of industrial sewing machines in 2019 sharply increased by 92.8% in quantity to 50,202 machines, and by 14.9% in value to 2,869.21 million yen.

Imports of automatic types grew

by 91.1% and 47.6% respectively to 17,500 machines worth 1,689.64 million yen.

Imports from China were the largest with 44,978 machines (up 120.7%) valued at 1,912.46 million yen (up 14.4%).

Taiwan came in second with 2,745 machines (up 8.9%) worth 418.80 million yen (up 27.9%).

Vietnam was third with 1,862 machines (up 47.9%) valued at 220.29 million yen.

Japan's Exports of Industrial Sewing Machines by Region & Country

| | January-December 2019 | | | | | January-December 2019 | | | |
|--------------------------|-----------------------|------------------|------------------|------------------|---------------------------|-----------------------|------------------|-------------------|------------------|
| | No. of Machines | Y-o-Y Change (%) | 1,000 Yen | Y-o-Y Change (%) | | No. of Machines | Y-o-Y Change (%) | 1,000 Yen | Y-o-Y Change (%) |
| East Asia | 30,276 | -31.2 | 9,648,842 | -26.4 | Europe (continued) | | | | |
| Korea | 2,403 | 2.5 | 366,651 | -3.2 | Romania | 13 | -58.1 | 321,673 | 151.2 |
| China | 12,742 | -41.8 | 2,947,137 | -46.7 | Turkey | 4,301 | 15.4 | 799,496 | 2.0 |
| Taiwan | 524 | -36.1 | 111,991 | -37.9 | Lithuania | 48 | -57.9 | 9,453 | -62.6 |
| Hong Kong | 14,603 | -22.8 | 6,222,105 | -11.5 | Belarus | 3 | -82.4 | 6,918 | 75.8 |
| Mongolia | 4 | -60.0 | 958 | -54.3 | Moldova | 2 | — | 229 | — |
| SE. & S. Asia | 42,494 | -26.8 | 9,996,296 | -26.9 | Czech R. | 9 | 80.0 | 873 | 83.8 |
| Vietnam | 4,177 | -5.1 | 1,336,454 | -4.0 | Kazakhstan | 18 | 80.0 | 3,989 | 20.6 |
| Thailand | 339 | -49.1 | 127,429 | -26.3 | Kyrgyzstan | 3 | — | 2,511 | — |
| Singapore | 28,500 | -23.7 | 7,419,271 | -27.3 | Uzbekistan | 22 | -72.8 | 5,493 | -40.5 |
| Malaysia | 119 | -16.2 | 26,236 | -41.0 | N. America | 13,845 | -7.7 | 3,569,322 | -19.5 |
| Philippines | 56 | -60.3 | 34,855 | -31.6 | Canada | 4 | -69.2 | 17,179 | -85.3 |
| Indonesia | 528 | -17.0 | 206,466 | -29.7 | U.S.A. | 13,841 | -7.7 | 3,552,143 | -17.7 |
| Cambodia | 329 | -47.6 | 143,737 | -56.8 | C. America | 1,205 | -19.3 | 212,683 | -30.3 |
| Laos | 7 | -72.0 | 553 | -96.5 | Mexico | 1,016 | -24.5 | 166,053 | -36.6 |
| Myanmar | 136 | 277.8 | 16,364 | 13.9 | Honduras | 174 | 46.2 | 44,086 | 64.0 |
| India | 4,083 | -49.0 | 379,881 | -54.7 | Nicaragua | 15 | -11.8 | 2,544 | -22.2 |
| Pakistan | 457 | 6.8 | 115,598 | 231.4 | S. America | 1,473 | -37.1 | 178,234 | -47.2 |
| Sri Lanka | 70 | -4.1 | 70,635 | -29.9 | Colombia | 216 | 166.7 | 48,632 | 26.7 |
| Bangladesh | 510 | 49.6 | 100,403 | -22.3 | Ecuador | 149 | -70.8 | 15,632 | -68.4 |
| Afghanistan | 3,183 | -37.7 | 18,414 | -50.8 | Peru | 905 | -26.5 | 72,937 | -18.8 |
| Middle East | 15,895 | 29.2 | 150,857 | 34.5 | Chile | 20 | 25.0 | 7,197 | 17.5 |
| Iran | 45 | -97.1 | 12,888 | 35.8 | Brazil | 160 | -35.7 | 27,677 | -76.8 |
| Jordan | 30 | 328.6 | 6,389 | 37.8 | Paraguay | 14 | -41.7 | 3,632 | 23.6 |
| U.A.E. | 15,820 | 48.1 | 131,580 | 38.2 | Argentina | 9 | -96.1 | 2,527 | -92.0 |
| Europe | 16,074 | -13.2 | 3,913,478 | -23.6 | Africa | 2,769 | -29.6 | 133,333 | 1.5 |
| Norway | 20 | -92.0 | 1,940 | -92.0 | Morocco | 7 | — | 10,968 | — |
| U.K. | 158 | 32.8 | 28,754 | -12.9 | Egypt | 2,391 | -22.3 | 75,482 | -1.9 |
| Netherlands | 4,573 | 739.1 | 1,391,570 | 1091.1 | Nigeria | 48 | — | 10,902 | — |
| Belgium | 153 | -21.1 | 18,411 | -36.7 | Ethiopia | 66 | 50.0 | 18,411 | 63.0 |
| France | 325 | -35.9 | 329,839 | -35.4 | Uganda | 234 | -68.9 | 3,499 | 5.9 |
| Germany | 5,454 | -8.5 | 804,144 | -8.1 | Mauritius | 1 | -75.0 | 343 | -87.7 |
| Portugal | 1 | 0.0 | 501 | -87.3 | South Africa | 22 | -37.1 | 13,728 | 49.8 |
| Spain | 8 | 166.7 | 1,629 | 204.5 | Oceania | 107 | -7.8 | 13,121 | -25.4 |
| Italy | 440 | -48.3 | 112,570 | -38.4 | Australia | 96 | -11.9 | 9,758 | -34.8 |
| Finland | 1 | — | 408 | — | Papua New Guinea | 5 | — | 350 | — |
| Poland | 388 | -93.1 | 44,063 | -98.1 | New Zealand | 3 | -40.0 | 1,232 | -16.5 |
| Russia | 126 | -64.6 | 26,414 | -66.8 | Fiji | 3 | 50.0 | 1,781 | 56.1 |
| Austria | 8 | -71.4 | 2,600 | -69.2 | World total | 124,138 | -20.3 | 27,816,166 | -25.3 |

Source: JASMA, based on MOF trade statistics

Note: Excludes parts.

Brother

- **Proposing Solutions for Higher Garment Making Productivity**
- **The Focus Is on Automation and Networking**

Brother Industries, Ltd. manufactures and sells a wide range of products consisting of not only sewing machines but also printers, all-in-ones and industrial equipment. Actively incorporating the strengths and fortes of other products and cutting-edge technologies, various types of sewing machines are being developed, and the company is strong in proposing solutions catering not only to the needs for sewing machines, but also for improving productivity of the entire garment factory including pre- and post-garment-making processes.

One of the company's strategic models is the S-7250A. This model comes equipped with the DigiFlex Feed direct electronic feeding system that is also mounted on the S-7300A single-needle direct-drive lockstitcher equipped with a thread trimmer. With no need to make any adjustments, various sewing problems are solved, such as needle breaking, puckering and material slippage. The operation panel is simple and allows easy numerical management of pitch and change of feed motion, achieving higher sewing product quality at a reasonable price.

The T-8422D/8452D includes a twin-needle direct-drive lockstitcher and twin-needle split-needle bar lock direct-drive lockstitcher. The NEXIO twin-needle D-type comes with a color LCD touch panel as standard, allowing the operator to select from three types of home screens. It also supports the visualization of factories with the introduction of IoT systems, thus contributing to higher productivity.

The KE-430HX is an electronic direct-drive lockstitch



The BAS-365H bridge-type programmable electronic pattern sewer boasts a compact installation area despite its large sewing area

bartacker. High-speed sewing is made possible by the world's top-class sewing speed and a Needle Cooler for preventing thread breakage. Thread trimming work at the end of sewing is reduced (shorter remaining thread), and the standard thread nipper minimizes thread cast off at the start of sewing and bird nests. The digital tension on conventional models also comes as standard. The upper thread tension can be easily set in correspondence to the fabric.

The BAS-360H, BAS-365H, BAS-370H and BAS-375H are bridge-type programmable electronic pattern sewers. In addition to a large sewing area, a highly rigid feed mechanism achieves high-speed and highly accurate sewing. The size can be significantly reduced in X and Y directions, contributing to space saving with a more compact installation area. Even for large area sewing, the same high productivity and sewing product quality as the conventional BAS series are obtained.

Brother's sales of industrial sewing machines in fiscal 2020 (ending in March 2020) were severely affected by the coronavirus pandemic in addition to U.S.-China trade friction, and sales to China and Asia were in a particularly serious condition. In fiscal 2021, the company is focusing on automation and networking. Automation needs are satisfied with the BAS series having a large sewing area and peripheral devices. With sewing machines of the NEXIO strategic model series and networking of the NEXIO series, customer needs for higher productivity is met by visualization of garment production lines and automatic preparation of production management reports.

JUKI

- **Establishment of a Highly Profitable Business Platform**
- **Promotion of Smart Factories**

This year, JUKI Corporation started a new medium-term management plan mainly composed of organizational reforms of business including the creation of smart factories.

The company plans to invest 1.5 billion yen for transforming its factories into smart factories. It aims to establish a management structure that ensures high profits by drastically reviewing costs, expanding business areas, and strengthening the customer base through borderless business strategies.

In the second half of 2020, it will enter the second phase, consisting of cost structure reforms, maximum value addition by expansion of business areas and strengthening the customer platform by borderless operations.

In regard to cost structure reforms, JUKI will focus on streamlining indirect operations of management and rebuilding supply chain management, and will also consider the integration of factories.

The creation of smart factories will be accelerated. In addition to updating existing equipment, new equipment

will be introduced to improve production efficiency.

As for maximum value addition by expansion of business areas, the company will aim to expand business in fields where high profit margins can be achieved, such as non-apparel applications and specialized and automatic sewing machines.

As far as the strengthening of customer platform by borderless operations is concerned, it will strengthen moves toward untapped markets by expanding sales of the Simple Series of industrial sewing machines to emerging economies. It also targets regions such as Central Asia, North Africa, Russia and Latin America.

In the fiscal year ending in December 2019, JUKI's consolidated sales dropped 11.5% compared the previous fiscal year to 99,169 million yen, as sales decreased in China and Europe. Although orders usually increase in the second half of the year, U.S.-China trade friction slowed down capital investment demand in the second half of last year. Operating profits dropped 58.0% to 3,838 million yen, and net profits fell 73.4% to 1,763 million yen.

In the current fiscal year, JUKI expects to achieve sales of 106 billion yen, operating profits of 4.1 billion yen, and net profits of 2.3 billion yen.

JUKI recently launched a semi-dry head, 2-needle, needle-feed, lockstitch sewing system in overseas markets. This new sewing system is based on the 2-needle lockstitch machine, and comes with digitalized sewing adjustment func-

tions, which achieve higher seam quality and shorter setup changing time, as well as enabling production management by interlocking JUKI exclusive applications and the sewing machine.

This sewing system is utilized for sewing decorative stitches on jeans pockets, collars and sleeve cuffs of blouses, and attaching tapes to bra cups. Higher seam quality is required because the finished seams are exposed on the top surface of the product.

Two types of sewing machines have been launched; one is designed for sewing jeans and heavyweight materials and the second for sewing foundation garments.



JUKI semi-dry head, 2-needle, needle-feed, lockstitch sewing system

brother
at your side

Fast, Accurate, and Compact



BAS-370H

700mm x 700mm

BAS-375H

1200mm x 700mm

NEXIO

BROTHER INDUSTRIES, LTD.
<https://industrialsewingmachine.global.brother/>



Cotton Outlook

Global 2019/20 Cotton Demand Lowered Significantly Due to COVID-19

The U.S. Department of Agriculture (USDA) cotton projections for 2019/20 (August-July) (released on April 13th, 2020) include substantial adjustments to the supply-demand balance, compared with March 2020 projections. As the impact of the COVID-19 pandemic continues to unfold, a developing global economic slowdown with little precedent is expected to significantly reduce global cotton demand and trade in the near-term.

Higher Global Production

World cotton production in 2019/20 is forecast at 121.7 million bales, 3.1 million bales (2.6%) above last season but below 2017/18. Global harvested area in 2019/20 is estimated at 34.6 million hectares (85.6 million acres), 3% above 2018/19, as expected returns encouraged cotton plantings over alternative crops in several countries, particularly India, Brazil, Pakistan, and the U.S. The global yield is forecast at 765 kg/hectare in 2019/20, the lowest since 2015/16.

Among major cotton-producing countries, crop prospects this season have been mixed, with India, the U.S. and Brazil more than offsetting declines in China, Pakistan and Australia. Production in India (the largest producing country) is forecast at 29.5 million bales, 3.7 million bales above 2018/19, as area rose 3% to 13.0 million hectares. India's yield is projected at 494 kg/hectare, near the 3-year average. In the U.S., 2019/20 cotton production is forecast at 19.8 million bales, 8% above the previous season and the second largest crop since 2006/07, as a higher harvested area more than offset a lower yield. For Brazil, the cotton crop is expected to reach a record 13.2 million bales this season. The largest harvested area (1.7 million hectares) since 1991/92, and a yield near the 3-year average at 1,691 kg per hectare lift the crop 200,000 bales above 2018/19.

Production in China (the second largest producer) is projected at 27.25 million bales, 2% (500,000 bales) below 2018/19, as both area and yield decline slightly in

2019/20. In Pakistan, production is forecast 1 million bales (13%) lower this season at 6.6 million bales. For Australia, drought conditions in 2019/20 limited area to a 40-year low of only 60,000 hectares. With limited rainfall to support the crop, cotton production in Australia is projected at a relatively low 625,000 bales, equaling that of 2007/08.

Consumption Reduced Sharply

Global cotton mill use in 2019/20 is now projected at 110.6 million bales, 6% (7.6 million bales) below the March forecast and 8% (9.7 million bales) below 2018/19. April's dramatic reduction in the global consumption estimate is attributable to the developing impact of COVID-19 on global economic activity. For the textile and apparel industries, this economic slowdown includes temporary closure of some textile and apparel manufacturing operations and a postponement or cancellation of orders that have ripple effects throughout the entire supply chain from raw fiber procurements to retail consumer end uses.

These economic influences are expected to affect many countries in varying degrees, depending on the scope of their textile and apparel industries. Cotton mill use estimates for several countries were adjusted downward in April. For the top six consuming countries, estimates were reduced a combined 6.2 million bales in April, accounting for 82% of the global reduction in the mill use estimate in April. For China, cotton mill use is now forecast at 35.0 million bales for 2019/20, a 1.5-million-bale reduction in April that followed related declines there during February and March. China's mill use is 4.5 million bales below 2018/19 and is the lowest in 5 years. For India, cotton consumption is projected at 22.0 million bales in 2019/20, a decrease of 2.5 million bales in April and 2 million bales (8%) below 2018/19. For India, like China, the slowdown in global economic activity is expected to have dramatic effects on its textile and apparel industries, at least in the near-term.

Higher Cotton Stocks

With the significant decline in the global consumption estimate, world cotton trade is also projected to decrease considerably in 2019/20, as importing countries adjust their raw cotton needs accordingly. China is projected to remain the largest importer in 2019/20, importing 7.5 million bales this season compared with 9.6 million bales in 2018/19. For Bangladesh, imports are forecast at 6.9 million bales this season, 300,000 bales below 2018/19. Similarly, Vietnam is expected to reduce its imports 500,000 bales this year to 6.4 million bales.

As of April, global trade is forecast at 40.6 million bales in 2019/20, 3 million bales below March but only 500,000 bales beneath 2018/19. Although below the previous 2 years, world cotton trade remains at one of the highest levels since 2013/14. As discussed earlier, the U.S. is now expected to ship fewer bales of cotton this season than previously forecast, although total U.S. exports remain slightly above the 2018/19 level. Brazil's cotton exports are only reduced slightly in April, since most of their shipments for the season have already occurred. Brazil is forecast to export 8.6 million bales of cotton in 2019/20 (2.6 million bales above 2018/19) as larger exportable supplies are the result of their record crop.

Based on these world cotton supply-demand estimates, 2019/20 global stocks are projected to rise nearly 8 million bales from the March estimate to 91.3 million bales. World stocks are forecast to increase 11 million bales from 2018/19 and are forecast at their largest in 5 years. China continues to hold the single largest stockpile of cotton, forecast at 35.2 million bales in 2019/20, although stocks there are at their lowest in 8 years.

In 2019/20, U.S. cotton stocks are expected to reach their highest since 2007/08, while stocks in the rest of the world are projected to expand to a record 49.3 million bales, 24% above the previous high in 2018/19.

Manteco Launches Next Generation of Recycled Wool

Manteco, one of the world's leading premium wool manufacturers, is launching a new precious ingredient M Wool, an 'upgraded' recycled wool born from the company's cutting-edge Manteco System combined with sustainable innovation and heritage.



M Wool is both a smart ingredient and a groundbreaking brand. Manteco co-CEO Matteo Mantellassi says, "M Wool is the natural result of our path towards a new generation of sustainability. It's at the same time our past and our future. Our know-how and expertise and our innovation and vision for sustainable fashion. That's why the term recycled wool wasn't enough."

Founded in 1943 in the Prato district, Italy, Manteco has always been and still is a circular economy-driven company. Thanks to continuous investments in R&D, know-how and the engineering of the Manteco System, the company has achieved unmatched standards of recycled wool quality.

The system is a network of partner companies located within a 10-mile range of its headquarters. All these partners are led by Manteco towards a common path of sustainable growth that is 100% respectful of each company's heritage, values and traditions. Like an orchestra conductor, Manteco is guiding the network's green development to an unmatched model in textile manufacturing for fashion.

"That's why we decided to create a

brand to identify our cutting-edge recycled wool from the generic offers. Our collections are imbued and interwoven with M Wool as the M Wool special label will highlight," adds Mantellassi.

M Wool is a key ingredient of Manteco ranges. "Quality, sustainability, measurement and traceability are major values in our philosophy and today we feel ready to go to the next level based on these premises:

Manteco is processing through its system ca 1,650 tons of recycled wool that can be transformed in M Wool and:

1. Can carry, if requested, the Global Recycled Standard certification promoted by the influential Textile Exchange. GRS verifies and certifies recycled products in addition to the company's responsible social, environmental and chemical practices.

2. Saves about 41.3 million of liters of water, 24.8 tons of dyes, 4.9 million kw of energy (the annual consumption of the whole Miami population), and 1,484 tons of carbon dioxide.

3. Goes through the reliable Manteco System quality control checks of excellence, no compromises: from raw material to yarns, fabrics and finishing, from all aspects physical and chemical.

Recycled Wool satisfies all criteria of a circular economy. "It is our generation's challenge to continue building the circular economy in which somebody's waste becomes another one's resource, generating a sustainable use of our world's resources," says Manteco.

M Wool is also "100% Made in Italy". "Since the company's foundation in 1943, we have always teamed up with and led some of the most strategic players in our territory to grow together as an integrated sustainable network of skills, 'saper fare' – Italian knowhow – and innovation. Humbly and with all our sleeves always rolled up, we like to call it the Manteco system," adds Mantellassi.

Premium quality is achieved by leading the Manteco System to attain with the highest standards required by the global fashion system while preserving the 'genius loci' of each single partner along the whole supply chain according

to shared sustainable goals and performances.

With a turnover of over 91 million euro in 2019 Manteco SpA is the fourth largest textile company in Italy. This internationally renowned player and innovator has active collaborations with some of the most influential fashion brands.

From a small textile mill, it has grown to become a multi-awarded game changer in terms of responsibility and innovation which exports to over 40 countries, and produces up to 8.6 million meters of fabrics annually. Thanks to continuous investments in R&D, knowhow and the engineering of the Manteco System, the company has achieved unmatched standards of recycled wool quality.

Teijin Frontier Launches Eco-Minded Adhesive for Rubber Reinforcing Fibers

Teijin Frontier Co., Ltd. has launched a new eco-minded adhesive for rubber reinforcing fibers that does not use resorcinol-formaldehyde (RF) but still achieves the same level of performance as conventional methods. The new adhesive will be test marketed beginning this year. The company is targeting annual production of 200,000 tons in 2028.

Resorcinol-formaldehyde latex (RFL) adhesives have long been used to reinforce rubber products, such as tires, with fiber to maintain strength and morphological stability. In recent years, however, demands have been growing for solutions that do not use RF, which has been shown to have harmful effects on the human body.

The new adhesive uses a non-RF blended polymer for bonding. The polymer, which is reticulated by intermolecular interaction, achieves a high level of adhesiveness, equivalent to that of an RFL adhesive thanks to its high affinity for both fiber and rubber.

Teijin Frontier will continue to develop diverse applications for various kinds of rubber materials, including tires, belts, hoses and more.

Greater European Nonwovens Production Reaches 4.4% Annual Average Growth over Last Decade

EDANA, the International Association Serving the Nonwovens and Related Industries, has released its European annual statistics for 2019.

As a result of the recent economic conditions and, in particular, the downturn in several end-use sectors, figures for Greater Europe (Western, Central and Eastern Europe, Turkey, Belarus, Ukraine and Russia) show that the overall production of nonwovens has been flat in both weight (up 0.3%) and in surface area (up 0.5%) compared with 2018.

According to figures collected and compiled by the EDANA secretariat, production of nonwovens in Europe reached 2,782,917 tons. This compares with 2,774,194 tons in 2018 when the annual growth was 1.5%. Despite these two low growth years, the European production recorded an average growth rate of 4.4% over the last decade.

Obviously, a more in-depth analysis will be necessary to draw any definitive conclusion, as diverging trends have been observed in a number of European countries, and between the various production processes and market segments of nonwovens.

According to Jacques Prigneaux, EDANA's Market Analysis and Econom-

ic Affairs Director, in terms of apparent growth rates, airlaid nonwovens has been in line with the long-term trend this year, but it is actually the hydroentanglement process that has recorded the highest growth rate, at slightly more than 5.5%. However, other bonding processes within the drylaid technologies (thermally, air-through, chemically bonded and needled punched), as well as wetlaid nonwovens witnessed either flat or negative growth rates in 2019. Spunmelt nonwovens production, compared to its performance of 2018, recorded a growth of 0.6%."

The main end-use for nonwovens remains the hygiene market with a 29% share of deliveries, amounting to 792,620 tons, a growth of 1.5% in 2019. The most significant increases in percentage in 2019 were in table linen (up 12.3%) and electronic materials (up 6.8%). In contrast, several important sectors in terms of volumes sold showed limited (and sometimes negative) growth rates: e.g. personal care wipes (up 1.6%), building/roofing (down 0.3%), civil engineering (down 1.5%) and automotive interiors (down 2.5%). Additionally, major declines were noticed in medical applications, garments, interlinings and wall covering.

Oerlikon Nonwoven Large-Scale Meltblown Sold to Asia

A leading large-scale Asian manufacturer of manmade fibers and polymers has invested in a new Oerlikon

Nonwoven meltblown system.

The recently signed contract comprises a 2-beam system for manufacturing filtration nonwovens, predominantly for medical products such as face masks, with a nominal capacity of up to 1,200 tons of nonwovens a year.

Commercial production launch is scheduled for the fourth quarter of 2020.

The 2-beam system has an operating width of 1.6 meters, and is equipped with the new patented Oerlikon Nonwoven electro-charging unit. The Oerlikon Nonwoven meltblown technology is recognized in the market as being the technically most efficient method for producing highly separating filter media made from manmade fibers, particularly in conjunction with electrostatic charging and with extremely low pressure loss.

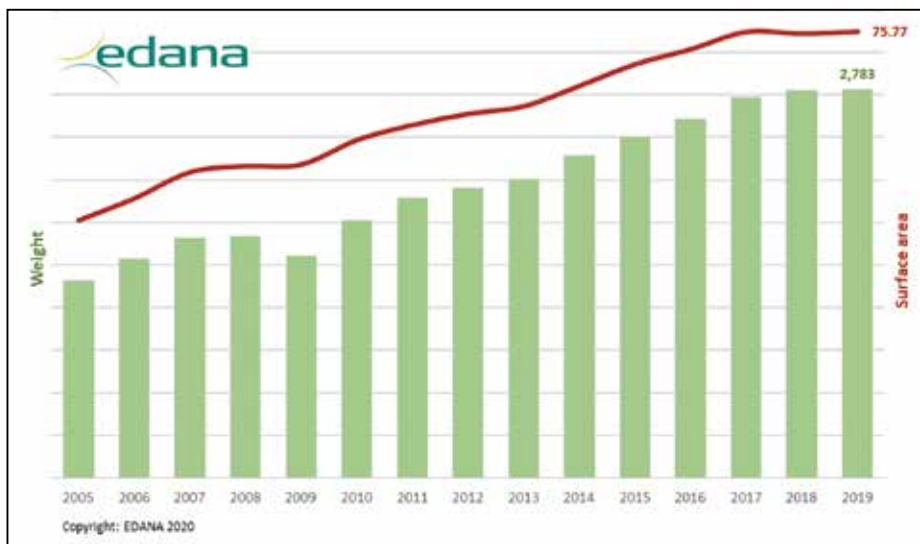
Electro-charging the filter nonwovens allows the manufacture of sophisticated EPA- and HEPA-class filter media, as well as media that comply with the requirements of N95-, FFP2- and FFP3-class respiratory masks.

Andritz Supplying High-Speed Spunlace Line to Karweb Nonwovens, Turkey

Andritz has received an order from Karweb Nonwovens to supply a complete neXline spunlace line for its plant located in Gaziantep, Turkey. The line is scheduled for installation and start-up at the beginning of 2021.

This new neXline spunlace eXcelle line is dedicated to the production of viscose and polyester wipes as well as biodegradable wipes. The production capacity can be up to 18,000 ton/year.

Andritz will provide a full line with state-of-the-art equipment, from web forming to drying. The scope of supply includes complete opening and blending machinery, two inline high-speed TT cards, a proven JetlaceEssentiel unit (including a water filtration unit) for hydroentanglement, a neXdry through-air dryer, and a neXcodry S1 system for energy saving.



DSM Partners with SABIC and UPM Biofuels to Create Bio-Based Dyneema

Royal DSM, SABIC and UPM Biofuels have entered a partnership that will help to reduce the environmental footprint of Dyneema, the world's strongest fiber.

The collaboration will see Dyneema transition to bio-based feedstock leveraging SABIC's ground-breaking Trucircle solutions for certified renewable products. As such, DSM is delivering on its commitment to improve the sustainability footprint of Dyneema, moving towards a circular, bio-based economy.

In December 2019, DSM announced ambitious sustainability targets for Dyneema high-performance fibers. This new partnership represents an important step in realizing the goal of sourcing at least 60% of its feedstock from bio-based raw materials by 2030. The transition to bio-based feedstock will maintain the unique properties of Dyneema, enabling customers to adopt a more sustainable solution without compromising process efficiency or final product performance. The Dyneema bio-based material will be carrying the globally recognized ISCC Plus certification, and will not require re-qualification of downstream products. Bio-based Dyneema will be available from April 2020.

UPM Biofuels produces bio-based feedstock UPM BioVerno from the residue of the pulping process. This is then processed by SABIC to make renewable ethylene under their Trucircle umbrella of solutions. Trucircle includes certified renewable products, specifically resins and chemicals from bio-based feedstock that are not in competition with the food chain and help to reduce carbon emissions. By applying a mass balancing approach, DSM is then able to create bio-based Dyneema fiber that delivers consistent durability and performance with a reduced environmental impact. The new partnership underlines DSM's commitment to working closely with partners and suppliers to realize a (more) sustainable value chain.

Wilfrid Gambade, President of DSM Protective Materials, says, "By partnering with SABIC and UPM Biofuels, we are taking the next important step in our sustainability journey, and driving our industry's transition from conventional to renewable resources. By improving the impact of our materials, together with our partners, we are helping to protect both people and the environment they live in. In this way, we are using our bright science to deliver brighter living."

Mark Vester, Circular Economy Leader at SABIC, says, "We firmly believe that true collaboration and innovation will drive positive change. With our Trucircle initiative, we are more committed than ever to closing the loop on used plastics in 2020. We are delighted to be partnering with DSM and UPM Biofuels as a further step towards transforming the value chain and creating a circular, transparent and sustainable economy."

Juha Rainio, Sales and Marketing Director at UPM Biofuels, says, "We are committed to replacing fossil-based feedstocks with renewable ones. This collaboration with SABIC and DSM is an excellent example of a future beyond fossils, which is a key driver for UPM going forward."

Kelheim Fibres Achieves Low Risk in First CanopyStyle Audit

Environmental not-for-profit organization Canopy, third-party auditor NEPCon and Kelheim Fibres have released the results of Kelheim's CanopyStyle Audit. The company's current supply chain is confirmed as low risk of sourcing wood from Ancient and Endangered Forests or other controversial sources.

"Canopy congratulates Kelheim Fibres for its low risk audit results," said Nicole Rycroft, Canopy's Executive Director. "Producers are increasingly hearing from brands that they will no longer source Ancient and Endangered Forest textiles by the end of 2020. This audit result is a validation of Kelheim's efforts in that direction and positions it well in a competitive market place."

"Future-oriented fiber materials cannot come at the cost of Ancient and Endangered forests and other valuable resources. Therefore, we are committed to focus on sustainability at every step from raw material sourcing and state-of-the-art closed-loops production processes," said Craig Barker, CEO of Kelheim Fibres. "As a small producer, we are proud to have accomplished low-risk audit results. We welcome the recommendations the audit report has given us for further improvements, and we will actively work towards implementing them."

NEPCon is pleased to be the independent auditing body for the CanopyStyle initiative and in particular making it possible to meet the growing demand for CanopyStyle audits throughout Europe," stated Jon Jickling, Director, NEPCon Solutions. "Kelheim Fibres was committed to this third-party assessment of their raw material sourcing."

Key findings of the audit include:

- The company is at low risk of sourcing from Ancient and Endangered Forests;
- The company has a limited fiber basket and uses a significant proportion of FSC-certified fibers in its viscose products; and
- The company has begun supporting forest conservation solutions in key areas of Ancient and Endangered Forests.

In the spirit of continuous improvement, Canopy recommends that the company should increase the proportion of FSC-certified fiber, and make efforts to source 100% FSC, as well as continuing investments in research and development of low-impact alternative fibers, with the goal of launching a fiber line that contains these products.

This audit, which reflects a snapshot in time, is to be conducted annually to ensure that the company continues to meet the expectations of the CanopyStyle initiative. The audit findings contribute to Hot Button Issue Report.

The public report from Kelheim Fibre's audit evaluations is available at: www.kelheim-fibres.com/en/sustainability/certificates/

Oerlikon Wins Three Large Manmade Fiber Orders in China

Oerlikon has received new large orders for manmade fiber production solutions from three of the world's leading manmade fiber producers.

All three companies are based in China, and have been key customers of Oerlikon for many years. The orders are for Oerlikon Barmag's world leading filament-spinning technology for the highly efficient production of polyester fibers. The three projects have a total value of more than CHF 600 million (565 million euro).

A very small proportion of these projects will be recognized in Oerlikon Group's order intake in 2020, and the majority will be accounted for in 2021 and 2022. On-site delivery and installation of these systems is planned for the period from 2021 to early 2023.

The systems business in China remains largely unchanged despite the short-term interruption caused by the coronavirus epidemic following the Chinese New Year celebrations. Long-term project planning for major customers in the manmade fibers industry has resulted in new major orders being placed with Oerlikon Barmag. One of the three new orders, valued at more than CHF 300 million (282 million euro), is the largest order ever received by Oerlikon Barmag, based in Remscheid, Germany.

The comprehensive manmade fibers technology solutions by Oerlikon are used along the entire value chain in polyester yarn manufacturing and

contain cutting-edge automation and digitalization technologies. Oerlikon's innovative technologies will enable the three Chinese companies to increase their production capacities for polyester yarn and to remain competitive.

Oerlikon Barmag will provide the entire system for Wings POY and Wings FDY, as well as texturing machines from the eFK product family in phases over a period of slightly over two years.

"These three orders show that the Chinese textile industry continues to place its trust in the world market – and in Oerlikon. They make it clear that globally interconnected industries such as the textile industry and business models like that employed by the Manmade Fibers Segment are more robust than many people believe," said Dr. Roland Fischer, CEO Oerlikon Group.

Georg Stausberg, CEO of Oerlikon's Manmade Fibers Segment, added, "That these customers repeatedly select Oerlikon is primarily linked to our innovative technologies, but also due to the fact that we have been handling these extensive projects flexibly and reliably for decades and also mastering challenges that, like today, arise from global epidemics causing temporarily interruptions for production sites and logistics."

Even More Energy Efficient POY Process

Following several years of development with partner Siemens, Oerlikon Barmag kicked off serial production of its new drive unit for POY systems at the beginning of the year. The new component stands out above all with regards to energy efficiency.

The requirements-specific design of the compact inverter unit ensures functional optimization of the winder's control functions. The new component is used in conjunction with a performance-optimized chuck

motor, which means that energy savings of up to 3% can be achieved for take-up.

"In the case of a 1,000-position system, this represents a saving of around 120,000 euro a year, depending on the relevant local energy costs. The many years of collaboration with our partner Siemens means that we are always state-of-the-art in terms of control technology. With our e-save-certified solutions, we are consistently able to offer our clientèle sustainable technology for the efficient manufacture of yarns," states Arnulf Sauer, who is responsible for winder technology at Oerlikon Barmag.

Further customer benefits include a significant reduction in cables and cable trays. The reduced number of switching cabinets also saves space. Following intensive field tests at two well-known customers last year, the compact inverter unit was finally released for serial manufacture at the beginning of 2020. There are plans to deliver several thousand positions with the new component this year.

Prodye Installation Begins in China

Karl Mayer's success story has now reached China, thanks to its Prodye indigo dyeing machine.

The efficient warp preparation equipment for denim production is already a worldwide commercial success, and the first machine in China is being commissioned this spring.

The premiere model was ordered by H.W. Textiles Co., Ltd., a wholly owned subsidiary of Hingtex Holdings Ltd. A fully integrated manufacturer based in Hong Kong, Hingtex is one of the world's most important producers of denim. Key to the company's success is its continual provision of a product portfolio bursting with quality, variety and uniqueness, particularly since it entered into partnership with Kurabo Industries Ltd.

Hingtex's strategic alliance with the Japanese textile company was



A new driver unit for Wings POY further reduces energy consumption in the winder section by 3%

originally established in 2013 as a joint venture. "To differentiate yourself from your competitors, you need to be innovative and proactive, especially in today's highly competitive and fast changing market," says Director Stephen Tung.

To ensure that his company can get new developments moving quickly and offer a diverse range of products, the prudent owner has opted for the Prodye-S from Karl Mayer to expand its warp preparation capacity. The slasher dyeing machine has been configured especially for this application.

"Prodye-S is fitted with a large number of set screws for customizing the dyeing process. It allows us to make decisive expansions to our product range and produce items that cannot be copied," explains Director Stephen Tung. The versatile indigo dyeing machine is suitable for many different kinds of yarn, such as Tencel, modal and core-spun.

Prodye boasts many additional features that set it apart from the competition. These include a darker indigo shade of up to 5%, lower water consumption and waste yarn, plus double productivity for the production of lightweight denim.

perPETual and Polygenta Manufacture rPET FDY Using Oerlikon Barmag's Wings

Indian yarn manufacturer Polygenta, specialized in the manufacturing of sustainable recycling yarns, recently commenced production of recycled polyester FDY yarns at its facilities in Nashik. The yarn is produced using a combination of perPETual Global Technologies patented chemical recycling technology and Oerlikon Barmag's direct spinning system equipped with the 32-end Wings concept.

The spinning plant was commissioned by Oerlikon Textile India technologists in close collaboration with process experts at Oerlikon Barmag, with various FDY products currently

being developed. The yarn produced caters to the requirements of premium-segment clients demanding high-quality, cost-effective sustainable solutions.

As one of the world's first recycling companies, Polygenta has, since 2014, been producing 100% recycled POY and DTY from post-consumer PET using the patented chemical recycling process developed by perPETual Global Technologies. The perPETual process reduces CO₂ impact by more than 66% compared to virgin PET. The yarn is spun using Oerlikon Barmag systems and equipment. As a result, Polygenta is able to produce a wide range of DTY and FDY yarns that comply with the Global Recycled Standard (GRS).

Andritz Develops High-Speed Converting Line for Face Mask Production

Andritz Diatec, a member of the Andritz Group, has developed a fully automatic, high-speed face mask converting line for the production of disposable face masks.

In the first configuration, this new converting line will be able to produce masks for surgical/medical applications; other mask types, such as N95/FFP2, are currently being evaluated.

The new Andritz D-Tech Face Mask line produces and laminates three or more layers of fabrics (spunbond, meltblown, thermo-bonded nonwovens and others), and ensures the highest quality and hygiene standards. It comprises unwinding and guiding units for nonwoven webs, cutting and positioning devices for the metal nose bar, an edge welding and cutting unit, a 90-degree rotation process, as well as positioning and



Applicable also to the processing of rPET yarns: Oerlikon Barmag spinning concepts with Wings FDY

welding of the ear loop elastics.

The line has a speed of up to 110 m/min., and is able to produce up to 750,000 face masks per day. There are also different packaging options available: the products can be packed in bags by an automatic flow wrapping machine or in cardboard boxes by an automatic cartoner.

Andritz Diatec is one of the world's leading specialists in converting machines for the production of hygiene end products: diapers for children and adults, feminine hygiene, underpads, absorbent pads for the food industry, and now also face masks.

RoTac³ Tangling Unit with Comprehensive Modifications

Major technological changes to Oerlikon Neumag's RoTac³ tangling unit produce even more efficient BCF yarn tangling. On the one hand, the tangling nozzle has been flow-optimized, allowing the air pressure to be reduced by approximately 10% compared to its predecessor, while maintaining the same knot strength. Furthermore, the nozzle bearing arrangements have been improved. Consequently, either higher speeds or nozzle rings with greater numbers of holes can be used, generating more knots in the yarn.

Even at high production speeds, tangling knots can be set considerably more evenly with the RoTac³ than in the case of other conventional tangling units. Frequent tangling

dropouts are now a thing of the past. This ensures better yarn quality, and has a positive impact on further processing. The result: the carpet has a visibly more even appearance.

Stable and efficient yarn production is hugely important to yarn manufacturers. Not only does the evenness of the tangling knots make the investment interesting, so too does the energy efficiency of the RoTac³. The tangling unit requires up to 50% less energy for generating compressed air. Against the background of rising energy prices, this represents an excellent prerequisite for optimizing production costs.

Making Day-to-Day Warp Knitting Easier

Karl Mayer continuously develops not only machines, but also well-thought-out solutions to make operating them simpler and more efficient. In addition, the manufacturer continues to expand its Webshop Spare Parts step by step.

One of the latest tools is the Needle Slot Protector, which is a small but highly effective component. It unfolds



The modified RoTac³ is part of the BCF S8's standard scope of delivery

when the working width deviates from the machine width. As a cap-like element with flat u-profile, the Needle Slot Protector is placed on the needle-free section of the needle bar and fixed with the needle bar cover, which protects the covered section from damage and contamination. The practical cover also contributes to the dimensional stability of the bar.

The Needle Slot Protector is one inch wide, is made from lightweight plastic, and is easy to grip thanks to its rough surface. It is currently only available for some HKS models; versions for other series will follow. It is easy to order directly from Karl Mayer's Webshop Spare Parts or by using the k.maintenance app and scan-to-order function.

Another innovation ensures shorter resetting times with minimum material waste when loading the ground guide bars of warp knitting machines. For fast changeover, 2" variants are used instead of 1" guide units, which can be separated into two halves using 1" segmentation. If a guide needle is defective, it is not necessary to replace the entire unit, as is the case with standard 2" versions. It is sufficient to simply separate the 1" part from the damaged area and replace it separately.

Since the practical 2" plastic guide unit with sophisticated 1" segmentation was launched at ITMA 2019, customer interest has been growing worldwide. Numerous machines have already been equipped with the new 2" guide units, and series machines with the units included will be delivered in the near future. There are also plans to expand the fineness variants. The segmented 2" guide units are available for certain types of guide needles in gauges E 18 to a maximum of E 36.

Karl Mayer has made its Webshop Spare Parts at its headquarters even more attractive, and has also expanded its range of spare parts for warp knitting machines; over 6,000 parts can now be ordered directly via the digital ordering portal. The extended selection also includes selected articles for the Racop and Copcentra series machines.

The latest webshop upgrade also introduced additional product categories to simplify product searches within the catalogue.

Tsudakoma Setting Up Sales Subsidiary in Milan

Tsudakoma Corp. will establish Tsudakoma Europe s.r.l. as a sales and service subsidiary in Milan, Italy, for expanding sales in Europe and surrounding markets.

The subsidiary will be established this May with a capital of 300,000 euro.

Having a high level of technology and brand power in its business areas, the company positions Europe as an important market for the development, evaluation and sales of products. The establishment of a subsidiary will complement and strengthen its existing business structure, as well as helping to expand sales regions, gain new customers and enhance after-sales services.

Cematex Elects Permanent Secretary General

A new Secretary General has been chosen by Cematex, the European Committee of Textile Machinery Manufacturers. Cornelia Buchwalder has served on an interim basis since June 2019, following the retirement of Maria Avery, and was elected to the permanent position by the Cematex Board on March 12th.

Buchwalder has a wide knowledge of the global textile machinery sector, having managed the Swiss Textile Machinery Association since 2013, and has been closely involved in organizing participation in major global trade shows and various international events. Her experience takes in the ITMA exhibitions in Europe at Milan (2015) and Barcelona (2019), as well as three ITMA ASIA+CITME fairs in 2014, 2016 and 2018.

She will continue to combine the two posts as Secretary General of both Swiss Textile Machinery and Cematex.

Monforts

Its Advanced Technology Centre (ATC) Adventures in Aquaculture

A. Monforts Textilmaschinen GmbH & Co. KG has recently been involved in a number of R&D trials aimed at improving the performance of fishing cage nets employed in fish farming operations at its Advanced Technology Centre (ATC) in Mönchengladbach, Germany.

The cultivation of both freshwater and saltwater fish populations under controlled conditions is a global industry valued at around US\$200 billion annually and only made possible with the use of huge aquaculture nets.

Biofouling

"These nets are very prone to biofouling and to avoid its negative impacts, high-pressure robotic jets are now used to clean them," explains Monforts Head of Technical Textiles Jürgen Hanel. "Net cleaning is expensive, and can also damage current antifouling coatings on the nets, causing contamination as well as fish health and welfare risks.

"The abrasion resistance of the nets is also extremely important, because in addition to the general wear and tear of the underwater environment, they also contain a lot of potential food for predatory bigger fish, such as sharks. Even sea lions have been known to be attracted to these fish farming cages, but have the advantage of being able to jump over the top of them if they're not sufficiently protected."

The development of more effective antifouling coatings for fishing cage nets has been one aspect of R&D work at the Monforts ATC, while the use of how alternative fibers could potentially be coated or finished to replace the polyamide which is currently most widely used has also been explored.

The issue of plastics and synthetic fibers in the oceans has generated global media attention recently, and the aquaculture industry is exploring all avenues that will lead to more sustainable practices.

Diverse Applications

"We are asked to investigate a wide range of fabric finishes and coatings at ATC, where our customers can



A modern seawater fish farm off the coast of Slovenia



Over 3 million euro has been invested in industrial-scale equipment at ATC in Mönchengladbach, Germany

test their own textiles and technical fabrics on Monforts dyeing, finishing and coating machines under fully confidential, real production conditions," says Jürgen Hanel.

"The range of textiles finished or coated with Monforts technologies is already extremely diverse, including standard knits and wovens, as well as advanced denim. When it comes to technical textiles, our lines are already being used commercially for treating substrates for digitally printed soft signage, carbon fabrics for composites, filter media which must perform in extreme temperatures and flame-retardant barrier fabrics, to name just four applications, but the list gets longer all the time."

Expansions

Since its opening in 2013, over 3 million euro has been invested in equipment at the Monforts ATC, which over an area of 1,200 square meters houses two full finishing lines, engineered to accommodate an extremely diverse range of processes, in addition to a Thermex range for the continuous dyeing of denim.

Recent expansions have included the installation of the latest Monforts texCoat coating system, with its multi-head capability, and the CYD yarn dyeing system for denim, both of which received an enthusiastic reception at last year's ITMA show in Barcelona.

"We have subsequently demonstrated the potential of these new technologies to many customers during their visits to ATC, in addition to running full trial programs on our industrial-scale machines," Hanel concludes. "The intended end-uses may not always be as unusual as fishing cage nets, but whatever the application, trials in real production conditions yield the results that enable us to make many recommendations for improving fabric finishes and coatings."

ITMF Survey: Global Textile Orders Drop Av. 31% Due to Cancellation & Postponement

Against the backdrop of the globally spreading coronavirus pandemic, the International Textile Manufacturers Federation (ITMF) is urging governments to increase support to their textile and apparel industries to overcome this period of an unprecedented demand and supply shock.

The results of second ITMF Corona Survey revealed that on average orders are down 31%, and the turnover for 2020 is expected to drop 28%.

In our lifetimes such a demand shock is unprecedented. ITMF President Kihak Sung emphasizes, "Textile and apparel companies around the world are struggling and with them millions of workers and employees. In such times, both the public and the private sectors must work closely together, to avoid an economic and social meltdown."

Some industrialized countries have sophisticated instruments like short-time work. To avoid laying off workers, companies are reducing their working hours and wages, with the government making up for some of the employees' lost income. Most governments in developing countries do not have

the necessary mechanisms in place and lack the resources. "Therefore, it is important to find creative solutions among governments, international institutions and the private sector, which can be implemented quickly," Mr. Sung added.

The coronavirus pandemic has forced governments around the world to introduce lockdowns and all sorts of exit restrictions, leading to a sudden closure of all sorts of "offline" business for textiles and apparel. Shops and stores of any kind selling "unessential" products had to close, cutting of global demand for textiles and apparel.

ITMF conducted two surveys among textile companies around the world. The first ITMF Corona-Survey in the second half of March indicated already the dire consequences of this demand-supply shock: orders were down by an average of around 8% globally, and the turnover in 2020 was expected to be down 10.5% on average compared to 2019. The second ITMF survey conducted at the end of March and beginning of April highlighted the devastating impact the Corona-pandemic has on the global textile industry. Across all continents, orders dropped 32% on average. On average, companies around the world expect their turnover to fall 29% compared to 2019.

Euratex Contributing to Coordinated Response to COVID-19 Pandemic

As the impact of the corona crisis is growing, Euratex calls for a stronger coordination and cooperation among the EU and its member states, and clear communication on the required safety measures. European textile companies are contributing to face the crisis.

Euratex provides tools to European suppliers and manufacturers to find each other and facilitate the production of protective masks in response to the COVID-19 crisis.

It publishes a list of offers and requests for material, capacity or support to produce masks, and relevant information on the topic.

European companies are welcome to submit their own request/offer by filling the form below. Requests will be edited on their relevance and updated daily.

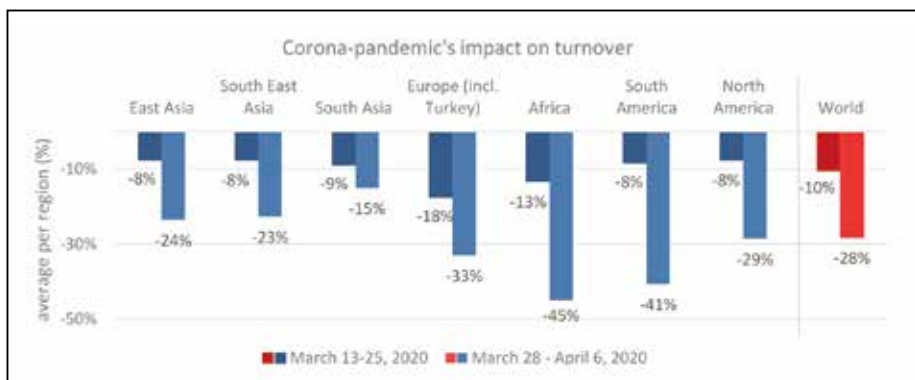
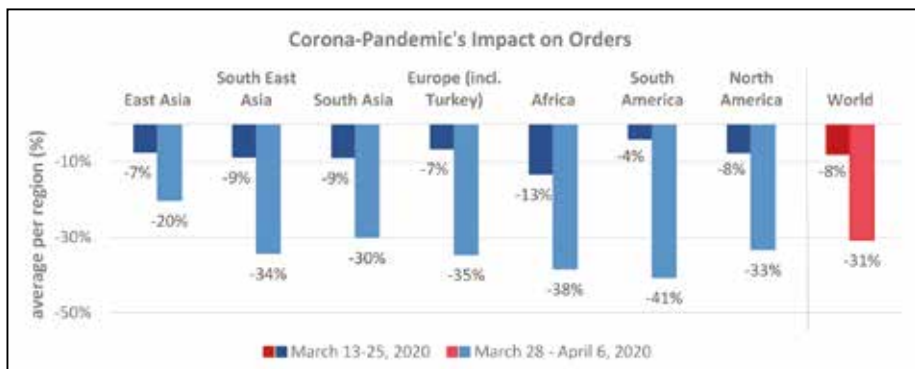
Euratex is identifying options to increase the availability of protective masks in the EU, both by enhancing the existing capacity and creating new manufacturing capacity, including support to textile value-chain companies reconverting their production.

Devan Offers Antiviral Solutions for Textiles

Textile innovator and specialty chemical producer Devan is answering questions regarding antiviral textile finishing solutions following the growing spread of the COVID-19 outbreak.

Over the past few weeks, Devan has received many questions regarding an antiviral solution for textiles against Sars-COV-2, the virus that causes COVID-19. "Not a big surprise since we put BI-OME AV forward three years ago. Testing has been done in cooperation with Institut Pasteur de Lille," says Devan CEO Sven Ghyselincx.

Devan studied enveloped viruses (e.g. H1N1, Corona-types, etc.) as well as naked viruses (e.g. Rotavirus). For both virus families, BI-OME AV showed strong to excellent activity in a wet state.





In the first instance, the company wants to focus on professionals who need to stay working, such as policemen, logistics workers, shop employees and day-care workers. A common complication of respiratory viral disease can be a secondary bacterial infection. Professionals could be helped with either an anti-bacterial on their facemask to reduce the chance for these secondary bacterial infections, for better hygiene and less odor build-up.

On workwear, a combination of a virus spread-reducing and an antibacterial solution could help as these garments are typically used during long hours, are non-disposable and most likely will be washed at home.

"Furthermore, normal consumers are increasingly making their own facemasks," says Ghyselincx. "For face masks, the first line of viral protection is the pore size of the fabric or non-woven (physical barrier). Typical for these home-made facemasks is that the pore size of these masks is often not sufficient to block viruses from penetration. To reduce the risk of secondary contamination an anti-bacterial treatment could provide an extra line of protection."

Devan has solutions which withstand washing while keeping its performance. BI-OME as a liquid product is EU BPR, Turkish BPR and U.S. EPA registered. Depending on the rash region, commercializing treated articles may be subject to additional local registration procedures.

Shima Seiki Releases Data for Knitting Masks

In light of the continuing worldwide shortage of surgical masks due to the increased spread of the

COVID-19 coronavirus infection, Shima Seiki Mfg., Ltd. is releasing data for knitting various versions of masks on its computerized knitting machines and WholeGarment machines.

The data can be downloaded from the Shima Seiki Users' Site, an archive featuring over 10,000 knit samples for use by Shima Seiki customers.

Cotton masks can be produced on the Shima Seiki SVR093SP, SVR123SP and SVR183SP computerized knitting machines equipped with a dedicated loop presser bed mounted above the rear needle bed that permits full use of inlay technique, as well as the spring-type moveable sinker system for additional flexibility in knitting a wider range of patterns and designs, in 14 gauge.

The masks are knitted by dimensional shaping and provides improved fit and comfort. While previous mask data for knitting on conventional shaping machines required elastic bands to be inserted afterward for ear straps, the new masks are knitted with elastic bands pre-attached through inlay techniques and only require tying afterward, for even more efficient production. A filter-pouch is knitted into the mask for inserting commercially available virus filters and other filtration fabrics.

Data has also been released for producing 3D masks on WholeGarment knitting machines. The data is meant to be for cotton masks knitted on SWG041N2, SWG061N2 and SWG091N2, as well as on the rest of Shima Seiki's compact WholeGarment Mini" type machines that are suited for the production of small accessory items, in 15 gauge.

Seam-free 3D WholeGarment masks provide su-

perior fit and comfort. Ear straps that are knitted in one-piece together with the mask portion offers reduced stress on the ears, and require no further sewing for quick response production. A filter-pouch is knitted into the masks for inserting available virus filters and other filtration fabrics.

Knitted cotton masks can be washed and reused repeatedly. It should be noted however that unlike common nonwoven surgical masks, knitted masks do not have virus- and pollen-filtration functionality. Their main use is for the prevention of spray from coughing and sneezing, and for reducing exposure to allergens.

HeiQ Viroblock NPJ03 Tested Effective against Coronavirus

HeiQ has launched HeiQ Viroblock NPJ03, an antiviral and antimicrobial textile treatment that was tested effective against coronavirus.

This treatment has proven effective against human coronavirus (229E) in face mask testing, significantly enhancing the antiviral log reduction from 2.90 of untreated face masks to 4.48, over 99.99% reduction of virus infectivity.

A log reduction of 2 is equivalent to 100 times the effectiveness.

HeiQ Viroblock NPJ03 is a unique combination of vesicle and silver technologies designed to inhibit the



growth and persistence of bacteria and viruses. The HeiQ vesicle technology targets lipid-enveloped viruses, such as coronavirus, providing rapid virus deactivation, while the HeiQ silver technology inhibits the replication of both bacteria and viruses.

HeiQ Viroblock NPJ03 can be applied to a wide spectrum of textile surfaces including face masks, air filters, medical gowns, curtains and drapes. HeiQ also has a range of highly wash-durable antimicrobial and odor control textile technologies, called HeiQ Pure, combining silver-based and bio-based materials for all fabric types.

Both 229E and COVID-19 are two of seven types of human coronaviruses. Besides testing on human coronavirus (229E), HeiQ Viroblock NPJ03 also demonstrates dramatically improved reduction of virus infectivity against Influenza types H1N1, H5N1, H7N9, and Respiratory Syncytial Virus (RSV).

DyStar Responds to COVID-19

Amid the rapid spread of COVID-19 around the world, DyStar's global operations continue to adapt to the development of the situation and to mitigate potential risks or impacts across the business.

While the trajectory is unknown, DyStar is guided by recommendations from the World Health Organization and local government authorities to proactively address situations that could possibly affect its people and customers. This is to ensure that it has effective plans and standard procedures to minimize the disruption of its global operations.

As a globally operating company, each of its operating sites, manufacturing plants, and offices have a Business Continuity Plan (BCP) in place to sustain its operations and the supply chains it serves. The BCP, owned by its Business Continuity Management Team, provides clear guidance for all local operations, such as Adminis-

tration, Customer Services, Finance, Logistics Services, Sales and Technical Support as well as Procurement, to enable all functions to continue operating effectively to serve its customers, distributors and agents.

DyStar's manufacturing sites are also installed with an Emergency Response Procedure to cover all emergency circumstances, including the COVID-19 pandemic disease. The goal of the emergency response procedure is to mitigate the impact of such events on people and the environment, ensuring operational readiness of the site during an emergency.

As the world adjusts to the impact of the COVID-19 pandemic, DyStar will continue to monitor the situation very closely, and will provide updates that adapt to the changing situation. The company remains committed to providing its customers with excellent service and to work closely with all its partners throughout this difficult period.

Chemicals

Huntsman Introduces Breakthrough in Dyeing Polyester & Its Blends

Huntsman Textile Effects has introduced Terasil Blue W, the latest addition to its Terasil W/WW range of wash fast disperse dyes.

Terasil Blue W is designed to meet all major requirements for high-performance sportswear and athleisure wear.

This new product stands out as the leading disperse wash fast blue dye in the market which is not sensitive to reduction, leading to higher reproducibility, right first-time results and operational excellence.

Polyester has become the fiber of choice in the textile industry, and the demand for polyester and other man-made fibers is expected to rise over the long term, as sports and athleisure apparel markets expand around the world. At the same time, leading brands, retailers and mills are increasingly focusing on achieving brilliant and deep shades, consistent shade

reproducibility, as well as water, energy and cost savings.

With cutting-edge disperse dye technology at its heart, Terasil Blue W was developed by Huntsman Textile Effects to provide the leading solution for meeting industry's wash fastness requirements. It offers an attractive shade and high build-up for deep blues which stay vibrant, and also provides quality assurance as products are Bluesign approved and suitable for Standard 100 by Oeko-Tex certified textile products.

Dhirendra Gautam, Director, Marketing Dyes, Huntsman Textile Effects, says, "Terasil Blue W breakthrough technology raises the benchmark of wash fastness in the industry, helping mills overcome the challenges of dyeing polyester and its blends, while achieving

production efficiency and sustainability. We expect our latest offering to support the textile industry's drive towards higher performance and operational excellence."



Terasil Blue W

Show & Conference Schedule (As of April 15, 2020)

| Date | Event (Location) | Website |
|--|--|---|
| Textiles & Apparel | | |
| 2020 | | |
| Jun. 10 & 11 | Denim Première Vision (Milan) | https://www.denimpremierevision.com |
| Jul. 1 & 2 | Blossom Première Vision (Paris) | www.blossompremierevision.com |
| Jul. 14 & 15 | VIEW Premium Selection (Munich) | www.viewmunich.com |
| Sep. 1-3 | Munich Fabric Start/Keyhouse (Munich) | www.munichfabricstart.com |
| Sep. 1 & 2 | Blue Zone (Munich) | https://www.munichfabricstart.com/bluezone-en.html |
| Sep. 4-8 | Maison & Objet Paris (Paris) | https://www.maison-objet.com/en/paris |
| Sep. 7-9 | Milano Unica (Milan) | https://www.milanounica.it/en |
| Sep. 15-17 | Première Vision Paris (Paris) | www.premierevision.com |
| Sep. 16-18 | Dornbirn GFC (Dornbirn) | http://www.dornbirn-gfc.com/en/ |
| Oct. 1-3 | Intertext Tunisia (Sousse) | www.intertexttunisia.com |
| Nov. 16-20 | Int'l Apparel & Textile Fair (Dubai) | http://internationalapparelandtextilefair.com |
| Nov. 24 & 25 | Denim Première Vision (Berlin) | https://www.denimpremierevision.com |
| 2021 | | |
| Jan. 23-25 | Salon Int'l de la Lingerie Paris (Paris) | https://saloninternationaldelalingerie.com/ |
| Jan. 23-25 | Interfilère (Paris) | https://january.interfilere-paris.com/ |
| Jan. 26-28 | Munich Fabric Start/Keyhouse (Munich) | www.munichfabricstart.com |
| Jan. 26 & 27 | Blue Zone (Munich) | https://www.munichfabricstart.com/bluezone-en.html |
| Jan. 27-29 | Outdoor + Snow Show (Denver) | www.outdoorretailer.com |
| Jan. 28-31 | ISPO Munich (Munich) | http://munich.ispo.com |
| Feb. 2-4 | Première Vision Paris (Paris) | www.premierevision.com |
| Jun. 20-23 | OutDoor by ISPO (Munich) | www.ispo.com |
| Jul. 6-8 | Première Vision Paris (Paris) | www.premierevision.com |
| Jul. 6-8 | Milano Unica (Milan) | https://www.milanounica.it/en |
| Interior, Home Textiles & Furnishings | | |
| 2020 | | |
| Aug. 24-26 | Intertextile Shanghai Home Textiles, Autumn Edition (Shanghai) | www.intertextilehome.com |
| Sep. 15-17 | Heimtextil Russia (Moscow) | www.heimtextil.ru |
| 2021 | | |
| Jan. 12-15 | Heimtextil (Frankfurt) | www.heimtextil.messefrankfurt.com |
| Jan. 15-18 | Domotex (Hannover) | https://www.domotex.de |
| Apr. 13-18 | Salone del Mobile.Milano (Milan) | www.salonemilano.it |
| Technical Textiles & Nonwovens | | |
| 2020 | | |
| Sep. 2-4 | Cinte Techtextil China (Shanghai) | www.techtextilchina.com |
| Oct 1-3 | Techtextil North America (Atlanta) | www.techtextilna.com |
| Oct. 20-23 | Index (Geneva) | http://www.index20.org/en/ |
| Nov. 19 & 20 | World Congress on Textile Coating (Berlin) | https://www.technical-textiles.online/WCTC/ |
| 2021 | | |
| May 4-7 | Techtextil (Frankfurt) | www.techtextil.messefrankfurt.com |
| Textile & Apparel Machinery | | |
| 2020 | | |
| Jun. 11-13 | Textech Sri Lanka (Colombo) | https://cems-textech.com/ |
| Jul. 1-4 | IGATEX Pakistan (Lahore) | https://igatex.pk/ |
| Jul. 22-25 | GFT New Gen (Bangkok) | https://www.gftexpo.com |
| Aug. 21-23 | Gartex Texprocess India (Delhi) | https://www.gartexindia.com/ |
| Sep. 2-5 | SaigonTex (Hochiminh) | http://sgntex.com/en/ |
| Oct. 1-3 | Texprocess Americas (Atlanta) | https://texprocess-americas.us.messefrankfurt.com |
| Oct. 15-19 | ITMA ASIA+CITME 2020 (Shanghai) | www.itmaasia.com |
| Dec. 10-15 | INDIA ITME (Delhi NCR) | http://itme2020.india-itme.com/ |
| Dec. 17-19 | HanoiTex (Hanoi) | http://vhanoitex.com/en/ |
| 2021 | | |
| May 4-7 | Texprocess (Frankfurt) | www.texprocess.messefrankfurt.com |
| Jun. 22-26 | ITM (Istanbul) | www.itm2021.com |

China's Textile & Apparel Exports

| Item | Jan.-Dec. 2019 (Quantity) | Y-o-Y Change (%) | Jan.-Dec. 2019 (US\$1,000) | Y-o-Y Change (%) |
|---------------------------|------------------------------|---------------------|-------------------------------|---------------------|
| Total | | | 271,894,017 | -1.9 |
| Textiles | | | 120,298,091 | 1.0 |
| Yarns (kg) | 5,728,141,491 | 11.3 | 13,208,030 | -3.8 |
| Cotton (kg) | 375,085,023 | -6.7 | 1,590,742 | -9.9 |
| Silk (kg) | 3,440,494 | 1.6 | 140,308 | -16.0 |
| Wool (kg) | 28,050,274 | -11.5 | 1,087,771 | 3.3 |
| MMF (kg) | 4,449,678,618 | 20.0 | 9,352,883 | -1.2 |
| Others (kg) | 871,887,082 | -13.0 | 1,036,326 | -18.5 |
| Woven fabrics | | | 60,086,931 | 2.4 |
| Cotton (meter) | 7,935,286,452 | -6.3 | 12,461,969 | -7.9 |
| Silk (meter) | 88,978,463 | -5.8 | 594,511 | -7.3 |
| Wool (meter) | 52,881,927 | -9.3 | 451,469 | -7.8 |
| MMF (meter) | 24,041,801,507 | 12.4 | 23,228,347 | 8.4 |
| Others (meter) | 16,349,567,799 | 4.4 | 23,350,635 | 3.3 |
| Made-ups | | | 47,003,130 | 0.6 |
| Household goods | | | 17,471,376 | -1.0 |
| Carpet (m ²) | 841,804,750 | -3.6 | 2,921,214 | -1.9 |
| Industrial textiles | | | 7,969,555 | -0.9 |
| Nonwovens (kg) | 1,793,415,673 | 6.3 | 6,062,448 | 5.6 |
| Others | | | 12,578,536 | 2.1 |
| Apparel | | | 151,595,926 | -4.1 |
| Knitwear (unit) | 19,587,659,746 | -1.8 | 60,599,752 | -3.4 |
| Cotton (unit) | 8,658,596,359 | -0.7 | 24,835,459 | -4.9 |
| Silk (unit) | 8,793,177 | -44.6 | 74,295 | -22.6 |
| Wool (unit) | 104,427,918 | -9.9 | 1,853,694 | -8.4 |
| MMF (unit) | 9,180,181,563 | -1.9 | 29,102,721 | -0.3 |
| Others (unit) | 1,635,660,729 | -5.8 | 4,733,583 | -10.6 |
| Woven garments (unit) | 13,251,931,496 | -5.0 | 64,047,406 | -6.7 |
| Cotton (unit) | 3,786,206,981 | -12.2 | 22,104,957 | -10.0 |
| Silk (unit) | 30,576,563 | -47.6 | 800,903 | -42.6 |
| Wool (unit) | 39,741,522 | -29.6 | 1,522,339 | -23.7 |
| MMF (unit) | 8,369,039,014 | -0.6 | 32,490,655 | -4.8 |
| Others (unit) | 1,026,367,416 | -6.9 | 7,128,551 | 8.3 |
| Fur & leather wear (unit) | 11,933,833 | -1.8 | 4,259,426 | 13.8 |
| Apparel accessories | | | 15,083,178 | 0.6 |
| Headwear | | | 4,640,399 | -0.7 |
| Other garments | 801,037,474 | -2.9 | 2,965,765 | -9.0 |

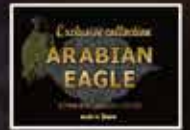
Source: China Chamber of Commerce for Import & Export of Textile & Apparel (CCCT)

Exports by Market

| Textiles & Apparel | | | Of Which Textiles | | | Of Which Apparel | | |
|--------------------|-------------------------------|---------------------|-------------------|-------------------------------|---------------------|------------------|-------------------------------|---------------------|
| | Jan.-Dec. 2019 (US\$1,000) | Y-o-Y Change (%) | | Jan.-Dec. 2019 (US\$1,000) | Y-o-Y Change (%) | | Jan.-Dec. 2019 (US\$1,000) | Y-o-Y Change (%) |
| World total | 271,894,017 | -1.9 | World total | 120,298,091 | 1.0 | World total | 151,595,926 | 8.0 |
| ASEAN | 39,119,197 | 2.3 | ASEAN | 29,408,280 | 5.2 | ASEAN | 9,710,916 | 9.8 |
| EU | 47,250,000 | -4.7 | EU | 13,315,228 | -1.0 | EU | 33,934,540 | 13.1 |
| 1 U.S.A. | 45,205,655 | -7.7 | 1 U.S.A. | 12,452,227 | -9.1 | 1 U.S.A. | 32,753,428 | -7.1 |
| 2 Japan | 19,897,710 | -4.7 | 2 Vietnam | 12,267,486 | 4.3 | 2 Japan | 15,385,235 | -5.4 |
| 3 Vietnam | 14,965,252 | -6.0 | 3 Bangladesh | 6,437,766 | -4.6 | 3 Russia | 6,842,687 | -7.6 |
| 4 Hong Kong | 9,075,904 | -27.0 | 4 Japan | 4,512,480 | -2.0 | 4 Korea | 5,924,922 | 15.7 |
| 5 Russia | 8,831,235 | -4.8 | 5 Hong Kong | 4,351,356 | -21.1 | 5 Germany | 5,714,685 | -8.9 |
| 6 Korea | 8,716,283 | 8.1 | 6 Indonesia | 4,236,582 | 1.9 | 6 U.K. | 5,182,566 | -10.5 |
| 7 Germany | 7,851,590 | -7.2 | 7 India | 3,475,590 | 2.4 | 7 Hong Kong | 4,724,548 | -31.6 |
| 8 U.K. | 7,024,384 | -7.4 | 8 Cambodia | 3,210,963 | 4.9 | 8 France | 3,767,296 | -4.8 |
| 9 Bangladesh | 6,581,320 | -4.8 | 9 Pakistan | 3,074,135 | 26.1 | 9 Australia | 3,753,640 | -1.7 |
| 10 Philippines | 5,931,400 | 6.6 | 10 Philippines | 3,024,804 | -4.1 | 10 Spain | 3,593,775 | -0.8 |

Source: CCCT

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