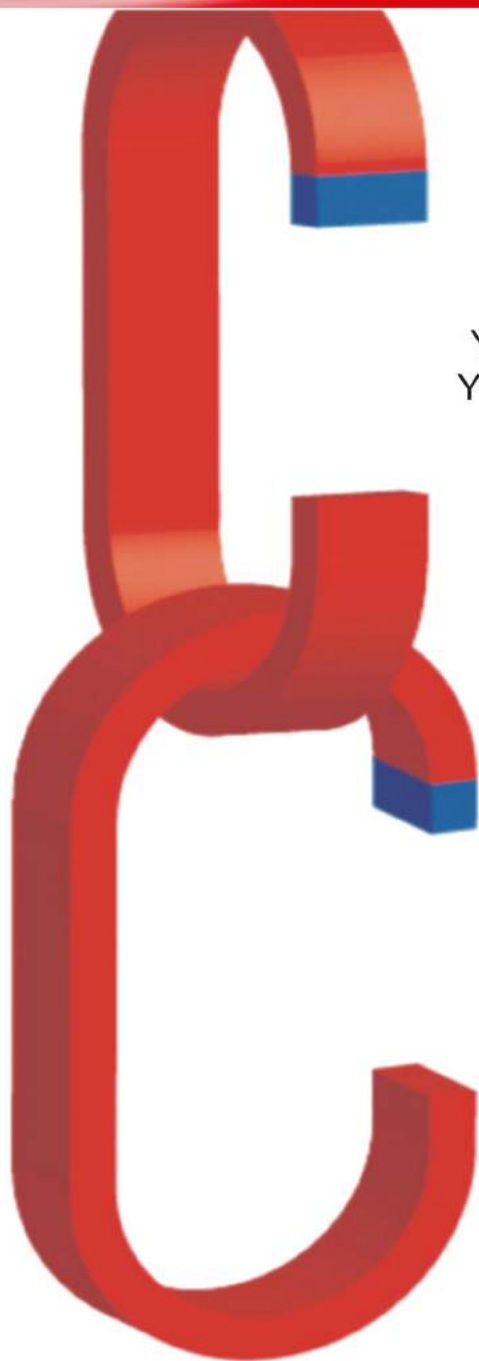




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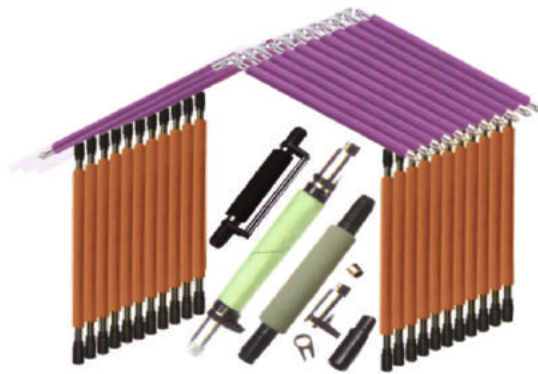
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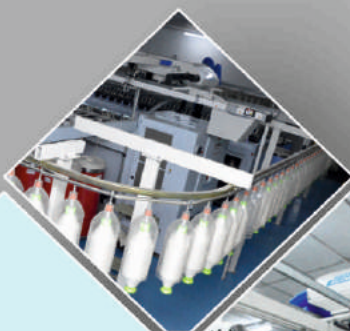
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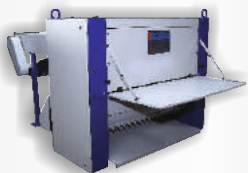
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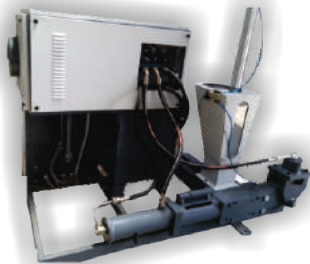
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### ***Wage subsidy in garment industry, Jharkhand emerged as a role model***

Wage subsidies in garment industry brings jobs and investment in spades. As India stares at a punishing economic slowdown and investment drought started long before COVID-19 Lockdown, the success of the Jharkhand-Govt.'s wages subsidy initiative offers a model that can promote job creation, export competencies, rural prosperity and consumption demand. In a sector like garment export where India has steadily lost out to Bangladesh and other countries, Jharkhand Govt. has taken policy-initiative by announcing to pay Rs. 5000/- a month per worker employed in garment factory. This policy makes Jharkhand state an attractive destination of investment in garment industry. About forty projects and factories have been announced and are under construction which will directly employ 25,000 workers.

Since 2016 India's major garment exporters have set up plants in Jharkhand where in employment has gradually is rising on. Garment export could hold the key to creating million of jobs that India needs for its young, unskilled and illiterate workforce. This is the best poverty alleviation program that the government can have.

The employment in garment industry accounts for 70% female workers, this opportunity may help to curb the dark realities of life for many in the state – the trafficking and exploitation for tribal women. The employment of migrant labour in respective states is overwhelming problem that has been direly witnessed in the Lockdown-phase in India. Jharkhand Government is trying to give cushion to jobless migrant labourers by adopting the wages subsidy policy in garment factories.

In labour intensive garment industry wage cost is 30-35% of the top line. Being inspired by success in Jharkhand many state governments now offer, the biggest draw has been the wage subsidy. Haryana governments offers Rs. 3000/- wage subsidy for its own garment workers. This wage subsidy policy would curb stress-led migration. This policy improves standard of living, boosts local economy and arrest migration of labour and promotes scope of indirect jobs.

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## WORLD ECONOMY AND TRADE TRENDS

### ➡ US adds 4.8 million jobs as unemployment drops to 11%

The rebound in the US labour market accelerated in June as the economy reopened more broadly, though filings for unemployment benefits remained elevated recently as coronavirus cases picked up. Payrolls rose by 4.8 million in June after an upwardly revised 2.7 million gain in the prior month, according to a Labour Department report of late. The unemployment rate fell for a second month, by 2.2 percentage points to 11.1%, still far above the pre-pandemic half-century low of 3.5%. The June jobs report, reflecting a snap-shot of mid-month conditions, encapsulates a flurry of rehiring after states lifted stay-at-home orders and began the process of reopening their economies during the pandemic. Adding to those gains in coming months may be critical to President Donald Trump's reelection chances, as well as to the extension of a US stock-market rally following the best quarter since 1998. US stock futures extended gains following the data. Treasuries and the dollar fell. A separate report from the Labour Department showed initial applications for unemployment insurance in regular state programmes fell by less than expected, to 1.43 million, in the week ended June 27. Continuing claims—or claims for ongoing unemployment benefits in state programs—rose slightly to 19.3 million in the week ended June 20. □

### ➡ Global economy's fragile recovery faces fresh Hurdle

The global economy's fragile recovery is facing a fresh hurdle as a surge in coronavirus cases threatens to keep businesses closed and consumers on edge. Cases of the deadly virus rise by a record for daily June 21, according to the World Health Organization, with flare ups across the US and new scares in Germany and Australia. While China said the latest outbreak in Beijing is under control, other large emerging economies including Brazil, India and Indonesia continue to see cases soar. "The fight is nowhere close to being

over", said Tuuli McCully, the Singapore-based head of Asia Pacific economies at Scotiabank. "A second significant wave of infections in advanced economies is a huge risk for the global economy that is still in very early stages of recovery." The concern comes as high frequency data tracked by Bloomberg Economics had been showing an improving picture for sectors such as transport and dining out as lockdown restrictions are eased. A sustained pickup in virus cases threatens to undermine or even reverse those trends. The International Monetary Fund of late is set to unveil new forecasts for a world already facing its worst outlook since the Great Depression. While the easing of lockdown restrictions in parts of Europe and the US had led some economists to envisage a V-shaped recovery for the world, the re-acceleration in the virus argues against any swift revival. "The flare-up tilts the risks from a V-shaped recovery to a U-shaped recovery," said Deutsche Bank Chief Economist Torsten Slok. European stocks fell recently, but later pared losses as investors bet that the economic recovery will keep going. Gold continued its march toward a 2012 high. An improvement in consumer confidence will be at the core of the recovery sequence if business investment and employment is to heal, according to Catherine Mann, Citigroup chief economists and former chief economist for the Organization for Economic Cooperation and Development. The latest outbreak won't help that outlook. "This is not a picture of recovery that is satisfactory in any way, shape or form," she told the Australian National University's Crawford Leadership Forum of late. In recent past, an easing of lockdowns had allowed activity to recover. □

### ➡ Asia's Factory pain getting relieved as region emerges from Covid-19 pandemic

Asia's Factory pain showed signs of easing in June, as a rebound in China's activity offered some hope the region may have passed the worst of the devastation caused by the coronavirus pandemic. But sluggish global demand and fears of a second wave

of infections will tame any optimism on the outlook and keep pressure on policymakers to support their ailing economies. A series of business surveys released recently showed broad improvements in manufacturing across Asia in June from the depths hit in April and May. Activity in some economies swung to growth while declines in other places slowed. In China, factory activity grew at a faster clip in June after the world's second-largest economy lifted coronavirus lockdown measures, the Caixin/Markit purchasing managers' index (PMI) showed. Manufacturing activity also expanded in Vietnam and Malaysia, pointing to a slow but steady recovery ahead. India's manufacturing activity contracted for a third straight month in June but at a much slower pace, as both output and new orders shrank at softer rates. Similarly, the export powerhouses of Japan and South Korea continued to see manufacturing activity decline, albeit at a softer pace. "the chance of a V-shape recovery in the manufacturing sector appears slim at this stage," said Joe Hayes, economist at IHS Markit, which compiles the survey. "We're still awaiting signs of meaningful improvement in Japan's manufacturing sector, with the PMI for June failing to stage a substantial recovery." □

### India, 9 others accuse EU-UK for the policy hurting exports

India, China the US, Russia, Canada and five others have sought compensation from the EU and the UK at the World Trade Organisation or WTO alleging that their joint policy to allow a specific quantity of products to be imported at low or zero duty is harming other countries' exports of agricultural, fish, industrial and processed farm products. Rejecting the EU and the UK's claims that no compensation is required as there has been no loss in value of the concessions in the tariff rate quotas (TRQ), the 10 countries asked the two to begin talks to find product and member specific solutions. TRQs allow a set quantity of specific products to be imported at low or zero rate of duty. □

### US consumer spending bounced back; Income Down

US consumer spending rebounded by the most on record in May, but the gains are not likely to be sustainable, with income dropping and expected to decline further as millions lose their unemployment checks started in July. The commerce department recently consumer spending, which accounts for more than two-thirds of US economic activity, jumped 8.2% in May. That was largest increase since the government started tracking the series in 1959. Consumer spending tumbled by a historic 12.6% in April. Consumers stepped up purchases of motor vehicles and recreational goods. They also boosted spending on healthcare, and at restaurants, hotels and motels. But personal income dropped 4.2%, the most since January 2013, after surging by a record 10.8% in April when the government handed out one-time \$1,200 checks to millions of people and boosted unemployment benefits to cushion against the COVID-19 hardship. □

### Goldman scales down US GDP forecast

Goldman Sachs economists revised down their estimates for the US economy this quarter, but predicted it will back on track in September after some states imposed fresh restrictions to combat the coronavirus pandemic. While consumer spending appears likely to stall in July and next, economists led by Jan Hatzius said other economies have proved it's possible to resume activity and changes in behaviour such as wearing masks will help too. "A combination of tighter state restrictions and voluntary social distancing is already having a noticeable impact on economic activity," the economists said in a report published recently. The economists said they now expect the economy to grow 25% in the third quarter having previously predicted 33%. That would result in the economy slumping 4.6% this year, worse than the 4.2% previously seen. But the Goldman Sachs economists said they still expected growth of 5.8% next year and now project the country's unemployment rate will be at 9% at the end of this year, down from the previous estimate of 9.5%. ■



### ➡ Indians' money in Swiss banks declined by 6% in 2019

Funds parked by Indian individuals and enterprises in Swiss banks, including through India-based branches, fell nearly 6 per cent in 2019 to 899 million Swiss francs, or CHF (₹6,625 crore), the annual data from Switzerland's central bank showed recently. This marks the second consecutive year of decline in aggregate funds of Indian clients with all Swiss banks, taking the figure to the third lowest level in more than three decades since 1987 when the Swiss National Bank (SNB) began compiling the data. The total amount of CHF 899.46 million, described by the SNB as aggregate 'liabilities' of Swiss banks or 'amounts due to' their Indian clients at the end of 2019, included CHF 550 million (over ₹4,000 crore) of customer deposits, CHF 88 million (₹650 crore) held via other banks, CHF 7.4 million (₹50 crore) through fiduciaries or trusts; and CHF 254 million (₹1,900 crore) as 'other amounts due to customers' in the form of securities and various financial instruments. All the four components declined during 2019. These are official figures reported by banks to the SNB and do not indicate the quantum of the much-debated alleged black money held by Indians in Switzerland. These figures also do not include the money that Indians, NRIs or others might have in Swiss banks in the names of third-country entities. According to the SNB, its data for 'total liabilities' of Swiss banks towards Indian clients takes into account all types of funds of Indian customers at Swiss banks, including deposits from individuals, banks, and enterprises. This includes the data for branches of Swiss banks in India, as also non-deposit liabilities. Indian and Swiss authorities have earlier said that a more reliable measure for deposits by Indian individuals in Swiss banks is given by the 'locational banking statistics' of the Bank for International Settlement (BIS), which showed marginal increase of 0.07 per cent in 2019 to \$90.6 million (nearly ₹646 crore). This figure takes into account deposits as well as loans of Indian non-bank clients of Swiss-domiciled banks and had shown a decline of 11 per cent in 2018 and of 44 per cent in 2017. It

peaked at over \$2.3 billion (over ₹9,000 crore) at the end of 2007. Swiss authorities have always maintained that assets held by Indian residents in Switzerland cannot be considered 'black money' and they actively support India in its fight against tax fraud and evasion. An automatic exchange of information in tax matters between Switzerland and India has been in force since 2018. Under this framework, detailed financial information on all Indian residents having accounts with Swiss financial institutions since 2018 was provided for the first time to Indian tax authorities in September 2019 and this is to be followed every year. In addition to this, Switzerland has been actively sharing details about accounts of Indians suspected to have indulged in financial wrongdoings after submission of prima facie evidence. Such exchange of information has taken place in hundreds of cases so far. According to the SNB data available since 1987, the lowest level of funds held by Indians in Swiss banks was seen in 1995 at CHF 723 million, while the second lowest was in 2016 at CHF 676 million. The amount had peaked at CHF 6.5 billion in 2006, before declining for five consecutive years. Since those record levels, there has been a rise only three times — in 2011 (12 per cent), 2013 (43 per cent), and then in 2017. Overall, customer deposits in all Swiss banks rose marginally by 0.3 per cent to CHF 1.8 trillion (more than ₹130 trillion). Of this, domestic customer deposits rose by CHF 25.3 billion to CHF 1.25 trillion, while foreign customer deposits declined CHF 20.5 billion to CHF 567.6 billion (nearly ₹42 trillion). Aggregate liabilities of Swiss banks, including amount due to customers and banks and through holding of various securities, rose 2.9 per cent to CHF 3.3 trillion (over ₹240 trillion). This included CHF 1.3 trillion (nearly ₹95 trillion) towards their foreign clients, which rose nearly 2 per cent. The countries for which Swiss banks reported rise in amounts due to clients from there included the US and the UK, while the money parked by individuals and enterprises from Pakistan and Bangladesh also declined during 2019. Just like India, the issue of alleged black money in Swiss banks has been a political hot potato in the two neighbouring countries as well. □

## IMF projects sharp contraction in economy

The IMF recently projected a sharp contraction of 4.5% for the Indian economy in 2020, a "historic low," citing the unprecedented coronavirus pandemic, but said the country is expected to bounce back in 2021 with a 6% growth rate. The International Monetary Fund (IMF) projected the global growth at (-)4.9% in 2020, 1.9 percentage points below the April 2020 World Economic Outlook (WEO) forecast. "We are projecting a sharp contraction in 2020 of -4.5 per cent. Given the unprecedented nature of this crisis, as is the case for almost all countries, this projected contraction is a historic low," Gita Gopinath, IMF's chief economist, told PTI as she released the World Economic Outlook Update Washington. The pandemic has had a more negative impact on activity in the

### Falling headlong

(%, y-o-y)

Difference from

April forecast

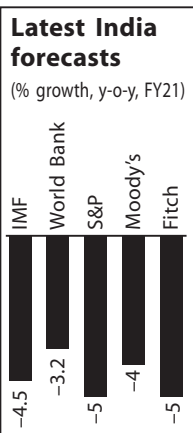
	2019	2020	2021	2020	2021
India*	4.2	-4.5	6	-6.4	-1.4
China	6.1	1	8.2	-0.2	-1.0
US	2.3	-8.0	4.5	-2.1	-0.2
EU	1.3	-10.2	6	-2.7	1.3
<b>World GDP</b>	<b>2.9</b>	<b>-4.9</b>	<b>5.4</b>	<b>-1.9</b>	<b>-0.4</b>
<b>World trade#</b>	<b>0.9</b>	<b>-11.9</b>	<b>8</b>	<b>-0.9</b>	<b>-0.4</b>

\*Data for fiscal 2019-20, 2020-21 and 2021-22

#Both goods and services

Source : IMF

first half of 2020 than anticipated, and the recovery is projected to be more gradual than previously forecast. In 2021, global growth is projected at 5.4%, the report said. For the first time, all regions are projected to experience negative growth in 2020. In China, where the recovery from the sharp contraction in the first quarter is underway, growth is projected at 1.0% in 2020, supported in part by policy stimulus. "India's economy is projected to contract by 4.5% following a longer period of lockdown and slower recovery than anticipated in April," the IMF said. The IMF's record reveals that



this is the lowest-ever for India since 1961. In 2019, India's growth rate was 4.2 per cent. The latest 2020 projection for India is a massive -6.4% less than it's the April forecast of the IMF. The projected growth rate of 6% in 2021 is 1.4% less than its April forecast. "The COVID-19 pandemic pushed economies into a Great Lockdown, which helped contain the virus and save lives, but also triggered the worst recession since the Great Depression," Gopinath said. In a blog post, Gopinath said, "First, the unprecedented global sweep of this crisis hampers recovery prospects for export-dependent economies and jeopardises the prospects for income convergence between developing and advanced economies." "We are projecting a synchronised deep downturn in 2020 for both advanced economies (-8%) and emerging market and developing economies (-3%); -5% if excluding China), and over 95% of countries are projected to have negative per capita income growth in 2020," she added. "The cumulative hit to the GDP growth over 2020-21 for emerging market and developing economies, excluding China, is expected to exceed that in advanced economies," Gopinath said. In her blog, she noted that a high degree of uncertainty surrounds this forecast, with both upside and downside risks to the outlook. On the upside, better news on vaccines and treatments, and additional policy support can lead to a quicker resumption of economic activity. On the downside, further waves of infections can reverse increased mobility and spending and rapidly tighten financial conditions, triggering debt distress, Gopinath said. "Geopolitical and trade tensions could damage fragile global relationships at a time when trade is projected to collapse by around 12%," Gopinath said. □

## India's trade deficit with China drops to \$48.6 billion in FY 20

India's trade deficit with China fell to \$48.66 billion in 2019-20 on account of decline in imports from the neighbouring country, according to the government data. Exports to China in the last financial year stood at \$16.6 billion, while imports aggregated at \$65.26 billion, the data showed. The trade deficit between the countries was at \$53.56 billion in 2018-19 and \$63 billion in 2017-18. India has time and again raised concerns over widening trade deficit with China. ■



## Outlook for cotton prices negative

Cotton prices have been sliding since the beginning of the year due to concerns about demand in the aftermath of Covid-19.

Indian spinning mills are running at 50 per cent capacity due to shortage of labour or for want of order for yarn. Now, given the news of an increase in area under cotton in India — world's largest cotton producer — the price outlook on cotton for the medium term is negative.

According to data from the Agriculture Ministry of Agriculture, as on 26 June, the area under cotton was 71.69 lakh hectares. In the same period in the last kharif season, the area under cotton was 27.08 lakh hectare. The increase is due to higher support price (₹5,515 per quintal, up ₹260, for medium staple; ₹5,825/quintal, up ₹275, for long staple). Besides, Punjab and Haryana governments had asked farmers to diversify from paddy to cotton.

If the same pace continues in sowing, the season will end with significantly higher acreage under cotton and there will be a sharp jump in output the next year (October 2020-September 2021).

Considering that there will also be a large carry-forward stock from the current year that will move as opening stock for the October 2020-September 2021 year, cotton prices will be under pressure. For the October 2019-September 2020 period, the Cotton Association of India (CAI), the industry body with representations of growers, ginner, mills and merchants, has estimated a closing stock of 50 lakh bales (1 bale = 170 kg). This is higher than last year's closing stock of 23.5 lakh bales.

### More cotton in supply (lakh bales)

	October - September		% Change	Actuals so far October 2019 - May 2020
	2018-19	2019-20*		
Opening stock	33	32	-3.0	32.0
Imports	32	15	-53.1	13.0
Production	312	330	5.8	307.6
Total availability	377	377	0.0	352.6
Consumption	311.5	280	-10.1	174
Exports	42	47	11.9	37.1
Closing stock	23.5	50	112.8	141.5

\*estimate by Cotton Association of India

The increase in closing stock is on account of higher production (up 5.8 per cent to 330 lakh bales) and a drop in domestic consumption by about 10 per cent over previous year to 280 lakh bales.

So, in the next cotton year, unless the Cotton Corporation of India (CCI), the government agency that procures cotton, steps in and buys in large scale, the situation is likely to be grim for cotton farmers.

Peasants who have chosen cotton over paddy, have their fate hanging in the balance. The CCI is stuck with

a large stock from the current season's procurement itself. One can't be sure if it will be able to dispose all its stocks and make space for procurement for the next year.

Cotton prices have dropped because of lower demand. In markets where CCI is not present, private ginner are procuring at least ₹10-15/kg lower than the minimum support price (₹52.55/kg for medium staple and ₹55.50/kg for long staple), as demand is weak.

Globally, too, cotton demand is dismal and prices have been sliding lower. In the beginning of the year, the price of the ICE (Inter-continental Exchange) Futures Cotton #2 contract, a global benchmark for cotton, was quoting at 70 cents per lb. But a drop in demand due to Covid-19-led trade disruptions saw prices fall to about 48-49 cents/lb in April.

While prices have recovered from there and are quoting at 59 cents per lb, it is still about 15 per cent lower than the prices in January.

The USDA in its latest World Agricultural Supply and Demand Estimates (June 11) has said that the closing stock for cotton year 2020-21 will be 104.67 million bales — the largest since 2014-15, thanks to slow recovery in demand in China and India, as consumers are likely to defer purchase of clothing.

The CCI procured about 91.01 lakh bales between October 1, 2019, and May 31, 2020.

By June first week, it crossed 98 lakh bales, and the market reports that the Corporation's procurement has crossed 1.2 crore bales now — a record high for any year. It is not certain if CCI will be able to keep up this pace in procurement next year as well.

The CCI is already burdened with stocks. It is reducing the sale price of its cotton, but still doesn't have many takers. On June 2, the auction price was ₹45,000/candy (356 kg) for cotton of staple length 29 mm; in the auction on June 24, the price was slashed to ₹35,000-36,000/- candy in places including Akola, Aurangabad, Rajkot and Indore.

Even at prices of ₹33,500-34,000/candy, there were not many takers for CCI's stock.

Industry sources say that private ginner and traders have sufficient stock with them for the next months and that is a reason why they are not participating in CCI's auction.

By September, the ginner may need the CCI's stock. But one can't say how much of the CCI's stock will be sold as demand outlook is uncertain.

If the CCI is not able to liquidate enough stocks by December, its cotton procurement in the next season may take a hit.

While this may be good news for ginner as it can help keep them afloat and make them competitive in export markets, it is certainly not good news for the cotton farmers. ■

## Revenue of apparel industry to decline by 30-35% in FY21 : Crisil

Store closures, social distancing and lack of demand due to the coronavirus pandemic may cause a 30-35% dent to revenues of the organised apparel retail sector in the current financial year, a report revealed recently.

Revenue of the ₹1.7-lakh crore sector is set to plummet by a third, ratings agency Crisil said. According to it, while operating profitability is expected to be impacted by about 200 basis points, the absolute fall in operating profits will be much sharper, necessitating additional funding, mainly debt, by firms to make up for cash flow short-falls. This will also affect credit metrics.

On the basis of analysis of a sample of 60 Crisil-rated apparel retailers that represent a third of the sector's revenue, it is expected that demand would recover to pre-lockdown levels only during the October-December festive season.

Among the apparel segments, sales of the departmental store format, which form a third of revenues of the sample set, will be hit harder, with around 40% decline in revenue. Half of these departmental stores are mainly located in malls and Tier-1 cities.

Value fashion retailers, which account for two-thirds of revenues of the sample set, will see a lower impact to the tune of 30% as these have higher presence in Tier-II and III cities. A higher proportion of standalone stores are expected to benefit from this down-trading. Declining income levels is also expected to benefit this segment.

Apparel retailers are, however, likely to see higher contribution from online channels this fiscal, driven by changing buying pattern of consumers amid the pandemic.

Gautam Shahi, director of Crisil Ratings, said, "To increase footfalls, retailers may have to offer discounts while also incurring higher costs to ensure adherence to social distancing. On the other hand, we also expect retailers to convert a portion of fixed lease rentals to variable, in addition to pruning employee costs, and other discretionary spends. Considering these aspects, operating profitability will moderate by up to 200 bps this fiscal, from about 7-8% in fiscal 2020." ■

## A. P. Minister asks weavers to return from Karnataka, T. N.

A.P. Panchayat Raj Minister Peddireddi Ramachandra Reddy on recently said the YSR Nethanna Nestham scheme was a boon to weavers, and that it would pave the way for providing succour to migrant workers at the looms.

The Minister was speaking after disbursing cheques to beneficiaries under the scheme at a programme in Tirupati.

Mr. Reddy said the scheme would help impoverished weavers overcome their financial difficulties and develop their looms further.

In this context, he appealed to those who had migrated to Tamil Nadu and Karnataka to return to the State, particularly in the weavers' belt of Chittoor, and seek work in the looms, apart from getting benefited from the various welfare schemes of the government.

Mr. Reddy said the Nethanna Nestham scheme would be a continuous process, and new beneficiaries would be included from time to time. ■



## Fashion heading to AI school

“Fake free. Couture curious” reads Nila’s Instagram bio. India’s first virtual model, represented by talent management agency, Inega, just might replace Bollywood showstoppers as the fashion industry goes virtual in the aftermath of the pandemic. With many designers forgoing models – thank social distancing and cancelled events – she could play a big role (along with older CGI models such as the US’ Lil Miquels and the UK’s Shudu Gram) in helping clothes do the talking.

In other news, on May 22, Congolese designer Anifa Mvuemba debuted her Pink Label capsule collection on Instagram, with 3D renderings of her clothes moving down the runway. Except, there were no models! The eerie, ghost like effect aside, the focus was entirely on the outfits. This went well beyond virtual runways, like the one hosted by Youtube in May, where names like Winnie Harlow and Ashley Graham modelled clothes from Fendi, Dior, Oscar de la Renta and others, from their homes.

With design houses looking for new ways to showcase their work in the post Covid-19 scenario, AI tech companies like Bigthinx are offering solutions. The Bengaluru-based outfit works on visualisation solutions for fashion and retail using a software called Lyfsize, which uses two smartphone pictures to determine 44 precise body measurements. “An additional software, Lyflike, uses a selfie to create a lifelike 3D virtual avatar and can recreate clothing in 3D from normal photos,” explains co-founder Chandralika Hazarika, who caters to clients in the US, Europe and India. But when compared to Mvuemba’s show, the result looks more animated, which can distract from the clothes.

However, Shivang Desai, the CEO of Bigthinx, believes the digital effects will only improve as creators “look at pushing boundaries” using technology. “This requires environments and backgrounds that are engaging, interactive and personalised to offer user experiences tailored to the viewer’s moods or personality,” he adds.

The Fabricant, an Amsterdam-based digital platform, also creates solutions using both fashion and VFX industries. Clients include Japanese streetwear brand AAPE, for whom they translated physical craftsmanship into digital for their 2019 Spring Summer collection. “The foundational knowledge of patterns and garment construction applies to these tools as much as they do in the real world. The technology should be in the background so they don’t have to worry about technicalities,” says founder Kerry Murphy. They’re working with American brand Tommy Hilfiger too, in their ongoing transition towards full digital by spring 2022.

For designers who want to get involved directly in the process, Murphy suggests tools like CLO3D, which are fairly easy to learn (with plenty of free online resources). He believes that investing in hardware is critical because professional tools will differentiate the novice from the pros. “I see the investment being less than it is for physical tools and materials. The whole fashion value chain can exist in one PC,” he explains.

Desai adds that staying up-to-date does not need a big budget either. A yearly subscription for CLO3D, for instance, starts at around ₹35,000. “It does require time, effort and patience to catch up and stay informed of all new developments. Designers should spend a few hours a week on learning how to navigate it.” After creating a virtual show for New York-based networking platform, Fashinnovation, in early June, Bigthinx will be part of Lineapelle, the international leather fair in Italy, later this year.

In earlier interviews, Murphy predicted that designer virtual clothing is something that consumers will soon be willing to invest in. To encourage a move in this direction, The Fabricant has launched the beta version of Leela, a platform that allows users to try on digital fashion in a 3D avatar. If the pandemic continues to keep us indoors and isolated for the near future, retail therapy for our digital avatars just might be the way to go. ■

# CONCEPTUAL FRAMEWORK : SUSTAINABLE TECHNICAL TEXTILE PRODUCT

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## Abstract

Growth of textile market needs a stable and sustainable ideas for the economic growth of our country. Now-a-days majorly synthetic and power looms are used in the production of technical textiles, having an adverse impact on our environment as well as on utilization of natural fibers and. The increasing demand and awareness about the benefits of utilizing natural fibers an eco-friendly various product has created an urge for the researchers to develop products using conventional fiber to product production process. Thus, in this paper the innovative idea of utilizing minor fibers like ramie and sisal as soundproof material and by using various traditional spinning and weaving techniques of our country has been discussed. Also, seeking for collaboration and get benefits of various government policies and schemes for the artisans which will help in overall growth and development of our country.

**Key words :** Traditional process, Eco-friendly products, Expert support.

## Introduction

Soundproofing materials also known as acoustic materials, these materials absorb the sound rather than reflecting or creating an echo. Thus, improves the quality of sound of a particular area.

Such textiles are part of technical textiles having technical performance and multifunctional properties rather than aesthetic characteristics. Some of the major advantages from functional aspects are improving health and safety, cost effectiveness, durability and strength of textile material. Soundproof textiles are further categorised based on their functional needs and end-use application they are further categorised under Homotech, Indutech and Mobitech.

The principles of textile science and technology play a major role in manufacturing of the innovative technical textile products. Scientists and engineers are encouraged for doing regular surveys to conduct research and development of product to provide better quality and services to the consumers. Thus, measurable steps are essential to meet the rising needs of technical textiles.

## Scenario: Global to Domestic

The global market for technical textiles is pegged at \$165 billion in 2018. Mobiltech, Indutech and

Sportech are the largest segments of the global industry, together accounting for 52% of the market. Europe and China together account for more than 50% of global technical textile production while India accounts for approximately 5% of the production.

India is emerging as a significant player in the technical textiles industry and contributes to approximately 10% of global consumption. India's technical textiles market is valued at \$17 billion, which has been growing a CAGR of 12% since the last five years and expected to grow at a CAGR of 16% to reach \$50 billion by 2025. The improvement in technology, rising demand from various industries and increasing support from government policies are anticipated to fuel the market growth in this sector.

There are over 3000 small scale units manufacturing technical textiles, which produces various products under twelve different segments but some items are produced in large quantity while some are produced in small quantity. Therefore, demands are met through importing the products. About 2/3rd of the production is of commodity products, only 1/3rd is high-end and pre-dominant segments are Packtech, Clothtech, Homotech and Sportech.

With the rising ratio of technical textile, another fact is that more of natural fibers (cotton, wool, silk and jute) and synthetic fibers (polypropylene, glass fiber, asbestos, etc) are consumed. Against these India has abundantly available minor cellulosic fibers which are less consumed for the clothing purpose and poses good strength and other properties could be explored for such products. Exploration and utilization will increase the consumption ratio, positive impact on our environment, upliftment for the farmers and overall growth in our economy will be the resultant.

Considering all the different aspects and needs of technical textiles, the researcher has observed the rising demand of eco-friendly soundproof materials. A concept has been formulated to bridge a gap between producer and end-user. The main steps to carry out the research work involves - the selection of raw materials, conversion of fibres into yarns and fabrics followed by finishing of these textiles will be explored, looking into the properties,

## CONCEPTUAL FRAMEWORK : SUSTAINABLE TECHNICAL TEXTILE PRODUCT

special technical and commercial features for a wider range of specific application.

### Fibre to yarn to technical textiles

The research had been formulated to experiment various woven structures to produce soundproof materials falling under the category of Indutech of Technical textiles using minor fibres. Soundproof materials are those which reduces the acoustic energy of the sound wave as the wave passes through it by the phenomenon of absorption. The absorption of sound could be achieved with the collective features of the materials i.e. the utilization of minor fibres those having inbuilt properties of absorption owing to the fibre structure, uneven woven structure of the material will also help for the absorption, by having number of backing layers or by applying the resin on the materials. Thus, the researcher had channelized complete process right from utilize of the minor fibres, traditional spinning and weaving technique to create eco-friendly product, thereby to increase the economic status of our country.

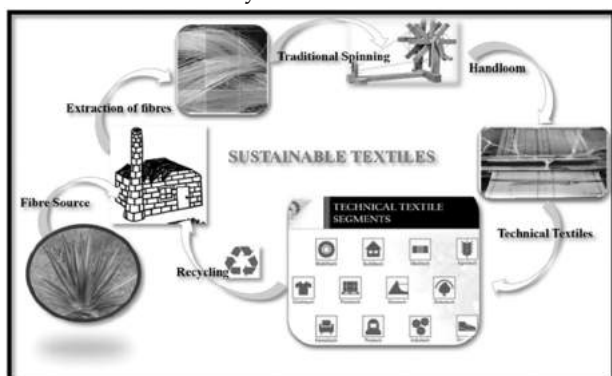


Plate 1 : Life cycle of textiles through cellulosic fibres to channelize the flow and identify the urge to drive in the technical textile sector having more product categories.

### Survey and expert's opinion

Keeping in mind the eloquent demand of eco-friendly soundproof materials, the status of our resources and economic status, we had conducted survey to know the available soundproof materials in the market and the rising requirements of the consumers. During this process, interaction with technical textile experts, architects, consultants and traders, artisans, freelancers gave their inputs:

- Huge demand mainly for Acoustic curtains.
- Woven material with value addition like - designs, coloured materials using natural dyes, enzyme treatment process to soften the fibers, texture, durability, etc.

- Consumers are demanding for the eco-friendly products and ready to spend for it.
- Handloom artisans are willing to explore manufacturing of innovative technical textile to include in their routine production process as an additional product line.
- To create only the woven fabric using minor fibre yarn or combination of the layers for effect absorption, etc.

### Scope of the Research

Agricultural and Handloom sectors employs millions of people and provide livelihood to some of the weakest sections of the society. They represent the rich tradition of cultivation and product manufacturing skill of India. With development, increasing per capita incomes and change in popular tastes, the scale and share of production in this sector is experiencing a decline.

It is necessary to ensure that the weaker sections who are dependant for their livelihood on Agricultural and Handloom do not experience distress in future. This would be possible only if they have more product line, proper training and skill development workshops to be conducted for them, the investor's needs to invest at right time with proper process, required infrastructure needs to be established and constant demand and supply chain of and for the product to be constant.

Thus, the idea is to create a viable set-up with minimum investment at each stage and individual centres maximum income generation can be achieved for the employees. Creating a way to increase women employment whose additional income will increase standard of living of each individual and thereby increase in overall economy of our country will be observed too.

### Traditional process strategy for technical textiles

#### 1. Application areas

Identified application areas – Theatres, Conference hall, Office cabinets, etc has strong potential in the market and the buyers are looking for the eco-friendly products for the comforts of their consumers. Continuous survey and experts inputs will help to take it to long run.

Initially for such product category the target will be to create small products like blocks, panels and for small place like office area to understand the viability and make required changes. Which will be helpful to identify the production facilities, raw material, etc. Such products might have few



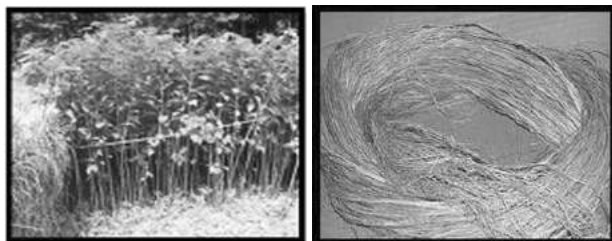
**CONCEPTUAL FRAMEWORK : SUSTAINABLE TECHNICAL TEXTILE PRODUCT**


Plate 2 : Ramie Plant and Fiber

variations with the current technology but will have big impact in terms of volume, value addition, etc. Existing handloom sector for production of technical textiles could be focused, for which their capacity/capability might also require special focus. Through the creative soundproof materials in the market which will have favourable psychological and environmental impact, the continuous demand for such products will be seen in future. Thus, easy and cost-effective value-added products using accessible technology has been aimed in this research to begin with – small products for the partition, office cabinets, etc.

## 2. Utilization of Minor fibres

With the survey analyses and upcoming demand of eco-friendly soundproof materials attempt has been made to use minor cellulosic fibres – Ramie and Sisal. They both are natural fibres, abundantly available, are biodegradable and renewable and inherent properties of sound absorption, but utilization of these fibres is less due to its cohesive nature and thus could be included in the technical textile products – especially for those which are not next to the skin. Distinctive features of the individual fibres are as follows:

Ramie is a bast fibre and the extraction of the fibres is from the stem of the plant. The ramie plant is also known as *Boehmerianivea*. The fibres are available in bundle form and are stick together due to gum. Gum is made up of waxes, hemicellulose, cellulose, lignin and pectin in different per cent and are difficult to remove. Some of the specific properties of the fibres are – they are the strongest and longest fibre amongst all the other bast fibres, strength of the fibre increases in the wet state. They are durable, resistance to bacteria, mildew and insect attack. Appearance wise they are smooth, lustrous and penetration of dye is also easy. The only disadvantage is it has low elasticity thus they are stiff and brittle. Due to which producing yarn is difficulty due to lack of cohesion.

Sisal is a leaf fibre and the mechanical extraction is done from the leaves of the plant. The sisal plant is also known as *Agave sisalana*. The fibres are available in strands and are hard fibres. Composition of the fibres are cellulose, hemicellulose, pectin, lignin and wax. Fibre properties are – they are smooth and straight. Fibres are coarser than ramie, strong, good moisture absorbency. Due to its stiffness these fibres are not suitable for clothing purpose and are majorly used for ropes.

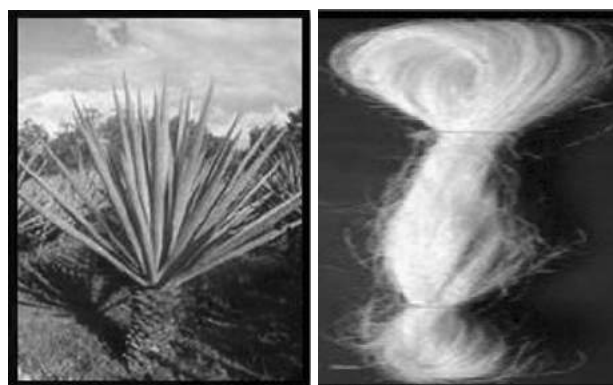


Plate 3 : Sisal Plant and Fiber

However, soundproof materials will be used as blocks, panels, curtains they will be away from human skin. These fibres were selected to give a new direction to penetrate into technical textile sector and thereby the cultivators' efforts will be encouraged more by the increase in their standard of living. Additionally, utilization of synthetic and high performance fibres will reduce thereby reduction in usage of petrochemicals and will save environment to some extent.

## 3. Manufacturing process

As the fibres are stiff and less cohesive cannot be used for mechanical spinning and weaving techniques. These fibres have been converted into fibres using traditional hand spinning technique. The strands of fibres were taken together to convert into yarns by using weavers knot and interlocking system during the twist. Depending upon the count and the end use the number of strands for yarn conversion will vary. The spinning process is done after the scouring and combing process in which the impurities are



Plate 4 : Traditional hand-spinning

## CONCEPTUAL FRAMEWORK : SUSTAINABLE TECHNICAL TEXTILE PRODUCT

removed, twisting is done in wet condition as they have good strength.

Further the weaving will be carried out using handlooms, because the yarns will not be able to resist the rotating speed of the powerloom. As the spun yarn will be in the hank or cone form which will be used for the weft and for warp cotton or jute yarns will be used. The variations in the fabric structure will be carried out to have the uneven surface so that when the sound wave goes on to the fabric the sound breaks and partially penetrates. The sound waves which will penetrate further be absorbed by the inherent property of the fibres.



Plate 5 : Traditional carpet loom

Sound absorption testing of the various samples will providedirection for further modifications to increase the absorption by adding layers of the fabrics with the application of resin if required.

Thus, with the mentioned traditional spinning and weaving process for soundproof materials little bit orientation of product, procurement procedure of raw materials and production process will be conducted via workshops and training to the existing man power. Which willassist in channelizing the entire process of raw materials to the identification of suitable market for their stability.

Many of the technical textile products thus can be produced by the handloom artisans producing conventional textiles. However, India still looking for the improvement in the infrastructure of handloom sector,might be achieved by producing varieties oftechnical textiles. The only need is to identify such items and marketing efforts should be made accordingly. Thus, with joined efforts the uplift of the handloom textile industry will observed

in future by including value added technical textiles falling within their existing production capacity.

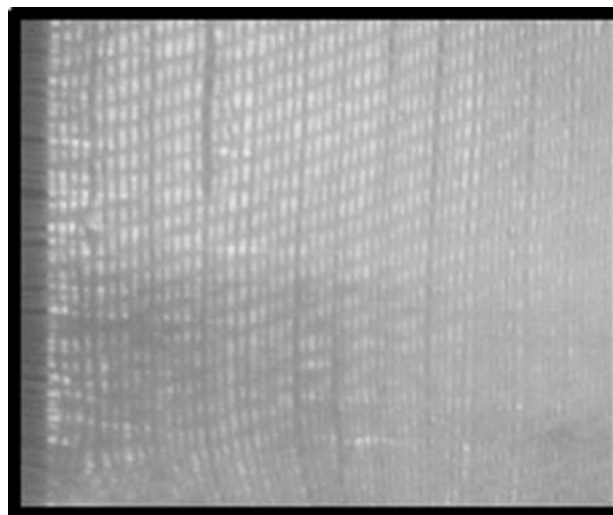


Plate 6 : Sisal fabric sample

### 4. Product Development

According to the fabric properties, feel and other parameters the end use under the category of soundproof materials will be decided. Initially the research is targeting for the office cabinets and panels and curtains for small seminar halls. Depending upon the outcome of the small products further work will be carried out for larger products to target larger market.

### Conclusion

To summarize the ongoing research work is carried out in the parts and with the expert's opinion throughout the process, an optimistic approach of developing handspun yarns from minor cellulosic fibers and handloom fabric is onto the urge of satisfying results to some extent.

As both hand spinning and handloom weaving will be carried out by handloom sector, these minor cellulosic fibers will be utilized with necessary modifications or addition in pre-treatments to achieve both aesthetical and functional needs of the technical textile consumers.

Thereby, more of eco-friendly products with natural fibers suitable for each textile segment could be developed. Thus, these fibers having unique features assist in increasingits utilization by handloom sector to enter into newer segment of technical textiles with great opportunities. Which will also contribute into the rise of Indian economy right from micro level to macro level in terms of standard of living as well as at entrepreneur level.

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## Revenue of apparel retailers expected to fall : Crisil

The revenue of the organised apparel retail sector is expected to plummet 30-35% this fiscal due to temporary store closures, restricted mobility due to the lockdown and low income visibility for consumers, Crisil Ratings said.

“While operating profitability is expected to be impacted by 200 basis points (bps), the absolute fall in operating profits will be much sharper, necessitating additional funding, mainly debt, by firms to make up for cash flow shortfalls. This will affect credit metrics,” it said.

The analysis is based on a sample of 60 Crisil-rated apparel retailers (representing a third of the sector’s revenue).

“Pent up demand, as well as the behaviour of consumers post lifting of lockdown, will have a bearing on the pace of recovery,” it said.

According to Crisil, sales at department stores will be hit harder with a 40% decline in revenue, as half of these stores are located mainly in malls and Tier 1 cities.

For value fashion retailers, the impact will be lower at 30%, as these have higher presence in Tier 2 and 3 cities.

Apparel retailers are also likely to see higher contribution from online channels this fiscal, driven by changing buying pattern of consumers amid the pandemic, the ratings agency said. ■



# SURVEY OF SILK WEAVERS OF VARANASI : THEIR PRACTICES FROM FIBRE TO CONSUMER

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## Introduction

India has a rich cultural heritage of many exclusive handloom textiles. Indian weavers are world famous for their magnificent workmanship and producing the most beautiful handspun and hand-woven textiles. The textile processing and manufacturing industry is one of the largest sectors providing employment to rural as well as urban people in the country.

Despite strong competition from power loom made textiles, handmade fabrics are still in demand to a great extent. Methods employed in making handloom fabric are simple but resulted in amazing products. Varanasi (earlier banaras), the temple town of Uttar Pradesh, is one of the rich weaving craft centers of India, famous for brocade saris and dress material of silk. The most exquisite brocades in silk and gold are woven by the weavers on silk pit loom. Weavers of Varanasi are well known for their entrepreneurial spirit and marketing expertise coupled with a high level of technical and aesthetic skill in silk weaving.

Though, the Banarasi silk products are enjoying a ready market both at home and abroad, there are grey areas demanding further improvement in this traditional craft. To identify the gap between what weavers do and what can be done, the present study was taken up.

## Methodology

Survey was conducted with the aim of extracting information about the weavers' background information and practices related to silk weaving,



A weaver, weaving silk fabric on jacquard pit loom

designing, processing, product development and marketing areas. The respondents were silk weavers from three different weaver's localities of the Varanasi city; "Jaitpur", "Lallapura" and "Pili Kothi". 20 respondents were selected from each area. Therefore, survey was conducted on 60 respondents who were selected through snow ball sampling method from the population. An interview schedule was prepared by the researcher and respondents were interviewed at their working place.

## 1. Background information of the weavers

**Table 1** Background information of respondents

S. No.	Variables		Frequency	Per cent respondents
1.	Age	a) 16-30 years	21	35.0
		b) 30-45 years	28	46.6
		c) 45-60 years	11	18.3
2.	Sex	a) Male	60	100.0
		b) Female	nil	—
3.	Religion	a) Muslim	58	96.6
		b) Hindu	02	03.3
4.	Nature of job	a) Entrepreneur	19	31.6
		b) Wage worker	23	38.3
		c) Family business		

N= 60

Results show that in Varanasi weavers start weaving at very young age and continue in the job till the age 60-65. During survey it was found that 35 per cent respondents belonged to the age group of 16-30 years while 18.3 per cent weavers were of 45-60 years in age. Maximum weavers, 46.6 per cent were belonged to age group of 30-45. A large number of young inhabitants of weaver's family choose weaving occupation. The members of weaver's family lack higher education, professional skills other than weaving, and familiarity with other available occupation due to their poor economic conditions. Many of young inhabitants even cannot complete their schooling properly. The city economy of Varanasi does not seems to provide employment opportunities other than silk weaving and allied fields and weaver find it difficult to search job outside Varanasi due to lack of awareness and money. Therefore, generally

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young members of weavers' family like to adopt their inherited and respectable job of weaving.

It was observed that that in Muslim weaver's localities of the Varanasi, women are traditionally not allowed to work outside the home and also not preferred to work on handloom as it is very tedious process. So they seldom weave the fabric on loom but perform other tasks related to weaving like, winding of bobbins for shuttle and cutting of surplus threads from sarees back.

Table 1 further shows that most of the weavers (96.3 per cent) were Muslim. Only 3.6 per cent weavers were Hindu. Although it was found after discussion with weavers, that many of the Hindu localities are also engaged in weaving work in Varanasi. But, In Varanasi city, weavers' localities are dominated by Muslims. Hindu dominated localities are mostly in villages nearby city. It was little difficult to go and conduct survey in villages so localities in city were surveyed. Findings are also in accordance with Report of Diagnostic Study of Handloom Silk Cluster Varanasi, Uttar Pradesh, 2007; nowadays, and during the past few decades, weavers are almost exclusively muslims in Varanasi, belonging to the Julaha community. Presently it is estimated that 70% of the weaver labor force are located in the city and remaining 30% are in the villages. About 90% of the weavers in the city and 30% of the weavers in the rural areas are Muslims.



(c) Charkha used for winding yarns on bobbins

It was found after discussion with weavers that nearly half of the population of Varanasi is directly or indirectly engaged in textile business i.e., silk marketing, weaving, dyeing, printing, yarn business, and finished garment business.

Table 1 envisaged that 31.6 per cent of the respondents were entrepreneur. It was observed that some weavers who were economically strong, and having their own looms and allied machineries, opened up workshops. They hire labor for weaving on daily wage bases and are termed as entrepreneur in this study. 38.3 per cent respondents were wage workers who work in weaving workshops on daily payment basis. 30 per cent respondents were doing weaving business at their home. These weavers owned 1-2 looms and some weaving related machinery and all capable family members were engaged in weaving work to nurture their family.

**Table 2 Background information of respondents**

S. No.	Variables		Frequency	Per cent respondents
1.	Daily Income	a) Rs. 100/day	32	53.3
		b) Rs. 100-150/day	12	20.0
		c) Rs. 150-200/day	07	11.6
		d) Rs. 200/day	09	15.0
2.	Educational level	a) Illiterate	09	15.0
		b) Primary	28	46.66
		c) Secondary	10	18.33
		d) Higher secondary	07	11.66
		e) Graduate	05	08.33

N= 60

The data obtained after survey (Table 2) also reveals that 53.3 per cent respondents were earning only Rs. 100/day for weaving and 20 per cent were getting Rs. 100-150/day. Only 11.6 per cent respondents were getting Rs. 150-200/day. Some of the respondents (15 per cent), who had their own business, were earning more than Rs. 200/day.



Card maker making punch cards for jacquard weaving

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It was found that most of the respondents (46.66 per cent) were educated only up to primary level. Only 15 per cent respondents were illiterate and only 08.33 per cent respondents studied up to graduation. Now weavers understand the need of education and they send their children to school. But, most of the weavers' children were unable to pursue higher education as they were forced to leave their studies due to their economic inefficiency.

**Table 3 Working conditions of weavers**

S. No.	Variables			Frequency	Per cent respondents
1.	Weaving hours/day	a)	6-8	30	51
		b)	8-12	24	40
		c)	more than 12	05	09
2.	Satisfaction with working conditions	a)	Yes	10	17
		b)	No	50	83

N= 60

Table 3 shows that most of the respondents do weaving work 6-8 hours daily. About 40 per cent of the weavers work 8-12 hours a day. Only 09 per cent respondents work more than 12 hours a day. It was expressed by weavers that in the weaving workshops there are different weavers for night duty. When weavers were asked about their satisfaction with their working conditions and job, only 17 per cent respondents were found satisfied and 83 per cent respondents were not satisfied with their working conditions. The reason behind this was found that most of the weavers desired increments in their daily wages, and some wanted hygienic working conditions.

A weaver sits from 8:00 AM till 6:00 PM and earns approximately Rs. 350/- on one saree. During this period, he takes help for all the Nari, Dharki and Anta filling needed for the job, from his family - primarily the womenfolk in the household as unpaid workers. These tasks are not given the status and value that they deserve, and are usually not included when the pricing of the saree / labour wage fixing is done.

## 2. Weavers practices from fibre to consumer

### 2.1 Type of Silk used by weavers

In Varanasi, 100 per cent weavers were using mulberry silk for weaving. Most of the weavers

identify mulberry silk with its local name "resham" only. Single yarns of mulberry silk are called as "resham" while twisted yarn are known as "katan". Eri silk was known to some weavers as "spun silk". It was found that in the local market of Varanasi, eri and tasar silk yarns are available only when special order is given to the shopkeepers. Only 3 per cent weavers also occasionally use eri "spun silk" for weaving.

All the respondents (100 per cent) purchase silk yarn from the local market of Varanasi. There are many traders of silk yarn in Varanasi local market. After asking from local weavers, it was found that this silk is supplied in Varanasi mainly from Bangalore and also is imported from china.



Jacquard designs made by local designer on graph paper

The prices of silk also vary according to the type of silk yarn to be purchased for weaving i.e., twisted, untwisted, spun, China silk or Bangalore silk. Bangalore silk is costlier than China silk. It was experienced by the weavers that Bangalore silk is good in strength, possesses good dyability, yellowish in colour but irregular as compared to China silk. Plied yarns are higher in rates and are used for making dense silk fabrics. In Varanasi, silk yarn comes in form of hanks, as in this form degumming and yarn dyeing is most convenient. A gathia (bundle) of silk normally has 5-6 kilograms of raw silk.

### 2.2 Silk weaving practices of respondents

Process of weaving of banarasi saree- Silk saree weaving is the age old tradition of Varanasi. The process of handloom weaving in Varanasi is very tedious, complex but interesting. This process was explained by some weavers during survey.

To weave a silk fabric, first of all the silk yarn called katan is reeled, bleached and dyed. The dyed yarn is prepared for tana (warp) and bana (weft). Three to five people are needed to reel



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the warp. Warp is wrapped on a warp cylinder in sufficient length required to weave a known length of sarees. Yarn for the weft is reeled on small cylindrical object in a process known locally as nari bharana. The weft-yarn is used in a shuttle called dharki, which is thrown from one to other side while weaving. Children in household help in the weaving process by throwing this shuttle while sitting beside the adult weaver on the loom. This is also a method by which the weaving skills are taught to the children. Nari bharna is a continuous process as long as loom is running. A charkha (spinning wheel), now made up of a bicycle rim and a paddle, is used for winding the yarn on nari (bobbins) and is usually done by women.

The specific designs of the sarees are created by skilled designers as well as master weavers who work on their own or are employed by the entrepreneurs. Most of these designs are created on jacquard loom for which the designs are sent to specialized shops that translate the designs into a series of punch cards. A design generally involves a few hundred cards. A card cutter cuts and punches these with small non-electric implements. He makes about 200 cards per day. Price of one card is Rs. 2.00. The raw material cost is Rs. 1/- card. He, thus, earns almost Rs. 200/day.



Silk degumming by local process used in Varanasi

**Zari used in weaving-** Zari is the vim and vigor of silk fabrics woven in Varanasi. Therefore, it is must to know the characteristics of this zari yarn used abundantly in Varanasi. The process of zari making is called tarkashi, which was earlier done in Varanasi. But now, zari is made on machines and mostly imported from Surat, Gujarat. Three types of zari are popular in market. First is called “real zari”. Its base is made up of pure silver and surface is gold plated. The rates of this type of zari are about Rs. 30,000/kg. Second type of zari thread is called as “tested zari”, there are also two varieties in this type

of zari with their local names “khar ki pakki” and “bina khar ki pakki”. “Khar ki pakki” zari will not discolor during silk processing, hence called by this name. This zari has a copper base with or without polish. The prices of this type of zari threads are about Rs. 5000/kg. Third type of zari is “powder zari” (made up of polymeric material), which cost about Rs. 1800/Kg. Plastic zari is also popular in today’s market. This is made up of “Lores” plastic and is low in cost varies from Rs. 400-700/Kg.

### 2.3 Looms and Weaving equipments

Table 4 Weaving equipments used by respondents

S. No.	Variables		Frequency	Per cent respondents
2	Types of looms used for weaving	a) Simple handloom or pit looms	26	44
		b) Power loom	32	53
		c) Handloom/ pit loom with jacquard	53	89
		d) Powerloom with jacquard	47	78
		e) Any other	04	06
3.	No. of looms owned by weavers	a) None	22	36
		b) 1-3	29	48
		c) 4-6	06	10
		d) More than 6	04	06
4.	Other weaving allied equipments owned	a) Warping machine	47	78
		b) Winding machine	40	67

N= 60

Table 4 shows that weavers of Varanasi mostly use jacquard looms for creating highly figured designs. Pit looms with jacquard is used by 89 per cent respondents while 78 per cent respondents use powerlooms with jacquard. Simple handloom and powerlooms of different widths are used for weaving of silk fabrics by 44 and 53 per cent of respondents, respectively. Only 6 per cent respondents were using other looms, than simple and jacquard loom. Some of them were using rapier loom. Some respondents occasionally use dobby attachment in handlooms to prepare dobby designs. A large number of weaver’s population does not possess any loom and some other possesses only one loom, this may

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be one of the important factor of low family income of the weavers. It was observed that most of the respondents who were having their own looms were also having allied machineries and equipments like warping machine, winding machine etc. as these allied equipments are essentially needed for silk weaving. Preparation of silk yarn for weaving is the responsibility of weaver only. Therefore, a weaver generally owns these equipment.

### 2.4 Silk fabric specifications

**Table 5 Type of yarns and weaves used by respondents**

S. No.	Variables			Frequency	Per cent respondents
1	Types of silk yarn used for making fabric	a)	Twisted filament	60	100
		b)	Untwisted filament	60	100
		c)	Spun	07	12
		d)	Crept	52	87
3.	Types of weaves used in silk fabric	a)	Plain	26	43
		b)	Satin	38	63
		c)	Jacquard/ brocade	53	89
		d)	Dobby	19	32
		e)	Crape	41	68
		f)	Any other	01	02

N= 60

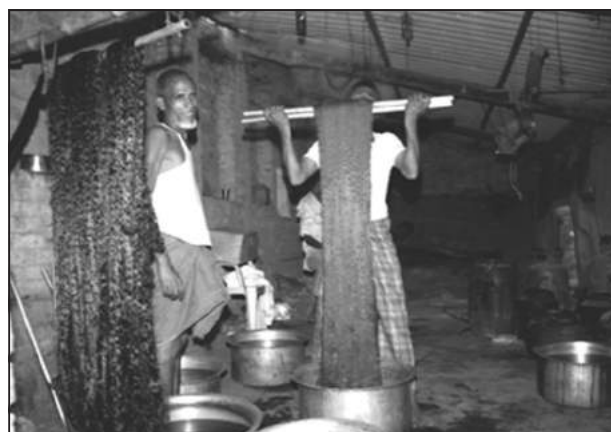
Table 5 reveals that all the respondents use both twisted and untwisted filament mulberry silk yarns for weaving of silk fabric. Selection of yarn depends upon the consumer's requirements. Silk yarns of single, 2-ply, 3-ply and their combination are used in warp and weft both directions. Generally two ply yarn is used in warp direction. 87 per cent respondents use crepe yarn for weaving of crepe fabric. Only 12 per cent respondents occasionally use spun silk yarn for making silk fabric. Zari is used for making intricate designs on silk fabric according to all the respondents.

The data obtained from survey also revealed that plain, satin, crape and jacquard weaves were mostly used for making silk fabric for different end uses in Varanasi. Most of the respondents (89 per cent) make the fabric with jacquard weave. 68 per cent weavers also make the fabric in crepe effect while 63 per cent weavers weave the fabric in satin weave. Dobby designs are also created by 32 per cent respondents. It was observed after

discussion with weavers that some rib structures are also made in silk fabric when demanded, and especially in silk stoles. It was mentioned by some weavers that satin-based work is largely done with Bangalore silk and organza type work is done with Chinese silk.

### Width of fabric woven for different products-

After discussion with the local weavers it was found that fabrics for different products are made in different width. According to all the respondents width of fabric for saree is kept 46 inches while for apparel fabric it is kept about 36 inches. For home furnishing products it depends upon the type of product. The stole fabric is woven 22 inches wide; scarf fabric is woven 45 inches wide while for muffler 10-11 inches wide fabric is woven. It was noticed that count of woven fabric varies greatly according to the type of fabric and its end use. Generally, reed of 80-90 no. is used for powerloom fabrics, while reed of 96-116 no is used for handloom fabrics.



Silk dyeing in local dyeing unit of Varanasi

**Designs on fabric :** Traditional designs are demanded in export market and therefore, master weavers and punch card makers preserve some selected designs from age old tradition of Varanasi.

### 2.5 Information regarding silk processing

It was found after discussion with weavers that in Varanasi, dyeing and degumming of silk yarn is done before weaving. Weavers use zari yarns for designs in their fabric. After weaving with zari such treatments are not supposed to perform on fabric, as it will harm the appearance of zari designs as zari may get tarnished. Degumming process is locally known as "kharai" in Varanasi. In some fabrics, warp yarn is not de-gummed, while weft yarn is de-gummed. De-gumming pushes up yarn price by 25-30 % due to weight loss. Two ply yarn if not de-gummed is called "kora" otherwise "katan".

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Post treatments are required on silk fabric just after weaving, according to 68 per cent respondents while, according to 32 per cent respondents there is no need to give any after treatment on woven fabric. When weavers were asked about the type of after treatment performed on silk fabric, 15 per cent respondents said degumming, 12 per cent mentioned ironing, 77 per cent starching, 31 per cent mentioned dyeing and 45 per cent respondents mentioned printing. It was found that type of after treatment to be given on silk fabric entirely depends upon its end use. Sometimes fabric is used without degumming like crape fabric. Sometimes partial degumming is done on fabrics to make it crisp. Generally dyeing is done at yarn stage for making silk fabrics. But in chiffon degumming and dyeing are done after weaving.



Woman showing silk saree after cutting surplus threads

Calendering is mainly preferred on the fabrics made up of synthetic mixed or pure synthetic yarns. Today, Varanasi weavers also use synthetic yarns along with silk yarns for producing diversified and low cost fabrics. Calendering process is locally known as “rolla” in Varanasi. In this process fabric is calandered between two hot rollers and some sizing material is used to impart shine and crispness to the fabric. After calendering fabric is more prone to the attack of silver fish. According to few weavers calendering also reduces the natural beauty of the silk fabric. It is mainly done on silk and non silk fabrics made for gent’s kurta and shervani and least preferred on exclusive silk fabrics like sarees.

Some weavers in Varanasi generally do not perform any after treatment on silk fabric. They used to weave silk with very cleanliness to avoid dust and stains and thus, the fabric needs no post-treatment. It was observed that once the fabric get stained, it losses its freshness, add up the cost of post processing, and lowers the wages of workers as traders cut the processing cost from their wages. To avoid stains and dust, a clean piece of fabric is

always kept over it just one inch apart from the fell of the silk fabric at the time of weaving.

Disposal of surplus threads from saree back, which is locally known as “Saree cutting”, is one of the main tasks after weaving. This process includes cutting of the floated threads from saree back, which are not the part of design. It is usually done on sarees with large motifs. The main purpose of saree cutting is to provide an embossed effect to the design, on the surface of saree. This task is mainly performed by the womenfolk on a wooden frame.

It was found that 42 per cent respondents use acid dyes for dyeing of silk fabric. 58 per cent respondents had no idea about the name of the dye used on silk fabric. It was observed that none of the respondents had the scientific knowledge about the dyes and chemicals used for dyeing. They did not know the scientific names of the dyes they apply on the silk fabrics. They purchase the dye from local market of Varanasi. In the local market of Varanasi dyes are sold in ready to apply form in different tints and shades of a colour. Local shopkeepers have developed their own shade cards for different colour and have given numerical identity to these colors. Every time when a weaver needs dye, he can refer that shade card.

Only one per cent weavers mentioned the use of vegetable dyes on silk by WSC and their own. This has limited experience and hence done on fabrics for export, when special order is given to them. It was mentioned by a weaver that vegetable colours may mildly fade and do not produce identical colour across batches.

Only 34 per cent respondents dye silk yarn themselves. There are many dyers in each locality, who dye the fabric for weavers according to their requirements. Traditional dyeing method is practised for dyeing the yarns in dyeing units. A typical dyeing unit uses chulhas for dyeing of silk yarns. The capacity of normal dyeing house is to dye 30-50 kg yarn per day. But sometimes it reduces due to batch operation. Hand block printing and screen printing are used to print silk fabric according to 41 and 23 per cent respondents, respectively. It was found that screen and block printing is traditionally done on silk fabrics in Varanasi. If it is required in any fabric, there are separate units of printing and traders directly contact to those units.

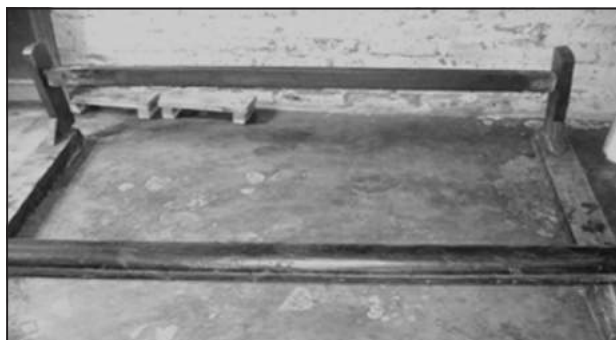
**2.6 Product development and marketing practices of weavers**

Results show that saree is the main product made by the weavers of Varanasi according to all the respondents. After saree all other items i.e,



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stoles, home furnishing and fabric for women's wear are made in almost equal numbers. However, fabric for men's wear consist relatively smaller share (31.6 per cent) of total fabric production. This is because silk is generally not used in men's formal wear. Men used to wear silk on some special occasion only in form of kurta and sherwani. Presently some designers have launched men's formal shirts but of tasar silk only.



(b) Wooden frame used for surplus thread cutting process

After discussion with local weavers it was noted that small section of handloom weavers are now diversifying into other products to remain in the trade. Fabrics for cushion covers, sofa covers, stoles, scarves, ladies tops and suit materials and silk towels for Buddhist (Tibetan) monks are being made by the weavers. Few weavers mentioned that silk towels made for Buddhist monks are very precious and traditional one, and used only for religious purpose. These fabrics include their traditional codes and motifs in form of weaving, and cost very high. These are exported to China, Tibet and sometimes to Nepal. It includes silk yarns of many colours and it takes sometimes two days to weave a meter of fabric.

It was also found that 83 per cent respondents also weave other fabrics besides silk, which are popular in the market. Compared to pure silk fabrics use of synthetic yarns reduces the cost of fabric and more fabric can be produced per day. According to weavers, pure silk is woven in very less quantities on powerlooms. Pure silk weaving is little difficult on powerloom as it is very fine. The most precious banarasi saaris woven only on handlooms are valued. Powerlooms in Varanasi are now producing running fabrics, made-ups etc. of silk, silk mixed and artificial yarns as compared to handlooms.

According to all the respondents zari is the most popular way of embellishing silk fabric in Varanasi market. Embroidery is the second most popular way of embellishing silk fabric according to the 98 per cent respondents. Hand embroidery is done

on expensive silk sarees. Majority of respondents also informed that now embroidery is also done with CAD systems on silk sarees. Lace, border and zardozi work are the other approaches used for embellishment of silk fabric.

During the survey it was found that "Weavers Service Centre"- WSC which comes under the Ministry of Textiles, India, is the main organization involved in providing technical support to some weavers. WSC provide training to weavers in designing, dyeing and weaving. No training is provided in the field of marketing. Weavers participating in training camps are paid Rs. 100/day as compensation and they are provided raw material used for training.

### Conclusion

Findings of the survey denotes that weavers in Varanasi are expert in handloom weaving of silk, but practices adopted by the weavers are mostly based on traditional techniques. Methods of silk weaving, dyeing, degumming, bleaching, designing etc lack modern techniques, weavers are still not aware about the scientific and technical aspects of silk processing. These factors result in low product diversification of silk products thus, handloom weavers are rather unable to meet the quality and fashion demands of young generation of international market. Weavers require understanding and professional hand in new technologies of silk weaving and processing. Efforts can be made by government and non government organization in this regard, to help the weavers of Varanasi to achieve new heights in exclusive silk products.

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## EXPORT PROSPECTS AND MARKETS

### Export likely to fall 10-12% in 2020-21 : FIEO

India's exports are likely to witness a 10-12% year-on-year decline during the ongoing fiscal, if the current trend persists, due to contraction in global demand on account of the COVID-19, the FIEO said.

Federation of Indian Export Organisations (FIEO) president S. K. Saraf said although exporters were receiving many enquiries from countries where anti-China sentiments were high, demand in employment-intensive sectors such as gems and jewellery was still a challenge.

"We expect about 10%-12% decline in India's exports in the current fiscal," he said. However, in case of a second wave of the pandemic, the contraction in exports may reach 20%, according to Mr. Saraf.

India's exports contracted by a record 60% in April and 36.47% in May. Mr. Saraf also urged the Centre to focus on concluding free trade pacts with the likes of the European Union, Australia and New Zealand. □

### Apparel exports decline 73% in April-May

Textile and apparel exports during April and May this year declined 73.1% (in dollar terms) compared with the same months last year, according to quick estimates of exports released recently by the Ministry of Commerce.

Textiles and apparel worth \$6,066 million were exported in April-May 2019 while it was \$1.634 million this year.

Cotton textile exports during April and May this year were 64.6% lower compared with the same period last year. Export of manmade (MMF) yarn, fabrics and made-ups was 71.1% lower during April-May 2020 compared with the same period last year while ready-made garment exports declined 78.1%, according to the data shared by the Cotton Textiles Export Promotion Council (Texprocil).

Texprocil chairman K.V. Srinivasan said in a press release that export of cotton textiles between April and February last financial year was \$9,405 million against \$11,262 million during the year-earlier period. Export of cotton yarn declined

steeply, almost 28%, during this period and in April and May this year too, export of cotton yarn fell sharply.

Buyers in the U.S and European Union (EU), the two major destinations for Indian cotton textiles and clothing, were cancelling orders or invoking force majeure clauses within their contracts. Buyers of cotton yarn were demanding a 15% to 20% price reduction.

"This is a matter of concern and the government should support the industry," Mr. Srinivasan said. "It should cover cotton yarn and fabrics under the scheme to reimburse State and Central levies. It should also enhance the overall competitiveness of the textile industry so that India becomes a hub for fabric and yarn production to serve the domestic and export markets," He added.

Siddhartha Rajagopal, executive director Texprocil, said the government should come out with clear measure to boost exports so that India does not lose out to competing countries.

"Textile and clothing exports were already weak last year and then came COVID-19," he said. "Buyers are cancelling or re-negotiating orders. Textile and clothing exporters need production linked incentives so that they are bale to compete in the international market. Cotton yarn should also get the 3% interest subvention benefit".

Observing that exporters were awaiting a nod to export PPEs and MMF masks, Mr. Rajagopal said there were opportunities that India must not lose out on as countries such as Bangladesh and Vietnam already had advantages in the international market. □

### Cotton exports gain momentum on low price

India's cotton exports are gaining momentum as the prevailing low prices have made the fibre attractive in the global market. The trade expects the shipments to exceed 50 lakh bales for the 2019-20 crop season ending September.

"The export target of 47 lakh bales will be achieved and going by the current trend, shipments may touch 50 lakh bales this season," said Atul Ganatra, President, Cotton Association of India (CAI), the apex trade body. According to CAI, exports till May-end stood at 37 lakh bales. Cotton prices in India are hovering around ₹35,000

## EXPORT PROSPECTS AND MARKETS

per candy of 356 kg each, much lower than import price of ₹40,000-42,000, Ganatra said. "Indian cotton prices are the cheapest in the world now," Ganatra added. Presently, Indian cotton is being shipped to countries such as Bangladesh, China, Indonesia and Vietnam among others. "Factors like local prices, currency exchange rate and the demand in the neighbouring countries are giving good room for exports. Our exports will easily cross 50 lakh bales as there is price advantage for our buyers," said Arun Sekhsaria from Brijmohan Seksaria & Co in Mumbai.

State-run Cotton Corporation of India (CCI), which recently rationalised its sale price, is also keenly exploring the export option. "We are looking at markets such as Bangladesh. There are many enquiries," said PK Agarwal, CMD, CCI.

Indian cotton prices, which hovered around global price levels during February, had crashed in the aftermath of the Covid lockdown on decline in demand from the spinning mills. Ginned cotton prices, which touched a low of ₹32,000-33,000 range, have recovered a bit to around ₹35,000 levels and are expected to stay firm as market arrivals slow down and on anticipated improvement in demand from mills, said Ramanuj Das Boob, a sourcing agent in Raichur.

Srikanta, Vice-President at Raghunath Agrotech Pvt Ltd, Hyderabad said the demand for Indian cotton is yet to pick up from overseas buyers such as Bangladesh and Vietnam, where mills have also suffered due to the lockdown. "At these prices there should have been more exports," Srikanta added.

CAI's Ganatra said that the prevailing tensions between India and China were unlikely to hit exports. "We don't see any impact of the prevailing tensions on cotton exports to China," he added. □

### Garment exporters seek Govt's intervention on import from China

Exporters of readymade garments and apparels have sought the government's support in speeding up the clearance of import consignments from China, including inputs for the sector.

The "undue delay" is impacting their operations and might result in further financial losses for manufacturers already grappling with the Covid-19 crisis, they said.

The Apparel Export Promotion Council (AEPC) Chairman A Sakthivel, in a letter to the Central Board of Indirect Taxes and Customs (CBIC), said the Customs authorities at several ports are undertaking 100 per cent examination of goods originating from China, Hong Kong and Taiwan. This has created undue delay in clearance of imported shipments of inputs which are meant for manufacturing garments for exports.

The delay is affecting factory operations as inputs are being held up at various ports and exporters fear that they might fail to meet the delivery schedule, the letter addressed to CBIC Chairman Ajit Kumar pointed out.

Earlier, exporters' body FIEO had expressed apprehensions that China may take retaliatory action and hold up Indian goods at Chinese and Hong Kong ports.

There has been no formal communication from the government clarifying the situation.

"When business was gearing up to get back to normal after the relaxation of lockdown in India and other foreign countries, the recent delay in clearing the import consignments from China was adding to the crisis," AEPC said.

Exports of apparels from India declined 91 per cent and 66 per cent in April and May respectively.

"Special priority should be given to manufacturer exporters who are dependent on these imports to service their export orders," Sakthivel added. □

### Govt. gives permission for PPEs export

The Directorate General of Foreign Trade has permitted the export of personal protection equipment (PPE) medical coveralls with a permitted quota of 50 lakh PPEs a month.

As per a June 29 notification, a monthly quota of 50 lakh PPE medical coveralls for COVID-19 has been fixed for the issuance of export licences to eligible applicants. All items that are a part of PPE

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**EXPORT PROSPECTS AND MARKETS**

kits and listed in the description in the notification dated June 22, however, continue to be prohibited for exports and these shall not be covered under the export quota.

K.S. Sundararaman, chairman of Indian Technical Textiles Association, said the Centre's proactive step would enable exporters to tap global markets.

Chairman of Apparel Export Promotion Council A. Sakthivel said the current production of PPE coveralls is more than adequate to meet the domestic needs.

Export of the coveralls will not only protect health workers globally, but also revive the Indian apparel sector, he added. □

### **For crucial accessories Garment sector largely depends on China**

Escalations along the India-China border could take a toll on the country's garments industry that sources accessories, such as buttons, metal fastening products and sewing machines, from its northern neighbour.

One of the largest garment manufacturing hubs in India, Tirupur is dependent on China for 90% of the crucial accessories that include fasteners, buttons, sewing machines, needle lapel pins and textile material, said Tirupur exporter association president Raja Shanmugam.

"Several tonnes of goods from China are stuck at the ports. Unless we find a solution to source from other market at similar costs - it could hurt the industry," Raja said. Producers have also said that similar textile materials can be procured from Vietnam, Turkey, Taiwan and Thailand. However, some key accessories and machine spares are available only in China.

"Around 500-600 containers are stuck at the ports, those are prepaid orders. Around 15-20% of our export clients prefer procuring those accessories from China, for the sake of uniformity and price," Raja said.

Apparel exporters that make garments for foreign brands said their export orders were being delayed due to key accessories being held up at ports.

"We import special buttons, zippers, as well as branding tags from the neighbouring country.

Many international brands get their tags and other branding material produced in China," said a contract manufacturer, requesting not to be named. In the month of March, several manufacturers in Tirupur started making face masks and PPE kits to help meet the sudden demand. However, some manufacturers had to shut operations as accessories for these products are also stuck at the ports.

"We quickly adapted to the current needs and started manufacturing PPEs. Some accessories like zippers are still stranded at the port and we are not able to complete our orders now," said a manufacturer, requesting anonymity. The reliance on China extends across the value chain. □

### **Nod on Export in some categories of non-woven Fabrics**

The Centre recently permitted export of non-woven fabrics, other than 25-70 GSM fabrics.

With the spread of COVID-19, export of non-woven fabrics had been prohibited for almost four months as certain categories of the fabrics were used to make PPEs and masks.

According to a notification by Directorate General of Foreign Trade dated July 13, non-woven fabrics other than 25-70 GSM and which are not in the melt-blown category, can be exported.

"This [relaxation] is for non-woven fabrics which were prohibited for exports in March. Except for certain categories, other non-woven fabrics can now be exported without restrictions," said an official.

Industry sources said that while the majority of non-woven fabrics remain prohibited for exports now too, this is a beginning. The need is to specifically identify non-woven fabrics used for medical purposes and restrict exports of those.

This will free up for exports non-woven fabrics that are not used for medical purposes but are between 25-70 GSM.

The restriction should be based on functionality of the fabric and not its weight, the sources said.

With the opening up of exports will gain. Some industries are investing in machinery to manufacture melt blown fabrics and its production will also increase in the coming months, sources added. ■



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## Details of Office Bearers of ITAMMA for the period 2020-21

### Mr. Chandresh H. Shah – President

- » Executive Director of KRSNA ENGINECH P. LIMITED - One of the leading & pioneer manufacturer of soft / over flow fabric dyeing machine for all type of fabric in India.
- » Sales head of KRSNA ENGINEERING WORKS, manufacturer & exporter of all type washing range / bleaching range & finishing machinery he has been in to business of textile industry for last more then two decade & member of Indian Textile Accessories & Machinery Manufacturers Association [ITAMMA] for more then decade.
- » His main motto to serve ITAMMA & its member for better business environment & help other small member to get maximum advantage from government scheme & subsidy.
- » Apart from above KRSNA GROUP awarded twice by government of India for Enviroment friendly - energy saving machines for textile Industry also we are import substitute.



Mr. Chandresh H. Shah

### Mr. Dhijen R. Mehta – Vice-President

Mr. Dhijen R. Mehta is the Owner of M/s. Ashton Green & Company Mumbai; which manufacturers sewage effluent treatment equipments and related conveyor systems. Also the company manufacturers PIV chains and PIV gear boxes and a range of power transmission products. It is the Dealers of Diamond brand carding chains and all types of roller chains.



Mr. Dhijen R. Mehta

Mr. Mehta is also an Associate of the concern M/s. Transpro Engineering, the manufacturers of power transmission product, dealers and stockiest of worm reduction gear boxes and their spares.

Mr. Mehta is also an Associate of the concern M/s. Medh the manufacturers of special purpose food cutting machinery.

Mr. Mehta have been guiding and helping the Directorate in the management of ITAMMA's Building activities leading to delivery of quality maintenance Projects at competitive cost, including state-of-the-art renovation of M C Ghia Hall.

### Mr. Purvik Panchal – Hon' Treasurer

Technical & Sales Head of (SRT) Shree Ram Textile who Manufacturers a wide range of Warp Stop Motion for all types of Weaving Machines (Looms). SR Group is established since year 1957.



Mr. Purvik Panchal

Partner of (SRE) Shree Ram Enterprise who are the Authorised Distributor and Importer of CNC Metal Cutting Machine, Cutting Tools, Oils & Adhesives.

He has wide experience in Textile & Metal Cutting Industries for almost more than 15 years.

He is actively associated with ITAMMA since 2014 and in the managing committee since 2017.

### Mr. Jugal Kishore – Immediate-Past President

Mr. Jugal Kishore,

- » Managing Partner of Super Tex Industries – one the leading company manufacturing & exporting Textile Machinery Parts (Synthetic Rubber Cots & Aprons) in the world.
- » Managing Director of Yogesh Dyestuff Products Pvt. Ltd. – Manufacturer & Exporter of world class Acrylic / Cationic Dyes in the world.



Jugal Kishore

He has been into the business of Textile Machinery Parts & Dyes business for almost 25years & has been associated & a member of Indian Textile Accessories & Machinery Manufacturers Association (ITAMMA) for more than 15 years

His main motto is to serve ITAMMA & its members for collective efforts & help members to increase their exports & resolve problems faced by them.

Apart from the above he was also the President in his college & recently had been elected as the Vice President of Rotary Club of Mumbai, Western Elite.

**For further information, please contact :**

**N. D. Mhatre**

**Director General (Tech)**

**+91-9820292245**



## **"Show must go on" says Chandresh Shah President, ITAMMA**

### **ITAMMA continued its activities virtually by organizing 11 Webinars**

We at ITAMMA continued our activities by organizing about 11 Webinars in series by changing the guard to online Virtual events. The mission started after submitting our representations to about seven Ministries including Prime Minister of India on topics viz. recommendations for measures to support the Textile Engineering Industry (TEI), ease of business in TEI for re-opening factories in COVID-19 and Appeal to support Employers for safe guarding the employment and saving economy in TEI during the Post COVID-19 condition.

First Webinar was organized on "Boosting "Will Power" (Confidence - **आत्मबल**) using "CO-VIKAS" on 24th April 2020; where Dr. M. L. Suriya, Govt of India Certified ZED Master Trainer mentioned that CO-VIKAS® cycle has ingeniously crafted by him, which is a novel combination of the precious spiritual wisdom and management practices. This wisdom has not only helped individuals but also many other States/ National Level transformations like Japan (3rd largest economy with not many natural resources but only "Will Power") after the 2nd world war. Gujarat Vikas with **साक्षी भावित** leadership etc. and now how India is doing we all can see.

The session ended with a meditation session leaving behind the Key takeaways stating that CO-VIKAS® cycle helps in i) Daily life routine, ii) Peaceful yet Prospering (devote time in Reviews, Understanding, Meditation, Team Building/ Relationships, Culture and Solution), iii) neither Positive/nor Negative thinking-only Clear thinking.

Second Webinar was organized on "Business Response in present situation" on 29th April 2020; where Mr Rajendra Aphale, International Consultant & Trainer gave information of various diseases/viruses we have faced since 2001 but we need to understand how different CORONA is from them. He explained how the quotes made by important people helps us to boost our moral to face this pandemic and it is also necessary to build our health (physical & mental) and new skills in such situation. He explained in details the type of work can be done through WFM like Identifying candidates, initial interviews, part of accounting, auditing; IT related work; and which work cannot be done through WFM like measurements, checks, etc. The importances of maintaining the employee connect through routine communications, periodic



Mr. Chandresh H. Shah

emails, Video sessions, etc. The aspects like plan to check the health of our facility like equipment, logistics, inventory and the need for any revision in plant and office layout were well covered.

Third Webinar on "Importance of Energy Conservation in post COVID-19 situation" on 30th April 2020; where Mr. Rahul Kishore, Jt. Director, SRO-Ahmedabad, Petroleum Conservation Research Association( PCRA) highlighted Problems in Current Scenario such as IPP (Independent Power Producers) facing Cash crunch, is the biggest loan defaulter, having no distribution rights and have no money to pay for coal thus allowing IPP for buying Coal on Credit basis or to Shutdown. At the same time DISCOMs have shown inability to pay for coming times as there is a no demand from profitable Industrial Sector. lockdown has resulted in a shutdown of the industrial and commercial establishments and stoppage of passenger railway services, having adverse effect on electricity demand presently contributing to about 40% of All India electricity demand.

Low Oil Demand worldwide nearly 90% of the globe's 4.3 billion barrels of crude oil storage is full, rest will be full in 3 Weeks & millions of barrels are also sitting idly in super tankers which have nowhere to go and even after offering super discounts 'Super Contango' there is no space to be stored.

Fourth Webinar on "Cost cutting after Covid 19 - Technical Aspects" on 4th May, 2020; where Mr. Ashok S, BEE Empanelled Accredited Energy Auditor and Chairman of Coimbatore chapter of IEAMP in his presentations explained the various steps to conserve energy by monitoring the losses at various stages in the textile mill during transmission and distribution of voltage, power factor and load with the help of different measuring instruments and gauges. BEE guidelines on under loaded motors, for protection of VFD, fan losses, blower losses, and effect of over weighted pulleys, bely size & type on the Speed was also explained. Details of Energy consumption in Ring Frames and the power transmission losses from ring frame motor to spindle was also explained. The effect of over pumping and repeatedly re-greasing on the load of the motor, the effect of piping of the pumping system on the power losses and the ways of reducing energy losses in the humidification plants and the compressed air treatments of the mill was well explained with diagrams & photos.

The presentation was concluded with BEE MANTHRA, 'Monitor your Energy Consumption to Target its Reduction. 24 x 7 Run Industry can save Rs.50,000/- per year by saving 1 KWH unit per hour in each of your production & utility machines' whereby Energy is 1st Measured, then Focused, then Improved, then recognized, and then shared.

Fifth Webinar on "Reviving through Lean And Six Sigma" on 5th May 2020; where Mr. Japan Trivedi (Author, Coach, Trainer, Blog writer) of Efforts Consulting, explained in details about what will happen post COVID-19 with the growth rate of Progression (7%), Stagnation (4%), Depression (-2%) & Great Depression (-10%) and who will be the Potential Losers & Winners. The ways ahead post COVID-19 are being a part of new technology, adopting new processes, identifying and removing the waste and optimizing the resources. Further he explained in details about Lean and Six Sigma for changing or reviving your business or career or profession, which is about changing habits i.e. your culture. Where he explained the 3 bricks of changing culture as Daily habits, improvement and commitment. 8 types of MUDA ( obstruction to FLOW) were also well explained i) Transportation ii) Motion iii) Waiting iv) Process v) Quality defects vi) Overproduction vii) Inventory viii) Unused creativity. Path to Six Sigma was explained with Sigma levels and defects/million opportunities (DPMO), with 6 Sigma (3.4 defects), 5 Sigma(233 defects), 4 Sigma(6,210 defects), 3 Sigma(66,807 defects) and 2 Sigma(308,537 defects). Lastly the post COVID-19 Goals were explained as i) Quality ii) Lower Cost iii) Delivery- iv) People v) flexibility.

Sixth Webinar on "Scope of Market for Textile Machines & Accessories in Indonesia during present situation of COVID-19" by Mr. Liliek Setiawan (VP--Indonesia Textile Association (API), Chairman - Textile Community Academy Committee, Chairman - Sekar Lima Pratama Integrated Textile Manufacturing, Solo, Vice-Chairman - Forum for Economic Development and Employment Promotion (FEDEP)) on 9th May; whereby through PPT Mr. Setiawan gave insight on World's Economic Growth 1st quarter 2020 showing 3.8% of Vietnam & 2.97 % of Indonesia while Hong Kong being -8.9 %, China -6.8% and Europe being -2.7%. He further explained the Indonesia's Economic Growth from 2017- 2020 showing a reduction from 5.01 % to 4.7 %. He also informed that the estimation of the peak of COVID-19 in Indonesia will be between 21-28 May' 2020 while the same will be coming to normal from 15th June 2020 onwards. The soft and hard effect among the Customer segment and Industry base was well explained. Stating that the

Older generations who are digital immigrants & tech laggards, and low income community with limited access to internet will get a hard hit in the customer segment. While in the same segment younger generation who are digital native and tech savvy, and affluent segment with better access to the internet will receive a soft hit.

In case of Industry sector, Businesses with dominant customer- facing processes and labour-intensive industries will get a hard hit. While in the same segment, Businesses with highly digital processes and Industries with Lean Organizations will get a soft hit.

The orders postponed reached to 64% while temporary cancelled orders amounted to about 57.85%. The UPs and DOWNs noted in various segments where Central Bank (+0.51% & gained 100 jobs) and courier & messengers (+0.21% & gained 1,800 jobs) showed an improvement; while clothing and clothing accessories stores (- 58.25 % & lost 7,39,600 jobs).

Seventh Webinar on "Strategy Design and Deployment" on 12th May 2020 by Mr. Nital Zaveri, CEO, CONCEPT BUSINESS EXCELLENCE PVT. LTD; who covered the topics Myths about strategy, case study on Michael Porter view on strategy being unique, Michael Porter 5-Force analysis of Industry, Competing on Cost / Uniqueness, RBV (Resource Based View) and How to compete?

Eight Webinar on "Scope of Business in Indonesian Textile Industry for Indian Machines & Accessories" on 22nd May, 2020. Where Ms. Anne Patricia Susanto Vice Chief Executive Officer PT. Pan Brothers Tbk (PBRX), Vice Chairperson in Foreign Trade and Indonesian Textile Association, Member of the APINDO Advisory Board (Indonesian Employers' Association) informed that Indonesia's Pillar of growth is manufacturing industries contributing to 35% while GDP Textile & Clothing is (Trillion IDR) 200,02 (2019). Indonesia's Textile -Garment Industry overview states that industry units of fibre (37), Yarn [spun & filament (312)], fabric [woven & knit(1,546)], Garment(2,985) and other textile products (777); with production volumes in Tons as fibre (1,274), Yarn [spun & filament (1,983)], fabric [woven & knit (1,310)], Garment(1,743) and other textile products(383). The strategic role of Indonesia's Textile -Garment Industry is that it acts as "equitable tool for the regional economy" and "creates a multiplier effect" on the national economy; as a labor-intensive this industry becomes the "social safety net" and employment provider; exporting to ± 200 countries;

**"Show must go on" says Chandresh Shah, President, ITAMMA  
ITAMMA continued its activities virtually by organizing 11 Webinars**

this proves as an industry as one of the "locomotives" for national manufacturing industry for opening market; Its "integrated structure", starts from upstream – midstream - downstream, and supports each other in production and sales; The industry has become "the leading sector for the growth of other economic sectors such as supporting industries and other supporting service industries. The Road Map for making Indonesia industry 4.0 was well explained as i) Reform Material Flow ii) Redesign Industrial Zones iii) Embrace Sustainability iv) Empower SMEs v) Build Nationwide Digital infrastructure vi) Attract Foreign Investment vii) Upgrade Human Capital viii) Establish Innovation Ecosystem ix) Incentivize Technology & x) Reoptimize Regulations and Policies. The Growth targets were designed i) to Improve Indonesia's Competitiveness, Encourage real GDP growth of 1-2 % per year, so that GDP growth per year will rise from the baseline by 5 % to 6-7 % in the 2018-2030 period' ii) Manufacturing to contribute 21 - 26 % of GDP in 2030 iii) Achieve 5-10 % ratio of net exports to GDP in 2030 iv) Opening of 719 million jobs, both in manufacturing and non-manufacturing, in 2030 as a result of greater export demand.

Among the Panelists Mr. Kaizar Z. Mahuwala, Past-President, ITAMMA, Executive Director, Gurjar Gravures Pvt. Ltd., & Executive Director, Gurjar Images Pvt. Ltd delivered his presentations on "Scope of Business in Indonesian Textile Industry for Indian Machines and Accessories" stated that the entire range of Processing machines, accessories and chemicals are being manufactured in India and today they competes with their European counterparts with low material ratio and process the fabric with comparable results at a very reasonable cost. Many hi-tech machines like Continuous Bleaching Plant, Dyeing Plant, Washing range, Pre-shrinking Range, Indigo dyeing Plant, etc are being manufactured in India. While speaking on India's textile machinery exports to Indonesia he mentioned that in 2017-18, it was US\$ 37.97 million, where Spinning, twisting and yarn preparation machines contributed to US\$ 18.01 million, while printing machinery was US\$ 121.10 million and a part of other printing machinery used for ancillary to printing was US\$ 19.35 million. While mentioning the advantages in doing Business with Indian TEI, the reasons mentioned were Competitive Pricing, Manufacturing Flexibility, Quality at Par with European Counterparts, Lower lead and delivery times, Abundant raw material, Many Indian manufacturers have JVs/technical collaboration with European counterparts. The presentation was concluded with the information

of the details of ITAMMA members in the business of Processing and Printing machines.

Other Panelists Mr. Jignesh Shroff, Member of ITAMMA, & Director, Mayur Reeds & Healds Pvt. Ltd. after giving insight on Indian Weaving Industry, alongwith the statistics on production, exports and imports, informed about the technological collaborations had with European Manufacturers in Weaving Preparatory machines, especially high speed warping and sizing, due to which India is delivering state-of-the art machines as per International standards. He also mentioned about the manufacturing of High speed Rapier shuttleless weaving machines by our members. He added that due to TUF scheme many shuttleless weaving machines have been installed in India, which has encouraged many of our members in the development of spares and accessories of these machines for the domestic and export markets. Many members have come out with attachments/innovations in assemblies and processes introducing the cutting edge technologies with an objective of productivity, product quality, fashion, conservation of energy and natural resources.

Ninth Webinar on "Interactions to create Road Map for the Growth of Indian Textile Industry" with spiritual leader Sri Sri Ravishankarji for his encouragements on next Sunday, 24th May @ 11-30 AM live on You Tube; with Panel Members as Shri S.P.Oswalji, CMD [Vardhman Group], Mrs. Dipali Goenka, CEO & Jt. MD [Welspun Group], Mr. S.K.Gupta, Director & Advisor [Raymond Group], Mr. Ajay Arrora, Mg. Director [D. Décor Furnishing], Mr. Hemant Bangur, Chairman [Gloster Ltd], Mr. Sanjay Sarawagi, Director, [Laxmipati group], Mr.Pramod Khosla, MD [Khosla Profil], Dr. A. Sakthivel, Chairman {AEP& TEA}, Mr. T. Rajkumar, Chairman [CITI & TSC]. Mrs. Dipali Goenka, informed that Indian Textile Industry being contributing to 15% of India's GDP and labour intensive is very badly affected by COVID-19. The huge value chain of Suppliers, Vendors, Workers is totally disturbed and so asked Guruji to guide us in tackling this issue. Dr. A. Sakthivel & Mr. T. Rajkumar also requested Guruji to guide on overcoming labour problem. Mr. S.K.Gupta, informed the present problem of shifting of Textile manufacturing from Cotton to synthetic and industry has to depend on imported machines as indigenous machines doesn't fulfill our requirements. Mr. Sanjay Sarawagi requested Guruji to guide us on how to develop moral of 20 lakhs people who are in Synthetic Saree manufacturing, who have been demoralized mentally, physically and financially.



**"Show must go on" says Chandresh Shah, President, ITAMMA  
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Guruji in his speech mentioned that since all the World is now not in favour of doing business with China and Bangladesh, it has developed an opportunity to India to grow Globally. The time has come to take the migrant labour into confidence and develop their enthusiasm to work and learn in the present situation. Guruji has invited all the Panelists to Bangalore and asked them to give in writing the challenges and hurdles faced by them to take the Textile Industry to next level.

Tenth Webinar on "Business Opportunities in PERU & INDIA for Textile Machines & Accessories" on 26th May '2020, where Mr. Rohit Rao, President, INCHAM-PERU & ED Medrock Laboratories in his Opening Remarks mentioned that INCHAM-PERU wish to take the Mou further by organizing joint activities with ITAMMA. While Mr. Chandresh H. Shah, President, ITAMMA, in his Closing Remarks mentioned that since ITAMMA is having members from all discipline of the value chain of Textile Engineering Industry, we will play a very vital role in networking the textile machines & accessories manufacturers, suppliers, traders and Industry Experts, with INCHAM-PERU for the benefit of PERU Textile Industry.

Mrs. Magali Simon, Director, INCHAM-PERU & Owner TEXPIMA while explaining the size of the Textile Industry of PERU, mentioned that about 95.8% (55,302 establishments) units were in the Micro category. She further informed about the different areas of the textile chain and some of the machinery brands and countries which are used in Peru, whereby only Indian Spinning machines were used. Thus a wide scope for Indian Machine & Accessories manufacturers do exists for Weaving, Dyeing, Finishing, Printing and Garmenting. She also gave figures of the products imported along with their cost, from India for 2019 being 421, 31,617 kg of cotton yarn (@2.97 \$/kg), 14,675 kg of wool yarn & short hair (@5.44 \$/kg) and 806,61,981 kg of clothing(@2.96 \$/kg).

Mr. Prashant Gandhi, Past-President & Mentor of Global Competitiveness Sub-Committee, ITAMMA, mentioned that ITAMMA changed focus of its activities role of representation to member centric activities, where Technology, Research & Development, Design and manufacturing systems were targeted for organizational strengthening. While International and domestic marketing was the focus for making India A hub for Textile accessories, parts, components and Machinery.

Today our members are capable for Quality, Agile, ready for small lots, application based manufacturing and competitive. He invited PERU-

INCHAM for experience sharing on building productive/ innovative culture, building alliances with stake holders, institutions and manufacturing systems that bring competitiveness even to small manufacturing units, based on India's philosophy "Vasudev Kutumb cum" - The whole world is our family.

Mr. J.M. Balaji, Chairman, Events & Publication Sub-Committee, ITAMMA, while mentioning the opportunities in post COVID era, he informed about ITAMMA members manufacturing machines for making masks (cloth, N95,98,99), gloves, Masks, gloves, Face shields, goggles, PPE kits / Coveralls, Ventilators, automatic hand sanitizing dispensers (mist and lotion), Alcohol based sanitizers, Indoor disinfectants, IR thermometers, Paddle operated and automatic sensor based sanitizer, etc. He also informed about the opportunities for sourcing / setting up manufacturing facility in India for Peruvians; whereby Spinning Mills can be put up in India by Peruvian investors and yarn sent back to Peru (as cost of yarn made in India is more economical), Peruvian investors may also take factories on lease in India and get required textile product manufactured and get it exported to Peru, ITAMMA can support in finding right partner for Peruvian investors in their field of interest in entire textile value chain.

Thus considering COVID-19 situation being an opportunity for Indian TEI, ITAMMA has prepared a 'Road Map' which will provide end to end solutions to every Category of Entrepreneur right from provision of important DATA, Technological and Techno- commercial developments. Considering 80% TEI being MSMEs, technology driven programmes for developing in-house technologies and adaptation of new /latest technologies through JVs/Transfer of Technology are formulated to strengthen their technological base and adopt a state-of-the art set-up of their factories in order to deliver a quality and competitive products at par with Chinese products.

Lastly, I am proud to mention here that India has always proved to be in the front when it calls for low cost innovations, whereby ITAMMA members have developed the mask making and automatic sanitizer disposal machines and disinfection chambers which are being developed during the 2 months of Lockdown period.

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### Liva rolls out Antimicrobial Fibres

**Birla Cellulose launches Liva with added protection of Antimicrobial fibres, making Care Fashionable**



Mr. Rajeev Gopal

Liva, the fashion ingredient brand from Birla Cellulose, part of Grasim Industries Ltd, flagship company of US \$48.3-billion Aditya Birla Group, has launched Antimicrobial fibres, a breakthrough innovation that not only kills viruses and bacteria, but also inhibits their growth, keeping the fabric fresh and hygienic in the long run.

The latest innovation—Liva with added protection of Antimicrobial fibres by Birla Cellulose — is a leap forward in fashion by successfully injecting antimicrobial agent into Viscose Staple Fibre which when woven or knitted into a fabric offers protection to the wearer from bacteria and viruses, lasting over multiple washes while retaining comfort, fluidity and softness of the fabric. Be it introducing fluid fashion or offering sustainable solutions through Livaeco, Liva has always been a fashion forward brand. Today, when the world is embracing a change known as “the new normal”, understanding consumer needs, – Liva’s special fabric inherently possesses Antimicrobial properties which kills 99% of bacteria and viruses and also inhibits their growth on apparels and home-textiles, thereby making it safe for you.

Introduced in a first ever virtual launch through a webcast, Mr. Rajeev Gopal, Group Executive President and Global Chief Sales and Marketing Officer, Pulp and Fibre Business, Aditya Birla Group said, “Antimicrobial products are currently the need of the hour and will continue to be the point of focus in the near future. Liva with added protection of Antimicrobial fibres by Birla Cellulose, is not just antimicrobial but also long lasting, while it keeps the fashion quotient high. At Liva, our aim is to make Apparels and Home-Textiles safe without compromising on performance and fashion.”

#### Benefits

Developed using in-house technology by Birla Cellulose’s Research & Development team,

antimicrobial agents are injected during the fibre manufacturing stage, making it an integral part of the fibre and providing durable antimicrobial properties. The science behind the technology involves the active agent being strongly bonded with the substrate, resulting in excellent durability to wash & wear. The interactions between cell membrane of the microbe and the active agent causes the interruption of all essential functions of the cell membrane and, consequently, the cell membrane gets ruptured and destroys the microbe. These agents inherently bond with fibres, resulting excellent durability to wash & wear and help retain antimicrobial effectiveness through multiple washes. This effectiveness is tested under stringent ISO standards and authenticated by International labs. Moreover, due to its nature-based origin, the fabric is skin-friendly. Killing of microbes inhibits odor development, keeps the fabric fresh and increases hygiene.



Liva with added protection of Antimicrobial fibres by Birla Cellulose, can be used in producing Menswear, Womenswear, Kidswear, Athleisure, Intimate wear, Accessories and in Home-Textile applications.

#### Traceability & Transparency for the Value Chain

Liva with added protection of Antimicrobial fibres by Birla Cellulose has a unique tracer in its fibre which helps in source verification at all stages of the Textile Value Chain and removes any possibility of counterfeit or dilution. Blockchain Technology based tool - Green Track™ is used to trace upward and downward value chain, to maintain authenticity of data.

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## Morarjee Introduces ViroShield Protective fabrics against Covid-19 virus

Morarjee Textiles Ltd, a vertically integrated textile company manufacturing high-end products in prints, dyed and yarn dyed fabrics in a variety of substrates, has launched ViroShield range of protective finishes in collaboration with Australia-based Health Guard Corporation Pvt. Ltd.

ViroShield by Morarjee meets anti-viral efficacy of 99.99 per cent on all corona strains including COVID-19, as per ISO 18184 anti-viral test and Bacteriostatic efficacy test ISO 20743. The fabrics have a special chemical molecule which destroys the envelope cell wall of the virus and as a result the virus dies. Thus, it helps in minimising the chance of re-transmission of pathogens by killing viruses and bacteria upon contact with the fabric.



“As a leading supplier of premium and niche fabric to the global brands, we bring the anti-viral fabric ViroShield from the house of Morarjee,” said Mr Harsh Piramal, Vice-Chairman of Morarjee Textiles Ltd.

ViroShield is compatible with all textiles substrates and gives protection from droplets and fluids. In addition to being anti-viral and anti-bacterial, the finish is anti-odour, hygienic, skin compatible, non-irritating, and has no impairment on hand feel.

“In today’s situation, safe and resistant fabrics are key to normal life, and we present the fabrics with anti-viral finishes in our ViroShield range,” said Managing Director Mr. Rajendar Rewari.

The anti-viral finish on the fabric persists up to 30 home/laundry washes at 40 degree centigrade, the India-based company said. □

## myOerlikon.com offers an intelligent all-round, care-free package more user-friendly

Within the context of a globally-networked textile industry, online services have become essential for considerably more efficient maintenance, modernization and original parts procurement processes for machines and systems. Here, the Oerlikon Manmade Fibers segment has this year once again optimized the myOerlikon.com service portal – which was established many years ago – for the products and services of its Oerlikon Barmag, Oerlikon Neumag and Oerlikon Nonwoven brands, making it even more userfriendly. It allows customers to now access tailored services with even greater ease and comfort – and all this in nine different languages and around the clock.

Just glancing at the new look of the upgraded service portal reveals what users can expect. The platform provides them with comprehensive digital access to all relevant information on their installed machine base by means of PC, tablet or smart device. Each and every machine park usually has numerous associated documents, ranging from manuals, circuit diagrams and 3D drawing-supported original parts catalogs, all the way through to operating instructions and final documents. myOerlikon.com continually bundles and updates this information, while also providing users with additional communications on potential machine modernizations and upgrades and on special offers tailored to the respective production system.

### Real security during virtual shopping

At the same time, users can access the myOerlikon.com e-commerce platform, which operates in parallel. Far from being merely a shopping platform, customers can not only place orders comfortably here, they can also send online inquiries to Oerlikon, view prices and warehouse stocks and track inquiries, quotations and orders already made or placed, among many other things. As a result of online access to original parts catalogs for the respective customer machines and systems, erroneous orders are a thing of the past. Log-in is secure for users, as are all transactions carried out using the platform. With this, Oerlikon is implementing real security for all virtual purchases. All data exchanged is fundamentally encrypted and hence protected against unauthorized access.

“With myOerlikon.com, we are supplying customers with a tool with which they can plan and steer all processes relating to maintenance, operation



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and spare parts provision for their machine parks – constantly updated, customized and available around the clock,” explains Ingo Scholz, Project Manager for myOerlikon & e-commerce at Oerlikon. “Here, users benefit from stable production performance, a high degree of operating reliability and optimized product quality,” explains, before adding “because highquality end products and efficient production are dependent on the optimum condition of the system.”



#### About Oerlikon

Oerlikon (SIX: OERL) develops modern materials, systems and surface technologies and provides specialized services aimed at securing high-performance products and systems with long lifespans for customers. Supported by its technological core competencies and its strong financial footing, the corporation continues its medium-term growth plan by implementing three strategic factors: focusing on attractive growth markets, ensuring structural growth and expanding through targeted M&A activities. Oerlikon is a globally-leading technology and engineering corporation, operating its business in two segments (Surface Solutions and Manmade Fibers) and employing around 11,100 members of staff at 182 sites in 37 countries worldwide. In 2019, Oerlikon generated sales of CHF 2.6 billion and invested more than CHF 120 million in research & development.

For further information: [www.oerlikon.com](http://www.oerlikon.com)

#### About the Oerlikon Manmade Fibers segment

With its Oerlikon Barmag, Oerlikon Neumag and Oerlikon Nonwoven brands, the Oerlikon Manmade Fibers segment is the world market leader for manmade fiber filament spinning systems, texturing machines, BCF systems, staple fiber systems and solutions for the production of nonwovens and – as a service provider – offers engineering solutions for the entire textile value added chain.

As a future oriented company, the research and development at this division of the Oerlikon Group is driven by energy-efficiency and sustainable technologies (e-save). With its range of polycondensation and extrusion systems and their key components, the company caters to the entire manufacturing process – from the monomer all the way through to the textured yarn. The product portfolio is rounded off with automation and Industrie 4.0 solutions.

The primary markets for the product portfolio of Oerlikon Barmag are in Asia, especially in China, India and Turkey, and – for those of Oerlikon Neumag and Oerlikon Nonwoven – in the USA, Asia, Turkey and Europe. Worldwide, the segment – with just under 3,000 employees – has a presence in 120 countries with production, sales and distribution and service organizations. At the R&D centers in Remscheid, Neumünster (Germany) and Suzhou (China), highly-qualified engineers, technologists and technicians develop innovative and technologically-leading products for tomorrow's world.

For further information: [www.oerlikon.com/manmade-fibers](http://www.oerlikon.com/manmade-fibers)

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## GRADO rolls out Anti-Viral Fabrics with NEO TECH® Technology

**1st Textile Company to produce fabrics engineered for protection against viruses and microbes using Neo Tech® technology**

With the intention of creating one mega-brand which caters to a wide range of consumer psychographics, we had invested in bringing together WORSTEDS from the house of OCM and TR/BT-STRETCH fabrics from the house of GBTL (which were earlier marketed under respective brand names – OCM & GRASIM Suiting), under the umbrella brand “GRADO”.

Being a market leader in innovation and excellence, GRADO has been supplying specialty

anti-microbial fabrics to multiple brands - both domestic and abroad. However, in the wake of COVID-19, GRADO has come up with NEO TECH® technology wherein the products are high quality, utilitarian and have a shield against bacteria and viruses alike.



Mr. Rajendra Agarwal, Mentor,  
GRADO

NEO TECH® is a unique technology developed by the Donear group companies, perfected by brand GRADO at its manufacturing units. The fabric is revolutionary and has been certified by top-laboratories such as NABL accredited Bio Tech Services. Leveraging NEO TECH® techniques, GRADO has developed specially designed antiviral and anti-bacterial fabrics that inhibits

growth and retention of micro-organisms, making them safe and hygienic.

GRADO NEO TECH® fabrics have been certified safe to wear/ use for any kind of garment – suits/ jackets/ trousers. These fabrics retain their properties upto even 50 washes, and are suited for everyday wear. Currently, we are geared up to take on bulk orders and should be able to roll out to the market within a few days of lockdown being lifted.

Trusted by their business partners, and known for their legacy- GBTL (formerly GRASIM Suiting and Gwalior Suitings) and OCM under the brand -GRADO has continued to garner a lot of admiration for this new and need-of-the-hour product.

These fabrics have received wide acclaim from multiple industries – hospitality, hospitals, aviation, uniform providers (for schools/ universities/ factories), big-wigs from the retail industry and from the defense sectors. Multiple large-scale production orders from these industries are pouring in too. We have recently closed a large order with a Police Department with a major state of India.

We are also in the middle of running a pan-India TV ad campaign (including ontop-shows like Ramayan and Mahabharata on Doordarshan), educating the consumers about this remarkable product and its benefits.

Commenting on the range, Mr. Rajendra Agarwal, Mentor, GRADO said, "We have been investing in R&D since a very long time. We have

been pioneers in introducing a lot of innovative products in the market in the past as well with products such as STREEZA (4-way stretch fabric), ICE-touch (making you 5 degrees cooler) and Uncrushable (for wrinkle resistance) amongst others, which are continuing to fare extremely well. NEO TECH® is the latest addition to that long list."

He adds, "Given the current world situation, we wanted to be in a position to offer a more hygienic product choice to the market post this lock-down; and what could be better than anti-viral clothing that can be worn by anyone and everyone. We are really happy about the outcome and also feel proud about contributing to the nation during these trying times."

#### About GRADO

The brand GRADO is a coming together of synergies from legacy brands GRASIM Suiting (erstwhile Gwalior Suitings) and OCM, with an intent to offer the entire product basket to the consumers - ranging from synthetics to cottons to worsted, under the same brand umbrella. GRADO had one of the greatest celebrities of Indian cinema, Mr. Amitabh Bachchan as the Brand Ambassador. GRADO caters to maximum product segments and across a range of price; so there is comfort and style for everyone. The product positioning and price points plays an important role in increasing potential for trade thereby, increasing not only the retail size, but stirring the consumer thought set too.

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## ColorJet Launches Initiative Encouraging Printing Industry to Contribute for PM Cares Fund

- » ColorJet launches initiative to encourage industry to help fight against COVID-19
- » ColorJet initiates with a contribution of Rs 5 Lakhs to PM Cares Fund
- » Initiative sees successful response from industry partners across the globe

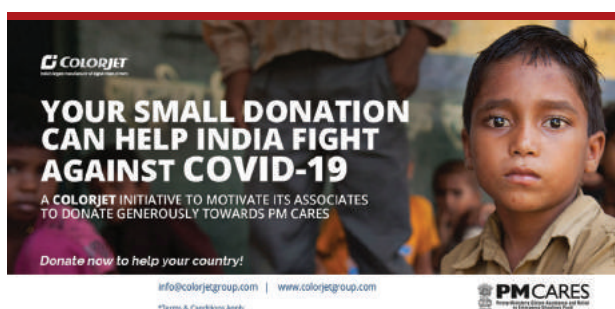
In response to the honourable Indian Prime Minister Shri Narendra Modi's call to donate to the PM Cares Fund, to help fight the Covid-19 menace, wide

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format inkjet digital printer manufacturer Colorjet Group, has started a campaign to help the government by encouraging its associates, customers and industry partners to contribute to the fund.

"People from all walks of life expressed their desire to donate to India's war against COVID-19. Respecting that spirit, the Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund has been constituted. This will go a long way in creating a healthier India. Kindly contribute to the PM-CARES Fund," PM Modi had said while launching the fund.

To kick off this initiative, ColorJet has donated INR 500,000 to the PM Cares Fund and has also created a dedicated page to donate on the ColorJet website. All contributions get directly transferred to the PM Cares Fund, with ColorJet acting only as an intermediate. ColorJet will also be giving certificates of appreciation to all donors.



ColorJet has set a goal to generate contributions amounting to INR 2.5 million and till date the donations have totalled INR 725,816 received from 118 donors, with donations also pouring in from industry partners in UAE, USA, Japan, etc. ColorJet is reaching out to its associates, partners and customers in the inkjet printing industry through conference calls, emails and social media.

"ColorJet being an industry leader has been playing a proactive part in the fight against the Corona Virus pandemic. At the onset of this outbreak, we took several initiatives to protect our employees by maintaining social distancing and regular sanitisation. We decided to launch this campaign to motivate all our industry partners to donate generously for this cause. Only by coming together, we will be able to fight through these difficult and unimaginable times," Mr Smarth Bansal, DGM-Product & Brand at ColorJet said.

"The ongoing COVID-19 crisis is making an unprecedented impact on the world and it is not going to pass in a hurry and it will take its time and toll on us. At this time, when the society is facing such an immense crisis, whatever individual efforts we put is

good, but by coming together, our collective synergy can help overcome this crisis better. We are constantly monitoring the situation and would be ready to cooperate with the government in any capacity to help fight this pandemic," Mr Madhu Sudan Dadu, Chairman at ColorJet added.

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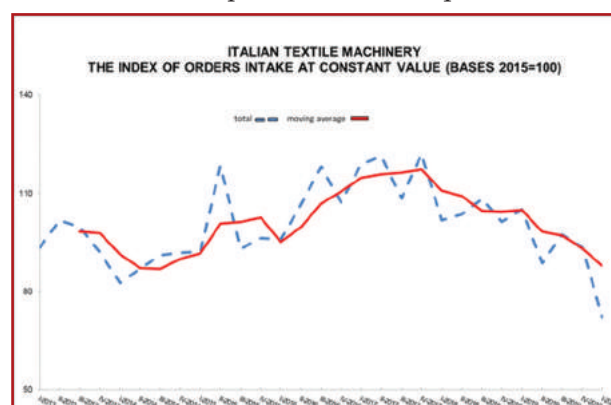


## Italian Textile Machinery : Sharp drop in the 2020 First Quarter

In the first quarter of 2020, the orders intake of Italian textile machinery registered a sharp drop. The Covid-19 pandemic impacts heavily on the sector. The consequences on the orders will be more negative in the second quarter.

The index of orders intake for textile machines drawn up by ACIMIT, the Association of Italian Textile Machinery Manufacturers, for the period from January to March 2020 fell by 31% compared to the same period of 2019. The index value stood at 72.2 basis points (2015 = 100).

Orders intake was negative both on foreign markets and in Italy. In the foreign markets orders were down 26%, while on the domestic market they marked -57% compared to the first quarter of 2019.



"The orders index sank compared to 2019, a year already negative, Alessandro Zucchi, president of ACIMIT says. Indeed in 2019 the Italian textile machinery industry observed a decrease both in production (-13%) and in exports (-14%) compared to the previous year".



Following a difficult year, the Italian textile machinery had to face Covid-19 pandemic, which led, as a first consequence, to the slowdown of the main markets in the sector, China, Turkey and India, in the first month of 2020.

#### **General information on Italy's textile machinery sector and ACIMIT**

ACIMIT represents an industrial sector that comprises roughly 300 manufacturers (employing around 12,000 people), which produce machinery for an overall worth of around 2.3 billion euros, of which 82% are exported. Creativity, sustainable technology, reliability and quality are the hallmarks that have made Italian textile machinery worldwide leaders.

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#### **Sustainable ingredient brand of Aditya Birla Group & Spykar Lifestyle**

Wherein Chefs from Pulp and Fibre business, Aditya Birla Group and Spykar Lifestyles to share inputs

##### **Idea : Innovation in fashion**

**Background :** The pandemic of COVID-19 has brought about a huge change in the fashion industry on many fronts. Online shopping being preferred due to minimum social contact, emergence of anti microbial fabrics, masks turning into a fashion accessory and a need and work from home wear being the new vertical for retailers - are some of changes that the fashion industry has seen. But how does this impact the environment and the businesses in these tough times?

**Anti-microbial fabrics :** Antimicrobial fibres, is a a breakthrough innovation that not only kills viruses and bacteria, but also inhibits their growth, keeping the fabric fresh and hygienic in the long run. It is definitely a leap forward in fashion by successfully injecting antimicrobial agent into Viscose Staple Fibre which when woven or knitted into a fabric offers protection to the wearer from bacteria and viruses, lasting over multiple washes while retaining comfort, fluidity and softness of the fabric.

**Masks :** the production of masks has become a favourite of fashion labels. With quirky, innovative designs and handcrafted with breathable fabrics, many are adding a healthy dose of fashion to the reusable masks

**WFH wear :** WFH wear is undoubtedly a new category in India. Famous brands are repurposing their spring and summer fashion collections as WFH-wear. This vertical is a going to be a permanent feature and increase selection as this culture of WFH is likely to gain momentum.

#### **Online shopping and wish list feature**

The unexpected disruption of covid will give a little flip to the e-commerce for a short term, hyperlocal would be a new norm. The impact of the coronavirus outbreak on the fashion retail segment is more visible when compared to other industries. Also a wishlist allows shoppers to create personalized collections of products they want to buy and save them in their user account for future reference.

**Insights :** Chiefs from Spykar and Liva can offer inputs

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#### **Tencel launched month-long campaign with slogan 'Love Letters To Nature' to observe the World Environment Day**

To observe the World Environment Day, TENCEL™ is running a month-long campaign **Love Letters To Nature** to encourage its users to live a more balanced lifestyle. **Love Letters To Nature** is a unique campaign dedicated to educating and encouraging people to take actionable measures to address environmental issues. The social media campaign will kickstart with a photography submission followed by a series of knowledge sessions with experts and DIY tips and tricks to maintain a quintessential Capsule Closet.

To promote environment responsibility, TENCEL™ will execute this campaign on its Instagram and Facebook handles. Individuals can follow the handles and tag that perfect photograph of nature that inspires them. They can submit their entries on TENCEL™ IG handle tencel\_india and use the hashtags **#Love Letters To Nature**, **#Tencel Capsule Closet**, **#Ecotherapy**.

Additionally, as part of the **Love Letters To Nature** campaign, TENCEL™ will also share little-known facts and information that promotes the longevity of our planet through simple sustainable practices. Throughout the month of June, followers can watch out the social media handles for some quick tips and tricks on how to recycle and reuse items of our closets as part of the **#Tencel Capsule Closet** series. The awareness of recycling, reusing,

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and repurposing fashion can always be a gift to nature, a more responsible practice instead of simply discarding them.

Speaking on the launch, **Arpit Srivastava – Country Marketing and Branding Manager, South Asia & Thailand at Lenzing Group** says, “Our small steps can bring a big difference and there is no better time than now to extend our actions. We continue to focus on our responsibilities towards making environment-friendly life choices now more than ever. Through this campaign, we aim to build awareness and engage with the youth across India who have been and will further bring actionable changes in their habits. For us at Lenzing, sustainability is of utmost importance and the ethos of the brand resonates with the environment day.”

On the occasion of World Environment Day, TENCEL™ will also invite experts across the world for a knowledge exchange — series on InstaLive. Through these sessions, the TENCEL™ team will initiate an open conversation with of the Pause Label and Tricia Carey, the Director of Global Business Development - Denims at Lenzing Fibers. These sessions will explore topics such as the rise of responsible new-age fashion and future trends in the industry, the importance and benefits of recycling and upcycling garments, and the development of sustainable material, as well as, the role of fashion in spreading awareness about environmental degradation. This environment day may be overshadowed by COVID19 crisis that has been a wakeup call for consumers that #Its Time For Nature, the current theme for the World Environment Day.

#### About Lenzing™

The Lenzing Group is an international company that produces high-quality fibers from renewable raw material wood with environmentally friendly and innovative technologies. These fibers form the basis for a wide range of textile and non-woven applications and are also used in work and protective wear and industrial applications. Lenzing's quality and innovative strength set global standards for wood-based cellulose fibers. With 80 years of experience, the Lenzing Group is the only company in the world that produces significant volumes of all three wood-based cellulose fiber generations. □

### World Earth Day - How the fashion industry moves towards sustainability

With the negative impact on the environment creating a global crisis, the fashion industry is looking to take a step towards sustainability. This World Earth Day, let's deep dive into understanding what sustainability means in this industry and how brands can take steps to ensure a better and cleaner approach.

Sustainability is multi-step process, which requires technological advances, modification to processes as well as changes in the raw materials. Although, the word is sometimes treated like a fad, sustainability is actually a long-term process, and the journey to being fully sustainable can take years for brands. Mr. Nelson Jaffery, head of Design, Liva recommends opting for sustainable cellulose based fabrics like viscose and modal, since these fabrics offer great fluidity and sheen. Sustainable fashion is often associated with boxy and rough textures and low style quotient, however, these fabrics ensure great drape and rank high on fashion quotient. Recently, many designers have collaborated and used these fabrics in their collections like Gabriella Demetraides, Gavin Miguel to name a few.

Water pollution is also one of the side effects of the fashion industry. It's important to treat the water off the chemicals and dyes before releasing it in the environment. Also, with technological changes and modifications in the processes, brands can reduce their water consumption as well. Denim is one of the most water intensive industries, however, home-grown brands like Spykar Lifestyles are taking initiatives to make the supply chain and production processes more sustainable. The brand also strives to lower the consumption of natural resources like fuel for energy and water. The chemicals used are bio-degradable and non-hazardous.

Spykar's denims are produced in a government approved facility. All denims that Spykar rolls out are made using environmentally responsible processes right from recycled cotton, washes that require less water to technologically advance dry processes such as laser techniques. The brand uses solar power and relies heavily on latest technology like laser machines, ozone wash technology and cloud wash that has aided the brand to lower the material to liquid ratio considerably. Additionally, Spykar is among the few brands that refrain from using pumice stone while washing, to not disturb the depleting pumice belt. The brand also has a fully functional water treatment plant which ensures no polluted water is released into any natural water source. The water is re-treated/purified and re-used for washing.

This World Earth Day, we urge brands to be more conscious, more sustainable and more responsible towards the environment.

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## TEXTILE EVENTS

### **Blkrsna Media event to organise Virtual Textile Exhibition – BVTEX 2020**

#### **BVTEX 2020 a boon for the Textile Industry**

The COVID-19 outbreak is a human tragedy and has a growing impact on the global economy. The global pandemic has forever changed our behaviors as customers, employees, citizens and humans. Major issues faced by companies are total restriction on domestic and international travel, no customer contact and either cancellation or postponement of regular marketing activities and exhibitions. With these emerging new experiences, companies now have an opportunity to accelerate the pivot to digital platforms and to reimagine their digital strategies to capture new opportunities and digital customers.

To provide a solution to this situation, Blkrsna Media Events Hospitality has organized a Virtual Exhibition especially for the textile industry. The Blkrsna Virtual Textile Exhibition - BVTEX 2020 is expected to take place from 3 Sep 2020 to 6 Sep 2020.

Rajesh Padalkar, Principal Owner of Blkrsna informed "This is a perfect platform for every industry to get in touch with their customers from any part of the world. Even the visitors and potential buyers can be from any time zone on the planet. As no logistics are involved there is a huge cost saving in participation in such virtual events. The 3D immersive environment gives the feel of actually attending a real exhibition. The Exhibitors can display their 3D machine models, interact with customers via text chat or with one-to-one video calls. The visitors on the other hand can be part of the trade fair without having to book flight tickets, visa, hotels and local transportation."

At BVTEX 2020 the Exhibitors can display their posters, brochures and videos, which can even be downloaded by the visitors. There is no restriction on who can man the booth. Out of the 3 persons designated to be on the booth, the first can be from Mumbai, the second can be from Coimbatore and the third can be a foreign Principal from any other country. The Exhibitors can even plan and cater to the demands of their customers from other time zones in the world as BVTEX 2020 is on for all 24 hours a day. BVTEX 2020 is also a good place for the visitors to connect with other visitors and network during the show.

Blkrsna is also open to the idea of Research Institutions tying up with their textile Principals and participate jointly to establish new business avenues and opportunities.

The textile industry has already reacted positively to this event. Mr Ashish Sharma, Vice-President-Marketing, Truetzschler India said "We are already familiar with the indutrie 4.0 standards and BVTEX 2020 surely will take us a step further in the virtual world. It might not be a surprise if all future exhibitions are held virtually. We are looking forward to participate in this unique exhibition."

On the other hand, Mr K P Singh, Director, TeraSpin exclaimed "All other major exhibitions are either cancelled or postponed. Therefore, having a virtual exhibition is the best way to stay in touch with our customers".

Rajesh Padalkar smilingly also informed that "All other events being offered or planned are in the flat 2D format, while BVTEX 2020 is the only event at present offering the truly 3D virtual space at lesser costs. A visitor can actually enter the stall and move around having a closer look at items displayed. For example, if an Exhibitor had displayed a machine then the visitor can actually have a complete 360-degree tour around the machine."

Blkrsna wants BVTEX 2020 to be relevant to the textile industry and its end-users. They are always exploring new means to reimagine and to make its platform vital to all Exhibitors by offering an integrated sourcing platform. Blkrsna believes that all Exhibitors at BVTEX 2020 will be able to have meaningful interaction with their customers on innovative ideas that offer the end users a competitive advantage.

**For further information, please contact :**  
**marketing@blkrsna.com**  
**<https://blkrsna.com/contact-form>** □

### **India's Comprehensive Exhibition on Garment & Textile Machinery, Fabrics, Accessories & Allied Industries**

#### **GARTEX texprocess India**

**21 | 22 | 23 August, 2020**

**Pragati Maidan, New Delhi**

#### **Why Gartex Texprocess India ?**

- » Bagged the title of 'Fastest Growing Show' at Exhibition Excellence Awards 2018.
- » 4th edition concluded successfully with 10,390 visitors from 290 cities across 7 countries.
- » Co-located Denim Show has become the largest denim value chain show in the country.
- » Most comprehensive show in this sector covering the widest range of categories in garment & textile manufacturing solutions.



## TEXTILE EVENTS

- » Denim Talks — a conference that brings together industry experts to share their knowledge on the opportunities, trends and innovations in denim industry.
- » Supported by associations such as SGAI, DMA, CMAI, OGTC & TAI.
- » Held at an Exhibition Centre rather than makeshift venues giving it an edge over other shows.

### Visitor Profile

- » Apparel Brands & Labels
- » Boutique Owners
- » Buying House/Agent
- » Design Studios & Institutes
- » Denim Fabricators & Manufacturer
- » Distributors & Agents of Textile & Garment Machinery & Accessories
- » Dyeing & Finishing Companies
- » Garment & Textile Machinery Importers, Exporters & Wholesalers
- » Garment Manufacturers
- » Home Furnishing Companies
- » Interior Decorators/Designers
- » Knitwear Manufacturers
- » Laundry Operators & Dry Cleaners
- » Leather Goods Manufacturers
- » Local & International Retail Chains
- » Shoe Manufacturers
- » Textile Manufacturers & Designers
- » Textile Printing Houses

### Exhibit Profile

- » Garmenting and textile machinery
- » Digtex – digital textile printing technology
- » Denim
- » Fabrics
- » Embroidery
- » Screen printing
- » Laundry/textile processing
- » Automation and software/services
- » Trims/embellishments and accessories
- » Allied products and services & many more

### Your Next Business Move : Gartex Texprocess India

Gartex Texprocess India is gearing up to hold its 6th edition from 21-23 August, 2020 in New Delhi. Organised by MEX Exhibitions Pvt. Ltd. in association with Messe Frankfurt Trade Fairs India Pvt. Ltd., the show's strong industry network allows international and domestic companies to meet top buyers from the Indian Subcontinent. Demonstrating technological advancements in the garmenting & apparel manufacturing, concurrent shows and focused segments ensure cross-sector, creative and collaborative interactions amongst the

stakeholders. Apart from a wide array of innovative products and latest technologies in textile & garmenting sectors on display, string of seminars & workshops would offer a comprehensive experience to all the attendees as well as trade buyers.

**For further information, please contact :**  
**MEX Exhibitions Pvt. Ltd.**

**9 LGF, Sant Nagar, East of Kailash  
 New Delhi-110065, India**

**Tel : +91-11-46464848**

**Email : info@mexexhibits.com**

**Messe Frankfurt Trade Fairs India Pvt. Ltd.**

**Gala Impecca, 5th Floor, Andheri Kurla Road  
 Chakala, Andheri (E), Mumbai-400093**

**Tel : +91-22-67575990**

**Email : priyanka.pawar@india.messefrankfurt.com** □

## SaigonTex 2020

**Vietnam Saigon Textile & Garment Industry Expo  
 2-5 September, 2020, Saigon Exhibition and  
 Convention Center (SECC), Hochiminh City,  
 Vietnam**

Please be informed that SaigonTex has been postponed to 2-5 September 2020 from 8-11 April 2020 due to the concern of COVID-19 outbreak as the health and safety of the exhibitors are always our first priority.

You are invited to exhibit at SaigonTex 2020 – the Vietnam Saigon Textile & Garment Industry Expo, Vietnam's largest and most influential textile exhibition.

**Vietnam – The 3rd largest garment exporter in the world**

Vietnam is the world's third largest textile and garment exporting country. The export turnover of Vietnam's textiles and garment products is expected to reach \$40 billion USD in 2019, an increase of 10% over 2018.

Strong demand of machines is expected in second half of year when Vietnamese production lines resume to normal. Shortage of textile materials in Vietnam relies on overseas suppliers to provide.

### Remarks :

**Vietnam Hanoi Textile & Garment Industry Expo  
 17-19 December 2020 (not 3-5 Sept) ICE, Hanoi,  
 Vietnam**

**For the details of postponement and registration,  
 Mr Jason Chow in Hong Kong**

**Tel : +852 25117427, Fax : +852 25119662**

**Email : jason@cpxh.com, cpxh@yahoo.com**

**www.sgntex.com** □

## Denim Show announced with new dates for New Delhi and Mumbai editions

With an aim to provide an impetus to denim industry stakeholders in the aftermath of the pandemic, organisers Messe Frankfurt Trade Fairs India and MEX Exhibitions have jointly announced new dates for both New Delhi and Mumbai editions of the Denim Show.

In consultation with various partners, exhibitors and associates, Messe Frankfurt Trade Fairs India and MEX Exhibitions have decided to go ahead with new dates for New Delhi and Mumbai editions of Denim Show which will now take place from 17-19 December 2020 and 19-21 March 2021 respectively. The shows were postponed in view of the rapid escalation in the number of Covid-19 cases, restricting inter-state and international travel.



Denim Show serves as a unique platform where the entire denim fraternity converges to showcase latest products, technologies, and set future trends. Held in association with Denim Manufacturers' Association (DMA), the show helps in furthering the potential of the Indian denim industry by creating a stage through which suppliers and buyers under the denim manufacturing supply chain could avail the benefits of targeted business opportunities. India's position in manufacturing denim is very strong and the Denim Show will act as a catalyst taking it a notch-above to make it more competitive.

Denim is one of the most versatile fabrics known to mankind and its application has moved far beyond just clothing. Keeping this in view, the organisers have crafted this show to meet both contemporary and future needs of this industry. In every edition, exhibitors put forth innovations that add value to this sector, with themes such as circularity of the economy and sustainability driving the show.

The Denim Show encompasses some specially-designed key highlights such as Denim Applications – highlighting rapidly increasing applications of Denim fabrics and textiles; Denim Talks - comprising

a series of talks bringing forth innovation, education & sustainability; Denim Trends - aimed at defining future denim trends; and Denim Walks - showcasing latest fashion trends in denim through a fashion show. The highlights aim to enrich the experience of both exhibitors and visitors by giving them more avenues for participation.

The New Delhi edition of Denim Show will be held at India Expo Mart Ltd in Greater Noida, Delhi-NCR, from 17 - 19 December 2020, while the Mumbai edition has been scheduled from 19 - 21 March 2021 at Bombay Exhibition Center, Mumbai.

Between now and its opening in December 2020, the organisers aim to keep the industry connected through its webinars to draw focus on sustainable measures and support the sector during its recovery phase.

**Press information and photographic material:**

[www.gartexindia.com/denimshow/](http://www.gartexindia.com/denimshow/)

### Background information on Messe Frankfurt

Messe Frankfurt is the world's largest trade fair, congress and event organiser with its own exhibition grounds. With more than 2,600\* employees at 30 locations, the company generates annual sales of around €733\* million. We have close ties with our industry sectors and serve our customers' business interests efficiently within the framework of our Fairs & Events, Locations and Services business fields. One of the Group's key USPs is its closely knit global sales network, which extends throughout the world. Our comprehensive range of services – both onsite and online – ensures that customers worldwide enjoy consistently high quality and flexibility when planning, organising and running their events. The wide range of services includes renting exhibition grounds, trade fair construction and marketing, personnel and food services. Headquartered in Frankfurt am Main, the company is owned by the City of Frankfurt (60 percent) and the State of Hesse (40 percent).

For more information, please visit our website at: [www.messefrankfurt.com](http://www.messefrankfurt.com)

\*preliminary figures 2019

### MEX Exhibitions Pvt Ltd

MEX Exhibitions Pvt. Ltd. is an international exhibition company with a strong presence of over four decades in the advertising industry, more than 21 years in publishing & 17 years in exhibitions. The company has produced more than 100 market-leading trade exhibitions for various segments in addition to publishing various magazines & advertising trade directories of repute. Successful exhibitions are conducted all over India, Dubai, Singapore and Thailand.

**For further information, please contact :**

**Parul Diwan, Assistant Manager - PR**

**+91 8447830462**



# COMPACTdrum – The next step from the inventor of compacting

The compacting device COMPACTdrum for the Rieter ring spinning machine is easy to install and remove. It adds a new dimension to reducing hairiness, which impresses customers along with the very low production costs. The device processes all raw materials and covers all yarn counts.

[www.rieter.com](http://www.rieter.com)





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## Rieter Management AG

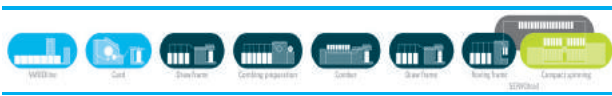
### Get the Most Out of Your Spinning Mill

#### Earn More Money with a Rieter Compact-Spinning System

The current situation caused by COVID-19 means priorities in the spinning industry have shifted. It is essential to get the best out of existing systems. But there will also come a time after COVID-19, in which investments will be made in new systems; such as in the Rieter compact-spinning system, which enables a significantly higher cash flow.

The Rieter compact-spinning system with the high-performance card C 80, comber E 90, ring spinning machine G 38 and the compacting device COMPACTdrum is known for very good yarn quality, the highest possible level of flexibility and low production costs. A complete Rieter system draws on Rieter's expertise throughout the entire spinning process: from raw material to yarn.

What factors influence production costs? In this example, a compact-spinning system is used to produce combed cotton yarn with a count of Ne 60 for shirting fabrics (Fig. 1). A Rieter system is compared with a "mixed spinning mill" equipped with machines from different manufacturers. Rieter systems are most impressive when it comes to raw-material utilization, energy requirements as well as personnel and space requirements. The cash flow generated demonstrates the outstanding economy of the complete system, which is perfectly synchronized and is supplied from one source.

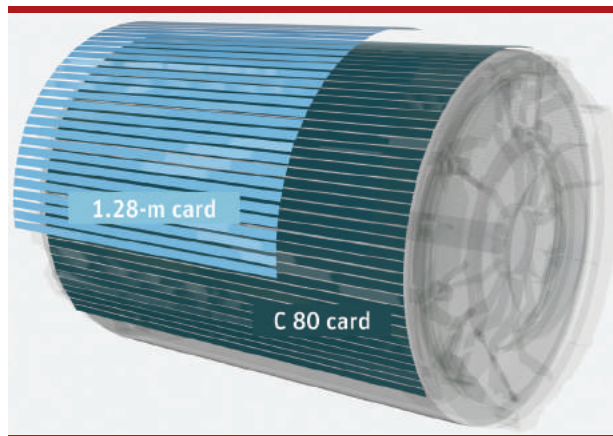


The process sequence for the Rieter compact-spinning system used.

### Good Raw-Material Utilization

Optimal raw-material utilization is achieved in the blowroom line VARIOline thanks to the combination of microtufts, the function VARIOset and progressive cleaning. An efficient blowroom process is dependent on the raw material being well opened from the outset. The automatic bale opener A 12 is capable of breaking down the bales into microtufts. The removal of trash and dust from small tufts in the downstream blowroom process is considerably more efficient and gentle. On the high-performance cards C 80, the maximum technological carding area with 40 active flats and a working width of 1.5 meters as well as the pre- and post-carding zones that can

be equipped individually ensure reduced loss of good fibers while retaining the same sliver and yarn quality (Fig. 2). High-quality technology



The high-performance card C 80 with the largest active carding area allows low loss of good fibers while retaining the same sliver or yarn quality.

components and optimally coordinated combing movements on the comber E 90 (Fig. 3) allow reduced noil extraction while retaining the same yarn quality. Over the entire spinning process, this results in a raw material saving of 1%.



The comber E 90 guarantees maximum raw material utilization.

### The Energy Saver

Rieter compact-spinning machines save energy. This also applies to Rieter ring spinning machines combined with compacting device COMPACTdrum (Fig. 4). The sieve drum of the compacting device that compresses (i.e. compacts) the fibers has been optimized and the compacting zone reduced to the necessary minimum. The energy required for compression is therefore very low, at around five to eight watts lower per spindle than that of compacting solutions from other suppliers. With energy-efficient drive concepts and innovative machine components throughout the



process, the Rieter system is capable of offering 10% energy savings – all the while maintaining the highest possible levels of productivity.



The compacting device COMPACTdrum requires five to eight watts less energy per spindle for compressing the fibers compared to compacting solutions from other suppliers.

### Reduced Personnel and Space Requirements

The high productivity of Rieter machines allows a reduction in the number of machines, thus saving a lot of space compared to a process using a “mixed system.” In the case study mentioned above, the Rieter spinning mill requires one compact-spinning machine, one autoleveler draw frame, one comber and two cards fewer than the “mixed system.” Space-saving machine concepts, such as for draw frames, also lead to a more compact spinning mill layout. This allows space savings of approximately 7% (750 m<sup>2</sup>) – and therefore lower building investment and maintenance costs.

Thanks to the reduced number of machines and therefore a reduced operator workload, the automatic roving bobbin transport system SERVOTrail and user-friendly machines with a uniform design, 6% fewer personnel are required and can therefore be used for more efficient tasks.

### Higher Cash Flow Thanks To Lower Production Costs

Taking raw-material utilization, energy and labor costs, interest rates, yarn and noil sales and ongoing operating costs into consideration, the total production costs calculated for the Rieter system for the combed compact-spinning process are lower than for a solution from different suppliers. This means that customers who invest in the Rieter compact-spinning system as per the example shown generate a cash flow that is around USD 250 000 per year higher than that of customers who opt for a “mixed spinning mill” (Fig. 5).

### ADDITIONAL CASH FLOW WITH THE RIETER SYSTEM: AROUND USD 250 000 PER YEAR

✓ Space requirement -7%	✓ Raw material utilization +1%
✓ Energy consumption -10%	✓ Personnel requirement -6%

Calculation basis: yarn production 413 kg/h; raw material costs: 1.80 USD/kg; energy costs: 0.074 USD/kWh

Customers who choose the Rieter compact-spinning system generate a cash flow that is USD 250 000 higher per year.

### Maximum Flexibility as an Additional Advantage

The combination of the ring spinning machine G 38 with the compacting device COMPACTdrum is ideal for customers who appreciate flexibility in yarn production. COMPACTdrum makes it easy to change between ring and compact yarn, because the compacting device can be easily attached and removed from the ring spinning machine. COMPACTdrum can be supplied with a new ring spinning machine, and existing Rieter ring spinning machines can be retrofitted. In addition, the G 38 is capable of producing high-quality special yarns. Thanks to the integrated VARIOspin system for slub yarns, which is integrated in every G 38, the customer can change between standard and slub yarns simply at the touch of a button. The G 38 with COMPACTdrum is suitable for all raw materials and yarn counts.

### About Rieter

Rieter is the world's leading supplier of systems for short-staple fiber spinning. Based in Winterthur (Switzerland), the company develops and manufactures machinery, systems and components used to convert natural and manmade fibers and their blends into yarns. Rieter is the only supplier worldwide to cover both spinning preparation processes and all four end spinning processes currently established on the market. Furthermore, Rieter is a leader in the field of precision winding machines. With 16 manufacturing locations in ten countries, the company employs a global workforce of some 4 590, about 21% of whom are based in Switzerland. Rieter is listed on the SIX Swiss Exchange under ticker symbol RIEN.

For further information, please contact :

**Rieter Management AG**

**Media Relations**

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**media@rieter.com, www.rieter.com**





## SCIENCE IN INDUSTRY

## Oerlikon

**WINGS HD and eAFK Big V assures efficient production of high-tier products using the POY and DTY process****Home textiles made from bulky polyester filament yarn**

Home textiles directly influence the feel-good factor of our personal surroundings. Being pleasant to the touch, soft and extremely aesthetic, highly-bulky upholstery fabrics for furniture, decorative fabrics and wall textiles, drapes and pleated curtains and even carpets can support and express our lifestyles and personalities. High-quality textiles for our beds, bathrooms and tables are frequently matter-of-fact for many of us. And high-end yarns are also used in the automobile industry – for seat upholstery, interior cladding and floor covering in cars. Often, they have to withstand heavy demands. For this reason, the yarn quality of the high-titer yarns must be correspondingly high.

To date, DTY yarns up to 1200 den and with up to 784 filaments have, as standard, been plied from four POY 300d/192f bobbins using DTY machines. However, this process has a fundamental disadvantage : half of the texturing machine's available winder positions are not used. And – in terms of machine efficiency – this is an unsatisfactory state of affairs.

Here, Oerlikon Barmag offers yarn manufacturers a highly-efficient solution: the spinning concept with WINGS HD winding unit in conjunction with an automatic eAFK Big V Multispindle texturing machine is currently the only system on the market for manufacturing excellent-quality high-titer yarns with maximum machine efficiency.


**WINGS HD – superb efficiency and functionality**

12 POY packages of up to 600d/576f (final) are produced in the spinning process using WINGS HD 1800. This is made possible as a result of an additional godet, which ensures that



**DEVELOPED FOLLOWINGS TO IMPROVE YARN QUALITY BY MINIMUM 20 % IN IPI & CLASSIMAT**

From The Result of 36 mm Short Cradle & 43 mm Medium Cradle

AGMA Cradle	Cradle Size & Colour	For Top Arm	Yarn Type	Can be Used for
	AGMA - 43* Black Colour	Rieter / Lakshmi P3-1	Normal, Milange, Slub, Licra, Eli Twist & Compact	100 % Cotton, P/C, 100% Viscose P/V Blend Up to 44 mm Cut Length
	AGMA - 40.5* Light Green Colour	Rieter / Lakshmi P3-1 Sussen Top Arm	Normal, Milange, Slub, Licra, Eli Twist & Compact	100 % Cotton, P/C, 100% Viscose P/V Blend Up to 40 mm Cut Length
	AGMA - 50* Light Blue Colour	Rieter / Lakshmi P3-1 (For Medium Cradle Drafting)	Normal, Milange & Slub	100% Viscose P/V Blend Up to 51 mm Cut Length

**Note : No Change in Ring Frame Performance, CSP or RKM.**

**AGMA PRODUCTS**

agmaproducts@gmail.com / + 91 95666 54983

**Off : + 91 95666 54983**

13/25, Sivasubramanian Nagar  
Nehru Nagar West  
Civil Aerodrome Post  
Coimbatore - 641014  
Tamil Nadu, India

**AGMA PRODUCTS**

**Raju Govindasamy**  
+91 87547 64179  
agmaproducts@gmail.com

AGMA Cradle	Cradle Size & Colour	For Top Arm	Yarn Type	Can be Used for
	AGMA - 40.1* Yellow Colour	SKF & TEX PARTS PK 225, PK 2025	Normal, Milange, Slub, Licra & Compact	100 % Cotton, P/C, 100% Viscose P/V Blend Up to 40 mm Cut Length

**SPACER - DISTANCE CLIP**

A) Single Spacer from 2.50 mm to 6.00 mm

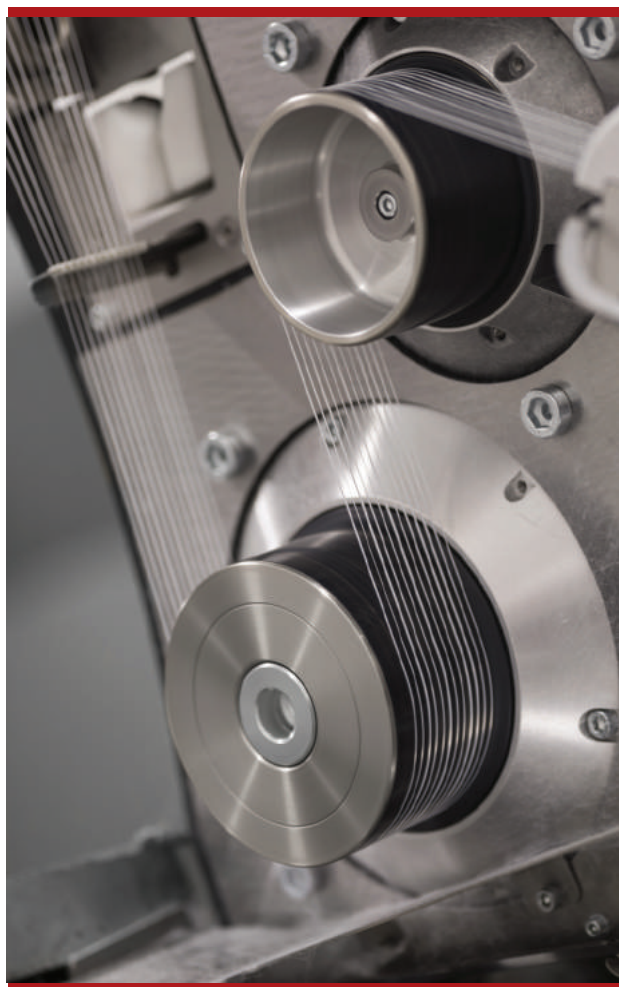
B) Twin Spacer from 2.50 / 2.75 mm to 6.00 / 6.25 mm

**AGMA Saddle Gauge**

For Rieter / Lakshmi P3-1  
Normal Top Arm & P3-1 Top Arm  
with Sussen Compact Conversion

the high yarn tensions developing in the process are reduced to the yarn tensions common in the case of the winding process to date. At the same time, the newly-developed suction unit with the accompanying yarn cutting device (yarn collecting system) ensures – both during string-up and in the event of a yarn break – reliable handling of the yarn with an overall titer of 7,200 den (final) and 6,912 filaments.

With this, the Oerlikon Barmag eAFK Big V Multispindle machine uses all winder positions and hence has the full production capacity at its disposal for manufacturing DTY yarns of 1200 den with up to 1152 filaments. Multiple plying of individually-spun filaments to create a high overall titer fundamentally impacts yarn quality. With the Oerlikon Barmag concept, this is minimized by plying the highest titers possible.



Superbly suited to the efficient production of high-titer yarns : the Oerlikon Barmag concept comprising WINGS HD and eAFK Big V.

### eAFK Big V Multispindle – productive and yarn-gentle

The eAFK Big V Multispindle texturing machine is based on the tried-and-tested eAFK Multispindle concept, with two individual friction rows. The high individual titers of up to 600 den per single filament can be textured using more powerful godet motors, a more powerful friction unit and a 2.5-m heater. The straight configuration of heater and cooling unit ensures particularly gentle yarn handling with a simultaneous drawing/ crimping process. This is especially important for producing delicate microfilament yarns of the best quality. Thanks to this multiple configuration, 576 texturing positions can be efficiently utilized when manufacturing high-titer yarns, which are then taken up using all 288 positions. And the machine is particularly efficient in the high titer range of between 900 and 1200 den. Here, the operating window of between 30 and 1200 den offers yarn manufacturers maximum flexibility. The eAFK Big V texturing concept was launched in 2018, and has already convinced numerous yarn manufacturers with its performance.

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### Oerlikon offers new secured remote services

To increase system productivity and to keep service downtimes as short as possible, remote servicing has long been absolutely essential within a globally networked textile industry. For its Oerlikon Neumag and Oerlikon Nonwoven brands, the Oerlikon Manmade Fibers segment is offering a new secured remote service concept with defined loan-based hardware and software.

A remote connection with remote access to the systems creates new service options that would not have been possible over the phone or by e-mail. With remote servicing, unplanned downtimes and



## SCIENCE IN INDUSTRY

the associated production stoppages – which can quickly result in costs running into the tens of thousands – are significantly reduced. Here, the standards for IT security and the requirements for IT components are becoming increasingly decisive. For these reasons, it is all the more important to ensure the requisite hardware and software are constantly up-to-date.



A remote connection with remote access to the systems creates entirely new service options. Unplanned downtimes and the associated production stoppages are significantly reduced.

Upon signing a secured remote service contract, Oerlikon Manmade Fibers provides its customers with the necessary hardware and software, exchanges the hardware in the event of changes to security requirements and supplies continuous software updates. “Within the context of a secured remote service contract, we loan the hardware to our customers. This means that our clients do not have additional procurement costs and they do not have to worry about ensuring their technology is constantly up-to-date in terms of security requirements. We assume this task for them”, explains Jan Pauer, Technical Sales Manager responsible for modifications, talking about the benefits of this service concept.

Secured remote service contracts are offered for all Oerlikon Neumag and Oerlikon Nonwoven systems and are available with additional, customer-specific services.

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### Commissioning of polycondensation system rounds off total industrial yarn solution

The Oerlikon Barmag Huitong Engineering joint venture, part of the Oerlikon Manmade Fibers segment, recently commissioned a polycondensation system which feeds a polyester industrial yarn system. The future operator will be industrial yarn manufacturer Jiangsu Solead New Material Group Co. Ltd., which is placing its trust in the Oerlikon Manmade Fibers ‘From Melt to Yarn’ total solution philosophy.

This successfully concludes the first phase of this major project. Oerlikon Barmag Huitong Engineering installed the polycondensation system, which was a capacity of 600 tons a day,

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 Website : [www.beaelectronics.com](http://www.beaelectronics.com)





at Jiangsu Solead New Material Group Co. Ltd. in the Chinese Jiangsu Province. This will be connected to an Oerlikon Barmag industrial yarn spinning system with a 350-ton-a-day capacity. The new systems will be deployed to produce predominantly high-tenacity (HT) yarns for use in agricultural, infrastructure, transport, security



With the commissioning of the polycondensation system the Industrial Yarn project at Jiangsu Solead becomes a Total Solution 'From Melt to Yarn'.

and outdoor applications. These systems can be used to manufacture yarns with up to  $3 \times 6,600$  dtex of high yarn quality with simultaneously high production efficiency. Furthermore, low-shrinkage yarns for coating textiles and so-called LDI yarns (high-tenacity, low-denier industrial yarns) for industrial sewing yarns, among other things are also manufactured.



The field of application for Industrial Yarns is diverse. Jiangsu Solead produces predominantly high-tenacity (HT) yarns on Oerlikon Barmag systems.

### Total solution from a single source

In addition to the polycondensation system, the extrusion equipment and spinning system,

solutions provider Oerlikon Manmade Fibers is also supplying the complete engineering. The advantage for the customer optimally harmonized process steps ensure high-quality yarn under economical production conditions.

### About Oerlikon

Oerlikon (SIX: OERL) develops modern materials, systems and surface technologies and provides specialized services aimed at securing high-performance products and systems with long lifespans for customers. Supported by its technological core competencies and its strong financial footing, the corporation continues its medium-term growth plan by implementing three strategic factors: focusing on attractive growth markets, ensuring structural growth and expanding through targeted M&A activities. Oerlikon is a globally-leading technology and engineering corporation, operating its business in two segments (Surface Solutions and Manmade Fibers) and employing around 11,000 members of staff at 182 sites in 37 countries worldwide. In 2019, Oerlikon generated sales of CHF 2.6 billion and invested more than CHF 120 million in research & development.

For further information: [www.oerlikon.com](http://www.oerlikon.com)

### About the Oerlikon Manmade Fibers segment

With its Oerlikon Barmag, Oerlikon Neumag and Oerlikon Nonwoven brands, the Oerlikon Manmade Fibers segment is one of the leading providers of manmade fiber filament spinning systems, texturing machines, BCF systems, staple fiber systems and solutions for the production of nonwovens and – as a service provider – offers engineering solutions for the entire textile value added chain.

As a future oriented company, the research and development at this division of the Oerlikon Group is driven by energy-efficiency and sustainable technologies (e-save). With its range of polycondensation and extrusion systems and their key components, the company caters to the entire manufacturing process – from the monomer all the way through to the textured yarn. The product portfolio is rounded off with automation and Industrie 4.0 solutions.

The primary markets for the product portfolio of Oerlikon Barmag are in Asia, especially in China, India and Turkey, and – for those of Oerlikon Neumag and Oerlikon Nonwoven – in

## SCIENCE IN INDUSTRY

the USA, Asia, Turkey and Europe. Worldwide, the segment – with just under 3,000 employees – has a presence in 120 countries with production, sales and distribution and service organizations. At the R&D centers in Remscheid, Neumünster (Germany) and Suzhou (China), highly-qualified engineers, technologists and technicians develop innovative and technologically-leading products for tomorrow's world.

For further information: [www.oerlikon.com/manmade-fibers](http://www.oerlikon.com/manmade-fibers)

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## Lenzing Group

## Lenzing &amp; Ruby Mills in together produce sustainable Fabrics to fight COVID19

**"Leverages technology to manufacture sustainable antiviral fabric"**

Lenzing India and Ruby Mills Ltd have come together to present H+ Technology™ – for an antiviral, antibacterial and antifungal fabric. This breakthrough comes at a crucial time when India is facing an increasing number of cases. H+ technology's efficacy has been tested and the findings successfully indicate that viruses and microbes won't survive on the surface of the fabric that's been treated with it – thus helping to arrest the spread of the virus.

Over the past few weeks, Lenzing and Ruby Mills have invested considerable time to put together a range of sustainable fabric that has anti-viral and anti-microbial properties and doesn't

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compromise on hand-feel, breathability & finish – which makes H+ technology fabrics unique. H+ Technology™ also works across a wide range of pure as well as blended fabrics. H+ Technology™ with LENZING™ ECOVERO™ and TENCEL™ means performance to finish on sustainable fibers.

At the very core of this technology is the active ingredient that kills over 99% of the H1N1 Influenza virus (the family of Novel Coronavirus) on contact and provides lasting protection for up to 30 washes, thus ensuring effective protection against transmission of virus.

**Avinash Mane, Commercial Head – South Asia, Lenzing** commenting on the development, said “Through this partnership with Ruby Mills, we aim to provide our citizens with the best possible protection through high-quality and sustainable products. We are working towards breaking the barrier that fabrics and textiles are carriers of diseases and viruses. At Lenzing, we believe in innovation and investment in technology to offer products that are high in performance and yet at the same time are part of the circular economy. Consumers can be rest assured that apparels with the tag of TENCEL™, LENZING™ ECOVERO™ and H+ technology™ will be safe to wear”.

**Rishabh Shah, President, The Ruby Mills Limited** commenting on the development, said “Most anti-microbial finishes have significant limitations – they become ineffective after multiple washes, and they hamper the fabric’s comfort and hand-feel. In our continuous pursuit for perfection and quality, we developed H+ Technology™ fabrics, by extending our processing expertise and know-how to ensure that the protection lasts wash after wash and the hand-feel, breathability and colour are not compromised.

We believe our H+ Technology™ fabrics have a wide range of applications across sectors and is significantly superior and most relevant in the times that call for heightened protection in everyday life.”

Creators of H+ Technology™, The Ruby Mills Limited has been one of the most respected vertically integrated textile mills known for fabric quality, consistency and innovation since 1917. Headquartered in Mumbai, listed on both the BSE and the NSE, Ruby Mills, aimed at enabling customers with H+ Technology™ and is working on bringing this to the consumers in collaboration

with the Lenzing Group, an innovation leader, that stands for the ecologically responsible production of specialty fibers made from the renewable raw material wood. TENCEL™ and ECOVERO™.

#### About Lenzing Group

The Lenzing Group stands for the ecologically responsible production of specialty fibers made from the renewable raw material wood. As an innovation leader, Lenzing is a partner of global textile and nonwoven manufacturers and drives many new technological developments. The Lenzing Group’s high-quality fibers form the basis for a variety of textile applications ranging from elegant ladies’ clothing to versatile pieces of denim and high-performance sports clothing. Due to their consistent high quality, their biodegradability and composability Lenzing fibers are also highly suitable for hygiene products and agricultural applications.

The business model of the Lenzing Group goes far beyond that of a traditional fiber producer. Together with its customers and partners, Lenzing develops innovative products along the value chain, creating added value for consumers. The Lenzing Group strives for the efficient utilization and processing of all raw materials and offers solutions to help redirect the textile sector towards a closed-loop economy.

#### About Ruby Mills Limited

The Ruby Mills Limited, has been Leaders in Fabric Engineering and Interlining since 1917. Owners and creators of iconic fabric brands such as Busy Lizzie and Lustrous Venture, Ruby Mills is one of the most respected players known for fabric quality, consistency and innovation. Ruby Interlining Vertical, developed in joint collaboration with Gygli AG since 1996, Ruby Interlining has a large retail and B2B footprint, with products being benchmarks in the Industry. As a company listed on BSE and NSE, Ruby Mills is playing a significant role in promoting sustainable fabrics developed using regenerated cellulose. Headquartered in Mumbai with factories in Maharashtra, Ruby Mills has presence in Fabric, Real estate, Interlining and Apparel verticals.

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## SCIENCE IN INDUSTRY

## Mayer &amp; Cie GmbH &amp; Co. KG

## Mayer &amp; Cie to showcase three machines at ITM

This year's ITM textile machinery fair is scheduled for 14 to 18 July in Istanbul. It was postponed due to the spread of the coronavirus and the July dates are by no means certain, but Mayer & Cie. (MCT) is still going ahead with preparations for a trade fair that for the German circular knitting machine manufacturer is almost as important as the ITMA, albeit on a smaller scale. Three machines are to be on show: the D4 2.2 II, the OV 3.2 QCe and the Relanit 3.2 HS. The two Double Jersey machines target the strong demand for rib and interlock structures, while the Relanit is a traditional favourite with Turkish customers.

## Preparations optimal, outlook uncertain

"Turkey is one of the markets where demand for our products is strongest, which makes the ITM so important for us," says regional sales manager



Stefan Bühler. "Even though, as matters stand, we don't yet know whether or quite when the trade fair will take place we are, of course, preparing for it to the best of our ability."

Together with its local agency Mayer Mümessilik, which for decades has represented

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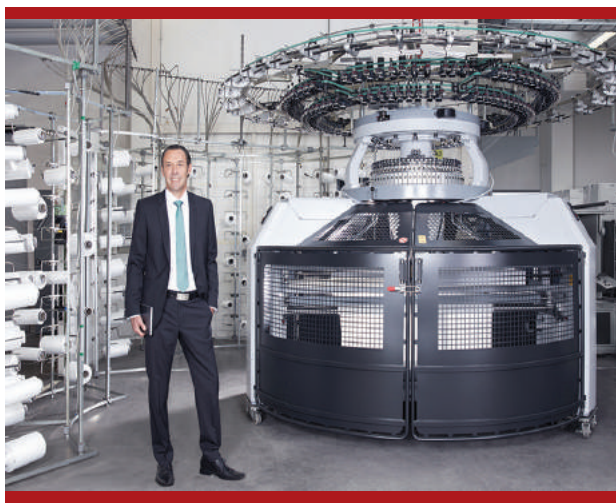
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Mayer & Cie. successfully on the Bosphorus, the company has gained a leading position in the Turkish market for circular knitting machines. Orders may have declined in the lean period for the entire textile machinery market from mid-2018 onward, but when business picked up again at the end of 2019 and the beginning of 2020 Turkish customers were keen to invest and their orders gave the order books a distinct boost. "In addition," Bühler says, "we benefited from the desire for shorter supply chains that the spread of the coronavirus triggered. That effect has since petered out, of course." Both in Central Europe and in Turkey the number of people who have caught the coronavirus is on the increase, public and economic life is severely restricted and readiness to invest is minimal.

#### Perfect-fit portfolio of knitting machines

"In principle we see a trend toward Double Jersey machines in Turkey," says regional sales manager Bühler, "and the choice of machines we plan to exhibit at the trade fair is geared to that trend." Exhibit No. 1, the D4 2.2 II, is a tried and tested model used by customers to manufacture eight-lock and rib structures. Knitters are appreciative of the machine's productivity and reliability, especially in elastomer plating. The D4 2.2 II, which knits very fine gauges (up to E40), also makes spacer fabrics. The finished materials are used in fashion and sportswear.



The second exhibit, an OV 3.2 QCe, is similar to the D4 2.2 II in its range of uses and its popularity. It too produces eight-lock and interlock structures and spacers as well as gauges as fine as E40. Its special feature is the Quick Change easy system,

which makes changing cylinder and dial quick and easy. The OV 3.2 QCe is also available in an industrial and a giant frame.

The Relanit 3.2 HS, the third ITM machine, "is an old acquaintance among knitters, both globally and in Turkey" Stefan Bühler says of the relative technology machine. Capable of up to 50 rpm on a 30-inch model, it is known in the market for being extremely reliable, delivering good results even with highly fluctuating yarn qualities. At this year's ITM, the Relanit 3.2 HS is to be presented to trade visitors with the Mayer Cleaning System (MCS). A current of air flows between the needle and sinker channels and the tongue bearing. Less fluff is deposited as a result, leading to an up to two and a half times longer needle service life, depending on the yarn used. Needle oil consumption is reduced by up to a third too.

With their portfolio of machines Mayer & Cie. and Mayer Mümessilik feel well positioned for the ITM even if a further postponement proves necessary. Stefan Bühler sounds a positive note, saying that "we hope the measures to contain the spread of Covid-19 are effective and we will gradually be able to return to normal working conditions. We look forward to being able to present our portfolio to our customers once the crisis is over."

#### About Mayer & Cie.

Mayer & Cie. (MCT) is a leading international manufacturer of circular knitting machines. The company offers the entire range of machines required for making modern textiles. Fabrics for home textiles, sportswear, nightwear and swimwear, seat covers, underwear and technical uses are made on MCT knitting machines. Furthermore, Mayer & Cie. regularly develops new approaches underlining its leadership in technology.

Since 2019, Mayer & Cie. has augmented its portfolio by braiding machines which produce sheathings for hydraulic tubes used in aviation, automotive industry as well as in further, very specific fields of applications.

Founded in 1905, Mayer & Cie. generated sales of EUR 90 million in 2019 with about 400 employees worldwide, according to preliminary figures. In addition to its headquarters in Albstadt, Germany, where around 300 people



## SCIENCE IN INDUSTRY

work, and subsidiaries in China and the Czech Republic, sales partners for circular knitting and braiding machines in around 80 countries represent Mayer & Cie.

[www.mayercie.com](http://www.mayercie.com) <<http://www.mayercie.com>>

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Mayer, Benjamin



## Mimaki

**Digitak, an Italian Company provides services always in Fashion with Mimaki sublimation and direct printing**

- » Specialised in dye-sublimation printing, the Italian company has conquered the heights of the high fashion sector with its top-quality printed fabrics.
- » With its recent investment in a direct-to-fabric printing line, Digitak is preparing to expand its range of printed products, focusing on fabric differentiation.

Dye sublimation printing of high fashion designs is the beating heart of Digitak, an Italian company specialised in digital textile printing. Operating in the textile district of Lombardy, Italy, the company has established itself among the main suppliers in the world of high fashion and sportswear in just under 15 years.

Making production versatility one of the cornerstones of its philosophy, Digitak has continued to invest in technology, as well as research and development its product portfolio. This forward-thinking approach has enabled the company to guarantee innovative, personalised products with meticulous attention to detail, with the highest – almost obsessive – standards



Filippo Taccani, founder and owner at Digitak, in the company's production department, featuring an arsenal of Mimaki's printing solutions of quality and maximum design flexibility. Over the years, the extensive experience gained by the company's management in



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the field of sublimation with traditional and digital techniques, combined with their investment decisions have allowed Digitak to enhance its production performance, gradually implementing higher quality standards and differentiating itself from the competition in the complex and competitive sector of high fashion. An important feat, which has not, however, dampened its enthusiasm and willingness to continue growing and exceeding its goals. The company's latest investment in a direct-to-fabric digital printing line with pigment ink propels the company into a new and promising production dimension.

### Sublimation printing specialists

Since Digitak's establishment, Filippo Taccani, the founder and current owner of the company, had set himself a clear and ambitious objective: "I wanted to take up the challenge of operating digitally - printing fabrics using this innovative technology to create products on a par with those I had achieved with traditional sublimation textile printing methods during my previous work experience."

The purchase of a Mimaki JV4 plotter, one of the first to be installed in Italy, marked the beginning of Digitak's adventure. "To start the business, I needed a printing system that could operate with dispersed inks to print on polyester and I found the JV4 to be the best option," explains Taccani. "It was an excellent decision, because I used these plotters to build the company and its success."

The first Mimaki plotter was in fact followed by a second and a third. When it bought the fifth, the company moved to an industrial unit in Tradate (Varese) – Digitak's current site – which now houses around fifteen Mimaki JV33 plotters, in addition to three Mimaki TS500-1800 wide-format sublimation printers, and a Mimaki TS300P-1800 high-speed sublimation printer. This Mimaki powered production facility – which is one of the company's core strengths – was recently expanded with the addition of a Mimaki TX300P-1800B belt-type hybrid printing system, together with a Mimaki TR300-1850C textile coater and a Mimaki Tiger-1800.

"Naturally, over the years, we have also tested printing systems from other suppliers, but we have always returned to Mimaki. With high fashion as our key market, we need to guarantee our customers the highest levels of quality and, to date, we have never found solutions that beat the quality of this Japanese brand's technology."



Digitak's current Mimaki powered production facility houses around fifteen Mimaki JV33 plotters, as well as a Mimaki TS300P-1800 and three Mimaki TS500-1800 sublimation printers. A Mimaki TX300P-1800B hybrid printer combined with a Mimaki TR300-1850C textile coater, and a Mimaki Tiger-1800 complete the company's equipment

According to Taccani, the difference lies in the "calligraphy" of Mimaki's machines, that is the line of the ink on the fabric: "Unlike its competitors, Mimaki has focused on the 'waveforms', i.e. the electronics associated with the print heads. This attention paid to the way the ink jet is managed from the print head has allowed Mimaki to achieve unparalleled levels of accuracy, an aspect that has given my company a clear competitive edge."

Moreover, at Digitak, quality comes before quantity: "We prefer to dedicate an extra day to production to guarantee the customer a final product that fully meets requirements and expectations. Mimaki's technology not only suits this business model built on top quality, but it crucially enables it."

### Operational and creative flexibility

Digitak currently prints around 2,000 linear metres of fabric per day. Its portfolio ranges from

## SCIENCE IN INDUSTRY

clothing and scarves, to beach and swimwear, with related personalised accessories, to sportswear, with technical properties such as breathability, comfort, resistance to external agents. The company have even added customised outdoor furniture to their offering of diverse and creative products.

The company's machines operate continuously, 24/7. During the day, the machines are mainly used to develop and produce samples and colour proofs, while the actual production is carried out at night. "Thanks to our technology, we have developed an extraordinary operational flexibility. The fact that we have so many plotters allows us to work on multiple designs at the same time and to launch projects that are also very different from one another," explains Taccani. "There are also some other crucial factors that have contributed, and continue to contribute, to increasing our production efficiency. The reliability of Mimaki's solutions and the remote monitoring option offered is key. Once the standard start-up monitoring has been carried out and the machines are found to be printing correctly, we can let them work overnight without an operator. This is a great benefit for people who, like us, manage such a large and diverse fleet of machines."



Mimaki's machines at Digitak operate continuously, 24/7. During the day, the machines are mainly used to develop and produce samples and colour proofs, while the actual production is carried out at night

Digitak takes the same approach to customer service. Faced with an increasingly demanding market in terms of creativity, precision and completeness of service, the company wants to guarantee flexibility and customisation. "We decided to set up a department dedicated to the pre-press stage, in charge of preparing and checking the files supplied by customers. Seldom do our teams not need to do some editing of the files supplied, even if it's only to make small changes that are essential for the print document to be as suitable as possible and to achieve the best final result."

### Technologies of the future

With a view to further enhancing production and customer service, Taccani has chosen to take on a new challenge, switching things up with some of the most recent investments.

While maintaining the focus on dye sublimation printing, Taccani has focused on technological diversification by installing a direct-to-fabric digital printing line. This consists of a Mimaki TX300P-1800B printing system with pigment inks and a TR300-1850C coater from Mimaki's TR series. "The market continues to evolve and now requires even more flexibility regarding both processes and the fabrics supplied. This means that great opportunities exist for a print shop capable of simultaneously producing the same design—with minimal colour adjustment—on different fabrics, guaranteeing similar and accurate results. And this is precisely the path we are taking," says Taccani. "Why have we opted for Mimaki again? Well, I had an opportunity to try out their new pigment inks and I immediately realised that they are a generation ahead of the other pigments available on the market. The cyan is very clean, the black is deep and there is a very interesting fullness of colour, suitable not only for furnishings, but also for other applications in the clothing sector."

With its pigment inks, the new direct-to-fabric printing line allows Digitak to explore

other related market segments. Thanks to the innovative automatic belt system, the TX300P-1800B guarantees good productivity and high-quality results. A standard of quality that is also boosted by the TR300-1850C fabric pre-treatment system: "This coater is essential for ensuring the best possible preparation of fabrics for printing. In fact, we are able to treat fabrics to make them suitable for the type of print they are intended for, sanitise them for specific applications and, in some cases, even dye them, with excellent quality."

According to Taccani, another beneficial factor of direct-to-fabric pigment printing technology is the eco-sustainability of the process and its lower environmental impact. "We are proud to be able to offer our customers excellent printing results using little water and printing in 'green mode', with both the technologies we have available. I consider them winning technologies for the future, as both dye sublimation printing and direct-to-fabric printing with pigment inks use little water while mainly requiring the use of energy. Therefore, if you use renewable energy, then you're done."

Digitak's other trump card is the Tiger-1800 installed in 2019. With this industrial printing system, the company aims to increase production volumes while maintaining its high-quality standards and further optimising costs. "We are excited to have these promising technologies available to us in-house. We are currently experimenting with these solutions, testing new opportunities and evaluating which paths to take to stay ahead of the game," concludes Taccani.

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## Loepfe Brothers Ltd

### Loepfe with WeftMaster FALCON-i ventured in New project in China and Taiwan

Loepfe increases its backing of the electronics industry. The latest projects in China and Taiwan underline the importance of reliable quality control of demanding technical fabrics. Loepfe's unique WeftMaster FALCON-i will be integrated into two of the world's largest manufacturing lines of PCB boards.

Printed circuit boards, or PCBs, are used to mechanically support and electrically connect electronic components using conductive pathways, tracks or signal traces etched from copper sheets laminated onto a non-conductive substrate. Used in quantities of millions, in 2018 the Global Single Sided Printed Circuit Board Market Analysis Report estimated that the PCB market would reach USD 79 billion by 2024.

PCBs are generally made of various layers of materials, which are bonded together by heat, pressure and other methods. Its basis, the so-called substrate, is commonly made of glass epoxy, also known as fiber reinforced plastic. In order to ensure and achieve an efficient and smooth PCB manufacturing process, a top quality and flawlessly woven glass fabric is the key to minimized rejection costs and ultimate quality assurance.

A fully integrated PCB manufacturer can control the entire manufacturing process. One of the world's largest manufacturer of such boards and other technical glass fabrics, operating several plants in China and Taiwan, occasionally experienced tiniest unevenness on the surface of its PCB boards. Particular defects originated from exactly that woven glass fabric, eventually caused by minute filamentation of the yarn and slightest fluff accumulation during the weaving process. By using FALCON-i optical sensors to monitor the weft insertion during the weaving process, such tiny yet costly defects could easily and reliably be eliminated.

In order to detect even the tiniest yarn irregularities FALCON-i offers extensive



## SCIENCE IN INDUSTRY

sensitivity levels, allowing customers to fine-tune the ratio of machine stoppages caused by necessary quality control stops. Any manufacturer of demanding technical fabrics and composite textiles used in applications such as PCB manufacturing, automotive, architecture, filtration, aeronautics, medical and carbon industry can highly benefit from this type of versatile quality monitoring sensor. The implementation of FALCON-i optical yarn defect sensors in the quality control of any running yarn throughout the manufacturing process of fabrics is simple and easy.



WeftMaster FALCON-i

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#### About Loepfe

Loepfe Brothers Ltd. has established itself in the field of optical yarn clearers with pioneering achievements. Today Loepfe is recognized worldwide as the specialist for integral quality control systems. Fifty percent of the worldwide yarn production is monitored by Loepfe yarn clearers.

The Loepfe headquarters are in Wetzikon / Switzerland near Zurich where the company employs close to 150 people. The Swiss production location guarantees stability and

reliability. All Loepfe products are developed and manufactured in Switzerland. Loepfe quality is based on the employees' unique know-how and many years of experience. Loepfe invests systematically in research and development of state-of-the-art technology, with its understanding of the complex requirements of the textile industry.

Loepfe lays the foundation for the international success of its textile quality assurance systems with sustainable products and highly personalized customer service. Loepfe is represented in all important textile markets via an international network of 90 agents and service representatives in 70 countries worldwide. Loepfe offers training and further education and ensures efficient local quality management at senior level.

<https://www.loepfe.com/>

#### About Savio Group

Savio is the world leader in the yarn finishing sector, operating in the design, manufacturing and distribution of winding machines, quality control devices and electronic boards for the textile industry. It has factories in Italy, China, India, Belgium, Germany and Switzerland. Established over a century ago, Savio has evolved over the years through intense Research & Development, highest manufacturing flexibility and high quality standards. Global dimension, extreme flexibility and productive excellence are Savio's principal strategic assets, while the group continuously reviews, renovates and consolidates its leadership to reflect changing world market needs over time.

<https://www.savio.group/>

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Laxmi Textile Products	*	Shree Tex Corporation	*
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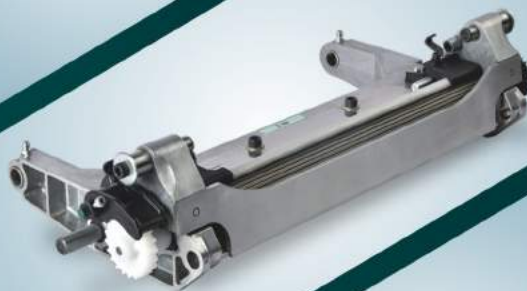
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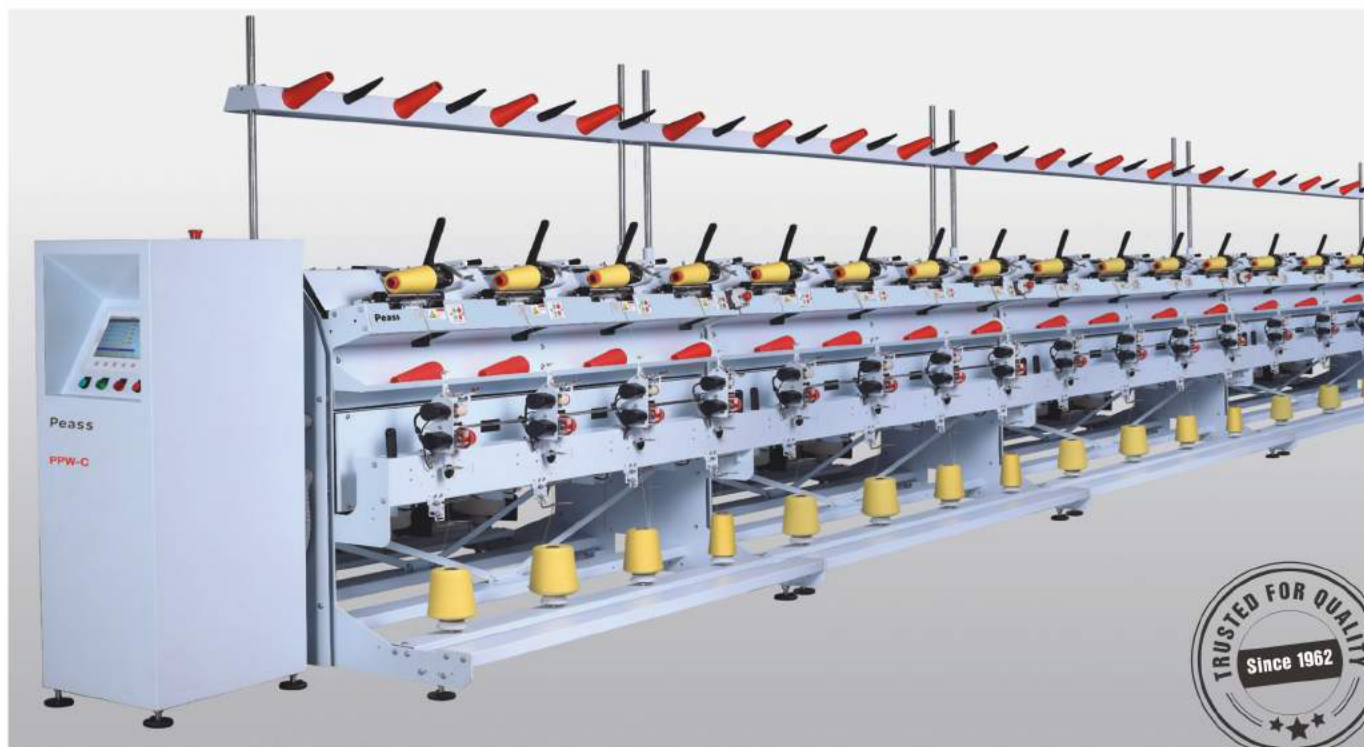
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