Textile Trends

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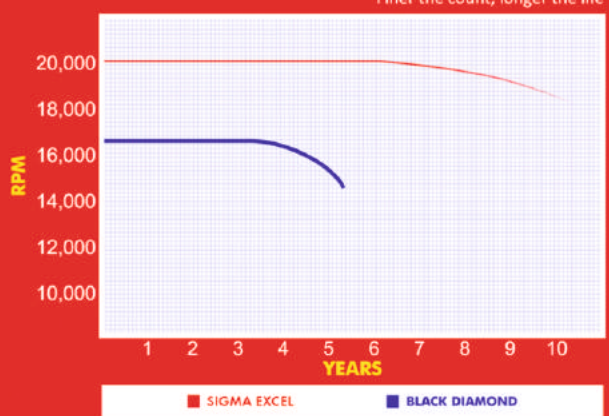

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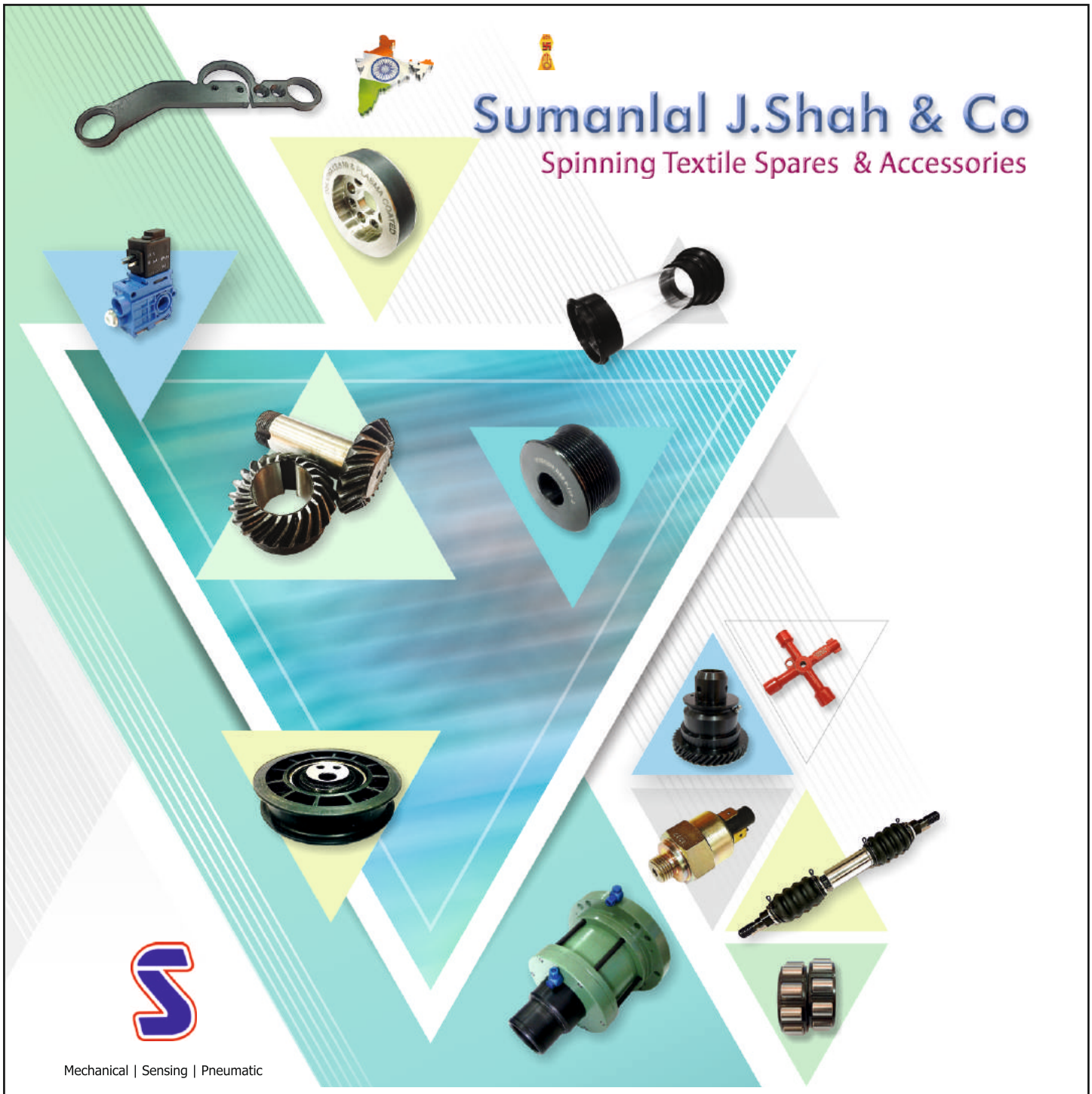

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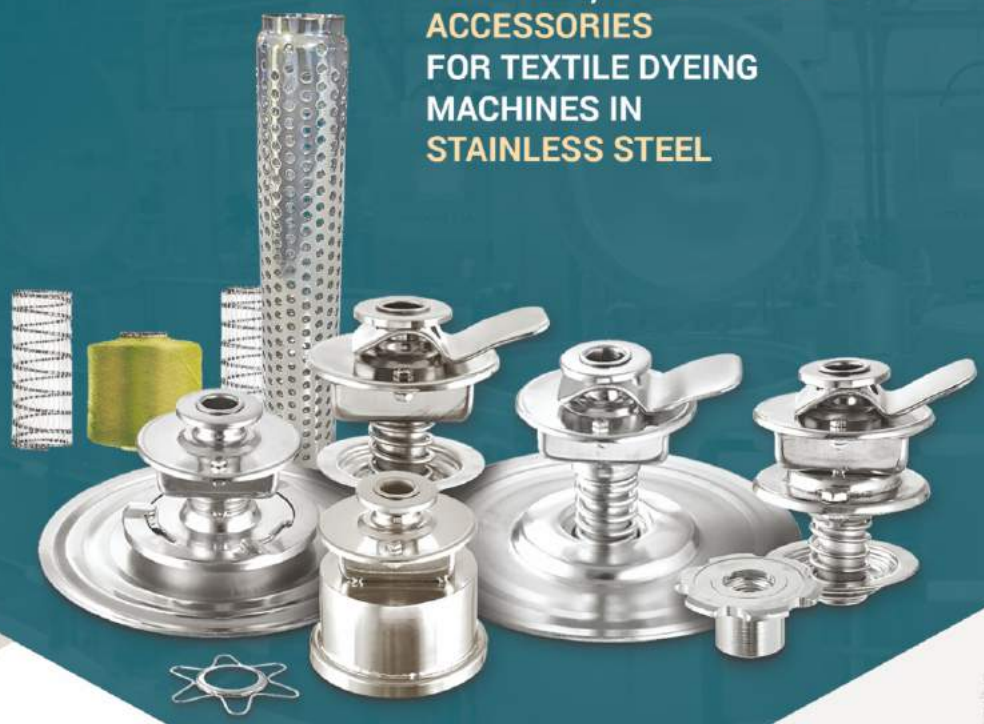

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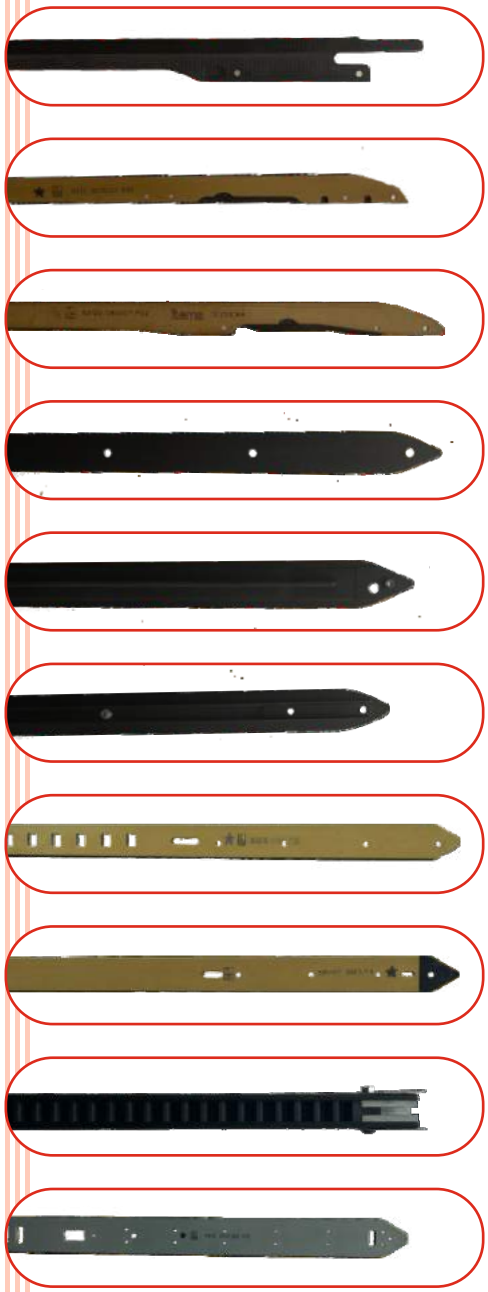

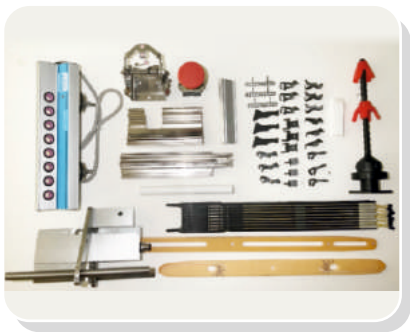

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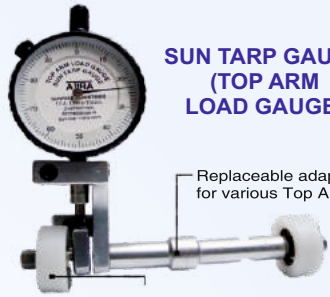

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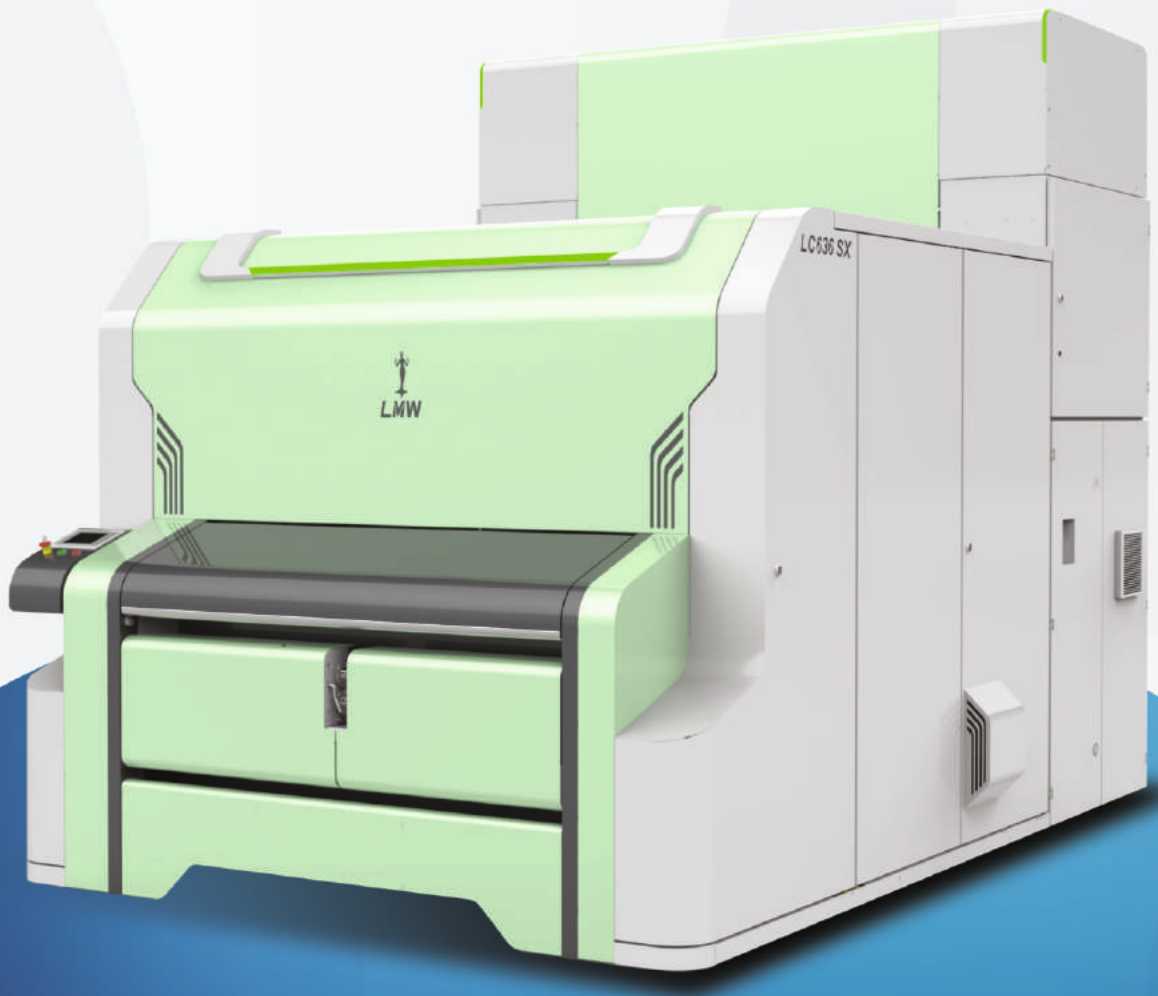

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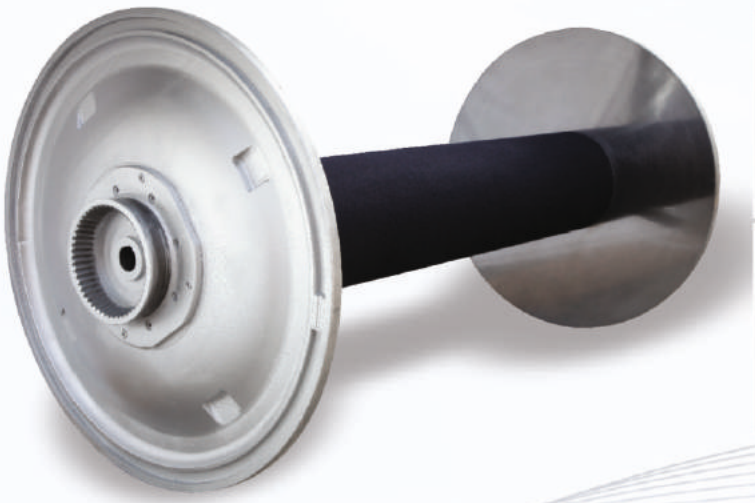

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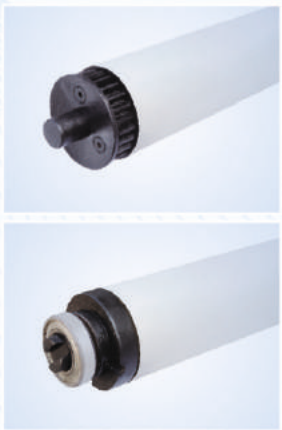

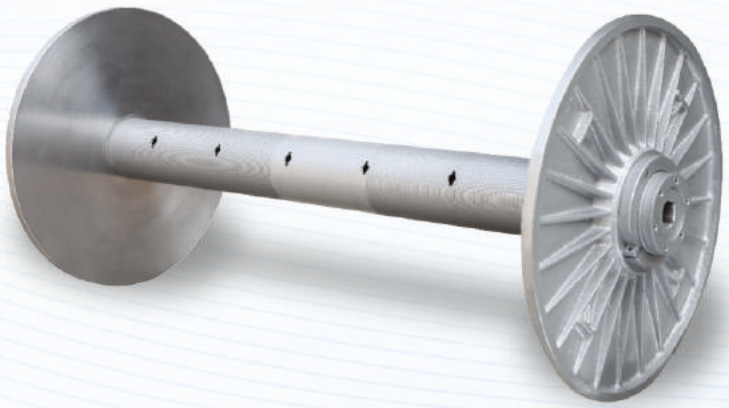

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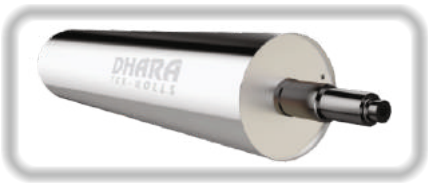

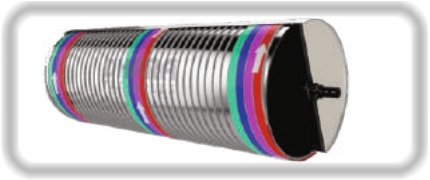

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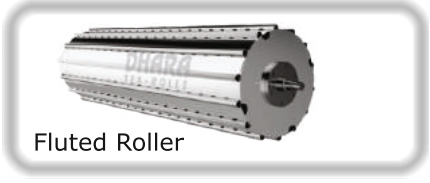

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EDITORIAL

Plastic weaving a new livelihood for village-women

Pile of plastic waste poses a great threat to keeping the pollution-free environment in today. India generates huge amount of plastic waste each year, it has become a great challenge to reuse these huge quantity of waste materials through recycle process. Huge expertise are being used how to reuse the waste plastic in human benefits. An NGO is working to design products made of waste materials. Plastic weaving has been conceived as a possible solution to address modern day problem of plastic waste using the traditional skill.

Bags, Yoga mats and spectacle covers are being made of plastic trips by traditional looms. In Ahmednagar there is a bounty of plastic bags in many villages. Women in this villages are using their traditional knowledge of weaving to address an environmental issue of plastic pollution. The weaving is done on both pit looms and frame looms with a few modifications. Strong plastic thread or cotton is used for the warp and assorted plastic waste is used for the weft.

Plastic waste is collected from households in residential colonies as well as industrial areas. Plastic pickers are also involved in this collection. Traditional weavers turns into plastic weaving. Women involved in plastic weaving earn between Rs.3,000 and Rs.6,000 per month. More than 100 women in different villages in Ahmednagar are converting waste plastic into finished products such as bags, plastic trays, tea coasters, yoga mats. Women take bank loan on various govt's schemes to buy one more loom. New organizations emerge to design and market their products. These organizations also help the women giving the loan in expansion of their business.

Most of these recycled products find buyers in urban markets—through online orders in cities such as Mumbai, Delhi, Bangalore. This entire recycling is done by hand; there is no machine used. So it can be replicated everywhere. An NGO in Mumbai has recently trained 400 Adivasi Women on plastic weaving. The biggest take away of this project is to help in cleaning our environment from plastic waste. In villages people are not burning plastic waste as much as before.

US trade deficit extends less than expected in July

The US Trade deficit widened in July by less than forecast, reflecting an increase in exports of cars and services. The shortfall in goods and services trade grew to $6.5 billion from a revised $63.7 billion in the prior month, commerce department data showed recently. The figures aren't adjusted for inflation. The median estimate in a Bloomberg survey of economists called for a $68 billion deficit. The value of exports rose 1.6%, while imports increase 1.7%. Exports of industrial supplies and autos increased in the month. The advance in imports reflected a rise in consumer goods – largely cell phones and household goods – as well as capital equipment. Resilient household demand – illustrated recently by robust retail sales – is encouraging merchants to boost orders with foreign suppliers. Imports may climb further in coming months as retailers prepare for the holiday-shopping season. Despite the monthly advance, exports are down 3.5% from a year earlier, constrained by tepid overseas demand. The data will help shape estimates for third quarter gross domestic product. The government's latest growth estimate showed net exports weighed on second-quarter GDP for the first time since early 2022. On an inflation-adjusted basis, the merchandise trade deficit widened to $88.4 billion in July. ❐

P.M. Modi emphasized on human-centric approach to growth

Prime Minister Narendra Modi on 6th September said India's presidency of the G20 has been "Inclusive, ambitious, decisive, and action-oriented" and underlined that the country lays great emphasis on a human-centric approach to progress. "I look forward to productive discussions with world leaders over the next two days. It is my firm belief that the New Delhi G20 Summit will chart a new path in human centric and inclusive development," the prime minister posted on social media site X (formerly Twitter) on the eve of the two-day summit. In a series of tweets, he also highlighted that it is the first time India is hosting the G20 summit and said during its G20 presidency India "actively voiced the developmental concerns of the Global South". Modi said the theme of this summit, 'Vasudhaiva Kutumbakam – One Earth, One Family, One future' is rooted in the Indian cultural ethos and resonates with the country's worldview that the whole world is one family. He reiterated his recent remarks that the time has come for a human-centric approach to growth instead of a GDP centric one. "India also places great emphasis on a human-centric way of furthering progress. It is important to emulate (Mahatma) Gandhi Ji's mission of serving the underprivileged, the very last person in the queue," he tweeted. At the summit, India will be looking at ways for "furthering strong, sustainable, inclusive and balanced growth", Modi said. "We seek to accelerate progress of Sustainable Development Goals (SDGs) and Green Development Pact for a Sustainable Future, and strengthen multilateral institutions for the 21st century," he said. "We attach immense priority to futuristic sectors such as technological transformation and digital public infrastructure. We will also collectively work to further gender equality, women empowerment, and ensure world peace." The prime minister will hold a series of bilateral meetings with visiting leaders and heads of deligations from the G20 nations to "further deepen the bonds of friendship and cooperation". He expressed the hope that the visiting dignitaries will enjoy the warmth of Indian hospitality. President Droupadi Murmu will host and official dinner on 7th September and the visiting heads of state and government will pay homage to Mahatma Gandhi at Raj Ghat on 8th September morning. At the closing ceremony on 8th September the G 20 leaders shared their collective vision for a sustainable and equitable 'One Future', together like 'One Family', for a healthier' One Earth'," Modi said. ❐

China underlined need for economic globalisation in G20 Summit

Chinese Premier Li Qiang on 9th September underlined the need for unity amongst the

G20 members and called for cooperation, inclusion and resolute support for economic globalisation. Li, the No 2 ranked leader of the ruling Communist Party of China (CPC), deputing for President Xi Jinping, at the annual G20 summit. Addressing the first session of the 18th G20 summit in New Delhi, Premier Li said the influential grouping needs "unity instead of division, cooperation instead of confrontation, and inclusion instead of exclusion." Li urged the G20 members to resolutely promote economic globalisation and jointly maintain the stability and smoothness of industrial and supply chains, China's state-run Xinhau news agency reported. The G20 memebrs should stick to the original aspiration of unity and cooperation, and shoulder the responsibility of the times for peace and development, he said. ❐

China economy shows sign of improvement

China's credit demand improved, deflationary pressures eased and the yuan rallied, adding to a recent trickle of signs that the economy and financial markets may be stabilising after a sharp downturn. The strong credit data published recently showed recent steps to bolster the real estate market may be starting to lift household demand for mortgages, while corporate loans also picked up. The yuan gained after the central bank escalated its defense of the currency. Those add to the encouraging signs from 2nd week of September, with consumer prices returning the gains after a drop in July – albeit by the slimmest of margins. Factory-gate deflation also narrowed. "The policy measures helped the economy to stabilise," said Zhang Zhiwel, chief economist at Pinpoint Asset Management Ltd. "The key question is to what extent the economic momentum can be sustained" The world's second-largest economy is trying to regain traction as an ongoing property crisis and weak confidence drag on its recovery, creating risk for the government's annual growth target of about 5 per cent. The improvement in the August data suggests July's grim figures – which showed consumer prices tipping into deflation and monthly loans plunging to a 14-year low – may have been the worst of the slump. The benchmark CSI 300 Index rose 0.7 per cent of late, snapping a four-session losing streak. The yuan also rallied after falling to its weakest since 2007 against the dollar 1st week of September as the People's Bank of China issued forceful guidance and stressed its confidence in keeping the yuan stable. The government's supportive efforts — including cuts to policy loan rates, mortgage rates and down-payment requirements for home purchases — are likely helping the recovery. ❐

Global biz activity witnessed signs of slowdown in August

Global business activity largely slowed further in August as services firms struggled in the face of weak demand as rising prices and borrowing costs made in debted consumer rein in spending, a raft of surveys showed recently. In the euro zone, the picture was gloomier than initially thought as the bloc's dominant services industry fell into contractionary territory, suggesting the bloc could slide into recession. Germany's services sector contracted for the first time this year and France's shrank more than first estimated. In Britain, outside the European Union, its survey showed the sharpest business slowdown in seven months. Asia's surveys for August were also more downbeat with China's services activity expanding at the slowest pace in eight months as weak demand continued to dog the world's second-largest economy, while in India growth lost some steam. Japan proved an outlier as service sector activity expanded there at its quickest pace in three months, underpinned by robust consumer spending as inbound tourism regained momentum. Global equities fell of late as the weak readings rekindled worries over China's sputtering post-pandemic economy. "Weaker economic data out of Asia was the main driver of market sentiment," noted economists at RBC. HCOB's final euro zone Composite Purchasing Managers' index (PM), compiled by S&P Global and seen as a good barometer of overall economic health, dropped to 46.7 to August from July's 48.6, a low not seen since November 2020. Services PMI reading for Britain, Germany, France, Italy and Spain were all below breakeven, while they fell for China, India and Japan.■

India's forex reserve rose by big margin of $4b to 598b

The Reserce Bank of India's foreign exchange reserves rose $4 billion to $598.9 billion in the week ended September 1. The rise in the reserves was led by an increase in the central bank's foreign currency assets, which jumped $3.4 billion to $530.7 billion, latest RBI data showed. The central bank's gold reserves rose by $584 million to $44.9 billion in the previous week. In the week ended September 1, the rupee was largely stable versus the US dollar. The RBI intervenes in the currency market through dollar sales or purchases in order in prevent excessive volatility in the rupee's exchange rate. Foreign exchanges reserves worth $601.5 billion on August 4 were sufficient to cover 96% of total external debt outstanding at end-March, RBI analysis said in the central bank's August Bulletin. ❐

Core sectors' output surged in July, output shrank 2.2% from June's level

All of India's eight infrastrusture industries logged year-on-year growth for the first time in 14 months in July, with the core sectors' average output rising 8% after a five-month high surge of 8.3% in June. Data from the Commerce and Industry Ministry showed crude oil output grew 2.1% in July, clocking an uptick for the first time since May 2022, the last time when all eight infra sectors had witnessed growth to take the overall Index of Eight Core Industries (ICI) 19.3% higher. Despite the healthy YoY growth, in absolute terms, the ICI was at a three month low in July and 2.2% below June's level, with five of the eight sectors clocking lower output than in June. The only infrastructure industries to see a sequential rise in output were crude oil, natural gas and fertilisers. ❐

Experts warn of probable lower nominal growth

India may inch closer to its target of 6.5% real GDP growth may be lower than budgeted, challenging the fiscal math and pushing the target to become a $3 trillion economy by another year. Subdued wholesale inflation may keep nominal GDP growth at least a percentage point below the Union Budget estimate of 10.5% in the fiscal year, according to experts. "Our estimate of nominal FY 24 GDP growth is tracking at 9% with downside risk," said Gaura Sengupta, economist, IDFC First Bank. She predicted wholesale inflation to average 0.2% this fiscal, compared with 9.6% in the previous year. Wholesale price index, which forms 70% of the GDP deflator used to calculate nominal GDP, was in deflation for the fifth consecutive month in August, according to data released first week in September. WPI based inflation fell 0.52% in August as against 1.36% deflation in July. Experts contend that WPI would move into positive territory from September as the base effects fade but say that inflation is expected to stay low for the rest of the fiscal. CareEdge, a rating agency, predicts wholesale inflation to average 1-2% in FY 24. Sengupta indicated that the effects of subdued nominal growth are reflecting in tax colloections. "The impact of the slowdown in nominal GDP growth is already visible with gross tax collection growth slowing to 2.8% YoY in FYTD 24 (Apr to Jul), with a decline in corporate tax collections and a slowdown in income tax growth. Even GST tax collections where compliance is improving, a slowdown is seen in nominal growth rates to 11% in FYTD 24 (Apr to Aug) from 33% in FYTD 23," Sengupta said. While Sengupta hopes the government will meet its 5.9% fiscal deficit target with expenditure moderation, others contend that low or negative wholesale price growth may prevent that. "If it (nominal growth) comes closer to real growth of 6.5%, then deficit ratios will go up by up to 0.2 percentage point," said Madan Sabnavis, chief economist at Bank of Baroda. In the first quarter of FY24, nominal GDP growth was just a tad higher at 8% compared with the real growth of 7.8%. Another challenge, Sabnavis says, is the delay in meeting the $5 trillion economy target. "This (6.5% nominal growth) will push forward that year when we can hope to touch the $5-trillion mark," he noted. The IMF predicted that India would become a $5

trillion economy and surpass Japan as the world's third-largest economy by 2026-27. Sabnavis expects nominal GDP to grow at 8-9% in FY24. ❐

Industrial output rose 5.7% in July

Manufacturing and mining sectors have helped industrial growth to rise to a five-months high of 5.7 per cent in July, government data released recently. Better performance of industry along with moderation in inflation will give room to Monetary Policy Committee to maintain status quo in policy rate. As per the IIP (Index of Industrial Production) data released by the National Statistical Office, the manufacturing sector's output grew 4.6 per cent in July 2023 against 3.1 per cent a year ago. Mining output rose 10.7 per cent during the month against a 3.3 per cent contraction a year ago. As per use-based classification, capital goods grew-4.6 per cent in July this year compared with 5.1 per cent a year ago. While consumer durable output declined by 2.7 per cent (2.3 per cent), consumer nondurable goods output increased by 7.4 per cent (compared with a contraction of 2.9 per cent a year earlier) during the month. Aditi Nayar, Chief Economist with ICRA, said the latest number exceeded expectations on account of a better than-expected performance of the manufacturing sector. The y-o-y per performance of most available high frequency indicators improved in August 2023 relative to July 2023, including freight and electricity generation. Rajani Sinha, Chief Economist with CARE, felt infrastructure and construction segment continued to put up a healthy show gaining from the Centre's sustained capex push. "The sharp rebound in consumer non-durables segment in July came as a surprise, but we will have to wait and watch to see if this trend sustains. The festive season is likely to provide a fillip to consumption demand in the near term," she said. Economists are upbeat yet advise caution for coming months. "Based on these trends as well as a favourable base (-0.7 per cent in August 2022), ICRA expects the y-o-y IIP growth to witness an uptick to 5-7 per cent in August 2023," says Nayar. Sinha feels that over a longer period of time, unfolding of the domestic demand scenario will remain critical for industrial activity. Consistent growth in the capital goods and infra/construction goods production hints at healthy investment cycle in the economy, says Vivek Rathi, Director (Research) with Knight Frank India. However, "slowing consumer durable goods production is hinting at slowdown in personal consumption of the households," he added. ❐

August goods exports shrink 6.8% to $34.5b

An improvement in external demand helped contain the decline in India's exports, as overall merchandise exports at $34.5 billion were just 6.8% lower from the previous year, compared to double-digit declines witnessed since the start of the year. "Green shoots in export growth appear to be stabilising, and the pessimism in July is getting converted into optimism," said Sunil Barthal, secretary, ministry of commerce, pointing out that even the WTO data showed that global trade was looking up, led by automobile and goods sector : PMI Manufacturing Data released earlier in September to better export performance by manufacturers, with new work from Bangladesh, China, Malaysia, Singapore, Taiwan and the US. Non-petroleum and non-gems and jewellery exports expanded for the first time, growing to $26 billion in August compared with $25.2 billion a year ago, the ministry data showed recently. Engineering goods in August at $9.05 billion were, for the first time in FY 24, higher than the previous year's figure, whereas electronic goods continued to extend over their gap from last year. "After eight consecutive months of year-on-year decline, engineering goods exports have turned positive with total shipments value registering 7.75% growth in August said Arun Kumar Garodia, Chairman, Engineering Exports Promotion Council India. India exported $2.72 billion worth of electronic goods in August 2023, compared to $1.72 billion in the year ago period. ■

A sustainable growth story in Textiles

Investors with a two-to-three year investment horizon can consider accumulating, on dips, the stock of South-based diversified textile player KPR Mill Ltd. The company, primarily a vertically integrated textile player, also has interests in textile, sugar, wind power and retail (through its brand Faso), which helps mitigate seasonality and fluctuations in any particular segment.

Capacity expansion projects across segments — sugar/ethanol, textiles — and good growth prospects should help the company's strong growth in the near to medium term.

At the current price of ₹698, the stock trades 30 times its twelve-month trailing earnings. Though historically the stock has traded around the same levels on a price-earnings basis, policy measures for higher ethanol blending, alongside vertical integration in the textile/apparel division and scaling up of its retail business should hold the company in good stead and possibly lead to re-rating in the near term. Peer Welspun India, which is into home textile retail and exports, trades at PE of 37 times.

We believe stock to be a good investment bet for three reasons. First, KPR Mill's vertically integrated operations in the textile segment with focus on technology for cost optimisation will help even in times of volatility in raw material prices — cotton. With 6 spinning mills, the company has an annual yarn capacity of 1 lakh metric tonnes. The fabric unit capacity currently is at 40,000 tonnes per annum, while the total garment capacity at 115 million tonnes of garments makes the company one of the largest manufacturers of garments in the country.

The company is among the largest exporters of garments, catering to over 60 countries, with Europe and North America being its largest markets. Further, with the foray into retail through FASO brand, it will be able to capitalise on the entire value chain. Even amidst challenges such as cotton price volatitlity, import bans on cotton, demand softening in key markets such as Europe, the company is confident of sustaining growth in the apparel segment primarily on account of lean cost structure in the segment.

Its recent investment of ₹100 crore in the exclusive cortex spinning mill and processing and printing machine (₹50 crore) will add to revenue beginning FY24. Further, measures such as roof top solar plant (12 MW), in addition to existing co-Gen capacity of 90MW and wind power of 61.92 MW (which caters to 40 per cent of textile power requirement) will help reduce costs and improve operating performance, in the near to medium term.

Second, the company currently has a sugarcane crushing capacity of 20,000 tonnes per day in Karnataka and 360 KLPD ethanol capacity in Karnataka. KPR is investing ₹150 crore in augmenting ethanol production, which will increase the capacity to 500 KLPD resulting in a net additional ₹100 crore revenue annually. The government's push for higher ethanol blending and a target of 20 per cent has brightened the prospects for Indian sugar/ethanol makers from a structural perspective.

While the ethanol pricing currently is still ad hoc and the industry has been clamouring for a favourable pricing policy, given that the government is keen to implement 20 per cent blending by 2025, we believe that the pricing regime will likely be in favour of ethanol producers. Expectation of better pricing is also bolstered by the fact that it is essential to attract additional investment in this space to meet government ethanol blending targets.

Third, good historical business/management track record, strong balance sheet and efficient capital management add to the attractiveness of the business. Despite the company investing over ₹500 crore over the last few quarters, its net debt-equity ratio remains impressive at less than 0.17 times its shareholders' funds, thanks to the strong operational cash generation and efficient working capital management.

As of June 2023 end, the company had cash of ₹366 crore and net debt of ₹655.9 crore in the books. Strong operating performance has also helped it sustain superior return ratios with return on capital employed of over 23 per cent.

In the April-June 2023 period, the company reported flat revenue growth of about 2 per cent to ₹1,584 crore, primarily on account of lower yarn realisation, which was largely mitigated by higher sugar and ethanol realisation. Lower cotton yarn spread during the quarter due to fall in yarn prices, coupled with slower than expected demand in Europe (accounting for 60 per cent of the exports), led to marging pressure. As result net profit declined by around 10 per cent to ₹202 crore. This will, however, stabilise over the next few quarters; further, better realisation for ethanol can help migitate the weakness in the yarn segment. That said, the economic landscape in Europe as a market and cotton prices are key variables to keep a watch on. ■

Uttar Pradesh's long standing textile industry to great heights with key initiatives

A burgeoning textile sector lies at the heart of the socio-economic growth experienced by the north Indian state of Uttar Pradesh, home to over 241 million people. As one of the most important traditional industries, it has helped the state gain global recognition in the production and global export of quality textiles. Uttar Pradesh is not only the third highest fabric-producing Indian state, with 13.24 percent of the national production to its credit but also ranks fifth in the country's total silk production and has the fifth highest number of handlooms in India alongside producing 90 percent of the country's carpets.

Various schemes of the Uttar Pradesh Government along with key institutions have had a hand in steering sustainable growth and unprecedented success of the state's textile sector. While the Prime Minister Handloom Weavers Mudra Scheme empowers handloom weavers by facilitating loans at merely a 6 percent interest rate, the State Government offers grants of various denominations for setting up power looms and work sheds and for providing training to weavers through its Powerloom Development Scheme. From marketing assistance in the form of grants enabling the hosting of fairs and exhibitions to logistical support in a myriad of ways, including subsides in electricity bills, and assistance to trainees of the handloom sector, a slew of government initiatives are propelling the sector's growth.

In addition to the New UP Textile and Garmenting Policy 2022 encompassing various subsidies, exemptions, incentives and freight reimbursement, the implementation of the Cluster Development Programme by the State Government aims to boost further Uttar Pradesh's naturally existing clusters while developing new clusters.

The launch of India's second PM MITRA Mega Textile Park in Uttar Pradesh's Lucknow-Hardoi districts spanning 1,000 acres of land in a region 500 kilometers away from the national capital represents a strategic move to strengthen the textile hub therein. Moreover, UP CM Yogi Adityanath's announcement concerning an internship scheme for textile industry workes to connect the youth with entrepreneurs will give further impetus to the sector's growth. He also emphasized air, train and road connectivity projects that will support the industry's operations.

In light of Uttar Pradesh boasting a labor force comprising 6.58 crore people, wherein abundant skilled labor can be easily leveraged for the textile sector at competitive costs, the centrally sponsored Integrated Skill Development Scheme has been running training and placements successfully in the state, enabling skilled labor's entry into the textile sector. Similarly, the Scheme for Capacity Building in Textile Sector (SCBTS), named SAMARTH Scheme, has spearheaded a demand-driven, placement-oriented skilling programme to incentivize the efforts of the industry in creating jobs in the organized textile and related sectors.

Furthermore, the Uttar Pradesh Skill Development Mission, as an implementing agency for skill development to boost employability in Uttar Pradesh, has been playing an instrumental part in imparting training in short-term vocational trades to equip the state's youth with employable skills, including those needed in the textile sector.

"Uttar Pradesh has a rich tradition of textiles, a big market and a consumer base. It is home to hardworking weavers and a skilled workforce." These words of PM Modi encapsulate a favourable reality, which by joining forces with various governmental initiatives to prepare a future-ready wrokforce and textile industry, cradles a promising and sustainable future for the state's booming textile sector and the huge workforce employed therein. ■

Govt likely soon to tweak PLI schemes for pharma, textiles, drones

The government may soon tweak the product-linked incentive (PLI) scheme for pharmaceuticals, drones and textiles sectors to encourage investment and boost manufacturing, an official said. These sectors have been identified after inter-ministerial consultations on the performance of the scheme for various products.

The official also said that disbursement of PLI for white goods (AC and LED lights) would start soon and that would push the amount of disbursement, which was only ₹2,900 crore till March 2023. The scheme was announced in 2021 for 14 sectors such as telecommunications, white goods, textiles, manufacturing of medical devices, automobiles, speciality steel, food products, high-efficiency solar PV modules, advanced chemistry cell battery, drones and pharma with an outlay of ₹1.97 lakh crore.

"We have identified the sectors. We are going to send the combined note to seek approval of the Union Cabinet. The changes include extending some time (for pharma sector) and adding some additional products in some sectors. In textiles, we are expanding the definition of certain other products in the technical textiles segment; in drones, we are increasing the amount," the government official, who did not wish to be named said.

The total amount allocated for the PLI scheme for drones and drone components is ₹120 crore, spread over three financial years.

A senior official of the Commerce and Industry Ministry had earlier stated that some course corrections or tweaking were needed in PLI schemes that weren't doing well. ■

To boost exports and create job opportunities govt grants for startups to promote technical textile

With an aim to boost exports and create high-value jobs, the government launched a new scheme which would provide up to ₹50 lakh as financial assistance to startups and individuals engaged in technical textiles development.

The scheme, titled GREAT (grant for research and entrepreneurship across aspiring innovators in technical textiles), will be implemented through incubators, including Indian Institute of Technology (IIT), National Institute of Technology (NITs), textiles research associations and centres of excellences.

The scheme is aimed at supporting 100-150 startups.

"We are going to support up to ₹50 lakh in the form of grant-in-aid for up to 18 months without any royalties or equity. Only a minimum of 10% contribution has to be made by the incubatee," Rajeev Saxena, joint secretary, ministry of textiles, said.

The incorporation date of the startup must be less than 5 years, he said. The scheme focuses on supporting individuals and companies to translate prototypes to technologies and products, including commercialisation.

The grant will focus on sub-sectors of technical textiles, including agro-textiles, building textiles, geo textiles, home textiles, medical textiles, mobile textiles, packaging textiles, protective textiles and sports textiles.

The scheme will be commensurate with the National Technical Textiles Mission, and an online portal will be developed to invite applications.

To incentivise the incubators, the textile ministry will additionally provide 10% of total grant-in-aid, according to an official release. It said the scheme would give a thrust on the development of the technical textiles startup ecosystem, especially niche segments, including bio-degradable and sustainable textiles, high-performance and specialty fibres and smart textiles.

Institutes to be provided financial allocation under the scheme include IIT Delhi, NIT Jalandhar, NIT Durgapur, NIT Karnataka, National Institute of Fashion Technology, Mumbai, Institute of Chemical Technology, Mumbai, Anna University, PSG College of Technology and Amity University.

The scheme is aimed at promoting innovation in the niche technical textiles segment, which has the potential to create high-value jobs and boost exports.

Initially, a memorandum of understanding will be signed between selected startups and the incubator on the ownership of the intellectual property to be generated.

Meanwhile, the textiles ministry gave a nod to 26 institutes for upgrading their training and laboratory infrastructure for development and introduction of technical textile courses and degree programme.

It approved ₹151 crore for these institutes. Of that, ₹105 crore would be allocated to the public sector institutes and ₹45 crore will be given to privately owned institutions.

On the quality and regulation aspect of technical textiles, the ministry has already notified two quality control operation systems (QCOs) for 31 technical textiles products including 19 geotextiles and 12 protective textiles, which will be effective from October 7, 2023.

In addition, QCOs for 28 products, including 22 agrotextiles and six medical textiles, have also been issued in September 2023, Saxena noted. ■

Kashmiri saffron, Kannauj's ittar gifted to G-20 leaders

Heads of state from across the world and other leaders who attended the G20 Summit in New Delhi were gifted a curated collection of handcrafted artefacts and products that speak volumes about India's rich cultural traditions, officials said.

Some of the gifts were meticulously hand-crafted by master artisans of the country, they said.

The gift items included saffron from Kashmir, sheesham wood chests with brass patti, Pekoe Darjeeling and Nilgiri tea, Araku coffee, Kashmiri Pashmina shawl, Sundarbans multiflora mangrove honey and Zighrana 'ittar' (perfume oil) from Uttar Pradesh's Kannauj, they said.

The G20 Summit was held at the newly-built Bharat Mandapam at Pragati Maidan from September 9-10.

It was attended by US President Joe Biden, UK Prime Minister Rishi Sunak and French President Emmanuel Macron, among other world leaders.

The government of India gifted the leaders a curated collection of hand-crafted artefacts and products that speak volumes about India's rich cultural traditions, the officials said.

"Some of the products gifted to them are those of centuries of tradition and cherished across the world for their unparalleled workmanship and quality," a senior official said.

A Khadi scarf and a coin box containing G20 commemorative coins were alos gifted to visiting leaders by Prime Minister Narendra Modi. Spouses of the world leaders were gifted items representing the culture of India by Modi, according to the officials. ■

The 'charkha' symbolised self reliance and freedom

The lush campus teems with women and children. On the walls are an assortment of pictures: the late Kannada actor Rajkumar, the writer Kuvempu and drawings by children. On the blackboards are jottings on Chandrayaan-3, English grammar, and biology. This is Shakthidhama school in Mysuru, but it is one with a difference — it carries forth an ancient tradition.

A bell rings announcing the end of the school day. Twenty-five children, all 14 years old, make a beeline for the *charkha* room: a dedicated space where students sit on a carpet and spin. This is a new ritual. In four months, the children have spun 650 metres of yarn to produce khadi. This project was the brainchild of K.J. Sachidananda, an artist based out of Mysuru. After buying a *charkha* of his own, he has travelled across the country, spinning, and recounting tales of Gandhi.

To Gandhi, the *charkha* symbolised self-reliance and freedom. He once wrote: "The message of the spinning wheel is much wider than its circumference. Its message is one of simplicity, service of mankind, living so as not to hurt other, creating an indissoluble bond between the rich and the poor, capital and labour, the prince and the peasant."

Sachidananda organises spinning workshops in the city and elsewhere, in the hope of inspiring people. "Gandhi is not a noun, he is a verb, and he lives in every one of us. We just need to find him within and bring him out. That's what I did with the children at the school," he says.

Shakthidhama, a rehabilitation centre, is supported by Rajkumar's family. It provides shelter to rape victims, destitutes, those rescued from prostitution, human trafficking and domestic violence. The centre also helps with educating children from different backgrounds, including economically weaker sections, and children with single parents. After the demise of Rajkumar, his wife, and his son Puneeth Rajkumar, the onus of running the centre has fallen on the shoulders of his eldest son, actor Shiva Rajkumar, and his wife Geetha.

Rajeshwari, the social science teacher at the centre, leads the *charkha* project. She believes spinning is a masterclass in history. "Students only learn about Gandhi through textbooks; but by spinning — using the tool that was so dear to him — we are making sure his legacy lives on."

Siddamma, a Class IX student, is busy spinning in the room. Her eyes are fixed on the yarn. She looks up with twinkling eyes, smiles and tells me: "We had no idea about the actual use of *charkha*. We had only read about it, but when we got to work on it, it felt magical."

Other children share their experiences: "It increased my concentration," says one. "It increased my patience, and reduced my anger," says another. "I have started doing better at school," says a third. Ashwini, a student, felt 'empowered'. "I realised we could make our own clothes. We could provide employment to women, weavers, and tailors. If all of us in India learned how to spin, we would never have to depend on big corporations again."

The students involved in the project were taken to Melkote, which has a noted khadi weaving centre, for a day-long workshop. "Talking to the weavers, we realised how we can support them through this project," says Jhulekha, another student.

Assisting weavers

Santosh Koulagi, who runs the Janapada Seva Trust in Melkote, an NGO that follows the ideals of Gandhi, believes the weaving community must be supported. "If you want to support sustainability, you should spin. The children from Shakthidhama brought 18 kg of yarn to us. It's helping the weavers a lot."

Although they have not yet developed a viable economic model, Sachidananda shares that they are looking at options. "We are confident about sustaining this long-term. We have already bought 100 kg of cotton, which will be enough for the next six months," he says. And if the yarn can be sold outside, he believes it could support the children's higher education. "We are also banking on Shiva Rajkumar's celebrity status [to identify buyers]. He has invested in 25 *charkhas* and is now planning to extend this programme to classes VII and VIII."

The traditional spinning wheel has been the cornerstone of rural Indian life for centuries. "As I delved into the art of spinning, I discovered an immense joy and satisfaction in creating something beautiful and useful from scratch," says Sachidananda. "This self-reliance brought with it a sense of empowerment and connection to an ancient and traditional skill."

Through this pilot project, he hopes to reach the entire country. He believes if school children are taught how to spin, the craft will not die. "By supporting spinning, we not only teach our children the craft, we also support weavers, carpenters, tailors and garment workers. That is the embodiment of self-reliance."

Madhav Sahasrabudhe, a retired mechanical engineer from Pune, echoes Sachidananda's views. An avid spinner, he travels across India to teach people the art of spinning. "If the government introduces a model where they buy the yarn spun by students, then they can make this exercise economically sustainable." ■

DESIGN AND DEVELOPMENT OF SHAPEWEAR (CORSET) TO IMPROVE THE FIT AND APPEARANCE OF THE WEARER

K. Gomathi, Assistant Professor, Department of Costume Design and Fashion,
Kongu Arts and Science College, Erode
E. Devaki, Associate Professor, Department of Costume Design and Fashion
PSG College of Arts & Science, Coimbatore
A. Lakshika, Associate Professor, Department of Fashion Technology and Costume Designing,
Bon Secours Arts & Science College for women, Mannargudi

ABSTRACT

For special events in particular, every woman aspires to have the ideal hourglass figure. One needs to have a fantastic body shape in order to look flawless when wearing and displaying particular styles. A easy method for getting the ideal body is donning shapewear and slipping into a lovely, silhouetted dress. Shapewear is a category of undergarments that is manufactured from a material that is both hard and elastic. Shapewear textiles are designed to smooth out the body by nipping and tucking. By flattening bulges, elevating sagging areas, and straightening postures, it helps women shape their bodies. The comfort of shapewear is increasing as demand rises and new technology is created. Many ladies have incorporated shapewear into their everyday wardrobe. In order to establish how well corsets shape, pressure and shaping efficacy are examined. This study looked at the product characteristics of four different designs of posture correction corsets in terms of design, material preference, fit, comfort, freedom of movement, tightness in order to improve the design and comfort of waist protection corsets. This research aids in the development of waist protection corsets that are both comfortable and attractive to wear. The comfort and fit will be determined by the three design advancements from the basic corset and the study has been prepared.

Key words : hourglass, Shapewear, silhouette, corsets.

1. INTRODUCTION

A support garment used to mould and fix the torso in place is called a corset. There are many different styles of shapewear. They are used to make numerous body portions, including the hips, thighs, stomach, belly, waist, and chest, look better. Shapewear for the upper body includes underbust shapers, corsets, camisoles, and shaping vests. These fashions typically tuck the stomach in and lift the busts to accentuate and make the cleavage more prominent. The fitting of the garment is a key draw when thinking about fashion trends. It primarily has two characteristics, namely comfort level and attractiveness. The appearance as a whole is the result of these two. A personal method of expression that may or may not be applicable to everyone is what is typically meant by the term "fashion." A designer always employs a variety of techniques to tailor a garment to the wearer. Draping, pattern making, and other processes fall under this category. Through this procedure, a well-fitting clothing is created. Researchers, retailers, clothes manufacturers, and customers have frequently been concerned about the fit of clothing, but when working with functional clothing, its significance increases significantly. Typically, there are two components to fit: comfort and attractiveness. However, some women always have trouble getting the dress to fit because of changes in their bodies. When wearing a dress, certain ladies will tend to have an hourglass figure. But some people will have a saggy waist and a bulge. Wearing a shaper before a dress is the only way to achieve the ideal body form. It will give a correct fit and compress the waist. Typically, they are tucked into tops and dresses.The present investigation aims to develop to design a shape wear to improve the fit and appearance of the wearer.

2. METHODOLOGY

It's important to observe and research the numerous aspects of clothing design. It matters how an experiment was conducted as well as how a garment is made at each stage of the process. It describes the process utilised in the creation and design of a garment.

2.1 IDENTIFY THE PROBLEMS

This article's goal is to assess the demand for shapewear. Women with a drooping waist and an unflattering form typically have an hourglass figure. Each person has a different viewpoint on shapewear. Many women wore simple corsets. Simple corsets have few drawbacks. Plain corsets fall short in terms of fit and comfort. Therefore, three design improvements from the simple corset have been created in order to address the issues with fabric selection, trim selection, pattern making, garment construction, and finishing surveys. Each design incorporates a pattern modification to address the fitting issue.

2.2 DESIGNING

Clothing allows one to exhibit their unique personalities while also giving them pleasure and comfort. It takes more than just wearing clothes to become gorgeous. It is insufficient to just dress in clothing that reflects one's unique personality. There is something that is more significant than style, appearance, charisma, or any combination of these. Design is a discipline of art that concentrates on producing apparel and other items for daily life. Three corset patterns were created from a basic corset as a result of this article's investigation, specifically to address fitting issues.

2.3 GARMENT DESIGNS

Four garment designs are done. These designs were generated from the basic corset design. Plain corset, V-yoke corset, Side panel corset, Shaper fit corset.

2.4 FABRIC SELECTION

The most crucial aspects to consider while choosing a cloth are length, colour, texture, and style. The type of clothing determines the fabric's length. Although fabric is normally cut lengthwise, the bias grain axis can also be used on occasion. Texture is another element of fabric design. It determines how the fabric feels and looks. Texture is the experience of handling, grasping, and squeezing fabric.

2.5 CHOICE OF MATERIAL

This project uses polyester lycra fabric to design shapewear. The polyester lycra fabric will provide enough stretch, which is a key element in shapewear. A particularly elastic sort of synthetic cloth is called lycra. Polyester and polyurethane, a flexible plastic substance, are combined to make it. Lycra is a widely used fabric in apparel because of its durability and elasticity.

2.6 CHOICE OF COLOR

The shapewear is made with consideration for skin tone. Your clothing and complexion will determine the ideal colour combination. Look for shapewear in black or cocoa if you have darker skin and are wearing a light-colored outfit. Less pigmented skin should wear a bodysuit over a thin garment. With darker outerwear, the black option looks good on people of all skin tones.

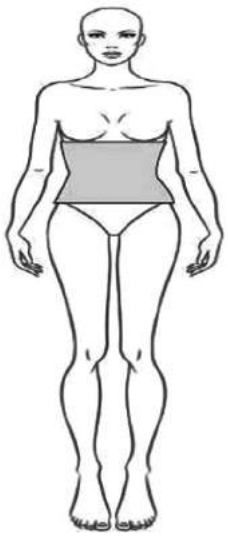
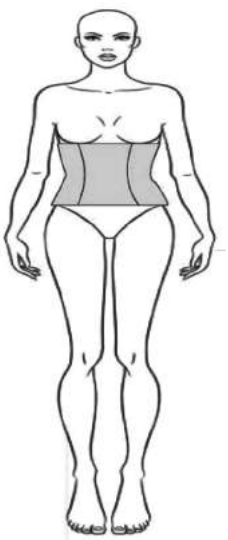
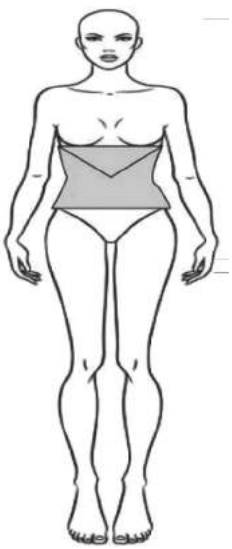
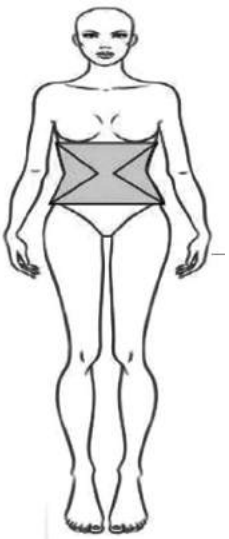
2.7 TRIMS SELECTION

The fabric is built using threads. In addition to the fabric, clothing accessories or fabric trims can also be attached to a garment. In addition to cloth, trims are items that are utilised in the sewing room to make dresses. They work closely with the fabric to create clothing. Nothing can be used on the form wear other than thread. Trims can be used because it is an undergarment.

2.8 THREAD

Polyester threads are displacing rayon threads at a rapid rate. These are the most common threads for embroidery and stitching. Polyester yarn has a high sheen and can withstand threads could be used in woven jackets, hosiery, leather garments,

Table -1 Corset Designs

Design 1	Design 2	Design 3	Design 4
			

and denim, as well as ready-to-wear clothing. Since, we have taken skin color fabric for shapewear the matching thread color is also skin color

2.9 PATTERN MAKING

It takes a lot of talent to create patterns for clothing production. Each pattern's attention to detail and technique ensures that garments are produced to design with a small margin of error. After you've designed your clothes, you'll need to convert your sketches into technical drawings before you can start making patterns.

2.10 PATTERN MAKING – TECHNIQUES

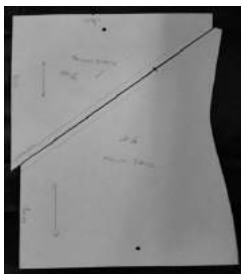
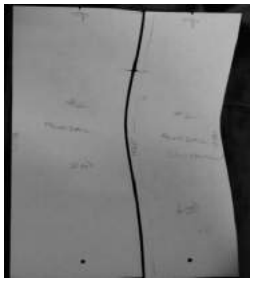
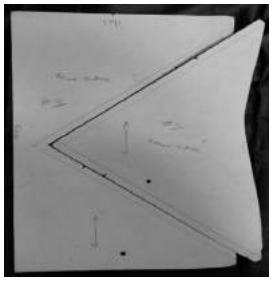
2.10.1 PATTERN DRAWING ON A FLAT SURFACE

This method uses muslin fabric to transform a simple pattern into a three-dimensional form, which is then transferred to paper. Flat patterning helps to illustrate the areas for movement while also enhancing the wearer's comfort.

2.10.2 DRAFTING

It's a patternmaking technique in which body measurements are taken precisely, then ease is added for quick movement. A dress type or a model

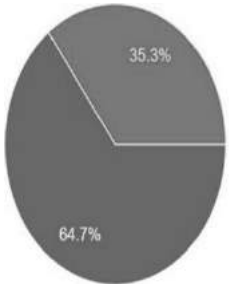
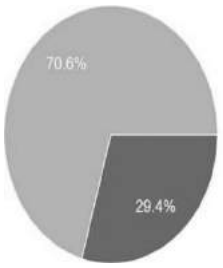
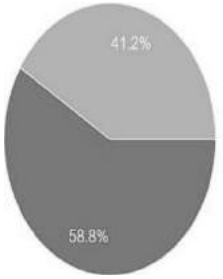
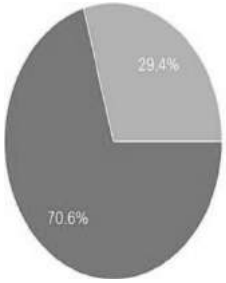
TABLE 2-Design and Finished Corset

DESIGN	PATTERN	FINISHED CORSET	DESCRIPTION
PLAIN CORSET			This shape gives the wearer a perfect fit and comfort. This patten doesn't have any pattern complications.
V- YOKE CORSET			In this pattern a yoke has been given. V yoke has been given in center front and centre back This yoke will give extra compression to the abdominal area and centre back. By this design we can expect the fit for the abdomen area and waist.
SIDE PANEL CORSET			In this pattern side panels has been given. This side panel will give the waist area extra fit and comfort. Panels has been given to both the sides of front and back. Those panels have been attached to centre front and centre back.
SHAPER FIT CROSSER			In this design a side panel from waist to centre front has been given. This will try to compress from waist to abdomen. The pattern change has been given to both front and back.

may be used to draught. Drafting is commonly used in the textile industry, and it can also be performed using a device.

2.11 CUTTING

Fabric cutting procedures follow the development of patterns. If the pattern does not have a seam allowance, add one before cutting. Place the fabric on a smooth surface and smooth out any wrinkles or folds. Only then should the fabric be cut. Fabric shears are widely used, but electronic cutting shears, similar to round knives, are used for industrial purposes.

Sl. no.	Criteria	Customer Response	Percentage	comment
1	Preference 	Yes No	64.7% 35.3%	This reaction is the customers reaction about preferring the shapewear for daily use. Most of the customers agrees to that they preferred to wear shapewear daily. Some of them disagreed to that because of comfortless.
2	Reason for preferring shaper 	Fit Comfort Both	29.4% 0% 29.4%	This is about reasons for preferring shapewear. Whether it is to be wear forfit or comfort. Most of customers preferred both fit and comfort. While the minority of them preferred for its fit only. None of them agreed to its comfort only. So, shapewear is mostly preferred for both fit and comfort.
3	Facing any skin irritation while wearing shapewear 	Yes No May be	0 % 42.2% 58.8%	This is about reasons for preferring shapewear. Whether it is to be wear forfit or comfort. Most of customers preferred both fit and comfort. While the minority of them preferred for its fit only. None of them agreed to its comfort only. So, shapewear is mostly preferred for both fit and comfort.
4	Does the shaper cause any extra skin sensitivity or pain in your skin 	Often Rarely Never	0% 70.6% 29.4%	Most of the customers have rarely experience the skin irritation, because they have been wearing it for very long time and wrong choice of shaper. Someof the customers have never faced suchproblems. So, the customers have to analyses their body type and buy the shapewear

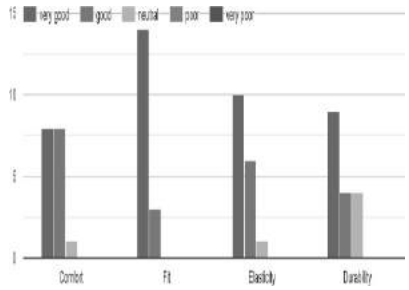
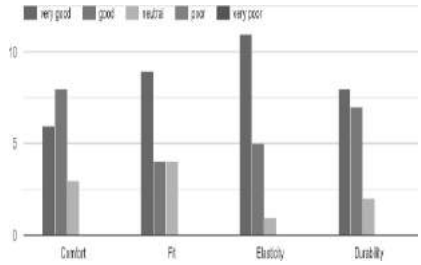
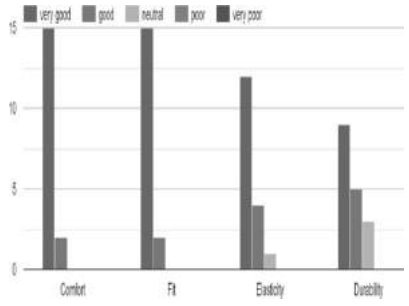
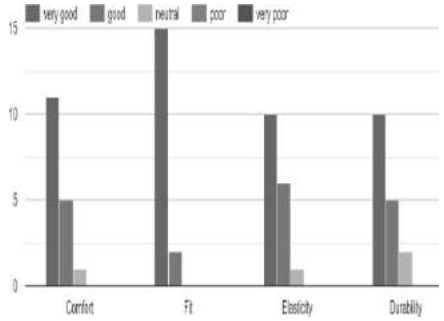
DESIGN AND DEVELOPMENT OF SHAPEWEAR (CORSET) TO IMPROVE THE FIT AND APPEARANCE OF THE WEARER

2.12 FINISHING

In the garment industry, finishing is a critical step. We take the finished goods from the lowing section and keep records in this area, then send them to the iron section after suckering Wham. The ironman then irons these according to the buyer's instructions.

2.13 SURVEY

A survey aids in the collection of data for a new product or conduct among customers. The survey is administered online, making it easier to interpret for all participants and allowing for the registration of responses. The following questions are asked of the designed garments.

Sl. no	Criteria	RATING	COMFORT	FIT	ELASTICITY	DURABLITY
1	Comfort level of wearing shapewear design 1 	Verygood	8	14	10	8
		Good	8	3	6	3
		Neutral	1	0	1	3
		Poor	0	0	0	0
		Verypoor	0	0	0	0
2	Comfort level of wearing shapewear design 2 	Verygood	6	8.75	11	7
		Good	8	3	5	6
		Neutral	3	3	1	1
		Poor	0	0	0	0
		Verypoor	0	0	0	0
3	Comfort level of wearing shapewear design 3 	Verygood	15	15	12	9
		Good	2	2	4	5
		Neutral	0	0	1	3
		Poor	0	0	0	O
		Verypoor	0	0	0	0
4	Comfort level of wearing shapewear design 4 	Verygood	11	15	10	10
		Good	5	2	6	5
		Neutral	1	0	1	2
		Poor	0	0	0	0
		Verypoor	0	0	0	0

Shapewear preference, Total hours of wearing shapewear , Reason for preferring shapewear, Comfort level of shaper for four designs, Skin irritation while wearing shapewear.

2.13.1 IDENTIFYING PROBLEM

The fit and comfort issues occur in women's shapewear are identified and solve by it using design developments.

Designing-The design has been developed from the plain corset and designed according.

Selection Of Fabric - Skin color polyester lycra are selected for the garment. It is comfortable and has good elasticity. It is the most preferable fabric for shapewear.

Trims - The selection trims are done on depend upon the type of the garment. Only threads are used to construct the garment.

Pattern Making -The flat laying technique has been used to draft the pattern for the designs.

Cutting - Fabrics are cut by using the patterns that made for the design.

Garment Construction - The design has been constructed according to the given pattern. FINISHING - Finishing is done after the whole sewing process and removed excess threads

3. RESULT AND DISCUSSION

Total hours of wearing shaper per day

Total no of hours	percentage
4 hours	18.7%
6 hours	43.8%
More than 6 hours	37.5%
Full day	0%

This chat shows the total hour of wearing a shaper. Most of the customers can wear up to 6 hours a day. Some of them can wear it more than 6 hours per day or lesser that it. Whereas no of them have agreed to wear it for full day.Because if shaper is worn for full day it can cause skin irritation problem etc. it's vital to let your body relax. Don't wear them for extremely long periods of time or sleep in them.

4. CONCLUSION

This articles deals with the designing of women's shapewear for fit and comfort. Shapewears are designed for the women's who tends to have the perfect body shape with some design variations. The main advantage of the garment is the pattern changes. Three design developments were made from the plain corset to increase the fit and comfort. This study contributes to the creation of waist supporting corsets that are both comfortable and beautiful to wear. They're designed to make different sections of the body look better. The four designs were analyzed for comfort, fit and shape. It should be alright if you wear the proper size and style of shapewear that allows you to breathe and work comfortably. The fabric also adapts itself so that the user does not feel suffocated while still providing sufficient compression

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DESIGNING AND DEVELOPMENT OF SUSTAINABLE FASHION LOGO-PATCH-WORK TOTE BAGS

Dr. Harpreet Kaur, Head, **Maninder Kaur,** Research Scholar
P.G. Department of Fashion Designing, Kanya Maha Vidyalaya, Jalandhar

ABSTRACT

Plastic pollution has become a serious environmental issue. Consistently accumulating mountains of disposable plastic waste poses a challenge to the world. Pre-consumer waste is the reintroduction of manufacturing scrap back into the manufacturing process. In the present study the respondents belonged to various age groups. All the respondents were from Jalandhar city and its adjoining villages. 10 original designs were developed by using CAD software i.e., coral draw. The pre-consumer textile waste was collected from boutiques of Jalandhar and adjoining villages. Then from this waste, bags were developed under two categories i.e., vegetable bags and grocery bags. The size of both bags was 16"×17". Different techniques were used to embellish them i.e., fabric painting, patchwork and couching. The estimation of cost of these tote bags was done. Then to check the consumer acceptability of these bags a questionnaire was developed and administered to 50 respondents selected from Jalandhar district by purposive random sampling. Data obtained from the survey was coded, tabulated and expressed in frequency and percentage. The percentage was calculated to find out the acceptability of the bags. 100% of the respondents found the vegetable bag to be a good substitute for plastic bags. 100% of the respondents found the vegetable bag pockets being appropriate for intended use and some respondents offered suggestions like the size of the vegetable bag should be increased and avoiding the use of white fabric. Possibility of using these bags in multiple end uses was explored. This suggestion was fruitful with a meaningful outcome.

Keywords : Eco-fashion, Patch-work, Plastic pollution, Pre-consumer waste, Sustainability.

Introduction

1.1a : What is Plastic Pollution?

Plastic pollution has become one of the most pressing environmental issues, as rapidly increasing production of disposable plastic products overwhelms the world's ability to deal with them. Plastic pollution is most visible in developing Asian and African nations, where garbage collection systems are often inefficient or nonexistent. (Parker, 2019).

1.1 b : Damaging Impact on Environment due to use of Plastic Bags

People are using plastic bags, which are environmentally dangerous products, for their daily needs mainly for shopping purposes as a result of which, the environment and agricultural lands are thereby being polluted. (Jalil, Mianand and Rahman, 2013)

1.2 : What is Sustainable Fashion ?

Sustainable fashion is the movement and process of creating clothes, shoes, accessories and other textiles through sustainable practices that take into account environmental, social and economic implications. Therefore, sustainable fashion looks beyond product and fabric waste, taking instead a holistic approach to fashion and its interactions with all other systems - social, cultural, ecological and financial. As such, sustainable fashion considers not only users and producers but all living species, present and future generations.(Gongini, 2017)

1.3 : What is Eco - Fashion ?

Eco is short for ecology, or the study of interactions between organisms and their environment. Eco-fashion is any brand or line that attempts to minimize the impact on the environment, and often the health of the consumers and the working conditions for the people that are making the clothes. (Sunday, 2016) Many responsible citizens pride themselves in wearing their values on their sleeves by purchasing environmentally friendly clothes. (Brookbanks, 2011)

1.4 : What is Slow Fashion ?

Slow fashion is the deliberate choice to buy better-quality items less often. When purchases are made, they're environmentally and ethically conscious rather than trend-driven. The garments are durable and lend themselves to repairs, not disposal. Slow fashion is also transparent : Buyers know where their clothes are coming from, and items are often handmade by artisans. (Milnes, 2015)

1.5 : What is Fast Fashion?

Fast fashion can be defined as a cheap, trendy clothing, that samples ideas from the catwalk or celebrity culture and turns them into garments in high street stores at breakneck speed. (Rauturier, 2018) Fast fashion is the term used to describe clothing designs that move quickly from the catwalk

to stores to meet new trends. The collections are often based on designs presented at fashion week events.(Kenton, 2019)

1.6a : What is a Carbon Footprint?

Carbon footprint is the overall amount of greenhouse gas emissions, consisting primarily of carbon dioxide, associated with an organization, event or production. It is one of the most

common measures of the effect of an individual, community, industry, or country on the environment. (Spelch, 2016)

1.6b : Carbon Footprint Reduction

Carbon footprints can be reduced through improving energy efficiency and changing lifestyles and purchasing habits. Switching one's energy and transportation use can have an impact on primary carbon footprints. For example, using public transportation, such as buses and trains, reduces an individual's carbon footprint when compared with driving. (Selin, 2020)

1.8a : Fabric Painting

Fabric paints are a permanent way to colour fabrics. They can be mixed to create new shades or we used straight from the pot, but it's best not to dilute them as you would water-based paints, and this reduces the pigmentation. (Ling, 2014)

1.8b : Colour

We live in a world of colour According to the various researches, the colour that surrounds us in our daily lives has a profound effect on our mood and on our behaviour. A colour can change our mood from sad to happy, from confusion to intelligence, from fear to confidence. (Kurt and Osueke, 2014)

1.8c : Eco - Friendly Colours

Research has confirmed that green makes the consumer lean towards the assumption of a brand eco-friendliness. Going green is the most common slogan for the environment friendly branding after all. Blue is greener than green terms of conveying an impression of eco - friendliness, despite the frequent use of the word green to convey that idea. (Rabida, 2015)

1.9 : Patchwork

Patchwork, also called piecing, the process of joining strips, squares, triangles, hexagons, or other shaped pieces of fabric (also called patches), by either hand or machine stitching, into square blocks or other units. (Brick, n.d.)

1.10 : What is a Tote Bag ?

Tote bags are made from a variety of materials ranging from cloth to leather to plastics to even papers. Packaging is an important aspect of the products and tote bags are the kind of secondary packaging. They are the unfastened bags having parallel handles for convenient carrying.

Aims and Objectives of study

1. To rescue textile waste fabric from going to the landfills.
2. Create an awareness towards prevention of pollution caused by plastic bags and providing substitute sustainable cloth bags made from textile waste.
3. To create eco-friendly sustainable logos by using coral draw.
4. Developing designs of tote bags with pre-consumer textile waste using the technique of patch-work.
5. To test the market acceptability of these bags.

Limitations of Study

For construction of bags only pre-consumer textile waste was used.

For testing of market acceptability only Jalandhar District was selected as locale.

Review of Literature

A review of related research serves an important purpose and helps the researcher at every step of his venture as a researcher to build appropriate methodology and design keeping in view the strength and failure of previous researchers. A review of literature provides useful hints for further research.

2.1 Patchwork

Debbabi , Sahnoun and Kordoghli , (2014) clearly depicted that clothing manufacture generates many kinds of wastes. The main purpose of this work was recycling fabric wastes. For this aim, they created new patchworks fabrics. Created patchworks were made using different sizes and shapes of patch templates. They also investigated three techniques for patchwork seaming. They have reported advantage of using large patches. However, small patches are appreciated to recover most quantity of wastes. In this study they have also anticipated the use of patchwork fabric in clothing design.

According to Badoe and Frimpongn, (2015) their work explored innovative techniques in printed textile design as means of introducing

creativity and providing new and varied ways of decorating textile materials. Art studio-based research design was used under which exploration and experimental methods were adopted in the execution of these works. Some innovative techniques applied were spray printing, sponge and broomsticks printing, twigs block printing, marble printing, bottle printing, brush printing, lace transfer and fabric painting.

METHODOLOGY

The methodology is the scientific way of conducting research so that the study is reliable and conducted with accuracy.

Section: 3.1 : Locale of The Study

Section: 3.2 : Designing Process

(a) Development of Sustainable Fashion Logos(SFL)

Section: 3.3 : Preparation of Products(BAGS)

3.3.1: Collection of raw material and sorting

3.3.2: Development of tote bags under two categories i.e., vegetable bags and grocery bags

3.3.3: Estimation and cutting/placement of fabric scraps

3.3.4: Attachment of pasting

3.3.5: Tracing of Logos and hand painting

3.3.6: Construction of tote bags and decoration with couching

3.3.7: Attachment of slings and tassels

3.3.8: Costing

Section: 3.4 : Techniques Used

3.4.1: Fabric painting

3.4.2: Patchwork

3.4.3: Couching

Section: 3.5 : Market Acceptability

3.5.1: Development of Questionnaire

3.5.2: Execution of Questionnaire

Section 3.6 : Results and analysis

3.1 : Locale of Study

The questionnaire-cum- interview schedule was administered to a mixed group of consumers of groceries and vegetables selected by purposive random sampling. The respondents belonged to various age groups i.e., elderly men and women, teenagers, middle-aged men and women. All the respondents were from Jalandhar city and its adjoining villages.

3.2 : Designing Process

(a) Development of sustainable Fashion Logos:

Available designs were searched on the internet, magazines, books to consider the availability of existing designs. 10 original designs were developed by using CAD Software i.e., Coral Draw 7 and Photoshop version 7.0.

3.3 : Preparing Products

3.3.1 : Collection of Raw Material and sorting

As per the principles of art and design, colour coding and sorting of textile waste was done. Various techniques were experimented with to create patchwork bags. Textile waste scraps (pre-consumer textile waste) were collected from boutiques of Jalandhar and adjoining villages.

3.3.2 : Development of tote bags under two categories i.e., vegetable bags and grocery bags

1. Vegetable bags: The size of vegetable bag was 16" x 17". Inside the vegetable bags, different pockets were attached with the inner lining as per the need of sorting various vegetables. Different sizes and shapes of pockets were made for the different vegetables so that polythene or other smaller bags were not needed and the vegetables do not mix into each other.

2. Grocery bag: The length and width of a grocery bag is also 16" x 17". In these bags plain lining from waste fabric was attached to finish the inner side and lining was attached such that seam allowances were not visible inside these bags.

3.3.3 : Estimation and cutting of fabric

To estimate the fabric required for each article the size of the bag was taken into account. Pieces were cut according to the bag measurement including seam allowances and bags were accordingly cut.

3.3.4 : Attachment of Pasting

After the estimation and cutting of the fabric according to the design, pasting was attached to all the pieces of the fabric by ironing.

3.3.5 : Tracing of logo and hand painting

After the pasting was attached to all the pieces of fabric then tracing of SFL was done with the help of yellow carbon paper. The portion selected for tracing the design was light so that the colour of the logo was clearly visible. The size of the said piece was also appropriate as per the logo. After the tracing painting was done with the help of acrylic colours and brushes.

3.3.6 : Construction of tote bags

The painted pieces were ready to be joined keeping the front and backside of the bag correctly. The lining was attached inside the bags and finishing was done.

3.3.7 : Attachment of slings and tassels

Slings were cut lengthwise and for some bags a braided sling was made, slings were then attached to the bag and some slings were made in a simple way and attached to the bags. Tassels were also made to beautify the bags. Some tassels were attached at the top of the bag near the slings, some were attached at the side of the bag and some were attached at the lower portion of the bag for extra decoration.

3.3.8 : Costing

After the construction of bags was done then the next step was the estimation of the cost of the tote bags. Stitching, designing, and labour were calculated as per cost in rupees. Adding the cost of painting, stitching, extra decoration and attaching pockets in vegetable bags was also calculated. Profit was then estimated to be 25% of the cost price of each bag. Thus, the estimated sale price of each bag was different depending upon inputs on each design.

3.4 : Techniques Used

3.4.1 Fabric painting

Freehand painting was used for logos. For fabric painting, acrylic colours were used in which blue and green colours were mostly used in all the logos because these colours depict eco-friendly sensibility.

3.4.2 Patchwork

Patchwork was used for the construction of the tote bags. Crazy quilting was used to decorate a few bags. Random sizes of big and small pieces were attached. Symmetric and asymmetric arrangements were made to create patchwork pieces.

3.4.3 Couching

Couching was also used for the purpose of highlighting some portions of the bags. Machine couching and hand couching were both done on the bags.

3.5 : Market Acceptability

3.5.1 Questionnaire

To check the consumer acceptability of the bags a questionnaire was made and was administered to 50 respondents selected randomly from Jalandhar district by purposive random sampling. Before executing the questionnaire, 10% respondents i.e., 5 persons were administered the questionnaire for pre-testing or pilot run. Any ambiguity or mistakes were thus removed. Questionnaires were filled by asking questions from the respondents. It was ensured that the respondents understood the language. Wherever required, vernacular translation was provided by the researcher.

3.5.2 Execution of Questionnaire

While executing the questionnaire great care was taken. Those respondents who didn't understand English language, for them the vernacular translation was provided by the researcher. If any respondent had any doubt the researcher clarified it. The researcher herself filled the questionnaire and ensured that there was no ambiguity or misunderstanding faced by the respondent.

3.6 : Result and analysis

Data obtained from the survey were coded, tabulated and expressed in frequency and percentage. The percentage was calculated to find out the acceptability of the bags.

RESULTS AND DISCUSSION

This chapter furnishes the results emerging out from the analysis of the data of the present investigation. The data have been organized and analyzed by taking into account the objectives of the study. All the pertinent information has been categorised and reported under the following major sections:

4.1 : Preparation of Sustainable Bags i.e. Vegetable bags and Grocery bags

To make the sustainable vegetable and grocery bags more attractive tassels were attached. After stitching the bags tassels were added. For making tassels the leftover textile scraps were used which remained after making the bags. Various types of shapes were cut out of the fabric scraps. Many were folded in a square pattern and from them circular shapes were generated. Then thread was passed from the centre to join them all. The tassels as per availability and aesthetics were long or short. Some were placed at the top or along the handles of the bags while some were attached at the lower corners of the bag or along the lower edge of the bags as per the aesthetic requirement.

4.1a Cutting and Preparation of Circular Tassels for Decoration of Bags

4.1b Attachment of Tassels by Hand/ Machine on to Sustainable Bags

4.2a. Grocery Bags

In each of the grocery bags inner lining was attached neatly and it was made reversible also.

FRONT BACK

SF-G Bag Design No.1

In this grocery bag with Sustainable Design Logo 1, a triangular piece patchwork was done. In the centre portion, plain white fabric was attached and on it sustainable fashion logo No.1 was painted. Then these sections were stitched together. Similarly, on the back side of the bag same pattern was used. In the end, braided handles made with textile strips were attached. Finally, tassels were added at the end of the handle such that it hung a little over the logo and created a harmonious unit. Tassels were also attached at the lower corners of the bag. Care was taken that the colours of the fabrics matched well with the logo and the painted flowers pattern at the bottom portion of the bag.

FRONT BACK

SF-G Bag Design No.2

In this Grocery Bag with Sustainable Design Logo No.2, a symmetrical piece patchwork was done. In the lower portion of the bag light (beige) coloured fabric was attached and on it Sustainable Fashion Logo No. 2 was painted. Then these sections were stitched together and similarly on the back side of the bag same pattern was used. In the end, handles made with beige coloured textile strips were attached. Finally, tassels were added at the end of the handle such that it hung a little over the logo and create a harmonious unit. Care was taken that the colours of the fabrics matched well with the logo.

FRONT BACK

SF- G Bag Design No.3

In this grocery bag with Sustainable Design Logo No. 3, a symmetrical patchwork was done. On the top right portion of the bag plain white rectangular fabric was attached and on it Sustainable Fashion Logo No. 3 was painted.

Machine couching was used to make the lower right corner patch stand out with it's diagonal multi-hued lines. To make the bag more attractive and beautiful pin-tucks were made on the top left side patch of the bag. Then these sections were stitched together. Similarly on the back side of the bag same pattern was used. In the end, braided handles made with textile strips were attached. Finally, tassels were added at the lower portion of the bag. Care was taken that the colours of the fabrics matched well with the logo.

FRONT BACK

SF- G Bag Design No.4

In this Grocery Bag with Sustainable Design Logo No.4, an asymmetrical patchwork was done. At lower side right portion of the bag plain white fabric was attached and on it Sustainable Fashion Logo No.4 was painted. Vertical lines using machine couching were made on the left lower corner patch to make it more attractive. Then, these section were stitched together and similarly on the back side of the bag same pattern was used. Handles made with straight textile strips of the printed fabric leftovers were attached to the bag. Finally tassels were added at the lower portion of the bag. The researcher ensured that the colours of the fabrics matched well with the logo.

4.2b. Vegetable Bags

In each of the Vegatable Bags inner lining was attached neatly. It was made reversible and the inner lining contained pockets which compartmentalised the section so that the vegetables didn't mix into each other.

4.2b Vegetable bags showing compartments/pockets created to avoid mixing of vegetables

FRONT BACK

SF-V Bag Design No.5

In this Vegetable Bag with Sustainable Design Logo No.5, symmetrical patchwork was done. On the lower right side portion of the bag plain white fabric was attached and on it Sustainable Fashion Logo No.5 was hand-painted. Horizontal lines using machine couching were made on the left upper corner patch to make it more attractive. Then these sections were stitched together and similarly on the back side of the bag same pattern was used. Handles made with straight textile strips of the fabric leftovers were attached to the bag. Finally a long tassel was added at the right side which fell along the side seam of the bag. The researcher ensured that the colours of the fabrics matched well with the logo.

FRONT BACK

SF-V Bag Design No.6

In this Vegetable Bag with Sustainable Design Logo No.6 a symmetrical patchwork was done. On the left upper portion of the bag plain white fabric was attached and on it Sustainable Fashion Logo No.6 was painted. Cross stitches were made on the stitching line to make it more attractive. Then these sections were stitched together and similarly on the back side of the bag same pattern was used. In the end braided handles made with textile strips were attached. Then the left-over scraps of matching fabrics were used to make beautiful tassels. Textile scraps were cut in a circular shape and from the centre thread was passed. At the top rhombus

shaped cushion was made and then all the shapes were attached together with a thread. Finally, at the end the long tassels were attached to create a harmonious unit. Care was taken that the colours of the fabrics matched well with the logo.

FRONT BACK

SF-V Bag Design No.7

In this Vegetable Bag with Sustainable Design Logo No.7, asymmetrical piece patchwork was done. At the left side top portion of the Bag fawn coloured fabric was attached and on it Sustainable Fashion Logo No.7 was painted. Machine couching was done to make the stitching line more attractive. Then all these sections were stitched together and similarly on the back side of the bag same pattern was used. Handles made with yellow coloured textile strips were attached. Then, finally tassels were made of leftover scraps . The fabric scraps were cut in circular shape and from their center thread was passed. Then tassels were added at the right side along with handle and at the lower corner portion of the bag. Care was taken that the colours of the fabrics matched well with the logo.

FRONT BACK

SF-V Bag Design No.8

In this Vegetable Bag with Sustainable Design Logo No.8, a symmetrical piece patchwork was done. On the lower left portion of the bag plain white fabric was attached and onit Sustainable Fashion Logo No.8 was painted. Then the various sections of the patchwork bag were stitched together and similarly on the back side of the bag same pattern was used. In the end handles made with sky blue colour and printed textile strips were attached. To make the bag more attractive tassels were added. For making the tassel circular shapes were cut and a rhombus shaped textile cushion was used at the top and rest of the tassels were attached to its three vertices. The tassel was attached in the centre of the top right patch portion of the bag. Care was taken that the colours of the fabrics matched well with the logo.

4.2: Result and Analysis

Table 4.1 : Distribution of Respondents on the basis of appropriateness of selling price for vegetable bags

(n = 50)

S. No.	Selling Price	Respondents	Percentage (%)
1.	220	6	12%
2.	260	38	76%
3.	300	6	12%
	Total	50	100

(n = 50)

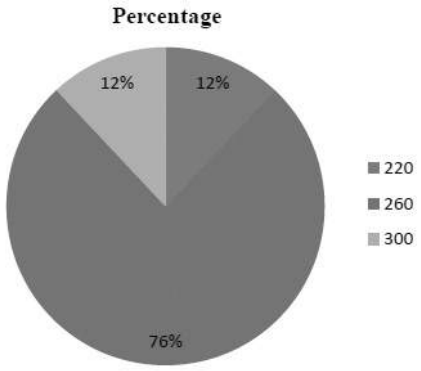

Fig 4.1 : Distribution of Respondents on the basis of appropriateness of selling price for vegetable bags

As per Table 4.1 and Figure 4.1, 76% of the respondents found Rs. 260/- to be the appropriate price of the vegetable bags while 12% each of the respondents found Rs. 220/- and Rs. 300/- to be the appropriate selling price for the vegetable bags.

Table 4.2 : Distribution of Respondents on the basis of appropriateness of selling price for Grocery bags

(n = 50)

S. No.	Selling price	Respondents	Percentage (%)
1.	240	43	86%
2.	260	5	10%
3.	300	2	4%
	Total	50	100

(n = 50)

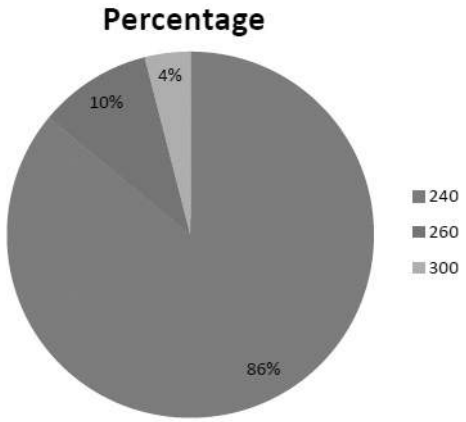

Fig. 4.2 : Distribution of Respondents on the basis of appropriateness of selling price for Grocery bags

As per Table 4.2 and Figure 4.2, 86% of respondents found Rs- 240/- to be the appropriate price of the Grocery bags while 10% each of the respondents found Rs- 260/- and Rs- 300/- to be the appropriate selling price for the Grocery bags.

Table 4.3 : Distribution of Respondents on the basis of suitability of vegetable bag being a good substitute as compared to plastic bag

(n =50)

S. No.	Variables	Respondents	Percentage (%)
1.	Yes	50	100%
2.	No	0	0%
	Total	50	100

(n = 50)

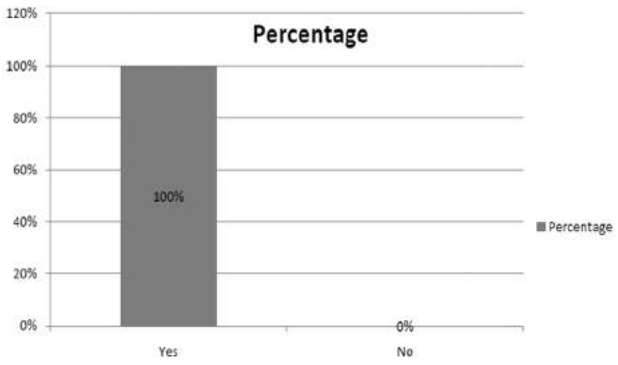

Fig 4.3 : Distribution of Respondents on the basis of suitability of vegetable bag being a good substitute as compared to plastic bag

According to the Table 4.3 and Figure 4.3, 100% of the respondents found the Vegetable bag to be a good substitute for plastic bags.

Table 4.4 : Distribution of Respondents on the basis of appropriateness of the vegetable bag pockets being appropriate for intended use.

(n = 50)

S. No.	Variables	Respondents	Percentage (%)
1.	Yes	50	100%
2.	No	0	0%
	Total	50	100

(n = 50)

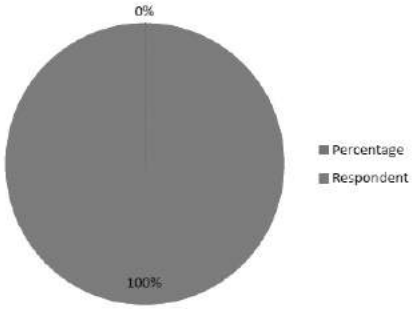

Fig 4.4. Distribution of Respondent on the basis of appropriateness of the vegetable bag pockets being appropriate for intended use.

As per Table 4.4 and Figure 4.4, 100% of the respondents found the vegetable bag pockets being appropriate for intended use which was that the vegetables remained segregated and did not mix into each-other. These pockets also helped to discourage the use of small polythene bags inside the main bag.

Table 4.5 : Distribution of Respondents on the basis of appropriateness of size of Grocery bag for intended use

(n = 50)

S. No.	Variables	Respondents	Percentage (%)
1.	Yes	46	92%
2.	No	4	8%
	Total	50	100

(n = 50)

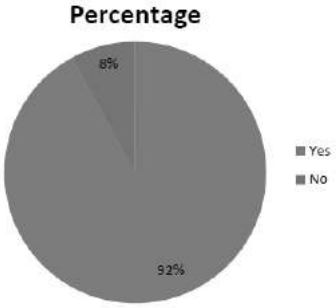

Fig 4.5 : Distribution of Respondents on the basis of appropriateness of size of Grocery bag for intended use

As per Table 4.5 and Figure 4.5, 92% of the respondents found the size of grocery bag to be appropriate for intended use while 8% respondents did not think so and desired the bag to be slightly bigger and wider.

Table 4.6 : Distribution of Respondents on the basis of appropriateness of size of vegetable bag for intended use

(n = 50)

S. No.	Variables	Respondents	Percentage (%)
1.	Yes	38	76%
2.	No	12	24%
	Total	50	100

(n = 50)

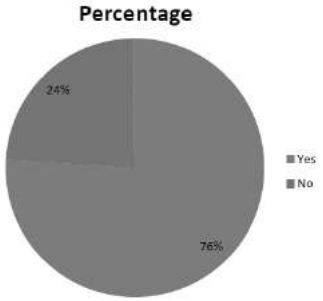

Fig. 4.6 : Distribution of respondents on the basis of appropriateness of size of vegetable bag for intended use.

As per Table 4.6 and Figure 4.6, 76% of the respondents found the size of the vegetable bag to be appropriate for intended use while 24% of the respondents desired the bag to be bigger and wider.

Table 4.7 : Distribution of Respondents on the basis of acceptance of the vegetable bag's innovative design

(n = 50)

S. No.	Variables	Respondents	Percentage (%)
1.	Yes	49	98%
2.	No	1	2%
	Total	50	100

(n = 50)

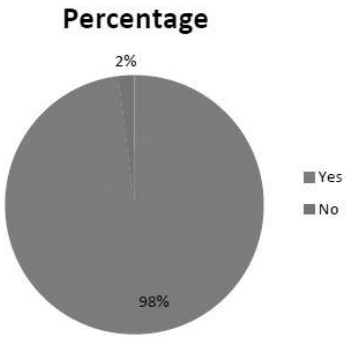

Fig 4.7 : Distribution of Respondents on the basis of acceptance of the vegetable bag's innovative design.

As per Table 4.7 and Figure 4.7, 98% of the respondents appreciated the bag's innovative design but 2% of the respondents wanted bigger pockets inside the vegetable bag.

Table 4.8 : Distribution of Respondents on the basis of suggestions offered

(n = 50)

S. No.	Variables	Respondents	Percentage (%)
1.	Yes	16	32%
2.	No	34	68%
	Total	50	100

(n = 50)

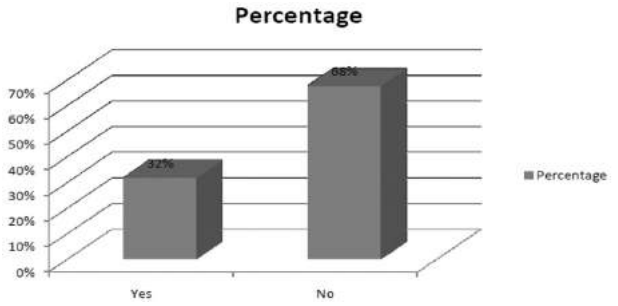

Fig 4.8 : Distribution of Respondents on the basis of suggestions offered.

As per table 4.8 and Figure 4.8, 68% respondents did not give any suggestions while 32% respondents offered suggestions like: the size of the vegetable bags should be increased to 18"×20" so that inner pockets are also suitably used. Finishing can be neater in fabric painting of bags, avoid the use of white fabric, thicker and sturdier fabrics must be used in the bags.

Table 4.9 : Distribution of Respondents on the basis of bags being suitable as per current needs of the society

(n = 50)

S. No.	Variables	Respondents	Percentage (%)
1.	Yes	50	100%
2.	No	0	0%
	Total	50	100

(n = 50)

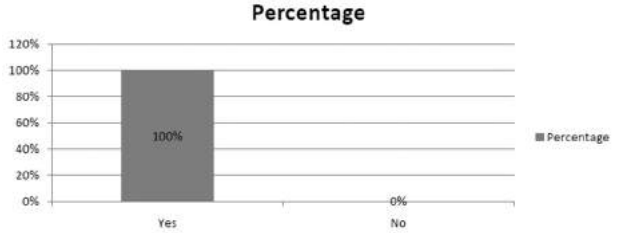

Fig 4.9 : Distribution of Respondents on the basis of bags being suitable as per current needs of the society.

As per Table 4.9 and Figure 4.9, 100% respondents found the bags to be suitable as per current needs of the society.

Table 4.10 : Distribution of Respondents on the basis of inclination to order similarly designed bags

(n = 50)

S. No.	Variables	Respondents	Percentage (%)
1.	Yes	29	58%
2.	No	21	42%
	Total	50	100

(n = 50)

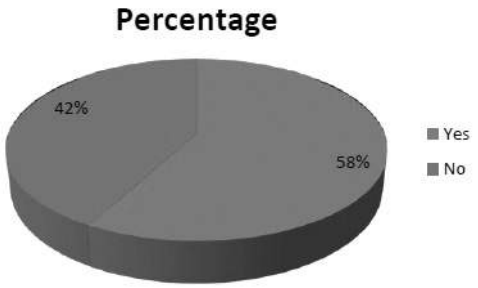

Fig 4.10 : Distribution of Respondents on the basis of inclination to order similarly designed bags.

As per Table 4.10 and Figure 4.10, 58% respondents showed an inclination to order similarly designed bags while 42% Respondents did not demonstrate such an inclination.

Table 4.11 : Distribution of Respondents on the basis of willingness to refer these bags to their friends / relatives

(n = 50)

S. No.	Variables	Respondents	Percentage (%)
1.	Yes	46	92%
2.	No	4	8%
	Total	50	100

(n = 50)

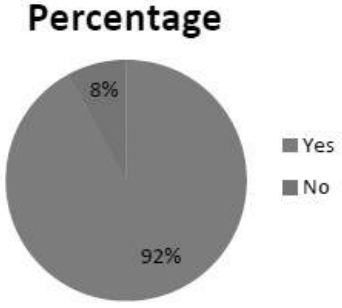

Fig. 4.11 : Distribution of Respondents on the basis of willingness to refer these bags to their friends / relatives

As per Table 4.11 and Figure 4.11, 92% of the respondents showed willingness to refer these bags to their friends/relatives while 8% respondents negatively to this query.

4.3a College Bag

4.3b Ladies Hand Bag

4.3c Men's office-cum-tiffin Bag

Due to the feedback from consumers during the survey the possibility of using the bags in multiple ways was explored. It was found to be a constructive suggestion and the researcher explored this option by incorporating these bags for usage as college bags, ladie's bag, men's office-tiffin bag etc. As the bags were found to be very pretty and trendy with a meaningful logo on them so their multi use was suggested. This suggestion was fruitful with a meaningful outcome.

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APPLICATION OF STEAM IN TEXTILES—A REVIEW (PART-I)

Irshad M. Momin, Associate Professor
D.K.T.E Society's, Textile and Engineering Institute, Ichalkaranji, Dist. Kolhapur, Maharashtra

Abstract

Heat energy is required in textile mills for various purposes. Steam is main source of heat in textile mills to serve these purposes. Industry invests huge amount in the generation of steam and on the devices, equipment's which are required to generate & control the steam; thus, steam is one of the luxurious utilities in textile mills. Owing to these considerations, the steam has to be carefully used in the industry, heat recovery to maximum extent has to be carried out from it so that return on investment for generation of steam is justified and the quality of the product is improved. By adopting advanced steam generation technologies, such as high-pressure boilers and cogeneration systems, textile manufacturers can optimize their energy consumption, lower greenhouse gas emissions, and contribute to sustainable production practices.

Keywords : Steam, sizing, singeing, desizing.

Introduction

Utilization of heat is done in textile mills for different purposes. Many processes are carried out rapidly & efficiently by using steam. Many reactions which are required in the chemical processing of cloth will not take place unless the components are heated. Heat is also required to dry materials, to increase the temperature of whole department or to lower their humidity. Steam is the main supplier of heat in textile mills. Apart from providing the process heat requirements, it may also be used to generate electrical energy. In some processes, steam is required simply to provide an atmosphere of water vapors around the yarn or cloth. Steam is versatile in its usefulness because it possesses many outstanding qualities as follows:

- It has very high heat content.
- It gives up its heat at a constant temperature.
- It is produced from water which is cheap & plentiful.
- It is clean odorless & tasteless.
- Its heat can often be used over & over again.
- It can be used to generate power and then be used for heating.
- It can be readily distributed and easily controlled.
- It can easily transfer energy to the process.
- It is fire and flame proof.

Types of Steam

In the process of conversion of water into steam, various forms of steam are observed. The temperature at which water starts boiling depends uponthe pressure and as such for each pressure (under which water is heated) there is a differentboiling point. This boiling temperature is known as the temperature of formation of steam orsaturation temperature. Once the water attains boiling temperature, the further heat applied to it does not increase its temperature but it is utilized for steam formation. So long as the steam is in contact with water, it is called wet steamand if heating of steam is further progressed such that allthe water particles associated with steam are evaporated, the steam so obtained is called dry andsaturated steam. Ifsupply of heat to the dry and saturated steam is continued at constant pressurethere will be increase in temperature and volume of steam. The steam so obtained is calledsuperheated steam and it behaves like a perfect gas.

Steam utilization in Textiles

Majority of steam in a textile mill is used in Chemical processing department, where it is used for a wide variety of purposes. Since most of the processes are wet treatments, drying accounts for a substantial part of the steam consumption. In some machines it is used to elevate the processing temperature or pressure, e.g., kiers, jiggers, yarn dyeing plants etc. In agers and twist setting machines, an atmosphere of steam in vapor form is provided around the fabric or yarn. Similarly, in polymerizing and heat setting machines, air is heated to provide a high temperature atmosphere to surround the fabric [1].

In caustic recovery evaporators, steam is used to concentrate the caustic, providing heat to evaporate the excess water from the dilute liquor. Apart from these, steam is also used in spinning and weaving departments during winter to raise the ambient temperature to a comfortable level. Sometimes, steam is used in these departments for dehumidification also. The grey cloth woven in the looms need to be processed further in order to make it acceptable for the ultimate end use. Various chemical treatments are given which enhance the usefulness, appearance and appeal if the fabric. the main factors which influence the desired results in these wet processing operations depend on

chemical concentrations, duration of treatment and the temperature. To satisfy the temperature requirements of the processes steam as the supplier of heat has an important role to play. The use of steam can be grouped into three main categories as follows – liquor heating, drying and evaporation, baking, heating and steaming.

Steam utilization in Sizing

In sizing machines, the warp yarn is first coated with a carefully prepared starch paste and is then dried. This is done to impart abrasion resistance and other properties requires for good weaving performance at the loom. Temperature of size paste is required to be maintained in order to control its viscosity. Application of the starch or size is done in a sow-box at the free end of the sizing machine and the wet sheet of yarn is dried in the drying section which could be one of a various system such as cylinder driers, hot air driers or dual driers. In cylinder driers, the yarn sheet is passed over steam heated cylinders. Hot air driers employ jets of hot air, while dual drying is a combination of both cylinder drying and hot air drying. Due to the advancement in the technology, it has now become possible to run sizing machines at high speeds. The high-speed sizing machines employ a large number of comparatively small diameter cylinders. This permits the steam to be used at higher pressures and also enables the contact length to be increased to any required extent.

The major performance indices of sizing machines are the steam consumption and the speed. Steam consumption is dependent upon the yarn parameters such as count, number of ends and moisture regain, as well as machine parameters such as steam pressure, leakages and the extent and condition of lagging on hot surfaces. Machine speed is dependent upon the steam pressure, length of contact, the warp tension efficiency of air and condensate removal from the steam system and upon any surface deposits on the heat transfer surfaces.

Steam utilization in Singeing

Singeing is the process of burning away of protruding fibers and loose threads from the grey fabric before wet processing. This is done by passing the fabric close to gas flames or an electrically heated hot plate. In addition to such an arrangement the singeing machine also consists of a few pre-drying cylinders and a post-singeing quench box containing the desizing liquor. In the case of synthetic fabrics, quenching is aided by steam jets. Most of the heat consumed in the singeing machine is drawn from gas or electricity. The actual steam consumption part is mostly in the pre-dryer, and amounts to less than 0.1 kg steam/ kg fabric. this is low in-spite of the high production speeds of the order of 150 m/min or more because, only protruding and surface fibers are dried before the singeing operation. Specific steam consumption in the quench box is estimated to be a little higher but is place at 0.5 kg/ fabric or less.

Steam utilization in Desizing

During desizing, impurities such as starches, gums etc. are degraded into water soluble products which are then removed easily by washing. It also helps to improve absorbency of fabric. The desizing process consists of an oxidative treatment or acid steeping or enzyme treatment either in a batch or continuous process. The batch process involves steeping the fabric for several hours either at room temperature or at a slightly elevated temperature. The continuous process often combines desizing with scouring and includes steaming at 90˚C for one hour in a J box. In certain alternate processes, enzyme/ oxidative treatment is adopted for less than 3 minutes under steaming conditions at 105˚ C. The specific steam consumption of desizing process alone is very small ranging from 0 to 0.2 kg steam/ kg fabric. However, treatment involving steaming J box or in jigger consumes more steam.

Conclusion

The utilization of steam in the textile industry plays a crucial role in various processes and has several significant benefits. Firstly, steam is extensively used in the textile industry for fabric pre-treatment, dyeing, printing, and finishing processes. It provides efficient and effective heat transfer, ensuring uniform dye penetration and fixation, resulting in high-quality and durable textile products. Secondly, steam is used in textile machinery, to generate the necessary heat and power for various operations. This includes steam-powered turbines for electricity generation, steam irons for garment pressing, and steam chambers for fabric steaming and curing. Steam offers a reliable and versatile source of energy, contributing to the smooth functioning of textile manufacturing processes.

Additionally, steam plays a crucial role in maintaining optimal humidity levels in textile

production facilities. It helps control the moisture content in the air, preventing static electricity, reducing fiber breakage, and minimizing product defects. Moreover, steam can be utilized for cleaning purposes, sterilizing equipment, and controlling dust in textile mills, ensuring a clean and hygienic working environment. Furthermore, the use of steam in the textile industry can lead to improved energy efficiency and reduced environmental impact. By adopting advanced steam generation technologies, such as high-pressure boilers and cogeneration systems, textile manufacturers can optimize their energy consumption, lower greenhouse gas emissions, and contribute to sustainable production practices.

In conclusion, the utilization of steam in the textile industry is vital for various processes, ranging from fabric treatment to machinery operation. Its benefits include superior dyeing and finishing results, reliable energy supply, humidity control, and environmental sustainability. The continued utilization and advancement of steam technology in the textile industry will contribute to the growth and success of this important sector.

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China's economy stabilises, factory activity bounces back

China's factory activity expanded for the first time in six months in September, an official survey showed recently, adding to a run of indicators suggesting the world's second-largest economy has begun to bottom out.

The purchasing managers' index (PMI), based on a survey of major manufacturers, rose to 50.2 in September from 49.7, according to the National Bureau of Statistics, edging above the 50-point level demarcating contraction in activity from expansion.

The PMI, the first official statistics for September, adds to signs of stabilisation in the economy, which had sagged after an initial burst of momentum early in the year when China's ultra-restrictive COVID-19 policies were lifted.

Preliminary signs of improvement had emerged in August, with factory output and retail sales growth accelerating while declines of exports and imports narrowed and deflationary pressures eased. Industrial profits jumped by a surprise 17.2% in August, reversing July's 6.7% decline.

"The manufacturing PMI, plus the good industrial profit figures, suggest that the economy is gradually bottoming out," said Zhou Hao, chief economist at Guotai Junan International.

China's non-manufacturing PMI, which includes sub-indexes for services sector and construction, also rose, coming in at 51.7 versus August's 51.0.

The composite PMI, including manufacturing and non-manufacturing activity, climbed to 52.0 in September, from 51.3.

Near-term data on the radar of economists include consumer spending for the longest public holiday this year. "Golden Week" kicked off recently with the Mid-Autumn Festival, which will be followed by the National Day break through Oct. 6.

Passenger travel by rail of late reached 20 million trips, a single-day record, state media reported, in a bullish start to what authorities forecast will be "the most popular Golden Week in history."

More stable economic indicators will be welcomed by policymakers as they grapple with a property sector debt crisis. Authorities have announced measures to shore up the market, including cutting mortgage rates, although the sector is far from being out of the woods.

New home prices fell the most in 10 months in August and property investment declined for an 18th straight month.

China Evergrande Group, the world's most indebted developer with more than $300 billion in liabilities, said recently its founder was being investigated over suspected "illegal crimes."

The ADB of late trimmed its 2023 growth forecast for China to 4.9%, from 5.0%, due to the property sector weakness. ■

Apparel exporters witness signs of recovery

India's apparel exporters are witnessing early signs of recovery after a gap of one year, with an uptick in enquiries from the UK as the Free Trade agreement (FTA) deal between India and the UK has reched the final stage of negotiations.

"The UK buyers feel that India will sign the FTA with the UK soon and they will not have to pay an import duty of 12% as the garments with take four-five months to reach their stores within which the FTA will be signed. Brands from the UK like Marks & Spencer, Primark and Tesco are placing orders," said KM Subramanian, president of Tiruppuur Exporters Association.

Tiruppur is the largest hub of apparel exports in India , in August, the UK's trade secretary, Kemi Badenoch, held intensive talks with government officials in Delhi on the prospective FTA between India and the UK. Badenoch said the deal was in the final stage of negotiations.

Subramanian said the prices of yarn have also fallen which is fuelling export demand. The UK accounts for more than 20% of India's apparel exports. There is also an uptick in enquiries from the UK, exporters said. Global brands are now placing orders for the Christmas and New Year season.

The consignments will be shipped in the September-October period and will be available in the stores ahead of Christmas.

India has been facing decline in apparel exports.

In July, apparel exports amounted to an estimated $1.1 billion, 21% lower year-on-year and 15% lower on a year-to-date basis than in 2022.

"However, there has been an uptick in export demand from the end of July from both Europe and the US," said Sanjay Jain, chairman of ICC National Textiles Committee.

Jain said buyers are negotiating on prices, too. "Indian yarn prices are competitive. So garment exporters should be able to compete and get their share in exports," he said. ❐

Exports contracted 6.9% in August, trade deficit hits 10-month high

India's merchandise exports contracted for a seventh consecutive month in August, declining 6.9 percent year-on-year to $34.48 billion, owing to weak external demand, data released by the commerce department showed recently. The government, however, said that exports had started "stabilising" and "green shoots" were clearly visible.

The merchandise trade deficit, or the gap between exports and imports, on the other hand, widened to a 10-month high of $24.16 billion in August as higher curde oil prices and robust domestic demand led to a nearly 11 per cent jump in imports on a sequential basis.

Imports stood at $58.64 billion last month, down 5.2 per cent year-on-year. While exports and imports have been declining since the beginning of 2023, the pace of contraction has slowed July onwards, the data showed.

Commerce Secretary Sunil Barthwal said a high base of last year also affected the contraction in exports. While falling commodity prices this year impacted the value of exports, they remained positive in terms of volume, he added.

"Pessimism is turning into optimism now as greenshoots are clearly visible. The industry said their export orders were better and they were also optimistic about export order books. In August, at least in July's story is repeating. This means that there's an improvement in terms of the global exports scenario," Barthwal said in a media briefing. ❐

India needs to be self-sufficient in textile machinery : Piyush Goyal

India should become self sufficient in the manufacture of textile machinery, said the Union Minister for Textiles, Commerce and Industry, Consumer Affairs, Food, and Public Distribution in Coimbatore recently.

Speaking at the Asian Textile Conference organised by the Confederation of Indian Textile Industry and SIMA 90 Years Celebration, he said the (proposed) Free Trade Agreement with the UK would enable the textile industry in Coimbatore to capture the markets that had once taken away business from here. India should also become a supplier of high quality textile machinery. A trade agreement with countries such as Switzerland. Norway, etc. would enable the manufacturers of machinery in India to collaborate with business in those countries and manufacture the machinery in India.

India is $3.7 trillion economy now, and even with the current rate of growth, it would be able to cross $30 trillion in 2047. "The would is seeing the potential of a new India" he added.

Darshana Vikram Jardosh, Union Minister of State for Textiles and Railways, said, "Let us still put our efforts together to make the dream of Prime Minister Narendra Modi true of making India the third largest economy in the world." ❐

Export promotion body to launch dashboard on technical textiles

The Synthetic and Rayon Textiles Export Promotion Council said it will unveil a dashboard on technical textiles soon.

Chairman of the council Bhadresh Dodhi said the dashboard would have details of technical textile products for which demand was increasing, the countries exporting more of each product, and countries importing various technical textile products.

The U.S., Japan, and West Asian countries are buying package textile products from India, which is the main driver of technical textile exports at present. Technical textile products have registered a 6% growth in exports so far this year, he said. However, man-made fibre and fabrics, excluding garments, are expected to see a degrowth of 8-10% this financial year. "Exports are down mainly due to global consumption patterns," Mr. Dodhia said. ❐

Textile-export likely to regain soon : Industry

The textile industry may soon witness a revival of orders, especially from overseas markets, in the second half of the financial year, industry officials said. "Exports were down last year and so far, this year," Sunil Patwari, Chairman of Cotton Textiles Export Promotion Council told the media. "But, this cycle should end soon."

The year 2023-2024 is expected to end with almost the same level of exports as last year (about $40 billion), Rakesh Mehra, Deputy Chairman of Confederation of Indian Textile Industry added.

"Even to maintain retail sales, global buyers will buy more as their inventory is getting over. That will increase exports."

The new cotton season will start on October 1, bringing more cotton into the market, moderating prices, Mr. Patwari added. ❐

Incentives for textiles may be given by Year-end

The government is likely to announce fiscal incentives for the ailing textile and apparel industry by the end of this year, partly to stave of the impact of a fall in overseas orders, a trade body said recently.

The incentives could come under the production linked incentive (PLI) scheme that promises billions of dollars to boost manufacturing ranging from electronic products to pharma.

"The government could make an announcement by December," said T. Rajkumar, chairman of the Confederation of Indian Textile Industry (CITI), referring to industry representatives' meeting with textile and finance ministry officials earlier the month August.

Earlier in the August government offcials reviewed the PLI scheme, launched in 2020, under which government proposed to offer around $24 billion in cash incentives to 14 sectors.

The $150 billion textile and apparel industry, which employs over 45 million, is facing declining exports as European and U.S. consumers cut back on spending. ❐

Data show textile exports expected to revive

Textile and apparel exports turned positive in August after more than six months of contraction, as per data shared by the Confederation of Indin Textile Industry (CITI).

With exports worth $2,951.9 million in August 2023, the year-on-year (y-o-y) growth was 4.33%. While textile exports increased 14%, apparel exports declined 8.15%.

Cumulative exports of textiles and apparel for April-August, however, were 10.5% lower y-o-y.

"It (growth) registered in textile exports) is too early to call it a trend," said S.K. Sundararaman, chairman of Southern India MIlls' Association. "We need to wait and see for another three or four months."

"Usually demand and exports pick up during the September-March period," said Siddhartha Rajagopal, ED, Cotton Textiles Export Promotion Council.

"Garment demand is also expected to revive in December-January of FY24. The situation is not rosy. But, the growth will be sustained," he added. ❐

Technical textiles exports expected to surge rapidly in coming years

India's technical textiles exports are expected to surge by leaps and bounds in the coming years as it has just begun to explore the segment, The Synthetic and Rayon Textiles Export Promotion Council (SRTEPC) Chairman Bhadresh Dodhia has said.

"Among man-made fibres (MMF), technical textiles make up 30 per cent of the total exports. It is just the beginning for India and it will grow sharply," he told recently in an interview.

Sportswear, fire retardant, geo-textiles, construction, agro-tech, industrial tech and home furnishings all use technical textiles with Germany accounting for 60 per cent of technical textiles pie.

Technical textiles can be made stronger than steel and used in rockets.

Dodhia said technical textiles can be the vehicle which can drive MMF exports. "Indian textiles exports are cotton-driven. Cotton makes up 60-65 per cent.

This is in reverse to what is happening in the global market where MMF accounts for 70 per cent of total textile demand," he said.

The lower share in the textiles export basket is an opportunity and India could emerge as a "favoured" supplier of MMF, Dodhia said.

In the first quarter of the current fiscal, overall exports of technical textiles were $631 million compared with $678 million in the same period a year ago, down by 6.9 per cent. Geotech was the fastest growing segment in the quarter with 88 per cent growth followed by protective textiles with 63 per cent.

The decline in technical textiles was one of the reasons why MMF shipments from the country declined by 14 per cent of $1,338 million.

Over the past five years, the MMF demand has registered a 10 per cent CAGR after being stagnant during 2014-2018.

The Ministry of Textiles has asked the association to come up with a brand that will represent MMF in the global market. "We are discussing this within our association and working out a plan to come out with a brand like Kasturi for cotton," Dodhia said. Though crude oil prices determine the prices of MMF products, the rates are not as volatile as cotton. "Price fluctuations in MMF are minimum. And MMF is the only solution for textiles sustainability," the SRTEPC Chairman said.

MMF can be recycled and Prime Minister Narendra Modi wearing a jacket made out of waste plastic bottles has given the sector a new impetus.

The Indian government need not handhold the textile sector, particularly when the PLI scheme has proved to be progressive. However, the sector is looking for a better duty structure to be competitive in the global market.

Exporters urge Finance Minister for extention of ECLGS

Expoters have sought the central government's intervention in providing affordable and easy availability of credit to MSMEs amid global headwinds due to lack of liquidity.

In a letter to finance minister Nirmala Sitharaman, apex exporters' body Federation of Indian Export Organisations (FIEO) requested for the extension of Emergency Credit Linked Guarantee Scheme (ECLGS) till March 31, 2024 and restoration of interest subsidy benefit of 5% to manufacturer MSMEs.

It said some of the MSME sectors are affected due to a dip in exports on account of a global demand slowdown.

FIEO has urged extending the ECLGS "till March 31, 2024" as it will help micro, small and medium enterprises sail through this difficult time and bounce back when the situation improves.

"With interest rates firming up, MSMEs are getting credit at not less than 8-11%. The subvention for the interest equalisation scheme was reduced as interest rates were coming down. However, with complete change in situation, there is an urgent need to restore interest equalisation benefit of 5%," it added. MSMEs account for about 40% in the country's total exports.

India's exports declined 6.86% to $34.48 billion in August, for the seventh month in a row, due to a fall in shipments from key sectors like petroleum and gems and jewellery on subdued global demand. The trade deficit (difference between imports and exports) during April-August this fiscal contracted 11.9% to $172.95 billion.

India's exports contracted 15.88% in July. Exports sectors, which recorded negative growth in August, include tea, coffee, rice, spices, leather, gems and jewellery, textiles, and petroleum products. ❐

India emerges as a global hub for textile manufacturing and export

As one of the oldest industries of the Indian economy that has continued to flurish over centuries marked by several monumental transitions, India's textile industry has witnessed stupendous growth to reach its value of USD 150 billion and gain global recognition as the second-largest textile manufacturing capacity worldwide alongside being the sixth-largest exporter of textiles and apparel globally.

While India's textile and apparel exports stood at USD 44.4 billion in FY22, with a 41 percent year-over-year increase, it is expected to reach USD 100

billion in the next five years, delineating growth at a CAGR of 11 percent. Against the backdrop of India having a competitive advantage relative to the world's major textile producers, with its skilled manpower and comparatively lower cost of production, and the government's intent to augment the Indian textile and apparel industry's size to USD 190 billion by 2025-26, the setting up of several mega textile and apparel parks have taken centre stage.

As a unique model, bringing to fruition the 5F vision of PM Modi, the settign up of seven PM MITRA Parks or Pradhan Mantri Mega Integrated Textile Region and Apparel Parks bear testimony to the major strides being taken by the government to posit India as a global hub for textile manufacturing and export. These parks meant to enhance the competitiveness of the Indian textile industry by helping it attain economies of scale and drawing global players to set up manufacturing units in India are expected to generate employment for 20 lakh people. As an investment worth nearly Rs. 70,000 crores, the parks aim to attract investment, further innovation and create job opportunities by offering state-of-the-art infrastructure, plug and play facilities alongside scope for training and research through the joint efforts of the Central and State Government. With the Ministry of Textiles overseeing the execution of the project, the PM MITRA Parks will play an instrumental part in creating world-class industrial infrastructure to attract large-scale investment, including Foreign Direct Investment (FDI) while promoting innovation and boosting job creation.

The Product Linked Incentive (PLI) Scheme, worth USD 1.31 billion, represents another major initiative of the Indian government targeting the promotion of apparel made of Man-Made Fiber or MMF, alongside MMF fabrics and products of technical textiles produced in India. Incentives offered through this scheme, ranging from 7 to 15 percent on stipulated incremental turnover for five years will bolster the manufacturing capabilities of India's MMF apparel, MMF fabrics and technical textiles industry.

Furthermore, the Indian governments intent to establish 75 textile hubs throughout the country, allowing 100 percent FDI in the Indian textile manufacturing sector through the automatic route, increased investment in schemes to the tune of USD 109.99 million for the Amended Technology Upgradation Fund Scheme (ATUFS) to stimulate greater private equity investments and employment generation encapsulate the key measures that bode well for the already thriving sector's future. ❐

External debt surged $4.7 b in April-June quarter to $629.1 b

India's external debt rose by $4.7 billion in a quarter to $629.1 billion as at end-June 2023, according to the RBI.

In the last four quarters, this metric has increased by $16.3 billion. However, the external debt-to-GDP ratio decline to 18.6 per cent at the end of June 2023, from 18.8 per cent at end-March 2023 and 19.4 per cent at end-June 2022.

"Valuation effect due to the appreciation of the US dollar vis-a-vis the major currencies such as yen and SDR (special drawing rights) amounted to $3.1 billion. Excluding the valuation effect, external debt would have increased by $7.8 billion instead of $4.7 billion at end-June 2023 over end-March 2023," the RBI said. Loans remained the largest component of external debt, with a share of 32.9 per cent, followed by currency and deposits (22.9 per cent), trade credit and advances (19.0 per cent) and debt securities (16.8 per cent).

Debt service (principal repayments and interest payments) increased to 6.8 per cent of current receipts at end-June 2023 compared with 5.3 per cent at the end of March 2023, reflecting higher debt service, the RBI said in its statement on external debt.

At end-June 2023, long-term debt (with original maturity of above one year) was placed at $505.5 billion, up $9.6 billion over its level at end-March 2023. As at end-June 2022, long-term debt stood at $486.8 billion.

The share of short-term debt (with original maturity of up to one year) in total external debt declined to 19.6 per cent at end-June 2023 from 20.6 per cent at end-March 2023 and 21.0 per cent at end-June 2022. Similarly, the ratio of short-term debt (original maturity) to foreign exchange reserves declined to 20.8 per cent at end-June 2023 (22.2 per cent at end-March 2023 and 22.0 per cent at end-June 2022).

RBI said the US dollar-denominated debt remained the largest component of India's external debt, with a share of 54.4 per cent at end-June 2023, followed by debt-denominated in the Indian rupee (30.4 per cent), SDR (5.9 per cent), yen (5.7 per cent) and the euro (3.0 per cent). ■

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Indian Textile Accessories & Machinery Manufacturers' Associaion

ITAMMA carrying forward the slogan "ATMA Nirbhar Bharat" through Seminar on "Skilling, lean & Textile Technology" on 9th September 2023, 4 PM at Hotel HYATT Regency, Ahmedabad

Mr. Nimesh Shah, President, ITAMMA, said "Knowing the importance of Industry Experts-Industrialists-Govt. Bodies in resulting fruitful Industry Projects which can be successfully implemented at the Production level; this initiative of ITAMMA shall be helpful to all the categories of Textile Industry".

Mr.R.D.BARHATT,JointCommissionerIndustries,Gandhinagar, special interactive B 2 B session on " Skilling opportunities in Indian Textile Engineering Industry following Government authorities attended

Ms Shalini Singh, COO & acting CEO, Capital Goods & Strategic Skill Council, New Delhi, special interactive B 2 B session on " Skilling opportunities in Indian Textile Engineering Industry following Government authorities attended

Mr. Nirav Desai, Class 1, PRINCIPAL at Industrial Training Institute - Kubernagar(Ahmedabad) & Asst. Director at Skill Development Directorate, Surat, special interactive B 2 B session on " Skilling opportunities in Indian Textile Engineering Industry following Government authorities attended.

In the special interactive B 2 B session on "Skilling opportunities in Indian Textile Engineering Industry" following Government authorities attended:

- Mr. R.D. BARHATT, Joint Commissioner Industries, Gandhinagar giving example of Bangladesh Apparel Industry informed about the Gujarat Textile Value Chain and the Skilling Gap.

Special interactive B 2 B session on " Skilling opportunities in Indian Textile Engineering Industry following Government authorities attended.

Mr. N.D. Mhatre,Director General (Tech.), delivering the Opening Remarks

Mr. Nimesh J. Shah President, ITAMMA, delivering the Welcome Speech

ITAMMA carrying forward the slogan "ATMA Nirbhar Bharat" through Seminar on "Skilling, lean & Textile Technology"

- Ms Shalini Singh, COO & acting CEO, Capital Goods & Strategic Skill Council, New Delhi informed about the necessity of bridging gaps in skilling in textile industry and the strategy planned for the same by working jointly with ITAMMA.

Mr. Rahul N Kirkire, Regional Director, NPC, Gandhinagar. Delivering his presentations on "NEW SCHEMES IN LEAN PROGRAMME FOR ALL MEMBERS OF ITAMMA"

Mr. Rahul N Kirkire, Regional Director, NPC, Gandhinagar. Receiving Memento from Mr. Nimesh J. Shah President, ITAMMA

Mr TAPAN UPADHYAY, Head of Application Engineering Business Region Festo India, delivering his presentations on "GROUND LEVEL AUTOMATION"

- Mr. Nirav Desai, Class 1, PRINCIPAL at Industrial Training Institute - Kubernagar (Ahmedabad) & Asst. Director at Skill Development Directorate, Surat along with his team members gave insight and benefits of each scheme of Gujarat State in the area of Skilling and Training.

Memento offering to Mr TAPAN UPADHYAY, Head of Application Engineering Business Region Festo India, by Mr. Nimesh J. Shah President, ITAMMA,

Mr TARUN PUROHIT, Founder, Limelight IT, delivering his presentations on "INDUSTRIES 4.0 SOLUTIONS"

This session was followed by lunch and thereafter the Seminar started by the presentations on "LEAN PROGRAMME and the latest schemes of MSME Ministry at Central level" by Mr. Rahul N Kirkire, Regional Director, NPC, Gandhinagar. After learning the new schemes of Lean Competitiveness Programme, ITAMMA's Gujarat Chapter decided to implement this scheme under different Clusters at Gujarat.

Memento offering to Mr TARUN PUROHIT, Founder, Limelight IT, by Mr. Nimesh J. Shah President, ITAMMA

ITAMMA carrying forward the slogan "ATMA Nirbhar Bharat" through Seminar on "Skilling, lean & Textile Technology"

A session of Technology witnessed the presentations by Mr. Tarun Purohit, Founder, Limelight IT, Ahmedabad on "INDUSTRIES 4.0 SOLUTIONS" and by Mr TAPAN UPADHYAY, Head of Application Engineering Business Region, Festo India on "Digitalization and Industry 4.0."

Ms SHALINI SINGH, Chief Operating Officer and Acting CEO, CGSSC, New Delhi delivering her presentations on OPPORTUNITIES IN SKILLING- CGSSC initiatives

Mr. Sanjay Bharadwaj, HR, CGSSC, New Delhi delivering his presentations on "Activities of CGSSC in the field of SKILLING"

Memento offering to Ms SHALINI SINGH, Chief Operating Officer and Acting CEO, CGSSC, New Delhi by Mr. Nimesh J. Shah President, ITAMMA,

During the special session on "Skilling Opportunities in Textile Engineering " Mr. Sanjay Bharadwaj, Human Resource, Capital Goods & Strategic Skill Council, New Delhi informed about the activities organized by CGSSC in this field while Ms Shalini Singh, COO & acting CEO, Capital Goods & Strategic Skill Council, New Delhi joined hands in signing MoU with Mr Nimesh Shah, President, ITAMMA; to take forward the joint working of ITAMMA & CGSSC in this field.

MoU Signing Ceremony - Ms SHALINI SINGH, Chief Operating Officer and Acting CEO, CGSSC, New Delhi on behalf of CGSSC & Mr. Nimesh J. Shah President, ITAMMA, on behalf of ITAMMA

Felicitating M/s SIDDHI Group, Ahmedabad for their contributed for "The Chandrayaan-3 Space Mission of India"

Felicitating M/s Himson Industrial Ceramic Pvt. Ltd., Surat for their contributed for "The Chandrayaan-3 Space Mission of India"

A special felicitation programme was organized for ITAMMA members for their remarkable contribution in the "The Chandrayaan-3 Space Mission of India" It is a pride for ITAMMA to felicitate M/s SIDDHI Group, Ahmedabad, M/s Himson Industrial Ceramic Pvt. Ltd., Surat and M/s Precise Industries, Ahmedabad.

ITAMMA carrying forward the slogan "ATMA Nirbhar Bharat" through Seminar on "Skilling, lean & Textile Technology"

Mr. Mehula Goswami, Director/Digital Business Enabler Sambuq.com India Pvt Ltd. delivering his presentations on "ITAMMA's SMART DATA CLINIC Vision to Create a ITAMMA Specific One Stop Information Sharing and Market Research Platform"

We have been working closely with SAMBUQ Team since last few months in the development of SMART DATA Clinic. The progress of the same was presented by Mr Mehul Goswami, Director/ Digital Business Enabler, Sambuq.com India Pvt Ltd. whereby ITAMMA feels that this Business Enabler Platform will bring Revolution in the Textile Industry.

Memento offering to Mr. Mehula Goswami, Director/ Digital Business Enabler Sambuq.com India Pvt Ltd. by Mr. Nimesh J. Shah President, ITAMMA,

Mr. Bhaveshkumar Patel, Vice- President, ITAMMA, delivering the Vote of Thanks

Vote of thanks was delivered by Mr Bhaveshkumar Patel, Vice-President, ITAMMA.

For further information, please contact :
N. D. Mhatre
Director General (Tech), ITAMMA
Bhogilal Hargovindas Building
18/20, K. Dubash Marg, Kala Ghoda
Mumbai-400001
Tele : (022) 40121421/40124828/8928144886
Fax : (022) 2287 4060
e-mail : info@itamma.org/admin@itamma.org
accounts@itamma.org
Web : www.itamma.org ■

New Chairman, Mr. Ketan Sanghvi elected for India ITME Society for 2023-2027

We are glad to inform you that Mr. Ketan Sanghvi has been elected as the Chairman of India International Textile Machinery Exhibitions Society (India ITME Society) for 2023 – 2027 in the AGM held on 16th September 2023.

Ketan Sanghvi holds an MBA (1986) and BS Mech (1983) from the University of Southern California, Los Angeles.

Mr. Ketan Sanghvi

He is the Director of Laxmi Shuttleless Looms Pvt. Ltd., Ahmedabad, which is one of India's leading manufacturer and supplier of shuttleless looms. He is also Partner in CreationTextiles, Ahmedabad which is one of the oldest manufacturer of dobbies. and Director of WANLAND Datacom (India) Pvt. Ltd. - a specialist in WAN and wireless connectivity solutions.

Mr. Sanghvi has always been active in contributions to Industry & has served as President, Indian Textiles Accessories & Machinery Manufacturers' Association 2006-2007& held position as Director, the Rotary Club of Mumbai Queen's Necklace 2006-2007.

Mr. Ketan Sanghvi shouldered responsibility of Hon' Treasurer since 2017 & is the longest serving Hon' Treasurer with 6 years as Office Bearer.

India ITME Society acknowledges and appreciates the valuable contributions of immediate past Chairman Mr. S. Hari Shankar (Joint Managing Director of Lakshmi Card Clothing Mfg. Co. Pvt.Ltd.) 2017-2023 and thanks him for the same.

For further information, please contact :
Seema Srivastava, Executive Director
India International Textile Machinery Exhibitions Society
1210-1212, Dalamal Tower, 'A' Wing, 12th Floor
Plot No. 211, Nariman Point, Mumabi-400 021, India
Phone : +91 022 49724603, +91 85919 51769
Email : itme@india-itme.com, Web : www.india-itme.com ■

ITME Africa 2023 to equip & enhance Kenya's Textile Production Prowess

India ITME Society, a non-profit apex industry body successfully concluded the "Curtain Raiser & Preview" of the 2nd edition of ITME Africa & Middle East 2023 on Tuesday 3rd October 2023,to be held one month hence from 30th November 2nd December 2023 at Nairobi, Kenya.

With over 80 years of development and fastest growing economy with growing Textile Technology in African continent, Kenya is in the right path to become Africa's Textile and Apparel Hub. As the host country for ITME Africa 2023, Kenya being a prominent country of African Union & active

Left to right Mr. Richard Cheruiyot,Board Chairman of the Export Processing Zones Authority (EPZA); Ms. Ruth Wadenya Ouma, Partnerships Manager, Kenya Chamber of Commerce & Industry(KNCCI); Mr. S. Hari Shankar, Imm Past Chairman, India ITME Society; Mr. Ketan Sanghvi, Chairman, India ITME Society;Dr. Juma Mukwana, Principal Secretary, State Department for Industry, Republic of Kenya; Mr. Didier Moussa Lombe, Deuxieme Conseiller, Ambassade De La Repubiluque Demmocratique De Congo Au Kenya; Ms. Adina Devani, Honorary Consul, Bosnia & Herzegovina; H.E. Shri Rohit Vadhwana, Deputy High Commissioner, High Commission of India;Mr. S Senthil Kumar, Hon' Treasurer, India ITME Society; Mr. Giuseppe Manenti, Director, Italian Trade Commission; Ms. Seema Srivastava, Executive Director, India ITME Society

ITME Africa & M.E. 2023 was conceived with a Vision to initiate a new era towards self reliance, socio-economic advancement & empowerment in the Textile & textile Engineering Sector with International co-operation for Africa & Middle East. Alsoit nurtures a Mission to serve as a gateway for Textile Technology & Engineering inclusive of technical Education, Skill Development, Investment, Joint Ventures & Sourcing with a sustainable and long term goals.

Despite an enormous untapped potential for trade expansion with Africa & M.E, presently trade with these regions are limited to certain sectors only. There is an enormous potential & opportunity presently with all elements aligned favorably for surging forward towards national economic prosperity and finding successful place in the global trade. Modernization and innovative technology is the only way forward for Industry & business to succeed in today's world.

member of AFTA can be the pivot for Textile Technology & Engineering Industry for the whole of African continent.

This once in 4 years event in Nairobi, Kenya is an effort to promote joint venture and business cooperation for Textile & Machine manufacturers which can act as a catalyst towards modernization of African Textile Industry& explore potential of Kenya as a new business destination along with other 23 participating countries other than India - Austria, Benin, China, Egypt, Ethiopia, Germany, Ghana, Italy, Jordan, Kenya, Nigeria, Rwanda, South Africa, Spain, Sri Lanka, Taiwan, Togo, Turkey, Tunisia, Uganda, Unites States of America & Zambia.

With this, it shall strengthen its position as a pioneer in modernization of its textile industry and position itself as a pivot for Textile technology upgradation for Africa & M.E. focusing on new chapters such as

ITME Africa 2023 to equip & enhance Kenya's Textile Production Prowess

- Cotton Seed & Cotton Farming Technology & Equipment,
- Machinery related to Engineering Products,
- Home Textile Products
- Associated Goods and Services for Textile Industry
- Technical Information Services, Educational Research Institutes & COE's

At this curtain raiser event the Guest of Honor H.E. Shri Rohit Vadhwana, Deputy High Commissioner & DPR (UNEP & UN-HABITAT), High Commission of India, Nairobi said, "This Exhibition is a significant stride towards enhancing bilateral trade and promoting industrial cooperation between India & Kenya. This landmark partnership aims to harness the strengths of both nations and drive innovation, sustainability, and economic growth in the Textile Technology & Engineering sector."


Shri Rohit Vadhwana

Chief Guest H.E. Dr. Juma Mukwana, Principal Secretary, State Department for Industry, Republic of Kenya stated,"ITME Africa & Middle East 2023 hosted in Kenya shall draw more attention to the potential of the Kenyan textile industry and raise awareness about their products and capabilities, both domestically and internationally. This can lead to increased visibilityand potential business inquiries and open doors for Kenyan businesses to expand their customer base."


Dr. Juma Mukwana

Mr. Ketan Sanghvi, Chairman India ITME Society said, "With 23 Countries converging in Nairobi under the banner of IndiaI TME Society, Africa will benefit tremendously in sowing the seeds for future partnership & successful business in African Continent."

Immediate Past Chairman Mr. S. Hari Shankar emphasized that "Latest & efficient technology is the only factor which gives economic success & trade dominion both domestically and globally".Newly elected Hon' Treasurer Mr. S. Senthil Kumar drew attention to the benefits of sector specific business exhibitionfor focused growth of the textile industry.


Mr. Ketan Sanghvi

Various Govt schemes, facilities & incentives available for foreign companies were shared at the curtain raiser by Mr. Richard Cheruiyot, Board Chairman,Export Processing Zones Authority (EPZA)invited industry to take advantage of facilities at EPZAandMs. June Chepkemei, Acting Managing Director, Kenya Investment Authority, Ms. Ruth Wadenya Ouma, Partnerships Manager, Kenya Chamber of Commerce & Industry emphasized the strengths of Kenya to provide most friendly business environment for doing business with Kenya.

Approximately 30 plus mainstream media covered the event. Other esteemed dignitaries who enriched the networking event with their active interaction with invited guests included H.E. Ms. Winpeg Moyo, Ambassador, Republic of Zimbabwe, Ms. Adina Devani-Honorary Consul, Bosnia & Herzegovina, Senator Mr. Omwami Sande Oyolo, Mr. Didier Moussa Lombe, Deuxieme Conseiller, Ambassade De La Repubiluque Demmocratique De Congo Au Kenya & Mr. Giueseppe Manenti, Director,Italian Trade Commission. Business leaders from Indian diaspore in Kenya, Officials from Gatsby Africa & Commercial attachés from multiple embassies interacted & networked with a promise for continued and detailed interaction during the main event ITME Africa & Middle East 2023 scheduled from 30th November to 2nd December 2023.

ITME Africa & Middle East 2023 is designed to foster a conducive business environment, promote textile & technology exchange and provide necessary infrastructure support to facilitate

the same.ITME Africa & Middle East 2023 shall bring together whole lot of possibilities to Textile businesses, Institutes, Students, Associations, Banks, Investors, Technology Consultants, & Trainers, Exporters / Dealers & Agents. A new set of Supply chain can create many Entrepreneurship / Start-up opportunities.

It is an unique and most promising event of 2023 for Textile Industry hosted in Kenya bringing plethora of opportunities to the doorstep of African Continent.

Participate and experience the wind of change and beginning of a new journey for textiles in Africa.

For further information, please contact :
Seema Srivastava, Executive Director
India ITME Society
1210-1212, Dalamal Tower, 'A' Wing, 12th Floor
Plot No. 211, Nariman Point
Mumabi-400 021, India
Phone : +91 022 49724603, +91 85919 51769
Email : itme@india-itme.com,
Web : www.india-itme.com ■

New cotton prices persist above MSP

The new cotton crop has started arriving in parts of North and South India with its prices hovering above the minimum support prices (MSP) levels.

"This year the arrivals are a bit early and the daily arrivals are around 3,000 bales. The demand will pick up slowly and the market expects good arrivals post September 15," said Ashwani Jhamb, Vice-President of the Bhatinda-based Indian Cotton Association Ltd.

"The crop is better than last year and the quality is good, though there have been instances of pink bollworm attacks in Punjab," Jhamb said, adding that the raw cotton (kapas or unprocessed cotton) prices are hovering above ₹7,000 a quintal across North India.

The MSP has been fixed at ₹6,620 per quintal for the medium staple cotton and ₹7,020 for the long-staple cotton.

Jhamb said the crop in Rajasthan requires rain at this point in time, while a clearer picture would emerge after-September 15.

The cotton growing regions in Talangana, Karnataka and Maharashtra have received rains over the past few days, after a dry-August.

"The market has firmed up following the trend in ICE in late August and delayed rains. Prices have gone up from ₹60,000 to ₹62,500 per candy (356 kg).

"Only mills that have lesser inventories are buying. Availability is not at all an issue and mills cannot afford to pay higher prices due to lower demand and movement in yarn in domestic and export markets." said Ramanuj Das Boob, Vice-President of the National Cotton Brokers Association and a sourcing agent for multinationals in Raichur.

In parts of telangana, Andhra Pradesh, and Karnataka, raw cotton arrivals have started in Kurnool, Nandyal, Yemmiganur, Adoni and Raichur, where farmers who have grown the fibre crop using borewell water have started bringing their produce to the markets, Das Boob said.

Prices is Southern Market are rulling between ₹7,400 and ₹7,800 per quintal, lower than the corresponding ₹10,000 a year ago.

"Last year, the crop was less and prices touched a record high and that was the reason arrivals were slower as farmers held back anticipating higher prices," Das Boob said.

The area under cotton has declined this year due to erratic monsoon. Per the latest data from the Agriculture Ministry, the acreage stood at 122,99 lakh hectares (1h) as on September 1 compared with 125,63 lh a year ago. ■

Lenzing provides REFIBRA™ technology to LENZING™ ECOVERO™, setting new responsible viscose standards for textile circularity

Lenzing provides new solution to combat global textile waste by expanding the eco-efficient REFIBRA™ technology to LENZING™ ECOVERO™ branded viscose fibers available worldwide, LENZING™ ECOVERO™ with REFIBRA™ technology features up to 20% of recycled raw material content from post-consumer textile waste, with an aim to increase the ratio in the future. The new offering empowers value chain partners to join forces with Lenzing to accelerate the transition to a circular textile economy

Lenzing Group, a world-leading producer of wood-based specialty fibers, has launched LENZING™ ECOVERO™ with REFIBRA™ technology at this year's Intertextile Shanghai Apparel Textile Fair and Trade Show. Building on the success of TENCEL™ Lyocell fibers with REFIBRA™ technology, the expansion of the REFIBRA™ technology to LENZING™ ECOVERO™ will help Lenzing increase the overall post-consumer content in its products. The expansion further highlights Lenzing's ongoing stride towards the transition to a circular economy in textile and fashion with its innovative, future-proof solutions.

"As climate change compels eco-conscious living, Lenzing collaborates with the industry to forge a future defined by collective engagement and systematic change, steering us toward a circular economy," said Florian Heubrandner, Executive Vice President Global Textiles Business at Lenzing. "LENZING™ ECOVERO™ with REFIBRA™ technology is well-positioned to meet the surging demand for diverse circular design innovations. This new offering empowers like-minded fabric mills, garment manufacturers and consumer brands to embark on this transformative journey alongside Lenzing – breathing new life into postconsumer textile waste while anchoring circularity at the core of the textile value chain."

Scaling circular responsible viscose fiber production for global textile market

Through Lenzing's successful development and scaled production, LENZING™ ECOVERO™ with REFIBRA™ technology is now available to customers worldwide. Maintaining the eco-responsible benefits of the original LENZING™ ECOVERO™, the new viscose fiber with REFIBRA™ technology comprises up to 20% of post-consumer textile waste, which is sourced from cellulose-rich materials or polyester-cotton blends. The waste is collected and sorted in collaboration with key industry and innovation leaders who champion post-consumer textile recycling programs.

Unleashing unlimited product possibilities with circular solutions

Driven by its "Better Growth" strategy, Lenzing consistently embraces circularity in textiles and empowers itself and its value chain partners to drive systemic change for a greener future. LENZING™ ECOVERO™ with REFIBRA™ technology plays a crucial role in this vision, filling the gaps for mills, manufacturers, and brands that seek to meet evolving industry requirements and consumer preferences globally.

This new fiber is identifiable at every stage of the supply chain, from fabric to final product, ensuring traceability and transparency. This empowers brands and retailers to offer genuine products while enabling consumers to make informed purchases.

About LENZING™ ECOVERO™

Produced by The Lenzing Group, LENZING™ ECOVERO™ branded viscose fibers is the industry's new standard for eco-responsible viscose. Derived from certified renewable wood sources using an ecoresponsible production process by meeting high environmental standards, LENZING™ ECOVERO™ fibers tailor to a sustainable lifestyle, contributing to a cleaner environment.

The fibers are biodegradable, versatile and can be tailored to a sustainable lifestyle that contributes to a cleaner environment, ensuring consumers' fashion choices are environmentally responsible with lower environmental impact.

About the Lenzing Group

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

The Lenzing Group's high-quality fibers form the basis for a variety of textile applications ranging from elegant clothing to versatile denims and high-performance sports clothing. Due to their consistent high quality, their biodegradability and compostability 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. In order to reduce the speed of global warming and to accomplish the targets of the Paris Climate Agreement and the "Green Deal" of the EU Commission, Lenzing has a clear vision: namely to make a zero-carbon future come true.

Key Facts & Figures Lenzing Group 2022

Revenue: EUR 2.57 bn
Nominal capacity: 1,145,000 tonnes
Number of employees (headcount): 8,301

For more information, please contact:
Rita Ng
Head of Global Marketing Services – Lenzing
Phone: (852) 3718 5675
Email: r.ng@lenzing.com
Simran Maheshwari
Senior Account Executive, Lenzing Group
m: +91 9643855958
Simran.Maheshwari@sixdegrees-bcw.com
WPP Gurugram, Level 7, Tower-B,
DLF Cyber Park, Phase III, Udyog Vihar
Sector 20, Gurugram, Haryana- 122016
bcw-global.com/locations/india

Radici Group Sponsor Del Cuore 2023/24

RadiciGroup is the "heart sponsor" of Atalanta for the 2023/2024 season

Tieup between the two Bergamo-based companies confirmed for Serie A, Coppa Italia and Europa League

Passion for Atalanta and address to the community engagement: these are the values behind the continuation of the partnership between RadiciGroup and Atalanta for the 2023/2024 season, across the Serie A, Coppa Italia and Europa League competitions. the two Bergamo-based companies look forward to taking the field together, not only in national competitions but also in Europe, as Atalanta seeks to replicate the ambitious exploits of recent years.

Luca Percassi and Maurizio Radici

"We have always believed in Atalanta and we are in the front line cheering on the team that has brought Bergamo to the world," comments Maurizio Radici, vice-president of RadiciGroup. "When I'm abroad, many customers ask me excitedly about Atalanta, its superb play and ability to entertain football fans. We are therefore proud to continue to be heart sponsor and to support the team – players, management and technical staff – who have shown skill, determination and perseverance over the years. We also fully support Atalanta's focus on young people and the football development project pursued by the academy. We all know how important it is, not only in football, to be able to cultivate and develop talent by creating opportunities for growth."

"RadiciGroup is undoubtedly one of the jewels of our region, so we are delighted to continue our relationship with them as our heart sponsor," says Luca Percassi, CEO of Atalanta BC. It is not just about a simple partnership, but about truly shared values. That's what it means to be Atalanta's

sponsor. We are hugely proud to continue this important growth journey alongside RadiciGroup."

For further information, please contact communication@radicigroup.com ❐

Birla Cellulose rolls out Ecosoft-Bamboo Viscose Fibre

Birla Cellulose, the pulp and fibre business of the Aditya Birla Group, is a leading sustainability focused Man-Made Cellulosic Fibres (MMCF) producer that has announced a new product offering - Birla Viscose Ecosoft, a new variant of viscose, made exclusively from bamboo pulp.

Bamboo is amongst the fastest growing species, with some varieties reaching maturity in 4-6 months. It is widely considered less resource intensive to cultivate versus other natural fibres and hence increasingly seen as an eco-friendly solution for textile needs.

Ecosoft fibres are an advancement over generic viscose fibres, offering higher moisture management. The resultant fabrics allow for high breathability, aiding in thermo-regulation. They are also characterized by soft textures and light weight.

The bamboo pulp is sourced from sustainably managed forests (FSC® certified) and the manufacturing processes adhere to high norms of qualityand environmental responsibility.

Birla Viscose Ecosoft is embedded with a molecular tracer which allows the manufacturers to trace the supply chain journey through a detailed transaction certificate.

Mr. ManMohan Singh, Chief Marketing Officer, of Birla Cellulose adds "It's a proud moment for Birla Cellulose to introduce Birla Viscose Ecosoft. Bamboo based viscose offers significant benefits such as utmost comfort and lustrous drapes that are being sought by consumers in apparel purchases. We believe this product will aid the textile industry to meet the consumer demand while being assured of the highest levels of quality standards and sustainable practices".

The product is readily available for advanced trials.

Visit https://birlacellulose.com/

Visit https://www.birlacellulose.com/traceability-greentrack.php

About Birla Cellulose

Birla Cellulose, the pulp and fibre business of the Aditya Birla Group, is a leading sustainability focused Man-Made Cellulosic Fibres (MMCF) producer.

Birla Cellulose operates 12 sites for pulp and fibre manufacturing that apply environmentally efficient closed loop technologies including recycle materials and enhanced conservation of natural resources. Birla Cellulose tops the Hot Button Ranking and has been accorded a 'dark green shirt' by the Canopy Planet Society. Its five global advanced research centers are equipped with state-of-the-art facilities and pilot plants. Birla Cellulose's fibers are made from renewable wood and are produced using a closed-loop process with significantly lower carbon emissions and lower resource consumption.

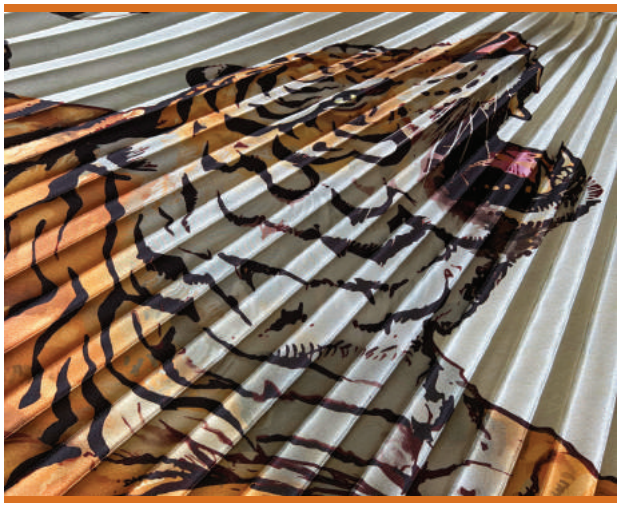
Birla Cellulose's fibers such as Livaeco viscose, Livaeco Modal, Excel™ (lyocell), and Spunshades™ Eco- Enhanced are manufactured with accredited sustainability benchmarks and deliver superior performance. Liva Reviva is a circular viscose fibre made using cotton waste and provides a solution to recycle fashion industry waste into fresh fibers. Birla Cellulose collaborates actively with its upstream and downstream partners with an aim to create a bigger and broader positive impact on sustainability of its value chain.

For further information, please contact
Namita Naik, White Marque Solutions
Birla Cellulose, Aditya Birla Group
Creative Strategy, Public Relations, Digital Outreach
Landline : 022-26335094-98, Extension : 13
Cell : +91 9867818259
Email : namita@whitemarquesolutions.com
Office No. 422/423, 4th Floor, Laxmi Plaza
Laxmi Industrial Estate,
Andheri (West), Mumbai-400053
Website : www.whitemarquesolutions.com ❐

Omniapiega Sew Up Specialist Pleating Services with Mimaki Technology

With investment in Mimaki Omniapiega derives much benefits

Pleating never goes out of fashion. On the contrary, the passion for pleated textures continues to set trends in the world of fashion and haute couture and has even conquered other creative sectors, such as design and architecture. Relaunched at the turn of the century and made popular by Marylin Monroe, the elegant, pleated skirt is synonymous with style. However, when it comes to adding patterns or other graphic design elements to a pleated garment, the nature of the process creates some complications. This is where the introduction of digitally printed designs and patterns can take pleated garments to even higher levels of quality and appeal. Not only that, but digital printing techniques can also offer designers and textile companies increased flexibility when it comes to modifying a piece. Whether to improve the end result last minute or simply create a slightly different version of an existing design - changing the colours gives consumers multiple options of the same product.

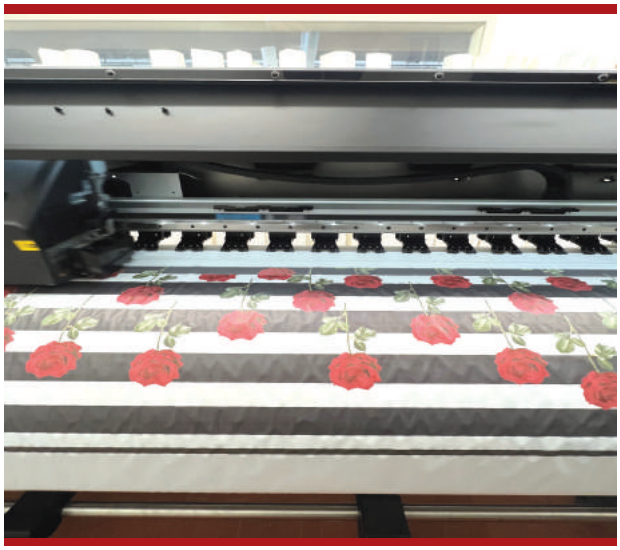


Omniapiega is a company who recognises the opportunities made possible with digital printing. This Italian company's expertise in producing high-quality pleated garments is central to its success. Founded in 1970, Omniapiega has tackled various technological challenges over the years in order to continuously improve the complex pleating processes, enhance quality and deliver the best possible service. The most recent way this established business has driven even further success and maintained its competitive advantage was to add digital printing services to its offering.

Bringing Print into the Fold

Based in Carate Brianza, in the province of Monza Brianza – strategically located close to the textile districts of Como and Turin and the fashion capital, Milan –Omniapiega offers a highly specialist, customised pleating service to fashion designers and brands.

"In the past, we used external suppliers for creative development and for printing, with very long and complex production processes," explains Pierfilippo Longoni, Fabrics Developer at Omniapiega. "However, when dealing with the world of fashion and creativity, tight deadlines, and last-minute changes are the order of the day. Even when a product is approved, very often variants of the design have to be made very quickly. Consequently, with production times exceeding two weeks, outsourcing the print was complicated and presented several problems."



This lengthy process and the need to create different versions of the same product on demand prompted Omniapiega's management to take

the leap and bring digital printing in-house. The aim was to speed up production and guarantee consistent quality from the conception of the design to the choice of fabrics, right up to the delivery of the almost finished product.

Fashioning a New In-House Digital Print Service

With the support of Bompan, Mimaki's exclusive reseller in Italy, Omniapiega installed its first Mimaki JV5 printerin 2015, which was quickly followed by two more units.

"The first step was to create a dedicated printing team, including a technician specialising in sublimation printing for textiles, a graphic designer and a textile designer. It was with this new team that, after researching the solutions available on the market, it was decided to focus on Mimaki's technology," explained Longoni.

With its expert team in place and three Mimaki systems printing reliably and at high quality, Omniapiega was able to successfully launch its in-house service, increasing both production speed and flexibility. The company could now easily meet the requirements of its customers for fast iterations ordesign versions, as well as provide more choice when it came to printing onto different fabrics.

"The ability to print in-house gave us the extra edge. Mimaki's technology proved effective right from the start, providing the quality, repeatability and production efficiency we needed. Over the years, we then turned our attention to perfecting the creativity and design element of our services," continued Longoni.

Latest Mimaki Technology for ComPLEAT Creativity

Focused on production technology innovation and with the excellent experience Omniapiega has had with Mimaki to date, the company decided to upgrade its production facility in 2022. They added a MimakiTS55-1800 sublimation printer, intended for continuous production on 350-metre reels, and a TS100-1600 sublimation printer for sampling. The combination of the two high performance machines allows the company to run proofs with greater flexibility before moving to actual production. The consistently high qualityachievable with these two systems provides Omniapiega with the certainty that it will achieve the same end results, identical to the prototypes, every time.

Longoni continued, "The investment in the Mimaki TS55-1800 and TS100-1600 printers enabled us to further improve speed and productivity. But that's not all -Mimaki's technology has enhanced our creative processes too, making it possible to replicate a number of vintage jobs in a modern way. In our archive, we have around 6000 different samples for pleating processes and fabric designs. Designers have access to this archive and often take vintage designs or garments as inspiration. Thanks to Mimaki's technology, we are ableto work with them to adapt these beautiful vintage patterns to ensure they look flawless when printed and then pleated. The Mimaki printers produce vibrant colours and intricate, accurate details that add that final touch of creativity to the pieces."

"Pleating has always been our core business and we boast a leading position in the market. In fact, we can say that when we look in the shop windows of the high streets across Italy, the pleats on display are often our own work. With the addition of our dedicated team and Mimaki's digital equipment, we have been able to further consolidate our position as an industry leader. The high-end fashion brands we work withare excited with the applications we achieved with this technology, and likewise, they are happy with the exceptional service in terms of flexibility and speed, both in development and production, that we are able to provide thanks to the Mimaki printers. Last but not least, digital printing has opened up countless avenues of development and innovation for us, allowing us to further accelerate our path of continuous growth and evolution.We look forward to what the future holds as we continue to push new creative and technological boundaries together," Longoni concludes.

About Mimaki

Mimaki is a leading manufacturer of wide-format inkjet printers and cutting machines for the sign/graphics, industrial, textile/apparel markets. Mimaki develops the complete product range for each group; hardware, software and the associated consumable items, such as inks and cutting blades. Mimaki excels in offering innovative, high quality and high reliability products, based upon its aqueous, latex, solvent and UV-curable inkjet technology. In order to meet a wide range of applications in the market, Mimaki pursues the development of advanced on-demand digital printing solutions. Mimaki Engineering Co. Ltd., (President: Kazuaki Ikeda) Nagano (Japan), is publicly listed on the Tokyo Stock Exchange, Inc.

For further information, please contact :
Danna Drion, Marketing Manager, EMEA
Mimaki Europe B.V., Tel: +31 20 462 79 42,
email: d.drion@emea.mimaki.com
Ivan Lesmana,
Communication Coordinator EMEA,
Mimaki Europe B.V., Tel: +31 20 462 79 42,
email: i.lesmana@emea.mimaki.com

SAITEX Releases 2022 Impact Report

Focus on Sustainable and Innovative Manufacturing

SAITEX, the leading circular manufacturing system and platform based in Vietnam and Los Angeles, released their 2022 Impact Report today, highlighting the organization's commitment to a harmonious relationship between humans, nature, and technology. The report showcases SAITEX's transformative journey, as the innovative company continues to redefine the way denim is produced and reused. The 2022 Impact Report has been formatted to be reader-friendly and accessible to wide audiences, particularly for a new generation of curious consumers who have downloaded the document to seek insight into how the denim products they purchase are created, who is making them, and if the manufacturer aligns with their own values.

With teams across the world, SAITEX has evolved into a comprehensive ecosystem that includes Saitex Garment manufacturing facilities in Vietnam and the USA, Saitex Mill, STELAPOP upcycling, REKUT, and Atelier & Repairs. This interconnected network of entities embodies SAITEX's core principles of respect, protection, empowerment, and collaboration.

The first section of the 2022 Impact Report shines a spotlight on SAITEX's unwavering commitment to human-centric practices. The organization believes in providing equal work opportunities, celebrating diversity, and fostering inclusion at all levels. SAITEX ensures fair labor practices and maintains a healthy working environment for its associates. Continuous investments in training and community well-being initiatives empower and enhance the lives of SAITEX's dedicated workforce.

One of the highlights of SAITEX's human-centric approach is its successful collaboration of REKUT (@REKUTdenim) – a brand and manufacturing division composed of differently-abled workers - with Madewell and IKEA. Together, they have launched innovative products that have captured the market's attention and exemplify SAITEX's commitment to driving inclusivity and positive change in the industry.

SAITEX's dedication to environmental preservation is another key aspect of their 2022 Impact Report. The vertical organization recognizes the fundamental importance of soil and water and actively takes proactive steps to minimize its ecological footprint. SAITEX carefully selects materials, implements holistic design principles, and utilizes closedloop water systems, all contributing to its transition towards a circular economy. The report proudly highlights SAITEX's recognition as a B-Corp "Best for the World in the Environment" category alongside Patagonia, further validating its commitment to sustainable practices.

Technological advancements play a pivotal role in SAITEX's operations. The organization leverages cutting-edge innovation and emerging technologies to enhance its efficiency and product offerings. SAITEX's smart factory, powered by applied AI, machine learning, and automation, ensures speed to market, transparency, and traceability throughout its value chain.

The 2022 Impact Report showcases SAITEX's data-driven decision-making, vertical integration, and launch of fabric and product facts in a nutritional label format, empowering designers to make informed choices.

While the 2022 Impact Report primarily focuses on SAITEX's apparel manufacturing facilities in Amata industrial park, the organization remains committed to providing a detailed impact overview for all its entities including their facilities in Los Angeles and Thailand. SAITEX recognizes the importance of reliable data and will continue to defer reporting on other entities until sufficient information is available.

SAITEX's 2022 Impact Report stands as a testament to the organization's relentless pursuit of sustainable manufacturing practices, fostering positive social impact, and embracing technological advancements. With this report, SAITEX reaffirms its commitment to transparency, accountability, and innovation.

For more information and to access the comprehensive impact overview of SAITEX's apparel manufacturing facilities in Vietnam for the year 2022, please visit www.saitex.com or follow @ SAITEXdenim.

IMPACT REPORT 2022

2022 AT A GLANCE

Saitex is circular manufacturing system powered by a harmonious relationship between humans, nature, and technology. Since its inception in 2001, Saitex has been grounded in purpose and driven by a mission to improve social and environmental practices in the apparel manufacturing space. Over the years, the organization has organically evolved from an apparel manufacturer into an ecosystem which currently includes: Saitex Garment manufacturing in Vietnam (2006) & USA (2021), Saitex Mill with its own spinning in Vietnam (2022), STELAPOP upcycling (2019), REKUT (2019),

CORPORATE NEWS

and Atelier & Repairs (2021). All of these entities share the same vision and work jointly to redefine the way we make and [re]use denim.

HUMANS

As a human-centric enterprise we believe that business should be a force for good. The foundation of the enterprise is built on the concepts of respect, protection, empowerment, and collaboration. Respect on all levels is crucial to all our relationships. We focus on providing equal work opportunities and celebrating diversity & inclusion. It is our responsibility to protect our associates by assuring fair labor practices and by maintaining a healthy & safe working environment. We value the importance of personal development. Therefore, to empower and to enhance the lives of our associates, we continuously provide training and invest in community well-being. In order to further our efforts, we focus on nurturing internal and external collaboration.

Highlights:

As a society, it is our responsibility to support members from marginalized backgrounds and cultivate a sense of belonging, both within and outside the workplace. We are very proud and grateful that our REKUT team had an opportunity to collaborate with two major partners, Madewell and IKEA to launch their products in 2022.

NATURE

Inspired by nature and regenerative by design, Saitex' ultimate goal is to create a positive impact. To achieve this, we concentrate on responsible raw material sourcing, water & soil stewardship, clean air & renewable energy. Building products of the future requires clean inputs. This is why we take outmost care when choosing our ingredients such as fibers, chemistry, trims and packaging, as well as how we design our processes. To make this a reality, we work with a trusted network of partners and are continuously engaging with certifying bodies such as bluesign®, GOTS, GRS, regenagri®, OEKO-TEX®, C2CPII and others. Soil and water are bases for all life on earth and this is why we design our operations with respect for these precious resources. Examples of the same can be found in our chemistry choices, facilities designed with an intent for no freshwater input, laundry with closed loop water systems, and regenerative farming. We continuously lobby and invest in renewable energy, planting trees because clean air just like the clean water and soil is essential. Our long-standing systems thinking approach, which encompasses mindful material choices, holistic design in construction of our operations, ongoing environmental and social innovation, collectively converge to serve the transformation to the circular economy.

Highlights:

To attest to our environmental efforts, in 2022 Saitex has been awarded Best for the World in Environment by the B-Corp along with Patagonia Works. In April 2023, according to the Higg FEM verification, Saitex manufacturing Vietnam scored 96 points out of possible 100 for year 2022. Save Trees Eliminate Landfills And Protect Our Planet (STELAPOP) collaboration for 2022 resulted in 30 000 kg of Saitex textile waste getting transformed into replacement for wood to create furniture and objects that are primed for circularity when it comes to both their modular design and their perpetual cyclability.

TECHNOLOGY

Cutting edge innovation and state of the art machinery, merged with human creativity serve as backbone for our operations. These include Industry 4,0 - smart factory, (Speed to Market) STM, transparency & traceability. Our smart factory is powered by applied artificial intelligence, machine learning, deep learning, big data, IOT, RFID, robots, and robotic process automation. In order to serve our customers better, we focus on cloud & edge computing, CAD, and computer vision. Transparency and traceability are intel behind sustainability and circularity. Without them, it is impossible to provide solutions for future optimization and to be held accountable. This is why Saitex has evolved into vertically integrated eco-system. Measurement is pivotal for identifying areas of improvement. Saitex has been actively engaged in conducting Life Cycle Assessments (LCAs) in collaboration with Ecochain since 2019 to comprehensively map-out its operations which has enabled us to gain a valuable insight and make data-based decisions in order to drive further improvements.

Highlights:

Based on our LCA studies, in 2022 we have launched our fabric and product facts in an easy-to-read nutritional label format with the aim to foster transparency regarding our processes and our impacts. Additionally, we hope that our data crunching, will help designers to make better informed decisions.

For further information, please contact :
Kenneth Loo of Chapter 2, Saitex
Email : ken@chapter2agency.com. ■

7th Bangladesh International Garment & Textile Machinery Expo 2023 from October 26-28, 2023

7th Bangladesh Inernational Fabric & Yarn Expo, to be held during 26 to 28 October 2023 at International Convention City Bashundhara (ICCB), Dhaka

We are pleased to inform you that Redcarpet Global Ltd. is organizing 7th BIGTEX 2023 (Bangladesh International Garment & Textile Machinery Expo) to be held from 26 to 28 October 2023 at ICCB, Dhaka, along with its concurrent exhibitions:

- 7th Bangladesh International Fabric & Yarn Expo 2023
- 7th Bangladesh International Dyes, Pigments and Chemicals Expo 2023
- 7th Bangladesh International Printing, Packaging and Signage Expo 2023

Bangladesh is now moving ahead to get self sustain in the yarn, fabric, trims, dyes, textile chemicals sector and also exporting the backend items, these exhibitions will help you to showcase such manufacturing gems. These events will project quality Garment & Textile Machineries, Equipments, Technology, Raw Materials & Service providers to the visitors from home and abroad, hence will create a perfect B2B platform for our members to visit and participate to showcase their excellence.

Details of the Fair

Exhibition Name : 7th Bangladesh International Fabric & Yarn Expo 2023.

Date : 26 to 28 October 2023.

Venue : International Convention City Bashundhara (ICCB), Dhaka

Organizer : Redcarpet Global Ltd.

This is an information circular. If you feel interested in participating, you are requested to contact BGMEA directly. For any queries, please contact with :

Md. Shahriar Rahman, Deputy Secretary, BGMEA, Mobile : +88 01671-429218

Md. Fakhrul Islam, Senior Executive, BGMEA, Mobile : +88 01676-027436

Redcarpet Global, in association with BGMEA (Bangladesh Garment manufacturers & Exporters Association) are inviting you to participate at 7th BIGTEX 2023 – Bangladesh Int'l Garment & Textile Machinery Expo 2023.

BIGTEX connects all kinds of garment & textile machinery, equipment, technology & accessory manufacturer, dealers, suppliers & importers from Home & Abroad. Targeting the entire Textile, Garment & Apparel industry of Bangladesh, BIGTEX has 3 concurrent expos named as Bangladesh Int'l Fabric & Yarn Expo, Bangladesh Int'l Dyes, Pigments and Chemicals Expo & Bangladesh Int'l Printing, Packaging and Signage Expo.

Our premium exhibitors with over 200 booths from more than 12 countries will wait to witness over 9,000 potential visitors during these expos.

Be a part of this expo to showcase new technologies & catch the industry trends.

Booths are on First Come First Serve Basis.

For further information, please contact :
Ahmed Imtiaz, CEO & Head of Int'l Business
RedCarpet Global Ltd.
M: +8801819 863286, Wechat: aimtiaz
E: imtiaz.redcarpet@gmail.com
FB: https://www.facebook.com/bigtex.expo ❐

ITMA ASIA + CITME 2024 space application is now unveiled

Asia's leading business platform for textile machinery, the ninth combined show will be held from 14 to 18 October 2024 at the National Exhibition and Convention Centre, Shanghai, China.

Online space application has commenced on www.itmaasia.com

The ITMA Asia + CITME exhibition uniquely combines the Asian edition of the renowned ITMA exhibition with the China International Textile Machinery Exhibition (CITME). Over the past eight editions, it has established a stellar track record and holds significant importance within the textile and machinery industry.

China's textile industry has reached a high-quality stage, with the world's highest demand for continuous, automated, intelligent, eco-friendly, and scalable textile machinery. The launch of ITMA Asia + CITME 2024 will be a highly anticipated event to foster greater collaboration and exchanges between domestic and foreign textiles industries, working together to shape the future.

ITMA ASIA + CITME 2022, which was scheduled to be held last November, will open on 19 November 2023 in Shanghai. To-date, close to 1,500 exhibitors from 24 countries and regions have

applied to take part in the combined exhibition. Six exhibition halls of the National Convention and Exhibition Center grossing over 160,000 square metres have been booked.

For space application, please visit www.itmaasia.com . (Online application only.)

For further information, please contact :
Beijing Textile Machinery International Exhibition Co. Ltd (BJITME)
Tel: + 86 10 58222655/58222955/58220766
Email: itmaasiacitme2@bjitme.com
service@ccpittex.com.cn ❐

Gartex Texprocess India, New Delhi edition ended with a resounding success

Attracting 14,895 trade visitors, Gartex Texprocess India spins a new success story

Covering all aspects of the garment and textile industry with advanced innovations, Gartex Texprocess India, New Delhi edition concluded with a resounding success. With a healthy footfall of visitors, the trade fair buzzed with high level of business activities, seminars and a robust product showcase - manifesting the growth of India's garment and textile industry.

Spinning new initiatives with each edition, this even stirred up interests of the visitors with advanced tools, products and machinery for manufacturing garments and textiles with commitment to deliver quality product. This resulted in attracting 14,895 trade visitors from 384 Indian citires, 28 Indian states, 7 Union Territories and 27 countries. Presence of notable brands like Jaysynth, Mimaki, Epson, Morgan Technica, Groz Beckert, DuPont, Schmetz India, Jack, Brother, Kansai, Siruba, Durkopp Adler, Colorjet and more displayed their latest and running products in the market. The three days of the event witnessed successful business activities, leading to satisfy the exhibitors and visitors.

Expressing his gratitude towards the show exhibitor Mr Arun Varshney, Vice President & Head - Textile, Colorjet, shared: "We received very good response from the customers. They appreciated the products that we displayed and it resulted in a good number of buyers. We had a very good experience and we look forward to participating in the next edition as well."

Live demonstrations from multiple brands resulted in high engagement and satisfied visitors at the Surat Pavilion, the zones of Screen-Print India as well as Fabrics & Trims. The Denim Show in association with Denim Manufacturers Association, besides being an interesting display of variety of denim and jeans fabrics in multiple colour options and designs subtly brought to attention to sustainability with thoughtful art installations attracting the visitors.

Talking about his successful networking at the show, Mr. Amandeep Singh Kukreja, Managing Director, PS Dyeing House, shared: "I visited Gartex Texprocess India to see new machineries and chemical products for a new product line that I am thinking about. It is related to printing of t-sirts and so on, so yes my visit to Gartex Texprocess India was beneficial and saw few machineries which are helpful for me and I have their contacts and have meetings planned with them." Satisfied by the industry updates on his visit, Mr Angad Singh Puri, Managing Director, Franklyn Wearing, said: "I came here looking for printing technologies that we are using for our own brands and find new technologies, machinery to simplify the methods. Additional to this, I got a lot more information on Denims and other things at the show. Overall, I am very satisfied by the collection here and I am looking forward to coming here in the next year to learn more."

The panel included industry experts who put forward their perspectives on the matter. Mr. Raman Dutta, Founding Member & General Secretary, Brands & Sourcing Leaders Association, mentioned: "There are several schemes and initiatives from the government for MSMEs to become more sustainable like grants for water conservation, 50% reimbursement options for sustainable machinery and practices and other state-wide policies. It is the lack of awareness that is hindering this transition." Mr. Sandeep Chopra, Head - Sustainability & Impact, Tri-Impact Global laid stress on worker rights in circularity while Mr Gautam Malik, Founder, Jaggery Bags highlighted the need for engating the community as

a stakeholder in the circular economy. Recent world developments provide an opportunity to Indian industries to lead the way in circularity.

For further information, please contact :
Ms Viral Parekh,
Manager - PR & Corporate Communications
Messe FRankfurt Trade Fairs India Pvt. Ltd
Gala Impecca, 5th Floor, Andheri-Kurla Road,
Chakala, Andheri (E), Mumbai-400093
Tel : +91 22 61445914; Mobile : +91 99308 37978
viral.parekh@india.messefrankfurt.com ❐

Pamex 2024
International Exhibition on Printing and Allied Machinery Industries

06, 07, 08, 09 February 2024
Bombay Exhibition Centre, Mumbai

Promotional PAMEX symbolises its presence at Regional & Global Industry Exhibitions!

The promotional campaigns for PAMEX 2024 gained momentumsoon after the conclusion of the very successful 2023 edition of the Show. Although PAMEX is a biennial exhibition, the Show is coming back just after a year to get back to its original schedule of the first quarter in even years. The decision was a natural corollary to Print Pack Expoopting to get into their traditional schedule of odd years by announcing the next edition in 2025.

Visiting or exhibiting inall the major industry specific trade eventsthrough the year is an important part of the PAMEX promotional plan. Team PAMEX has been particularly busy this time around, crisscrossing the world to participate in such events.

The very first event held soon after PAMEX 2023 was the Mumbai Mudrak Sangh Lifetime Achievement Award held in April at Mumbai. Team PAMEX joined the celebration and the felicitation of industry veteran Anand Limaye, and interacted with theindustry experts gathered at the event.

Continuing on the story of Convergence, PAMEX 2024 is extending a special focus on Textile Printing. The team met several textile printing machinery manufacturers at Gartex Mumbai held with Screen Print India in Mumbai in the month of May. The industry know-how is best explored and known through trade exhibitions, which bring latest technologies on display. The team further attended Garment Technology Expo Delhi, SITEX Surat, Gartex Delhi and Yarn Expo Tirupur to delve into the roots of the industry.

Signage industry has been a part of PAMEX since several editions now. Team PAMEX participated in Sign India Expo Bangalore and interacted with the visitors at the Show to understand the demands and requirements of the market.

PAMEX had a promotional booth at Sino Corrugated China, held in July 2023, where the team got an opportunity to see developments happening all around the global corrugated packaging industry.

Print-Packaging.comPrivate Limited, the co-organiser of PAMEX, was one of the media partners for the prestigious LMAI Conference, held in the month of July in Jaipur. The conference themed around 'Creativity, Innovation, Sustainability' saw more than 500 delegates from the label fraternity, coming together for three days of networking and knowledge sharing.

August was a busy month starting with Print Expo held in Chennai and Propak India and Automation Expo in Mumbai. PAMEX had a booth at PackPlus Delhi, where In the month of September, PAMEX will have its promotional booth at PackPrint International,

Bangkok; India Corr Expo, Greater Noida and Kerala Print & Pack, Cochin.

Later in the month of October, PAMEX will have a booth at Sri Lanka Print 2023 and also make a presentation at the prestigious Forum of Asia Pacific Graphic Arts (FAPGA) meet where printers from over 16 member countries will converge. All in Print China will be another big event where PAMEX will have a promotional booth in the month of November. In the same month, the team will also visit FESPA Eurasia and Interdye & Textile Printing Eurasia being held in Istanbul, Turkey.

PAMEX, organised by the All India Federation of Master Printers, in association with Print-Packaging.com Private Limited, is scheduled from 6-9 February 2024 at BEC, Mumbai. The Show will feature more than 500 exhibitors from Print, Label, Flexible Packaging, Corrugated Box Manufacturing, Textile Printing and Signage Industry.

For further information, please contact :
Print-Packaging.com
F101, First Floor, International Infotech Park,
Tower 7, Sector 30A, Abv Vashi Railway Stn.
Vashi, Navi Mumbai-400705, Maharashtra
Tel : 91-22-27812093, 91-22-27812619
Website : www.pamex.in
info@print-packaging.com or
visit www.pamex.in ❐

Discover the Future of Textile at ITM 2024!

ITM 2024 to offer unique exhibition experiences

ITM Exhibitions, which is the address of the latest innovations in textile technologies adds a new one to its records thanks to the number of exhibitors and visitors every year.The new motto of ITM Exhibition, which has been pioneering innovations and shaping the sector and brands since its foundation is "Discover the Future".ITM 2024 Exhibition, which will offer a unique exhibition experience to its exhibitors and visitors with new trade connections and world launches of the latest technologies; will offer the opportunity to discover the technologies that will shape the future of textile.

The countdown has begun for ITM 2024 Exhibition, one of the most important meeting points of the world in the field of textile machinery. When the dates show June 4-8, 2024, Istanbul Tüyap Fair and Congress Center will open its doors to host "ITM 2024 International Textile Machinery Exhibition".Preparations are in full swing for this great organization where textile technology leaders will bring the latest products together with their visitors for the first time.

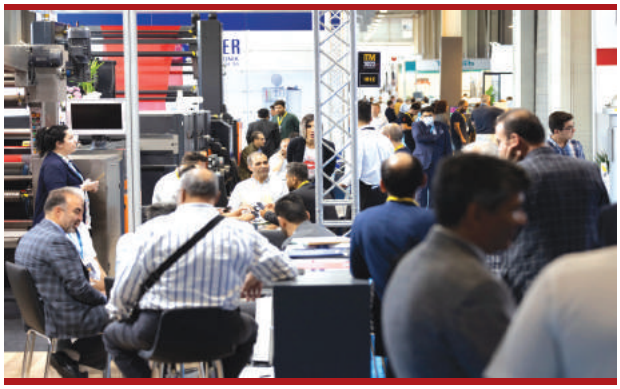
ITM 2024 Video WonGreat Recognition

The ITM team focused on advertising and promotional activities in order to host thousands of visitors and sector investors from all over the world at the ITM 2024 Exhibition, which halls were almost full due to intense participation demands.In this context; 'ITM 2024 Video', which tells the story of the increasing success of ITM exhibitions over the years and which is eagerly awaited by the whole sector, has recently been published. The video, which was published in Turkish and English on social media accounts such as YouTube, LinkedIn, Instagram, Twitter and Facebook, was viewed by more than 30 thousand people in total and received great appreciation from the viewers.

"Discover the Future!" in the video prepared with the main theme "Discover innovations, technologies, the future..." and including clues about the ITM 2024 Exhibition, was revealed as follows:

The textile sector is among the souls of the economy with its production capacity, export volume, and contribution to employment.Many R&D centers around the world and in Turkey are breaking new ground by taking their work and innovations one step further every day. Textile

technology leaders is developing technologies that consume less water and energy, are easy to use, are software and automation supported, keep up with trends and respect the environment while doing so.Industry stakeholders, especially textile manufacturers, are now curious about the answer to this question: 'What will be the future of the textile industry, which is digitalizing, complying with sustainability principles, and signing ground breaking innovations? This question will be answered at ITM 2024, which will host the latest innovations, technologies, artificial intelligence-supported machines, software and design excellence devices in textile machinery. That's why the motto that best defines ITM 2024 was 'Discover the Future'.



More than an Exhibition: ITM 2024

In the video, where the slogan "More than a exhibition..." is highlighted, you will also find tips that will help you discover the future of textiles at ITM 2024. ITM 2024 Exhibition, the address of all innovations in the world textile industry, will host a unique experience with the diversity of exhibitors, the visitor profile, and the business volume it creates. The company owners, managers, employees and sector representatives visiting ITM 2024 will have the opportunity to see the latest technological innovations for the first time and “touch the firsts”.The company owners, who will get information from experts about the technologies they will use in their factories, will develop their products and direct their investments.

Reach Your Products to Hundreds of Countries in 7 Continents

With more than 1200 exhibitors presenting hundreds of innovations and followed by tens of thousands of investors, the participants of this big meeting will go beyond their expectations and dreams. The participants who will introduce their brand new products to the whole world will get beyond the limits by reaching hundreds of countries from seven continents. The companies that will participate in the ITM 2024 Exhibition, where a billion euro business volume will be realized, will have the opportunity to be in cooperation with the pioneers of the world textile industry.

The visitors to ITM 2024, where innovations from every field of textile from weaving to knitting, yarn to digital printing, finishing to denim will be exhibited; will discover innovative, nature-protecting, pioneering technologies in digitalization for a sustainable future.

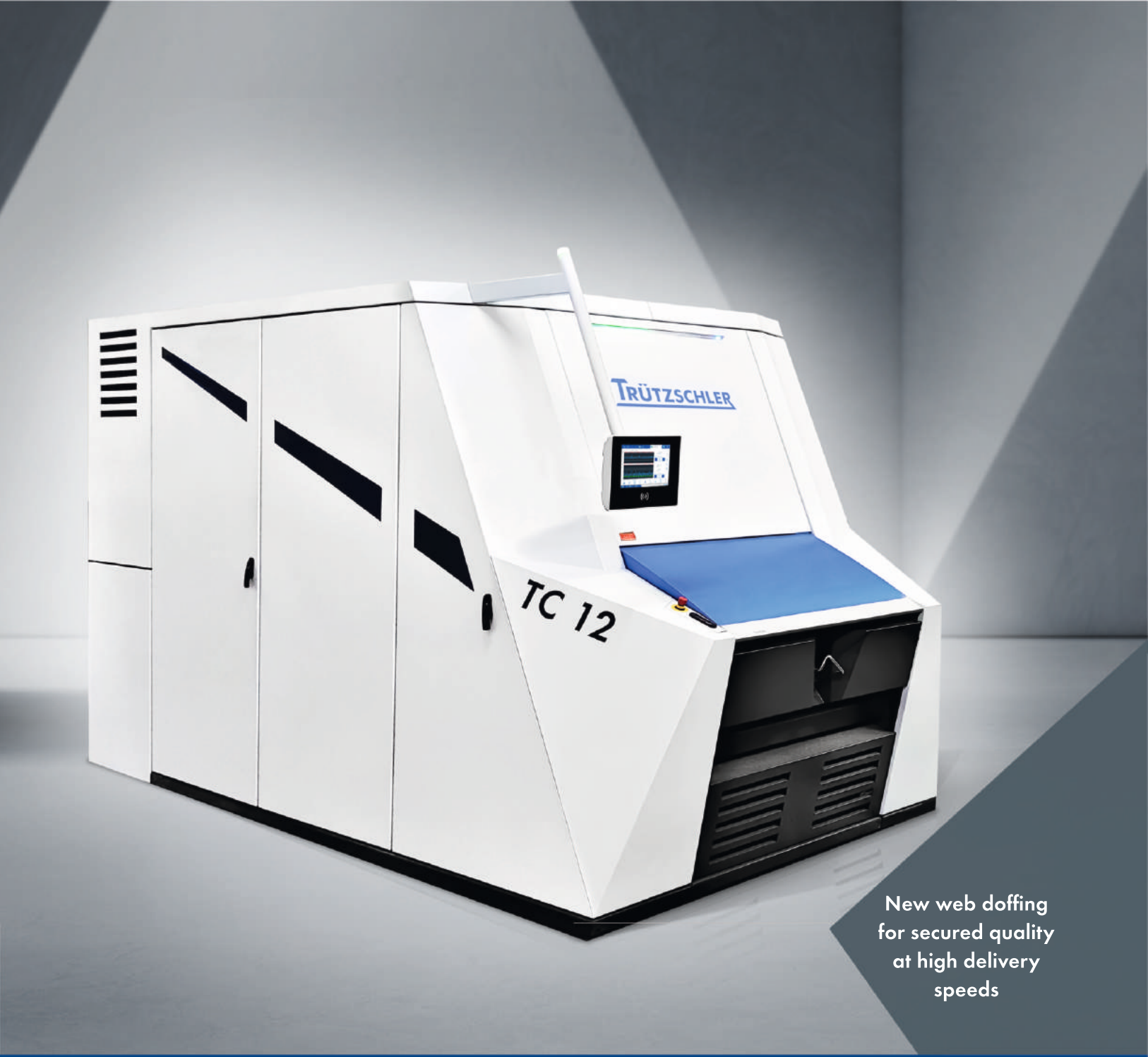
After ITM 2022, which included 102 countries, 1280 companies and 64,500 professional visitors, ITM 2024 will break records with both the number of exhibitors and visitors.

The Meeting Point of ITM: Istanbul- The World's Most Charming and Strategic City

ITM, always the show of firsts in textile technologies, will take the stage in June 2024 in Istanbul, the world's most strategic city that inspires cities in many fields such as trade, fashion, art and culture.The fact that Istanbul, the meeting point of Europe and Asia, is located at the center of world trade, rich accommodation facilities, ease of transportation and the visa-free requirement make ITM Exhibitions even more inviting for visitors.

The investors from both European and Middle East, North Africa, Turkic Republics and Balkan countries will be able to reach Istanbul after a 3-hour flight and visit ITM 2024 Exhibition and make business contacts.The exhibitors and visitors coming from all over the world to the ITM 2024 Exhibition will also take a cultural journey from the past to the present by visiting this ancient city.

For further information, please contact :
Tuyap
www.tuyap.com.tr, itm@tuyap.com.tr
T : +90 212 867 11 00
Teknik Fuarcilik
www.teknikfuarcilik.com
info@teknikfuarcilik.com, T : +90 212 876 75 06 ■



New web doffing for secured quality at high delivery speeds

New Benchmark in Carding: Trützschler **TC 12**

The **TC 12** achieves higher quality and productivity thanks to high-precision flat settings (PFS 40). WASTECONTROL enables good fibers savings of up to 2 %. The state-of-the-art SMART TOUCH and T-LED remote display provide easy and intuitive operation. The new coiling solution T-MOVE 2 and Jumbo Can achieve higher can filling of up to 50 %.

TRÜTZSCHLER
SPINNING

www.truetzschler.com

OM CORPORATION

A Leading Air Jet Spares Supplier Company in INDIA

Manufacturer, Importer & Exporter of all kinds of Weaving Machinery Spare Parts i.e. Air Jet, Water Jet, Rapier etc. & Supplier of all kinds of Textile Second-Hand Machinery.

Since 1985 we, Om Corporation, have been concentrating mainly on producing the export quality textile weaving machines Spare parts. For all needs of modern weaving machines, Om Corporation produces a high quality spare parts by the qualified engineers and technicians. Professionalism is inbuilt at bottom of the sales & manufacturing strategic schedule. We are fully integrated & created a critical asset and committed to upholding spread out of the world wide customers network. We not only present our customers absolute better products but always believe in high time mind it to customers comments. Prompt respond to there current needs for anticipating to future demand. We serve a quality and confidence with fair price. We value your money. That's also creating a great Image for a sound future for our products, which together with best services of all makes Om Corporation. A reputed Company concerns its own wide sector. At last Om Corporation has played an important role for developing a global textile scenario.

AIR JET & WATER JET MACHINE PARTS

CAM & DOBBY PARTS

RAPIER MACHINE PARTS

OM CORPORATION

601-A, ABC-1, Behind Gala Business Centre, Nr. St. Xaviers College Corner, Off C. G. Road, Ahmedabad-380 009, Gujarat, India

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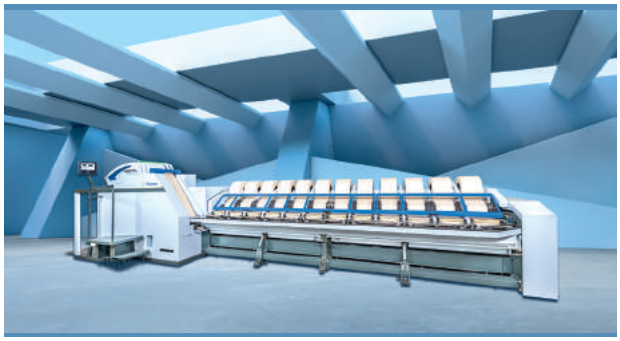
Trützschler Group SE

TCO 21XL: 12 heads maximises productivity by 50% and save space

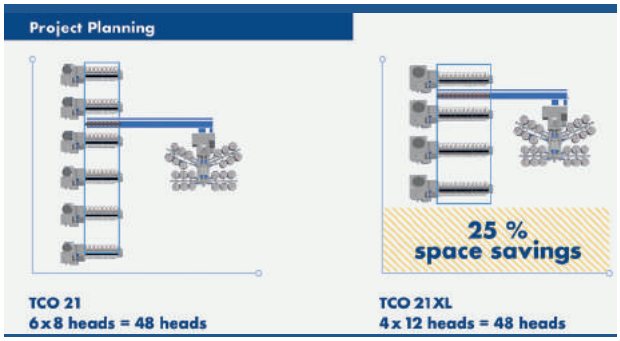
We are proud to present an exciting innovation for the textile machinery market: The high-performance comber TCO 21XL with 12 combing heads. For many decades, eight combing heads has been considered state-of-the-art in the spinning industry. Now, Trützschler's advanced technology and engineering proves that it is possible to build a heavy-duty comber that maximizes productivity by 50 % and saves space – without compromising on quality.

They say two heads are better than one, so just imagine what 12 heads can do! That's the simple but effective idea behind the TCO 21XL. Increasing the number of combing heads by 50 % makes it possible to increase productivity by 50 %, enabling rates of up to 150 kg/h. As a result, two TCO 21XL combers offer the same production capacity as three conventional combers. And that means companies that buy and operate two machines instead of three can achieve significant benefits in terms of their price-performance-ratio (cost/kg). The costs of running the machines are broken down into 12 instead of eight heads, making the machine more cost-effective over its entire operating life.



The high-performance comber TCO 21XL

50 % higher productivity is great – and it can be even greater if the machine is operated with JUMBO cans. The can changer needs to keep up with the extra performance, and JUMBO cans can easily collect the additional output of the TCO 21XL because they feature a 1200 mm diameter. This makes it possible to minimize non-productive time when changing cans. Anybody who is planning a new spinning mill knows that every square meter of space adds to the overall costs. The new TCO 21XL comber offers huge benefits in this regard because 25 % less floor space is required to operate same number of combing heads. This reduces the initial building costs, while also decreasing operating costs related to lighting, air conditioning and other overheads.



ONLINE NOIL MONITORING: New function solves a major challenge

As the world's leading manufacturer of spinning preparation equipment, Trützschler strives to produce reliable and high-quality machines – and we also place a strong focus on meeting our customers' needs and continuously improving our products. In this spirit, we have reinvented our tried-and-tested monitoring system by adding the unique ONLINE NOIL MONITORING function TCO 21XL. This means our COUNT CONTROL and ONLINE NOIL MONITORING functions are now working together to give customers full control over the combing process and the final yarn quality. Variations in the noil are detected automatically and operators receive a warning if a significant change occurs. In this way, the noil percentage and final yarn quality stay consistent. Material distinctions between different lots are also noticed in real-time, which empowers the operator to act quickly. This can enable big savings in material costs, while also reducing the workload of downstream process steps.

Trützschler opens a new chapter in the history of combing

Why is Trützschler able to build a comber with 12 heads, when eight heads have been considered cutting-edge for so many years? All our competitors have probably been trying to increase the number of combing heads too, but none of them have successfully overcome the challenges that come with this innovation project. Trützschler is the only manufacturer with the necessary technical expertise to open this new chapter in

the history of large-scale combing processes. The double-sided drive concept of DUAL DRIVE and 2TWIN DRIVE ensures the synchronized movement of all machine parts over the entire increased shaft length. During the combing process, high-precision movements are essential to achieve high quality in the sliver. Conventional combers only provide one-sided drives, which lead to higher shaft torsion over the machine width. This might work when operating eight combing heads – but not if you add four more.

High-performance drafting system

12 combing heads produce 12 slivers, which is a lot more material for the drafting system to handle. Trützschler's high-performance drafting system delivers a decisive advantage in this respect because it is specifically designed for processing the increased production volumes. The lower deflection angle at the transition to the web guide protects the highly sensitive combed web, fibers are guided precisely and slivers with excellent levels of uniformity are produced. In the wide drafting system, the minimal bearing temperatures of the top rollers make an important positive contribution by enabling lower process temperatures during drafting, as well as optimal running behavior.

About Trützschler

The Trützschler Group SE is a German textile machinery manufacturer headquartered in Mönchengladbach, Germany. The company is divided into four business units: Spinning, Nonwovens, Man-Made Fibers, and Card Clothing. Trützschler machines, installations and accessories are produced and developed in ten locations worldwide. This includes four factories in Germany (Dülmen, Egelsbach, Mönchengladbach, Neubulach), as well as sites in China (Jiaxing and Shanghai), India (Ahmedabad), the USA (Charlotte), Brazil (Curitiba) and Switzerland (Winterthur). Service companies in Türkiye, Mexico, Uzbekistan and Vietnam and service centers in Pakistan, Bangladesh and Indonesia provide customer proximity in key regions for the textile processing industry. For more information visit: www.truetzschler.com.

For further information, please contact :
Kleo Knippertz, Trützschler Group SE
kleo.knippertz@truetzschler.de
02166 6078052

Mayer & Cie.

Circular knitting machines fit for the digital era

Mayer & Cie. draws attention from customers at ITMA 2023 with comprehensive digital concept

The focus of circular knitting machine manufacturer Mayer & Cie. at this year's ITMA was on solutions to make its machines even better, more durable and thereby more valuable. This target is also served by the company's digitization services. Consolidated under the knitlink umbrella, they are currently the Web shop my.shop, my.monitoring and my.service. The prerequisite for a machine's knitlink capability is the Control 5.0 machine control system, which all new machines will be equipped with from 2024. In addition, knithawk, an AI-assisted optical error recognition tool, will ensure more efficient production of Mayer & Cie. circular knitting machines.

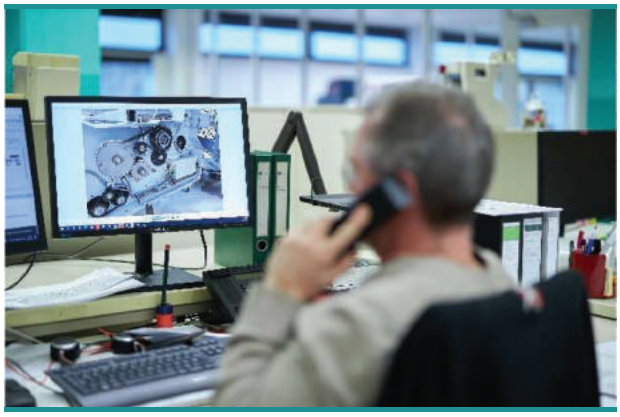
"Over the past four years we have again worked intensively on knitlink," says Sebastian Mayer, head of development at Mayer & Cie. and the circular knitting specialist's chief digitizer. "The platform's services form part of an overall technical and organisational concept that enables us to make our circular knitting machines and their production more transparent for the user, more efficient and thereby more valuable."

Sebastian Mayer is the member of the management in charge of digitization at the long-established company

Prerequisite for access to world of digital circular knitting: the Control 5.0 machine control system

In order to make use of knitlink services machines must be equipped with the Control 5.0 machine control system. Control 5.0, both as an upgrade and from next year in all new machines,

is available in two versions. In the standard version SmartControl a so-called smart knob is attached to each foot of the machine. From there all functions are available that a machine operator needs for his work.



Technical and digital development go hand in hand at Mayer & Cie.

Farther-reaching settings that the line manager might like to use can only be made from a mobile device that makes the line manager location-independent. With this device he can operate an unlimited number of Mayer & Cie. machines simultaneously.

In the ClassicControl version Control 5.0 is fitted to the machine as a monitor and the machine can only be controlled from that location.

knitlink: Starting point for new lines of business

knitlink is Mayer & Cie.'s Web-based customer and machine portal. It is the hub for all circular knitting machine information and services. At present, knitlink consists of three components: my.monitoring, my.shop and my.services. my.monitoring records all of a circular knitting machine's production data, including its efficiency, its speed and any notifications. With this data users can analyse and optimise the performance of their machine park. my.service is the tool that facilitates remote maintenance of circular knitting machines which saves a great deal of time where technical and above all electronic issues and software updates are concerned. my.shop is the Web shop from which components, consumables and upgrade kits can be ordered. Customers can use the my.machines function to register their Mayer & Cie. machines with the shop and are then shown only the matching parts, which saves time when searching and ordering.

The Web shop is open to all. Customers who want to use it don't need to be knitlink users.

Knithawk nips knitting errors in the bud

A circular knitting machine is enormously productive. It rotates up to 50 times per minute and produces up to 40 kilograms of fabric per hour. If a knitting error occurs due, for example, to alien influences in the yarn, metres and metres of unusable fabric may be produced because material has in the past often not been inspected until the machine has been set up and/or the knitting process has been completed.

knithawk, an optical error recognition tool, kicks in earlier: in the machine, at the point of knitting. knithawk is compact. The camera unit that "scans" the knitwear by means of infrared light, is quickly installed. If knithawk spots a serious or recurring error the machine is stopped and the tool compiles an error protocol.

In this way knithawk can prevent knitting errors from running through metres and metres of fabric and resources such as water, natural fibres, polyester and energy are not wasted.

A sound choice: Mayer & Cie. is a step ahead of the competition

"At our digital ITMA presentation we unveiled a 'package' that carries conviction," says Mayer & Cie. Chief Digital Officer Sebastian Mayer. "We have received extremely positive feedback from our customers, showing that we are well on the way to doing justice to our claim to technology leadership in the digital sector too."

Digital solutions are put to the test in trials at Mayer & Cie. in Albstadt-Tailfingen.

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 a turnover of EUR 110 million in 2022 with about 450 employees worldwide. In addition to its headquarters in Albstadt, Germany, where around 350 people work, and subsidiaries in China and the Czech Republic, sales partners for circular knitting and braiding machines in around 80 countries represent Mayer & Cie.

For further information, please contact :
Claudia Bitzer
Kommunikation & PR, Mayer & Cie
Tel.: +49 (0)7432 6057201
Mobile: +49 (0)179 2222279
E-mail: Presse@mayercie.de
www.mayercie.com

❐

Santex Rimar Group

Santex Rimar's newly developed a two-in-one machine for which customers have been waiting for...

The new Cavimelt Pro embodies bi-functional coating with quick and easy switching

The Cavitec high-performance portfolio of coating, laminating and impregnating solutions is now extended with the launch of a two-in-one machine featuring rapid switching between rotogravure and full-surface coating. Its technological superiority of the new Cavimelt Pro – based on hotmelt adhesive application – delivers bonding performance which meets the highest expectations for quality and sustainability.

The task is easy to describe: two layers are bonded together to create a laminate. Yet the process itself draws on pure science underpinned by detailed knowledge of materials, adhesives, technology and machines. That's how to achieve the best results for demanding customers manufacturing the end-product.

Caviteca brand of Santex Rimar Group is the world leader in coating, laminating and impregnating dedicated to identifying and meeting the critical requirements of companies in this sector: "We have engaged in countless discussions with customers and potential customers over several years, combining the insights gained with our own experience to design exactly the machinesthat customers want," says Stephane Fernandez, Head of Sales and Lab (Hotmelt Division) at Cavitec. Cavimelt Pro is the new bi-functional hotmelt laminating machine which enables switching between rotogravure and full-surface coating quickly and easily, thanks to new technology.

Quick-change head

Cavimelt Pro offers a carefully thought-through solution, down to the last detail. In the priming position, the dosing roller is open and the tool holding device is pivoted down. This allows the doctor blade holder and the side dams to be changed, to switch the coating. Using side dams for roll coating means this process can be started immediately. The gravure roller is easily exchangeable with a smooth transfer roller.

The quick-change application head combines gravure and full-surface coating in one single system. With this, it is possible to change in a few seconds from one coating method to the other, without the use of tools.

SCIENCE IN INDUSTRY

Innovative details are the dosing roller driven by an individual motor for smooth operation and the special positioning of the doctor blade, which avoids the risk of leaking, even with extremely low viscosity values. A big advantage is the high-precision wedge gap control between dosing and gravure/application roll to increase or decrease the coating weight steplessly.

Cavimelt Pro for multi-functional coating

The hot solution

Cavimelt Pro is based on hotmelt technology. Hotmelt adhesives commonly used in textiles are one-component solvent-free thermoplastic polymers (non-reactive) or thermoset pre-polymers (reactive) heated to melting point before application. Hotmelts are applied in a hot plasticized state onto a substrate material such as wovens, knits, nonwovens, foams, membranes, films, nets, silicon paper etc. With this process, substrates are not subject to any deteriorating thermal stress.

In some applications,the material is coated only to change the surface composition, but more often the purpose is to bond or glue two layers of material together to build a compositematerial.

Cavimelt Pro is the two-in-one solution covering the most important application range, and offeringusers the opportunity to extend their customer base.

Flexibility, quality and sustainability

Full-surface coating is established in mattress ticking andgrinding paper production. Applications for rotogravure cover breathable active wear, protective wear and also lingerie, upholstery and automotive seats and interiors, hygiene and medical products, technical composites and materials for roof underlay etc.Cavimelt Pro was also designed for sensitive materials and innovative applications. It offers flexibility from using membranes of 5 micrometers (one tenth of the diameter of a single human hair) and foam of 20 millimeters of thickness.

The multi-roller coating machine masters each single process perfectly due to precise mechanical control of factors like tension (vital for filmy materials) and even pressure on the full width of the roll. Applying a correctly-defined temperature is essential for reliable adjustments and constant spread on the roll surface.

Empowering users to achieve unmatched coating results and meeting high sustainability standards make Cavimelt Pro ultimately the machine that customers really want. Its hotmelt technology is an environmentally-friendly process, free of solvents and water. Furthermore, as no drying or sintering is necessary Cavimelt Pro also scores in energy-saving aspects. "Cavimelt Pro unites the full set of advantages which can drive success in the finishing business," says Fernandez.

For further information, please contact :
Edith Aepli, Aepli Communication GmbH
Hasenbergstrasse 20a
CH-5454 Bellikon, Switzerland
Office : +41 56 496 000 8
Mobile : +41 79 91 602 91
www.aeplicom.com

MAG Solvics Private Limited

MAG Solvics Private Limited bags Twin Awards for Innovation in High Volume Fibre Testing Instrument

MAG Solvics Private Limited, a leading player in the field of textile testing instruments,has recently received "Certificate of Appreciation" for R & D Innovation from leading Association from India TMMA (Textile Machinery Manufacturers' Association) and "R&D Innovation Award" from ITAMMA (Indian Textile Accessories and Machinery Manufacture Association) in the area of Textile Testing & Monitoring Instruments for fully automatic High Volume Fibre Testing Instrument - HVT Genius 2. Receiving awards from two renowned

associations for the same product itself exhibits the innovation features of the product.

Received Award from TMMA by our Head – R & D Mr. Senthil Kumar

The new HVT Genius 2 has the following unique features….

- Tower type construction.
- Fully automatic comb preparation – RotoSampler for testing Length & Strength.
- Automated feeding in Micronaire (fineness) module.
- Testing of Colour, Surface Trash & Moisture in single operation.
- Inbuilt industrial grade balance.
- Touch screen display & Wireless Integration with printer.
- Inbuilt RH % & Temperature sensor.
- Inbuilt Air booster & Reservoir for uninterrupted testing.
- Can do more no. of tests in given time

"Thanks for TMMA and ITAMMA for recognizing valued innovation done by our R & D and motivating our team to do much more innovations in coming days" says Mr.C.Dhandayuthapani – Managing Director of MAG.

Further he explained that in a single tester one can evaluate all the cotton quality parameters such as Length parameters (either inHVI or ICC mode), Strength & Elongation, Micronaire & Maturity, Colour parameters & Colour grade, Trash parameters & Trash grade and Moisture content.

Received Award from ITAMMA by our VP - Sales Mr. Baskaran

Also possible to attach MAG's Fully Automatic Trash Separator - AccuTrash with HVT Genius 2 instrument which further adds possibility to test real gravimetric trash content of cotton, which results complete and comprehensive evaluation and passing of Cotton Lots by Spinning Mill at much reliable and faster way.

For further information, please contact :
Mag Solvics Private Limited
S.F.# 149/5, Dynamic Center,
Solavampalayam (PO), Kina
Tel : +91 4259 2427 00
Fax : +91 4259 2967 11 ❐

SIMTA Group of Companies

SIMTA with quality accessories for Textile Machinery

A brief profile of SIMTA

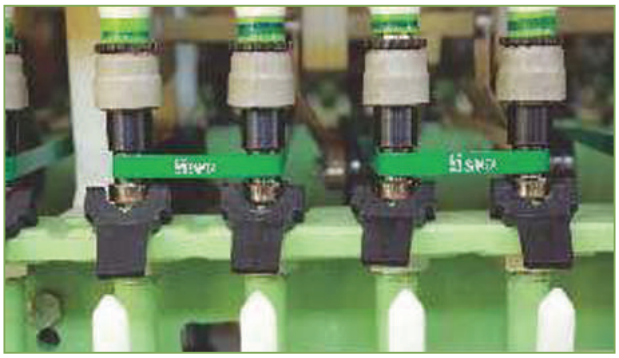
- SIMTA is an innovative and Inspiring entity and A group of integrated Textile Engineering enterprises promoted by Techno crates of Professional Excellence and Dedication.
- SIMTA is a VIBRANT Player in the textiles Industry due to high standards of production and care for customer satisfaction.
- Product Uniqueness and commitment to delivering the best have earned a distinct reputation across the world.

SCIENCE IN INDUSTRY

- Technical collaboration with world leader M/s.Jacobi, Germany Since 2004 reinforced the image of Simta and strengthened our commitment to quality.
- Presently SIMTA caters to 35% of the Indian market. Innovative and inspiring efforts of the company will keep all the mills SPIN WITH SIMTA.

Spindle Tapes (SS1, SS2, SS3, SS4, SS5, SS55, S-8)

- When it comes to Spindle Tapes, it is always SIMTA that comes first to a quality conscious spinners mind. The reason is not hard to find:



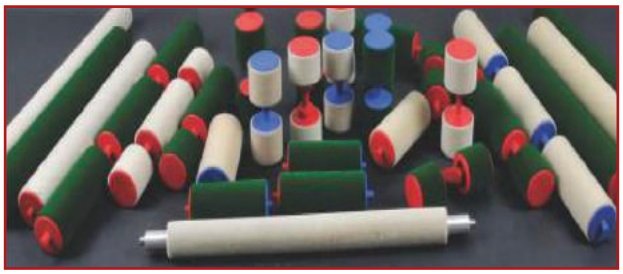
- Excellent performance even at 25,000 RPM.
- We at SIMTA strive hard to achieve perfection in every sphere of our activities. Our competitive strength lies in our ability to achieve excellence in everything we do.

- Our indigenous expertise has won us international acceptance. We are the leading exporters with 60% of our production exported to more than 50 countries. We've made reliability a reality through quality
- Most of the leading textile mills have one thing in common: SIMTA Spindle Tapes. That's an honour for our commitment to quality and our strict adherence to international standards.

Flocked Clearer Rollers/Cleaning Machine

Top Global OEMs trust us to ensure quality in their product performance

LMW, KTTM, Rieter, Zinser, Toyoda, Marzoli, Sussen, Cherry Hara you name any top-of-the-line textile machinery in the world -they partner with Simta for OEM Clearer Rollers. So cherished is the quality of Simta Flocked Clearer Rollers that all the best brands in the world trust to ensure their quality.



- Simta is the pioneer in engineering the design of the Flocked Clearer Roller, the first to innovate upon the cloth-clad wooden roller that is today generic to clearer rollers on textile machines.
- Available across the spectrum
- Available in over a hundred different sizes and builds, Simla Flocked Clearer Rollers serve the purpose across machines including ring frames, ring doublers, speed and draw frames, combers, etc., apart from specialized custom fitments for customer specifications

Bobbin / Cone Transport System –Manual, Semi &fully automatic system

Timely feeding ring frame - Increase production, Minimize operator role, Speed frame side Ring frame side.

- Fixed connection: Availability of full bobbins all the time at each spinning frame and Easy handling
- Semi-automatic system: The bobbins are doffed by hand at the roving frames and hung up into the rail in front of them. The operator pushes the button to drive the train to the storage area automatically. The storage is able to store the loaded trains and can be used for trains with full bobbins as well as for trains with empty or uncleaned tubes

- Fully - Automatic system: The bobbins are doffed automatically by a bobbin changer at the roving frames and the full bobbins are up into the rail in front of them. The trains are driven automatically to the storage area.
- The storage is able to store the loaded trains and can be used for trains with full bobbins as well as for trains with Full bobbins to empty bobbins

Over Head Traveling Cleaner (weaving and spinning)

- SIMTA JACOBI OHTC units are designed to meet the futuristic requirements of the industry -TRAVELLING CLEANERS for Speed Frames, Ring Spinning Frames, Auto and Manual Winders, Doubling Machine, Open End Spinning Machines, Warping, Twisting Machines, Chenille Machines, End Wall cleaning and Weaving Machines

- JACOBI OHTC for Speed Frames guarantees a high degree of cleanliness by providing continuous blowing and suction to the drafting system, flyer zone, and critical areas.
- When a Speed Frame stops due to a slubbing break, the fan motor stops immediately and in the case of a group of machines, the fan motor will be re-activated for cleaning the remaining Speed Frames.

- Energy Efficient Motors, result in lesser power consumption.
- Latest generation PLC for effective control like customized time adjustment for discharge and reversal.
- Non-contact reverse by using proximity
- Aerodynamic design of centrifugal fan with uniform

For further information, please contact :
SIMTA Group of Companies
Email: sales@simta.com
Phone: +91-422-2680705
M:+919842231483
Address:S.F.No 683 A, Railway Feeder Road, Ravathur Post, Sulur via,
Coimbatore – 641103
Tamil Nadu, India
www.simta.com

Uster Technologies AG

Uster new cross clearing and the unique density detection functions

Uster Quantum 4.0 presents the unique combination of both capacitive and optical sensorsin one. It's the best of both worlds, for spinners. Two years after market introduction, industry feedback underlines the benefits of Uster's new cross clearing and density detection functions.

Making a choice between the two main technologies for yarn clearing is now a thing of the past. That's because Uster's latest Quantum 4.0 clearers offer both capacitive and optical sensors in a concept called Smart Duo. This innovation recognizes that each sensor option has its own special functionality – so using both together brings significant advantages in quality and profitability for spinners.

Cross clearing

The Smart Duo approach uses 'cross clearing', in which both capacitive and optical sensors are applied. The capacitive signal reacts on very compact yarn faults. It offers guaranteed detection of dense thick places in the yarn, containing more fibers, as a significant mass increase. The optical sensor records a minor diameter increase in such cases. Instead it is better at detecting voluminous, visually large occurrences in the yarn, where the capacitive sensor would record only a minor increase in mass.

For maximum benefit in detecting compact and fluffy events, both signals are added in series. The cross-clearing function usesthe backup of a second clearing limit after the basic clearing parameters. For example, a thick place which might not be identified as a fault under the capacitive clearing limits, would be rechecked under the extra optical clearing settings. This allows the clearer to detect

thick and fluffy events that are not detected by the capacitive sensor alone. Cross clearing events, designated X, are alsouseful to indicate spinning conditions for housekeeping and maintenance purposes, such as fiber accumulation on roving creels or in the drafting zone.

No compromises for better fabric quality

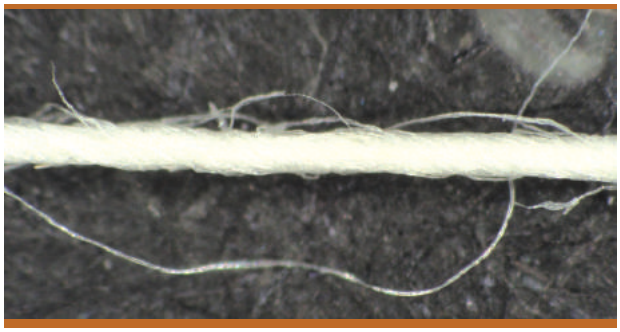
In a practical example, the benefit of cross clearing was provenby a spinner in India producing 100% combed cotton yarn (Ne 30) for knitted fabrics. The goal was to improve fabric quality by reducing the remaining thick places, while maintaining the same level of clearer cuts. To ensure an independent assessment of the fabric samples, an Indian textile institute was engaged forthe inspection and comparison.

For the tests, the cross clearing setting was kept at 'medium' and the NSL setting was opened slightly to compensate for the additional X-cuts. Finally, both articles were cleared with 92.6 cuts/100 km for the NSL T including the X-cuts and 92.5 cuts/100 km for the NSL T without cross clearing activated. The cross clearing function demonstrated improved fabric quality without the need for additional cuts. The Uster Smart Duo was able to ensure better quality without increased production costs.

Density detection

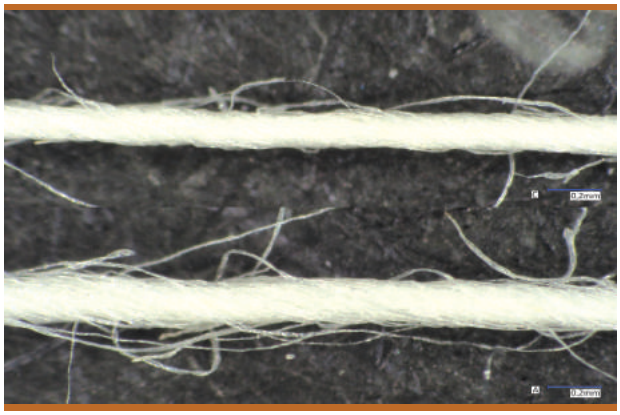
Density measurement is unique in the market, as a highlight feature introduced by the Smart Duo function of the Quantum 4.0 clearer. Density involves two separate measurements: the density channel (D) is active after the splice over a defined reference length; in addition to this temporary density measurement, a continuous density (CD) measurement takes place.

Different densities can be caused by different twist levels in the yarn. Other factors could be a mixture of compact and non-compact yarn or irregularities in compacting levels, while different yarn types and materials also have different densities. The density measurement function also prevents yarn issues caused by malfunctioning of the compacting device.



Saving a ton of yarn

In another practical example, a customer in China discovered that one of its ring spinning machines was producing high twist yarn. Some high twist yarns were mixed with regular yarns on the winding machine, with the result that 1.21 tons of yarn was contaminated and rendered unusable.



It is impossible to differentiate between yarns of different twist levels by eyesight at the ring frame stage. And until the launch of Uster Quantum 4.0 there was no way to separate yarn with different twists at the winding stage. Thanks to the density detection function, the spinner saved 1.08 tons of yarn that would otherwise have been waste. By installingthe new generation of Uster yarn clearersthe mill was able to rewind the yarn to separate the high twist element.

Innovated for the major challenges

Quantum 4.0 is the efficient yarn quality assurance system with Smart Clearing Technology

for both standard and special applications. The accepted standards of Yarn Body, Dense area and Smart limits are further enhanced by the new Smart Duo technology. Numerous easy-to-use functions cover basic clearing, Smart Duo clearing – including cross clearing and density detection – as well as contamination clearing and special applications. Uster's latest yarn clearing innovations provide maximum flexibility, security and prevention for today's market challenges in spinning mills.

About Uster Technologies

Uster Technologies is the world's leading provider of quality management solutions from fiber to fabric.

High-technology instruments, systems and services cover quality control, prediction, certification and optimization. The portfolio comprises quality management, laboratory testing and in-line process control instruments for fibers, staple fiber, and filament yarns, fabrics and nonwovens.

Uster Statistics, the unique global benchmarks for textile trading, complement a portfolio of value-added services that includes training, consultancy and worldwide after-sales.

The Uster philosophy aims to drive innovation forward by meeting market needs – always with 'quality in mind'.

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For further information, please contact :
Edith Aepli
On behalf of Uster Marketing Service
Uster Technologies AG
Sonnenbergstrasse 10
8610 Uster, Switzerland
Phone : +41 43 366 38 80
Mobile : +41 79 91 602 91
www.uster.com

Mimaki Europe B.V.

Mimaki rolls out Faster TxF300-75 Printer to Expand Opportunities in Reliable, Quality Direct-to-Film Printing

Mimaki Europe, a leading provider of industrial inkjet printers, cutting plotters, and 3D printers, has today introduced a new direct-to-film (DTF) printer, the TxF300-75. The new system incorporates the already well-received stability and functionality of Mimaki's first DTF printer, the TxF150-75, while delivering new levels of productivity with print speeds that are three times higher.

Mimaki's aim when entering the DTF market earlier this year was to offer customers a stable, efficient DTF platform that incorporates Mimaki's renowned quality standards. Demand for this system was even higher than expected, and Mimaki therefore increased capacity to ensure the availability of this solution.

The new TxF300-75 meets the same objectives as the first model, as well as catering to a diverse set of printing demands, including large companies requiring high-quality outputs with high productivity.

"We believe in giving customers choice and anticipating their needs, which is why we are expanding our DTF printer line-up hot on the heels of the inaugural system. The TxF300-75 has been designed to offer even greater productivity. The innovative 80cm width introduced with our first DTF printer remains a feature of this new system, enabling customers to print more efficiently. It also retains the Mimaki technologies that overcome the common ink ejection and ink sedimentation issues of the other DTF printers in the market," explained Arjen Evertse, General Sales Manager, Mimaki Europe.

The reliability of the Mimaki's DTF printer series is owing to the built-in ink circulation system to prevent white ink clogging and a degassed ink pack, lowering the risk of poor ink ejection. The new printer also includes core Mimaki features, including NCU (Nozzle Check Unit) and NRS (Nozzle Recovery System) for stable, uninterrupted print production. The DTF process also enables customers to print on a wider range of fabric such as cotton, mixed fabric, polyester, and dark coloured fabrics.

In line with Mimaki's sustainability goals, the TxF300-75 utilises Mimaki's PHT50 pigment inks which are ECO-PASSPORT certified - validating their lower environmental impact and meeting the requirements for OEKO-TEX certification.

Mimaki also announced its partnership with heat transfer technology manufacturer, Adkins, at FESPA 2023. Adkins has developed the Inline 800 DTF Powder Shaker Cure Unit, a finishing solution that matches Mimaki's DTF systems in both size and quality. This unit is also compatible with the new TxF300-75, ensuring that customers benefit from a complete solution from industry market-leaders if they choose either Mimaki DTF model.

The new Txf300-75 offers fast, reliable DTF printing, enabling new levels of productivity

Evertse concludes, "Our customers' profitability and business success are always at the forefront when Mimaki develops new technologies. We consider the total solution when it comes to installing our printers and look for ways to make the entire print production process as seamless as possible. As such, our collaboration with Adkins as a finishing partner in this space will continue as we develop our portfolio of DTF printers and further strengthen our position in this sector."

The new TxF300 will be commercially available in the EMEA region in Q4 2023.

For more information about the new TxF300-75, please visit www.mimakieurope.com.

About Mimaki

Mimaki is a leading manufacturer of wide-format inkjet printers and cutting machines for the sign/graphics, industrial, textile/apparel and 3D markets. Mimaki develops the complete product range for each group; hardware, software and the associated consumable items, such as inks and cutting blades. Mimaki excels in offering innovative, high quality and high reliability products, based upon its aqueous, latex, solvent and UV-curable inkjet technology. In order to meet a wide range of applications in the market, Mimaki pursues the development of advanced on-demand digital printing solutions. Mimaki Engineering Co. Ltd., (President: Kazuaki Ikeda) Nagano (Japan), is publicly listed on the Tokyo Stock Exchange, Inc.

For further information, please contact :
Danna Drion, General Manager Marketing,
Mimaki Europe B.V.,
Tel: +31 20 462 79 42,
email: d.drion@emea.mimaki.com
Ivan Lesmana,
Communication Coordinator EMEA,
Mimaki Europe B.V.,
Tel: +31 20 462 79 42,
email: i.lesmana@emea.mimaki.com
Clare Porter, Associate Director, Bespoke
Tel: +44 1737 215200;
email: clare@bespoke.co.uk ❐

Heberlein

Advantage available in both areas of compressed air consumption and knot stability of Heberlein's new advancement

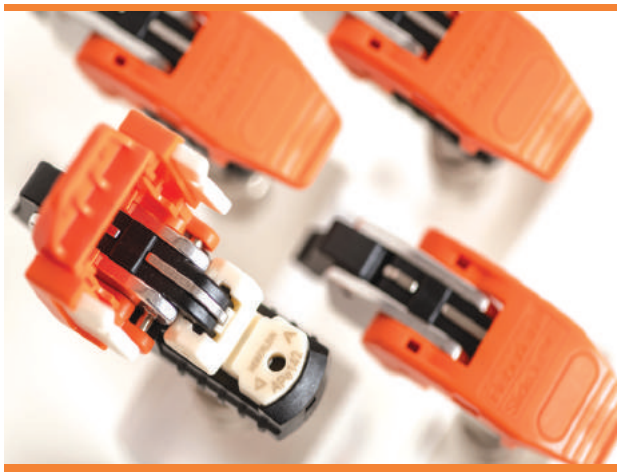
Savings now and future growth: Heberlein has the facts and figures

Heberlein, the leading supplier of air interlacing and air texturing jets, has launched a new range of Advanced Performance DTY interlacing jets. The APe series jets offer significant savings in compressed air consumption, while the APhjets meet highest requirements for knot stability. Heberlein presents these innovations as attractive investments for optimum profitability.

The market already cooled notably in 2022, according to the annual International Textile Machinery Shipment Statistics (ITMSS) published last June by the International Textile Manufacturers Federation (ITMF). Shipments of draw texturing spindles declined by 13% worldwide in 2022 – with China accounting for 86% of the total. Heberlein's own experience of past slowdowns such as those in 2007/2008 and 2020/2021 showed that business in the DTY segment always picked up again strongly afterwards.

Savings every hour

Heberlein'slaunch at ITMA 2023 of the new APe series – with the capability to reduce compressed air consumption by 15% with the same number of knots – had DTY yarn producers reaching for their calculators. For example, a texturizer in Italy planning to replace a P142 jet (P-series) with an APe142 worked outcost savings of USD 120 per day for a 288-position machine with a working pressure of 3 bar. The figures were based on local electricity costs of 0.12 KWh for 1 Nm3. Effectively this was a saving of 5 dollars every hour.



SlideJet-FT15-2 with new Jet insert APe142

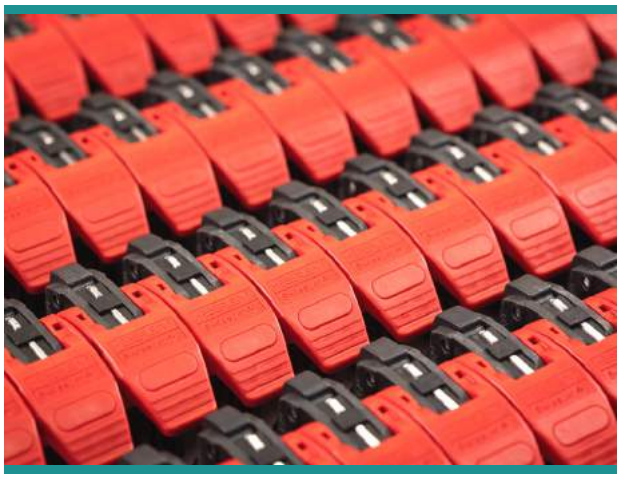
Asenergy costs are lower in China compared to most markets, a texturizer there saves about one dollar per hour. For this calculation, Heberlein cites GlobalPetrolPrices.com and uses a price of $0.087 per kilowatt-hour (December 2022 meridian). It is also based on the industry standard for costing of 0.12 kWh for one Nm3. That means Nm3 costs one cent, whileit must be mentioned that in China energy prices fluctuate locally very much and are partly massively subsidized by the state. The effective cost savings in China for a machine equipped with APe series jets (288 positions) amount to $24.3 per day on the basis of 3bar and 24 hours.

However, the figure of $24.3 must be seen in the context of a manufacturing plant in China. Staff in the production process with a 48-hour week are paid around $800 per month in the Shanghai area. With the same number of hours worked, the DTY manufacturer saves $580 per machine (288 positions) with new APejets, which is about three-quarters of the equivalent salary of a worker.

The strategic jets

The combination of savingsnow while also being prepared for the upturn is a promising strategy. With the new generation of DTY air jets, the figures lookgood. The APe air interlacing jets are suitable for a wide variety of multifilament yarns. They achieve higher processing speeds, lead to better package build and a reduced number of filament and yarn breaks in downstream processes.

The APe series is also attracting interest from market players striving for sustainable production through various measures. For example, equal knot performance with reduced energy consumption means sustainability without compromise.



SwissJet housing

With the development and production of highly specialized key components for process optimization in processing of synthetic yarns, particularly filament yarns, Heberlein contributes significantly to increased performance by manufacturers. Using the latest flow simulations, DTY experts have gained valuable insights that have been incorporated into the development of the Advanced Performance jets. Tests in the company's own textile laboratory, as well as on-site at customer facilities, confirm the increased production performance of the new generation of jets, which also enable significant process optimization or energy savings in yarn production.

Pole position

The textile industry would obviously prefer the upswing sooner rather than later. To gain momentum rapidly and enable maximum production output, the APh interlacing jets provide the ideal starting position. The APh series meets the highest requirements for knot stability and guarantees unique performance without any compromises in yarn quality and process reliability.

The stability of the knots is also guaranteed for yarns produced by air covering in the 110 to 300 dtex range. For the finishing process, where yarns blended with elastane in particular are subjected to considerable forces, the APh jets show optimum performance. Careful analysis in the Heberlein textile laboratory also proves that the APh series offers the ideal solution, especially for low filament counts. In short, thanks to their innovative design, APhjets meet the highest requirements for knot stability for all downstream processes – knitting, warp knitting and weaving.

Next steps

Detailed calculations are essential for any investment decision, and Heberlein is happyto help prospective customers with this task. Heberlein recommends non-binding discussions with itsexperts – or first-hand information at ITMA Asia 2023 (Hall 8.1, Stand A43).

Useful info: when a filament yarn producer opts for lower power consumption and greater knot stability, the new APe and APh series are quick to install, as they can be fitted into the widely-used SlideJet FT15-2 and SwissJet housings. The plug-and-play principle for the APe series means replacement needs minimal effort.

For further information, please contact :
Aepli Communication GmbH,
Heberlein
Hasenbergstrasse 20a
CH-5454 Bellikon, Switzerland
Office : +41 56 496 000 8
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