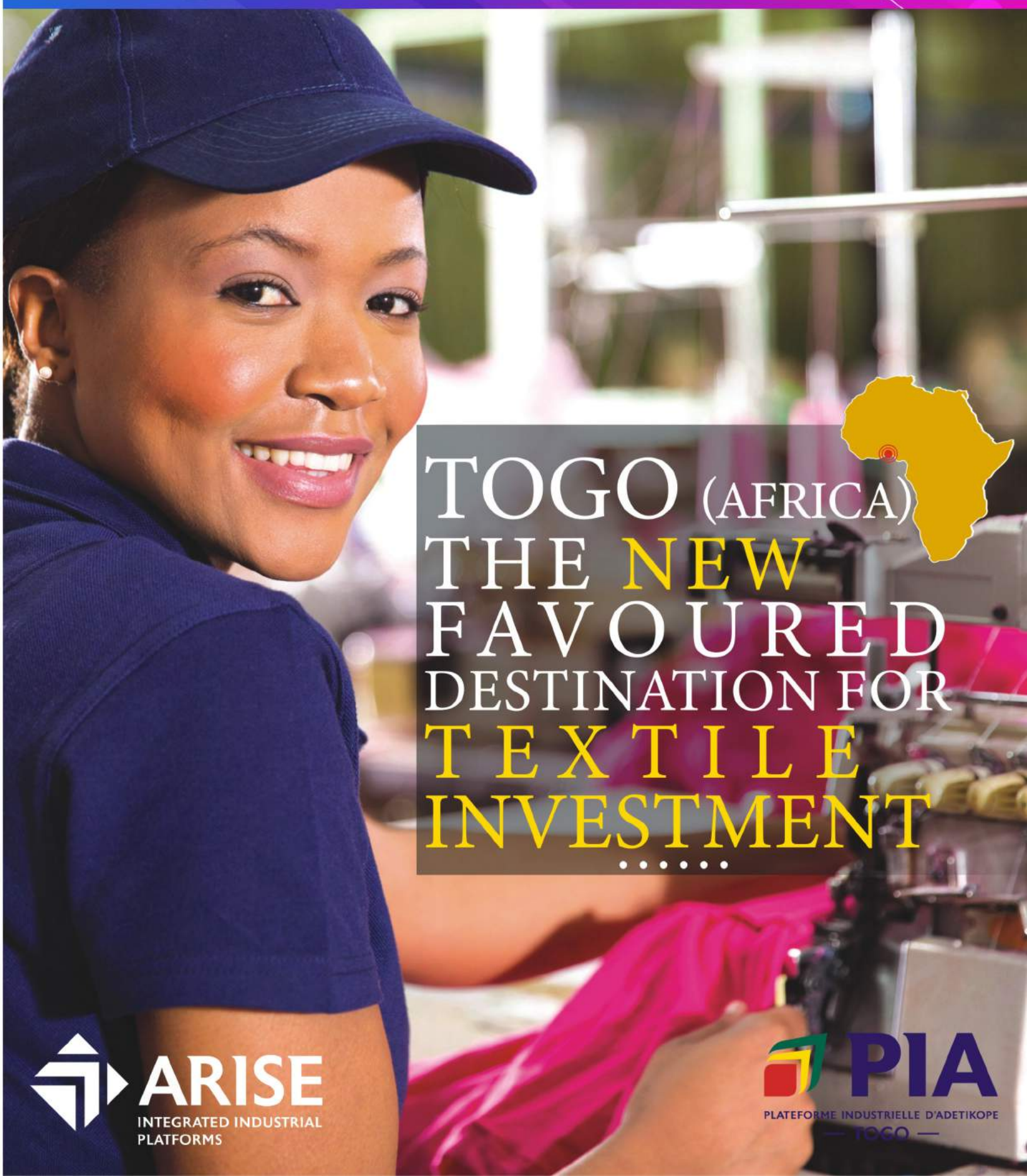
Textile Trends

64TH YEAR OF PUBLICATION, NO. 08 NOVEMBER 24, 2021, ISSN 0040 - 5205, Rs. 35/-

VOL. LXIV. NO.08, TEXTILE TRENDS, NOVEMBER - 2021



TOGO (AFRICA) THE NEW FAVOURED DESTINATION FOR TEXTILE INVESTMENT

ARISE
INTEGRATED INDUSTRIAL PLATFORMS

PIA
PLATEFORME INDUSTRIELLE D'ADETIKOPE
— TOGO —

www.sbdyesprings.com

If it is DyeSpring, it must be Sb dye springs

QUALITY + SINCE 1987 + GUARANTEE

The First dye springs manufacturing company in taking the textile industrial world by storm in India. SB Dye Springs India Pvt. Ltd. is exporting its products to Middle East, Bangladesh, Indonesia, Pakistan, Srilanka, Egypt, Malaysia, Thailand, Colombia, Argentina, Peru, Germany, Holland, Brazil, Sweden, El Salvador, Ethiopia, Honduras, Mexico etc. Yet another proof for expanding horizons, where focus is on quality.

Features
- Precision Limit. • High resistant stainless steel.
- Custom made to customer specifications.
- Excellent resistance to compression.
- Quality assurance at all levels of productions.

Product Range
- Gravity locking caps for yarn dyeing machine.
- Perforated S. S. Dye tube.
- Mandril (Import substitute) for texturising / yarn.
- Rubber tension springs for Dobby machine.

Advantages
- Cost effective. • Savings in treatment.
- High Surface Dye penetration.
- Uniform Spread.
- Highly effective with high frequency dryers.

SBD
ONLY NAME IN DYE SPRING

SB DYE SPRINGS (INDIA) PVT. LTD.
8, Monica, Hari Niwas Circle, L.B.S. Marg, Naupada, Thane 400 602. Maharashtra, India.
Tel. : 91-22-25431275, 25408886, 98923 61619, 98679 11756
E-mail : sbdyespring@gmail.com / sandy111112014@gmail.com
Website: www.sbdyesprings.com

SIGNSMITH/SBD/0519/AD

SIMTA--- Shifting Focus on Strategic & Innovative Engineering.

- SPINDLE TAPES
- CLEARER ROLLERS
- COP SORTER
- TRAVELLING CLEANERS
- BOBBIN STRIPPER
- INDUSTRIAL FABRICS
- UPVC WINDOW PROFILES
- ROVING TRANSPORT SYSTEM
- SHEET METAL FABRICATION

SIMTA JACOBI

SIMTA

www.simta.com

INNOVATION SINCE 1991 — 26 YEARS — TO INSPIRE

SIMTA Group of Companies

S.F. No 683 A, Railway Feeder Road, Ravathur Post,
Sulur via, Coimbatore - 641 103, India.
Phone: +91- 422 - 2680705 / 2681705
Email: info@simta.com / sales@simta.com

Gear Up with New Technology

MYLON

Give a new life to your
Yarn Conditioning Machine
Rejuvenate it with additions
so that it performs like a new machine.
Upgrade packages available for
Mechanical and Electronics

Mylon Metallics Pvt. Ltd.

(F):SF 38/2, Arasur, Near LMW Foundry Division, Coimbatore 641 407
(O):46, Bharati Nagar, Peelamedu, Coimbatore 641 004
T:+91 98947 56798 / 90470 22798 E: mylonmetallics@gmail.com
W: www.mylonmetallics.com

MSB KUREHA

Precision Engineering, Ongoing Consistency

High Quality COTS & APRONS

R – Series Aprons

R 40 – Grey Colour

- Special quality For 100% Cotton
- Excellent for Super Fine count cotton
- High Resistance to Ozone

R 60 – Blue Colour

- Special quality for COMPACT YARNS
- Excellent for Coarse count yarn and special yarn such as LYCRA
- Highly abrasion resistant

In technical collaboration with
KUREHA ELASTOMER CO., LTD. JAPAN

MSB
Mangal Singh Brothers Pvt. Ltd.

sales@mangalsingh.com

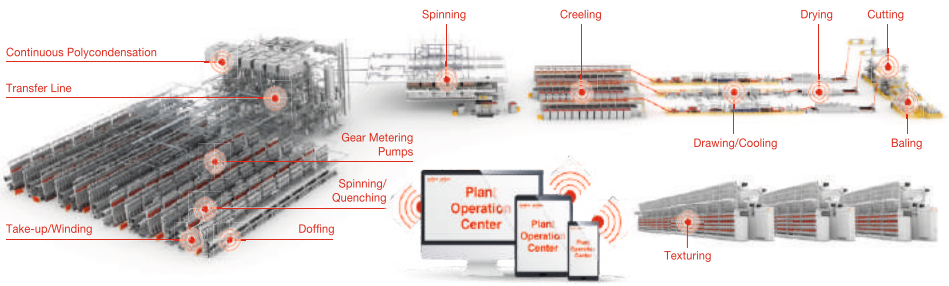
www.mangalsingh.com

Clean Technology. Smart Factory.

From Melt to Yarn, Fibers and Nonwovens

Oerlikon Polymer Processing Solutions Division with the competence brands Oerlikon Barmag, Oerlikon Neumag and Oerlikon Nonwoven is one of the leading provider for filament spinning systems, texturing machines and BCF carpet yarn, staple fiber spinning as well as nonwovens solutions.

For further information visit us at **www.oerlikon.com/polymer-processing**



oerlikon barmag

oerlikon neumag

oerlikon nonwoven

TRUESHAPE ENGINEERS

SINCE 1985

QUALITY | SERVICE | CUSTOMISATIONS

TRIED AND TESTED MODULAR SOLUTIONS FOR:

FABRIC PREPARATION MACHINES

Loom Roll Openers

Brushing Units

Unwinders with Batch winders

Material Movement Trolleys

Grey Inspection & Mending

PACKING MACHINES

Finish 4 point Inspection & sorting

Measuring, cutting & Rolling

Auto Doffing Weighing & Labelling

Conveyor units for fabric movement

QUALITY CONTROL MACHINES

Inspection & rolling

Slitting & Rolling

Doubling & lapping or Rolling

Conveyor Line

Shrink or Stretch Wrapping

WAREHOUSE MACHINES

Incoming fabric Inspection, Measuring & Rolling with Cutting

Cutpiece Than folding Lapping or Rolling

Sample cutting machines

Tube rolling

Our Recent On - site Installations

Inclined top rolling

Foil DeLaminating machine

Double fold Lapping Machine

Motorised Sample Cutting

Mending Roll to Roll

Classic Inspection & Rolling behind operator

Heavy Duty Inspection & Rolling

Material Movement Trolley

Standard Sizes

Fabric Width (Inches)	60	72	84	94	120	140	160	220
Fabric Width (mm)	1500	1800	2200	2400	3000	3600	4000	5500

Contact us at:
Tele : 02522 662895/+91 9272230007
Email : sales@trueshape.in/
trueshape12@gmail.com

www.trueshape.in

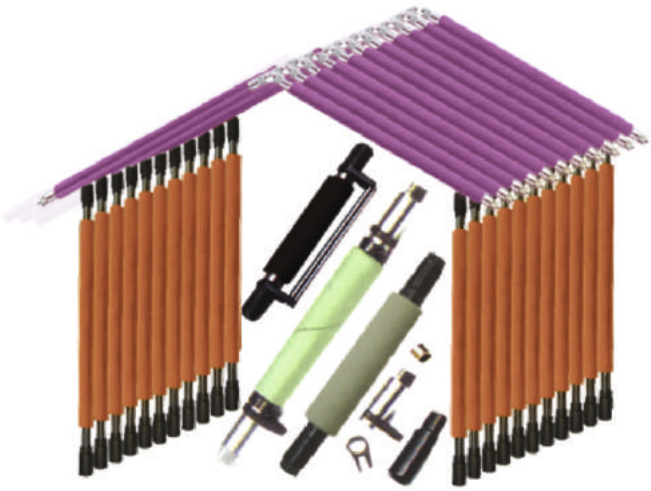
Works:
Unit 13, Jaimatadi Compound,
Kalher, Thane Bhiwandi Road,
Bhiwandi 421302. Maharashtra

VETRI TOP ROLLERS

INDIAN EXPERTISE GLOBAL RECOGNISATION

WHY VETRI TOP ROLLERS ARE MORE TRUSTED FOR DRAW FRAME, COMBER & LAP FORMERS ?

YES, "SLIVER QUALITY" FROM DRAW FRAME / COMBER IS MORE CRITICAL FOR DETERMINING FINAL RING / O.E. YARN QUALITY



VETRI TOP ROLLERS HOUSE

ALL ORDERED TOP ROLLERS WILL BE DELIVERED WITH "KNOWLEDGE GIFTS" AS BOOKS WRITTEN BY REPUTED MOTIVATIONAL / INSPIRATIONAL AUTHORS IN ALL INDIAN LANGUAGES TAMIL, HINDI, TELUGU, MALAYALAM, KANNADAM, MARATHI, GUJARATHI, PUNJABI, ORIYA, BENGALI, ASSAMESE & ENGLISH JUST TO INSPIRE CUSTOMER'S EMPLOYEES LIFE CHANGE AND OF COURSE, ORGANIZATIONS PERFORMANCE IMPROVEMENT

KNOWLEDGE ONLY WILL MAKE YOU GREAT!

WITH 30 YEARS OF
TOP ROLLERS MANUFACTURING EXPERTISE
VETRI ENGINEERS FROM COIMBATORE
STANDS AS RELIABLE MANUFACTURER / SUPPLIER OF
TOP ROLLERS FOR PRODUCING BEST **"SLIVER QUALITY"**
FROM THESE TEXTILE PREPARATORY MACHINES.

TRUST VETRI TOP ROLLERS, THEY WILL ENSURE MILLS QUALITY YARN PERFORMANCE, HIGHER PRODUCTIVITY AND PROFITABILITY

THUS WE ADD "VALUE" IN THE TEXTILE INDUSTRY.

VETRI
30 YEARS
40 COUNTRIES

VETRI ENGINEERS

TECHNOLOGY - QUALITY - VALUE - RELATIONSHIP

BUREAU VERITAS 1828
BUREAU VERITAS
ISO 9001 Certified

Textile Trends

Vol. LXIV
No. 08
NOVEMBER 2021

INDIA'S WIDEST CIRCULATED MONTHLY ON TEXTILE & ALLIED INDUSTRIES

Single copy : Rs.35.00 | ANNUAL SUBSCRIPTION (POST FREE) : RS. 400.00
OVERSEAS (AIR MAIL POST FREE) : ST £ 45.00 / US $ 120.00 | BANGLADESH (POST FREE) : US 35.00

Publisher : **Shri D. J. Dutta**

Editor : **Shri Malay Chakarabarti**

Asst. Editor : **Dr. Tapan Kumar Banerjee**

Bangladesh:
COMMERCE & COMMODITY (PVT) LTD
Eastern Plaza, 8th floor, Suite No. 9/22
Bir Uttam C R Dutta Road, Dhaka – 1205, Bangladesh
Tel. : 0088 037 72012027 e-mail: ckd@bangla.net
http : ecpl.webjumb.com

Published monthly by
Eastland Publications Private Limited
44, Chittaranjan avenue, Kolkata- 700 012, India
Phone : 91-33-2212-2233, 91-33-2212-1096, Fax : 91-33-2212-1096
E- mail : textrend58@gmail.com/textiletrendsindia@gmail.com
Website : www.textile-trends.in

GAYATRI

Innovative Technology to Dedicate your Needs of
Spinning Roll Shop Machines

Manufacturer & Exporter of
Spinning Roll Shop Machinery

COT GRINDING
Machine
Model : GCGHY-200-AF

Other range of Products

- Cot grinding - GCGH-200 machine
- Cot grinding - GCGHY-200 machine
- Flocked clearer roller cleaning Machine
- Eccentricity & taper tester machine
- Top roller calendering machine
- Top roller greasing machine (Vertical)
- Top roller de - greasing machine
- Clearer roller truing machine
- Fluted roller truing machine
- Cot mounting machine (Hand / Hyudraulic)
- Cot mounting & De-mounting machine
- (Hand / Hyd./ pne.)


Mini Cot Grinding Machine
GCGHY-200-AF


Cot Grinding Machine
Model : GCGHY-200


Cot Grinding Machine
Fully Automatic Model
with Measurement System


Cot Grinding Machine
Model GCGH-200 AF

GAYATRI TEXTILE MACHINES
17, Harshad Ind. Estate, Magha Farm Compound, B/h. L.B.S. Stadium, Bapunagar,
Ahmedabad- 380 024. (Gujarat) India Tel. : 0091-79-2277 5403. Fax : 0091-79-2277 9216
Email: gayatrirrp@gmail.com, www.gayatritexmach.com

CONTENTS

Textile Trends
R NI No. 2815/58
NOVEMBER 2021

Exclusive Buyer Invitation

intex SOUTH ASIA

Yarns • Apparel Fabrics • Denims • Accessories

Powerhouse of Opportunities

INTERNATIONAL BUSINESS MATCHING WEEK

IN A VIRTUAL AVATAR

15-16-17-18-19 November 2021

Pre-fixed B2B Video Meetings with Global Textile Suppliers

KEY HIGHLIGHTS

- Connect with Textile Suppliers from Taiwan, Korea, China, Thailand, Turkey, UK, Spain, Indonesia, Hong Kong, India, Bangladesh, Sri Lanka, Pakistan and more
- Source a Wide-Collection of Innovative, Trendy & Sustainable Textiles for apparel
- Complimentary One-to-One Video Meetings with Your Interested Suppliers
- Interact with Suppliers on their Virtual Booth via Text / Video Chat
- Preview Supplier's Products Showcase
- Attend VIP Opening Ceremony, Interactive Business Forum Webinar Series and more
- Learn about Innovations in Textiles and Next Season's Fashion Trends
- Exchange Business Cards with Exhibitors
- E-Show Directory, Exhibitor's Catalogues and more

<< PRE-REGISTER NOW

Industry Partners

FIEO, srtepc, CMAI, PDEXCIL, CITI, TEA, SRI LANKA APPAREL, SRI LANKA APPAREL & TEXTILE EXPORTERS ASSOCIATION, SLASA, kotra, PAKSEA, PRGMEA, Taiwan Textile Federation, THTI THAILAND TEXTILE INSTITUTE, BGBA, IDCCI

Media Partners

TextileToday, TEXTILE VALUE CHAIN, textile, The Apparel Times, SBF SEWING BUSINESS AND FASHION, Textile Trends, DialoG TEXTIL, textilegence, KOMPASS Your route to business worldwide, BELDARA, ASIAN MANUFACTURERS

Organised by WORLDEX Exhibition & Promotion Pvt. Ltd.

Hosted on Bee2Bee www.bee2bee.asia

For Show Information

Zahir Merchant : +91 98200 28359

intexfair@worldexindia.com

www.intexsouthasia.com

Follow us on :

EDITORIAL

India's Textile manufacturing sector should pursue global venture

Young entrepreneurs in India's textile industry encompassing innovative ideas opt to integrate tradition with modern technology. This blending can bring innovative change in cotton yarn manufacturing of wide range. This innovative change boosts entrepreneurs leverage business expansion with new direction of business opportunities.

Textile such an area having immense opportunities of business expansion across the globe. If textile manufacturing plants are provided multiple operational and logistics supports such as low-cost funding, power, port based strategic location Indian textile manufacturers can go far in competition with European advanced peers and elevate the production units to global standard. New entrepreneurial activities in textile manufacturing sectors are hovering around the Artificial Intelligence mainly based on spinning technology which can edge up India's manufacturers over their foreign competitors.

We know technology is a dynamic phenomena, this dynamicity is highly evident in manufacturing machine and its spare parts. India's textile machine manufacturing sector must have a global venture of replacing old machines by new ones in order to produce ultra-modern products to cope with cost efficient technology. For instance, in case of India's modern machines are highly needed in production of quality yarn.

To achieve sustainability in competition with technologically advanced textile-manufacturing countries such as Germany, Italy, etc. Indian players should focus on continuous process of upgradation, upskilling concentrating on high margin compact yarn, forward integration, higher productivity coupled with operational and logistics efficiency.

International fairs and exhibitions on manufacturing textile machines and its spare parts can highly contribute to upgradation of production process. These exhibitions are leading business platforms where in global textile industries converge and engage in meaningful conversations on building more robust business, improving transparency and traceability in the supply chain as well as creating a more sustainable future. It is very positive sign that Indian textile manufacturers are increasingly participating at global exhibitions with their vibrant presence.

IMF expects global GDP in '21 slightly below 6% forecast

The International Monetary Fund (IMF) expects global economic growth in 2021 to fall slightly below its July forecast of 6 per cent, IMF Chief Kristalina Georgieva said recently, citing risks associated with debt, inflation and divergent economic trends in the wake of the Covid-19 pandemic. Georgieva said the global economy was bouncing back but the pandemic continued to limit the recovery, with the "Great Vaccination Divide'' that has left too many countries with too little access to Covid vaccines. In a virtual speech at Bocconi University in Italy, Georgieva said recent updated World Economic Outlook would forecast that advanced economies will return to pre-pandemic levels of economic output by 2022 but most emerging and developing countries will need "many more years'' to recover. "We face a global recovery that remains 'hobbled' by the pandemic and its impact. We are unable to walk forward properly – it is like walking with stones in our shoes,'' she said. The US and China remained vital engines of growth, and Italy and Europe were showing increased momentum, but growth was worsening elsewhere, Georgieva said. Inflation pressures, a key risk factor, were expected to subside in most countries in 2022 but would continue to affect some emerging and developing economies, she said. ❐

Global economic recovery still depends much on US, China : IMF

Observing that the global economic recovery remains "hobbled" due to the Covid-19 pandemic, the International Monetary Fund (IMF) said recently that the US and China remain vital engines of growth even as their momentum slows. Ahead of the release of the updated World Economic Outlook (WEO), the IMF Managing Director Kristalina Georgieva said that she now expects growth to moderate slightly this year. The WEO is the IMF's report of financial developments and policies in member countries. "We face a global recovery that remains "hobbled" by the pandemic and its impact. We are unable to walk forward properly — it is like walking with stones in our shoes! The most immediate obstacle is the 'Great Vaccination Divide' — too many countries with too little access to vaccines, leaving too many people unprotected from Covid," Georgieva said. "At the same time, countries remain deeply divided in their ability to respond — in being able to support the recovery, and in their ability to invest for the future. But we can secure a stronger recovery everywhere and shape a better post-pandemic world for all. We can only do it by working together to overcome these divides," she said in her address, she noted at the curtain raiser speech at Bocconi University and T20 National (Think 20 Summit). "But the risks and obstacles to a balanced global recovery have become even more pronounced; the stones in our shoes have become more painful," Georgieva said. "The United States and China remain vital engines of growth even as their momentum is now slowing. A few advanced and emerging economies are still gaining momentum, including Italy and Europe more broadly," she said. ❐

US job growth slows sharply in September

US employment increased far less than expected in September amid a decline in government payrolls, but hiring could pick up in the months ahead as Covid-19 infections subside and people resume the search for work. The Labour Department said in its closely watched employment report recently that nonfarm payrolls increased by 194,000 jobs in August. Data for August was revised to show 366,000 jobs created instead of the previously reported 235,000 positions. Economists polled by Reuters had forecast payrolls increasing by 500,000 jobs. Estimates ranged from as high as 700,000 jobs to as low as 250,000. the unemployment rate fell to 4.8% from 5.2% in August. ❐

China Growth Slows Further in 3rd Qtr...

China's econonic growth slowed more than expected in the third quarter, official data showed recently as a crackdown on the property sector and a looming energy crisis began to bite. After a swift Covid-19 bounceback, recovery in the world's second biggest economy is losing steam, with gross domestic product expanding 4.9% on-year, said the National Bureau of Statistics, citing an "unstable and uneven" domestic rebound. ❐

China's economy hit on power crunch, property woes

China's economy hit its slowest pace of growth in a year in the third quarter, hurt by power shortages, supply chain bottlenecks and major wobbles in the property market, raising pressure on policymakers to do more to boost the faltering recovery. Data released recently showed gross domestic product (GDP) grew 4.9% in July-September from a year earlier, the weakest clip since the third quarter of 2020 and missing forecasts. The world's second largest economy is facing several major challenges, including the China Evergrande Group debt crisis, and a critical electricity crunch, which sent factory output to its weakest since early 2020, when heavy COVID-19 curbs were in place. "The domestic economic recovery is still unstable and uneven," said National Bureau of Statistics (NBS) spokesperson Fu Linghut at a briefing recently. China's economy had staged an impressive rebound from last year's pandemic slump thanks to effective virus containment and hot overseas demand for the country's manufactured goods. But the recovery has lost steam from the blistering 18.3% growth clocked in the first quarter of this year. "In response to the ugly growth numbers we expect in coming months, we think policymakers will take more steps to shore up growth, including ensuring ample liquidity in the interbank market, accelerating infrastructure development and relaxing some aspects of overall credit and real estate policies," said Louis Kuijs, head of Asia economies at Oxford Economies. New construction starts in September slumped for a sixth straight month, NBS data showed. ❐

US factory output shrinks in fresh supply chain warning

Production at us factories fell by the most in seven months in September, in part reflecting a sharp pullback in the manufacturing of motor vehicles as well as broader backlogged supply chains and materials shortages. The 0.7% decrease for manufacturers followed a revised 0.4% decline in August, Federal Reserve data showed recently. Total industrial production, which also includes mining and utility output, fell 1.3% in August. The median estimate in a Bloomberg survey of economists called for a 0.1% monthly increase in both factory production and industrial output. Stocks fell and Treasury yields were up after market open. Resilient demand among firms and consumers has kept production elevated, but it's also contributed to order backlogs as manufacturers struggle to source materials and skilled labor. The weaker-than-expected September print indicates that producers continue to be held back by snarled supply chains. The figures also reflect ongoing production challenges following Hurricane Ida, which contributed 0.3 percentage point to the drop in manufacturing, the Fed said. The report showed motor vehicles and parts output fell 7.2% in September, the sharpest drop since April, after a 3.2% decrease in August, as a global shortage of semiconductors continues to weigh on production. Automakers including Toyota Motor Crop. have slashed production outlooks for the coming months, citing the parts shortage as a limiting factor. S&P Global Ratings also lowered its US auto sales forecast for this year and expects a "bumpy road" in 2022. Excluding motor vehicles, production of durable goods rose 0.5%, reflecting gains in the manufacturing of primary metals, electrical equipment and furniture, the Fed said. Nondurable manufacturing fell 1% in September, the most since February. ■

World Bank upholds India FY22 GDP growth forecast at 8.3%

The World Bank has retained its June forecast for India's Gross Domestic Product (GDP) to grow by 8.3% in the current fiscal year, with the economy seen supported by an increase in public investment to bolster domestic demand and schemes like the production-linked incentive to boost manufacturing. Despite the ravages of the second COVID-19 wave, the economic impact of the pandemic had been "relatively small" this year compared with the hit in 2020, the bank said in a South Asia-focussed report titled 'Shifting Gears : Digitization and Services-Led Development'. "Over the next two years, as the base effect fades, growth is expected to stabilise at around 7%, aided by structural reforms to ease supply-side constraints and infrastructure investment," the multilateral lender said referencing last fiscal 7.3% GDP contraction. Downside risks in the medium term include uncertainty around asset quality deterioration due to the pandemic, slow recovery in the informal sector and higher-than expected inflation, the bank said. Noting that accommodative fiscal and monetary policies globally had been key to mitigating the pandemic's economic impact, the bank said it was time to start rethinking policies. "If you don't start now preparing for what we call the 'new normal', and there's always a new normal after a major crisis, you might well be too late," said Chief Economist for South Asia Hans Timmer. Learning from the crisis meant building social protection and adopting greener policies, he added. ❐

Govt opts to block Chinese investment in LIC IPO

The central government wants to block Chinese investors from buying shares in insurance giant Life Insurance Corporation (LIC), which is due to go public, four senior government officials and a banker said, underscoring tensions between the two nations. State-owned LIC is considered a strategic asset, commanding more than 60 per cent of India's life insurance market with assets of more than $500 billion. While the government is planning to allow foreign investors to participate in what is likely to be the country's biggest-ever IPO worth a potential $12.2 billion, it is leery of Chinese ownership, the sources said. Under current law, no overseas investors can invest in LIC but the government is considering allowing foreign institutional investors to buy up to 20 per cent of LIC's offering. Political tensions bewteen the countries rocketed last year after soldiers of the two countries were killed following a clash in the Galwan Valley amid the still ongoing standoff along the LAC. Since then, India has sought to limit Chinese investment in sensitive companies and sectors, banned a raft of Chinese mobile apps, and subjected imports of Chinese goods to extra scrutiny. "With China after the border clashes, it cannot be business as usual. The trust deficit has significantly widen(ed)," said one of the government officials, adding that Chinese investment in companies like LIC could post risks. The sources declined to be identified as discussions on how Chinese investment might be blocked are ongoing and as no final decisions have been made. The financial ministry and LIC did not respond to Reuters emailed requests for comment. China's foreign ministry and commerce ministry did not immediately respond to requests for comment. Prime Minister Narendra Modi's administration is hoping to raise ₹90,000 crore through selling 5 per cent to 10 per cent of LIC this financial year. The government has yet to decide on whether it will sell one tranche of shares seeking to raise the full amount or choose to seek the funds in two tranches, sources have said. Options to prevent Chinese investment in LIC include amending the current law on foreign direct investment with a clause that relates to LIC or creating a new law specific to LIC, two of the government officials said. They added that the government was conscious of the difficulty in checking on Chinese investments that could come indirectly and would attempt to craft a policy that would protect India's security but not deter overseas investors. A third option being explored is barring Chinese investors from becoming cornerstone investors in the IPO, said one government official and the banker, although that would not prevent Chinese investors from buying shares in the secondary market. ❐

Exports surge 21%, exceed pre-pandemic Sept. level

India's merchandise exports grew 21.3% year-on-year to $33.44 billion in September, and were 28.5% higher than the pre-COVID level of September 2019. Merchandise imports, however, grew faster to $56.38 billion, 84.8% higher than September 2020 and almost 50% over the pre-pandemic level, as per preliminary estimates. Total merchandise exports in the first half of the year amounted to $197.11 billion, close to 57% higher than 2020 and 23.8% more than in 2019. This means exports will have to gain further momentum over the rest of the year to meet the government's $400 billion target for 2021-22. The trade deficit hit a record of almost $23 billion in September, widening the overall trade deficit in the current fiscal year to $78.81 billion, more than a tripling from a year earlier, but still 11.4% below the 2019 level. "With the surge in imports, merchandise trade deficit has ballooned to an all-time high in September; we now expect the current account to display a double-digit deficit in the second quarter," said Aditi Nayar, chief economist at ICRA. ❐

Direct tax mop-up in net grows 74%

The net personal income and corporate taxes collection has grown 74% to ₹5.70 lakh crore so far this fiscal, driven mainly by advance tax and TDS payments. The mop-up of net direct tax (which is arrived at after deducting refunds from gross collection) between April 1-September 22 was ₹5,70,568 crore, a 74.4% growth over ₹3.27 lakh crore collected in the same period last fiscal, the Central Board of Direct Taxes (CBDT) said in a statement. It is 27% higher than the ₹4.48 lakh crore collected in 2019-20. The gross direct tax collection so far this fiscal stands at over ₹6.45 lakh crore, a 47% growth over ₹4.39 lakh crore mopped up in the corresponding period of the preceding year. The gross collection was 16.75% higher than ₹5.53 lakh crore collected between April 1-September 22 in 2019-20. While over ₹2.53 lakh crore has been collected through advance tax, TDS mop-up was over ₹3.19 lakh crore. Self-assessment tax worth ₹41,739 crore, regular assessment tax of ₹25,558 crore, dividend distribution tax of ₹4,406 crore and tax under other minor heads of ₹1,383 crore has been collected. The cumulative advance tax collections for the first and second quarter of FY22 stand at ₹2,53,353 crore as on September 22, against ₹1,62,037 crore for the corresponding period of 2020-21, showing a growth of 56%, the statement said. The advance tax collection comprises corporation tax (CIT) at ₹1.96 lakh crore and personal income tax (PIT) at ₹56,389 crore. The gross CIT mop up was ₹3.58 lakh crore and PIT was over ₹2.86 lakh crore, while net CIT was at ₹3.02 lakh crore and PIT was at ₹2.67 lakh crore. Refunds amounting to ₹75,111 crore have also been issued in the FY 2021-22 so far. The CBDT said that despite extremely challenging initial months of 2021-22, the advance tax collection in the second quarter (July 1 to September 22, 2021) is ₹1.72 lakh crore. ❐

Core-sector output exceeds pre-Covid level of August 2019

The output of India's eight core industries grew by 11.6 per cent in August compared with 9.9 per cent in the previous month even as the base effect was less beneficial. The core sector, comprising coal, crude oil, natural gas, refinery products, fertilisers, steel, cement, and electricity, had contracted 6.9 per cent in August last year, as against 7.6 per cent in July. The core sector also recorded a 3.9 per cent rise from the pre-Covid level of August 2019. Only the production of refinery products and crude oil was lower over this period. However, the overall output was still lower by 0.3 per cent when compared to the February 2020 level. The picture at disaggregated level is more encouraging, said Sunil Kumar Sinha, principal economist at India Ratings. Except coal, refinery products, and cement, all other core industries surpassed the pre-Covid level on this parameter. Industries that showed higher output levels than in February 2020 were crude oil (105 per cent), natural gas (126.3 per cent), fertilisers (108.5 per cent), steel (103.5 per cent) and electricity (122.2 per cent), said Sinha. ■

The field of Textile design spans beyond the fashion and apparel segment

Textile is a vast and multifunctional umbrella of designing, where printed, woven and mixed media can be used for different applications by using unique methods. The textile design programme offered by creative institutes incorporates different trends and techniques of creating and designing fabrics. Despite the fleeting nature of fashion and style, the concrete base of design fundamentals allows youngsters to adapt to the changing environment and design collections that are innovative and commercially viable for production.

Utilising India's legacy as a major cloth hub, textile design courses weave in traditional textiles of print, painted, embroidered and woven crafts, giving the contemporary designer access to a rich and diverse heritage. Today, designer textile brands build their colletions around traditional techniques by contemporising motifs and playing with the colour palette. India's diverse art history and tradition, mixed with its contemporary outlook, is an inspiration to designers in the country, as well as abroad.

Aspirants gain exposure at design labs, which help ideate and explore the world of making one's own fabrics. It is like a studio where ideas come to fruition, as one can design and develop various art and crafts across media, be it textiles or digital. The place allows experimentation with different techniques, materials, patterns and designs, inspired by studying and aided by imagination. Armed with a detailed understanding of materials, segregation of natural and man-made fibres, smart fibres and finishes, youngsters use the labs as a platform to work on their thoughts and channelise them into innovative solutions.

A textile design course intends to elaborate on the classification and properties of fibres, giving students insights into the various raw materials used in constructing, and their influence on the properties of fabrics. With an analytical explanation of the physical and visual properties of popular fibres, and their identification for mediums ranging from fashion apparel, home furnishing to automotive and technical textiles, learners can mix and match, as well as innovate for art and practical purpose. With advances in technology, they can also learn yarn-making techniques with a primary focus on two of the major types of yarns — basic and fancy.

The best part about the course is that in addition to learning about fabric design and its applications across mediums, it also provides insight into industry-specific use of different fabrics based on their properties and product segments. By learning about the properties of fabrics based on their knits, and woven and formation techniques, a textile designer can decide its end use and application.

To understand the commercial aspect of such operations, the course also provides information about cost-process setups and their variability based on the technical parameters of fabric. By exploring the various properties of fabric, one can decide how its makign-technique affects the cost of design, qualities, structures and machinery involved.

As we progress and evolve as a society, the importance of sustainability, for us and the planet, grows even further. To keep apprised of the times, a textile design course introduces and works on the concepts and applications of sustainable collections, circular fashion, upcycling and eco-friendly textiles through deep textile base material and an understanding of its properties.

With product-development skills in great demand, the next generation of textile designers can capitalise and hone their skills in the sportswear and athleisure segments, which are witnessing a rising trend. The demand for textile material developers and automotive textile experts are also high, and specialising in these verticals will yield not only a fulfilling career, but also a great pay package. A professional textile designer also looks into a brand's requirements of marketing, merchandising and retailing product lines.

After the completion of a textile design programme, students can bag titles such as digital print designers, embroidery desingers, three-dimensional printed product designers, digital marketing designers, digital visual communication designers, social media marketing managers, automation experts in textile/apparel manufacturing, and researchers in smart textile technology and automotive textiles. The field of textile design spans beyond the fashion and apparel industry, giving today's youngsters a massive scope to explore not just its applications, but also contribute to an industry that is ever-evolving. ■

New developed water management system can completely reuse dye wastewater from Textile Industries

Indian researchers have developed an improved water management system that can completely reuse dye wastewater from textile industries, eliminating its toxicity and making it suitable for domestic and industrial usage, the Department of Science and Technology said recently. It can reduce water treatment costs and facilitate reuse of water in dry regions, it added. The curent three-stage treatment process for wastewater consisting of primary, secondary, and tertiary treatment is unable to treat toxic industrial wastewater.

The stand-alone advanced oxidation process (AOP) treatment technique for colour and odour properties in industrial effluents (dye-based) may be insufficient to meet the set government and is also limited due to the high cost of AOPs involving continuous supply of chemical reagents.

It cannot remove the synthetic industrial dyes and the effervescent colour and odour, which have a long-lasting carcinogenic and toxic effect on the ecological balance, especially aquatic life. In order to remove this toxicity, an upgraded solution with the AOP technology is the need of the day, it added. Working towards this, researchers from Indian Institute of Technology (IIT) Kanpur along with Malaviya National Institute of Technology, Jaipur, and MBM College, Jodhpur, have developed a modified AOP solution.

This completely modified treatment process consisting of the primary dosing step, followed by the sand filtration step, another AOP and subsequent carbon filtration step.

It eliminates the need for the conventional primary, secondary, and tertiary processes, resulting in maximum colour removal, and meets the inland water discharge standards.

The DST - Water Technology Initiative (WTI), along with the Indian National Academy of Engineering (INAE) - supported the development of this technology at pilot-level in collaboration with Laxmi Textile Prints, Jaipur.

The much-improved AOP technology targeting zero discharge water management system is being utilised for complete reuse of industrial dye wastewater for domestic and industrial usage at a rate of 10 kilo litres/day. The treatment of toxic and highly carcinogenic industrial dyes of textile effluents is performed using this AOP technology for degrading and mineralising recalcitrant organic matter from effluent wastewater.

It is a direct replacement of the existing treatment plant processes and consists of a low-cost solution of dye adsorption on acid-modified soil, followed by a photo-chemical reaction step within a photocatalytic visible light filter and a unique carbon and PAN (polyacrylonitrile) nano-mat fibre filtration process. Having been set up on a pilot basis, it remediates industrial wastewater.

The technology has resulted in the recuperation of 50% of the treatment cost incurred from conventional processes for water treatment (especially due to the high cost of sludge disposability) in the water-scarce regions of Rajasthan. Further, scaling up of this plant to 100 kilolitres/day capacity to meet the current industrial requirements is underway, it added. ■

Centre wants for price ceiling to curb raw jute hoarding

The centre has fixed a ceiling price of two varieties of raw jute at ₹6,500 per quintal in West Bengal to prevent hoarding as the commodity is being sold at ₹7,200 or more in the market, an official said recently.

This price ceiling will be effective till June 2022, he said.

"The Jute Commissioner, the regulator of the sector, has put a price ceiling of raw jute (TDN3 and WN3 varieties) at ₹6,500 per quintal in the state to discourage hoarding as the price has touched ₹7,200 a quintal," an official said.

The ceiling price of the raw just has been fixed at ₹6,800 per quintal in other states.

The price control measure will be in place for the current jute season (July-June), he said. "This means the government will consider raw jute price at ₹6,500 per quintal while calculating the jute bag price," an industry source said.

Mills will incur losses if the market price of the raw material is higher than the ceiling one, he said.

"In the current year, production is huge and several farmers and traders are holding the crop till now. The order may dampen their plan to hoard the commodity," the source said. With the rising prices, local traders in all the jute producing districts had started storing raw jute at their houses to sell the commodity at a premium price in future. ■

Govt approved Rs. 10683 crore textile PLI plan

The Union Cabinet recently approved a ₹10,683 crore Production Linked Incentive (PLI) scheme for the textile sector with a view to "helping India regain its historical dominant status in global textiles trade."

The incentives are designed to encourage investment in new capacities in man-made fibre (MMF) apparel, MMF fabrics, and 10 segments or products of technical textiles. The government expects the scheme to help attract fresh investment of more than ₹19,000 crore, creating an additional 7.5 lakh direct jobs.

Terming the move a 'game changer', Union Minister for Textiles, Commerce and Industry, Consumer Affairs, Food and Public Distribution Piyush Goyal told recently that any investment in the sector would have a multiplier effect especially in job creation. "The PLI as a whole is a game changer. And, for textiles it will be a big, big boost. Because... you create maximum employment in the textile sector for every rupee invested," he added.

Two-thirds of India's textile exports now are cotton based whereas 66-70% of world trade in textiles and apparel is MMF-based and technical textiles. India's focus on the manufacture of textiles in the MMF sector is expected to help boost its ability to compete globally.

The scheme envisages two levels of investment with different sets of incentives. While any person or firm can invest a minimum ₹300 crore in plant, machinery, and civil works to produce the identified products to ensure eligibility for the PLI, in the second category a minimum investment of ₹100 crore would make an individual or firm eligible to apply for the incentives.

Priority would be given for investment in aspirational districts, tier-three, tier-four towns and rural areas. The scheme is expected to benefit States such as Gujarat, U.P., Maharashtra, Tamil Nadu, Punjab, Andhra, Telangana and Odisha.

Textiles Secretary Upendra Prasad Singh said guidelines for implementation of the scheme would be notified by the end of September. A portal would be opened to receive applications and the plan is to allow two months time to the units to apply for benefits under the scheme.

Applicants would have two years as investment period and 2024-25 would be the 'performance' year. The incentive flow would start in 2025-2026 and extend for five years.

S.K. Sundararaman, chairman of the Indian Technical Textile Association, said the PLI plan, along with other schemes, was 'a boon' to the MMF sector. It would help accelerate decisions by firms eyeing the sector. ■

Cabinet approved setting up of 7 textile parks at Rs. 445-cr outlay

The Union Cabinet, headed by Prime Minister Narendra Modi, approved setting up of seven mega integrated textile regions and apparel parks, or PM MITRA, with an aim to create jobs, attract investment and make domestic industry competitive. The estimated expenditure will be ₹4,445 crore over five years.

The parks will be set up at greenfield or brownfield sites located in different states. State governments that have ready availability of contiguous and encumbrance-free land parcels of more than 1,000 acres, along with other textiles-related facilities and ecosystems, will be eligible to apply.

"This will create direct employment for 700,000 people and indirect employment for 1,400,000 people. For this, 10 states — including Tamil Nadu, Punjab Odisha, Assam, and Gujarat — have shown interest. Parks will be set up in the states where there are more facilities, cheap electricity, cheap land, etc," Textile Minister Piyush Goyal said in a media briefing after the Cabinet meeting.

The government has over the last few months announced a slew of short- and long-term measures such as clearing rebates of state and central taxes and levies dues, rolling out production-linked incentive schemes to boost the growth of the textile sector, considered the largest employment provider after agriculture. Besides, India is holding negotiations with the UAE and Australia to provide market access in the textile sector and reduce import duties.

Currently, the entire value chain of textiles is scattered. For instance, cotton is grown in Gujarat and Maharashtra, spinning is done in Tamil Nadu, processing in Rajasthan and Gujarat and garmenting in the NCR, Bengaluru, Kolkata. Exports take place mostly from Mumbai and Kandla.

"MITRA offers an opportunity to create an integrated textiles value chain. This will reduce logistics cost," Goyal explained.

For a greenfield park, there will be government-backed development capital support at 30 per cent of the project cost, with a cap of ₹500 crore. For brownfield sites, after assessment, development capital support at 30 per cent of project cost of balance infrastructure and other support facilities will have to be developed and restricted to a limit of ₹200 crore. The Centre will also provide a fund of ₹300 crore for each park to incentivise manufacturing units to get established. ■

Sales of Silk sarees made in Varanasi hard hit by 70% fall

In the narrow lanes of the Hindu pilgrimage city of Varanasi, the centre of a famed silk-weaving industry, there's little sign of the nascent economic recovery trumpeted by India's policymakers.

Sales of the heavily brocaded silk sarees made in the ancient city on the river Ganges are currently down 70 per cent from the pre-pandemic period, locals say. Many weavers have shut down their looms, others have sold them and some workers have pulled their children out of school, unable to afford the fees.

"Prices are sky-rocketing and I am unable to get even one-third of what I used to earn before the pandemic," said Mohammad Kasim, a weaver who has sold two of his 16 looms.

A surge in global prices of petrol, diesel, cooking gas and other commodities such as steel and copper is hurting millions of Indian households and businesses, already affected by the pandemic.

India meets 80 per cent of its oil needs through imports, and the government imposes more than 100 per cent tax on fuel products like petrol and diesel. Consumers and businesses end up shelling out higher fuel and transport rates compared to other emerging economies.

In addition to this, the fall in consumer incomes after the outbreak of the pandemic early last year are threatening demand for price-elastic goods.

Brocaded with gold, silver and copper, the heavy Banarasi silk sarees made in Varanasi, which is also called Benaras, are sold across India and overseas for women to wear at weddings and special occasions.

Weavers say they are struggling with shrinking demand as the expensive sarees they make are substituted with cheaper varieties, as well as the high prices of raw silk and brocade.

Prices of raw silk have gone up to ₹4,500 a kg from ₹3,500 in the last four months, Kasim said, while brocade material like copper and silver has became costlier by 40 per cent — leaving profit margins in sarees making to below 10 per cent.

Retail inflation has breached the central bank's upper limit of 6 per cent year-on-year a couple of times this year although in August it eased to 5.3 per cent. That poses a risk to the nascent recovery in Asia's third largest economy after the worst-ever contraction of 7.3 per cent in the last fiscal year ending in March.

The economy grew an annual 20.1 per cent in the April-June quarter, and the government's chief economic advisor, KV Subramanian, said : "India is poised for stronger growth".

But NR Bhanumurthy, Vice-chancellor, Bengaluru Ambedkar School of Economics University, said Inflationary pressure pushed up by global supply chain issues and sluggish domestic demand would likely have a long-term impact on Indian manufacturing.

India's pandemic relief focussed on credit guarantees on bank loans and free food grain to poor. Rajan Behal, general secretary of the Varanasi cloth merchants' associated, a body of about 800 wholesale traders, said most businesses were reluctant to take on new bank loans even though the government has promised to stand guarantee. "We would have happily mortagaged our properties for loans if there was consumer demand," he told Reuters. ■

Nick Jonas has given a ray of hope to Solapur's garment industry

Priyanka Chopra's pop-star husband Nick Jonas has given a ray of hope to Solapur's garment industry which is struggling to survive in the Covid-19 pandemic.

During the recent 'Remember This Tour' of The Jonas Brothers, Nick wore a printed shirt and posted his picture on social media. The fabric and design of the shirt resemble the famous GI-tagged Solapur Chaddar, a cotton blanket. The picture trending on social media has attracted attention to the fabric and local manufacturers say that the interests of netizens might provide a much-needed lifeline to the industry.

"Many dress designers come to Solapur to buy Chaddars. Infact, there are many experiments being made with the Chaddar. Nick Jonas's picture has suddenly attracted huge attention to the traditional Solapur Chhadar. This much-needed attention has come at a right time" says Amitkumar Jain, Director, Associated Garments Cluster Foundation.

Jain said, "In the last one and half years the textile and garment industry in Solapur is facing a tough time. Especially, the garment industry which makes school uniforms for the majority of firms in India has suffered heavy losses as there was no demand as schools were shut. Many garment industrialists are moving towards the fashion industry and Jonas' shirt has given them a ray of hope".

Solapur Chaddar is GI tagged product known for its durability, design, and all-season use. In the last one and half years, many Chaddar producers in Solapur have gone online to sell their products. Not surprisingly they are happy with Nick Jonas for indirectly helping their venture.

Interestingly, the comment section on Jonas's picture on Instagram is full of mentions to Solapur Chaddar. "That shirt is literally made out of Indian blanket" commented one of the netizens while the another simply said, "*Solapur ki chaddar.*"

"There will be more searches about Solapur Chhadar on search engines. Imagine someone here presenting the idea of Chaddar shirt. He would have been ridiculed. But fashion trends set by stars definitely help. We hope that there is more publicity for Solapur Chaddar. It is only going help us in these testing times," said industrialist Darshan Kocher. ■

LOW TEMPERATURE BLEACHING OF BAMBOO FABRIC

Satish Patil, Supriya Shirhatti
Department of Textiles, DKTES Textile & Engineering Institute, Ichalkaranji-416115

Abstract

The purpose of doing the project is carry out bleaching process at low temperature on bamboo fabric so that the saving of energy, saving of time & more production tales place at same quality. The bleaching on bamboo fabric is done mainly by using H_2O_2 but this process takes more time so that we can combine this process with sum catalyst like bleaching Enzyme, T.A.E.D. In this process bamboo fabric is treated at low temperature means 60°-70°C for less time means 20-60 min. Whereas conventional H_2O_2 process is done at 80°-90°C for 1-2 Hrs. This process takes more time so combine the H_2O_2 process with Enzyme or T.A.E.D. it is done at temperature 60°-70°C for 20-60 min so that time required for process is less. In this project bleaching of bamboo fabric is carried out at various temperature and time and the results are compared with conventional process. Here whiteness index, tensile strength and tear strength of all modified process is compared with conventional process.

Keywords : Enzyme, TAED.

1. Introduction

Growing consumer demand for products that can be described as environmentally friendly has led to considerable research and development in the textile industry. Regenerated bamboo fibers are a potential source of renewable fibers for a wide variety of applications.[1,5] Raw bamboo is easy to obtain and the cost is relatively low, since it is an abundant and fast-growing plant. Regenerated bamboo fibers are marketed as having exceptional properties, such as superior comfort and hand, as well as antimicrobial properties. Standard viscose fibers are wet-spun from wood pulp in the viscose process, which is very similar to the process now used to produce regenerated bamboo fibers. Authors have reported that the morphological structure and properties of regenerated bamboo fibers are comparable to that of standard viscose fibers.[2] Others reported it exhibiting different crystallinity and orientation.[3]

All natural and regenerated cellulose fibers contain undesirable yellow impurities. Therefore, bleaching is commonly required for the preparation of fibers to remove the coloured impurities prior to dyeing and finishing. Hydrogen peroxide (H_2O_2) is widely used to bleach the natural and regenerated cellulose fibers and their blends with other synthetic fibers. Bleaching with H_2O_2 is conducted in an alkaline bath at pH 10–12 and at temperatures up to 120°C. As reported from the industry, problems occur in wet processing of regenerated cellulose fibers and their blends when bleached for full whites. Namely, regenerated cellulose fibers super from the disadvantage of lower breaking strength, particularly in the wet state. Careful control of alkalinity at high temperatures is essential to minimize fiber degradation during the H_2O_2 bleaching process.[6]

Conventional Pretreatment : The Pretreatment given to the bamboo fibre is scouring. Scouring is carried out on the fibre in which the hydrophobic impuries are get remove and the absorbency of the fibre is increases and because of that the processing chemicals are easily penetrate inside the fibre.

Bleaching by Hydrogen Peroxide : Peroxide bleaching is carried out in order to increase the whiteness of the bamboo fabric. The peroxide bleaching process gives good results of whiteness index. The peroxide is universal bleaching agent that's this process is mostly given to all the fibres. Peroxide bleaching is carried out by exhaust method. This hydrogen peroxide bleaching is effect on the tear strength and tensile strength of the bamboo fabric. but this process can give good whiteness results on bamboo fabric.

Low Temperature bleaching on bamboo fibre : Conventional bleaching process can take more time so to reduce the time and the temperature we can carry out bleaching of H_2O_2 with different bleaching agents & catalyst. The combine bleachingwith H_2O_2 with Enzyme, TAED can also give good results for bleaching.

Bleaching by Enzyme : Enzyme bleaching is carried out in order to increase the whiteness index of the bamboo fabric. The Arylesterase enzyme is used for bleaching purpose on bamboo fabric. Enzyme bleaching is done by using exhaust method. That can give the whiteness effect on bamboo fabric. And less strength loss of bamboo

fabric that the tear strength and tensile strength of the bamboo fabric.

Bleaching by using hydrogen peroxide & Enzyme : The bleaching of hydrogen peroxide is carried out at high temperature that means 80-90° and it requires the more time that means 1-2 Hrs. that process can give more time so to reduce the temperature of hydrogen peroxide bleaching process time the process of peroxide bleaching is combine with Arylesterase enzyme. The enzyme helps in peroxide bleaching which can reduce the temperature of peroxide bleaching and also reduce the time. The combine process of hydrogen peroxide & enzyme is carried out at temperature 65°C for 40-60 min. This process can give very good whiteness index on bamboo fabric at low temperature.

Bleaching by using Hydrogen peroxide & TAED : Peroxide bleaching is combining with Tetraacetylethylenediamine (TAED). This process can reduce the time which require for the process because the TAED is acts as the catalyst which can helps in bleaching process of Hydrogen peroxide. The process of bleaching with peroxide and TAED is done at low temperature that means 60-70°C and the time require is 40-60 min. this process give good whiteness to the bamboo fabric. Also, it not effects on tear strength and tensile strength of the bamboo fabric.

2. Materials and Methods

2.1.1 Materials

100% Cottonwell singed fabric was taken for the project and Chemical were taken with particular as below mentioned in table 2.1

Table 2.1.1 : Fabric particular

Sr. No	Particular	100% Cotton
1	Material	100% cotton fabric
2	Weave	Plane
3	GSM	130
4	EPI	72
5	PPI	72
6	Warp count	25
7	Weft count	25

2.1.2 Chemical

100% Bamboo fabric was taken for the project and Chemical were taken with particular as below

Table 2.1.2 : Chemical used for study

Sr. No.	Name of chemicals	Grade	Purpose
1	Sodium hydroxide	LR	Scouring
2	Sodium carbonate	LR	To adjust pH
3	Detergent	LR	To softening of water
4	Sequestering agent	LR	To reduce hardness of water
5	Hydrogen peroxide	LR	Bleaching agent
6	TRO	LR	Wetting agent
7	Enzyme	LR	Catalyst used for bleaching
8	Sodium silicate	LR	Stabilizer
9	TAED	LR	Bleaching assistant
10	Defoamer	LR	To avoid foam generation

The chemical used for low temperature bleaching of bamboo fabric were purchased from 'Fumes Chemicals Kolhapur' and were used without any further purification whereas remaining chemicals were used from facility available by D.K.T.E.S. Textile and Engineering Institute Ichalkaranji.

2.2 Experimental Method

2.2.1 Conventional Scouring

A well desize bamboo fabric was treated with 2.5% sodium hydroxide, 1.5% sodium bicarbonate, 0.1% detergent and 0.1% sequestering agent at 90°C for 4 Hour followed by cold wash, hot wash and neutralization. The air-dried fabric was checked for absorbency, tensile strength and tear strength.

2.2.2 Hydrogen Peroxide Bleaching

A well scoured bamboo fabric was treated with 1, 2 and 3% hydrogen peroxide. The temperature of each process was 90°C. &time of process is 120 min. The air-dried fabric was checked for whiteness index, tensile strength and tear strength.

2.2.3 Enzyme Bleaching

A well scoured bamboo fabric was treated 1, 2 and 3% enzyme. 2% Sodium Bicarbonate and 1% Sodium Hexametaphosphate is used in this process. The temperature of each process was 60°, 65° and 70°C. Also, time of process very from 20 min, 40 min, 60 min. The air-dried fabric was checked for absorbency, whiteness index, tensile strength and tear strength.

LOW TEMPERATURE BLEACHING OF BAMBOO FABRIC

2.2.4 Combine hydrogen Peroxide and enzyme Bleaching

A well scoured bamboo fabric was treated with 1, 2 and 3% hydrogen peroxide. 1% enzyme is added in each bath along with 1% Sodium Bicarbonate and 1% Sodium silicate. The temperature of each process was 60°, 65° and 70°C. Also, time of process very from 20 min, 40 min, 60 min. The air-dried fabric was checked for absorbency, whiteness index, tensile strength and tear strength.

2.2.5 Combine Hydrogen Peroxide/ TAED Bleaching

A well scoured bamboo fabric was treated with 1, 2 and 3% hydrogen peroxide. 1gpl TEDA is added in each bath along with 1% Sodium Bicarbonate and 1% Sodium silicate. The temperature of each process was 60°, 65° and 70°C. Also, time of process very from 20 min, 40 min, 60 min. The air-dried fabric was checked for absorbency, whiteness index, tensile strength and tear strength.

2.2.6 Testing

1. Whiteness index (AATCC TM 110)
2. Tensile Strength (ASTM D 5035)
3. Tear strength (ASTM D 2261)

3 Result & Discussion

3.1 Introduction

Here hydrogen peroxide bleaching processed sample are compared with enzyme bleaching, combine hydrogen Peroxide & enzyme Bleaching and Combine Hydrogen Peroxide & TAED Bleaching processed sample. The samples were tested for whiteness index, tensile strength, and tear strength. The result was analysed and discussed as below.

3.2 Whiteness index

Whiteness indexof conventional bleaching is compared with enzyme bleaching, Enzyme & hydrogen peroxide bleaching and hydrogen peroxide with TEAD bleaching. The whiteness of all bleaching method is tubulated in table number 3.2. Remarkable increase in whiteness index is observed in all three method The addition of enzyme and TEAD give better whiteness as compare to convention method at low time and temperature. Because enzyme and TEAD act as catalyst in this reaction. Hence bleaching process completed at low temperature within less time.

Table 3.2 : Whiteness Index

Sample name	Sr. No	Temperature & Time	1%	2%	3%
H_2O_2	1	90°C, 120 min	60.50	62.80	65.50
Enzyme Bleaching	1	60°C, 20 min	61.018	61.677	63.296
	2	60°C, 40 min	60.420	63.160	61.710
	3	60°C, 60 min	58.560	60.560	60.861
	4	65°C, 20 min	65.160	62.182	63.196
	5	65°C, 40 min	57.915	66.175	64.531
	6	65°C, 60 min	61.440	59.161	60.861
	7	70°C, 20 min	64.764	65.701	64.464
	8	70°C, 40 min	63.664	63.929	65.003
	9	70°C, 60 min	64.835	59.144	61.350
Combine hydrogen Peroxide-enzyme Bleaching	1	60°C, 20 min	74.315	76.145	75.582
	2	60°C, 40 min	76.885	76.745	76.558
	3	60°C, 60 min	74.685	75.514	74.612
	4	65°C, 20 min	75.420	75.376	74.102
	5	65°C, 40 min	76.432	76.182	75.845
	6	65°C, 60 min	73.985	74.285	73.125
	7	70°C, 20 min	75.946	75.512	75.649
	8	70°C, 40 min	74.219	77.546	74.702
	9	70°C, 60 min	76.085	76.765	75.398
Combine Hydrogen Peroxide-TAED Bleaching	1	60°C, 20 min	72.814	71.293	70.904
	2	60°C, 40 min	65.878	61.463	67.860
	3	60°C, 60 min	67.825	66.561	70.755
	4	65°C, 20 min	67.008	68.914	67.589
	5	65°C, 40 min	67.459	67.39	68.168
	6	65°C, 60 min	60.538	71.304	66.845
	7	70°C, 20 min	72.865	67.209	71.004
	8	70°C, 40 min	67.234	71.15	68.659
	9	70°C, 60 min	67.389	69.354	71.112

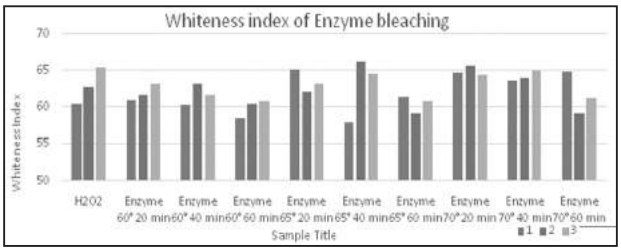


Fig 3.2.1 : Whiteness index of enzyme bleaching

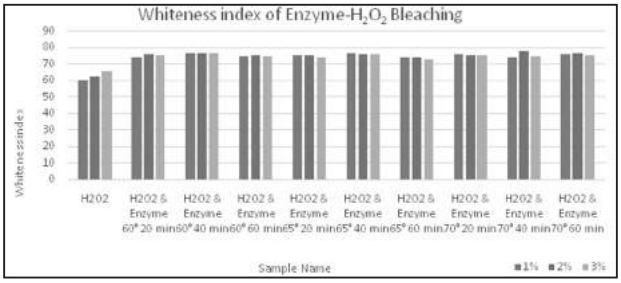


Fig 3.2.2 : Whiteness index of Enzyme-H_2O_2 bleaching

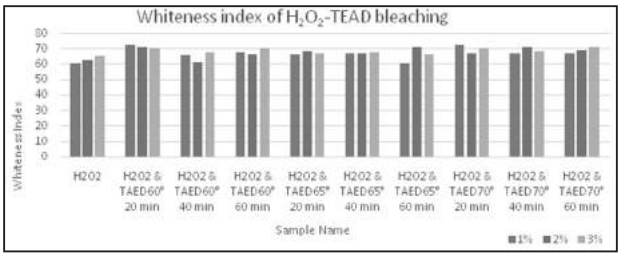


Fig 3.2.3: Whiteness index of H_2O_2-TEAD bleaching

3.3 Tensile strength

Tensile strength of conventional method along with enzyme, Enzyme & H_2O_2 and H_2O_2 & TEAD is tubulated in table 3.3. There is no any significance difference in tensile strength of conventional method and all three methods. This indicates addition of enzyme and TEAD in H_2O_2 will not make much more difference in tensile strength. Also, in some cases of enzyme and TEAD tensile strength is higher as compare to conventional method. This indicate there is less loss in tensile strength due to addition of enzyme and TEAD.

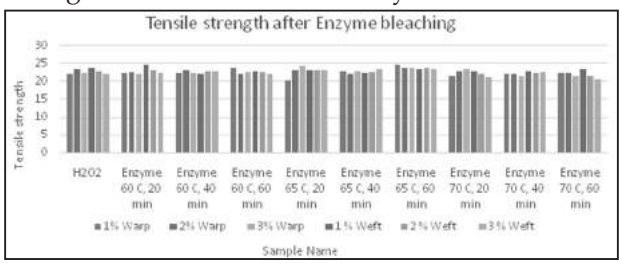


Fig 3.3.1 : Tensile strength after Enzyme bleaching

Table 3.3 : Tensile strength after bleaching in kgf

Sample name	Sr. No	Temperature & Time	1%		2%		3%	
			Warp	Weft	Warp	Weft	Warp	Weft
H_2O_2	1	90°C, 120 min	22.17	23.89	23.47	23.04	22.33	22.19
Enzyme Bleaching	1	60°C, 20 min	22.33	24.67	22.56	23.20	22.20	22.35
	2	60°C, 40 min	22.41	22.07	23.20	22.99	22.27	22.84
	3	60°C, 60 min	23.92	22.93	22.00	22.64	22.76	22.19
	4	65°C, 20 min	20.27	23.28	23.19	23.33	24.27	23.36
	5	65°C, 40 min	22.97	22.27	22.00	22.67	23.05	23.49
	6	65°C, 60 min	24.60	23.47	23.71	23.89	23.88	23.60
	7	70°C, 20 min	21.41	22.84	23.04	22.19	23.63	21.05
	8	70°C, 40 min	22.17	22.87	22.20	22.47	21.48	22.59
	9	70°C, 60 min	22.45	23.47	22.32	21.33	21.47	20.48
Combine hydrogen Peroxide & enzyme Bleaching	1	60°C, 20 min	23.72	22.39	21.73	22.44	24.45	24.16
	2	60°C, 40 min	22.27	24.56	21.13	24.43	24.15	26.29
	3	60°C, 60 min	24.99	24.59	25.87	25.59	24.17	23.89
	4	65°C, 20 min	25.05	25.87	25.31	25.48	25.77	25.45
	5	65°C, 40 min	22.93	26.51	24.27	25.20	25.91	25.05
	6	65°C, 60 min	27.00	26.29	25.87	25.01	25.73	26.88
	7	70°C, 20 min	25.05	24.87	24.99	24.56	23.04	25.13
	8	70°C, 40 min	22.20	22.35	24.17	23.79	23.60	24.32
	9	70°C, 60 min	22.01	23.88	23.11	23.31	23.04	23.45
Combine Hydrogen Peroxide & TAED Bleaching	1	60°C, 20 min	26.29	28.59	28.29	29.01	29.87	28.16
	2	60°C, 40 min	29.71	26.57	23.89	24.75	25.15	23.04
	3	60°C, 60 min	26.03	25.17	27.28	26.99	26.07	23.47
	4	65°C, 20 min	22.48	23.33	25.60	24.75	26.88	27.44
	5	65°C, 40 min	27.73	25.60	26.87	26.88	26.87	27.73
	6	65°C, 60 min	26.84	26.44	27.44	26.16	29.57	28.29
	7	70°C, 20 min	27.55	25.84	23.71	26.15	27.59	26.88
	8	70°C, 40 min	26.88	27.29	27.29	26.57	26.56	26.28
	9	70°C, 60 min	28.47	25.60	24.32	26.19	26.47	27.76

LOW TEMPERATURE BLEACHING OF BAMBOO FABRIC

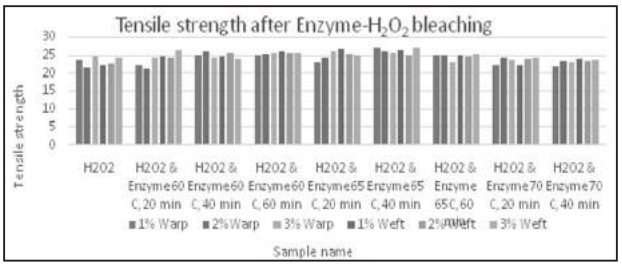


Fig 3.3.2 : Tensile strength after Enzyme-H_2O_2 bleaching

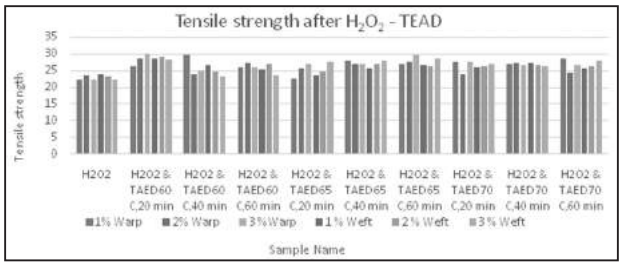


Fig 3.3.2 : Tensile strength after Enzyme - H_2O_2 bleaching

Table 3.4 : Tear strength gram force

Sample name	Sr. No	Temperature & Time	1%		2%		3%	
			Warp	Weft	Warp	Weft	Warp	Weft
H_2O_2	1	90°C, 120 min	3776	3584	3520	3456	3800	3328
Enzyme Bleaching	1	60°C, 20 min	3200	3700	2784	2880	2880	2752
	2	60°C, 40 min	2912	2560	2880	2848	3040	2976
	3	60°C, 60 min	2688	2240	2400	2496	3264	3328
	4	65°C, 20 min	3040	2592	3328	3200	3640	2304
	5	65°C, 40 min	4696	4440	4800	4600	3008	2624
	6	65°C, 60 min	3840	3520	5056	3584	4032	3840
	7	70°C, 20 min	2912	2976	3456	3328	2944	3008
	8	70°C, 40 min	3776	4480	2880	3520	3072	4288
	9	70°C, 60 min	3968	3520	3648	3200	3520	3072
Combine hydrogen Peroxide & enzyme Bleaching	1	60°C, 20 min	4608	4408	4160	4416	3968	4224
	2	60°C, 40 min	5440	5184	5120	4864	4672	4544
	3	60°C, 60 min	2848	4288	4480	4288	3776	3584
	4	65°C, 20 min	4808	4480	4096	3372	2816	3968
	5	65°C, 40 min	2240	2176	3040	2880	3136	3008
	6	65°C, 60 min	4800	4544	4480	4352	4160	4032
	7	70°C, 20 min	3008	4480	2848	2784	3456	5120
	8	70°C, 40 min	2880	2752	4225	4168	3840	3648
	9	70°C, 60 min	4352	4032	4816	4096	3456	3968
Combine Hydrogen Peroxide & TAED Bleaching	1	60°C, 20 min	4544	4288	4544	4352	4480	4224
	2	60°C, 40 min	5056	4736	3584	3712	3772	3456
	3	60°C, 60 min	3904	3776	4992	5248	2560	3520
	4	65°C, 20 min	3072	3200	3840	3712	4032	4416
	5	65°C, 40 min	4160	3840	4480	4032	4480	4160
	6	65°C, 60 min	4776	4416	4416	4224	4736	4544
	7	70°C, 20 min	5632	5376	5056	4672	4288	4032
	8	70°C, 40 min	4032	4544	4544	4736	5184	4992
	9	70°C, 60 min	3520	3840	3648	3328	3520	3264

3.4 Tear strength

Tear strength of conventional method along with enzyme, Enzyme-H_2O_2 and H_2O_2-TEAD is tubulated in table 3.4. There is no any significance difference in tear strength of conventional method and all three methods. This indicates addition of enzyme and TEAD in H_2O_2 will not make much more difference in tear strength. Also, in some cases of enzyme and TEAD tear strength is higher as compare to conventional method. This indicate there is less loss in tear strength due to addition of enzyme and TEAD.

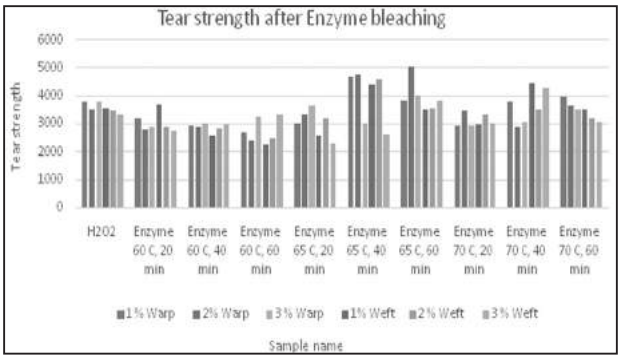


Fig 3.4.1 Tear strength after Enzyme bleaching

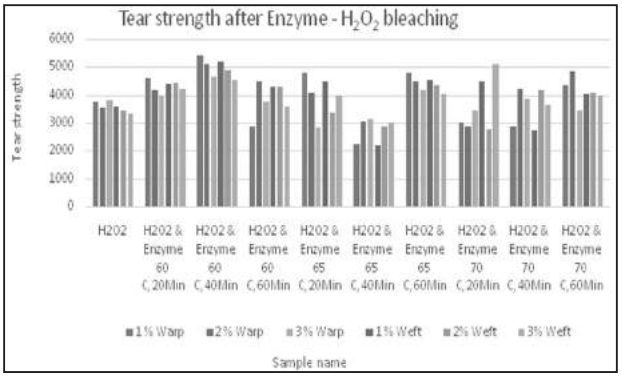


Fig 3.4.2 Tear strength after Enzyme - H_2O_2 bleaching

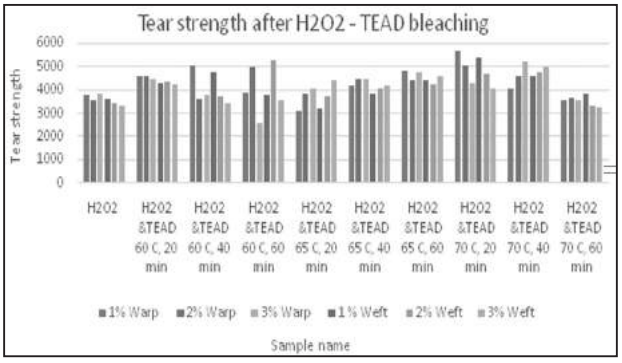


Fig 3.4.3 Tear strength after H_2O_2 - TEAD bleaching

Conclusion

Whiteness index obtain in enzyme, Enzyme-H_2O_2 And H_2O_2-TEAD method is more as compare conventional method. Whiteness index achieved in conventional method can be achieved at low temperature by addition of enzyme and TEAD. Also, time required is 50-60 min less as compare to conventional method. The loss in tensile and tear strength is also low as compare to conventional method.

References

1. Gericke A and van der Pol J. "A comparative study of regenerated bamboo, cotton and viscose rayon fabrics."Part 1: Selected comfort properties. J Fam Ecol Consum Sci 2010; 38: 63–73.
2. Lipp-Symonowicz B, Sztajnowski S and Wojciechowska D. "New commercial fibres called bamboo fibres – their structure and properties." Fibres Textil East Eur 2011; 19: 18–23.
3. Xu Y, Lu Z and Tang R. "Structure and thermal properties of bamboo viscose, Tencel and conventional viscose fiber." J Therm Anal Calorim 2007; 89: 197–201.
4. Pavko Cˇ uden A and Kupljenik A. "Knitted fabrics frombamboo viscose." Tekstilec 2012; 55: 5–11.
5. Erdumlu N and Ozipek B. "Investigation of regeneratedbamboo fibre and yarn characteristics." Fibres Textil EastEur 2008; 16: 43–47.
6. Scarborough SJ and Mathews AJ. "Using T.A.E.D. inbleaching fiber blends to improve fiber quality'. AATCC2000; 32: 33–37.
7. Hickman WS. "Peracetic acid and its use in fibre bleaching." Rev Prog Color 2002; 32: 13–27
8. Coucharriere C, Mortha G, Lachenal D, etal. "Rationalization of the use of TAED during activated peroxide delignification and bleaching." Part I: kinetic model. J Pulp Pap Sci 2002; 28: 332–340.

9. Presˇa P and Forte Tavcˇer P. "Low water and energy saving process for cotton pretreatment." Textil Res J 2009; 79: 76–88.
10. Forte Tavcˇer P. "Impregnation and exhaustion bleaching of cotton with peracetic acid." Textil Res J 2010; 80: 3–11.
11. Krizˇman P, Kovacˇ F and Forte Tavcˇer P. "Bleaching of cotton fabric with peracetic acid in the presence of different activators." Color Technol 2005; 121: 304–309.
12. Xu C, Hinks D, El-Shafei A, et al. "Review of bleach activators for environmentally efficient bleaching of textiles." J Fiber Bioeng Informat 2011; 4: 209–219.
13. Cai JY, Evans DJ and Smith SM. "Bleaching of natural fibers with TAED and NOBS activated peroxide systems." AATCC 2001; 1(12): 31–34.
14. Lim SH, Hinks D and Hauser D. "Evaluating hydrogen peroxide bleaching with cationic bleach activators in a cold pad-batch process." Textil Res J 2004; 74: 970–976.
15. Lim SH, Lee JJ, Hinks D, et al. "Bleaching of cotton with activated peroxide systems." Color Technol 2005; 121: 89–95.
16. Cai JY and Evans DJ. "Guanidine derivatives used as peroxide activators for bleaching cellulosics textiles." Color Technol 2007; 123: 115–118.
17. Hou A, Zhang X and Zhou Y. "Low temperature bleaching of cellulose fabric with (N-[4-triethylammoniomethyl]- benzoyl) caprolactam chloride as novel cationic activator for H2O2 bleaching." Carbohydr Polym 2010; 82: 618–622.
18. Wang J and Washington NM. "Hydrophobic bleach systems and textile preparation: a discontinuity in fabric care." AATCC 2002; 2(6): 21–24.
19. Shao J, Huang Y, Wang Z, et al. "Cold pad-batch bleaching of cotton fabrics with a TAED/ H2O2 activating system." Color Technol 2010; 126: 103–108.
20. Krizˇman Lavricˇ P, Kovacˇ F, Forte Tavcˇer P, et al. "Enhanced PAA bleaching of cotton by incorporating a cationic bleach activator." Color Technol 2007; 123: 230–236.
21. Xu C, Shamey R and Hinks D. "Activated peroxide bleaching of regenerated bamboo fiber using a butyrolactam- based cationic bleach activator." Cellulose 2010; 17: 339–347.
22. Xu C, Hinks D and Shamey R. "Bleaching cellulosic fibers via pre-sorption of N-[4-(triethylammoniomethyl)benzoyl] butyrolactam chloride." Cellulose 2010; 17: 849–857.
23. Forte Tavcˇer P. "Low temperature bleaching of cotton induced by glucose oxidase enzymes and hydrogen peroxide activators." Bio-catal Bio-transform 2012; 30: 20–26.
24. Sˇ picˇka N and Forte Tavcˇer P. "Complete enzymatic pretreatment with incorporated bleach activator." Textil Res J 2013; 83: 566–573.
25. Aksel Eren H, Anis P and Davulcu A. "Enzymatic onebath desizing – bleaching – dyeing process for cotton fabrics." Textile Res J 2009; 79: 1091–1098.
26. Opwis K, Knittel D, Schollmeyer E, et al. "Simultaneous application of glucose oxidases and peroxidases in bleaching process." Eng Life Sci 2008; 8: 175–178.
27. Tzanov T, Basto C, Guebitz GM, et al. "Laccases toimprove the whiteness in a conventional bleaching ofcotton." Macromol Mater Eng 2003; 288: 807–810.
28. Flitsch A, Nugroho Prasetyo E, Sygmund C, et al. "Cellulose oxidation and bleaching processes based on recombinant Myriococcum thermophilum cellobiosedehydrogenase." Enzyme Microb Technol 2013; 52: 60–67.
29. Dettore C. 'Comparative life - cycle assessment (LCA) of textile bleaching systems: Gentle Power BleachTM vs. conventional bleaching system," http://primagreen.dupont.com/fileadmin/user_upload/live/primagreen/documents/GentlePowerBleach_LifeCycleAssessmentposter_AATCC2011.pdf (accessed 12 March 2014). ■

DESIGNING KAFTANS USING ADAPTED GOTHIC ARCHITECTURAL MOTIFS

Shivangi Agarwal, M.Sc. (Home Science), Student, Banasthali Vidyapith, Rajasthan
Dr. Deepti Bhargava, Assistant Professor, Home Science, Banasthali Vidyapith, Rajasthan

ABSTRACT

Designing is the art of transforming an individual's ideas and experiences into tangible form. The present study was undertaken by the investigator to add a new range and interesting ideas which can break the monotony and give a touch of novelty in designing kaftans using adapted forms of gothic architectural motifs through screen printing. Thirty sheets of adapted gothic motifs were developed and evaluated by fifty respondents based on originality, uniqueness and aesthetic appeal. Motif no. 2, 3, 4, 6, 10, 13, 23, 25, 27 and 29 were selected for the different placements in design sheets of kaftans. Thirty kaftan design sheets were developed using selected motifs and evaluated by fifty respondents based on design, suitability of motif, placement of motif and overall appearance. Design no. 5, 10, 23, 24 and 30 were selected for the development of prototypes. Developed prototypes were assessed based on design, aesthetic appeal, clarity of print and overall appearance. It was found that all prepared prototypes were highly appreciated by all the respondents. Hence, it was concluded that designing kaftans with adapted forms of gothic architectural motifs was a successful innovation, which helped to reach the height of fashion even by keeping our feet on the traditional ground.

Keywords : Kaftan, garment designing, Gothicarchitectural motifs.

INTRODUCTION

Over the years "kaftan" has become the blanket term in fashion for any kind of loose-fitting tunic or robe. Kaftan is a Persian word, while the garment style is believed to be originated in Ancient Mesopotamia. The kaftan lent itself well to the fashions of the next decade, providing a simple silhouette that could be beaded, heavily patterned or tidily marginal. Fashion designers such as Matthew Williamson and Temperley have reanimated the kaftans' Bohemian mystique and other designers such as Elie Saab and Naeem Khan have brought the kaftan to the red carpet with embroidered and ornately beaded versions (Helms, 2018).

In the present study, a new range of kaftans was developed using gothic architectural motifs. The term Gothic was first used during the Renaissance, by Italian painters and writers such as Giorgio Vasari and Raphael, to refer the art that flourishing throughout Christian Europe for more than three centuries, from about 1150 until 1500. Gothic architecture was represented by anexplosion of monuments as early as the 12th century (Gozzoli, 1971). In the 13th century, Gothic sculpture attained classical perfection. It was modeled after nature, but forms were idealized and ennobled. Ornaments consisted of familiar plants- strawberry plant, wild rose, vine, water lily, fern, cress, maple and oak turned into decorative motifs (Toman, 1999). The ornamental feature reveals delight in the forms and the brilliance of color, in them is seen as an attempt to imitate nature, even to reproduce it exactly. In sculpture and painting realism was also sought. Figures were given expressive faces and lifelike poses. The specialty about gothic tracery drawing was its often extreme elaboration. Gothic is concerned with surface decoration of one kind or another (Gozzoli, 1971). The Gothic style in architecture inspired an outpouring of sculptural decoration (Sayre, 1997).

The research work had been carried out with objectives to collect various Gothic architectural motifs, to develop and evaluate the adapted Gothic architectural motifs, to develop and evaluate designed sheets for Kaftans with selected motifs, to construct the preferred design sheets into prototypes followed by their evaluation.

RESEARCH METHODS

The present study was conducted at Banasthali Vidyapith, Rajasthan. The research has been carried out with following methodology:

Selection of respondents

A sample of fifty college going girls of Banasthali Vidyapith between the age group 18-25 years was selected randomly for the study. These respondents were selected to evaluate adapted motifs, design sheets of kaftans and developed prototypes.

Collection and selection of motifs

Thirty Gothic architectural motifs were collected through secondary sources viz.books, journals, magazines and online sources and then collected motifs were adapted. These adapted motifs were evaluated on the five-point rating scale based on originality, uniqueness, and aesthetic appealin order to select ten best motifs.

DESIGNING KAFTANS USING ADAPTED GOTHIC ARCHITECTURAL MOTIFS

Development and evaluation of design sheets

Each selected motif was used to develop a design for kaftans with different placements. A total of 30 kaftan design sheets were developed. Evaluation of the kaftan design sheets was done on the basis of originality, uniqueness and aesthetic appeal in order to select five best designs. The five-point rating scale was used for evaluation and a percentage was calculated for each design sheet.

Development and evaluation of prototypes

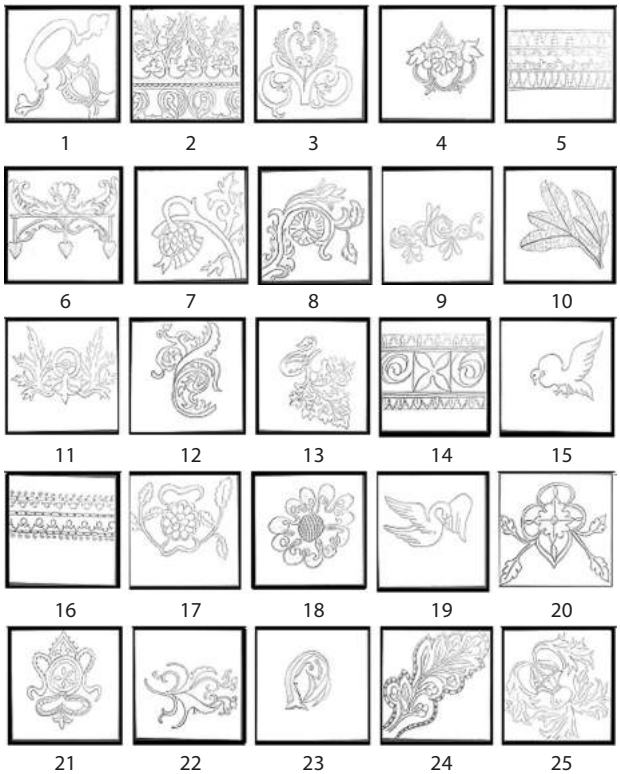
The most preferred five design sheets among 30 design sheets were constructed into prototypes. The motifs were printed on fabric through screen printing. Evaluation of the developed prototypes was done by the selected panel of respondents based on design, aesthetic appeal, clarity of print and overall appearance. The five-point rating scale was used for evaluation and the weighted mean score for each prototype was calculated.

RESULTS

Adaptation of motifs

Thirty Gothic architectural motifs were adapted (Plate 1).

Plate 1 : Adaptedmotifs



Evaluation of motifs

The majority of the respondents appreciated the adapted motifs. Motif no. 2, 3, 6, 8, 10, 13, 23, 25, 27 and 29 got 7th, 8th, 9th, 10th, 6th, 2nd, 1st, 3rd, 4th and 5th ranks respectively (Table 1). These ten motifs were mostly preferred by the respondents and selected for designing of kaftans with various placements.

Table 1 : Percentage distribution of selected adapted motif sheets

S. No.	Motif no.	Percentage (%)	Rank
1.	2	76	VII
2.	3	74.8	VIII
3.	4	72.2	X
4.	6	74.6	IX
5.	10	76.5	VI
6.	13	90	II
7.	23	92	I
8.	25	88	III
9.	27	86.6	IV
10.	29	82.6	V

Development of design sheets

A total of 30 kaftan design sheets were developed with different placements of selected motifs.

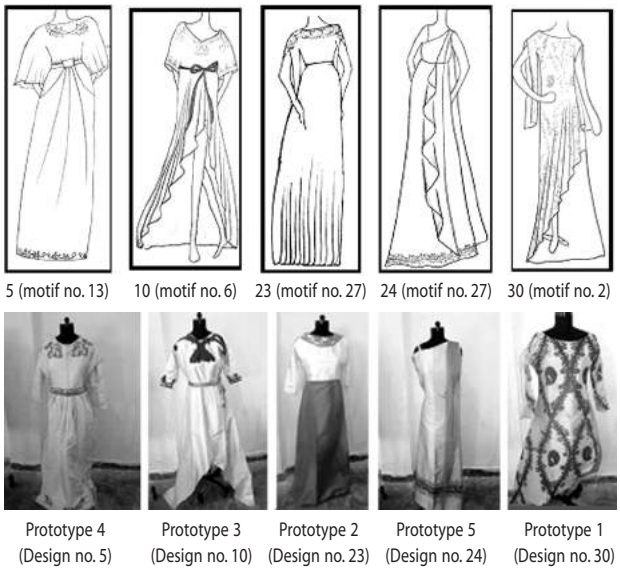
Evaluation of Design sheets

Design no. 5, 10, 23, 24 and 30 got 5th, 4th, 1st, 2nd and 3rd ranks respectively (Table 2). These designs were mostly preferred by the respondents and selected for the development of prototypes.

Table 2 : Percentage distribution of selected design sheets

S. No.	Design no.	Percentage (%)	Rank
1.	5	89.2	V
2.	10	89.3	IV
3.	23	91.5	I
4.	24	91.3	II
5.	30	90	III

Plate 2 : Developed design sheets and prototypes



5 (motif no. 13) 10 (motif no. 6) 23 (motif no. 27) 24 (motif no. 27) 30 (motif no. 2)

Prototype 4 (Design no. 5) | Prototype 3 (Design no. 10) | Prototype 2 (Design no. 23) | Prototype 5 (Design no. 24) | Prototype 1 (Design no. 30)

Development and evaluation of prototypes

The most preferred five design sheets among 30 design sheets were developed into prototypes (Plate 2). The finding shows that prototype no. 1 got 1st rank as it secured a 4.9 weighted mean score and was selected by respondents as the best design for kaftan. Similarly, prototype no. 2, 3, 4 and 5 got 2nd, 4th, 3rd and 5th ranks respectively based on their weighted mean score (Table 3).

Table 3 : Percentage distribution of developed prototype

Prototype no.	Weighted mean score	Rank
1	4.9	I
2	4.8	II
3	4.5	IV
4	4.6	III
5	4.2	V

CONCLUSION

Kaftans are nowadays being preferred for mostly occasion by the females. The present study provided innovative approach to add enthusiasm by adding some flamboyant spirit of kaftans designed with Gothic architectural motifs. Hence, the present study can be concluded that it adds a new zeal among the seeking consumer to satisfy their need to look fashionable.

REFERENCES

- Gozzoli, C. (1971). Pall Mall Encyclopedia of Art (vol. 2). Vikas Publication: Delhi, 784-785, 808.
- Helms, L. (2018). How the Kaftan went global, Vogue. Retrieved from: https://en.vogue.me/fashion/how-the-kaftan-went-global.
- Sayre, H.M. (1997). World of Art (2nd Ed.). Prentice Hall: New Jersey, 414.
- Toman, R. (1999). The Art of Gothic: Architecture. Sculpture. Painting. Good Fellow and Enga Publishing Management, Cambridge. ■

Occasion, formal wear turn back from Covid-19 induced comfort-wear

After the Covid-19 induced slump that diverted the demands to comfort-dressing, the festival and wedding season has perked up the occasion-wear and formal segment.

The hard-hit branded apparel segment is betting big on the season for a strong sales revival with many players already noticing a resurgence in footfalls at the stores.

Increasing customer interest has raised hopes that sales are soon going to revert to pre-pandemic levels.

After a prolonged pandemic deflation, buyers have started thronging markets and shopping malls with a gusto. Noida-based Gurvinder Sharma says she is dressing up for Diwali and has been shopping for occasion and ethnic-wear. "We seem to have been forever wearing comfortable lounge pants. Now for an extended family of 10, I am looking for occasion-wear; Diwali is here and so are the weddings," she said.

According to Bidyut Bhanjdeo, Head-Sales, Apparel Business, Raymond Ltd, there is an expectation of 8-10 per cent growth over 2019 levels among its channel partners.

"Festive buying started with Dusshera in the eastern region where we observed a growth over 2019 levels. Now we believe the overall sales will definitely cross the pre-pandemic levels. With markets opening up and vaccinations picking up pace, customers are in a buoyant mood. Off-line stores are witnessing good footfalls," he said.

The annual consumer sentiment survey by Retailers Association of India, released recently, found that apparel and home appliances topped as the two categories on the consumers' festival shopping list.

Siddharth Bindra, Managing Director of ethnic apparel retailer Biba India, said, "Due to the pandemic, consumers had earlier not been looking at buying formal and occasion wear. But with the onset of the festival and wedding season, they are definitely looking to dress up again for parties and weddings. Demand for occasion wear and formal wear has picked up and we expect this trend to continue in the coming months."

He added that overall the company expects to see growth over the pre-pandemic levels during the festival period. "Demand across markets has picked up and is in fact much better than what was anticipated. The northern and eastern regions are doing well. There are still some challenges in regioins such as Maharashtra, Tamil Nadu and Kerala. We expect off-line business to be back at 90 per cent of the pre-pandemic levels, while online business will see much higher growth," he said. ■

CONCEPT OF 3R AND SUSTAINABILITY FOR TEXTILES—A REVIEW

Dr. A. A. Mandot*, Dr. Saatish Lavate, Rajkumar Kushwaha***
*Dept. of Textile Engg., The M. S. University of Baroda
**Textile and Engg. Institute, Ichalkaranji-416115

Abstract

If we are concerned about the nature, environment, and climatic change thenwe are heading towards the dream of Sustainable World. In order to achieve this dream sustainable development is required, which simply means "Fulfillment of present needs without compromising the ability of fulfilling future demands."

This review deals with the various ways of achieving environmental sustainability through 3R concept (i.e. Reduce, Reuse and Recycle) of textile waste specifically in Garment Industry as well as the products which are not used upto its average limit. The 3R concept in textile can serve as a means of providing solutions to many economic, environmental and social issues.Tempting arrival of latest trend in market makes difficult for one to be satisfied with what they already have, which leads to overpurchase of new products and less usage of existing one which is not used even upto the average limit. Though the textile recycling has past history but in recent years it has gained prime importance due to fast changing fashion culture in western world which has resulted in over consumption of textile with less usage and corresponding waste generation. Innovations are made in terms of methods of applying this concept in every textile goods possible, development of recycling machineries, design inputs, innovative products with value addition to make recycling a profitable business. The various efforts made by industries and small recycling units to achieve higher recycling rate in textile industry to achieve the sustainability.

Key words : sustainability, recycle, landfill.

1.0 Introduction

We wear clothing daily but few of us spend much time reflecting on what goes in to the manufacturing of various textiles and their impact on environment. After numerous physical and chemical processing one garment attains the stature. The very first stage of fabric is fiber, which whether it comes from a plant, animal or crude oil irrespective of its origin, is almost an energy and pollutant intensive process. The fiber is processed until it can be spun into a yarn, which then is woven or knitted into a fabric; it is then processed where the bleaches and dyes are usually involved. Finally, the fabric is made into a garment. The major waste concerned with respect to above textile process are "wastewater" and "fiber waste".

The average lifetime of a garment is estimated to be a period of three years and they are thrown away as unused clothes. Even useful garments are discarded as they are no longer fashionable or desirable. From the study it was found that around 5.8 million tons per year textiles are discarded; only 1.5 million tons (around 25%) of these textiles are recycled and the remaining 4.3 million tons goes to landfill or to municipal waste incinerators. Huge quantity of old clothing's ends up in landfills instead of being reused and recycled.

2.0 Sustainability in Textile through 3R Concept

All clothing has a useful second life. Of all the old clothing, 70% is used as second-hand clothing, 6% is waste bags and zips, 8% is used for reclaiming fibers and making recycled products, 7% is used as wiping material and the remaining 9% is shredded and used as stuffing. It is a surprising fact that over 70 percent of the world's population uses second hand clothing. Raw materials acquired out of recycled fabrics cost less; making it an attractive feature for manufacturers.

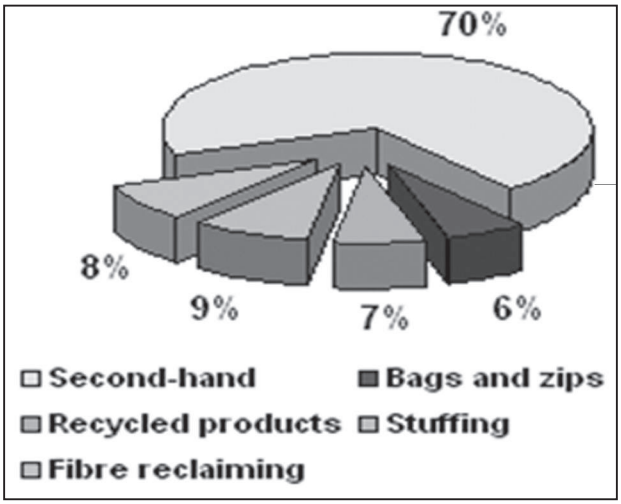


Fig. 1 Impact Source

The collected garments are graded and sorted as natural synthetic and blended fabrics. Sustainability in textile can be achieved majorly by Reduce, Reuse and Recycling of Textile waste. Sustainability has to be at the heart of every action, fibers come from nature and should go back to nature, leaving a positive footprint on the environment.

2.1 Reduce

With the rise in living standards, the demand for textile and clothing is expected to grow. There have been ever increasing efforts to arrange manufacturing processes insucha way that they incur minimum damage to the environment. "Waste minimization is the application of a systematic approach to reducing the generation of waste at source itself."Americans generate 11 billion pounds of clothing waste each year and only about 15 percent is recycled. So, people want to find a new home for their former clothes which doesn't mean sending them to the landfill, check out following ways to jumpstart an afterlife for clothes you no longer want or need.

- ***Swap and Share*** : One person's trash is another person's treasure. Creation of a clothing exchange among the friends. In a party where each person brings clothes that he or she no longer wants. Trading of old with friends so that everyone leaves with fresh items for their wardrobe – without spending a dime or sending anything to the landfill.
- ***Re-Fashion*** : With the popularity of Pinterest, five minutes crafts clips and online blogs, DIY (Do It Yourself) is making the people creative. Check out online DIY resources for creative ideas on how to turn an old t-shirt into something fresh and new. Or come up with your own ideas to re-fashion your clothing.
- ***Rags to Riches*** : Why not make a couple of extra bucks from nice clothes no longer want? Resell clothing online or at your neighborhood consignment shop.
- ***Donate, Feel Great*** : Donating your clothing is a great way to give back to the community while also clearing out space in our closet. Donations are often tax-deductible, too.
- ***Don't Scrap It*** : Turning unwanted clothing into functional products like old or ripped T-shirt might be great for household cleaning whereas outdated skirt could be a great apron.

2.2 Reuse

All clothing has a useful second life. An average American throws out about 82 pounds of textile waste per year. While it may seem to be harmless to throw out tattered clothes, these fabrics are likely to then end up in landfills, where they pile up to produce toxic greenhouse gasses that are emitted into the atmosphere. As a leading cause of global warming, these gases are very dangerous for environment and health hazardous.The garments collected are graded, sorted and good quality clothing is sent to charity institutions are used as second-hand clothing. When we donate clothing to charities, it's not uncommon for the clothing to be sold overseas. Fortunately, a lot of people donate clothes every day. However, it's a common misconception that all of these donated clothes are distributed domestically. The reality is, there are just too many unwanted clothes for that! That's why many clothing collection organizations like, Planet Aid sell clothing abroad to fund sustainable development programs all over the world. So, a secondhand thrift store! Not only helps to contribute for more circular textile industry, but it also saves money too. Also, cloth donors feel good about the fact that your old clothes are likely to end up making someone else very happy. By redesigning the products like handbags, home slippers, curtains, pillow covers, floor mats, and much more innovative and creative ideas, we can reuse the clothes. "Eco India" promoting sustainability, one of its efforts is "A woman's journey to repurpose heirloom saree into modern bespoke and chic garments."

2.3 Recycling

The vast majority of textiles which are recycled are sorted and re-worn in other countries, predominantly in Eastern Europe, Africa and the Middle East. Textile recycling is the process by which old clothing and other textile are recovered for reuse or material recovery. Textiles for recycling are generated from two primary sources. Post-consumer, including garments, vehicle upholstery, household items and others. Pre-consumer, including scrap created as a by-product from yarn and fabric manufacture, as well as the post-industrial scrap textiles from other industries. As such, textile recycling is a significant challenge to be addressed as we strive to move closer to a zero landfill society. Unwearable textiles are considered as damaged textiles, and are processed in the factory as rags. Rags are collected and sent to the wiping and flocking industry. Other materials will be sent for fibre reclamation and stuffing. Fibres from the old fabrics are reclaimed and are used for making new garments. Threads from the fabric is pulled out and used for re-weaving new garments or blankets. Both natural and synthetic fibres can be recycled this way. Incoming textiles are graded into type and color. Initially the material is shredded into fibres called shoddy. Later based on the end use, other fibres are blended and carded, and spun for weaving or knitting.

CONCEPT OF 3R AND SUSTAINABILITY FOR TEXTILES—A REVIEW

3.0 Application of Recycled Textile material

The garment is shredded for fillers in car insulation, roofing felts, loudspeaker cones, furniture padding, panel linings and many other uses. Woolen garments are sent to other firms that make fibre reclamation to make yarns and fabrics. Cotton clothes are recycled and used for paper manufacture, automotive, mining industries and various other applications. Some old clothes are being reused in a creative way by fashion designers to make fashionable garments and bags. Fibres made from recycled PET plastic bottles are used in the active sportswear market.

4.0 Textile industries offering recycling of the post-consumer waste

There are number of textile industries which offer recycling of the post-consumer waste, the brands offering such products are, Polartec, a premium producer of innovative and sustainable textile solutions from 100% recycled materials. Kirti Tula, a Delhi based Fashion designer working on creating new fashion outfits out of Textile garment waste is named as "DOODLAGE".OSOM BRAND was created with the principle of manufacturing clothing in a completely sustainable way without compromising quality which claims recycling of about 99% of Textile waste to produce Osom brand thread by recycling discarded clothing and textile waste.This ensures company's environmental impact is minimal from the raw material level. The ultimate goal is to keep textiles away from landfills by repurposing them into new apparel closing the loop in the fashion industry.

Clothing retailer H&M has launched a dress dubbed as one of the world's first truly recycled clothing items has been "greatly appreciated". The dress is part of H&M's conscious collection, made from 50% recycled denim and 50% wood pulp.

Fig 2. H&M recycled dress

5.0 Conclusions

As we all are clear with the fact that textile waste is increasing day by day it may be due to minimum use of garments, fast fashion changes in mood of a person and so on many reasons. The increase in this waste also affects the environment. Once in landfills, synthetic fibers can take hundreds of years to decompose. They may release methane and CO_2 gas into the atmosphere. Additionally, synthetic textiles are designed not to decompose. In the landfill, they may release toxic substances into groundwater and surrounding soil. It causes pollution due to improper waste disposal, emission of harmful gases. During production of natural fibers, use of pesticides and insecticides for growing cotton fiber. This impact can be reduced by proper implementation of 3R concept i.e.: Reduce, Reuse, Recycling in this sector. Spreading awareness and promotion of sustainable methods of using clothes, use if sustainable garments, will also help in reducing the impact of post-consumer textile waste on environment.

6.0 References

1. Prof Dr. Engr. MD Zulhash Uddin et.al, Waste Minimization in Textile Industry (1) IOSR Journal of Polymer and Textile Engineering (IOSR-JPTE) e-ISSN: 2348-019X, p-ISSN: 2348-0181, Volume 4, Issue 5 (Sep. - Oct. 2017), PP 15-18 www.iosrjournals.org.
2. https://www.innovationintextiles.com/sustainable.
3. https://www.abc.net.au/news/science/2018-04-03/fashion-environmental-impact-of-your-favourite-textiles/9382382.
4. https://www.thebalancesmb.com/the-basics-of-recycling-clothing-and-other-textiles-2877780.
5. https://www.osombrand.com/sustainability.
6. http://www.planetaid.org/blog/8-little-known-facts-about-our-clothing-habits.
7. https://sustainability.ncsu.edu/blog/changeyourstate/closets-afterlife-5-ways-reduce-clothing-waste.
8. https://www.abc.net.au/news/science/2018-04-03/fashion-environmental-impact-of-your-favourite-textiles/9382382.
9. https://www.fibre2fashion.com/industry-article/3197/textile-recycling.
10. https://www.thebalancesmb.com/the-basics-of-recycling-clothing-and-other-textiles-2877780.
11. https://scroll.in/video/927732/eco-india-one-womans-journey-to-re-purpose-heirloom-sarees-into-modern-bespoke-and-chic-garments.
12. https://www.dw.com/en/upcycled-fashion-made-in-india/av-48066580. ■

INDA and EDANA Jointly Publish the Global Nonwoven Markets Report A Comprehensive Survey and Outlook Assessing Growth Post-Pandemic

A new report published by the two leading nonwoven trade associations forecasts strong market demand for nonwovens materials through the next five years, according to the joint publication from EDANA and INDA's Global Nonwoven Markets Report, A Comprehensive Survey and Outlook, 2020–2025.

This is the seventh edition of the Global Nonwoven Markets Report, formerly titled Worldwide Outlook for the Nonwovens Industry, and is available for purchase from both INDA, the Association of the Nonwoven Fabrics Industry, and EDANA, the International Association Serving the Nonwovens and Related Industries.

This comprehensive report provides in-depth information and analysis of the global nonwoven macro drivers, supply and demand, and regional trade. Among the highlights of the report:

- In the historical period (2010–2020) production increased 6.2% annually, led by growth in the spunlaid processes and drylaid hydroentanglement.
- China led the growth in production, adding an additional 4.7 million tonnes from the end of 2010 through to the end of 2020, representing a 11.5% annual growth rate.
- Across the nonwoven end use segments, the wipes, filtration, medical segments expanded at the fastest rates, given the industry's rapid response to provide materials that keep the surfaces we touch clean, protect the air we breathe, and provide a barrier to keep our bodies safe.

"The worldwide nonwovens industry's prospects are excellent and it remains an exciting industry in which to be involved," said the report's co-authors Jacques Prigneaux, Market Analysis and Economic Affairs Director at EDANA and Brad Kalil, Director of Market Intelligence and Economic Affairs at INDA.

The report includes detailed regional information and forecasts on production, technology and investment requirements for North America, Greater Europe, Asia and the South America region. The report further features regional views of economic growth, population, product by end use, and trade flows. Other key topics include raw material usage and a detailed appendix.

"As strategic partners, INDA and EDANA are committed to promoting the sustained growth of the nonwovens industry. This report provides the industry's best estimates on

future demand by the key nonwoven segments and it is predicated on sound macro-economic analysis," said INDA President Dave Rousse. "This Global Nonwoven Markets Report is an essential planning resource for all those involved in global strategic planning for nonwovens throughout the supply chain."

"With the remarkable growth and global success of nonwovens, both industry insiders among our member companies and outsiders, from financial analysts to potential investors, require more than ever reliable sources of market information as well as forward-looking data. This new report issued by our two leading nonwovens industry associations builds on decades of experience, and of close observation and direct data collection from hundreds of companies", said EDANA General Manager Pierre Wiertz. "Produced by the industry for the industry, this is therefore a unique tool and a more legitimate and reliable source of data than any other report about nonwovens."

The report is available for purchase now and delivery starting on September 30, 2021. For more information or to purchase, contact:

- INDA :
  Cindy Garcia, cgarcia@inda.org, (919) 459-3711, or visit https://imisw.inda.org/store/searchresults.aspx?categoryid=2
- EDANA :
  Jacques Prigneaux, Market Analysis and Economic Affairs Director,
  +32 2740 1818, jacques.prigneaux@edana.org, or visit https://www.edana.org/publications/statistics-nonwovens-report

About EDANA

EDANA helps its members to design their future, serving more than 320 companies in the nonwovens and related industries, across over 40 countries. Its mission is to create the foundation for sustainable growth of the nonwovens and related industries through active promotion, education and dialogue. Further information can be found at www.edana.org

About INDA

INDA, Association of the Nonwoven Fabrics Industry, serves hundreds of member companies in the nonwovens / engineered fabrics industry doing business globally. Since 1968, INDA networking events have helped members connect, innovate and develop their businesses. INDA educational courses, market data, test methods, consultancy and issue advocacy help members succeed by providing them the information they need to better plan and execute their business strategies. INDA Media is the business-to-business publishing arm of INDA and publisher of International Fiber Journal and International Filtration News, which reach a vast network of professionals who employ fibers, filaments, and filtration systems to optimize their application environments. For more information, visit www.inda.org. ■

Inauguration of PIA, Togo's first Industrial Platform by Togo's President Faure Gnassingbe held on 6th June, 2021

On Sunday, June 6th, Faure Gnassingbé, the Togolese President, inaugurated the country's first industrial platform, PIA. The ceremony took place less than a year after construction work started.

Developed over nearly 400 hectares, in Adetikopé (15 km north of Lomé), the platform materializes a new development vision: "to produce more locally, and be more competitive in international markets." The project was carried out by Arise IIP (under a partnership based on Gabon's Nkok model).

According to its promoters, the PIA aims to create high added value chains (especially in the textile sector), supply raw materials, manufacture on-site, and export finished products. The site includes an industrial zone, a park that can accommodate 12,500 containers, a storage platform for cotton and other agricultural commodities, a truck terminal, and an area of 200,000 m2 dedicated to other logistics activities.

It also has its waste treatment plant, a police station, a fire station and a single administrative desk, regrouping all services and agencies (immigration, customs, business registration, among others). The latter makes it easier for businesses and investors to handle some paperwork.

Big ambitions

Gagan Gupta, CEO and cofounder of Arise IIP, unveiled major ambitions regarding the project: no longer export a single gram of raw cotton by 2023, produce tens of millions of units of towels, beds, and clothing within a few years via a domestic textile unit.

According to his projections, Togo's exports should, in value, jump "from $75 million to about $1 billion, a 12-fold increase." This would be "a first in such a short time on the continent," adds Gagan Gupta.

Production, of soybeans, wood, marble, or electric engines, should also grow, indicated the investor. For the project, he mobilized nearly 130 billion CFA.

PIA is expected to create 35,000 direct jobs in the next 4 years and millions (direct and indirect) by 2030.

Commenting on the project, the Prime Minister, Victoire Dogbé, said "it is a decisive turning point for the industrialization of the country.

Inauguration of PIA, Togo's first Industrial Platform by Togo's President

Why you will choose Togo as your favoured destination for your investment

MESSAGE FROM THE PRESIDENT

This public private partnership demonstrates what can be achieved when ambitious and established investors like Arise IIP join forces with Togo and the Togolese.

The Plateforme Industrielle D'Adetikope (PIA) will capitalise on our country's rich natural resources, ensuring that Togo obtains a greater share of the value added through local industry development dedicated to the processing and transformation right here in the country.

Agriculture is our lifeblood and we will further develop our industry to ensure that Togo, the Togolese and those investing in Togo benefit from its natural wealth.

Faure Gnassingbé
President of the Togolese Republic

I take this opportunity to encourage ambitious national and international entrepreneurs to consider this project as just one example of what can be achieved in Togo, of the huge human and natural resources on offer, and of our willingness to engage with any investors and businesses that are serious about creating mutual value.

Togo is open for the World

Located in the heart of Western Africa, Togo is the most obvious and efficient point of entry to the region and to the adjoining countries like Burkina Faso, Benin, and Ghana. The Togolese economy is stable and largely fueled by its agriculture sector, making Togo replete with some of the world's finest raw cotton. What adds to this stability is the political inclination of the Togolese government toward people development, trade promotion, and economic growth. In fact, the National Development Plan laid out for Togo has sharp emphasis on policies, regulations, and tax benefits that encourage textile trade in the country. Above factors, among many others, make it easy to do business in Togo. According to the Doing Business (2020) report by the World Bank, Togo is the 3rd best reformer, making it the leader in Ease of Doing Business across West Africa. The world has now turned its head to Togo, with the country attracting greenfield projects 6.7 times the foreign direct investment that's expected of a country of its size.. Pair this attractiveness with a rise in cotton production in West Africa and Togo's own connectivity via railway, roadway, airway, and sea ports; PIA Textile park is ready to up Togo's textile market share in the globe.

Togo comes with unparalleled trade potential

Located on the coast of West Africa, Togo has a strong foothold in cotton production. While the majority of the sourcing, to spinning, weaving and garmenting. This 400-ha park is designed in compliance with benchmark global standards to deliver a complete manufacturing ecosystem for textiles. All this, in conjunction with Togolese population depends on subsistence agriculture, cotton production alone employs 275,000 farmers; directly or indirectly supporting close to 2.5 million people. Togo has a stable economy, projected to grow at a rate of 7.6%*.

Here's a quick snapshot of Togo :

Area : 56,785 sq.km

Population : 8 Million

GDP Growth : 5.0%

Capital : Lome

Currency : FCFA (XOF) (1 Euro = 655.957)

Language : French, English, Regional languages

Population Growth Rate : 2.4%

Climate : Tropical Avg. temperature 27.5°C on the coast to 30°C in northern region.

With its coast facing south, Togo shares borders with Benin, Burkina Faso, and Ghana;. The location

further privileges Togo with direct access to landlocked countries like Niger and Mali to conduct trade with. In fact, Togo's capital Lome is connected to all these countries with less than 12 hours transit via the International Highway N° 1, making it a hub to connect these West African resources to the rest of the world. In fact, these neighboring countries also act as a regional market for cotton products from PIA.

ATTRACTIVE FISCAL FRAMEWORK

Tax holidays under Free Zone Code for Export Oriented Units

The Companies operating under free zone regime would avail the following benefits

Customs Duties And Taxes

Exemption from all customs duties and taxes while importing machinery equipment, raw materials, office supplies, and while exporting goods manufactured within the free zone as well.

Other Duties And Taxes

Any other duty or tax not specifically mentioned herein shall be exempted.

Value-Added Tax

Total exemption of the value-added tax on works and services realized for the company benefiting from the free zone status.

Payroll Tax

Reduced flat rate of 2% payroll tax for the lifetime of the company.

- 0% during the first 5 years*
- Corporate Tax
- Land Tax
- Business Licence Tax
- Dividends Tax or Income Tax on Movable Capital

ENABLED FOR REGIONAL AND INTERNATIONAL TRADE

- Duty Free Treaties with US and EU under AGOA and EBA
- Regional hub of major shipping lines, annual container handling capacity of 4 Mn TEUs
- Deep water port, with direct shipping lines across the globe
- Access to regional market of 400 mn+ consumers in ECOWAS nations
- 25 day transit time to EU, 40 days to US markets

SUPERIOR QUALITY COTTON AT A CONCESSIONAL PRICE

Togo is one of the top ten producers and exporters of Cotton in Africa. It is in fact privileged to have direct access to the major cotton producers in West Africa, Togo's National Development Plan of 2018-2022 prioritizes the Textile and Garment sector to drive industrialization and restore Togo's rich heritage. These factors deeply support the growth of Togo's textile industry and the scope to set up manufacturing units in specialized industrial zones like PIA.

What makes Togo's Cotton Superior

Head Quality

- Superior grade: OTI, ALTO/S, ALTP
- Middle grade: OGOU
- Low grade: BUTO

Micronaire

- Range from 3.8 to 4.4 with an average of 4.2

Colour

- Togo's cotton is fairly white to slightly creamy and shiny for head qualities
- 85% of the total production is of its quality

Resistance

- Between 29.46 and 30.77 GPT (test gram); it remains good for spinning
- Lengthening at a good level of 5.64 Bonding
- The cotton of Togo is non-sticky

Length

- Nearly 90% of the production: Bristles 1'5/32 (29.36mm), 1"1/8 (28.57mm) and 1"3/32 (27, 78mm)
- Medium staple length per campaign is 28.54mm

Over the past few years, Togo has seen a rapid growth in quality cotton, peeking at 137,000 metric tons. PIA aims to create a vertically integrated value chain that flexibly allows companies and investors to align with market and consumer trends.

Advantages of Cotton Procurement at PIA Textile Park

- Cotton available at a discount compared to global cotton prices
- CMiA certified cotton is sustainably sourced
- Ready warehousing at the park

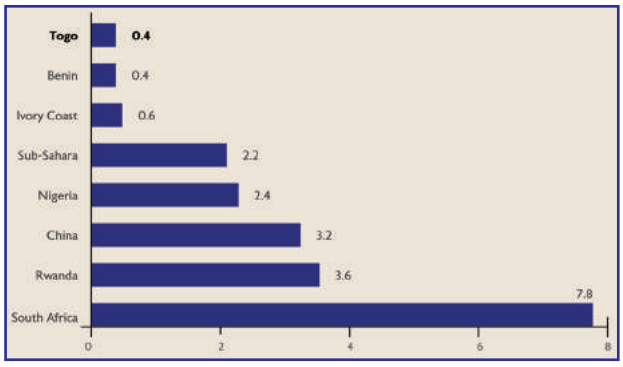
ROUND-THE-CLOCK POWER AND DOORSTEP GAS SUPPLY

Plateforme Industrielle d'Adetikope (PIA) Textile Park is powered by dedicated grids that provide uninterrupted quality electricity, all day round. The cost efficiency of this power, priced at 8 cents per kWh, gives our investors the edge to cut commercial power costs, optimize resources, and grow efficiently. Use of renewable solar power celebrates PIA's commitment toward sustainability and environment protection. To top the availability of discounted and green electricity, PIA Textile Park is equipped with the infra to provide gas at doorstep.

AVAILABILITY OF SKILLED WORKFORCE WITH THE EASE OF HIRING EXPATS

Togo has a labour force population of 3.3 million, and is expected to grow to 10.3 million by 2030. Togo boasts of its quality of work force in the region. With approximately 70% of its total population under the age of 35 years, Togo is a young and growing community.

AVERAGE LABOR COST
for manufacturing (USD per hour)



Favourable Labour Policies and Availability

- Guaranteed freedom to hire under flexible labour code
- Dedicated vocational training centre to train 7000 textile mill workers and 25,000 garmenting workers
- Government to subsidise 50% of workers salary for 24 months to compensate productivity
- Attractive labour costs at a minimum wage as less as US$ 105 per month/per labour

SUBSIDIES ON TAXES ALONG WITH NON- FISCAL BENEFITS

Customs Duties And Taxes

Exemption from all customs duties and taxes while importing machinery equipment, raw materials, office supplies, and while exporting goods manufactured within the free zone as well.

Other Duties And Taxes

Any other duty or tax not specifically mentioned herein shall be exempted.

Value-Added Tax

Total exemption of the value-added tax on works and services realized for the company benefiting from the free zone status.

Payroll Tax

Reduced flat rate of 2% payroll tax for the lifetime of the company.

ENABLED FOR REGIONAL AND INTERNATIONAL TRADE

TRADE BEYOND AFRICA

Togo's port access to the Blight of Benin clears its pathways to reach western markets like the USA, European countries, southern African countries and central Asia. All these markets combined pave a bright future for trade and commerce of textile goods and commodities, marking a grand opportunity for manufacturing plants in PIA to thrive.

FULL DUTY-AND-QUOTA-FREE (DFQF) ACCESS TO EU AND US MARKETS THROUGH AGOA, EBA, ACP/EU

AGOA

- Exempts duty on all products exported from sub-Saharan African (SSA) countries to the United States.

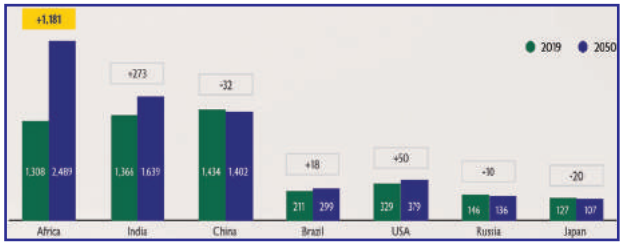
Inauguration of PIA, Togo's first Industrial Platform by Togo's President

- SSA countries eligible for textile visa can purchase fabric from anywhere in the world.
- Cut, sewn, and packaged AGOA eligible garments can be exported to the U.S.

TRADE WITHIN AFRICA

With its coast facing south, Togo shares borders with Benin, Burkina Faso, and Ghana; all avid producers of cotton. The location further privileges Togo with direct access to landlocked countries like Niger and Mali to conduct trade with. In fact, Togo's capital Lomé is connected to all these countries with less than 12 hours transit via the International Highway N° 1, making it a hub to connect these west African resources to the rest of the world. Apart from these neighbouring countries, Togo enjoys an extended access to a market base of 400 million people as a part of one of 16 ECOWAS countries.

Population in Mn



Source : UNCTAD Handbook of stats - 2019, UN World Population Prospects 2019, Dept. of Eco & Social Affairs, UN

INFRASTRUCTURE THAT CONNECTS PIA TO THE WORLD

Togolese capital Lomé is infrastructurally equipped for export. The port has an annual processing handling capacity of 4 million TEUs and is in fact capable of accommodating 3rd generation container ships. The Port of Lomé, which handled close to 1.5 million TEUs in 2019, is ready to take the load of exporting textiles to the rest of the world, helping textile manufacturers invested in PIA have a ready roadmap to begin and grow their trade business.

Togo is also equipped with a world-class airport hub with daily flights to more than 30 international cities, including Paris, Addis Ababa, India, China, USA and major global locations. Togo also boasts of world class road infrastructure that consists of an industrial corridor connecting Lomé (Togo) to Ouagadougou (Burkina Faso) and other landlocked countries of sub-Saharan Africa.

WORLD CLASS INFRASTRUCTURE

Dedicated utilities

- Continuous high-quality electricity supply at an attractively discounted rate.
- Water supply.
- CETP with Zero Liquid Discharge.

Security

- PIA is secured in sync with the local law enforcement for controlled, lawful, and well monitored movement.

Logistics facility

- Container yard and ICD (Stuffing, destuffing, container storage and custom benefits inside zone.

Connectivity

- Connected to the Lome seaport, airport 25 kms/30 mins from PIA.
- Access landlocked countries via highway N1.
- Wide lane roads.
- High-speed internet connectivity.

Fire station

- The zone sports a fire station and a fully equipped hospital to ensure global standards of safety.

SINGLE WINDOW CLEARANCE

- Dedicated relationship manager.
- One-stop solution to all the business needs and approvals like Company Registration Custom, Financial, Administrative, Labour, Taxation, Environment.
- Complete transparency on time and cost of approvals.
- Speedy visitor and work permits and authorization under one roof.

Inauguration of PIA, Togo's first Industrial Platform by Togo's President

Plateforme Industrielle D'Adetikope (PIA) Textile Park

AN INDUSTRIAL PARK FOCUSED TO TEXTILES

Equipped with state-of-the-art manufacturing facilities and integrated infrastructure, PIA Textile Park at Adetikope offers the perfect industrial environment for the Textile and Apparel industry to flourish. Developed on a vertically integrated model, the park streamlines the entire value chain for textiles from sourcing, to spinning, weaving and garmenting. This 400 ha park is designed in compliance with benchmark global standards to deliver a complete manufacturing ecosystem for textiles. All this, in conjunction with thoughtfully readied plug-and-play factory sheds, makes Plateforme Industrielle d'Adetikope (PIA) Textile Park poised to achieve its objective to transform 56,000 MT of cotton fibers worth USD 73 Million into garments worth USD 1.5 Billion.

Investment Avenues at PIA Textile Park

- Spinning
- Weaving
- Knitting
- Woven Processing
- Knit Processing
- Garmenting

PERKS OF PIA

Plateforme Industrielle d' Adétikopé is a vertically integrated industrial zone, focused at creating thriving value chains for the textile industry: from raw material sourcing, to resource transformation (manufacturing), to exporting final products. PIA is strategically located on a highway, connecting it to the airport and the seaport . It even shares a close proximity to the proposed railway line for better managed and economical freight. Moreover, PIA has a single window centre, with its own power & water supply along with a fully equipped medical centre, police & fire stations among other facilities.

A GLANCE AT THE FACILITIES OF THE PROPOSED INDUSTRIAL ZONE

- Industrial
- Container Yard
- Facility
- Commercial
- Warehouse
- Cotton Bales
- Parking
- Green
- Water Body

COMMERCIAL TOWERS

A thoughtfully planned commercial zone that offers investors plots to develop offices, retail centers and hospitals right next to the entrance.

SWC

Permits and authorization for all investors and visitors from across the Globe under one roof.

Few words about ARISE IIP

ARISE INTEGRATED INDUSTRIAL PLATFORMS

ARISE IIP is a joint venture between the Africa Finance Corporation (AFC) and Olam International Limited (Olam). It conceives, develops, and builds industrial ecosystems designed to make Africa thrive.

Arise IIP identifies unmet industrial potential across Africa, and then helps realise this potential by designing, financing, building and operating tailor-made infrastructure.

ARISE IIP's bespoke industrial zones and integrated logistics services create value for all stakeholders involved, from local communities and partners to our host governments and investors.

Current IIPs : the Gabon Special Economic Zones (GSEZ) in Gabon, the Glo-Djigbé Industrial Zone (GDIZ) in Benin and the Adetikopé Industrial Platform (PIA) in Togo.

Inauguration of PIA, Togo's first Industrial Platform by Togo's President

PIA (Adetikope Industrial Platform) aims to unlock growth potential and promote the industrialisation of Togo

Togo's 'PIA', a textile focussed SEZ aims to create an eco-system for textile value chains and offer multiple incentives to foreign investors investing in the Textile Park.

A West African nation 'Togo' recently established the Adétikopé Industrial Platform (PIA), a Special Economic Zone (SEZ) conceptualised by ARISE IIP, to unlock the growth potential and promote the industrialisation of Togo. Located along the strategic location of Lomé-Burkina industrial corridor, 'PIA' is the country's first industrial platform.

'PIA' is a vertically integrated industrial zone of 400 hectares, focused at creating thriving value chains for the textile industry – from ensuring raw material at park, integrate manufacturing processes in a sustainability induced setup to exporting final finished Textiles & Garments across the globe.

The government of Togo works with PIA to simplify the process of setting up units in the industrial zone. Benefits offered for setting up businesses in the park include 'Single Window Operations', no need for a local partner, no currency devaluation risk as the country's currency is pegged to Euro, easy e-visa and work permits, captive solar power plant, easy availability of raw materials, world-class infrastructure as well as connectivity through road, rail, air and water.

The country ensures availability of skilled and unskilled labour. Textile & Garment Training facilities are also provided within the PIA for the work force, a spokesperson from ARISE Integrated Industrial Platforms (IIP) told Fibre2Fashion.

Some of the other benefits extended to the potential investors include 24×7 solar power supply, credit availability to meet Capital Expenditure (up to 50 per cent) and Working Capital (up to 80 per cent) need and many other fiscal incentives. The products made in the Textile Park will be completely traceable considering the sustainability of the goods produced, and in terms of its impact on the environment and people of the society at large

Additionally, Cotton sourced for the park will be from Cotton made in Africa (CmiA) verified cotton farms. Cotton is a strategic crop in Togo, representing 44.4 percent of the country agriculture export revenue. Approximately 120,000 tons of seed cotton is produced annually in the country. With an average yield of 760 kg/ha translating to lint cotton production of 56,000 MT in 2019; Togo is one of the top 10 producers and exporters of cotton in Africa.

PIA makes available the following for companies willing to establish textile units within the industrial park – ready plug and play sheds as per the specific requirements of the investors (spinning, weaving, dyeing, garmenting or integrated operations); an effluent treatment plant based on Zero Liquid Discharge (ZLD), Zero discharge of Hazardous Chemical (ZDHC) technology; economical labour force; proximity to the airport (20km) and the seaport (25km) of Lomé; zero duty benefits for import into the US (under AGOA) and Europe (under EBA); for a polyester garment to US25-35 per cent import duty benefit to the buyer; for a polyester garment to EU – 10-18 per cent import duty benefit to the buyer; for cotton garments to the US – 19.6 per cent import duty benefit to the buyer and for cotton garment to the EU – 10 per cent import duty benefit to the buyer. A truck terminal, 15,00,000 sqft storage warehouse and dry port are also available within the zone. The Textile Park will also give the industries an easy access the booming African Market.

Additionally, the government ensures duty free imports of inputs like raw material, new or used machines, accessories used in construction and manufacturing.

- Ready plug n play sheds as per requirements
- ETP plant based on ZLD/ZDHC technology
- Economical work force
- For first 18 months, 50% of worker's wages will be borne by the Govt
- Proximity to Seaport (25km)& Airport (20km)
- '0'duty into US (under AGOA) & EU/UK (under EBA)
- Competitive solar power 24×7 at 8 cents/Kwh
- Duty advantage of 10% up-to 35% to US/EU buyers
- Easy access to booming African market
- Single Window Clearance for all legal paperwork
- Textile & Garment Training centres
- Inland Container Depot (ICD) in the park
- Truck terminal, Warehouses, Dry port
- Credit Availability (Capital as well Working capital)
- Fiscal & Non-Fiscal Incentives
- Repatriation of Profits & capital is allowed
- Flexibility to Co-Invest/JV.

Inauguration of PIA, Togo's first Industrial Platform by Togo's President

Textile specialist company ITC Rmg to install 750 Flat knitting machines in the Adetikope Industrial Platform (PIA) in Togo

PIA is pleased to announce the creation of a world-class knit garment within it's industrial zone unit named 'Togo Clothing Company'. The total investment is valued at USD 35 million and is expected to generate USD 40 million worth of export value on an annual basis and 2,000 direct jobs.

Togo Clothing company (TCC), has been created by ITC Rmg, a company who has a solid track record in knit garment manufacturing and trading and global buyers such as Ellesse, Beverly Hills Polo Club, Kappa, Louis Philippe, and many more.

TCC will be part of PIA's state-of-the-art sustainable textile park which will provide services along the cotton value chain from traceable cotton supply, renewable energy (including solar panels) and best in class logistic infrastructure. The garment unit construction will start in November 2021 and is expected to start operations in May 2022. Once completed, the factory will comprise a total of 750 flat knitting machines and is expected to generate 2,000 direct jobs.

TCC will meet the highest social and environmental standards and shall create a game-changing sustainable model for textiles in West Africa. The output price-competitiveness is expected to be in line with international competitors such as India, Bangladesh, Cambodia, and China.

Sani Yaya, Togolese Finance Minister

"The creation of the Togo Clothing Company is the achievement of a significant milestone for the recently-launched Adetikopé Industrial Platform. This success is aligned with the president's vision to position Togo as a regional hub in the textile industry. This achievement demonstrates what bold and agile investors can do in Togo."

Zahir Sait, CEO, International Trading Company Rmg

"Togo Clothing Company is a milestone achievement both for Togo and ITCRmg. This new manufacturing facility is going to generate thousands of jobs locally. Special emphasis would be in women empowerment. Technical training in apparel manufacturing, skill development and streamlining the local supply chain resulting in increased margins and reduced carbon footprint as part of our sustainability initiative would be the immediate highlights of the project".

About PIA

The Adetikope Industrial Platform (PIA) is a public-private partnership between the Republic of Togo and Arise Integrated Industrial Platforms (IIP). Arise IIP develops, finances, builds, and manages this industrial platform, which is dedicated to enabling the processing of Togo's own natural resources and agricultural exports. PIA focuses primarily on cotton, agro-processing, logistics and other industries (electric mobility, etc.). Operations started in June 2021. PIA is anticipated to generate a significant social and economic benefit for Togo with over 100,000 jobs to be created including industrial jobs for women.

About ITCRmg

International Trading Company (ITCRmg) is an India-based textile manufacturer. Since 2001 the company has produced a wide range of knitted products: sweaters, pullovers, cardigans, scarves, gloves, and caps for men, women, and children. ITCRmg supplies well-known international clients (Macy's, Van Heusen, Tommy Hilfiger, Louis Philippe). The company operates four production units in India.

For further information, please contact :
Heena Saboo, Representative in India
T : +91 8383057074, Web : http://pia-togo.com/
Plateforme Industrielle d'Adetikope
Rue Nationale n°10 - Lomé - BP12917 ■

State-of-the-Art Conference Room launched equipped with "B. K. Mehta Modern Virtual Library" followed by Award Function and the Felicitation Ceremony on 22nd October 2021 (Friday) at 5.00 PM at Royal Banquet by M. C. Ghia at ITAMMA

The Awards will be offered by the hands of Mrs. Roop Rashi (IA&AS), Textile Commissioner, Ministry of Textiles, Govt. of India, as the Chief Guest.

Chief Guest will also join hands with Mrs Hansaben Mehta to launch ITAMMA's State-of-the-art conference room equipped with B. K. Mehta Modern Virtual Library.

Mrs. Hansaben Mehta will be attending as the Special Guest and will be felicitated by ITAMMA for her generous contribution towards the formation of B. K. Mehta Modern Virtual Library & B. K. Mehta Technology Networking Mission.

During the function we will also felicitate Mr. M. D. Vora - President (2000/01, Mr. S. G. Vaidya - President (2007/08), Mr. Sudhir Dani - President (2004/05 and Mr. Kirti Rathod President (2002/03 for their Yeoman Services to the Association.

The Award function will be followed by the felicitation and the Farewell Dinner to Mr Jugal Kishore Pansari, President (2019/20) and Mr. Chandresh Shah, President (2020/21).

Keeping in mind the COVID restrictions we shall highly appreciate it if you treat this as a personal invitation and confirm by return mail along with the scan copy of the certificate of completion of 2 doses of COVID-19 vaccination. As we have to follow the COVID-19 guidelines for the number of participants we shall highly appreciate your response via return email.

Programme

4.30 PM : Registration & Refreshments

5.00 PM Onwards

- Launch of the "State-of-the-Art Conference Room equipped with "B. K. Mehta Virtual Modern Library" by Mrs. Hansaben Mehta and Mrs. Roop Rashi, Textile Commissioner, Govt. of India.
- Welcome Speech - Mr. Dhijen Mehta, President, ITAMMA.
- Release of ITAMMA Voice.
- Felicitation of ITAMMA Members for their Yeoman Services to the Association.
  Mr. M. D. Vora – President (2000/01)
  Mrs. S. G. Vaidya - President (2007/08)
  Mr. Sudhir Dani - President (2004/05)
  Mr. Kirti Rathod - President (2002/03)
- MoU Signing ceremony
  TATA Business HUB Ltd (TBH)
  YES bank Limited
  Alliance Insurance Brokers Pvt. Ltd.
- ITAMMA AWARD (2019-20) Function
- Felicitation of Past Presidents
  Mr. Jugal Kishore Pansari, President (2019-20)
  Mr. Chandresh Shah, President (2020-21)
- **Chief Guest Speech** - ***Mrs. Roop Rashi,*** Textile Commissioner, Govt. of India.
- **Vote of Thanks** - ***Mr Purvik Panchal*****,** Vice-President, ITAMMA.

From the desk of
Dhijen Mehta, President
ITAMMA
Bhogilal Hargovindas Bldg., 4th Floor
18/20, K. Dubash Marg, Kalaghoda,
Mumbai-4000001 ■

Economy likely to grow by 10% this fiscal : NITI Aayog

Indian economy is expected to grow by 10 per cent or more in the current fiscal, and 8 per cent plus in the next fiscal year, NITI Aayog Vice-Chairman Rajiv Kumar said recently.

Addressing a book launch event, Kumar further said that seven years of the Modi government have laid a strong economic foundation for businesses to thrive in India.

There was a hiccup (in economic growth) for two years due to Covid-19 pandemic. The IMF has projected a growth of 9.5 per cent in 2021.

"According to the IMF, India will be the fastest growing major economy for the next five years. These are underestimations," Kumar said.

The Reserve Bank of India has lowered the growth projection for the current financial year to 9.5 per cent from 10.5 per cent estimated earlier while the IMF has projected a growth of 9.5 per cent in 2021 and 8.5 per cent in the next year.

"India will grow at 10 per cent plus in the current fiscal year (2021-22). And going forward, once we are out of the Covid-19 pandemic, we (Indian economy) will grow at 8 per cent plus in FY 2022-23," Kumar said.

"Things are changing and people are ready to invest in India," he said.

The NITI Aayog Vice-Chairman said the potential rate of growth of India will move up to 8 per cent.

In October, the International Monetary Fund (IMF) had revised India's potential growth forecast downwards to 6 per cent, citing the pandemic.

The country's economy grew by a record 20.1 per cent in the April-June quarter, helped by a very weak base of last year and a sharp rebound in the manufacturing and services sectors in spite of the devastating second Covid wave. ■

Big textile parks near ports to drive up exports

The centre will grant incentives to investors to set up the proposed mega textile parks with plug-and-play facilities over large areas of at least 1,000 acres each, while states will pitch in with land, textiles secretary UP Singh told recent.

The move is aimed at "building scale" across the textiles and garment value chain that has remained fragmented for decades, resulting in the country ceding export market share to much smaller economies, such as Bangladesh and Vietnam. Singh said it will also complement the recently-approved ₹10,638-crore production-linked incentive (PLI) scheme forman-made fibre and technical textiles segments.

The parks will preferably be close to ports and house all sorts of textile and garment firms, including integrated facilities, to create a robust eco-system, according to Singh. The centre will likely release the incentives to investors in two installments — upon the completion of about 60% and 100% of work.

The investors will not just build infrastructure but even manage maintenance and other related facilities. They will be given to operate the park for a period of 25-30 years and they can collect fees from the companies that set up units there. Even small firms or fashion designers will be able to set up shop quickly, thanks to the plug-and-play facilities, Singh said.

Such mega parks will be able to better draw overseas buyers by offering a broad range of products and cater for large orders, given the greater synergy among its resident entities.

"Seven mega parks will be set up in the first phase. However, if a greater number of states, who are willing to offer land, approach us for the setting up of the parks, we will undertake a 'challenge method' to select the top seven of them, using certain criteria," Singh said. The parks were announced as part of the FY22 Budget proposals.

The selection criteria could include the proximity of the land to ports, raw material availability and modes of transportation, among others.

The mega parks are the latest in a series of attempts made by the government to promote formalisation and build scale in the labour-intensive sector that has been hamstrung by millions of small units, supported by lack-adaisical official policies for decades. Consequently, an overwhelmingly large percentage of firms, with very limited financial and operational heft to handle bulk orders, are scattered across the country, stunting its ability to raise exports exponentially and grab the space being vacated by China in this segment.

When India finally removed some of these shackles (by removing SSI reservation between 2001 and 2005, allowing fixed-term employment in garments in 2016, scrapping an anti-dumping duty on a key input for polyester staple fibre in the Budget for FY21, etc), low-cost economies such as Bangladesh and Vietnam — in addition to dominant China — had consolidated their positions in the world market and beaten India.

While Bangladesh's garment exports have been bolstered by duty-free access to the US and the EU due to its status as a least developed country, Vietnam has made good use of its trade pacts with large markets, free trade policies and massive Chinese investments. Of late, even much smaller countries like Cambodia and Myanmar, too, have recorded fast growth in garment exports.

The textile secretary expected that with a raft of initiatives undertaken by the government in recent years — including the announcement of the PLI scheme, introduction of export tax remission schemes like RoDTEP and RoSCTL and easier labour norms — and the mega parks now, India's textile and garment industry is well-poised to record impressive growth and recapture lost heights.

Textile and garment exports shrank 8.6% on year to $33.7 billion in FY20 and saw a more dramatic, Covid-induced contraction of 10% last fiscal, worse than a 7% drop in overall merchandise exports. However, in the first four months of this fiscal, such exports have grown at a phenomenal pace of 106%, driven by an economic resurgence in advanced markets and aided partly by a conducive base. ❐

Exports surged 21% to $33.44 billion in September

The country's merchandise exports jumped 21.35 per cent to $33.44 billion in September on a year-on-year bsis, mainly due to better performance by key sectors such as engineering goods and petroleum products, according to preliminary data released by the government recently.

EXPORT PROSPECTS AND MARKETS

In September, merchandise imports stood at $56.38 billion, an increase of 84.75 per cent compared to the year-ago period. The same was at more than $30.52 billion in the same period a year ago. It is also up 49.58 per cent over September 2019 when it had totalled $37.69 billion.

The trade deficit in September was at $22.94 billion as gold imports jumped nearly 75 per cent to $5.11 billion.

As per the preliminary data released by the Ministry of Commerce and Industry, the trade deficit, which is the gap between imports and exports, works out to be $78.81 billion during April-September period.

"India's merchandise exports in September 2021 was $33.44 billion, an increase of 21.35 per cent over $27.56 billion in September 2020 and an increase of 28.51 per cent over $26.02 billion in September 2019," it said.

Exports of engineering goods stood at $9.42 billion, up 36.7 per cent over September 2020. The outward shipments of petroleum is estimated at $4.91 billion in September 2021, an increase of 39.32 per cent over the year-ago month.

Outward shipments of 'gems and jewellery' were 19.71 per cent higher at $3.23 billion. However, exports of drugs and pharmaceuticals' registered a decline of 8.47 per cent. The imports of 'petroleum, crude and products' soared nearly 200 per cent to $17.436 billion in September on an annual basis.

The data also showed that imports of 'coal, coke and briquettes' were up 82.89 per cent at $2.18 billion in September 2021 over the same month last year.

The ministry said value of non-petroleum exports in September was $28.53 billion, a growth of 18.72 per cent over the year-ago period and 26.32 per cent higher compared to September 2019.

Value of non-petroleum imports was at $38.95 billion in September, an increase of 57.73 per cent compared to the same period a year ago, and 36.14 per cent over September 2019.

The exports in the first half of the fiscal (April-September 2021) stood at $197.11 billion. This is an increase of 56.92 per cent over $125.61 billion in the year-ago period and 23.84 per cent compared to April-September 2019. ❐

Goods exports to pick up record $ 190 billion in H1 : Goyal

Merchandise exports could hit a record $190 billion or even cross this level in the first half of FY22, commerce and industry minister Piyush Goyal said recently. While the export would be 51% higher than a year before, aided by a conducive base, it would also exceed the pre-pandemic (same period in FY20) level by 19%.

Addressing exporters in Mumbai, the minister said exports already hit $185 billion by September 21 this fiscal and exuded confidence that the country would realise the ambitious target of $400 billion in FY22.

After a Covid-induced fall of 7% last fiscal, exports this fiscal have been supported by improved order flow from advanced markets following an economic resurgence there and rise in global commodity prices.

Commenting on industry demand for regulating shipping costs and curb the recent surge, the minister indicated that any such step could act both ways. When costs will go down, the shipping lines and others would urge the government to do something as well, he explained, indicating that market driven rates usually work better. Moreover, the surge in shipping costs is a global phenomenon, and not peculiar to India, Goyal said the government is also liberalising the rules to promote exports from special economic zones (SEZs.

As such, amid the surge in shipping costs, the government recently extended some relief to exporters of specified select products by reintroducing the Transport and Marketing Assistance (TMA scheme, with wider coverage and much larger support, for one year.

Meanwhile, speaking at the National Institute of Industrial Engineering (NITIE) in Mumbai, Goyal said India is at a "nascent stage" in industrial engineering study and research, which is essential for creating robust supply chains. ❐

Indian Textile exporters worried over Lankan crisis

South India's textile and fabric exporters are worried that the economic crisis in Sri Lanka — India's second largest export destination for clothing products — may lead to delay in payments from buyers in the island nation.

The Sri Lankan rupee has weakned by more than 10% against the US dollar, giving rise to concerns among Indian textile and fabric exporters that payments could get delayed. This comes after a slowdown in exports to Sri Lanka.

"Exports of cotton fabric to Sri Lanka were witnessing an upward trend due to pent up demand. But it started slowing down from August, and then came the economic emergency which distrupted trade," Siddhartha Rajagopal, executive director of The Cotton Textiles Export Promotion Council (Texprocil), told recently.

Sri Lanka's economic woes are partly due to the outbreak of Covid-19, which affected tourism, one of the primary sources of foreign currency earnings.

Praveen Khandelwal, general secretary of the Confederation of All India Traders (CAIT), said traders are facing payment problems due to the crisis in Sri Lanka. "Around Rs. 8,000 crore is stuck up in Lanka and there is not clarity when the payments will become smooth," he said. "We also import pharma raw materials, paperboard, pepper, poultry feed from Lanka. That too has stopped."

Raja Shanmugam, president of Tirupur Exporters Association, pointed out that the current crisis in Sri Lanka may work in favour of India garment exports. "In the world market, Sri Lanka is a competitor of India in the apparel sector. Now that the country is going through an economic crisis, global apparel buyers may look at India as a sourcing nation," he said.

Ajay Sahai, director general, Federation of Indian Export Organisations, said, "From the last one year, we have seen Sri Lanka curbing imports of non-essentials such as vehicles and others. But exports of essential items were going on." ❐

Exports growth sluggishes in August, Trade gap widens

Led by petroleum products, gems and jewellery, engineering goods and cotton yarn, India's merchandise exports rose 45.8% on-year in August at $33.28 billion but the pace of growth slowed from almost 50% in July.

A faster rise in imports at $47.09 billion, driven by gold, left a wider trade deficit of $13.81 billion compared to $8.2 billion a year ago. Imports during the month increased by 51.72%.

Gold imports rose 82.48% on-year in July to a five-month high of $6.75 billion. Oil imports at $11.65 billion, were up 80.64% on-year.

"The buoyancy in exports continues in the month of August with resilient demand in India's major export markets," said.

Prahalathan Iyer, Chief General Manager, Research & Analysis, India Exim Bank.

In the April-August period, outbound shipments were $164.2 billion.

"As the state-wise restrictions have lifted, and economic activity and mobility have recovered, the merchandise trade deficit has widened steadily," said Aditi Nayar, chief economist at ICRA.

As per the estimates by India Exim Bank, exports from India in the quarter ending September 2021 is estimated to be $98 billion, taking India's first half exports to around $193-195 billion, closer to the proportionate target of $200 billion set by the government.

Among imports, project goods, silver, transport equipment and newsprint witnessed a decline.

Non-oil, non-gold, silver and precious metals imports were $28.67 billion in August, up 37% and indicating strong domestic demand. ❐

Silk B2B startup ReshaMandi gets ₹225 cr in Series A

ReshaMandi, a business-to-business market place focused on silk products, has raised $30 million, or about ₹225 crore, in Series A funding round led by Creation Investments.

The equity plus debt round saw participation from Omnivore, which led the seed round of ReshaMandi, 9 Unicorns, Venture Catalysts, Sandeep Singhal of Nexus, and IndiaMART founder Brijesh Agarwal, among others, the Bengaluru-based company said in a release recently. Debt investors include Northern Arc, Alteria, Innoven and Stride Ventures, it said. ■

Oerlikon Nonwoven and A.Celli Nonwovens kicked off technological partnership

Oerlikon Nonwoven and A.Celli Nonwovens today announced the signing of an official agreement that will kick off a strategic collaboration for the production of solutions dedicated to the A.Celli festooning technology.

The first step of this precious collaboration is the development of comprehensive solutions dedicated to festooning technology, an ideal process for the management of soft, thick and memory-effect materials. Thanks to this synergy, new machines, which will be part of the A.Celli F-LINE® family of multifunctional lines, will support the already tested A.Celli technology dedicated to spooling, thus completing the range of solutions dedicated to the management of soft materials.

Increase and develop the production capacity

"Oerlikon Nonwoven has many technologies ready to increase and develop the production capacity of our customers and A.Celli is the ideal partner to give concrete development to this potential", said Rainer Straub, President of the Business Line Oerlikon Nonwoven.

Official agreement Oerlikon Nonwoven and A.Celli Nonwovens.

Alessandro Celli, CEO of A.Celli Nonwovens, declared: "This strategic partnership with Oerlikon Nonwoven allows us to further extend our range of solutions. We wanted to combine the technological values of two links in the same supply chain: from the manufacturer of substrates lines to the ones of integrated end-of-line and intralogistics solutions."

Partnerships across the value chain

"Collaborating with A.Celli to create a quality Italian integrated production system for our customers makes us proud" added Fabio Zampollo, CEO of TKW Materials, the Joint Venture partner of Oerlikon Nonwoven. "Since we know that the future will be challenging for all market participants involved and that technological excellence will primarily also be created in partnerships across the value chain, we believe that bringing the best teammate on board is already the right decision today."

As for all the other solutions offered by A.Celli, the new line dedicated to festooning will also be engineered and produced in Italy, with the usual manufacturing quality and attention to detail that distinguishes the technological value offered.

About Oerlikon

Oerlikon (SIX: OERL) is a global innovation powerhouse for surface engineering, polymer processing and additive manufacturing. Its solutions and comprehensive services, together with its advanced materials, improve and maximize the performance, function, design and sustainability of its customers' products and manufacturing processes in key industries.

For more information: www.oerlikon.com

About the Oerlikon Polymer Processing Solutions division

With its Oerlikon Barmag, Oerlikon Neumag, Oerlikon Nonwoven and Oerlikon HRSflow brands, the Oerlikon Polymer Processing Solutions Division is focusing on manmade fibers plant engineering and flow control equipment solutions. Oerlikon is one of the leading providers of manmade fiber filament spinning systems, texturing machines, BCF systems, staple fiber systems and solutions for the production of nonwovens and – as a service provider – offers engineering solutions for the entire textile value added chain. Furthermore, Oerlikon has a high precision flow control components business that offers a large selection of gear metering pumps for the textile and other industries, including the automotive, chemical and paint markets. With Oerlikon HRSflow the division develops innovative hot runner systems for the polymer processing industry. In cooperation with Oerlikon Balzers, highly-efficient and effective coating solutions are offered here from a single source.

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

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

is particularly at home in the core automotive markets. These include Germany, China, Korea and Brazil. Worldwide, the division – with more than 4,500 employees – has a presence in 120 countries with production, sales and distribution and service organizations. At the Research and Development centers in Remscheid, Neumünster (Germany), San Polo di Piave, Treviso (Italy) and Suzhou (China), highly-qualified engineers, technologists and technicians develop innovative and technologically leading products for tomorrow's world.

For more information: www.oerlikon.com/polymer-processing

About A.Celli

A.Celli Nonwovens offers a comprehensive range of master roll winders and slitter-rewinders featuring state-of-the-art customized solutions for spunbond, spunmelt, spunlace and air through bonded nonwovens roll goods production, with a special focus on lightweight fabrics and high-speed production. Nonstop axial unwinders and multifunctional lines for high-speed lamination, for the treatment of medical products and for the handling of bulky and small format reels (Spooling) complete the machinery range.

A.Celli is also active in the tissue and paper sector with A.Celli Paper, the division that has a long experience in paper and tissue paper machinery and equipment market, offering advanced solutions for complete turnkey plants, tissue machines, winders and rewinders for tissue, paper and cardboard, roll handling and packaging. With the acquisition of PMT (formerly Beloit) in 2020, the company becomes the leading player in the sector with a 100% Italian ownership, extending its range of products and services to the specialty paper, graphic paper and packaging paper industries.

For more information: www.acelli.it

For further information, please contact :
André Wissenberg
Marketing, Corporate Communications & Public Affairs, Oerlikon
Tel. +49 2191 67 2331, Fax +49 2191 67 1313
andre.wissenberg@oerlikon.com
Junio Caselli, Marketing Manager
Oerlikon Nonwoven / Teknoweb Materials s.r.l.
Tel. +39 0373 350511, Fax +39 0373 35 05 99
junio.caselli@oerlikon.com
Simone Morgantini
Marketing & Communications Manager
A.Celli Nonwovens S.p.A
Tel. +39 0583 21171, s.morgantini@acelli.it ❐

Satya Paul by Rajesh Pratap Singh rolled out Carbon Zero Tencel™ Fibers at the FDCI X Lakme Fashion Week

"The Master's Words" was the finale of Sustainable Fashion Day that paid tribute to the legacy of the late Satya Paul, and the entry of Carbon zero TENCEL™ branded fibres in India.

The live showcase of Carbon Zero TENCEL™ fibers and Satya Paul by Rajesh Pratap Singh was the finale of the Sustainable Fashion Day at the FDCI × Lakme Fashion Week.

The showcase featuring "The Master's Words" collection and film 'The Search' was a mix of fashion, theatre and film curated to being alive a retro vibe.

The colourful and sustainable collection titled, "The Master's Words" paid tribute to the late Satya Paul who passed away earlier this year and also launched the revolutionary Carbon zero TENCEL™ fibers.

As a brand, Satya Paul has echoed sustainability over the years and experimented with a range of fabrics. The upcoming ready-to-wear collection in association with the Carbon zero TENCEL™ fibers by Lenzing was a stride in this direction and addressed the growing demand around circular fashion and carbon neutrality.

In addition to having a higher environmental value, the Carbon zero TENCEL™ fibres will also feature the functional benefits of standard TENCEL™ fibres including gentleness on the skin, long-lasting softness, silky smoothness, enhanced breathability and colour retention. These fibres are certified as CarbonNeutral® and Lenzing's key

initiative towards its goal of reaching net zero carbon emissions by 2050.

Avinash Mane, Commercial Director, South Asia, Lenzing Group shared, "We are delighted to engage with like-minded partners, Satya Paul and Rajesh Pratap Singh to introduce first Indian collection made from Carbon zero TENCEL™ fiber, a revolutionary product that offers an all-new level of eco-friendly selection to consumers with a third-party verifiable label. We are pleased to see these fibers being transformed into impressive line of outfits by Rajesh Pratap Singh. The last couple of years has made it imperative that each one of us need to evaluate the impact our choices have on the environment. The Indian fashion industry too is embracing sustainability and responding to consumer's ask for greater transparency. At Lenzing, we believe that together we can pave the way to a greener future for the fashion industry, by embracing the opportunity to fulfill consumers' demand, who have been longing for fashion item that is good for them and the Earth, too.

Giving a glimpse of the collection **Rajesh Pratap Singh** said, "This collection is a burst of optimism at a time of global volatility. 'The Master's Words' threads together the past and present in 2021, where we take this journey to the next level by prioritizing sustainable design, as we work with cleaner fabrics that are gentle on the earth. Several of the dresses, trousers, and shirts in this collection are made with Carbon Zero Tencel, a sustainable fiber produced by Lenzing. Entirely biodegradable, it's only residue is water that regenerates the earth."

"The Master's words" Collection for Satya Paul by Rajesh Pratap Singh

The showcase at FDCI × Lakme Fashion Week of the The Master's Words and 'The Search' was a mix of fashion and film. Though diverse in mediums, they were thread together by the energy of a journey, and the rewards of seeking and finding. The show began with the film Search - directed and creatively put together by Rahul Bose. The runway transformed into a theatre where the models got into a bubble of a retro living room — while some were reading, some were dancing whilst some transported into a trance-like world.

Rajesh Pratap Singh, Creative Director of the Satya Paul lebel kept the ethos of the Satya Paul style with athleisure, some dance tracks, along with trippy memories and contradicted it by the 70's and 80's looks of the collection. Rajesh was also inspired by Satya Paul's love for calligraphy, which appeared on Mr Paul's walls along with quotes from luminaries like Rumi and Osho, which were very relevant. There were simple words like love and they appeared in modern typography to encompass these zippy memories.

Suspenders made a nostalgic appearance, many of which, were from the late designer's personal collection. Bringing in some fo the practical styles for dresses, trousers and shirts, which were made from carbon zero TENCEL™ a sustainable yarn that is entirely biodegradable and its only residue is water that regenerates the earth; the look was relaxed but contemporary.

There was a riot of colours and abstract patterns for the men and women's garments but with a marked 70's and 80's vibe. For women, Rajesh dreamt up summer sheaths, minis, jackets with bralettes and pants, dresses, draped skirts, tunics; shirt waisted dresses, hoodies and joggers. Kaftans, knee length coats, a trench version, pinafores, togas, halters, jumpsuits and biker's jackets added more options. The brand's core — the sari also added to the traditional flavour of the collection. Setting a firm trend were the leggings and tights in multi colours that appeared constantly for all women's wear.

Men's suits, Tees, shirts and trousers vied for the colour card with the women's wear collection; giving the male dresser bright, sartorial options for the coming season.

The very dapper Rahul Bose, was also a part of the live showcase while the lovely Tripti Dimri who ended the show looked stunning in a blank lace bodysuit, pants and a tuxedo jacket with satin lapels.

"The Master's Words" by Rajesh Pratap Singh for the Satya Paul brand using the Carbon Zero TENCEL™ was the perfect end to Sustainable Fashion Day at the FDCI × Lakme Fashion Week.

About Fashion Design Council of India (FDCI)

A non-profit organisation, the Fashion Design Council of India (FDCI), is the apex body of fashion design in India, represented by over 400 members. Founded on the premise of promoting, nurturing and representing the best of fashion and design talent in the country; its prime objective is to propagate the business of fashion. FDCI stays true to its commitment to promote the 'Make in India' label as handlooms take centre stage, in a country, who's heritage is soaked in the flavours of indigenous crafts. For more information, please visit : www.fdci.org.

About lakme

Lakme, is India's no. 1 colour cosmetics and leading premium skincare brand from Hindustan Unilever Ltd. Lakme has been the pioneer of the make-up and colour cosmetics in India since 1952 by launching numerous trends leading and high-performance products. Combining international cosmetic technology with an in-depth understanding of the Indian woman's needs, Lakme offers women a comprehensive beauty experience through its extensive product portfolio as well as contemporary services at Lakme Salons, India's no. 1 salon chain.

About Rise Worldwide

RISE Worldwide is India's largest independent Sports, Lifestyle and Entertainment company. It's portfolio includes Sports & Sponsorship Consulting, Fashion & Sustainability Platform Building, Athlete Talent Management, Licensing, Broadcast Production, Lifestyle and Entertainment with owned or managed key properties such as : Lakme Fashion Week, India's premier Fashion platform; Indian Super League, country's premier football league; Tata Open Maharashtra, South Asia's only ATP World Tour event; Jio Wonderland; The Voice of Fashion and SU.RE Sustainable Resolution.

About TENCEL™

TENCEL™ is the textile specialty brand under The Lenzing Group that covers textile specialty product fiber offerings for apparel and home. The TENCEL™ product brand portfolio defines a new evolutionary step in terms of sustainability, functional benefits, natural comfort and caters for distinctive everyday usage or application. Product brands under TENCEL™ include TENCEL™ Active, TENCEL™ Denim, TENCEL™ Home, TENCEL™ Intimate, TENCEL™ Luxe and TENCEL™ for Footwear.

Featuring botanic origin and biodegradable quality, TENCEL™ branded modal and lyocell fibers can enhance the breathability of fabrics and have a minimal static charge when used in fabrics. Fabrics made of TENCEL™ Modal and Lyocell fibers are also gentle on skin with smooth, long-lasting softness, color vibrancy and color retention features. TENCEL™ Lyocell fibers are versatile and can be combined with a wide range of textile fibers to enhance the aesthetics and functionality of fabrics. Through moisture management, TENCEL™ Lyocell fibers can also absorb moisture efficiently. A variant of the Lyocell production process also produces the TENCEL™ Luxe branded lyocell filament yarn, which is an extremely fine filament yarn for luxury fabrics and supremely smooth to the touch. Exhibiting high flexibility, TENCEL™ Modal fibers enhance textiles with a naturally soft quality. Offering endless design possibilities, TENCEL™ Modal fibers can be blended with other fibers and processed using conventional machinery, significantly improving the softness and comfort of fabrics.

For further information, please contact :
RISE Worldwide
Yasmin Ranijiwala
Yasmin.Ranijiwala@riseworldwide.in
Six Degrees BCW
Nandni Sharma, 9851340340
Nandi.Sharma@sixdegrees-bcw.com
Riya Jain, 9717078152
Riya.jain@ sixdegrees-bcw.com
Simran Maheshwari, 9643855958
Simran.maheshwari@ sixdegrees-bcw.com ❐

CORPORATE NEWS

Sustainable Denim : Itema brought at Denim Première Vision iSAVER®, unique in weaving solutions

Itema, worldwide leading manufacturer of advanced weaving solutions, exhibited at Denim Première Vision (Milan, Superstudio Più, 13 and 14 October 2021, booth F6) the mechatronic device iSAVER® that, unique in the sector, allows to denim weavers to save up tp 1.000 Kg of cotton per loom per year thus avoiding to waste circa 20 million of liters of water. An innovation 100% made-in-Italy, iSAVER® is already present in the biggest denim weaving mills in China, Vietnam, Turkey, Egipt, Italy and South America.

Denim is one of the most popular fabrics in the world, with 3.5 billion garments produced every year. The denim manufacturing process, which absorbs about 35% of world cotton production and moves a global market that reached 21.8 billion dollars in 2020, has a strong environmental impact. In fact, it is estimated that 3,800 liters of water and 18.3 kWh of electricity are needed to make a single pair of jeans, generating emissions of 33.4 kg of CO_2 during the entire life cycle of the product1.

"The entire textile supply chain is constantly looking for ideas and solutions, to improve the sustainability of production processes, by innovating technologies and processing systems to reduce waste, water and electricity consumption", stated Ugo Ghilardi, CEO Itema Group. "With iSAVER® we have brought an excellent solution to the market, which makes the difference because it allows denim weavers and fashion brands to offer a finished product with a much lower ecological footprint. We are the only textile machinery manufacturer to participate as an exhibitor at Denim Première Vision precisely by virtue of the uniqueness of our technology and the contribution it makes to the production of sustainable denim".

iSAVER® eliminates the waste selvedge on the fabric left-hand side by inserting the weft without the need of additional yarns, thus significantly reducing raw materials and water wastage. The device has been designed and developed by Itemalab®, the Itema Group company dedicated to product and process innovation for the whole industrial sector. Located inside the Kilometro Rosso Innovation District in Bergamo, the company employs around 70 engineers and specialists.

Itema Group

Itema is a leading global provider of advanced weaving solutions, including best-in-class weaving machines, spare parts and integrated services. The Company is the only manufacturer in the world to provide the top three weft insertion technologies: rapier, air jet and projectile, with an ample product portfolio and a commitment to continuous innovation and technological advancement of its weaving machines. Itema owns majority shares in Lamilflex, a leading company in the production of finished products in composite materials, and in Schoch, a company active in the supply of accessories for the textile industry. 60% of Itema belongs to the heirs of Gianni Radici (the siblings Angelo, Maurizio, Paolo, Maria Grazia and Bruna Radici). The remainder is controlled by the Arizzi and Torri families.

For more information visit www.itemagroup.com

Itemalab

Born from the desire of Itema Group to create an incubator of advanced innovation and dedicate a pool of specialists to the development of avant-garde weaving solutions, Itemalab® was inaugurated in May 2014 at the Kilometro Rosso Innovation District in Bergamo, chosen as site precisely because of its vocation as a place of exchange and contamination of ideas and projects among realities of excellence in the industrial, IT and academic fields. Over the last few years, Itemalab® has developed important innovations which, in addition to bringing significant added value for weavers all over the world, established new performance benchmarks for the entire sector. From 2021 Itemalab® redefines its boundaries, expanding its perspectives and widening the field of action thanks to the twin divisions Textile and Industrial.

For more information visit www.itemalab.com

For further information, please contact :
ITEMA S.p.A.
via Cav. Gianni Radici 4
Colzate, BG 24020, Italy

■

Business Style, Strategy & Aspirations of Textile Engineering Industry, an endeavor by India ITME

Greetings & good wishes from India ITME Society !

It is my pleasure to share with you that India ITME Society has taken another innovative approach as a catalyst for the textile and textile engineering industry.

India ITME Society a 42-year-old nonprofit Industry body has become a trend setter for out of box ideas in serving the industry members and not just limited to India.

Business Style, Strategy & Aspirations is an endeavor by India ITME Society exclusively for its exhibitors to boost visibility, connectivity & promotion of Textile Engineering Machines, Products, Innovations & Companies.

We invite all Textile fraternities to view http://youtu.be/bkS9gaSTkG8

From the Desk of
Seema Srivastava, Executive Director
India ITME Society ❐

ITMA 2023

08-14 June 2023
Milan, Italy

Join the ITMA Team at Our Virtual Roadshow & Panel Discussion at Innovate 2021

The ITMA team will be at Innovate 2021: Textile Innovation Week which takes place online from 25 – 29 October 2021.

Connect with our team at our virtual booth and get a preview of the key highlights at ITMA 2023.

The ITMA-sponsored panel discussion is taking place live so get ready your questions for our expert panel!

Register for free here

Shaping Textile Manufacturing of the Future

28 October 2021
10.30am – 11.00am UTC

Synopsis :

Transformation in the textile & garment industry has never been more critical. Engage with industry leaders as they delve deep into the paradigm shifts shaping textile manufacturing and their impact on the development and production of advanced materials in this exciting panel discussion sponsored by ITMA. Read more

Join our expert panel

- **Dominique Baldeck**
  Head of Sales
  Itematech
- **Dr Marina Crnoja-Cosic**
  Director of New Business Development
  Kelheim Fibres
- **Peter D Dornier**
  CEO & Co-shareholder
  Lindauer Dornier GmbH
- **Madelaine Thomas**
  Content Lead
  WTiN

Learn more about the panel discussion

ITMAlive Season 2

Launching 2 November 2021

Season 2 of ITMAlive is back this November!

Consisting of 4 episodes focusing on the ITMA 2023 theme, starting from 2 November, join our industry experts every week to share their views on pertinent issues related to Advanced Materials, Innovative Technologies, Automation & Digital Future, and Sustainability & Circularity. Stay tuned!

Watch ITMAlive S1: Forging Ahead Amidst a Pandemic

Secure Your Space Now!

Stand space application closing on 15 March 2022.

Official Travel Agent

Make planning your trip a breeze as MiCodmc Group – the official travel agent for ITMA 2023 takes care of all your hospitality requirements.

Enjoy special rates for extended stays or large groups. For more details, email itma2023@micodmc.it.

Join ITMAnetwork

Invite your colleagues and friends from the industry to join the ITMAnetwork so that they can enjoy a host of benefits such as :

- Be the first to receive news on ITMA event updates and customised content.
- Keep abreast of latest trends in the global textile & garment industry

For further information, please contact :
email : marcom@itma.com ❐

TEXTILE EVENTS

GFT 2022

22-25 June 2022 (Wed-Sat) 10.00-18.00 hrs
BITEC, Bangkok

Reflect your Garment and Textile uniqueness with Foilmaster

High Quality Flex with International Standard to Enhance Value for Garment and Textile

Introducting Filomaster

Foilmaster (Thailand) Ltd. has been in the stamping foil business for over 30 years with ISO:9001-2015 certification. In addition, the company never tops developing new products. In the past two years, the company has been Thailand's sole distributor of POLI-FLEX® from Germany – the high quality flex with OEKO-TEX® Standard 100 Category 1 standard which is safe to use on the baby's skin and is eco-friendly.

FLEX CUT PU "TURBO"

- Easy and fast working like a turbo
- High quality 100% PU films for logos and letterings on textiles
- Fast transfer at low temperatures within 3 seconds
- Reduce the rate of dye migration
- Reduce iron marks
- Compliance with OEKO-TEX® Standard 100 Category 1

Reflective Flex in the dark REFLEX

- Very reflective in the dark or to the flash light
- Available in silver, gold and black
- Can be ironed onto apparels such as shirts, hats, bags, etc.
- Will not peel off, durable and washable
- Certified with 3M standard

Reasons to choose products from Filomaster

FOILMASTER is Thailand's first and only distributor of high-quality flex from Germany POLI-FLEX®, with a team to advise on the products and how to use. Customers can trust in the product and quality service acquired from over 30 years of experience.

Products from Foilmaster are suitable for a wide range of applications

- **Sportswear :** PU flex can prevent the sublimation of the shirt color, use low heat, short ironing time, suitable for fabrics with low heat resistance.
- **SMEs :** in this modern day where everyone wants to have their own business, adding product value and making it unique with flex is a cost-effective but highly profitable option.
- Fashion clothing, hats, bags, fabric masks: Flex is transferred to the fabric or cloth material to increase product attractiveness.
- Children's clothing: the OEKO-TEX® Standard 100 Category 1 flex is safe to use with apparel for children even on the newborn skin.

Explore leading brands and special promotion from leading providers of technologies, special textile, materials, and subcontractors at GFT In-Trend. Source what you need for your business and let's walk toward the runway of success together.

NOVA INTER TECH CO., LTD.

HP STITCH S500 64-in Printer

- High-performance sublimation Printer
- Width 64" (162.2 cm)
- The printing head Thermal P/H 8 cartridges (2 printing heads)
- Installed with Spectrophotometer sensor for original color setting
- Can be printed on a paper as thin as 45 grams
- Cheapest ink price in the market

SAENG CHAROEN GRAND CO., LTD.

Manufacturer and distributor of sustainable textile

- Distributes recycled fabrics made from recycled raw materials and environmentally friendly textiles.
- Made from recycled raw materials
- Reduce the creation of non-recyclable products, reduce the use of natural resources, reduce the use of water in the production process, reduce the amount of waste and create a positive impact on the environment
- Work with strategic partner to produce clothing made from 100% recycled textile

CHELAE (THAILAND) CO., LTD.

OEM and textile printing service

- Use modern digital printers
- Able to print patterns as desired as well as repeat printing
- Able to print on all fabrics that are 100% natural such as cotton, linen, muslin, canvas, and others
- Can accommodate mass production in a short time, with bright and clear color without bleeding

FASHION HOMETEX CO., LTD.

Quality blanket

The center of premium blankets with large variety as well as eco-friendly fleece blanket in various colors, soft and comforting.

- Available in various fabrics
- Unique designs from a team of designers
- High mass production available
- Made from high quality machines

For further information, please contact :
Tel.: +66 2686 7299 Ext. 7312
Fax: +66 2686 7288
Email: gft@reedtradex.co.th
Website: www.gftexpo.com ❐

Kahramanmaraş Textile Machinery Fair KTM 2021 Invitation

Dear Industry Partners, Kahramanmaraş Textile Machinery Fair KTM 2021 will open its doors for the 8th time between November 11-13.

KTM 2021, brought together once again leading manufacturers of textile machinery from Turkey and other parts of the world to exhibit their innovations to visitors and exhibitors in the heart of textiles, Kahramanmaraş.

KTM, a fair that had importance not only for its region but also for world regions where textile production centers not only from Kahramanmaraş but also from neighboring regions namely Malatya, Adana, Gaziantep, Diyarbakır, Şanlıurfa, Hatay, Kayseri, Sivas, Niğde continuously mark their presence and its' acknowledged as one of the niche hosting every segment of the industry. Despite the pandemic in the region, increasing exports and rising investment in machinery technologies have created a noticeable increase and awareness in Kahramanmaraş. The machinery terminals of European textile machinery manufacturers have been extended, with the recent opening of organized industrial zone and factories, both the textile machinery park has been renewed and new production lines have been constructed. Kahramanmaraş also has been a lucrative market both for domestic machinery manufacturers and for European machinery manufacturers.

The International 8th KTM 2021 Fair, which was a fair organization intertwined with the region, will open its doors to visitors and participants in Kahramanmaraş on November 11-13 this year as achieved in the past. Besides, the International Textile Summit UTZ, which got organized for the 5th time by KMTSO, was held simultaneously with the fair.

For further information, please contact :
<destek@ecrfuar.com.tr>
©2021 Ecr Fuarcilik Ltd Şti
Senlikkoy Mh Eceler Sok N13 Florya Istanbul ❐

Techtextil India 8th edition Physical & Virtual expo from 25-27 November 2021 Bombay Exhibition Center, Mumbai

Are you looking at exploring new buyer networks that will help you resume your business?

Techtextil India, the most focused technical textile and nonwoven platform is getting back business and networking opportunities on the show floor in a new format.

In the 8th edition, we are super excited to bring you back on the show floor at our HYBRID EXPO!

A physical and virtual expo to be held in November 2021 will serve you with your target audience in an easy and convenient format.

In addition, the show will also offer many pre-event avenues that will allow you to constantly find new prospects, touch base with global markets and much more.

Send us a booking enquiry now

One show | Two Formats| Multiple opportunities

- Showcase your brand and product offerings at both, physical and virtual expo
- Explore global decision makers from 12+ industries who are lookingout for companies like you through business matchmaking
- Interact with your buyers in real time while you showcase your latest product offerings
- Create high brand recall with on-site & digital branding, and sponsorship opportunities

We have a special offer for you. You can now participate in our pre-event series and promote your products via social media, product demos & webinars at zero charge!

For further information, please contact :
Messe Frankfurt Trade Fairs India Pvt. Ltd.
Gala Impecca, 5th Floor, Andheri - Kurla Road
Chakala, Andheri (E), Mumbai - 400093 ■

50 GOLDEN YEARS OF PRECITEX

On the golden occasion, we express our gratitude to our demanding and quality conscious customers and the community of spinners around the globe who are the driving force behind our success and growth as the leading apron and cot manufacturer globally.

It's also the time to rededicate ourselves to the mission of serving spinners better through developing world-class aprons and cots that enhance yarn quality and add to their productivity, profitability and competitiveness.

PRECITEX
Enhanced Spinning

Precision Rubber Industries Pvt. Ltd.
201 A, Poonam Chambers, Worli, MUMBAI 400018.
Tel: 91 22 4076 6444 / 6403 • info@precitex.com • www.precitex.com

INDIA ITME 2022

11th India International Textile Machinery Exhibition

Supporting Trade through Technology
with

Commitment | **Integrity** | **Transparent Conduct**

8th - 13th December 2022

IEML, Greater Noida, India

Oerlikon

Oerlikon Barmag at the UTECH Europe

Oerlikon has taken on challenge with its new eccentric screw pump series

Across the globe, Oerlikon Barmag gear metering pumps are deployed as technical components in chemical, plastic, paint, lacquer and PUR applications. Due to rising demands and requirements, customer-specific process solutions are becoming increasingly complex. Oerlikon Barmag has taken on this challenge with its new eccentric screw pump series, which covers a throughput range of between 1 ml/min. and 30 l/h. They will be premiering at the UTECH Europe in Maastricht (Stand H32), which takes place between November 16 and 18.

Robust multi-talent : eccentric screw pump

High wear-resistance, increased durability and robust operation – the new pump, with its viscosity range of between 1 mPas and 1,000 Pas, is tailor-made for conveying highly-filled, high-viscosity or abrasive media, such as filled adhesives, filled silicones and filled casting compounds, for example. The highlight of the eccentric screw pump is the multi-stage seal system, which considerably extends the pump's lifespan. The upstream shaft sealing ring protects the slide ring seal against excessively fast wear caused by challenging media. In turn, the optimum alignment of the drive shaft – ball bearing-supported and centrally-guided through the shaft sealing ring – prevents any metal debris caused by friction and hence ensures considerably greater durability.

Furthermore, the sealing medium used between the shaft sealing ring and the slide ring seal provides an optimum environment for the seal system. Customers benefit from considerably greater productivity, as the pumps' maintenance intervals and hence machine downtimes are significantly reduced. Oerlikon Barmag eccentric screw pumps are deployed in such disparate areas as the plastics industry, the automobile industry, the dyes and paints industry and the pharmaceuticals industry as well as in new energies and food technology.

Focus on gear metering pumps

And the GM and GA series gear metering pumps and the high-speed pump and associated components are also information focuses at this year's UTECH Europe.

The high-speed metering pump has been especially developed for metering poorly-lubricating media. The main advantage of the pump is the sealed product space. The space that comes into contact with the media is therefore limited to the area around the gears. The external, ball-bearing support points in the high-speed pump are externally lubricated, hence ensuring that the product to be metered does not cause damage as a result of poor lubrication. This extends the lifespan of the pump considerably.

Furthermore, the enlarged speed range (30-500 rpm) permits a large application range for which several pumps of varying sizes have had to be used to date. This cuts back on conversion times, while simultaneously reducing spare parts inventories. With its low weight of 1.4 kg, the compact pump (ø65mm) promises both considerable space savings and less wear on the machine.

The series of eccentric screw pumps covers a throughput range of between 1 ml/min. and 30 l/h, also conveying – with viscosity range of between 1 mPas and 1,000 Pas – highly-filled, high-viscosity or even abrasive media.

GM range under the most challenging conditions

The pumps in the GM and GA series provide precision metering with low-pulsation feeding of the conveying medium. The multi-stage GM pump conveys low-viscosity media (i.e. 250 bar, 100 mPas) even under high pressure and in the most challenging conditions. The square design from the proven GM series is the standard pump for many metering tasks. The development of the multi-stage pump expands the applications range for the GM series considerably. The round 2-stage GM pump has been developed especially for use in high-pressure technology. It masters the particular challenge of conveying small throughputs with low viscosities. The pump is perfect for 0.05 through

20 cm^3/rev feed sizes and is excellently suited for use in high-pressure machines for PUR molded parts, foam slab stock, refrigeration unit insulations and sandwich panels, for example.

GA series pumps for high-viscosity media

Manufacturing companies are constantly facing the challenge of making their products and processes more efficient. Oerlikon Barmag has supplemented the tried-and-tested GM range with the GA series, developed especially for the challenging conveying of high-viscosity media. The GA series pumps are available for conveying volumes of between 1.25 and 30 cm^3/rev (0.6-144 l/h). They have been designed for pressures of up to 200 bar, for viscosities of up to 1.500 Pas as well as for temperatures of up to max. 225 °C. With this range of pumps, Oerlikon Barmag offers its customers tailor-made solutions for many technical processes in which high-precision and even metering is of paramount importance.

The drum pump – conveying and metering using a single unit

With the drum pump, the Oerlikon Barmag pump specialists have created a pump designed specifically for conveying and metering high-viscosity materials such as adhesives, silicones and other high viscosity materials from drums and other large containers and for pressures of up to 250 bar. Its special features not only include the fact that it removes high-viscosity materials from the drum, but that it also meters the medium directly without any additional interim stops.

Gear pump and drum follower plate are aligned to each other so that the plate can effortlessly reach the bottom of the container, hence leaving a very low residue of <1%. This in turn lowers materials costs and simultaneously has a positive impact of the manufacturing process. The metering, which to date has been carried out in two steps requiring scoop-piston and metering pumps, can now be merged in into a single unit with the drum pump.

About Oerlikon

Oerlikon (SIX: OERL) is a global innovation powerhouse for surface engineering, polymer processing and additive manufacturing. Its solutions and comprehensive services, together with its advanced materials, improve and maximize the performance, function, design and sustainability of its customers' products and manufacturing processes in key industries. Pioneering technology for decades, everything the company invents and does is guided by its passion to support its customers' goals and foster a sustainable world. Headquartered in Pfäffikon, Switzerland, the Group operates its business in two divisions – Surface Solutions and Polymer Processing Solutions. It has a global footprint of more than 10,600 employees at 179 locations in 37 countries and generated sales of CHF 2.3 billion in 2020.

For more information: www.oerlikon.com

About the Oerlikon Polymer Processing Solutions division

With its Oerlikon Barmag, Oerlikon Neumag, Oerlikon Nonwoven and Oerlikon HRSflow brands, the Oerlikon Polymer Processing Solutions Division is focusing on manmade fibers plant engineering and flow control equipment solutions. Oerlikon is one of the leading providers of manmade fiber filament spinning systems, texturing machines, BCF systems, staple fiber systems and solutions for the production of nonwovens and – as a service provider – offers engineering solutions for the entire textile value added chain. Furthermore, Oerlikon has a high precision flow control components business that offers a large selection of gear metering pumps for the textile and other industries, including the automotive, chemical and paint markets. With Oerlikon HRSflow the division develops innovative hot runner systems for the polymer processing industry. In cooperation with Oerlikon Balzers, highly-efficient and effective coating solutions are offered here from a single source.

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

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

is particularly at home in the core automotive markets. These include Germany, China, Korea and Brazil. Worldwide, the division – with more than 4,500 employees – has a presence in 120 countries with production, sales and distribution and service organizations. At the Research and Development centers in Remscheid, Neumünster (Germany), San Polo di Piave, Treviso (Italy) and Suzhou (China), highly-qualified engineers, technologists and technicians develop innovative and technologically leading products for tomorrow's world.

For more information: www.oerlikon.com/polymer-processing

For further information, please contact :
Susanne Beyer
Marketing, Corporate Communications & Public Affairs, Oerlikon
Tel. +49 2191 67 1526
Fax +49 2191 67 1313
susanne.beyer@oerlikon.com
André Wissenberg
Marketing, Corporate Communications & Public Affairs, Oerlikon
Tel. +49 2191 67 2331
Fax +49 2191 67 1313
andre.wissenberg@oerlikon.com ❐

Colorjet India Ltd

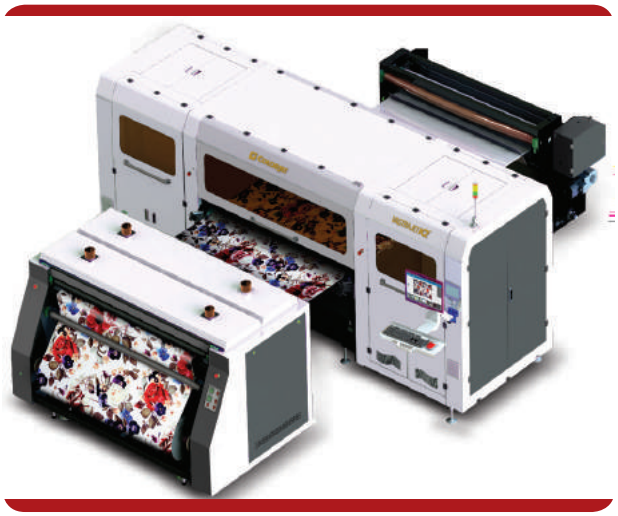
Colorjet's new product launch

The all-new VastraJet K2 - A perfect blend of excellence & productivity from ColorJet Group.

Following the success of VastraJet, ColorJet Group is gearing up to introduce a new model of their premium range – VastraJet K2 with productivity of more than 5000 sq. meters per day. This model is equipped with 32 latest advanced inkjet print heads from Konica Minolta. Equipped with the combination of ColorJet's 3 new technology – Kiloton TM, Purge Plus TM, and Osci Plus TM, this model is a combination of exceptional speed & excellent print quality.

The new VastraJet K2 is the ideal choice for the Fabric Processing Mills, Garment export houses, Leading Textile groups who foresees the future of textile printing & wants to keep up with the fast fashion trend & the abrupt reduction of supply chain timeline.

Its improved features and high productivity is surely going to attract the enormous Rotary printing business owners who wants to print exclusive precise designs without being worried about MOQ, shift loss or excessive sampling cost.



The new VastraJet K2 comes with Purge Plus TM technology which ensures continuous ink

circulation that provides constant & uniform temperature across the print head for superior printing uniformity. It is also worth mentioning that the new print heads is made for printing sharp design outlines including geometric designs, stripes, checks. This machine assures brilliant yarn dyed effect with no worry of excessive dyed yarn stock.

This machine is equipped with ColorJet New KilotonTM which has increased the print head life to a considerable extent.

The machine is also equipped with a system of precise Osci plusTM precise rollers for efficient tension control and smooth feeding of the fabric irrespective of any fabric parameter - gsm, weave, crimp, elasticity, and skewness which makes it flexible to be used with any type of fabric.

After more than 350 successful installations of VastraJet, the new premium model of VastraJet with 32 heads – VastraJet K2 with advanced features will provide the customers with an impetus to opting for a high production of 5000 sqm/day.

With the changing world, consumer demands have changed and they are looking for sustainable alternatives. This has pushed manufacturers to focus on sustainability, leading to increased eco-consciousness. ColorJet takes all the measures to reduce the carbon footprint for consumers.

About ColorJet India Ltd:

ColorJet Group, manufacturer of Digital Textile printers from India, markets its products in 25 countries worldwide. Founded in 1995, the company maintains its operations via two manufacturing facilities and sales offices spread across seven countries, which include India, China, Bangladesh, UAE, and Sri Lanka. Till date, ColorJet has installed and implemented over 5,000 of its printing solutions and products across 450 cities around the world backed by a strong 278-member team, of which almost 100 are in technical related functions.

For further information, please contact :
Mr. Abhijeet Kumar
ColorJet India Ltd
Cell: +91 98119-92462
Email: abhijeet.kumar@colorjetgroup.com ❐

DiloGroup

DiloGroup at Techtextil India, to offer tailor-made production systems

DiloGroup looks forward to participating in the Techtextil India show 2021. DiloGroup offers tailor-made production systems from one supplier and will inform at this forum in the German pavillon about its portfolio and the latest equipment developments from fibre opening to the finished felt.

A new, simplified elliptical needle beam drive makes Hyperpunch technology also attractive for standard application. Hyperpunch HαV allows a more uniform stitch distribution in the preneedling process especially in combination with the new needle pattern 6000X. In a complete needling line this felt homogenization process can be improved further by using the new needle pattern 8000X which is a milestone in the needle pattern development process and results in endproduct surfaces with low markings over a wide range of advances/stroke.

The "3D-Lofter" which was first presented during ITMA 2019 in Barcelona offers a wider range of nonwovens applications by exploring the third dimension. A series of single web forming units which work according to the aerodynamic web forming principle deliver defined fibre masses in varied patterns on a base needlefelt. A stress oriented production of technical formed parts resulting in fibre savings or patterned DI-LOUR or DI-LOOP felts are two examples for this technology which explores new application areas for needle felts.

The 3D-Lofter technology may also be used "inverted" for filling up bad spots in web mats and thus achieves a better homogeneity of e. g.

spunlace, thermobond or airlay products. The DiloLine 4.0 concept offer 14.0 modules which not only support the user but also facilitate quality control and maintenance by a maximum data transparency in production and control of operation. The Dilo solutions "Smart Start" for a fully automatic start of the production line or "DI-LOWATT" for energy savings are accompanied by Siemens solutions which can be selected via App or Data Cloud "MindSphere".

With more than 370 installations delivered to the nonwovens industry worldwide, DiloGroup has the necessary know-how and the complete equipment portfolio to engineer the perfect production line for any product specification. The efficiency of Dilo production lines is the result of long-term research work and experience.

Apart from machines for needling technology we offer in cooperation with partner companies also production lines including thermobonding and hydroentangling components.

We look forward to welcoming you at the German Pavillon during Techtextil India.

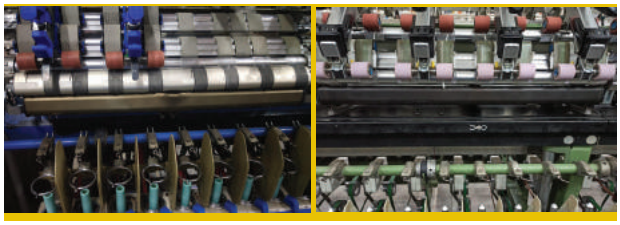
For further information, please contact :
DiloGroup
Im Hohenend 11, 69412 EBERBACH
phone : +49/(0) 6271/940-0
fax: +49/(0) 6271/71142
e-mail: info@dilo.de ❐

S. K. Associates

S. K. Associate's Few Innovative Textile Products out of their wide-range

We S.K. Associates are one of the leading manufacturer and supplier of many Textile products in which few of them are listed below.

1. SKA Spring Loading for Top Arms.
2. Bobbin Holders.



3. Rotary Filter to Stationery Filter Conversion.
4. Pneumafil Conversion for Individual Suction to Common Suction.
5. Compact Spares for Spinning.
6. New Advanced Fully Automated Smart Plucker.

S.K. Associates are dealing with servicing of all ranges of Textile Electronic PCB's (Blow Room to Spinning) & specially we are undertaking servicing & Providing spares for Vouk Draw Frame.

For more information about our Pneumafil Conversion for individual suction to common suction as follows :

In Ring Spinning, the lapping on rollers either on top or bottom rollers is one of the chronic issues especially in PV fibre dyed Spinning at higher and higher spindle speeds.

A huge amount of physical effort is required in removing lapping and joining broken threads. If it is too high, it affects the workload of operators also.

There are two options now in hand to reduce lapping frequency on the rollers in ring frames. Either use a higher capacity suction motro to increase the suction pressure or reduce the number of openings on suction ducts.

The use of higher capacity motors consumes more power on a continual basis, but reduction

of number of openings on suction tube requires nomial one-time investment every 5 to 6 years.

Alternative suction system which will have less number of openings on main suction duct i.e. Common Tube Suction System.

1. To improve suction and save energy.
2. Free from lapping on Rollers.
3. To improve in breakage Rate.
4. Due to less lapping, Operator can Piece broken end faster.
5. While compared to the individual suction system. Suction level gradually increases from offend to gear end.
6. Rubber cots damages can be avoided.

For further information, please contact :
S. K. Associates
10/23D, Shurhti Arcade, Ayasamy Nagar
Thottipalayam, Chinniyampalayam Post
Coimbatore-641062, Tamilnadu, India
Ph. No. : 0422-2912018
Email : salesska@skassociates.org ❐

Baldwin Technology Company Inc

Baldwin to exhibited data-connected UV, LED, corona, color and inspection solutions at Label Congress

Suite of products improves converted label quality consistency for brand owners

Baldwin Technology Company Inc. exhibited in booth 63 at Label Congress 2021, held September 29 and 30 in Chicago. At the first in-person networking and educational event for the US label industry since the start of the COVID-19 pandemic, the company showcased its entire suite of data-connected technologies that work in harmony to produce superior labels. These innovations range from corona surface treatment and UV- and LED-curing, to 100 percent inspection and defect detection/removal, to in-line color measurement, along with advanced real-time and historical process monitoring via Baldwin&rsquos cutting-edge Industry 4.0 AMP Internet of Things (IoT) software platform.

Visitors to Baldwin&rsquos booth got the opportunity to explore its comprehensive, next-generation label-printing solutions via live demonstrations and also learned from experts how its connected suite of products can help drive higher profits, while improving converted label quality consistency for brand owners.

Front and center in the booth of Baldwin's AMP IoT platform, which allowed live and historical data viewed together across the production process, supporting greater uptime, job productivity and automation. Featured solutions pair sensor-gathered data with operational data from Baldwin and third-party equipment to gain live, actionable insights that can be used to improve production efficiency, while enabling new levels of color consistency with fewer defects and greater assurance of curing.

Baldwin experts will be on hand at Label Congress for live demonstrations of its solutions, and to share actionable ideas and deployment scenarios to help label printers and converters take their businesses to new levels of excellence.

"Data will drive the next great advantage in label converting, the same as in just about every other industry," explained Steve Metcalf, Chief Marketing and IoT Officer for Baldwin. "Those who have access to their production data — and can harness this information to improve their process, quality and competitiveness—will have a real advantage over those who don't."

Baldwin is the only solutions provider in the label industry to offer a full portfolio of data-connected critical press technologies that work together to improve production uptime, quality and repeatability.

"Brand owners demand consistent quality and are seeking more and more proof via conformity records and 100 percent inspection reports," Metcalf continued. "Our AMP IoT advanced monitoring platform, deployed across our product lineup, can quickly contextualize data, giving converters a ready-made, competitive advantage based on intelligent analysis that takes the guesswork out of the equation."

SCIENCE IN INDUSTRY

Through its strategic acquisitions, Baldwin offers the broadest range of connected process-improvement technology for the printing and packaging industries, in addition to being the premier global provider of cleaning, drying and spray automation systems. Baldwin Vision Systems' Web Printing Controls, QuadTech and PC Industries offer 100 percent defect-detection, and register- and color-control solutions AMS Spectral UV provides LED, UV and IR systems and Ahlbrandt manufactures corona surface treatment and rotary spray technology.

"There are many companies that make print technologies for labels. Baldwin differentiates itself as the only industry supplier offering a complete platform of next-generation, connected solutions that can be deployed on your press to give label converters something new," said Craig Black, Baldwin's Vice President of Sales, Americas. "We are excited to support the industry by way of Label Congress, and look forward to seeing so many of our label industry customers, partners and friends together again."

About Baldwin Technology Company Inc.

Baldwin Technology Company Inc. is a leading global manufacturer and supplier of innovative process-automation equipment, parts, service and consumables for the printing, packaging, textile, plastic film extrusion and corrugated industries. As a total solutions provider, Baldwin offers our customers a broad range of market-leading technologies, with a focus on improving the economic and environmental efficiency of production processes. Through a global footprint of 21 company-owned locations and an extensive network of partners, our customers are supported globally, regionally and locally by dedicated sales and service team members who add value by forming long-term relationships. Baldwin is privately owned by BW Forsyth Partners, a Barry-Wehmiller company. For more, visit baldwintech.com.

About BW Forsyth Partners

BW Forsyth Partners is the investment arm of multibillion-dollar global manufacturing and engineering consulting firm Barry-Wehmiller. Established in 2009, BW Forsyth Partners blends Barry-Wehmiller's unparalleled legacy of value creation and people-centric culture development with keen investing experience to help companies realize their true potential. With a focus limited to areas known well, BW Forsyth Partners seeks to partner with leadership teams to acquire small- to middle-market companies in the capital and component equipment, and professional services sectors. In each of our operating companies, BW Forsyth Partners deploys operational improvements and strategy development without compromising the autonomy, strategic vision and entrepreneurial spirit of their leadership teams. For more information, visit bwforsyth.com.

For further information, please contact :
Emily Jed, Media Liasion
emily.jed@baldwintech.com
Baldwin Technology Company Inc.
8040 Forsyth Blvd.
St. Louis, MO 63105 USA
t. +1 (314) 863-6640
f. +1 (314) 726-2132
baldwintech.com

❐

Basant Fibertek

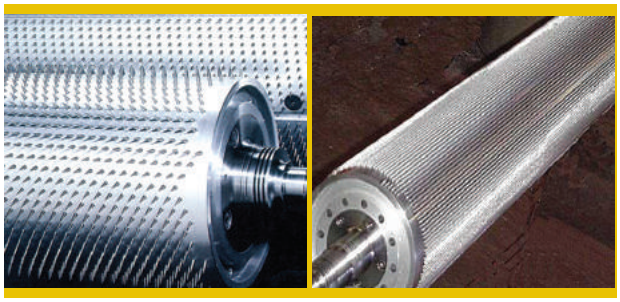
Basant Fibertek Doubles Capacity

Basant Fibertek, market leaders in Pins and Pinned Rollers and Lags for fiber preparation in Textile Spinning and Recycling, are doubling their production capacity in both their plants in order to meet the fast rising demand for their products. The enhanced capacity will go on stream beginning November 2021.

Textile Pins and Pinned Products

The 57 years old company has a chequered history of being the pioneer in bringing into India the latest technology to manufacture world class critical textile machinery components with the aim of import substitution and innovating high value solutions. It's Porcupine Brand is synonymous with world class Pins and Textile Machinery Components.

Mr. Kishore Khaitan, Managing Director of the company says " Our commitment for not compromising on quality and on ethics has resulted in developing trust and confidence in our customers and this has resulted in strong relationships spanning a decade or more with our major clients. Due to our fast expanding global reach, exports have become more than 50% of turnover. We export to all 5 continents and to over 40 countries.

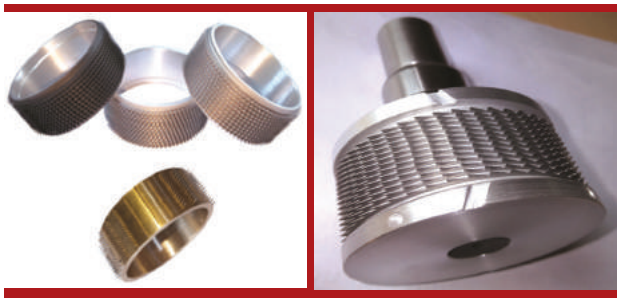


Short delivery times, a hassle free user experience, customized solutions and economical prices provide our clients the best value for money. This commitment has enabled us be miles ahead of completion, whether domestic or foreign. In view of the rising demand of our products as a preferred supplier, the capacity expansion was planned to ensure we live up to our record in meeting these objectives in future.

Over the past few years, the company has focused more on offering solutions to its clients. The company has helped many clients improve yarn quality, reduce process waste, increase production and productivity as also reduce maintenance costs through their customized solutions that are designed based on plant audits.

Basant is well known in industry for its world class, innovative products and gentle fiber

handling solutions and is serving OEMs as well as leading Mills in India and abroad. Its range covers solutions for short staple cotton and synthetic spinning, worsted spinning, sisal/linen spinning, rotor spinning as well as other applications in textile and non-textile sectors.



Mr. Khaitan adds " We consciously shifted from being a products supplier to a solutions provider, based on the needs of the market. Our expertise and experience in offering solutions based on the 'Gentle Fiber Opening Principle' is highly valued by our customers, helping them become more competitive in their own markets."

In 2016, the company commissioned its new plant for manufacturing Opening Rollers and Rotors for Open-End Spinning thus becoming the only manufacturer producing these in India. Basant offers lower prices than European and OEM offerings while achieving comparable performance. Its product for Rotor Spinning also beat Chinese ones in terms of cost effectiveness and reliability of performance. The company offer full range of rotors and opening rollers for all leading makes of Rotor Spinning machines. The company is doubling its capacity for spinbox spares also in order to catch up with demand and to ensure fast supply.

For further information, please contact :
Basant Fibertek P. Ltd.
E418, Road 14, VKI Area
Jaipur-302013, India
Phone : +91 141 2460 792
Mobile : +91 94140 63546
Website : www.bwipins.com ❐

Textechno Herbert Stein GmbH & Co. KG

Statimat DS

Automatic Tensile, Evenness and Count Tester

Tasks of the quality control on yarns and threads

In the production of staple fibre- or filament yarns as well as in twisting or texturizing operations quality control serves to secure material properties which ensure trouble-free downstream processing as well as flawless final products. On the other hand, by routine testing of yarns it is possible to recognize faults in the production process early enough to analyze the causes of such defects and to take corrective actions.

The most important properties of yarns are tensile strength and elongation, mass unevenness, and yarn count (linear density). Static tensile tests, yarn evenness tests, as well as various methods of yarn count testing, e.g. by means of wrap reel and balance, serve for the assessment of these yarn properties. The operation of different test equipment to which the yarn samples are presented one after another, results in high expenditure of labour and, especially in case of modern automatic computer-controlled testing equipment, in considerable financial investment.

STATIMAT DS

This new model of the well-proven STATIMAT series of Textechno combines testing of tensile properties according to the CRE principle, unevenness, and count of yarn and thread in one

tester. The prime advantage of such a combination of different test methods lies in the common use of peripheral components like package changer, threading mechanism for inserting the yarn sample into the test sections, yarn feeding device, waste yarn disposal, instrument housing with protective front panel, as well as control electronics including the PC-based Textechno TESTCONTROL system. The three tests on each package presented by the package changer are performed in succession.

Test methods

Tensile test

The salient features of this STATIMAT DS test procedure are the high clamping force of the pneumatic jaws for tensile tests up to 1000 N, the long path of the draw-off clamp for breaking extensions up to 1000 %, the quick yarn threading reducing idle time between successive tests to only a few seconds, the force-measuring system within the force range of 1000 N (1500 N on request), as well as high variability of the test process and the evaluation of the measured data. In addition to the static tensile test, for instance according to ISO 2062 or ASTM D2256, D885, alternating load tests (hysteresis tests) are possible according to freely selectable programs, as well as creep and relaxation tests.

A yarn feeding device enables high-speed take-off of selected yarn lengths prior to starting the test on a new package or between successive tests on the same package. This means that tests can be carried out on yarn lengths both from the package outer and inner layers.

Beside the standard automatic yarn clamps, various special clamps for manual introduction of the test sample are available. These enable tensile- and elasticity tests on fabrics and cohesion tests on slivers or rovings.

Yarn evenness test

A new innovative capacitor system enables capacitive testing of the mass unevenness according to ISO 16549 within a wide yarn count range by individual adaptation of the measuring sensor to the properties of the yarn material. As a new feature in yarn evenness testing the yarn tension can be monitored in order to ensure proper testing conditions. Measurable variables delivered by the system are the coefficient of variation of the mass distribution along the yarn length, the spectrogram, and for staple fibre spun yarns the numbers of neps, thick and thin places.

Yarn count test

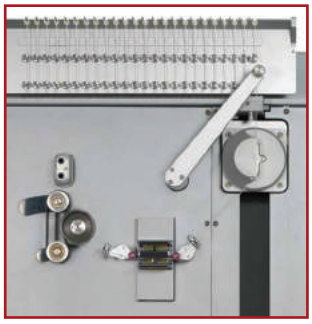
In this test, e.g. according to ISO 2060 or ASTM D6587, a preselected yarn length, e.g. 100 m, is delivered by the yarn feeding device into a collection chamber, and subsequently the weight is measured. By using the principle of a vacuum conveyer the yarn is permanently in contact with the ambient (laboratory) climate. In this way drying of the yarn as would occur with a compressed-air system does not happen.

Another advantage is the yarn tension measurement during the test. If tension limits specified by the relevant standards are exceeded, a correction is automatically made based on the same yarn's tensile properties.

Technical data

Tensile test :

- 2 pneumatic yarn clamps, automatic threading by rotating gripper arm, min. gauge length 80 mm, max. travel of draw-off clamp 1000 mm for 100 mm gauge length, draw-off speed 1...10.000 mm/min;



- Force-measuring device with easily exchangeable force transducers, max. 1000 N; (1500 N on request);
- Elongation-measuring device with resolver, resolution 2 µm.

Yarn evenness test :

- Capacitive measuring system, yarn count measuring range 5...150 tex, max. test speed 500 m/min with yarn feeding device;
- Optical sensor for interlace tests in multifilament yarns.

Yarn count test :

- Yarn collection chamber and electronic balance, weighing range 300 g, resolution 1 mg (higher resolution on request), yarn length selectable in the range 1...1000 m, max. test speed 500 m/min with yarn feeding device.

Package changer :

- Standard version with 24 positions (expandable on request), free selection of package changer positions to be tested in succession.

Yarn feeding device :

- Casablanca system with nip roller/apron, max. yarn delivery speed 500 m/min, resolution of length measurement 0.3 mm.

TESTCONTROL :

- PC system for control of the test processes and for evaluation of the measured data, connection via USB interface;
- Textechno software as a WINDOWS application, input of all parameters for testing and measured data evaluation, saving of selected parameter sets under code words;
- Easy integration into any network type.

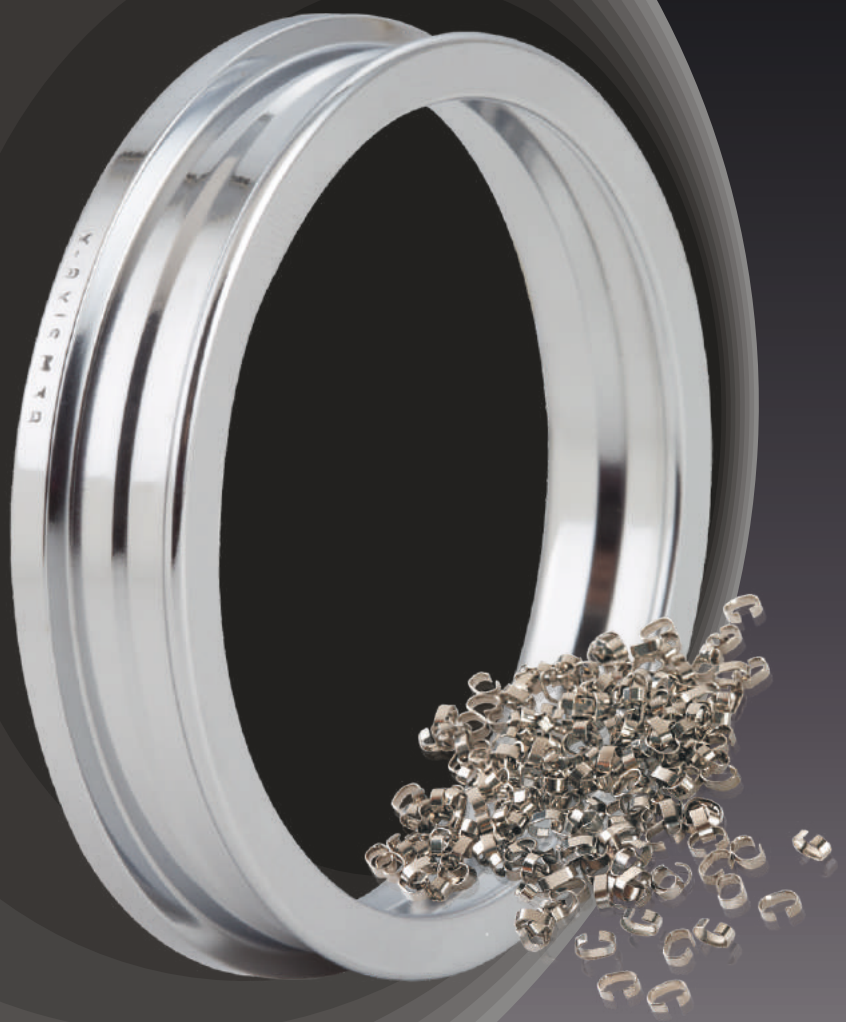
Further technical data

Mains supply	: 230 V, 50 (60) Hz, current requirement approx. 1 A
Compressed-air supply	: 6 bar, 60 l/min (with yarn feeding device/ AUTOCOUNT: 150 l/ min)
Lacquer finish	: RAL 9006/5002
Dimensions, weight	: Height 1680 mm, width 825 mm, depth 830 mm, approx. 250 kg

The above technical contents can be subject to changes by Textechno.

For further information, please contact :
World Traders Mfg. Company
14/3, Maker Chambers V, 13th Floor
Nariman Point, Mumbai-400021
Email : info@wtmcindia.com
Textechno Herbert Stein GmbH & Co. KG
D-41066 Mönchengladbach, Germany
www.textechno.com ■

EXPERIENCE THE POWER OF NEXT



UNLOCK THE NEXT-GEN SPINNING QUALITY

The X-Axis' NEXT manufacturing process combines precision engineering and top of the line technologies, leading to excellence across every quality parameter.

the X-axis®
OCL

Short Staple & Long Staple
Spinning Rings & Ring Travellers

RIMTEX ENGINEERING PVT. LTD. (an ISO 9001:2015 TUV certified co.)
2701 GIDC, Phase IV, Wadhwan-363035, Gujarat. India.
Tel : +91 2752 243 322 I 241 088 I rings@rimtex.com I theXaxis.in

Lets Promote Quality®

Better OCL
OUTPUT CONSISTENCY LONGEVITY

LIKE / FOLLOW / SUBSCRIBE

rimtex®

Sliver Management Systems

Yet another innovation by RIMTEX

SAME CAN SIZE, SAME MACHINERY, **MORE SLIVER CAPACITY !**

much*more* than the **most**

- RIMTEX has successfully re-designed the Sliver Cans to increase the sliver loading space inside the Can.
- Effectively adds more than 10% (approx) space for sliver loading in the Can.
- Gain **10% more** sliver space in your Carding Cans.

Imagine.Invent.Transform >

SUMO CANS

*Patent Pending

Ideally suited for 1000 mm & 1200 mm dia. cans

TRENDING INNOVATIONS

Lets Promote Quality®

1992 den beri şerit işleme.

LIKE / FOLLOW / SUBSCRIBE

Manufactured In India By :
Rimtex Industries (an ISO 9001:2015 Company) :
1514 GIDC, Phase IV, Wadhwan-363035, Gujarat. India.
Tel : +91 2752 243 322 / 241 088 I Fax : +91 2752 243 726
www.rimtex.com I Email : info@rimtex.com

INDEX TO ADVERTISERS

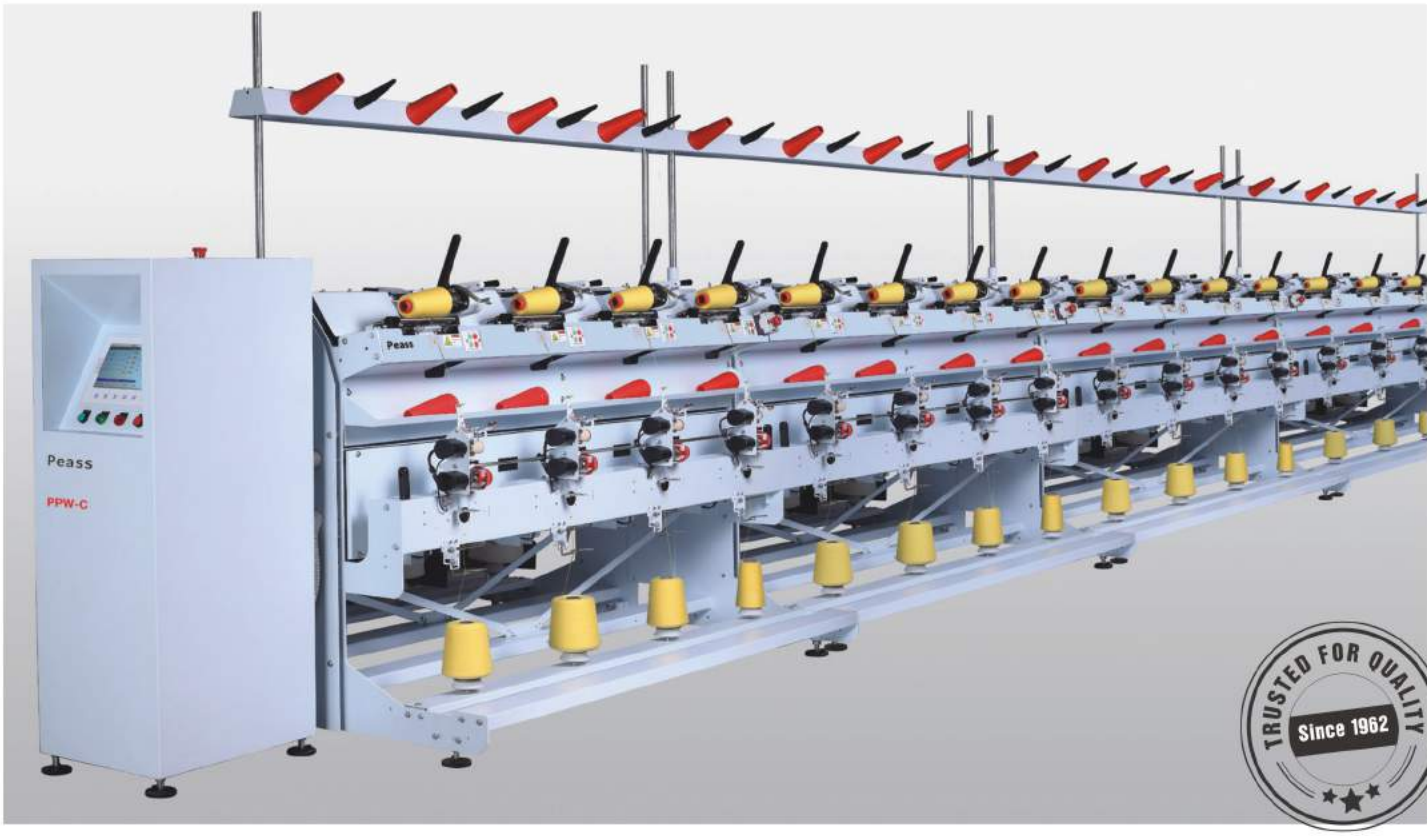
NOVEMBER 2021

PRECISION RE-WINDER

MASTER KEY TO EFFICIENT WEAVING

PPW C

• Excellent unwinding • Precise length • Improved loom efficiency • Reduced air consumption



PEASS RANGE OF PRODUCTS

- Soft Package Winder(Precision / Drum)
- Assembly Winder (Precision / Drum)
- Yarn Mercerising Machine
- Rewinding Machine (Precision / Drum)
- Yarn Singeing Machine
- Hank to Cone Winder

ISO 9001 SGS CERTIFIED

Peass Industrial Engineers Pvt. Ltd.

website: www.peass.com

Regd. Office:
Survey No. 303/1/1 & 302/1,
Maneklal Road, Navsari -
396 445 (W.R.) Gujarat, INDIA
Tel: +91 2637 240843/
250811
Fax: 91-2637-257 321
E-mail: navsari@peass.com

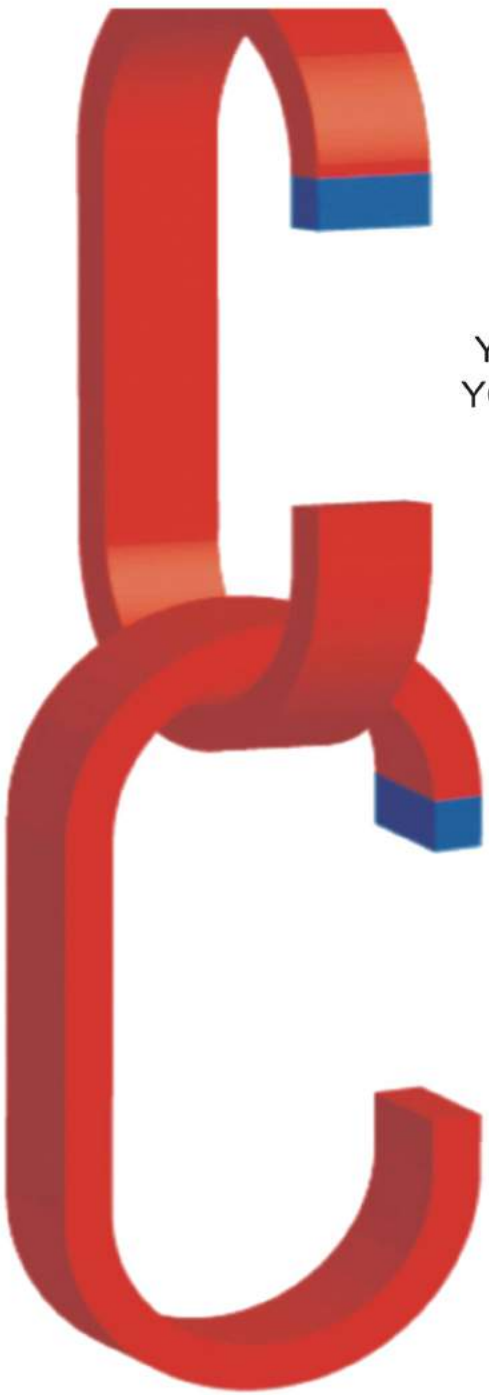
Mumbai Office:
Merchant Chambers, 2nd Floor,
41, New Marine Lines,
Mumbai - 400 020 INDIA
Tel: +91 22 61210900
Fax: 91-22-6631 0570
E-mail: mumbai@peass.com

Delhi Office:
729, Pocket 'E',
Mayur Vihar Phase II,
Delhi - 110 091 INDIA
Tel: +91 11 22773701/
22784749
Fax: 91-11-2277 4741
E-mail: delhi@peass.com

Coimbatore Office:
P-1, 3rd Floor, Red Rose Plaza,
509, D.B. Road, R.S. Puram,
Coimbatore - 641 002 INDIA
Tel: +91 422 2544097/98
Fax: 91-422-2544 097
E-mail: cbe@peass.com

Ahmedabad Office:
Samudra, B-201, 2nd Floor,
Sardar Patel Nagar Road,
Navrangpura,
Ahmedabad - 380 006 INDIA
Tel: +91 79 26427665
Fax: 91-79-2642 7665
E-mail: ahd@peass.com

Registered with the Registrar of Newspaper for India R.N.I. No. 2815/1958
Postal Registration No. KOL RMS/264/2019-2021



IN TODAY'S COMPETITIVE MARKET,
YOU NEED A PARTNER WHO UNDERSTANDS
YOUR NEEDS & THE MARKET ENVIRONMENT

THINK LRT
We help you stay ahead of your competition

Lakshmi Ring Travellers (Coimbatore) Private Limited
Sulur Railway Feeder Road,
Kurumbapalayam, Muthugoundenpudur,
Coimbatore - 641 406, India
Tel.: +91 422 2205000, Fax : +91 422 2205010
E-mail : sales@lrt.co.in
CIN : U17111TZ1974PTC000712

Lakshmi LRT
RING TRAVELLER DIVISION

Published & Printed by Shri Debajyoti Dutta on behalf of M/s. Eastland Publications Private Ltd.,
Published at: 44, Chittaranjan Avenue, Kolkata-700 012. Printed at: Rainbow Printers, 40D/H/7/8,U.C.Banerjee Road, Kolkata-700 054
Editor : Malay Chakarabarti