Textile Trends

66TH YEAR OF PUBLICATION, NO. 01 APRIL 24, 2023, ISSN 0040 - 5205, Rs. 60/-

VOL. LXVI. NO.01, TEXTILE TRENDS, APRIL - 2023

RABATEX ◆ INDUSTRIES ◆ 1962

eXcellent products
advance
technology...

Rabatex INDUSTRIES
Since 1962

Delighted customers across 36 countries

Battery Operated Warp Beam Carrier With Heald Frame Support (Beam Gaiting Trolley)
Working Width: 190 cm to 360 cm
Beam Flange: 800-1250 mm

Battery Operated Top Beam Carrier
Working Width: 190 cm to 360 cm
Beam Flange: 800-1250 mm

Twin Warp Beam Carrier With / Without Heald Frame Support
Working Width: 190 cm to 380 cm
Beam Flange: 800-1250 mm

Top & Bottom Beam Carrier With / Without Heald Frame Support
Working Width: 190 cm to 380 cm
Beam Flange: Max. 1250 mm

100% customer repeat order ratio | Global presence in 36 countries.
35 years' experience with 5600+ installations | Ease of handling and storage

Growth is the evidence of a successful business. Rabatex brings to you a range of intelligent Material Handling & Storage Equipment that optimize your workspace. An organized workstation will improve the flow between employees and boost the productivity of your business. We offer not just machines, but specifically designed solutions for the fashion industry. Our aptitude and acumen meets the high standards set by the manufacturers. Experience excellent productivity and pattern flexibility with Rabatex!

Empty Beam Carrier
Working Width: 190 cm to 380 cm
Beam Flange: 800-1400 mm

Pallet Beam Carrier
Working Width: 190 cm to 380 cm
Beam Flange: 800-1400 mm

Empty Beam Carrier
Working Width: 190 cm to 380 cm
Beam Flange: 800-1400 mm

Warp Beam Carrier
Working Width: 190 cm to 380 cm
Beam Flange: 800-1400 mm

Battery Operated Cloth Roll Doffer
Working Width: 190 cm to 360 cm
Beam Flange: 600-1250 mm

Battery Operated Pallet Beam Carrier
Working Width: 190 cm to 400 cm
Beam Flange: 800-1250 mm

Cloth Roll Carrier (Batch Up)
Working Width: 190 cm to 400 cm
Beam Flange: Max. 1500 mm

Battery Operated Top Bottom Beam Trolley
Working Width: 190 cm to 360 cm
Beam Flange: 800-1250 mm

Warp Beam Carrier With Heald Frame Support (Beam Gaiting Trolley)
Working Width: 190 cm to 400 cm
Beam Flange: 800-1250 mm

Cloth Roll Doffer Carrier
Working Width: 190 cm to 400 cm
Cloth Roll Dia.: Max. 700 mm

Battery Operated Warp Beam Carrier
Working Width: 190 cm to 360 cm
Beam Flange: 800-1250 mm

Vertical Storage System
Space Utilization (5-25 Times)
Height Max. Upto 12 mtrs.

Beam Stocker
Working Width: 190 cm to 380 cm
Beam Flange: 800-1250 mm/ No. of Tier 2 or 4
Beam Position: Single & Twin Beam

Cloth Roll Stocker Carrier
Working Width: 190 cm to 380 cm
Cloth Roll Dia.: Max. 600 mm
No. of Cloth Roll 6 or 8

www.radiantmedia.co

RABATEX INDUSTRIES | Plot No. 559, Opp. Road No.9, Kathwada GIDC, Ahmedabad-382 430, Gujarat (INDIA).

sales@rabatex.com
www.rabatex.com

ITMA 2023
Visit at: Hall No. H6, Stall No.: B307
Venue: Fiera MILANO RHO, MILAN. ITALY
08 to 14 June 2023

ISO 9001 REGISTERED
IQNet SYS RVA C 024

CE

E-mail : indiandyesprings@gmail.com

Whenever There's a need for Dye Spring

Always think of.....

INDIAN DYE SPRINGS CO.

Product Range :

Dye Spring

Yarn Perforator Steel Tube & Gravity Lock Nut

INDIAN DYE SPRINGS CO.

MANUFACTURERS OF S.S.DYE SPRINGS

Office : B1/202, Cauveri C.H.S, Ltd., Raunak Park,
Pokhran Road No. 2, Kokani Pada,
Thane (W) - 400610, Maharashtra, India.
Phone : +91 98920 87026 / 97691 11988 / 77384 61456

AUTOTEX

100 MILLION BOBBIN HOLDERS

HISTORY HAS BEEN MADE
THANKS
FOR YOUR TRUST

Proven
Solution

AUTOTEX - BLS

The World's First Bobbin Holder with Bobbin Locking System - BLS

Not just Holding... It is a system to hold and lock.

www.autotex.net

RINGMANN is a leading manufacturer and Exporter of Rings for Spinning, Doubling and Twisting frames for the past 30 years. Rings confirming to any profile is manufactured as per customers request.

RINGMANN is the foremost company to introduce **"STERLING RINGS"** with a Special Coating.
SIGMA EXCEL is a new generation ring developed through R&D.

SIGMA EXCEL

- Fine surface finish with low friction
- Low Running-In Period
- Instant start-up Speeds
- Longer Life
- Less Hairiness
- Fewer End-Breaks
- Less Pneumafil waste
- High Production of Yarn

EXCEL

BLACK DIAMOND

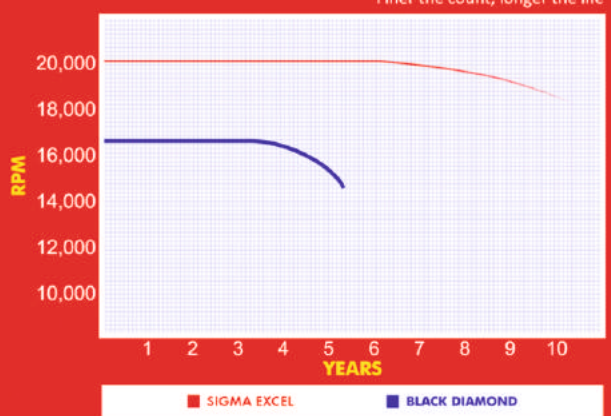
- A Simple rust Preventive treatment
- High Surface Finish
- Low Price and affordable by all
- Gradual Start-Up Speeds
- Normal Life for Higher Speeds
- Normal Production of Yarn
- Average End-Breaks
- Less Hairiness

SPICON RINGS

CONICAL RINGS

RING LIFE for Cotton above 50s NE

Finer the count, longer the life



RINGMANN

S.F 192, Airy Garden, Kannampalayam Road, Ravuthur Pirivu,
Coimbatore - 641 402, Tamil Nadu, INDIA.
Mobile : +91 93626 41101, 93626 41102
Email : sales@ringmann.in | Web : ringmann.in

MSB

Mangal Singh Brothers Pvt. Ltd.

MSB KUREHA

Precision Engineering, Ongoing Consistency

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

HIGH QUALITY COTS & APRONS

Aprons

TA58 - Grey Colour

- Special Quality for 100% Cotton and its blends
- For producing High quality yarn
- Excellent Abrasion Resistance

R60 - Blue Colour

- Special Quality for COMPACT YARNS
- Excellent for Coarse Count Yarn and Special Yarn such as LYCRA
- Highly Abrasion Resitant

R 1406 - 64

- Best Soft Cot for all Types of Applications
- Excellent Lap Resistance
- Maximum Resilience
- Excellent Resistance to Grooving

sales@mangalsingh.com

www.mangalsingh.com

SIMTA JACOBI

INNOVATIVE PRODUCTS AT GLOBAL STANDARDS

Auto Feeder


Bobbin Transport System

Spindle Tapes

OHTC


Flocked Clearer Rollers

ITMA 2023

08 - 14
JUNE 2023
FIERA MILANO RHO
MILAN, ITALY

HALL : H3 **STALL : E304, E304A, E304B, E304C**

SIMTA GROUP OF COMPANIES
S.F.No 683 A, Railway Feeder Road,Ravathur Post, Sulur via, Coimbatore - 641 103, TN, India.
E: sales@simta.com, info@simta.com, simta@simta.com, T: +91-422-2680705 / 2681705, M: +919842231483

TECCHNO®

TOTAL QUALITY CONTROL SOLUTIONS FOR TEXTILE INDUSTRY

CONE CRUSH TESTER

SPLICE MONITOR

TENSO MINI

ELECTRONIC WRAP BLOCK

BURSTING STRENGTH TESTER - DIGITAL

GINNING

SPINNING

KNITTING

WEAVING

APPARELS

Visit us at
ITMA 2023
Hall No. H2-C 303
08-14 June 2023
FIRRA MILANO RHO
MILAN, ITALY

CE

An ISO 9001:2015 Organization

TECHNO ELECTRONICS & INSTRUMENTS.
TECCHNO QUALICON SOLUTIONS (P) LTD.

Address : 82B, SIDCO Industrial Estate, Coimbatore - 641 021, India.
Phone No : +91 422 4518158, 81220 73158
Mobile No : +91 98422 19650, 98422 21415
Email : sales@technotesting.com, contact@technotesting.com

www.technotesting.com

SKAAT®
Adding Values

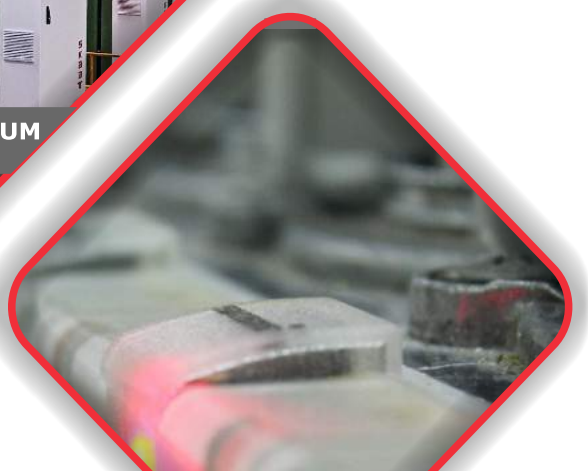
Digital Spinning Technology

SLUB

E-DRAFT

CORE PLATINUM

COLOUR SLUB



SKAAT OPTIK
(Spindle Monitor)

Manufactured by

SKAAT MACHINE WORKS INDIA PVT LTD.

10/23-C, Shruthi Arcade, Ayyasamy Nagar, Thottipalayam,
Chinniampalayam (Post), Coimbatore - 641062. India
Phone: +91 98422 90824 Email:**info@skaatindia.org**
Website:www.skaatindia.com

VETRI TOP ROLLERS

INDIAN EXPERTISE GLOBAL RECOGNISATION

WHY VETRI TOP ROLLERS ARE MORE TRUSTED GLOBALLY 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

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 AND MANY QUALITY PREPARATORY MACHINE SPARES THEY WILL ENSURE MILLS QUALITY YARN PERFORMANCE, HIGHER PRODUCTIVITY AND PROFITABILITY

VETRI
30 YEARS
40 COUNTRIES

VETRI ENGINEERS

TECHNOLOGY - QUALITY - VALUE - RELATIONSHIP

BUREAU VERITAS 1828
BUREAU VERITAS
ISO 9001 Certified

Ph.: +91 99444 51900, 77080 40900 I Email : domestic@vetriengineers.com I exports@vetriengineers.com

Exclusive Marketing Partner For Spinning Industry

Neelkanth

Sliver Cans

Airmaaster

Waste Collection System

Lakshmi Impex

A Marketing Company

inno-spin

Roving Transport System

GERON

Card Clothing

Lakshmi Impex

Tamilnadu | Andhrapradesh | Telangana | Karnataka | Kerala

K S Palanikumar, CEO | Mob: 94437-20889, 98651-79935

HO : 73/70, R.K. Mill B Colony, Peelamedu Pudur, Coimbatore - 641004

Email : palanikumarks@lakshmiimpex.net, sales@lakshmiimpex.net

www.lakshmiimpex.net

BLUEMOON

MACHINES MFG. CO.
SURAT

Since 1968

53 CELEBRATING
IN STEAMING MACHINE BUSINESS

PIONEER IN STEAMING MACHINE

YARN STEAMING MACHINE
(AUTOCLAVE)

1) For all types of plyster filament yarn, Jari covered yarn, Poly propylene (P.P), Bemberg yarn, 100% pure silk, Nylon High Tenacity Polyster yarn, Acrylic yarn, Technical textile yarn, High bulk yarn.
All type of staple blended yarn live PV,PC,100% Cotton,100% Polyster
2) With dry steam heat setting facility With double heating system facility (Direct heating and indirect heating)
3)Automated door open and close facility with automated door swing

YARN CONDITIONING PLANT

For all types of Spun blended yarn like PV, PC,100%Cotton, 100% Polyster spun and Acrylic yarn
1) Run on electrical heater operated
2) Electrical heater and steam boiler operated
3) Only steam boiler base low temperature steam operated (no need of electrical heater)

ITMA 2023
Meet us at —

ITMA 2023 MILAN-ITALY
Hall No. 4
Stall No. E323
8th June to 14th June 2023

BLUEMOON MACHINES MFG. CO.

Plot No. 201, New Industrial Estate, 'F' Road, Road No. 6,
Udhyognagar Udhna, Surat - 394 210.
Shabbir Moiz Kalavadwala : 97129 11052
sales@bluemoonmachines.in | www.bluemoonmachines.in

ELGI ELECTRIC

A world-class solution provider at the forefront of Innovation and Dependability

ELGI OHTC SMARTCLEAN

Over Head Cleaner

- Invertor Drives for Traverse and Suction Motors
- Automatic control of suction and blowing through Pressure Transducer
- Auto parking / Obstacle Auto reversing / Infrared Ray Obstacle Sensor
- Centralized Waste Collection System
- In-house manufactured Energy Efficient Motor

Visit us at ITMA Milan
June 8-14, 2023
Hall : H1 E303

vsbala@eeh.saraelgi.com 9842272511

OHTC | BTS | FPS | MDS | YCS

PROCESS CONTROL INSTRUMENTS FOR SPINNERS

DRAW FRAME TOP ROLLER LOAD GAUGE - SUNRISE NILOMETER

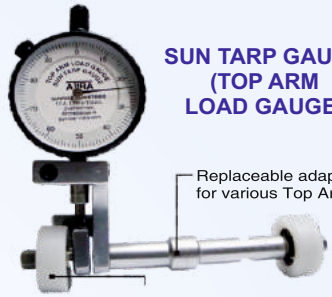
(For individual & independent end load measurment of top rollers)

(With 2 Dials & Planometer)

(For draw frame, comber, sliver lap, ribbon lap.)

It helps decrease Sliver CV%, Strength CV% and count CV% besides improving appearance. It is a must for better Uster Values.

SUN TARP GAUGE (TOP ARM LOAD GAUGE)



Replaceable varying sized rollers for specific roller cover size running in the mill

YARN SPLICE TESTER (PORTABLE)

ANALOG MODEL RANGE 500, 1000, 1500 & & 2000 GMS.

DIGITAL MODEL RANGE UP TO 2000 GMS. LEAST COUNT 1 GM.

DIGITAL YARN TENSION METER

RANGE UP TO 200 GMS, 500 GMS & 1000 GMS

DIGITAL MOISTURE METER

RANGE UP TO 50%
(For Cone, Loose Cotton, Bale)

PACKAGE HARDNESS TESTER

(For Cone, Warp Beams, Bobbin)

DIGITAL STROBOSCOPE

LED FLASH TYPE

(For Spindle RPM Measurement)

SUNRISE INDUSTRIES

12-A Chinai Estate, Dudheswar Road, Ahmedabad - 380 004. (INDIA), M: 98252 26318
E-mail : sunriseindustriesahmedabad@gmail.com / 9825226318j@gmail.com,
Website : http//www.sunriseindustries.co.in / www.sunriseindustries.net / www.homogenisers.in

Textile Trends

66TH YEARS OF PUBLICATION

INDIA'S WIDEST CIRCULATED MONTHLY ON TEXTILE & ALLIED INDUSTRIES

Single Copy : Rs. 60.00
Annual Subscription (Post Free) : Rs. 650.00
Overseas (Air Mail Post Free) : ST £ 75.00 / US $ 145.00
Bangladesh (Post Free) : US $ 60.00

Vol. LXVI
No. 01
APRIL 2023

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*

SUPER D1

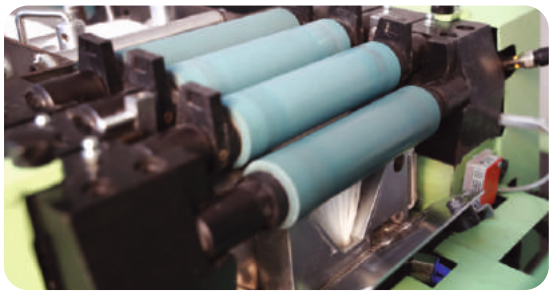
Auto Leveller Drawframe

A Simple Step Ahead...

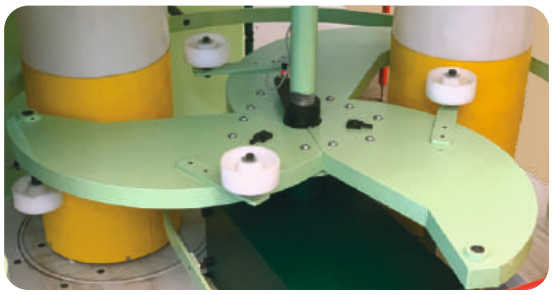
SUPER
Your Trusted Partner

- ***Maximum Delivery speed up to 1000Mts/min***
- ***Infeed scanning @ every 1mm.***
- ***Electronic Servo Draft Control***
- ***Drafting Arrangement 4 over 3***
- ***Automatic Top Arm Release during overlap***
- ***Intermittently Release of top cleaning stripper***

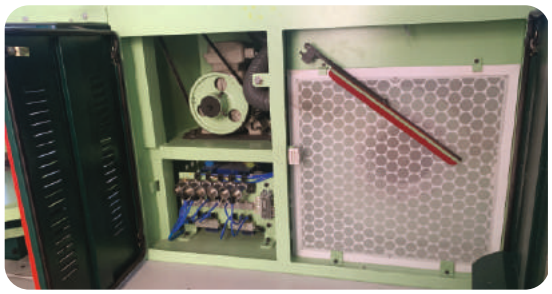
Innovative Auto Piecing D1 Trumpet



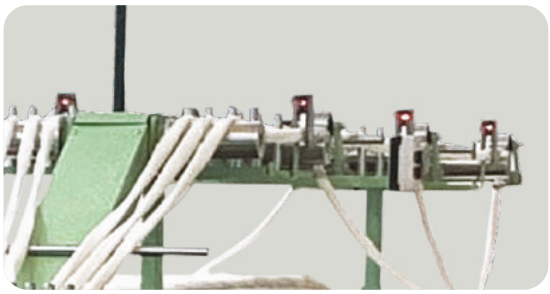
Specially Designed Automatic Can Changer



Suction Wiper Arrangement



Super Smart Sensor Creel



SUPER
Your Trusted Partner

Super Machine Works Private Limited.,

100, Athipalayam Road, Chinnavedampatti
Coimbatore - 641 049. Tamil Nadu, India

Phone : +91 422 2666786, 4274332
Mobile : +91 99429 09628, 99429 09627

E-mail : info@supergroupscbe.com, supergroupscbe@gmail.com
Spares : spares@supergroupscbe.com

Website : www.supergroupscbe.com

CONTENTS

Textile Trends
R NI No. 2815/58
APRIL 2023

OM CORPORATION

VISIT US AT

ITMA 2023

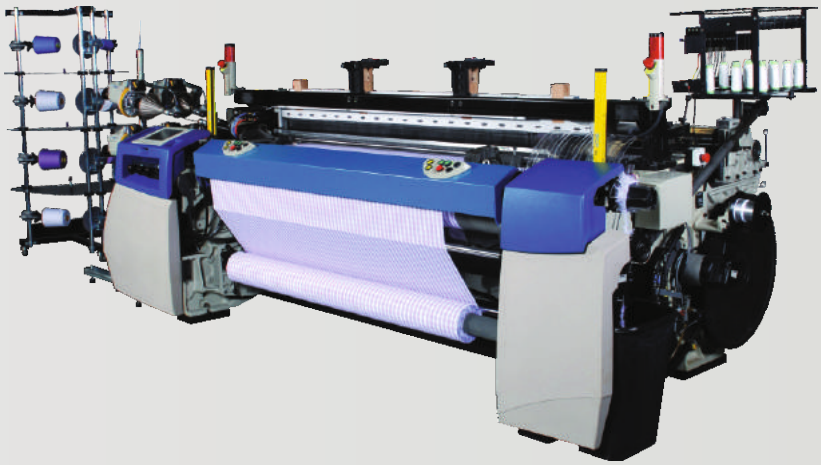
Hall: H6 Booth No: B213

08-14 June 2023

FIRRA MILANO RHO **MILAN, ITALY**

A Leading Air Jet Spares Supplier Company in INDIA

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



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

AIR JET & WATER JET MACHINE PARTS

CAM & DOBBY PARTS

RAPIER MACHINE PARTS

OM CORPORATION

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

Email: info@omcorporation.org / co.in | Web: www.omcorporation.org / co.in

EDITORIAL

Efforts needed to create awareness in our indigenous textiles

Many have a deep profound love for our handwoven textile that is hard to articulate. There is a pride, nostalgia, and also feeling of regret that such textiles, that were once common place and used as a functional clothe, are now museum pieces. Those who think handwoven is one process, this perception highlights the dizzying array of way in which they manipulate textiles in this country. There is embroidery, resist dyeing, printing, painting and applique, among others. The yarn itself ranges from local varieties such as Kala Cotton of Gujarat to Kandu Cotton of Karnataka.

When one person (From one family) puts together an exhibit such as 'SutrSantati' held in National museum Delhi, it seems to be wondered why is he doing it? Clearly, he loves textiles and collects them with relish. Clearly, he has the clout and the means to convince a wide network of people in the textile trade to take on commissions from him. By exhibiting he wants to show the world what is possible with Indian textiles.

Such process should be undertaken what can identify the various textile crafts and then work with people involved in it, in a way that they stay true to the craft but present it in a contemporary language. But a mandate can be incorporated in use of indigenous yarn and ecofriendly dyes. So sourcing is becoming a challenge because Kancheepuram, for instance, also gets yarn from China. A lot of innovation has gone into these works. There have been students working with the artisans and contemporary artists creating art using textile Crafts. One's love of textile comes from one's ancestors like grand parents who used to wear particular fabric like Khadi. He/She influenced by his/her – ancestors' aesthetic and style.

In India's' 75th years of independence, an exhibition on textile products will be a welcome addition to efforts all over the country to create awareness and pride towards our indigenous textile traditions, and we should honour the persons and organizations those are creating it. If we want the continuum of our textile heritage then making the next generation aware and involved is very important. Awareness will lead to appreciation and appreciation will lead to aspiration.

Big US banks announced a $30 bn rescue package

Eleven of the biggest banks in the US announced a $30 billion resuce package for First Republic Bank recently, in an effort to prevent the california based bank from becoming the third bank to fail in less than a week. JPMorgan Chase, Bank of America, Citigroup and Wells Fargo will contribute $5 billion of uninsured deposits each, while Goldman Sachs Group and Morgan Stanley will kick in $2.5 billion apiece, according to a statement. Other banks will deposit smaller amounts as part of a plan devised along with US regulators. Shares of First Republic Bank tumbled 26.03 per cent during trading hours on 17th March as the deposits injected failed to quell investor worries. ❐

Yellen : US banking system is sound but rescue arrangement may be necessary

Treasury Secretary Janet Yellen is trying to project calm after regional bank failures, saying the US banking system is "sound" but additional rescue arrangements" could be warranted" if any new failures at smaller institutions pose a risk to financial stability. Yellen, who made her remarks at the American Bankers Association recently, says that overall "the situation is stabilizing". "And the US banking system remains sound," she said. Yellen's remarks come after a series of troubling bank developments. Silicon Valley Bank, based in Santa Clara, California, failed on March 10 after depositors rushed to whithdraw money amid anxiety over the bank's health. It was the seconnd-largest bank collapse in US history. Regulators convened over the following weekend and announced that New York-based Signature Bank also had failed. They said that all depositors at both banks, including those holding uninsured funds, those exceeding $250,000, would be protected by federal deposit insurance. And in 2nd week of March a third bank, San Francisco-based First Republic Bank, was fortified by $30 billion in funds raised by 11 of the biggest US banks in an attempt to prevent it from collapsing. The government is now determined to restore public confidence in the banking system and to prevent any more turmoil. The justice Department and the Securities and Exchange Commission have launched investigations into the Silicon Valley Bank collapse, and President Joe Biden has called on Congress to strengthen rules on regional banks and to impose tougher penalties on executives of failed banks. Yellen, in her prepared remarks, says the government's intervention was necessary to "protect the broader banking system" and more rescue efforts could be necessary, "Similar actions could be warranted if smaller institutions suffer deposit runs that pose the risk of contagion," she says. "Let me be clear : The government's recent actions have demonstrated our resolute commitment to take the necessary steps to ensure that depositors' savings and the banking system remain safe," she said. While details are still being released on the banks' failures, Democratic lawmakers and some economists say a 2018 rollback of portions of a far-reaching 2010 law intended to prevent a future financial crisis were a primary cause of the institutional failures. Ahead of Yellen's speech, Scott Anderson, president and chief executive officer of Zions Bank said he doesn't think the 2018 rollback is related to the bank failures. ❐

China's faster factory growth ahead ; growth returns to Euro zone

China's factory sector grew in February at the fastest pace in more than a decade, a standout in Asia where manufacturing growth stalled elsewhere, while in the euro zone output expanded for the first time since May, surveys showed recently. Slowing global demand coupled with high inflation and interest rates have hit manufacturers, but stronger signs that Chinese factories are rebounding after the removal of strict Covid-19 crubs could, as supply chains also recover, temper an expected downturn in the global economy. China's official manufacturing purchasing managers' index (PMI) climbed to 52.6 in February against 50.1 in January while a private sector survey also showed activity rising for the first time in seven months. "China's PMIs beat market expectations across the board, propelled by the reopening after dropping Covid restrictions and the resumption of activity after the lunar new year holiday," said Duncan Wrigley at Pantheon Macroeconomics. "This is an encouraging set of data, but still is only one month, and challenges remain." Policymakers hope

China's reopening from Covid curbs late last year, and resilience so far in US and European economies, will underpin global growth this year. In the euro zone, S&P Global's headline factory PMI slipped to 48.5 from 48.8 but the output index seen as a good gauge of overall economic health climed to 50.1 from 48.9. "The brighter production picture first and foremost reflects a broadbased improvement in supply chains, with deliveries of inputs into factories quickening on average to a degree not seen since 2009," said Chris Williamson, chief business economist at S&P Global. It was a similar situation in Germany Europe's largest economy, where the PMI was below 50 but the output gauge was in positive territory for the first time in nine months. However in France, the curency union's second biggest economy, activity declined, after stabilising in February due in part to worsening export demand. Inflation remains high in Europe and while central banks are reaching the end of their tightening cycles, prices rose faster than expected in France and Spain in February, pushing up European Central Bank rate expectations and challenging the view a rapid easing in price growth was under way. Inflation also edged up in some German regions. Outside the European Union, British manufacturing activity contracted in February at the slowest pace since July and factories were more optimistic as the threat of a deep recession eases. India and Australia saw economic growth slow in the quarter to December, and South Korea's exports fell in February for a fifth straight month, highlighting the pain slowing global demand was inflicting on the region's manufacturers. The region's weaker data underscores the challenge Asian policy makers face in reining in inflation with higher interest rates, without choking off their economic recoveries already facing pressure from the global economic slowdown. ❐

UK economy turns around after swerving recession

Britain's economy rebounded in January, official data showed recently, after it narrowly avoided recession in the fourth quarter despite soaring inflation. Gross domestic product grew 0.3%, the Office for National Statistics (ONS) said in a statement, as the services sector offset a poor performance by construction and manufacturing. GDP had dropped 0.5% in December amid widespread strikes as many workers protested over pay that has failed to keep pace with runaway inflation. "The economy partially bounced back from the large fall seen in December," said ONS director of economic statistics Darren Morgan. "The main drivers of January's growth were the return of children to classrooms, following unusually high absences in the run-up to Christimas, the Premier League (football) clubs returned to a full schedule after the end of the World Cup and private health providers also had a strong month. "Postal services also partially recovered from the effects of December's strikes." Britain dodged recession last year, but is forecast to contract throughout this year according to the Bank of England. Output has been dogged by decades-high UK inflation, despite a recent easing, and hit also by rising BoE interest rates. The economy had registered zero growth in the final three months of last year, after shrinking 0.3% in the prior three months. That avoided a technical recession, which is defined as two straight quarters of economic contraction. The ONS warned however recently that the economy registered flat growth in the three months to January. And GDP was also flat in January compared with the same month a year earlier. ❐

Ukraine needs $411bn for rebuilding its economy

Rebuilding Ukraine's Economy after Russia's invasion more than a year ago is now expected to cost $411 billion, 2.6 times Ukraine's expected 2022 gross domestic product, a new study by the World Bank, United Nations, European Commission and Ukraine found. The estimate released recently covers the period spanning one year from Russia's invasion on February 24, 2022 and quantifies the direct physical damage to infrastructure and buildings, the impact on people's lives and livelihoods and the cost to "build back better", the World Bank said. The amount is up sharply from an estimate of $349 billion released last September. According to the rapid needs assessment, Ukraine will need $14 billion for critical and priority reconstruction and recovery investments in 2023, which will require $11 bilion in financing beyond that addressed in Ukraine's 2023 budget. ■

India-EU free trade agreement will be a game changer : Jaishankar

The free trade agreement (FTA) that is under discussion between India and the European Union (EU) is a "very important goal", External Affairs Minister S. Jaishankar said recently. Speaking at the Inaugural Session of the CII India Europe Business and Sustainability Conclave, Mr. Jaishankar showcased India's "fast-track" approach to negotiations for FTAs and said a trade pact between the two sides would be a "game changer". "With like-minded partners, we have actually demonstrated in recent years a fast-track change in our FTA negotiation processes. FTAs with the UAE and Australia were actually concluded in a record time," Mr. Jaishankar said, high lighting the trade pacts with Australia and the United Arab Emirates that were concluded last year. India has been engaging several partner countries in negotiations regarding FTAs as part of its post COVID-19 global recovery strategy. The Comprehensive Economic Partnership Agreement with the UAE and the Economic Cooperation and Trade Agreement with Australia are two successful examples in that direction. Negotiations on the India-EU FTA received a boost during the February 25-26 visit by German Chancellor Olaf Scholz who promised to "personally push" for the trade pact. "Our bilateral trade was in excess of US$ 15 billion in FY 2021-22 which is the highest ever. With the U.K. and other non-EU countries added. I believe that the number is even greater. We expect the India-EU FTA will be a game changer for the India-EU relationship," Mr. Jaishankar said. He said India and the EU both believed in a "multipolar global order" and shared commitment to" effective multilateralism."❐

India can reach $350-bn exports via e-comm by 2030 : Report

India should Target $350 billion worth of goods export through e-commerce by 2030 and for that the government needs to address pain points of the sector by taking steps like formulating a separate policy, a report by economic think tank GTRI said. The Global Trade Research Initiative (GTRI) said the current e-commerce export provisions in India are a patchwork over the rules framed for regular B2B (business-to-business) exporters. India's e-commerce exports have the potential to grow at a faster pace that its IT exports did in the early 2000s, it said. With Global business-to-consumer (B2C) e-commerce exports estimated to grow from $800 billion to $8 trillion by 2030, India's strengths in high-demand customised products, expanding seller base, and higher profit margings per unit of export place it in a prime position to benefit from this trend. GTRI has identified 21 action points for accelerating the country's exports through online medium. India's current e-commerce export numbrs remain far below their potential. Currently, e-commerce exports account for only $2 billion, less than 0.5% of the country's total goods export basket. "The country must plan to export $350 billion, or about one-third of its total goods, through e-commerce by 2030. This will require focus on developing the ecosystem for e-commerce exports to fully realize its potential," the report said. It added that the current export provisions for the medium creates an enormous compliance burden on small firms. To address such needs, the report recommends that the government issue a separate e-commerce export policy. Such policies in countries including China, Korea, Japan, and Vietnam, have helped many firms sell globally. As the needs of the e-commerce export sector are vastly different from the regular export sector, the e-commerce export policy should be an independent document addressing all pain points faced by exporters. It added that this policy should be jointly issued by the RBI, customs, and the directorate general of foreign trade (DGFT) after making necessary changes to their regulations. It should include provisions for busines development, easing regulatory burden, and setting up a national trade net work. The GTRI suggestions include redefining responsibilities of sellers ; simplifying payment reconciliation and processes; developing business ecosystem ; and setting up of a National Trade Network for the medium. Small and medium sized firms rely on online platforms for global exposure and value added services, such as timely payment assurance. However, it said that this conflicts with FEMA (Foreign Exchange Management Act) regulations as the platform is responsible for receiving payment, while the ownership of goods remains with the seller. Compliance procedures can be challenging for small sellers

due to high sales volume. The report added that payment reconciliation is a major roadblock for third party e-commerce exporters. ❐

It will be difficult for India to become $5-trn economy a year before IMF projection of FY27

It would be a difficult task for the Indian economy to reach the $5-trillion mark a year before the International Monetary Fund (IMF) projection of 2026-27. Pankaj Chaudhary, minister of state for finance said in the Rajya Sabha recently that the government is taking steps to make the country a $5-trillion economy at a date earlier than the IMF's projection. In that context, it would not be difficult to meet the projection in the third quarter of FY27. To meet the IMF's projection, the economy would have to grow 11.33 per cent compounded annually at current prices from 2025-26 onwards. If the target is to be advanced by a year, the compounded annual growth rate (CAGR) for nominal GDP would be 17.46 per cent for 2025-26 and 2026-27. It should be noted that the IMF projected India's economy to be worth $5.10 trillion in 2026-27. This means it would be very close to $5 trillion in the third quarter of that year itself. India's economy is officially projected to reach ₹272 trillion, or $3.58 trillion, in the current financial year, going by the second advance estimates. Here, the exchange rate against the dollar is taken as ₹75.96, as was assumed by the IMF. For the next financial year, the economic survey has projected the economy to grow by 6.5 per cent at constant prices under the baseline scenario. If one adds the RBI's projection of 5.3 per cent inflation rate to it, we will get a nominal GDP growth rate of 11.8 per cent. This will take India's economy to ₹304 trillion ($3.91 trillion). Here too the exchange rate is taken as ₹77.71, as the IMF assumed. While 17.46 per cent nominal GDP growth may not look difficult, given 18.4 per cent in 2021-22 and projected 15.9 per cent in 2022-23 it should be noted that the first year was on the very low base of contraction of the economy in Covid-hit 2020-21 and the first quarter of the current financial year also had a very low base of the second Covid wave in April-June of 2021-22. If these two exceptional years are taken out. India's economy grew by a maximum 13.8 per cent in 2012-13 when the new GDP series started. "In the current circumstances we are likely to grow at a nominal rate between 11 and 11.5 per cent, comprising real growth of 6-6.5 per cent and inflation at about five per cent," said Anil K Sood, professor and co-founder of the Institute for Advanced Studies in Complex Choices. He said real economic growth can be accelerated without impacting inflation, if the economy invests in growing real wages and earnings through increase in people and capital productivity and value creation. Madan Sabnavis, chief economist at Bank of Baroda, said it will be hard to achieve a CAGR of 17.5 per cent for FY25 and FY26 to reach the $5-trillion mark earlier. "This is so because we are talking of controlling inflation more to the region of 5 per cent per annum at a conservative level... Therefore, we need to be patient and wait for another year before reaching the 5 trillion mark. We should make sure that we keep the policy framework updated with incentives to industry to hasten the pace," he said. ICRA chief economist Aditi Nayar said Indian exports enhancing their market share and a rapid roll out of the government capex could help expedite the timeline of becoming a $five trillion economy. Pawar said, "Our export businesses must invest to become competitive with China and Vietnam in manufacturing and reduce reliance on export of near-commodity products." He said the government incentive must be aligned with growth in productivity and value-creation and not production value. "The current PLI (Production-linked Incentive scheme) encourages lazy manufacturing. At the same time, we must invest to automate production of services as reshoring is likely to gather momentum in advanced economies given their compulsion to grow local employment and earnings," he said. Minister Chaudhary said some important government measures to boost economic growth include the national infrastructure pipeline of projects, push for capital expenditure, implementation of the PLI scheme, finalisation of the National Monetization Pipeline of public sector assets and formulation of National Logistics policy. The Union Budget 2023-24 "further sustains the growth momentum with an increase in capital investment outlay for the third year in a row by 33 per cent to ₹10 trillion (3.3 per cent of GDP)", said Chaudhary. ■

Cotton arrivals increase to a 3-year high

Cotton arrivals in India have begun to increase to a three-yar high across agricultural produce marketing committee (APMC) yards in the growing regions in March. This is in view of the natural fibre prices stabilising between ₹60,000 and ₹62,000 a candy (356 kg) and the quality of the arrivals being good, said traders and industry leaders.

Increasing arrivals have left the market confused over the exact production of cotton this season (October 2022-September 2023). According to data from Agmarknet, a unit of the Agriculture Ministry, cotton arrivals between March 1 and 18 are at a three-year high at 2.43 lakh tonnes (lt).

"We are witnessing a steady increase in arrivals across all markets," said Prabhu Dhamodharan, Convenor, Indian Texpreneurs Federation (ITF).

"Arrivals are good and their quality is excellent. We are facing a peculiar situation this season as farmers held back their produce and now seem to be ready to sell," said Ramanuj Das Boob, a sourcing agent for multinationals from Raichur, Karnataka.

"Arrivals have shown improvement over the last 15 days. However, all-India arrivals (October-March 20) are 30 per cent less compared with the last season due to the holding of stocks by the farmers," said Sanjay Gupta, MD and CEO, NCML. "Arrivals have increased as prices have stabilised in the region of ₹60,000 a candy. But for rains, arrivals are between 1.6 lakh bales (170 kg each) and 1.8 lakh bales," said Anand Popat, a Rajkot-based trader.

Agmarknet data showed that cotton arrivals pikced up recently at 77,498 tonnes compared with 49,573 tonnes a year ago and 30,334 tonnes in 2022.

In its second advance estimate, the Centre lowered its crop forecast to 337.23 lakh bales (311.18 lakh bales last season).

Currently, prices of Shankar-6 grade cotton are ruling at ₹61,750 a candy in Gujarat. *Kapas* (raw cotton) are quoting at ₹7,900 a quintal. On MCX, cotton for delivery in April closed at ₹61,160 a candy.

"Over the last few weeks, cotton prices have stabilised. We expect this to continue at least till April 10," said Das Boob.

"Demand has stagnated due to global macroeconomic factors such as rising interest rates, an unstable financial environment and fears of recession," said Gupta.

"Spinning mills have begun building inventories, though slowly since prices have stabilised. But lower yarn demand is almost impacting their purchases," said Popat. "Mills are still not confident about going for higher inventories due to the muted global demand signals for textile and apparel products. We are seeing only pockets of recoveries from a few countries due to their exhaustion of inventories," said Dhamodharan. ■

Centre makes longer jute packaging norms, prices may be stabilised

The Cabinet Committee for Economic Affairs (CCEA) recently extended the mandatory packaging norms for jute for the current jute season (July 2022-June 2023). This provides for compulsory packaging of 100 per cent of foodgrains and 20 per cent packaging of sugar in jute bags.

The Centre's decision to extend the norms is likely to augur well for the industry, particularly in a year when production of raw jute is higher. According to industry insiders, the extension is likely to help ensure good demand and stabilise prices.

The total jute market is estimated to be around ₹10,000-12000 crore and government purchases for sacking or packaging food grains account for ₹7,000-8,000 crore.

"We have not yet received official communication. But we have heard about the extension, and it is a welcome move. There is ample raw jute in the system, so no ad-hoc dilution will be required.

"Had there been dilution, then mills would have had to cut back on production, leading to a price drop. The move will help keep prices stable," Raghav Gupta, Chairman, Indian Jute Mills Association, told reporters.

This season, raw jute production has been robust and this has resulted in prices dropping. They are now ruling at ₹5,800-6,000 a quintal compared with ₹6,800-7,000 the same period a year ago. Production of raw jute is estimated to be 95 lakh bales (of 180 kg) in 2022-23, up by around six to seven per cent compared with 90 lakh bales in 2021-22. The carryover stock is estimated to be 19 lakh bales compared with around five lakh bales last year. Hence, raw jute's total availability is estimated to be 114 lakh bales compared with 95 lakh bales a year ago.

"The crop is good and the supply commitment is also good, so we should be able to supply whatever the government wants," said Sanjay Kajaria, a jute mill owner in West Bengal. ■

Certifying organic textiles : CU India to submit document soon to make suspension revoked

Control Union (CU) India has said it faces "temporary suspension" till June 7 to develop a corrective action after IOAS (International Organic Accreditation Service) disallowed it from testing and sampling Indian organic textile products on charges of irregularities committed in its certification process.

CU India Managing Director Kris Van den Keybus, in a communication to its clients, said the certification body was trying to clear its name by providing all the documents required to IOAS within a week. It expects its documents to be reviewed on a priority "keeping the urgency of the matter and giving natural justice with law of parity".

CU India said the IOAS appeals committee rejected its appeal on March 3 and suspended its certification process with conditions.

The global organic certification body has permitted CU India to continue inspections according to its annual inspection plan, so that certified operators can maintain their existing certifications.

Keybus said CU India received a letter from IOAS on December 8, 2022, suspending its accreditation for six months. But the organisation disputed the decision. It registered and submitted an appeal against the two reasons provided for its suspension. IOAS said CU India had failed to evaluate all requirements and information for certification decisions applicable to scope certificates, which certify that organic food products conform to stipulated standards, and transaction certificates, which verify that a product sold or shipped conforms to stipulated standards.

It said CU India failed to manage non-conformities and ensure they did not recur.

During the period of suspension, CU India will not accept any new application or issue any certificate for GOTS (General Organic Textile Standards) or TE (Textile Exchange) that were in process as of March 3, 2023.

It will not extend scope certification to existing operators to add any new products, processes or units. It will not issue any transaction certificate either during its suspension, CI India said. ■

Apparel soon to be made of non-oil based natural thread

Soon, the thread used to stitch apparels or footwear could be made by using natural fibre from bamboo shoots, algae, starch, banana skin or even spider cells.

UK-based Coats, the world's leading manufacturer of thread and structural components for apparel and footwear, is transitioning from oil-based to non-oil based materials.

Historically, 95 per cent of the raw materials and dyes and chemicals used in manufacturing are oil-based, said Rajiv Sharma, Group Chief Executive of the $1.6-billion company.

Coats' India Sustainability Hub — a first of its kind in the country — launched recently in Madurai will play a key role in the material transition, he said.

At Coats, by 2030, everything that goes into making the threads may come from recycled/ renewable and new generation materials such as wood pulp, corn, bamboo shoots and banana skin, he said. "We will try out vegan dyes and chemicals. We are working with multiple global suppliers on how we can consume less chemicals in our own process as less chemicals means less water use," he said.

The hub will generate 75 kg of samples every day to make threads of different materials with strength and size. The samples will be first tested at Coats itself. Later, they will be sent to customers to be used in their production line, and once approved, they will move from sampling to bulk production, he added.

The industry consumes a lot of water, electricity and chemicals. It is also labour-intensive. For instance, nearly 150 litres of water are used to make 1 kg of thread. "We make enough thread to go to the moon and come back every three hours," he said. A pair fo jeans requires nearly 700 litres of water, he says. Technological advancements will enable the industry to produce the same jeans with less than half the water.

Coats, in the last four years, has reduced water consumption by 40 per cent. "Let's invest in new technology where we would not need water at all. We are working with universities in the US, Germany, Japan and India to get the best brains to help us and the industry. There are also commercial benefits as the brands want it, and it becomes a point of differentiation for us," he said. ■

Centre to set up textile parks in Maharashtra, U.P. among 7 states

The Centre has selected sites in Tamil Nadu, Telangana, Karnataka, Gujarat, Maharashtra, Madhya Pradesh and Uttar Pradesh to set up new textile parks, a year and a half after the PM Mega Integrated Textile Regions and Apparel (PM MITRA) scheme was announced.

Listing the seven selected States in a tweet recently, Prime Minister Narendra Modi said the parks would "provide state-of-the-art infrastructure for the textiles sector, attract investment of crores and create lakhs of jobs".

The scheme was announced in October 2021, and the parks will be set up by 2026-27. The total outlay for the project is ₹4,445 crore, though the initial allocation in the 2023-24 Budget is only ₹200 crore.

"PM MITRA mega textile parks will boost the textiles sector in line with 5F (Farm to Fibre to Factory to Fashion to Foreign) vision," Mr. Modi tweeted, adding that the scheme would be a great example of the government's policy of 'Make in India' and 'Make for the World'.

The Centre envisages an investment of nearly ₹70,000 crore into the parks, with employment generation for about 20 lakh people, Textiles Minister Piyush Goyal said.

The parks will function as centres of opportunity to create an integrated textiles value chain — from spinning, weaving, processing, dyeing and printing to garment manufacturing — all at one location. "The textile industry has been unorganised. This increased wastage and logistical costs impact the competitiveness of country's textile sector. The cluster-based approach, a vision of the Prime Minsiter, will solve several problems of the sector," Mr. Goyal said. Environmental clearances would also be eased under the scheme, he said.

Textiles Secretary Rachna Shah said the Ministry had selected the locations in a transparent manner, having considered 18 proposals from 13 States.

Mr. Goyal hoped that the proposed world-class industrial infrastructure would attract cutting edge technology and boost foreign direct investment and local investment in the sector. The Textiles Ministry will oversee the execution of projects in the PM MITRA parks, according to an official statement.

"An SPV [Special Purpose Vehicle] owned by Centre and State Government will be set up for each park which will oversee the implementation of the project. The Ministry of Textiles will provide financial support in the form of Development Capital Support upto ₹500 crore per park to the Park SPV," the Ministry said.

A Competitive Incentive Support (CIS) upto ₹300 crore per park to the units in PM MITRA Park shall also be provided to incentivise speedy implementation. Convergence with other Government of India schemes shall also be facilitated in order to ensure additional incentives to the Master Developer and investor units," added the statement.

Mr. Goyal said that State governments have offered to provide at least 1,000 acres of land for free for the parks and will also facilitate provision of all utilities such as power and water. He said that ₹200 crore has been allotted as an initial investment.

"PM MITRA Parks represent a unique model where the Centre and State Governments will work together to increase investment, promote innovation, create job opportunities and ultimately make India a global hub for textile manufacturing and exports," the Ministry added. ■

FTP extends export promotion scheme to add PM MITRA

The new Foreign Trade Policy (FTP) has added the Prime Minister Mega Integrated Textile Region and Apparel Parks (PM MITRA) scheme as an additional scheme eligible for benefits as Common Service Providers (CSP) under the Export Promotion Capital Goods Scheme (EPCG).

Director General of Foreign Trade Santosh Kumar Sarangi said recently that between 2015 and 2020, the government introduced a special Advance Authorisation Scheme for export of articles of apparel and clothing accessories. Under the scheme, it allowed dutyfree import of input fabric, including inter-lining for shipping articles of apparel and clothing accessories. Under the new FTP, this scheme will continue to cover the apparel and clothing sector in order to facilitate the prompt execution of export orders. Exporters will now also be allowed to self-declare.

Four more towns of export excellence are added to the list of 39 towns. These are Faridabad for apparel, Moradabad for handicrafts, Mirzapur for handmade carpets and dari, and Varanasi for handloom and handicrafts. The aim is to give a thrust to cluster-based economic development. These towns get global recognition and brand credibility; financial assistance for marketing under the Market Access Initiative Scheme; visit to capacity building and technological services; and common service provider facility under EPCG scheme that helps increase competitiveness of entire cluster by enabling common use of capital goods for exports.

Naren Goenka, chairman Apparel Export Promotion Council, said the special Advance Authorisation Scheme's extension for apparel will enable more exporters to use it. ■

3 'completed' textile parks found shut-down, finds CAG report

At least three textile parks in Surat (Gujarat), Pochampally (Telangana), and Latur (Maharashtra) that were classified as successfully completed and shown as functional in the textiles ministry's records were found to have been shut down during a compliance audit of the integrated textile parks conducted by the Comptroller and Auditor General (CAG).

In the audit report, which was tabled in the Parliament recently, the CAG said the ministry considered the parks "completed" solely on the basis of the recommendations of the project management consultant (PMC) without physical verification by its own officials.

The CAG recommended that the ministry take punitive action against the PMCs and special purpose vehicles for providing false information.

Out of the 10 completed parks sampled, the audit found that the ministry treated five parks as "completed" without ensuring the creation of common infrastructure and facilities that were initially planned in their detailed project reports.

The ministry released grants (ranging from 60-79 per cent of the total grant) for three sampled parks based on recommendations of the PMCs without ensuring availability of statutory clearances before commencement of the parks.

"The sanction of grants amounting to ₹79.61 crore to the three sampled parks was not fruitful so far as the parks were still incomplete due to non-availability of statutory clearances," it said.

The CAG recommended that the ministry consider making the availability of land and statutory clearances required for setting up of textile parks a pre-condition for sanction or release of grants.

The Centre introduced the Scheme for Integrated Textile Parks (SITP) in 2005 with the objective of establishing world-class infrastructure to set up textile units, which would, in turn, generate employment opportunities and increase investments. The ministry sanctioned 98 parks under the scheme till June 2016 and no additional parks were sanctioned. The Centre has released grants worth ₹1,592.52 crore to these parks. As per the data submitted by the ministry to the CAG, out of the 98 sanctioned parks, 26 were marked as completed, while 30 were considered ongoing and 42 cancelled.

An amount of ₹77.34 crore remained unrecovered from 10 cancelled parks apart from penal interest of ₹117.72 crore.

"The cancellation of a large number of parks and inordinate delays in completion of the parks defeated the purpose of the scheme to that extent," the CAG observed.

The CAG audit found that there was a huge shortfall in achieving targets by the textile parks sanctioned under the scheme. Only 30 per cent of the employment and 50 per cent of investment targets were achieved 16 years after the inception of the scheme.

The auditor also highlighted the ministry's failure in continuing the monitoring of the Doddaballapur Integrated Textile Park in Karnataka, which was found to be running non-textile activities in the park, "thereby defeating the very objective of the scheme". ■

Samarth scheme : Govt asks for proposal to impart training in textile

To speed up enrolment in skilling programmes in the textile sector under the government's flagship skilling scheme 'Samarth', the Textiles Ministry has invited proposals for empanelment of partners to implement training programmes, including various associations.

"Around 1.5 lakh persons have been trained under the Samarth scheme (launchedin 2020) so far, of which 86 per cent are women. More than 70 per cent placement has taken place in the organised sector," Textiles Secretary Rachna Shah said at a media briefing recently. The Textile Ministry is aiming to skill around 2 lakh workers this year and the empanelment of more partners for implementation of training is expected to help meet the target.

The portal for submission of application is open till March 14 and the details can be accessed online.

The Secretary pointed out that the government had set an ambitious target of $100 billion in exports and $250 billion in domestic market by 2030 and skilled manpower would help in reaching the goal.

Samarth is a demand driven and placement-oriented umbrella skilling programme of the Ministry of Textiles and the implementation period of the scheme is up to March 2024. The schemeaims to incentivise and supplement the efforts of the indusry in creating jobs in the organised textile and related sectors, covering the entire value chain of textiles, excluding spinning and weaving. The training programme and course curculum have been rationalised keeping in view the technological and market demand of the domestic and international economies," according to an official statement.

In addition to the entry level skilling, a special provision for upskilling/re-skilling programme has also been operationalised under the scheme to improve productivity of the existing workers in apparel & garmenting segments. Samarth also caters to the upskilling/re-skilling requirement of traditional textile sector such as handloom, handicraft, silk and jute. ■

Organic textile players ask for suspension of certification woes

With concerns looming over the IOAS (International Organic Accreditation Service) order suspending Control Union (CU) India from testing and sampling Indian organic textile products, experts and some industry players are batting for a government-regulated certification process in organic textiles, similar to that of organic cotton.

On March 3, IOAS, an independent third-party accreditation body, suspended the accreditation of Control Union (India) from Global Organic Textile Standard (GOTS) certification, after it failed to comply with the applicable requirements specified by GOTS.

The suspension is expected to affected the entire value chain in the organic cotton segment as CU India handles 75 per cent of the volume in organic textiles. This suspension has also led to a situation among spinning mills, in which they have been forced to sell yarn certified by CU India before March 3, without a transaction certificate.

"In organic cotton, the Agricultural and Processed Food Products Export Development Authority (Apeda) works as a monitoring agency. However, for ginning, spinning and yarning, no government agency is involved and the certification is done by GOTS and other private labels. Hence, the industry needs government monitoring or certification in the entire value chain of organic cotton," said S Chandrasekaran, trade policy analyst.

According to sources, the government is also looking at revamping the certification systems in the organic cotton sector, on which some 500,000-600,000 farmers are dependent. The other demands by the industry include notifying organic textile standards and implementation of an organic aadhaar for farmers, among others.

Following the demands from spinning mills, they were given an assurance by the agencies that all certificates issued prior to March 3 would be valid. However, the woes of spinning mills continue.

"The issue is when we manufacture yarn based on cotton certified by the Control Union, which will certify our transaction. That is the problem we are facing. We have started selling the yarn with a disclaimer that this yarn is made of cotton certified by CU India," said K Venkatachalam, chief advisor, Tamil Nadu Spinning Mills Association (TASMA).

IOAS has given CU India the opportunity to develop a corrective action plan by the end of the temporary suspension on June 7.

"CU India is following the procedure to provide all required documentation to fulfil the expectations of IOAS. The expectation is for the documents to be reviewed with priority, keeping the urgency of the matter and giving natural justice with law of parity to CU India for their good work over the last two decades. Once CU India hears success to regain the full accreditation process, clients will be notified for further actions to revive all your certification needs," CU India said in a statement.

On the other hand, GOTS said that other than CU India, there are currently eight other approved certification bodies operating in India, through whom market demand can be met. "The approach of IOAS is fundamental to the holistic implementation of GOTS and ensures all measures are taken to prevent non-conformities at every level. Until then, CU India is prohibited from accepting new applications, no certificates may be issued to new applications, and scope additions may not be issued to existing operators," a GOTs statement said. ■

Farmers resist land acquisition for Kitex garment plant in Telangana

Farmers of Shayampet Haveli in Geesugonda mandal of Warangal district in Telangana are resisting acquisition of their agricultural lands for the expansion of children's garmentsmanufacturing unit of Kitex, the apparel major from Kerala.

The Kitex project was one of the two units which commenced work on the 1,200 acres allotted by the State government for the Kakatiya Mega Textile Park spread overGeesugonda and Sangem mandals.

Kitex was allotted 187 acres, but the company requested the government to sanction another 13.29 acres to realign its compound wall to make it *Vastu* compliant. Otherwise, the alignment of the wall criss-crossed *patta* lands of farmers in its present form.

In response to the request of the company, a team of Revenue officials tried to surveythe lands on 4th March but they met stiff resistance from farmers who were aggrieved that the government did not concede the agreement already entered into with them five years ago when their holdings were sought to be acquired for the park.

Yet, the government served notices on them to give up 13.29 acres required by the company but the Revenue team had to return without surveying the land. ■

AN ERGONOMIC SURVEY OF OCCUPATIONAL HEALTH HAZARDS PREVALENT IN HANDLOOM CLUSTER OF VARANASI

Dr. Sunita Dixit, Assistant Professor, Vasant Kanya Mahavidyalaya, Kamachha, Varanasi-221010
(Affiliated to Banaras Hindu University)

Abstract

The handloom industry is perhaps the most established in Varanasi where a significant number of individuals are occupied in handloom weaving. Long hours of static work with awkward posture at traditionally designed looms can lead high prevalence of musculoskeletal problems. A healthy economy, high quality of products, and long-term productivity are difficult to achieve in poor working conditions where workers are exposed to health and safety hazards. Keeping in view these facts the present research was planned and the survey was conducted to select four handloom weavers' clusters. This study was aimed at evaluating the different health problems, socio-economic conditions of the handloom weavers, and environmental factors i.e. noise, temperature, humidity in handloom clusters. The survey was conducted in different handloom clusters of Varanasi. The four selected areas after the survey were selected and Fifty (50) weavers from each cluster were randomly taken for the study. Thus the total sample size was 200. An ergonomic questionnaire was formulated and administered to the selected handloom weavers. It consists of a series of questions with several preferred responses and was administered to assess their socioeconomic status, health problems, and working conditions. It was observed that all types of weavers belong to low socio-economic conditions and suffered from health problems like pain in body parts (neck, shoulder, elbow, wrist, upper back, lower back, hips, knees, ankle, etc), poor vision, hearing problems, respiratory problem, allergy, eye irritation, etc.

Keywords : Ergonomics, Handloom weavers, Health problems, Socio-economic conditions Muscu-loskeletal problems, Environmental factors

I. INTRODUCTION

The handloom industry is perhaps the most established in Varanasi where a significant number of individuals are occupied in handloom weaving. Varanasi has rich customs, beliefs, and heritage of handloom industry & fine workmanship of hand-woven textiles. Throughout the weaving process, weavers adopt awkward postures, which is a crucial component of their poor working efficiency and skill effectiveness as well as the emergence and development of musculoskeletal disorders. Extended duration of static work with awkward posture at old traditionally designed looms can lead to elevated existence of musculoskeletal problems. A flourishing economy, premier quality of products, and long-term productivity are strenuous to attain in poor working conditions where weavers are vulnerable to health and safety hazards. Ergonomics aims to make sure that tasks, equipment, documentation, information, and the en-vironment suit each worker. It is absolutely a significant interdisciplinary field that assists the weaver to attain higher productivity due to less fatigue, a safer working environment (fewer mishappenings), lesser absenteeism, and reduced labor turnover. The ergonomic intervention comprises the human-machine interface, environmental surroundings, hardware, and work posture. Some of the factors that influence ergonomic attentiveness are Climate (Temperature, Humidity, and Airflow – Ventilation); Noise, Illumination, Vibration, and Radiation; besides Work Time/Shift, Work Overload, Ageing, Material Handling, Stress or Strain, and Load.

In the present era of advancement and commercialization, the handloom sector is also indicating the changes that a large number of women are adopting the weaving activity as their profession. The activity they performed previously during their spare time, has now been transformed into eight hours job. But, despite the increased weaving time spent on the weaving loom, the workstation design remains unaltered. [3]. In traditional old looms, normally there is no workstation adjustability and adjustment of weaving height is difficult that causes the awkward postures of the upper body. Inappropriately designed hand tools and the kind of task are the chief causes of awkward postures of wrists and fingers [9]. The handloom sector is aimed to generate and provide direct and indirect employment to over 4.3 million people all over India [4].

An amended Nordic Musculoskeletal Disorder Questionnaire and Oswestry Low Back Pain Disability Questionnaire along with a body part discomfort scale were administered to handloom weavers of Bengal. The working posture of the

respondents was evaluated by using the Ovako Working Posture Analysis System (OWAS). The study outlines the need for further research about the postural strain of weavers and also suggests the implementation of the ergonomic design into weaver workstations to minimize the adverse effect of their current working postures. By improving the weaver's work-posture would improve their quality of life. Handloom is one of the long-established cottage industries in India, especially in West Bengal, where a significant number of rural people are engaged in weaving. The outcome of the present investigation revealed that highly repetitive works carried out for a long time could increase the intensity of the pain felt and would lead to repetitive strain injuries.[1, 2].

The social and physical well-being of the weavers has not been much considered a priority in government policy. Musculoskeletal disorders (MSDs) are typically common to almost all the occupations and segments related to weaving, which leads to serious physical and economic aftermath for weavers, and their dependents. The Finnish Institute of Occupational Health (FIOH) identified musculoskeletal disorders as one of the most widespread work-related frailty, emphasizing that despite several parts of the body being involved; the back experiences most of the discomfort [5, 6].

Weaving is considered to be a highly labor-intensive task, with the labor cost ac-counting for up to an average of 65% of the production cost. Some of the MSDs that commonly occur are carpal-tunnel syndrome (CTS), tendonitis, and lower-back pain, which are generally caused by repetitive motions, awkward and non-neutral postures, poor working conditions, among other things [7]. There is a correlation between MSDs and occupation. Therefore, there is a critical need to evaluate the occupational risk factors among the unorganized sector, particularly the weaving industry in India. The postures of workers also need to be modified, and corrective measures need to be introduced to minimize the risk of musculoskeletal disorders in the long term [8]. The weaver has often been forced to adopt a squatting posture to operate the traditional carpet looms and as the width of the carpet increase and they have to lean forward to complete the task [10]. The present survey was aimed at the assessment of physical characteristics, health problems, socio-economic conditions, and environmental factors.

II. METHODOLOGY

Selection of Sample

The survey was conducted in different handloom clusters of Varanasi. The four selected areas after the survey were selected and fifty (50) weavers from each cluster were randomly taken for the study. Thus the total sample size was 200.

Development of tool

The socio-economic questionnaire was administered to the weavers for the evaluation of their socio-economic status. An exhaustive review of the literature assisted and enabled the investigator in the development of the tool. Care was taken to incorporate all the needed information as decided in the formulated objectives of the study. An interview schedule was prepared to get relevant information. It consists of a series of questions with several preferred responses. The questions sought information about the socio-economic background, educational status, knowledge, marital status, family member, attitude, experience, monthly income, working hours, work-related aspects, etc. The questions related to health problems were pains in body parts (neck, shoulder, elbow, wrist, upper back, lower back, hips, knees, ankle, etc), poor vision, hear-ing problems, respiratory problems, allergy, eye irritation, etc. [11].

Measurement of Physical characteristics

The basic physical parameters, such as height and the bodyweight of the weavers were measured using an anthropometric rod and a properly calibrated weighing machine respectively to assess body mass index (BMI). Most of the weavers were both semi-literate and illiterate, so interviews were carried out verbally and responses were noted. The questions were prepared in Hindi and communicated to them during working hours or either before or after work hours [12].

III. RESULTS AND DISCUSSION

Physical characteristics of handloom weavers of Varanasi

The primary survey was conducted in different handloom clusters i.e. Madanpura, Badi bazaar, Alaipura, Nati Imli, Lallapura, Ramnagar, Lohta, Baragaon, Basani, Ashapur, Bajardiha, Ausanganj, Golgada, Basani, and Saraiya. The selected areas after the survey were Lallapura, Bajardiha,

Ausnganj and Saraiya. Fifty weavers from each selected cluster were randomly taken for the study. Thus the total sample size was 200.

Table 1: Physical characteristics of handloom weavers of Varanasi

Physical parameters	Handloom weavers N=200
Age (years)	19-58
Height (cm)	142.5-179.0
Weight (kg)	42-87
BMI (Kg/m2)	16.5-32.4
Working hours per day	10-12

Table 1 shows the age, height, weight, BMI, and working hours per day of the handloom weavers.

Socio-economic status of handloom weavers in Varanasi

Table 2 : Socio-economic status of handloom weavers in Varanasi

Demographic parameters	Parameters	Handloom weavers, N=200 (%)
Educational level	Illiterate	92 (46)
	High school	73 (36.5)
	Intermediate	30 (15)
	Degree/Diploma	05 (2.5)
Marital Status	Married	160 (80)
	Unmarried	34 (17)
	Widow	06 (3)
Family members	1-3	28 (14)
	4	34 (17)
	5	55 (27.5)
	More than 5	83 (41.5)
Number of children	1	23 (11.5)
	2	38 (19)
	More than 3	139 (69.5)
Experience in weaving (years)	1-5	32 (16)
	5-10	40 (20)
	More than 10	128 (64)

The socio-economic status of the handloom weavers is given in Table 2. The economic condition of the handloom weavers was poor; therefore they did not have better educational opportunities. It was found that 46% of weavers were illiterate, 36.5% were high school, 30% were Intermediate and only 2.5% were having a Degree or Diploma. It was found that 80% of the weavers were married, 17% were unmarried and 3% were a widow. It is also evident from the table that 41.5% of weavers had more than five family members and 69.5% weavers had more than three members. It was found that that 64% of weavers had more than 10 years of weaving experience whereas 20% weavers had weaving experience between 5 to 10 years and 16% had weaving experience between 1to 5 years.

Health problems of handloom weavers of Varanasi

Table 3 : Health problems of handloom weavers of Varanasi

Health problems	Handloom weavers N = 200 (%)	
	Yes	No
Cardiovascular problems	103 (51.5)	97 (48.5)
Respiratory problems	137 (68.5)	63 (31.5)
Digestive problems	117(58.5)	83 (41.5)
Eye irritation	145 (72.5)	55 (27.5)
Hearing problem	134 (67)	66 (33)
Skin disease	108 (54)	92 (46)
Pain in body parts	176 (88)	24 (12)

It was observed during the survey that the weavers were exposed to different stressed working condition and hazardous environment. They have reported various occupational health-related problems and complaints which are given in Table 3. It was found that 51.5% weavers had cardiovascular problem, 68.5 had respiratory problem, 58.5% showed digestive problem, 72.5% reported eye irritation, 67% had hearing problem, 54% reported skin problem and 88% weavers complained about pain in body parts which ranged from moderate to severity. It is clear from the data obtained that eye irritation, respiratory problems, hearing problems and pain in body parts are the most common health problems in maximum number of weaver.

It can be concluded that these health problems are due to bad postures for long hours, use of hazardous dyes and chemicals, unsafe environment and working conditions. Therefore it is necessary to find the best ways and methods for the proper

health conditions of handloom weavers. It was found that the traditional handloom weavers and jacquard loom weavers were suffering from pain in body part and it was more prevalent than other health problems. The percentage of pain was much higher in case of jacquard loom weavers than the traditional handloom weavers. In the same way different health problems i.e., respiratory problems, cardiovascular problems, digestive problems, skin diseases etc were also more prevalent among the jacquard loom weavers [13]. The reasons identified include unnatural work postures, use of hazardous chemicals, unsafe working practices, long working hours and high risks of accidents at work place, caused by unsafe conditions [14].

Assessment of environmental factors (Noise, Temperature, Humidity, and Light)

Table 4: Measurement of Illumination level (Lux) at handloom workstation during four times a day in two months

Time	Lux (Mean) Month of January	Lux (Mean) Month of October	Standard Level of Illumi-nation recommended for conducting fine & me-dium type of work
10: a.m	114.26	143.53	BIS: 300 Lux - 700 Lux ISO: 300 Lux CIE: 300 Lux IES: 400 Lux - 750 Lux
1:00 p.m	129.34	178.74	
4:00 p.m	73.22	86.38	
6:00 p.m	52.26	65.24	

The mean values of the illumination of the handloom cluster are given in Table 4. According to the data obtained, it was found that during daytime there was a considerable variation in the illumination value at handloom clusters. It was also observed that the illumination value was maximum at 1:00 p.m i.e 129.34 and it was minimum at 6:00 p.m i.e 52.26 in January. The illumination value was found to be maximum at 1:00 p.m i.e 143.53 and it was minimum at 6:00 p.m i.e 65.24 in October. It can also be concluded from the data that the illumination reading value was more in October as compared to January.

Table: 5 Noise level at the handloom cluster

Examination Attributes	Sound level dBA (mean score)	Standard Level of Noise recommended at workplace
Maximum Value of Noise	82.29	Bureau of Indian Standard (BIS) 45 to 75 dBA
Minimum Value of Noise	48.37	

The noise level at the handloom cluster is shown in Table 5. The mean score of the maximum value of noise was 82.29 dBA which is elevated than the standard of BIS i.e 45 - 75 dBA. A high deviation and fluctuation were also experienced in the noise level at the handloom cluster.

This objective aimed to analyze the influence of prevailing illumination and sound level on the occupational health of the handloom weavers and recommend possible and attainable suggestions to reduce the problems. It was observed that there was a high influence of existing sound levels and illumination levels on the physiological, physical characteristics as well as cognitive attributes of the weavers' well-being. The results of this objective also showed that the weavers were also confronted with different types of problems, obstacles, and challenges which leads to the development of serious occupational health obstructions and an inadequate working environment.

It was found that the weavers were not aware of the effect of such environmental components at their workplace as well as about the personal protective devices and their uses. It is a fact which is to be considered that the weavers of a small scale cottage industries and unorganized segments experience and undergo different types of musculoskeletal disorders as well as psycho-physiological issues which leads to poor occupational working conditions. Based on the literature reviewed, it was found that the influence of illumination level and sound level on occupational health in the context of the handloom weavers has not been much reported.

The noise and illumination level are the significant criteria that possibly affect the accomplishment of the task, productive capacity, psychological and physiological well-being of the handloom weavers engaged in handloom sectors. Noise and illumination level were two main components among other environmental factors which were found to be constant throughout the year irrespective of the variation in season. The illumination level in the handloom cluster was remarkably poor and much below the standards which are recommended for proper working environmental conditions. [13].

IV. CONCLUSION

The hand-woven textiles of India have been recognized and mentioned since ancient times

and it is deeply rooted in our lives and traditions. In spite of the fact that it provides and creates employment opportunities for a large number of people, the handloom segment is contemplating asa dusk industry, and there are unavoidable circumstances and discuss of certainty which has given the continual stepping towards the motorization, advancement, and refinement. Still, there are many supporters of handloom for reasons including their logical justifications, beliefs, ethics and principles, sheer affection for handloom products, and economic viewpoint. Worker an integral part of this sector suffers from many health-related hazards due to nature of this work. Handloom weaving requires long hours of work in static and awkward posture which gradually leads to the risk of work-related musculoskeletal disorder. It has been broadly accepted that inappropriate and severely restricted postures result in musculoskeletal pressure on various body parts of workers in sitting positions and it is the crucial component in the evolution and growth of musculoskeletal problems. The type of work included in handloom necessitates high levels of workers, focussed and precise lighting condition also assures fewer errors and faults transferred to the next stage of work and which affects the quality of production.

References

1. Santu Durlov, Safarin Chakrabarty, Arijit Chatterjee, Tamal Das, Samrat Dev, Somnath Gangopadhyay, Prasun Halsar, Sant Gopal Maity, Krishnendu Sarkar and Subhasis Sahu, Prevalence of low back pain among handloom weavers in West Bengal, India. International Journal of Occupational and Environmental Health, 2014 October 20 (4):333-339.
2. Prasun Banerjee and Somnath Gangopadhyay. A study on the prevalence of upper extremity repetitive strain injuries among the handloom weavers of West Bengal. Journal of Human Ergology (Tokyo) 2003 June: 32(1): 17-22.
3. Sangeeta Pandit, Prakash Kumar, Debkumar Chakrabarti. Ergonomic Problems Prevalent in Handloom Units of North East India. International Journal of Scientific and Research Publications, Volume 3, Issue 1, Jan 2013.
4. India Brand Equity Foundation (2018): " Handloom Industry & Exports", https:/ibef.org/exports/handloom-industry-india.aspx.
5. H Miranda, L Kaila-Kangas and K Ahola (2011): Ache and Melancholy - Co-occurence of musculoskeletal pain and depressive symptoms in Finland, Edited by Finnish Institute of Occupational Health. Ministry of Social Affairs and Health. Finland.
6. M Gomez-Galan, J Perez-Alonso, AJ Callejon-Ferre and A Lopez- Martinez (2017): Musculoskeletal disorders: OWAS review, Indian Health, Vol. 55 (4) pp 314-337.
7. M.Motamedzade (2009): ergonomics in carpet weaving industry in Iran, In: Scott, P.A. (Ed), Ergonomics in developing regions: Needs and Applications, Taylor and Francis, Boca Raton, pp 253-262.
8. R parida and P K Ray (2012): Study and analysis of occupational risk factors for Ergonomic design of construction work systems work: A journal of prevention, assessment and rehabilitation, Vol. 41, pp 3788-3794.
9. Choobineh, A., Tosian, R., Alhamdi, Z and Davarzanie, M. 2004. Ergonomic intervention in carpet mending operation. Applied Ergonomics. 35 (5): 493-496.
10. Banerjee. P and Gangopadhyay, S. 2010. A study on the prevalence of upper extremity repetitive strain injuries among the handloom weavers of West Bengal. Ergonomics and work physiology, laboratory, Dept. Of Physiology, University of Calcutta.
11. Z. Shaikh, R. Pathak (2017), Revised Kuppuswamy and BG Prasad socio-economic scales for 2016, International Journal of Community Medicine and Public Health, Vol. 4 No. 4, pp 997-999, 2017.
12. R.C. Weasel, 2002, Body mass index as an indicator of obesity, Asia Pacific Journal of Clinical Nutrition, Vol. 11, Suppl. Suppl. 8 (58),pp.5681-5684.
13. Santu Durlov, Atanu Saha, Sasangbaha Mandi, Subhasis Sahu (2019) An ergonomic survey of health status of the handloom weavers. International Journal of scientific research in biological sciences. Vol. 6. Issue 1, pp 197-202.
14. S. Purnawati (2008). Occupational health and safety ergonomics improvement as a corporate responsibility of a Bali handicraft company. A case study. Journal of Human Ergology, Vol. 36. Issue 2, pp 75-80. ■

OPTIMIZATION OF ENZYME PRETREATMENT FOR NATURAL DYEING WITH LITCHI LEAVES

Sangeeta Deo and Smriti Rekha Sarkar,
Professor, College of Community Science, RPCAU, Pusa (Samastipur)

Abstract

Due to environmental awareness and consciousness, focus of interest for finishing of textiles shifted to enzymatic treatment. So when enzymatic degumming is carried out for natural dyeing the process becomes eco-friendlier. Enzymatic pretreatment conditions were standardized for dyeing with natural dye from litchi leaves. Optimum conditions for enzymatic pretreatment were found to be 0.3 percent concentration, 45-degree centigrade temperature and 30 minutes of time. Enzyme Papain was found to be most compatible with litchi leaves natural dye for tassar silk as it showed maximum dye uptake. Improvement in colourfastness to washing and light was found in all the enzyme pretreatment samples dyed with natural dye from litchi leaves.

Key words washing fastness, light fastness, enzymes, natural dye, pre- treatment.

INTRODUCTION

Natural colours have been used to dye textiles since ancient times. The introduction of synthetic dyes in 1856 had an impact on the market for natural colours since synthetic dyes were less expensive and more reproducible. However, because of rising concerns about environmental issues combined with the toxicity of synthetic dyes, researchers are looking for cheaper, easier colorant extraction technologies from natural resources.

Enzymatic treatment has recently gained popularity as a finishing method for textiles due to its fabric softness, good performance, and fashionable looks, as well as its ability to streamline the manufacturing process.

Enzymes are now an essential element of silk finishing. It is just the extraction of sericIn from raw silk. It is referred to as enzymatic degumming. This entails degrading sericIn using an enzyme that does not destroy fibroin. There is a lot of research being done on the enzymatic treatment of cotton and wool to improve softness and surface appearance for dyeing methods. There are, however, few findings on enzymatic preparation of natural colouring on tassar silk.

Because of rising regulations surrounding environmental concerns regarding quality characteristics, the usage of enzymes was deemed to be the best choice in wet textile processing sectors. Natural dyeing is an environmentally benign procedure in and of itself, but when enzymes are employed as a pre-treatment, the process becomes even more eco-friendly.

So the primary goal of this research is to use enzymes to improve dye absorption for natural dyes found in and around Pusa.

Objectives of study

1. To improve the dye uptake through enzyme pretreatment using different enzymes for litchi leaves natural dye.
2. To optimize the conditions of enzyme pretreatment.
3. To study the effect of enzymes on fastness properties of litchi leaves dye.

MATERIALS AND METHODS

Selection of fabric

Fabric of Tassar silk selected for the present study was procured from khadi Gramudyog Pusa. The weave, fabric count, weight and thickness was determined which were given in Table1.

Table I: Specification of Tassar silk

Weave of fabric	Fabric Count		Weight g/m^2	Thickness (mm) at 0.15 g/mm^2 pressure
	Warps/S_q inch	Weft/S_q inch		
Plain	56	46	26	0.54

Preparation of fabric for pretreatment

Before enzymatic degumming pre-wetting was carried out using 1% sodium carbonate for 10 minutes at 500c at PH 8-9 with material to liquor ratio of 1:20. Deactivation of enzyme was done by treating the material with sodium acetate solution.

Collection and extraction of dye material

Leaves of litchi collected after harvesting of litchi, were chopped into small pieces, dried and ground to powder. The botanical name of litchi is litchi chinensis.

Weighed 5g of the powder of litchi leaves soaked overnight were boiled in 100 ml distilled water for one hour at 60 degrees centigrade for extraction of dye.

Optimization of enzymes pretreatment conditions

In this research work different source of proteolytic enzyme like Papain, Pepsin, Protease,

Trypsin and Pectinase were applied on Taser silk fabric as an alternative eco-friendly degumming agent. For optimization of different conditions of pretreatment with enzymes, silk samples were treated with enzyme at different concentrations, temperature and time of pretreatment with enzymes.

To optimize the condition of pretreatment with enzyme and to select the enzyme for natural dye litchi leaves dye absorbance was measured before and after dyeing with litchi leaves enzyme pretreated samples. To see the dye uptake, the sample were dyed with most appropriate enzyme at optimized conditions of pretreatment.

Compatibility of enzyme with litchi leaves dye

In order to select the most appropriate enzyme for litchi leaves natural dye the dye uptake was evaluated with five different enzymes.

Evaluation for colour fastness of enzyme pretreated natural dyed sample

Fastness is the resistance of a textile material to specific chemical agencies. Poor color fastness in textile products is a major source of customer complaint, so dye to qualify for apparel use, it has to be color fast. So dyed samples were evaluated for colour fastness to washing and light. The colour fastness to washing was done according to IS: 3361-1979 and to sunlight according to IS:/ 686-1985 test methods.

RESULTS AND DISCUSSIONS

1. Gum loss with and without enzyme

The efficiency of degumming process in terms of gum loss with enzyme pretreatments and conventional soap washing method were presented in Table 2

Table 2: Efficiency of degumming process in terms of gum loss with enzyme pretreatments

Sample (Enzyme)	Concentration (percentage)	Weight before treatment (mg)	Weight after treatment (mg)	Perentage gum loss
Papain	0.3	0.914	0.630	31.07
Pepsin	0.3	0.960	0.760	20.83
Protease	0.3	0.926	0.773	16.52
Trypsin	0.3	0.843	0.699	17.08
Pectinase	0.3	0.869	0.721	17.08
Conventional Soap washing	1.0	0.864	0.740	13.80

Table 2 showed better gum loss of 16.52 to 31.07 percent for different enzymes pretreatment when compared to 13.80 percent in soap degumming and thus better dye uptake was recorded in enzymatic pre-treated sample. Maximum percentage of gum loss i.e. 31.07 percent was observed in Papain treated samples followed by Pepsin at 20.83, Trypsin and Pectinase as 17.08 percent, Protease as 16.52 percent respectively.

2. Selection of optimum conditions of enzyme pretreatment

2.1 Selection of optimum concentration of enzyme pretreatment.

Percentage dye uptake with different enzyme pretreatment dyed with litchi leaves natural dye weregiven in Table 3.

Table 3 : Selection of optimum concentration with different enzymes on Litchi Leaves

Concentration (%)	Percentage dye uptake with different enzymes				
	Papain	Pepsin	Protease	Trypsin	Pectinase
0.1	40.0	55.0	40.0	45.0	40.0
0.2	48.5	50.3	40.5	50.0	45.0
0.3	60.5	50.0	40.5	50.0	50.0
0.4	55.0	50.0	40.0	50.0	50.0

Table 3 showed that 60.5% dye uptake was recorded at 0.3% concentration of pretreatment with enzyme Papain after that further increase in enzyme concentration showed slight decline in dye uptake. With Protease enzyme it was 40.0 percent at 0.4 percent concentration of enzyme.

Maximum dye uptake was recorded at 0.3 percent concentration of enzyme pretreatment with enzyme, Papain Pepsin, Protease, Trypsin and Pectinase so it was found that 0.3 percent enzyme concentration was optimum for litchi dyed samples.

2.2 Selection of optimum temperature of enzyme pretreatment

Percentage dye uptake with different enzyme pretreatment dyed with litchi leaves natural dye at different temperatures were given in Table 4

Table 4 : Selection of optimum temperature for enzyme pre-treatment with different enzymes on litchi leaves

Temperature (°c)	Percentage dye uptake with different enzymes				
	Papain	Pepsin	Protease	Trypsin	Pectinase
30	55.0	40.0	40.0	50.0	40.0
45	60.0	55.2	45.5	50.0	40.0
60	50.0	50.0	45.1	55.0	40.0
75	50.0	50.0	45.0	60.0	40.0

It has been observed from Table 4 that maximum percentage of dye uptake i.e. 60 percent was

OPTIMIZATION OF ENZYME PRETREATMENT FOR NATURAL DYEING WITH LITCHI LEAVES

recorded at 45-degree centigrade temperature in case of Papain pretreated sample, 55.2 percent in case of Pepsin, 45.5 percent with Protease enzyme and 40.0 percent in case of Pectinase enzyme. Maximum dye uptake, i.e. 60.0 percent was found in case of Trypsin pretreated enzyme at 75-degree centigrade temperature. Optimum temperature for enzyme pretreatment was found to be 45 degrees centigrade as most of the enzymes showed maximum dyeuptakeat 45 degrees'centigrade temperature.

2.3 Selection of optimum time of enzyme pretreatment

Percentage dye uptake with different enzyme pretreatment dyed with litchi leaves natural dye at different times of treatment were given in Table 5

Table 5 : Selection of optimum time for enzyme pre-treatment with different enzymes on litchi leaves

Time (Minutes)	Percentage dye uptake with different enzyme				
	Papain	Pepsin	Protease	Trypsin	Pectinase
10	55.0	45.0	40.0	50.0	40.0
20	60.0	55.3	45.0	50.0	40.0
30	65.0	50.0	45.0	60.5	45.0
40	60.0	50.0	45.0	60.0	45.0

It has been seen in Table 5 that maximum 40.0 percent dye uptake was observed at 10 minutes of pretreatment time with enzyme Protease and Pectinase pretreated litchi dye sample followed by 60.5 and 65.0 percent dye uptake with Trypsin and Papain enzyme pretreated samples at 30 minutes of enzyme pretreatment time. As maximum dye uptake i.e. 65.0 percent was found at 30 minutes of pretreatment time in case of Papain sample, 30 minutes of enzyme pretreatment time was found to be optimum.

3. Enzyme compatibility for litchi leaves natural dye

In order to select the most appropriate enzyme for natural dye litchi leaves, dye uptake was evaluated with five different enzymes.

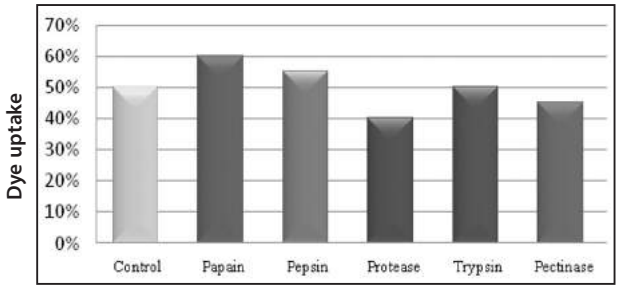


Fig 1: Dye enzyme compatibility for litchi leave natural dye

From the results (fig.1) it can be inferred that enzyme Papain gave best results for litchi leaves natural dye with dye uptake of 60 percent followed by Pepsin 55 percent and Trypsin 50 percent respectively. The dye uptake was lowest in case of Protease enzyme. Enzyme Papain was found to be compatible with litchi leave natural dye as it showed the maximum dye uptake.

4. Colour fastness to washing and light

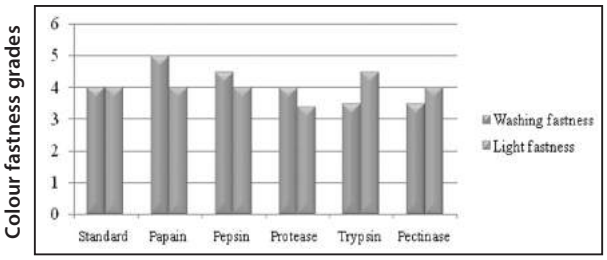


Fig 2 : Effect of enzymes on colour fastness towards washing and light

Litchi leaves dyed sample with Papain enzyme showed the maximum colour fastness to washing, i.e. excellent (5) and very good (4.5) fastness to light as against the standards (without enzyme) which was 4.0. There was definite improvement in colour fastness to washing and light with enzyme pretreatment dyed with litchi leaves natural dye as all the enzymes treated natural dye tassar silk samples showed increase in fastness rank over the standard samples. Marked improvement in wash fastness and lightfastness was reported by P.S Vankar(3).

CONCLUSION

Papain enzyme can be used for degumming of tassar silk and dyeing with litchi leaves natural dye. It can be eco-friendly as enzymes work under mild conditions and do not cause harmful chemical effluent problem. Tassarsilk pretreatment with Papain enzyme dyed with litchi leaves showed very good to excellent washing and light fastness. So the process can be used by handloom weavers for export potential.

REFERENCES

A.Dashi and A. Karollia, 2016, Optimization of enzyme treatments for banana fibreInternational journal of textile and fashion technology 6(2), 1-8

P.S Vankar, D Shukla and S. Wejayapala, 2017 "Innovative silk dyeing using enzyme and rubiacordiafolia extract at room temperature" Pigment and resin technology 46(4)

P.S Vankar and, R. Shanker, 2008" Ecofriendly ultrasonic natural dyeing of cotton fabric with enzyme pretreatment" Desalination, 230(1-3), 62-69. ■

IMPROVING GARMENT FACTORY PRODUCTION EFFICIENCY THROUGH AUTOMATION

S. Karthi Krishna, Final Year, Department of Fashion Technology, Sona College of Technology, Salem, Tamilnadu, India

ABSTRACT

Automated technologies and processes are becoming increasingly popular in the garment industry, offering businesses a range of benefits including reduced labour costs, improved accuracy, increased productivity, and improved customer experience. Automated cutting technology, automated sewing machines, automated material handling systems, automated quality control systems, automated barcode scanning, and inventory management software can all help businesses remain competitive in the ever-changing industry. These technologies can increase efficiency, reduce costs, and improve quality, allowing businesses to succeed.

KEYWORDS : Automation, Inventory, Barcode, Efficiency, Manpower.

1. INTRODUCTION

The use of automated technologies and processes in the garment industry is becoming increasingly popular, as they offer a range of benefits including reduced labour costs, improved accuracy, increased productivity, and improved customer experience. Automated cutting technology, automated sewing machines, automated material handling systems, automated quality control systems, automated barcode scanning, and inventory management software are all examples of automated technologies that are being utilized in the garment industry. These technologies have the potential to increase efficiency, reduce costs, and improve quality, allowing businesses to remain competitive in the ever-changing garment industry. In this article, we will discuss the benefits of automated technologies in the garment industry and how they can help businesses succeed.[1]

2. MATERIALS AND METHODS

2.1 AUTOMATED CUTTING TECHNOLOGY

Automated cutting technology is becoming increasingly popular in the garment industry. It is a technology that uses computer-controlled systems to cut fabric, allowing for precise cutting with minimal waste and labour. Automated cutting technology is used in a variety of ways, including cutting garments to size, creating patterns, and trimming fabric. Automated cutting technology is becoming an essential tool in the garment industry, providing faster and more accurate cutting, reducing labour costs, and creating consistent and perfect results. Automated cutting technology also increases efficiency, allowing for faster production times and lower error rates.

Automated cutting technology uses lasers, water jets, and computer-controlled cutting machines to precisely cut fabric and other materials. This advanced technology provides consistent and accurate cutting results and reduces fabric waste, making it ideal for mass production. It also saves time, allowing manufacturers to produce garments more quickly and efficiently. Automated cutting technology also increases safety, as it reduces the risk of human error. Additionally, automated cutting technology is more cost-effective than manual cutting, as it requires fewer workers and less time to complete the same job. Finally, automated cutting technology can be used to create complex patterns, which can lead to more intricate and stylish designs for clothing.

2.1.1 Benefits of Automated Cutting technology in the garment industry

1. **Increased Efficiency :** Automated cutting technology allows garment industry to increase their efficiency and productivity by eliminating manual labor and reducing time spent on cutting tasks.
2. **Cost Reduction :** Automated cutting technology reduces labor costs associated with manual cutting. This allows garment industry to reduce their costs and be more competitive in the market.
3. **Improved Quality :** Automated cutting technology produces consistent and accurate cuts which improves the overall quality of the garments.
4. **Increased Safety :** Automated cutting technology eliminates the risk of injury associated with manual cutting and reduces the need for additional safety equipment.
5. **Increased Production Capacity :** Automated cutting technology allows garment industry to increase their production capacity and meet customer demands in a timely manner.

2.2 AUTOMATED SEWING MACHINES

Automated sewing machines are becoming increasingly popular in the garment industry. These machines are capable of performing a wide range of sewing operations with the use of computerized control systems, eliminating the need for manual labour. Automated sewing machines are designed to be more efficient and accurate than manual machines, which can help reduce costs and increase production. Automated sewing machines can also reduce the need for workers, allowing garment factories to operate with fewer personnel and lower labour costs. In addition, automated sewing machines often feature specialized features that are not available on manual machines, such as automated thread tension control, pattern recognition, and automatic needle alignment. Automated sewing machines are also capable of sewing intricate designs quickly and accurately, which can help improve product quality and speed up production times.

Pattern recognition is a feature available on some automated sewing machines that enables the machine to recognize patterns in a garment and adjust the settings accordingly. This feature allows the machine to automatically recognize patterns such as stripes, plaids, and other intricate designs, which can be difficult to replicate manually. With pattern recognition, the machine can adjust the settings for the stitch length, tension, and other settings to ensure that the design is replicated accurately. This feature can help to improve product quality, reduce production time, and eliminate the need for manual labour.[10,15]

2.2.1 Benefits of Automated Sewing Machines in the garment industry

1. **Improved Accuracy :** Automated sewing machines are able to produce precise and consistent stitches, leading to fewer errors in the finished product. This can help to increase the overall quality of the garments.
2. **Increased Efficiency :** Automated sewing machines enable garment manufacturers to increase production speed and accuracy while reducing the amount of labour needed to operate the machines. This can result in significant cost savings for the company.
3. **Improved Safety :** Automated sewing machines eliminate the need for manual labour which can be dangerous in the garment industry. This can help to reduce the risk of injury and illness in the workplace.
4. **Reduced Labour Costs :** Automated sewing machines can help to reduce labour costs by eliminating the need for manual labour. This can result in significant cost savings for the company.
5. **Increased Productivity :** Automated sewing machines allow for a higher level of productivity, as they can produce more garments in a shorter amount of time. This can help to increase the overall output of the garment industry.

2.3 AUTOMATED MATERIAL HANDLING SYSTEMS

Automated material handling systems in the garment industry can include a variety of systems and processes, including automated conveyor systems, automated storage and retrieval systems, automated sorting systems, and automated garment identification systems. Automated conveyor systems are used to move materials from one location to another within a facility. Automated storage and retrieval systems allow for the automatic sorting, retrieval, and storage of garments, as well as the automated transfer of garments between different stations. Automated sorting systems are used to sort garments into specific sizes and colors, and automated garment identification systems are used to track and manage inventory levels. Automated material handling systems can also include automated material handling software, which is used to track and manage inventory levels, orders, and shipments.

Automated material handling systems can help streamline the garment manufacturing process, increasing efficiency and reducing costs. These systems can also help reduce labour costs, as they are capable of performing many of the labour-intensive tasks that would otherwise require manual labour. Automated material handling systems can also help improve product quality, as they can help ensure that garments are sorted into the correct sizes, colors, and styles. Additionally, automated material handling systems can help reduce waste, as they can help eliminate the need for excess materials.

2.3.1 Benefits of Automated Material Handling Systems in the garment industry

1. **Increased Agility :** Automated material handling systems help increase the speed and agility of the garment industry. Automated systems can quickly move materials and products through the supply chain, allowing companies to be more flexible and responsive to customer needs.
2. **Improved Accuracy :** Automated systems can help reduce errors and increase accuracy in the garment industry. Automated systems can detect errors and take corrective action while tracking and managing inventory. This can help reduce costs associated with inaccurate orders, reduce stockouts, and improve customer satisfaction.
3. **Increased Productivity :** Automated systems can help increase efficiency and productivity in the garment industry. Automated systems can help reduce time spent on manual processes, allowing for faster turnaround times. This can help increase production capacity and reduce production costs.
4. **Reduced Labour Costs :** Automated systems can help reduce labour costs in the garment industry. Automated systems can reduce the need for manual labour, helping companies to reduce labour costs and increase profitability.

2.4 AUTOMATED QUALITY CONTROL SYSTEMS

Automated quality control systems are becoming increasingly popular in the garment industry. These systems use technology to streamline the quality control process, helping to reduce costs, improve accuracy, and improve efficiency. Automated systems can be used to monitor and control fabric, yarn, and garment quality, from the raw material stage all the way to finished product. Automated systems can detect fabric defects, including texture, color, and weave variations; identify fabric and garment quality issues, including shrinkage, abrasion, tear strength, and colorfastness; and even inspect for trims, zippers, and buttons. Automated systems can also be used to track production and inventory, as well as delivery and shipping. By using these systems, businesses can ensure that their products meet customer quality expectations, while reducing costs and improving efficiency.[8]

2.4.1 Benefits of automated quality control systems in the garment industry include

1. **Increased accuracy :** Automated systems are capable of detecting defects much more accurately than manual inspections. This means fewer defects in the final product, and fewer returns or complaints from customers.
2. **Reduced costs :** Automated systems can reduce labor costs associated with quality control, as fewer people are required to monitor the process.
3. **Improved efficiency :** Automated systems can reduce the time it takes to inspect a garment, as well as the time it takes to identify and fix a defect. This can help to reduce lead times and increase production efficiency.
4. **Improved traceability :** Automated systems can provide detailed records of each garment's production and quality, making it easier to trace any defects or problems. This can help to reduce the risk of recalls or product liability claims.

2.5 AUTOMATED BARCODE SCANNING

Automated barcode scanning is increasingly being used in the garment industry to improve efficiency and accuracy of inventory management. This technology is used to quickly and accurately read barcodes on garments, which can then be used to track inventory levels and ensure that items are in stock when needed. Automated barcode scanning can also be used to track orders, manage returns, and maintain accurate records of garment shipments and deliveries. Additionally, this technology can be used to monitor production and quality control, and to identify defective items. The use of automated barcode scanning in the garment industry offers a number of benefits, including improved efficiency, accuracy, and cost savings.[5]

By automating the scanning process, garment manufacturers can save time and money that would otherwise be spent on manual scanning. In addition, automated barcode scanning reduces the possibility of human error, improving accuracy and preventing mistakes that can cause lost revenue. Finally, the use of automated barcode scanning makes it easier to track inventory levels and to quickly identify any discrepancies between the actual inventory and what is indicated in the system. Automated barcode scanning can help garment manufacturers

to improve the overall efficiency of their operations, while saving time and money.[3]

2.5.1 Benefits of Automated Barcode Scanning in the garment industry

1. **Increased Accuracy :** Automated barcode scanners allow for increased accuracy of inventory tracking and order fulfilment, resulting in fewer errors and greater customer satisfaction.
2. **Improved Efficiency :** Automated barcode scanners can significantly reduce labour costs associated with manual data entry and processing, increasing efficiency and reducing overhead costs.
3. **Increased Visibility :** Automated barcode scanners provide real-time visibility into the entire supply chain, allowing for better planning and inventory management.
4. **Enhanced Security :** With automated barcode scanners, businesses can ensure that all garments are properly tagged and tracked throughout the supply chain, reducing the risk of theft and counterfeiting.
5. **Improved Customer Experience :** Automated barcode scanners make the checkout process faster and more efficient, which can improve customer satisfaction and lead to increased sales.

2.6 INVENTORY MANAGEMENT SOFTWARE

Inventory management software is a computer program that helps businesses monitor and manage their stock of goods. In the garment industry, inventory management software can help businesses track and manage their inventory of fabrics, threads, and other materials used in the manufacturing process. It can also help businesses manage their stock of finished products and keep track of sales and orders. This type of software can provide real-time visibility into the inventory levels of clothing and accessories, allowing businesses to better manage their stock levels and prevent costly overstocks. With the help of inventory management software, businesses can keep track of their stock levels, analyze sales trends, and plan for future orders.

In addition to tracking and managing inventory, inventory management software can also provide features to help businesses improve efficiency. For example, the software can generate reports to help businesses identify areas for improvement and make better decisions about stock levels. Businesses can also use the software to set up automatic notifications when stock levels reach certain thresholds, allowing them to order new items in time to meet customer demand. Moreover, the software can be used to track the performance of different suppliers, helping businesses identify the best sources for their materials.[7,9]

2.6.1 BENEFITS OF INVENTORY MANAGEMENT SOFTWARE

1. Improved Accuracy: Inventory management software can help to reduce errors caused by manual data entry, ensuring that your inventory records are accurate and up to date.
2. Increased Visibility: By providing real-time updates on inventory levels and tracking product movements, garment industry inventory management software can help you keep a better eye on your stock.
3. **Improved Efficiency :** Automated inventory processes can save time and reduce labour costs, allowing you to focus on other areas of the business.
4. **Reduced Fraud :** Automated inventory tracking can reduce the risk of fraudulent activity.
5. **Automated Reordering :** Inventory management software can keep track of stock levels and notify you when it is time to place an order for new products.
6. **Streamlined Supply Chain :** Automated inventory tracking can help to optimize the supply chain and ensure that products are delivered on time.
7. **Improved Customer Service :** Accurate inventory tracking can ensure that you have the right products in stock, leading to better customer satisfaction.

3. RESULTS AND DISCUSSION

The garment industry is rapidly embracing automated technologies and processes to increase efficiency and reduce costs. Automated cutting, sewing, material handling, quality control, barcode scanning, and inventory management systems are becoming increasingly popular in the garment industry, as they provide businesses with a number of benefits. Automated cutting technology can reduce labour costs and increase accuracy, while

automated sewing machines can help reduce the need for manual labour and increase productivity. Automated material handling systems can streamline the production process, while automated quality control systems can help to ensure that garments meet customer quality expectations. Finally, automated barcode scanning and inventory management software can help businesses track and manage their inventory, reducing the risk of overstocks and improving customer service.[2]

Overall, the use of automated technologies and processes in the garment industry can help businesses increase efficiency, reduce costs, and improve quality. By investing in these technologies and processes, businesses can ensure that they are able to remain competitive in the ever-changing garment industry.

4. CONCLUSION

In conclusion, the use of automated technologies and processes in the garment industry offers a range of benefits, including increased efficiency, cost reduction, improved quality, increased safety, and increased production capacity. Automated cutting, sewing, material handling, quality control, barcode scanning, and inventory management systems can all help businesses in the garment industry to remain competitive and successful. By investing in these technologies, businesses can ensure that they are able to remain competitive and keep up with the changing demands of the garment industry.

5. REFFERENCE

1. Salahuddin, Mir, and Young-A. Lee. "Automation with Robotics in Garment Manufacturing." Leading Edge Technologies in Fashion Innovation: Product Design and Development Process from Materials to the End Products to Consumers. Cham: Springer International Publishing, 2022. 75-94.
2. Emont, Jon. "The robots are coming for garment workers. That's good for the US, bad for poor countries." The Wall Street Journal (2018): 16.
3. Lan, Phạm Thị Thu. "Automation and its impact on employment in the garment sector of Vietnam." Online verfügbar unter http://library. fes. de/pdffiles/bueros/vietnam/17331. pdf (abgerufen am 05.05. 2022) (2020).
4. Lee, Suhyun, et al. "Implementation of an automated manufacturing process for smart clothing: The case study of a smart sports bra." Processes 9.2 (2021): 289.
5. Cepolina, Francesco, and Elvezia Maria Cepolina. "Automation of a garment sewing department assessment by smart simulation." International Journal of Simulation and Process Modelling 18.4 (2022): 329-337.
6. Taylor, P. M., et al. "Automated fabric handling problems and techniques." 1990 IEEE International Conference on Systems Engineering. IEEE, 1990.
7. Guizzo, Erico. "Your next t-shirt will be made by a robot." IEEE Spectrum 55.1 (2018): 50-57.
8. Rogozhina, Iu, M. Guseva, and E. Andreeva. "Garment production quality evaluation using machine vision." Proceeding of the International Science and Technology Conference" FarEastCon 2021" October 2021, Vladivostok, Russian Federation, Far Eastern Federal University. Singapore: Springer Nature Singapore, 2022.
9. Moll, Philipp, et al. "Automated garment assembly and manufacturing simulation." Transforming Clothing Production into a Demand-driven, Knowledge-based, High-tech Industry: The Leapfrog Paradigm (2009): 9-59.
10. Vashisht, Pankaj, and Nisha Rani. "Automation and the future of garment sector jobs in India." The Indian Journal of Labour Economics 63 (2020): 225-246.
11. Nguyen, Kim Phung. The Application of Collaborative Robots in Garment Factories. Diss. Illinois State University, 2022.
12. Zaman, Uzair Khaleeq Uz, et al. "Development of Automated Guided Vehicle for Warehouse Automation of a Textile Factory." 2021 International Conference on Robotics and Automation in Industry (ICRAI). IEEE, 2021.
13. Yang, Xiaobing. "Application of Intelligent Garment Formwork Technology on Modern Garment Enterprises."
14. Papoutsidakis, Michail, Dimitrios Piromalis, and Georgios Priniotakis. "Advanced automation in textile industry production lines." International Journal of Engineering Applied Sciences and Technology 4.5 (2019): 504-507.
15. Nicholson, Peter Raynor. Automation of garment assembly processes. Diss. Durham University, 1987. ■

PM Mitra textile parks will play a catalytic role for export worth $100 bn by 2030

The Cotton Textile Export Promotion Council expects the Prime Minister Mega Integrated Textile Region and Apparel (PM Mitra) parks, to be set up across seven States, to act as a catalyst for achieving the export target of $100 billion by 2030.

The PM Mitra Parks can attract large-scale investments and accelerate the pace of exports in the textile value chain.

Sunil Patwari, Chairman, Texprocil said the Prime Minister's vision to integrate the 5Fs of the textile sector—Farm to Fibre to Factory to Fashion to Foreign — under one roof in the PM Mitra parks will work wonders and boost exports.

The parks are the need of the hour to attract large-scale investments from across the world in the textile sector, particularly when the global supply chains are being realigned in the post-Covid era, he said.

Changing geopolitical alignments have reinforced the "China plus one" policy and India has emerged as a beacon of economic stability attracting the attention of global investors. The PM Mitra scheme will reassure investors regarding the need for single window clearances and quick decision-making, said Patwari.

With world-class infrastructure and "plug & play" facilities the seven Mega Parks coming up in Taml Nadu, Telangana, Karnataka, Maharashtra, Gujarat, Madhya Pradesh, and Uttar Pradesh will encourage investors to commence production with minimum delays.

The parks will strengthen the foundations of "Atmanirbhar Bharat", making India a strong and dynamic player in global trade in textiles and clothing.

The integrated facilities will also reduce the cost of manufacturing and make Indian exports of textiles immensely competitive, said Patwari. ❐

US apparel market to stay sluggish in 2023 : Ganapathi

Demand for apparel in the U.S market will remain muted in calender 2023 and is likely to rebound in 2024, forecast Siva Ganapathi, executive vice-chairman, and MD, Gokaldas Exports, one of India's largest manufacturers and exporters of apparel.

"I am anticipating demand to be somewhat muted in calendar 2023 with a rebound in 2024 ; so until spring of 2024 we will have to manage with a subdued demand in the U.S.," he said in an interview.

"The U.S. market was doing pretty much fine in calendar 2022, it had an inflation-led, price-led growth, although not a volume-led growth," he said. "Due to rising oil prices and general inflationary trends in the market, prices, overall, went up. As a result, apparel prices too went up by 7% in 2022," Mr. Ganapathi added.

Also, U.S. apparel brands now had excess inventory as they had over-bought in 2022 in anticipation of high growth.

Mr. Ganapathi said demand in Europe was still somewhat muted given the Ukraine war, while China may see some traction of incremental buying.

Overall, most apparel exporters were preparing for soft demand going forward as the U.S. Fed's tightening of interest rates would have some lagged effect, with some impact on consumer purchases. ❐

Affordable French apparel Co Kiabi plans to enter Indian market

Affordable French apparel brand Kiabi, which is present in about 15 countries, is in talks to enter India market, three people aware of the development said.

Kiabi is owned by The Association Familiale Mulliez (AFM), the holding company of the Mulliez family, which also control Decathlon, Auchan super market and about a dozen other retail brands.

The global team of the company was in India recently to explore retail space and visited some of the premium malls of Delhi.

"The company had initiated the discussion to enter India market pre-pandemic but covid slowed down the process. They have now appointed a consultant to facilitate India entry," said one of the person quoted above.

The brand is looking for large format stores in metro cities.

Kiabi did not respond to the email query. Experts said India's consumption structure has been skewed in the past over a narrow base of richer consumers accounting for a large chunk of the overall market.

However, as the economy is broadening across many more cities and the impact is reaching further

down the income ladder, the opportunity for value-formats and value-brands is expanding.

As the world's second most-populated country, India is an attractive market for apparel brands, especially with youngsters increasingly embracing western-style clothing. According to a CBRE's report, international brands such as Tim Hortons, Victoria's Secret, and Uniqlo continued to expand during Jul-Dec '22, despite global headwinds. ❐

Textile exports show signs of growth

The country's textiles exports have started showing signs of growth after getting impacted due to issues like problems of foreign exchange in many countries and large inventories due to Russia-Ukraine war, Union Minister Piyush Goyal said recently.

Many countries are not accepting non-essential goods from outside shipments were "all time high" last year due to inflation.

This year due to the international problems, prices are "quite suppressed" and because of that there was a dip in exports of cotton and yarn. "We hope to see that also reigniting from April 1," he added.

Ready-made garments of all textiles dipped by about 3.5% in January to $1.5 billion. However, during April-January this fiscal, it rose by 5.22% to $13.4 billion. Exports of cotton yarn, fabrics, made-ups and handloom products dipped by 28.7% to $9 billion during April-January this fiscal, Mr. Goyal said. ❐

PM Mitra Park will help India to be global hub for Textile manufacturing exports

The Indian textile industry believes that the introduction of seven PM Mega Integrated Textile Regions and Apparel (PM Mitra) parks will help in developing the country as a global hub for manufacturing and exports. The parks are expected to attract huge global investments in the textile sector and boost exports to $100 billion by 2030.

Recently, the central government had announced the setting up of PM Mitra parks in Tamil Nadu, Telangana, Gujarat, Karnataka, Madhya Pradesh, Uttar Pradesh and Maharashtra. The move is inspired by the SF vision of the Centre — which is a focus on farm, fibre, factory, fashion and foreign.

"These parks will fuel investment once the global slowdown is over and attract large FDI (foreign direct investment) as they would provide world-class infrastructure at scale," said Sanjay Kumar Jain of Delhi-based TT Ltd.

According to sources, in Tamil Nadu, the central and state governments have identified and proposed to set up the mega park at around 1,100 acres near E Kumaralingapuram in Virudhunagar district.

"With a realignment of the global value chain and focus on friend-shoring (manufacturing and sourcing from countries with shared values), India is on the radar of global investors who are looking for investment and expansion outside China. A scheme like PM Mitra will hasten the process of decision-making of such investors in favour of India," said A Sakthivel, president of the Federation of Indian Export Organisations. Sakthivel said the parks could help increase exports to touch $100 billion by 2030. In FY22, India's textile exports stood at over $44 billion.

A special purpose vehicle owned by the Centre and state governments will be set up to handle each park. The Ministry of Textiles will provide financial support in the form of development capital support up to ₹500 crore per park, while a competitive incentive support of up to ₹300 crore per park shall also be provided to speed up implementation.

The state governments will provide contiguous and encumbrace-free land parcels of at least 1,000 acres. The governments will also facilitate provision of all utilities, reliable power supply and water, and waste water disposal system, an effective single-window clearance as well as a conducive and stable industrial/textile policy.

"The parks will bring a much-needed boost to the integrated manufacturing infrastructure. Global buyers are now looking for large, integrated compliant facilities to bring more business to India as an apparel sourcing diversification strategy. PM Mitra parks can be visualised with a specific theme like ESG (environmental, social, and governance) to attract investment as well as international buyers," said Prabhu Damodaran, secretary, Indian Texpreneurs Federation, an industry body.

The modern industrial infra facility for the entire value chian of textile will also significantly reduce the logistics costs and improve competitiveness of Indian exports with access to state-of-the-art technology, stakeholders said.

EXPORT PROSPECTS AND MARKETS

"The parks will attract investment and generate more employment, particularly for women workers. We have also suggested the creation of an ecosystem to attract MSMEs (micro, small and medium enterprises) in Tiruppur, plug-and-play facilities, building area starting from 15,000 square feet for the benefit of MSMEs, additional incentives to set up units in the PM Mitra park, the inclusion of performance-linked incentive scheme for the units, solar power for the industry, and common effluent treatment," said K.M. Subramanian, president, Tiruppur Exporters' Association. ❐

Exports to exceed $750 bn this fiscal : Goyal

The country's goods and services exports are marching ahead to cross $750 billion in the current financial year and talks for expanding rupee trade with certain countries are at an advanced stage, Commerce and Industry Minister Piyush Goyal said recently.

Goyal said that last year the exports reached an all time high of $676 billion.

"We are inching close and marching ahead to cross $750 billion of goods and services exports in 2022-23. We are expanding rupee trade with several countries, many of which are at an advanced stage of dialogue and finalisation," he said at the CII partnership summit in Delhi.

Earlier, exports used to hover at around $500 billion every year, he added.

India's merchandise exports during April-January this fiscal have increased to $369.25 billion as against $340.28 billion in the same period last year. Services exports during the 10-months period are estimated at $272 billion.

Further the minister made 10 recommendations to promote global trade. The suggestions include addressing tariff and non-tariff barriers; a string and responsive international institutional framework; and collaboration in trade and technology. "When we talk of building resilient and global value chains, we must collectively address the challenges of tariff and non-tariff barriers. There are so many non-tariff barriers and as countries create them, others are tempted to follow suit. It is imperative that nations must address these in a mission mode," Goyal said.

He said that for financing global recovery, a strong and responsive international institutional framework is needed for within which "we must" reform several multilateral organisations and trading arrangements that have, over the years, led some non-transparent economies whose economic systems are totally opaque- to enjoy the fruits of multilateral engagements. ❐

On the consumption side, exports of cotton projected at 30 lakh bales

Led by a dip in production in the cotton growing regions of Telangana and Maharashtra, cotton crop for the 2022-23 season (October-September) is estimated to be a low of 313 lakh bales (each of 170 kg), against the earlier projection of 321.50 lakh bales. Last year, the cotton crop was estimated at 307 lakh bales.

The Cotton Association of India (CAI)'s crop committee meeting held recently estimated that output in Telangana dipped by three lakh bales, in Maharashtra by two lakh bales, in Haryana and Karnataka by one lakh bales each, and by 50,000 bales in Punjab and Tamil Nadu, leading to an overall decline of 8.5 lakh bales on the earlier estimate.

This may fuel prices, which are ruling higher at around ₹8,000 per quintal in the spot markets in Rajkot, while arrivals stood at 1,800 quintals. Ginned and processed cotton prices for Gujarat (Shankar-6) 29 mm variety was quoted at ₹61,300 per candy (356 kg). However, the CAI has projected that consumption will be unchanged at 300 lakh bales. The total availability is estimated at 356.89 lakh bales, which includes 313 lakh bales of crop and about 12 lakh bales of imports, besides 31.89 lakh bales of carryover stock from the previous season.

On the consumption side, exports are projected at 30 lakh bales, while domestic demand is estimated at 300 lakh bales, thereby, leaving a closing stock of 26.89 lakh bales, one of the lowest in recent years.

According to CAI President Atul Ganatra, "The worrying factor is cotton arrivals at the same time last year stood at 206 lakh bales, whereas arrivals are down by 51 lakh bales this year."

Further, arrivals stood at 154.84 lakh bales up to February 27, which is around 50 per cent of the crop.

The crop in the largest grower, Gujarat, is estimated at 94 lakh bales, followd by Maharashtra at 78 lakh bales, while Telangana will have a crop size of 38 lakh bales, followed by Karnataka at 20 lakh bales. In North India, output in Rajasthan is estimated at 27 lakh bales, in Haryana at 11 lakh bales, in Madhya Pradesh at 19 lakh bales, and in Andhra Pradesh at 11.5 lakh bales.

As of February, about 6 lakh bales had been imported, while exports stood at 8 lakh bales. ❐

Knitwear exports from Tiruppur likely to decline 4% in dollar terms this fiscal

Knitwear exports from Tiruppur are expected to witness a 4 per cent decline in dollar terms for FY23. However, in rupee terms exports may see a marginal increase in FY23. This comes a year after recording its highest-ever annual exports.

Industry representatives and analysts are cautiously optimistic about the FY24 growth outlook as they expect gradual improvements in orders from Q1 of FY24.

For April 2022-February 2023 period, knitwear exports from Tiruppur stood at about $3.95 billion, while all India knitwear exports were at $7.2 billion (it was $8.17 billion in FY22).

"For FY23, the total knitwear exports from Tiruppur are estimated at $4.31 billion, a decrease of 4.22 per cent over $4.5 billion recorded in FY22. However, in rupee terms, there will be a marginal increase of 3.12 per cent to ₹34,570 crore from ₹33,525 crore in FY22, mainly due to currency depreciation," according to Tiruppur Exporters Association.

After strong growth in Q1 of this fiscal, knitwear exports started to decline due to a drop in orders from key markets such as Europe and the US as an impact of the Russia-Ukraine war. Though exports recovered a bit in the last few months, but still lower than in previous years.

Knitwear exporters say that buyer queries have improved, and it looks like order placements for the upcoming season should improve.

"The order flow is gradually increasing and spinning mills have started running at full capacity in all seven days that reflect the increase in demand from the garment sector," KM Subramanian, President, Tiruppur Exporters' Association (TEA), told recently.

Exporters are witnessing some pockets of recovery in major markets. Brands and retailers, who exhausted their inventories, started their calibrated buying in the knitwear segment.

"All major international brands during their recent conference calls guided for low single-digit growth for the calendar year 2023 and this is creating some confidence about the possibility of basic volumes without major contraction," says Prabhu Damodharan, Convenor, Indian Texpreneurs Federation.

Varun Vaid, Business Director, Wazir Advisors, a management consulting firm with a special focus on textile and apparel sectors, says that the revival is linked largely to the reduction of inflation in global markets which in turn is a macro factor linked to Russia-Ukraine war and stabilisation of global supply chains.

"If we look at just next season, the situation looks better but for sustained growth, the macro issues need to sort out," he adds.

Overall, exporters are expecting a gradual and month-on-month improvement and capacity utilisation from April and the industry is expected to reach good stability during Q2 of FY24.

Meanwhile, TEA and exporters continue to press for support from the government to tide over the short-term crisis caused by the poor order flow in recent months. They have urged the government to increase interest subvention provided under Interest Equalization Scheme from 3 per cent to 5 per cent across the board. ❐

18 textile items come under RoDTEP export benefit

The government has extended export benefits under ToDTEP scheme to 18 items related to textiles sector, including saari and lungi, with a view to boost shipments of these goods.

Benefits under the duty refund scheme—Remission of Duties and Taxes on Exported Products (RoDTEP)—will be given to exports made from March 23, the Directorate General of Foreign Trade (DGFT) has said in a notification.

Under the RoDTEP, various central and state duties, taxes, and leview imposed on input products, among others will be refuned to exporters.

"18 tariff lines...are being added...under RoDTEP for exports made from March 28, 2023" it said. The items include shirting fabrics, casement, and cambric. ■

Delivering the Ultimate Perfection

aspire excel
Keep trust, We care rest

Auto Doffer Retrofit

Bobbin Transport System

EXCELspin Compact

Aspire Excel's understanding and relationship with customers has driven us to create products that add value to your business and increase in productivity. Our renowned, customised products offer Reliability, Flexibility, Space Saving and Low Maintenance.

OUR PRODUCTS OFFER :

- Saving in Man Power
- Increased Efficiency
- Reliability
- Best in Class After Sales Support and
- Value for Money

Autocone Packing System

ASPIRE GRAND EXCEL AUTOMATION
111/109A, Civil Aerodrome Road, SIHS Colony,
Singanallur, Coimbatore 641014

+91 97509 55133
+91 97509 55131
aspiregrandexcel@gmail.com
www.aspireexcel.com

Navyāsaby Liva rolls out #Freetobe campaign with the cricketers from the Delhi Capitals, Women's Indian Premier League

Navyasa By livalaunched their new campaign, #freetobe with the talented and beautiful ladies from the Delhi Capitals team of the Women's Premier League. The ad film portrays and salutes today's bold, self-reliant women who dares to dream. navyasa by liva is the official principal partner of Team Delhi Capitals for the Women's Premier League.

The campaign recognizesthe many roles that every woman plays making them unique. It celebrates their courage, passion, and, spirit that is letting them #freetobe. The video showcases the players in a new light as they look stylish and fashionable in sarees. They work hard, but play hard too, and give style goals as they flaunt their glamorous sides.

The campaign film is live on YouTube, Facebook and Instagram, and grabbing a lot of eyeballs already.

As a part of the campaign, Indian all-rounder player Jemimah Rodrigues, South African all-rounder player MarizanneKapp, and Titas Sadhualso visited to the navyasa by liva store in Palladium Mall for an interaction with their fans. The event was hosted by sports presenter and lifestyle influencer Tanvi Shah.

Mr. ManMohan Singh – Chief Marketing Officer – Grasim Industries Ltd | Pulp & Fibre said, "We are proud to associate with the Delhi Capitals team of Women's IPL 2023. The brand essence of Navyasa by Liva is to cater to the woman of today who can do anything, be anything and achieve everything. This film is a way to honour and celebrate the WPL players who are breaking prejudices and bringing in a new era of cricket in India."

Absolutely necessaries to keep you cool for the summer!

As summer nears, we hop on to tick our season essentials list. From skin to apparels, for a normal routine day to office as well as our travels. With stepping up the accessories list to showing off personal style along with embracing the warm season is what summer season is all about. We have listed down below the summer essentials and how to ensure you have the right one for your requirement.

1. Shaes
2. Sunscreen
3. Natural clothes
4. Caps

Experts from LIVA would be glad to share further input.

About navyasa

navyāsa created by liva is a new-age contemporary saree brand by Aditya Birla Group. Wearable works of modern art, each saree features unique designs and is crafted with nature-based fabrics from liva. The fluid sarees drape effortlessly and the artistic prints let you unleash your creativity and freestyle your life.

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

CORPORATE NEWS

Lenzing teamed up with NFW to provide fashion

- Lenzing and NFW will offer a first look into a new sustainable leather alternative, by showcasing their 'MIRUM® x TENCEL™' collaboration at LINEAPELLE 2023
- The new MIRUM® material with TENCEL™ fibers is completely free from plastic and fully traceable from material to finished product

Lenzing has teamed up with NFW (Natural Fiber Welding Inc.) to offer TENCEL™ branded fibers as another backer option for NFW's patented plant-based technology, MIRUM®. The MIRUM® x TENCEL™ collaboration will be showcased for the first time in Milan, Italy during the international leather fair, LINEAPELLE, which will take place on 21st – 23rd February 2023 in Milan, Italy.

MIRUM® is a categorically unique material class, perfect for luxury accessories, fashion, footwear, automotive, and home goods. TENCEL™ Lyocell and Modal fibers are derived from sustainable wood sources and produced using environmentally responsible processes. The fibers are identifiable, verifiable and traceable through Lenzing's Fiber Identification technology which enables a physical identification of fiber origin at different stages of production. This enables full traceability of the fiber materials used during the production process, be it on a piece of fabric or finished product, like garments or footwear. Completely free from plastic, MIRUM® is made from natural rubber, plant and mineral pigments, plant-based oils and waxes, and an all-natural fabric backing. Each MIRUM® recipe is unique, but the commitment to using only natural ingredients is unchanging. Instead of relying on PU binders, a characteristic of most leather alternatives, MIRUM® uses natural rubber and plant oils for binding.

NFW's unique approach incorporates a diversity of natural ingredients like biobased charcoal, clay, cork powder, rice hulls, coconut fibers, recycled denim or seaweed to develop color or add visual interest. At the end of its life cycle, products made with MIRUM® can be recycled into new MIRUM® or ground up and returned to the earth, while TENCEL™ fibers are compostable and biodegradable, enabling complete circularity of finished products. The collaboration creates a uniquely sustainable alternative for leather applications as both TENCEL™ fibers and MIRUM® are versatile enough to be used in multiple applications.

"At NFW, we believe that plant matter is the only material that can scale to replace plastic. Since its inception, MIRUM® has been engineered to benefit our planet. By adding fabrics made of TENCEL™ to MIRUM®, we can enhance material transparency and traceability, while guaranteeing comfort and great hand feel on the skin. We are thrilled to join hands with the TENCEL™ brand and we will continue creating greener alternatives for the fashion industry," said Oihana Elizalde, Vice President and General Manager of MIRUM® at NFW. One of the best examples of the collaboration is the Allbirds Plant Pacer, which released last fall. The shoe's upper is made with MIRUM® lined with TENCEL™.

MIRUM® is an ideal option for designers and brands looking to reduce their environmental footprint and expand their creative palettes. TENCEL™ fibers are soft and pleasant on the skin, with outstanding moisture management. Adding backer material made of TENCEL™ fibers to MIRUM® not only creates a truly sustainable option but also one that enhances the comfort level of products made from leather alternatives.

"This partnership is a perfect example of how the combination of our sustainable TENCEL™ fibers and innovative materials like MIRUM® can go beyond traditional textiles. With innovation at

heart, there are infinite possibilities for application of the new material. TENCEL™ fibers used as backer not only increase the level of transparency and traceability of MIRUM®, but also enhance comfort – and with a very low carbon footprint. We are confident that the versatile material will be loved by supply chain partners and brands across footwear, fashion apparel, accessories, furniture, and even automotive industries," said Birgit Schnetzlinger, Head of Business Development Functional Wear and Footwear, Global Textiles Business at Lenzing AG.

Both Lenzing and NFW will be showcasing their products at LINEAPELLE 2023. Stop by Hall 9, booth H02 to see the new MIRUM® material backed with TENCEL™ fibers on display, including the Allbirds Plant Pacer. The product is commercially available now globally and the 'MIRUM® x TENCEL™' leather alternative product will be added to Lenzing's E-Branding Service this year.

LENZING™ ECOVERO™ hits production milestone and augments capacity to meet growing demand

- More than 300,000 tons of LENZING™ ECOVERO™ branded fibers have been produced since the brand's launch in 2017
- More than 500 brands around the world have partnered with LENZING™ ECOVERO™ to engage with eco-conscious consumers this year

- Lenzing to double production capacity of LENZING™ ECOVERO™ fibers in 2023 to meet the rising demand from leading brands across the world

Lenzing Group, a leading global producer of wood-based specialty fibers, is celebrating a key milestone as the production of LENZING™ ECOVERO™ branded viscose fibers reaches over 300,000 tons since the brand's inception in 2017.

"As we celebrate our milestone of over 300,000 tons produced, we look forward to achieving even higher capacity in 2023 with the addition of a new site for LENZING™ ECOVERO™ fiber production," says Caroline Ledl, Head of Product Management Textiles at Lenzing. "With the increase in LENZING™ ECOVERO™ capacity, our value chain partners and brands can benefit from better fiber availability to support their sustainability targets at a very competitive cost. Through efficient supply chains and the support of our teams around the world, brands can keep the additional cost for transitioning from conventional viscose to eco-responsible viscose within a very small range."

CORPORATE NEWS

The rise of LENZING™ ECOVERO™ from sustainability niche to market standard

Lenzing uses sustainably managed wood sources and renewable electricity to produce LENZING™ ECOVERO™ fibers. The company's sustainability efforts are widely recognized in the industry, as it took the top spot in Canopy's 2022 Hot Button Ranking and Report which examined the performance of viscose producers in protecting endangered forests. With production capacity in Austria, China and soon in Indonesia, LENZING™ ECOVERO™ is expanding its footprint across the world. This increase in production capacity comes at a timely moment as demand for eco-responsible fibers continues to rise, driven by the growing preference for sustainability from consumers and brands alike.

India was the first country to launch LENZING™ ECOVERO™ fibers in 2019. The product was introduced at the Lakme Fashion Week in collaboration with Abraham & Thakore, for their 'Kurta' collection. Since its launch more and more designers as well as major retailers have embraced LENZING™ ECOVERO™ fibers including Ritu Kumar, House of Anita Dongre, Future Group, Myntra's inhouse brands, including Roadster, Mast & Harbour, Dressberry, and House of Pataudi. LENZING™ ECOVERO™ fibers has continued its growth through partnerships with multinational companies that sell clothing manufactured of LENZING™ ECOVERO™ fibres in India, including Levis, H&M, Zara, Jack n Jones, Vero Moda, Only, etc.

In 2022, more than 500 brands have certified their products with Lenzing. Brands including Orta and Farm Rio have proudly communicated their sustainability commitments by highlighting their use of LENZING™ ECOVERO™ fibers in promotion campaigns. Other renowned brands which have used LENZING™ ECOVERO™ fibers in their collections include European fashion powerhouses Massimo Dutti, Lacoste, ba&sh, Zara, Mango, H&M, Jack and Jones, Vero Moda, Only, Tom Tailor and Lindex, denim brands American Eagle, Levi's and Tommy Hilfiger, retail giants Kmart Australia, Target Australia, and Marks & Spencer, as well as brands such as Guess, Forever New, Shona Joy, Myntra, Calzedonia, Trenery, Arnhem, ELK, Mambo Australia and Mambo Surf De Luxe.

"When we first launched the LENZING™ ECOVERO™ brand, there were only a few suppliers and brands who started their sustainable viscose journey with us. Five years later, LENZING™ ECOVERO™ fibers are now available through hundreds of yarn spinners in all major textile markets and have found their way into countless brand collections," says Harold Weghorst, Vice President of Global Marketing and Branding at Lenzing AG. "More and more brands choose LENZING™ ECOVERO™ not only for its strong sustainability credentials, but for the traceability and transparency we stand for. As concerns about greenwashing across the value chain continue to grow, it is increasingly important for brands to be able to confidently make their good choices visible."

A backbone for transparency in the supply chain, Lenzing's innovative Fiber Identification technology enables LENZING™ ECOVERO™ fibers to be identifiable in the fabric and in the final product, providing brands with full traceability and protection from counterfeiting. New initiatives to make the technology more accessible and impactful will be rolled out in 2023.

About LENZING™ ECOVERO™

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

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

About TENCEL™

TENCEL™ is the flagship brand under The Lenzing Group that covers textile specialty product fiber offerings. Since 1992, the TENCEL™ brand has been driving the evolution of fiber solutions for the apparel and home textile segments through several industry-first innovations and environmentally responsible production processes. 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 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. 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.

Fibers and filaments used under the TENCEL™ brand are derived from certified and controlled sources following the stringent guidelines of the Lenzing Wood and Pulp Policy. They are produced via environmentally responsible production processes and are compostable and biodegradable, thus can fully revert back to nature. They are designated by the USDA (U.S. Department of Agriculture) BioPreferred® Program. TENCEL™ Luxe is registered by The Vegan Society.

About the Lenzing Group

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

The Lenzing Group's high-quality fibers form the basis for a variety of textile applications ranging from elegant clothing to versatile denims and high-performance sports clothing. Due to their consistent high quality, their biodegradability and compostability Lenzing fibers are also highly suitable for hygiene products and agricultural applications.

The business model of the Lenzing Group goes far beyond that of a traditional fiber producer. Together with its customers and partners, Lenzing develops innovative products along the value chain, creating added value for consumers. The Lenzing Group strives for the efficient utilization and processing of all raw materials and offers solutions to help redirect the textile sector towards a closed-loop economy. In order to reduce the speed of global warming and to accomplish the targets of the Paris Climate Agreement and the "Green Deal" of the EU Commission, Lenzing has a clear vision: namely to make a zero-carbon future come true.

Key Facts & Figures Lenzing Group 2021

Revenue: EUR 2.19 bn

Nominal capacity: 1,145,000 tonnes

Number of employees (headcount): 7,958

ABOUT NFW

Natural Fiber Welding (NFW) is the Circularity of Things company giving industries categorically new material solutions to create responsibly. NFW invents and manufactures shockingly sustainable products from plants. Beginning with naturally circular, biobased ingredients, NFW is making a material-rich, plastic-free future possible. NFW was founded in 2015 and is based in Peoria, Illinois.

ABOUT MIRUM®

MIRUM® is a categorically new, plant-based material that is perfect for footwear, fashion, automotive, and accessories. MIRUM®'s miraculous customizability means it can look like leather or carbon fiber — you decide. MIRUM® is a highperformance solution for designers and brands looking to shrink their footprint and expand their creative palettes. At the end of its life, MIRUM® can be recycled into new MIRUM® or ground up and returned to the earth: At last, a climate-friendly, plasticfree option.

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

CORPORATE NEWS

100% naturally sourced yarn: RadiciGroup rolls out Biofeel® Eleven

At Performance Days, the new sustainable product for luxury garments, sportswear and workwear

Why Biofeel® Eleven to be used for fabrics & garments

Biofeel® Eleven is a natural-sourced yarn born of a story that begins in India. In Hindi, "Eranda" is a small bean from which the perfect oil is extracted for the bio-polymer from which everything begins. And it is Castor oil that is the source of these new 100% sustainable yarns, which can be used for fabrics and fine garments in many sectors, from fashion to sports, from automotive to home textiles.

RadiciGroup, the only European producer of this material, has chosen the "Performance days" trade fair (that took place in Munich on 15 and 16 March) to unveil this yarn with excellent technical and environmental performance.

Today, 80% of the world's castor-oil plantations are in India, particularly in the Gujarat region, due to its favourable climatic conditions. In this area, local people can earn an additional income by cultivating semi-arid land that does not compete with food production, and by applying the skills they have acquired over time to this work. Over the years, thanks to research, development and innovation in the value chain, the seeds from which the oil is produced have been selected and certified to ensure the finest quality, also in terms of end uses.

Castor beans contain around 45% oil, rich in ricinolein, from which the bio-polymer polyamide 11 is derived. This is the polymer RadiciGroup uses for its Biofeel® Eleven yarn. What remains after the first pressing is a highly effective bio-fertiliser that is returned to the soil. In short, a true example of circularity and "zero waste".

"Biofeel® Eleven - underlines Marco De Silvestri, sales and marketing head of the Advanced Textile Solutions Business Area. - has unique and special properties, such as low water absorption, increased lightness and improved strength properties. This means being able to produce fabrics that are both durable and comfortable to the touch and skin. This translates into a wide range of applications, from sportswear to workwear, from fashion garments to textiles for luxury cars."

For further information, please contact :
RadiciGroup
<info@nl.radicigroup.com> ❐

Tough times but rays of improvement visible

- Vardhman Textiles reported a sharp drop in EBITDA for the quarter (down 46% YoY and 32% QoQ) on account of 9% YoY lower sales and gross margin contraction.
- Gross margin declined to 37% from 52% YoY and 43% QoQ because of the sharp drop in yarn prices along with inventory of high-cost cotton. Consequently, EBITDAM stood at ~7.3% in Q3FY23 vs. 24.2% YoY and 14.6% QoQ. This is the lowest quarterly EBITDAM in the past almost 10 years, barring Q1FY21 (Covid lockdown period).
- We maintain our BUY recommendation with Dec-23 TP of Rs 440 (from Rs 455 earlier), as we believe earnings have bottomed and there are clear signs of improvement with lower cotton price and improving yarn-cotton spread.

For further information, please contact :
Rhea D'silva
White Marque Solutions
Creative Strategy, Public Relations
Digital Outreach, Vardhman Textiles
Landline : 022-26335094-98, Extension 15
Cell +91 9819832370
Email : rhea@whitemarquesolutions.com
Office No: 422/423, 4th Floor, Laxmi Plaza,
Laxmi Industrial Estate, Andheri (West),
Mumbai-400053
Website: www.whitemarquesolutions.com ❐

ColorJet holds on Platinum Sponsorship of ITMA 2023

ColorJet Group signed for the Platinum Sponsorship of the world's leading textile and garment machinery exhibition ITMA 2023, scheduled from 8-14 June, 2023 at Fiera Milano, Milan, Italy.

The sponsorship was sealed at a meeting held after the exhibition site visit on 12 January in Milan. The sponsorship agreement was handed over to Mr. Smarth Bansal General Manager, ColorJet Group by Ms Eileen Ng, Deputy Project Director and Head of Marketing, ITMA 2023.

ITMA is recognised as the 'Olympics' of textile and garment machinery exhibitions. It showcases technologies and products for the entire textile making value chain. ITMA 2023 is set to make a

strong presentation with over 1,570 exhibitors from 42 countries.

On the occasion, Mr. M.S Dadu - Chairman, ColorJet Group said "This is indeed a momentous occasion for ColorJet Group to be a Platinum Sponsor of ITMA second time in a row. Also, considering the global digital textile printing market size which is expected to reach $7.9 billion by 2030 at a CAGR of 14.8% from 2021 to 2030, we are sure that this Partnership will help to reinforce our Brand strength on global Platform and positioned ColorJet as leading manufacturer company of Digital Textile Printers, He further added.

Ms NG commented, "As a leading manufacturer of digital textile printers, ColorJet understands the value of association with ITMA, the world's largest international textile and garment technology exhibition. Both organisations have a common passion for the textile industry. We are delighted that they have extended their association with us for another edition. We would like to wish them success with their participation in ITMA 2023."

ColorJet will be demonstrating the range of textile printing solutions in Hall: H7, Booth No B-107.

About ColorJet India Ltd:

ColorJet Group, manufacturer of Digital Textile printers from India, was founded in 1995 and has since been known for its industry-leading performance. It is one of the top global exporters of wide format printers and provides world class and complete fabric printing solutions. ColorJet's digital textile machines are revolutionizing the world of textile printing with their robust performance, lower downtime, high value addition and quick ROI.

ColorJet markets its products in around 30 countries worldwide till date, ColorJet has installed over 5,000 of its printing solutions and products across 450 cities around the world backed by a strong 350-member team.

ColorJet Constantly innovate its product with the its R&D facility recognised by the Ministry of Science & Technology, Govt. Of India.

For further information, please contact :
Mr. Abhijeet Kumar
ColorJet India Ltd
Email: abhijeet.kumar@colorjetgroup.com ❐

Manufacturers of Italian Textile Machinery will be vibrantly present at Index 2023, worlds leading nonwovens exhibition from 18 to 21 April 2023

From 18 to 21 April 2023, Index, the world's leading nonwovens exhibition, will take place in Geneva. About 90 Italian exhibitors will be present at this edition, including over 40 machinery manufacturers. As in past editions, ITA – Italian Trade Agency, in cooperation with ACIMIT, the Association of Italian Textile Machinery Manufacturers, has organized an exhibition space reserved for companies manufacturing machinery for the sector. There will be 12 exhibiting companies in the Italian pavilion (Hall nr. 4, booths nr. 4131 & 4137). Of these, the ACIMIT members are : Bematic, Bombi, Bonino, Dell'Orco & Villani, Ferraro, Loptex, Ommi, Rf Systems, Texera, Zappa Macchine. Other ACIMIT member companies will exhibit fair with their own booths.

The nonwovens sector has grown significantly in recent year. According to EDANA, the association grouping European companies operating in the sector, after the impressive growth in the previous year, the production volume of nonwovens grew by 2% in 2021, exceeding 3 million tonnes.

"The growth in nonwovens production has also driven the demand of machinery for nonwovens, comments Alessandro Zucchi, president of ACIMIT. The Italian technological supply has consequently expanded. At the 2023 INDEX edition, the presence of a significant number of Italian machinery manufacturers testifies their desire to play a leading role also in the production of machinery for nonwovens".

The trend of Italian exports testifies the strong increase in production of nonwovens machinery. Indeed in 2021 Italian sales abroad reached a value of 102 million euro (+77% over the previous year) and in the first nine months of 2022, the value of Italian exports stood at 92 million euro.

Visit the Italian Pavilion @INDEX2023, Hall nr. 4, booths nr. 4131 & 4137.

For further information, please contact :
Mauro Badanelli, ACIMIT Economic-Press
Tel : +39024693611
Mail : economics-press@acimit.it ■

Leading industry experts to give keynote address at ITMA forums on sustainable textile innovation

Two industry forums on nonwovens, and textiles and colourants will be reprised at ITMA 2023 which will be held in Milan this June. The ITMA Nonwovens Forum and ITMA Textile Colourants and Chemicals Forum will feature renowned experts who will offer insights into current challenges and share ideas on how the textile industry can achieve sustainability by leveraging innovative technologies.

Mr Ernesto Maurer, President of CEMATEX, said: "Challenges in the industrial environment also bring with them a wealth of innovation opportunities. The ITMA forums will bring together stakeholders across the entire value chain to review the issues of the day, dialogue, collaborate and ensure that we will have a sustainable future. ITMA 2023 offers a unique platform as it attracts all the textile industry players in one convenient place. Delegates can also visit the exhibition to discover new trends and technologies in the sustainability sector."

ITMA Nonwovens Forum

The Nonwovens Forum will feature a keynote presentation by Dr Bryan Haynes, Technical Director for Global Nonwovens at Kimberly-Clark Corporation (United Kingdom). He will speak on the topic: Ready Now Nonwoven Solutions for the Global Plastics Crisis. In his presentation, he will provide insights into solutions that are commercially available, highlighting Kimberly-Clark's sustainability journey.

According to Dr Haynes, who has a PhD in Mechanical Engineering from The University of Tennessee at Knoxville, the Single Use Plastics Directive was a wake-up call to the nonwoven industry. Hence, he would like to urge industry players to explore 'Coopetition' or cooperative competition as this will accelerate speed to market solutions.

Following the keynote, there will be two sessions with presentations by ITMA 2023 exhibitors. The forum will end with a panel discussion on the theme, Leveraging Sustainable Innovation and Digital Technology in the Nonwoven Industry.

The panel includes Dr Haynes and programme committee members: Dr. Behnam Pourdeyhimi, Executive Director & Associate Dean of The Nonwovens Institute; Dr.-Ing. Martin Dauner, Head of Competence Centre, Chemicals Fibres & Nonwovens of the Deutsche Institute für Textil (DITF); and Professor Stephen J. Russell, Professor of Textile Materials & Technology of Leeds Institute of Textiles and Colour.

ITMA Textile Colourants and Chemicals Forum

Held since 2011, the Textile Colourants and Chemicals Forum will feature a joint keynote presentation by Mr Prasad Pant, Director, South Asia, ZDHC Foundation and Ms Sophie Mather, Co-Founder and Executive Director, The Microfibre Consortium (TMC).

The presentation, Textile Wastewater: Addressing Microfibre Loss during Manufacture, focuses on the impact of fibre shedding from clothing during manufacture and consumer use. Microfibres have been flagged as an environmental hazard and the presenters will share the key findings from the joint project by the two organisations on fibre fragmentation in wastewater. Through the presentation, they would like to propel various stakeholders to collaborate towards a sustainable manufacturing value chain.

A highlight at the forum is the panel discussion, Unlocking the Decarbonisation Opportunity led by Fashion for Good (FFG). Moderated by Ms Jana van den Bergen, FFG Innovation Manager, the session will map the opportunities for impact reduction and dive into FFG's D(R)YE Factory of the Future Project.

The forum programme committee comprises Mr Andrew Filarowski, Deputy Chief Executive, Society of Dyers and Colourists (SDC); Ms Diana A. Wyman, Executive Vice President, American Association of Textile Chemists and Colorists (AATCC), Mr Frank Michel, Executive Director, The ZHDC Foundation; Mr Janak Mehta, Chairman, Asia Dyestuff Industry Federation (ADIF); and Mr Stefano Cavestro, President, Associazione Italiana di Chimica Tessile e Coloristica (AICTC).

The Textile Colourants and Chemicals Forum will be held on 9 June 2023, while the Nonwovens Forum will be held on 10 June 2023. The delegate fee is €219. Members of supporting organisations enjoy a preferential rate of €189. Registration for the event badges can be done at www.itma.com.

Besides ITMA forums, participants can also attend other complimentary activities, such as the Innovator Xchange (9 – 13 June) and the Innovation Video Showcase which will feature selected videos from exhibitors.

To be held in Milan from 8 to 14 June, ITMA 2023 will feature over 1,600 exhibitors from 44 countries. Visitors can register online and enjoy early bird badge rates till 7 May. Each badge entitles the visitor to access ITMAconnect, the world's largest directory of textile machinery manufacturers. For enquiries, please email info@itma.com.

For further information, please contact :
Ms Cornelia Buchwalder, CEMATEX
Tel: +41 44 384 48 12
Email: info@cematex.com, www.cematex.com
Ms Daphne Poon, ITMA Services
M: +65 94789543, Email: daphnepoon@itma.com
www.itma.com ■

The Clean Show Announces August 2025 Show Dates at the Orange County Convention Center, Orlando, Florida

The Clean Show, North America's largest dry cleaning, laundering, and textile care exposition, is excited to announce its 2025 show dates. This four-day event will take place August 23 – 26, 2025, at the Orange County Convention Center in the vibrant city of Orlando, Florida.

Recognized as the premier exposition for laundering, dry-cleaning, textile care services, supplies, and equipment, The Clean Show attracts industry professionals from around the globe to see the newest and most technologically advanced products the industry has to offer, featuring unmatched networking opportunities, live demonstrations for all segments of the industry, and more. In addition to exhibits, the show offers educational seminars on the latest technology, business management, sustainability, and more.

"The Clean Show is undoubtedly the premier event for the laundry and linen industry. It is well designed, well managed, and very well attended by virtually anyone that is involved in our industry," says Clean Show exhibitor David Netusil of Jensen USA Inc. "All of us at JENSEN USA and the JENSEN-GROUP always looks forward to exhibiting our new innovations, concept innovations, and current technology alike. The Clean Show also provides the perfect venue for us to meet with thousands of customers in a relaxed environment over a four-day time frame. Our attendance is never in question."

"Exhibiting at The Clean Show is a great way to draw attention to our new products and services, giving us the stage to create a memorable experience for key industry attendees," says exhibitor Peggy Bland of KannegiesserETECH. "It provides an opportunity to network with other industry professionals, gain visibility, and increase our brand recognition."

Details on exhibition space sales will be announced later this year. Returning exhibitors from The Clean Show 2022 will have early access to secure their exhibition space.

"The Clean Show has proven to be the ideal exposition for industry leaders to find the latest innovations in textile care, ranging from industrial machinery and conveyor equipment to computer software and business systems. We're excited to bring these business leaders, decision makers, product designers and purchasers back together in 2025 to continue to drive innovation, collaboration and growth within this sector," said Greg Jira, Show Director.

The Clean Show is organized in collaboration with five industry-leading associations: Association for Linen Management (ALM), Coin Laundry Association (CLA), Dry-cleaning & Laundry Institute (DLI), Textile Care Allied Trades Association (TCATA), and Textile Rental Services Association of America (TRSA).

"With the momentum of Clean 2022 still pushing our industries forward, we're very excited to have our Clean 2025 dates and location finalized and ready to share," says Brian Wallace, President/CEO of Coin Laundry Association and Chair of Clean's advisory council. "The Clean Show is an essential destination for all five partner associations (ALM, CLA, DLI, TRSA and TCATA) and for our collective stakeholders. We look forward to working together to bring the best show experience to all in 2025."

Since 2019, The Clean Show has been a part of Messe Frankfurt's Texcare Global brand, an internationally-recognized exposition brand that brings together businesses and professionals from the entire textile-care sector including Texcare International (the world's leading trade fair for textile care). For more information, please visit: www.texcare.com/brand.

For further information, please contact :
Ruhi Shaikh, Senior PR,
Marketing & Community Manager
Messe Frankfurt Inc
3200 Windy Hill Rd., Suite 500 W, Atlanta, GA 30339
Tel : +1 6786 433 549
ruhi.shaikh@usa.messefrankfurt.com ❐

ITMA 2023

08-14 June 2023
Milan, Italy

Transforming the World of Textiles

Discover, Exchange and Gain Insights on Latest Innovations and Industry Trends with Three ITMA Organised Events

ITMA 2023 Textile Colourants and Chemicals Forum

9 June, 10:30 am to 4:00 pm

Engage in a conversation with industry experts and learn about the latest industry trends. Gain practical and technical insights into the colourants and chemicals industry.

Featuring a joint presentation by our keynote speakers who will be sharing on Textile Wastewater: Addressing microfibre loss during manufacture.

TEXTILE EVENTS

ITMA 2023 Nonwovens Forum

10 June, 10:30am to 4:00pm

The applications of nonwoven products have risen at a rapid pace, especially in light of the textile industry's desire to produce quality products that are environmentally friendly and cost-effective. Significant growth in the nonwovens sector has led to further investments in research and development and innovative manufacturing processes in order to meet the demands of the sector.

In the midst of supply chain disruptions, discover the latest innovations and solutions designed to keep businesses at its peak efficiency. Join our keynote speaker who will be sharing on Ready Now Nonwoven Solutions for the Global Plastics Crisis.

Innovator Xchange

9 - 13 June, 10:30am to 5:00pm

The Innovator Xchange (9 - 13 June) is a complimentary platform that offers visitors a unique opportunity to learn about future trends, rare insights, and strategic solutions on four trending topics presented by our Research & Innovation Lab and industry professionals.

On 9 June, the winners and finalists of the ITMA Sustainable Innovation Award for both categories, Industry Excellence and Research and Innovation, will be presenting their innovations.

The keynote speakers for each trending topic are :

- **Advanced Materials**

  Professor Parikshit Goswami
  Professor of Technical Textiles
  The University of Huddersfield

- **Automation and Digital Future**

  Mr Kevin McCoy
  Vice President, Made
  New Balance Athletics

- **Innovative Technologies**

  Dr Jesse S. Jur
  Director of Ecosystem Technology
  Advanced Functional Fabrics of America

- **Sustainability and Circularity**

  Mr German Garcia Ibañez
  Head of Sustainable Raw Materials & Circularity
  Edificio Inditex

Access ITMAconnect Now

Explore ITMAconnect, the world's largest digital listing of international textile and garment technology manufacturers.

ITMA 2023 visitors will be able to source from over 1,600 exhibitors by connecting via the People tab on the Meet page.

Login to the Visitor Centre and start your journey today.

Download ITMA App Now

Download the ITMA App today from the App Store and Google Play. Be the first to view the Exhibitor List incorporating ITMAconnect digital space and floorplan on the app. The ITMA App is your essential contact and content engagement hub for ITMA 2023 and ITMAconnect on the go. Navigate within the venue with the wayfinder.

New Smart Exhibitor List with Integrated Floorplan Now Accessible on the Website

The ITMA 2023 Exhibitor List has a brand new look! It's smart, interactive and fully integrated with the floorplan. Simply click on the list to locate exhibitors on the floorplan, or click on the floorplan to find out more about the exhibitors and their product offerings.

Visit www.itma.com and start exploring the innovative solutions from over 1,600 exhibitors. Planning your trip to ITMA 2023 is now a breeze. If you have not purchased your visitor badge, register now to enjoy the early bird rate!

Join the ITMAconnect Onboarding Webinar for Visitors

All registered ITMA 2023 visitors have immediate access to their ITMAconnect account. For the first time, visitors and exhibitors are able to connect and start the business discussions even before reaching Milan!

Get started and make the most out of the world's largest digital listing of textile and garment technology manufacturers. ITMAconnect is power packed with features to help you:

- Source efficiently by connecting directly with the technology manufacturers and IP owners via the People tab on Meet page
- Maximise your visit by exploring the list of recommended exhibitors that meets your business interest and main business sector
- Discover the list of events taking place at ITMA 2023 to plan your visit

We invite you to join one of the upcoming onboarding webinars for visitors. Each session takes approximately 45 minutes.

- 28 March 2023, Tuesday, 9am (CET)
- 11 April 2023, Tuesday, 9am (CET)
- 27 April, Thursday, 3pm (CET)
- 9 May, Tuesday, 9am (CET)
- 9 May, Tuesday, 3pm (CET)

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

Integrated Expo on Fabric to Finish Solutions for Garment & Textile Manufacturing

GARTEX texprocess India

11-13 May, 2023, Jio World Convention Center, Mumbai

Visitor Profile

- Apparel Brands & Labels
- Boutique Owners
- Buying House/Agents
- Design Studios & Institutes
- Distributors & Agents of Textile & Garment Machinery Accessories
- Dyeing Finishing Companies
- Fashion Designers Merchandisers
- Fabric Sourcing Teams from Top Apparel Brands
- Garment Manufacturers
- Home Furnishing Companies
- Interior Decorators/Designers
- Knitwear Manufacturers
- Laundry Operators & Dry Cleaners
- Leather Goods Manufacturers
- Local & International Retail Chains
- Textile Manufacturers & Designers
- Textile Printing Houses

About Gartex Texprocess India

After successfully wrapping 8 editions of the most exclusive exhibition incorporating the complete value chain in the garment and textile manufacturing industry, Gartex Texprocess India is yet again ready with its business generating and networking show floor to take place in Mumbai, the Fashion Capital this year followed by its Delhi edition. Following an overwhelming response the upcoming edition in Mumbai will be targeting national and international industry professionals to join in for the industry's advancement. The show has emerged as the country's most comprehensive trade show for garment and textile machinery, fabrics, accessories and allied industry, incorporating; Denim Show, Fabrics & Trims Show and Screen Print India.

Incorporating Shows

India's Premier Exhibition on Entire Denim Value Chain

Fabrics & Trims Show

International Exhibition for Fabrics, Trims & Accessories

Screen print India

India's Leading Trade Fair on Screen, Textile, Sublimation and Digital Printing Technologies

Exhibitor Profile

- Garment and textile machinery
- Embroidery Technology
- Digitex - digital textile printing technology
- Screen printing Textiles
- Laundry/textile processing
- Automation and software/services
- Fabrics
- Trims/embellishments and accessories
- Allied products and services

About the Organisers

MEX Exhibition Pvt Ltd.

MEX Exhibitions Pvt. Ltd. is an international exhibition company with a strong presence of over four decades in the advertising industry, over 26 years in publishing & 20 years in exhibitions. The company has produced more than 100 market-leading trade exhibitions for various segments in addition to publishing various magazines & advertising trade directories of repute. Successful exhibitions are conducted all over India, Dubai, Singapore and Thailand.

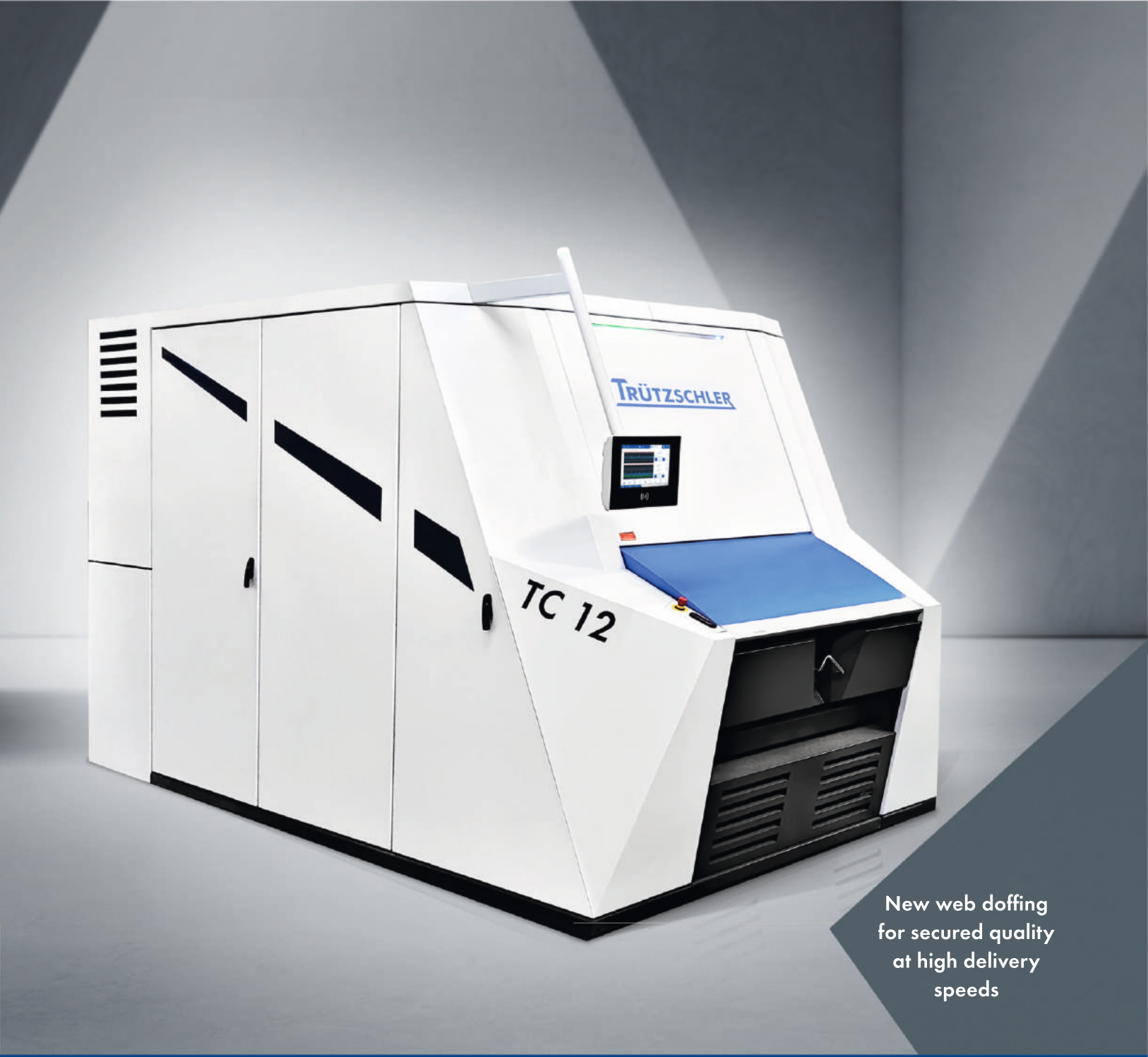
For more details, visit our website at : www.mexexhibits.com

Messe Frankfurt Trade Fairs India Pvt. Ltd.

A subsidiary of Messe Frankfurt Exhibition GmbH, one of the largest event organisers in the world, Messe Frankfurt Trade Fairs India Pvt. Ltd has a background of colossal experience of the international exhibition and conference industry and expertise in trade-fair marketing. Operational for over 15 years in India, Messe Frankfurt holds a portfolio of 20 prestigious trade fair brands and over 35 conferences establishing itself as the country's most professional and leading trade fair and conference organiser. With offices in Mumbai and Delhi, a dedicated workforce of over 100 serves the B2B markets of the Indian sub-continent across various genres such as automative, automation, lighting, technology and production, textiles, consumer goods, entertainment, media and creative industries and environment technology.

For more information, please visit our website at : www.in.messefrankfurt.com

For further information, please contact :
MEX Exhibitions Pvt. Ltd.
9 LGF, Sant Nagar, East of Kailash
New Delhi-110065, India
Contact Details : Mr. Prabal Gupta
Mob : +91-9873993950, Tel : +91-11-4646848
Email : info@mexexhibits.com
Messe Frankfurt Trade Fairs India Pvt. Ltd.
Gala Impecca, 5th Floor, Andheri Kurla, Road
Chakala, Andheri (E), Mumbai-40093
Tel : +91-22-67575990
Email : priyanka.pawar@india.messefrankfurt.com ■



New web doffing for secured quality at high delivery speeds

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

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

TRÜTZSCHLER
SPINNING

www.truetzschler.com

Show Owner
CEMATEX

Show Organiser
ITMA SERVICES
T: +65 6849 9368
E: info@itma.com

CEMATEX Associations
ACIMIT (Italy)
AMEC AMTEX (Spain)
BTMA (United Kingdom)
GTM (Netherlands)
SWISSMEM (Switzerland)
SYMATEX (Belgium)
TMAS (Sweden)
UCMTF (France)
VDMA (Germany)

Scan to Register

Connect With Us @ ITMA2023

Oerlikon

hycuTEC the focus of many discussions among visitors at the FILTECH trade fair

Oerlikon Nonwoven hit the perfect note among visitors at this year's FILTECH trade fair in Cologne with its hycuTEC hydrocharging technology for efficiently charging filter media. Following the market launch of hycuTEC last year, we have now for the first time been able to discuss initial experiences acquired in industrial utilization. Being presented with the EDANA FILTREX Innovation Award confirms the innovativeness and the success factors of this technology.

Raw material savings of up to 30% can be easily achieved with the hycuTEC technology

"We premiered hycuTEC in front of an international audience at last year's FILTECH", reminisces Dr. Ingo Mählmann, Vice President Sales & Marketing at Oerlikon Nonwoven. And the hycuTEC technology has lost none of its attractiveness since then. "Interest remains extremely high", adds Ingo Mählmann. The hydrocharging solution for meltblown systems is most convincing with its superlative filtration efficiency with simultaneous lower pressure loss. This innovative concept dispenses with an additional drying process when manufacturing most highly-separating electret filter media. As a result, it saves water and, above all, energy compared to alternative processes. Furthermore, meltblown producers can make raw materials savings of up to 30% as a result of the improved efficiency of the media, while simultaneously lowering the basis weights.

Oerlikon Nonwoven at FILTECH 2023

In addition to the meltblown technology featuring hycuTEC, Oerlikon Nonwoven's spunbond technology also proved to be of great interest to visitors. Spunbond media are becoming increasingly important in filtration applications – as backing materials for filter media and as the filter media them-selves. The fact that the nonwoven structure can be tailored to specific tasks enables targeted, customer-specific requirements for various functions to be realized. And combining various functions, various fiber crosssections and polymers in a single layer is also possible. Both classical standard polymers and bio-based or recycled polymers can be used as raw materials.

Sustainable, Environmental friendly nonwoven system aimed into future to be presented at INDEX, in Geneva, from 18-21 April, 2023

Everybody's talking about sustainability – and Oerlikon Nonwoven shows us how it's done. At the world's leading nonwovens trade fair, the INDEX, being held in Geneva in Switzerland between April 18-21, 2023, the systems manufacturer will be presenting its product portfolio for nonwovens applications for numerous technical, hygiene and medical solutions focusing on sustainability, quality and efficiency. Trade fair attendees will be able to meet the nonwovens experts at stand 2314 and take a closer look at the hycuTEC charging unit, the current holder of the FILTREX Innovation Award, among other things.

"When developing our technologies, we not only focus on system efficiency and product quality, but also on sustainability, energy efficiency and preserving resources", explains Dr. Ingo Mählmann, Vice President Sales & Marketing at Oerlikon Nonwoven. Our declared objective is to be the leading partner for manufacturing sustainable and environmentally-friendly solutions in the nonwovens industry. "There are many

future-oriented bio-based and biodegradable polymers that can be used to produce nonwovens", adds Ingo Mählmann. "Here, we want to support our customers in becoming pioneers in processing such polymers." Alternatives to the standard polymers widespread today are required and Oerlikon Nonwoven is able to offer the competence and the technologies for processing these new polymers.

Bio-based polylactic acid nonwovens

The bio-based polymer PLA (polylactic acid) may be an alternative for those wanting to manufacture sustainable nonwovens. And the Oerlikon Nonwoven meltblown and spunbond technologies are ideally suited for processing PLA, for example. At the INDEX, the company will be showcasing a sample application: medical oronasal masks manufactured entirely from PLA nonwovens.

With the Phantom technology, wipes can be produced "plastic-free".

Preserving resources with the hycuTEC

In the case of its hycuTEC hydro-charging solution, winner of the FILTREX Innovation Award 2022, Oerlikon Nonwoven offers a technology for the efficient and simultaneously energy-saving charging of meltblown nonwovens. This enables the filter efficiency to be increased to more than 99.99%.

This innovative technology is able to dispense with an additional drying process when manufacturing most highly-separating electret filter media, allowing considerable savings in the consumption of water and, above all, the energy required for drying. In turn, this ensures very low energy consumption both in the manufacturing process itself and across the entire lifespan of the hycuTEC filter media – used in ventilation and air-conditioning equipment, for example. Furthermore, meltblown producers are able to achieve potential raw material savings of around 30% as a result of the improved efficiency of the media. In other words: the same or even superior performance for lower media running meter weights. As a result, the hycuTEC technology is a particularly future-proof, resource-friendly technology.

Ecological wipe manufacture with the Phantom technology

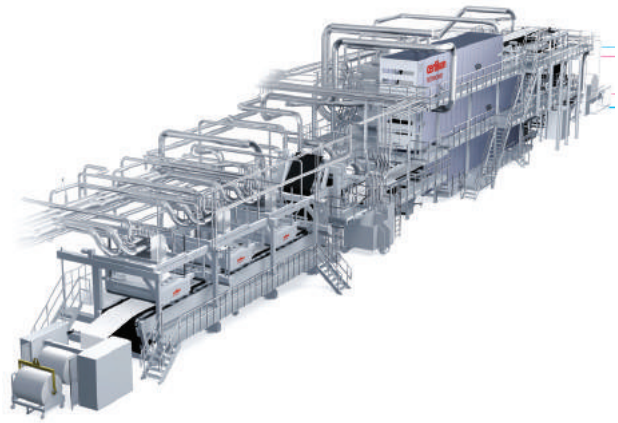
With its Phantom technology, Oerlikon Nonwoven offers an innovative co-form technology for manufacturing wipes – including wet wipes made from pulp and polymer fibers, for instance. Here, the properties of pulp and polymer are combined in a manner that perfectly unites the properties of the starting materials. The material mix can comprise up to 90% cellulose fibers, which is a renewable raw material. Choosing a bio-based and biodegradable polymer enables the entire wipe to be manufactured in a 'plastic-free', and hence environmentally-friendly, manner.

Compared to conventional processes such as spunlace (hydroentangled carded nonwovens), the patented Phantom technology offers ecological, performance and cost advantages both in the application and in the manufacture: dispensing with hydroentanglement renders subsequent drying of the material redundant, therefore saving on the energy required for drying. Product parameters, such as softness, tenacity, dirt absorption and liquid absorption, can be optimized by means of the recipe and the process settings. The Phantom technology enables the manufacture of both flexible and absorbent structures and highly-textured materials.

Airlaid technology: sustainable nonwovens made from pulp

Pulp or cellulose fibers as raw material for manufacturing nonwovens are currently virtually unrivaled with regards to sustainability and environmental compatibility. The Oerlikon Nonwoven airlaid process is the ideal solution for processing this raw material into high-end products for a wide range of applications. Today, there is huge demand for manufacturing solutions for high-quality, lightweight airlaid nonwovens with economically-attractive production speeds and system throughputs. Here, the patented

Oerlikon Nonwoven formation process, which has proven itself in numerous production systems, is setting standards – for homogeneous fiber laying and superb evenness even for nonwovens with low running meter weights. Whether as a system exclusively for airlaid nonwovens or combined



For sustainable nonwoven production - Oerlikon Nonwoven Airlaid Technology

with other nonwoven processes, the benefits of the Oerlikon Nonwoven airlaid technology are today already being deployed in numerous applications.

About Oerlikon Polymer Processing Solutions Division

Oerlikon is a leading provider of comprehensive polymer processing plant solutions and high-precision flow control component equipment. The division provides polycondensation and extrusion lines, manmade fiber filament spinning solutions, texturing machines, BCF and staple fiber lines and nonwoven production systems. Its engineering competence leads to sustainable and energy-efficient solutions for the entire textile value added chain with a circular economy approach. Moreover, Oerlikon develops and produces advanced and innovative hot runner systems for the injection molding industry as well as customized gear metering pumps for the textile, automotive, chemical, dyes and lacquers industries.

The division serves customers through its technology brands – Oerlikon Barmag, Oerlikon Neumag, Oerlikon Nonwoven and Oerlikon HRSflow - in around 120 countries with production, sales, distribution and service organizations.

The division is part of the publicly listed Oerlikon Group, headquartered in Switzerland, which has 12 100 employees and generated CHF 2.9 billion in revenue in 2022.

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

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
Claudia Henkel
Marketing, Corporate Communications & Public Affairs, Oerlikon
Tel. +49 4321 305 105
Fax. +49 4321 305 212
claudia.henkel@oerlikon.com

A.T.E. Enterprises Pvt. Ltd.

A technical article on Mahlo Qualiscan QMS-12

Make quality a habit with the MahloQUALISCAN Quality Control System

With Indian textile manufacturers taking centre stage in the global textile industry, it has become essential for themto ensure top-notch end product quality over large volume production. Rising raw material costs make it even more necessary to ensure consistent quality of the end product, as rejections affect the economy of manufacturingand can quickly turn a textile processor's operations unremunerative. Therefore, rather than the sample-based statistical quality control processes followed in the past, continuous monitoring for quality and other control functions has now become the norm in the industry.

The MahloQualiscan QMS-12

The Qualiscan QMS-12 is a modular system for the measurement, logging, and controlof critical process parameters over the entire width and length of arunning web.

Mahlo Qualiscan QMS-12

The QMS-12 can be used virtually in every area of industry in which products are produced or finished (including coated products) as a web. The versatile sensors and measuring devices of the QMS-12 can sense, log, and continuously control (in-process) parameters as weight per m2, coating weight, moisture, or thickness of web-type products. The sensors of the Qualiscan product family can scan the following parameters:

- Basis weight
- Humidity
- Thickness
- Layer thickness
- Air permeability
- Ash content
- Product temperature
- Gap temperature control

Principle of operation

Different sensors (also called modules)- either stationary or traversing - measure the desired parameters across the entire working width. The sensors are installed in measuring frames or traversing frames. Depending on the frame version, up to five sensors can be installed simultaneously. The measured values are generated directly in the real-time processors of the sensors and measuring frames. These data are transmitted to the central PC in the base station via network lines. The PC handles the control of the measuring frames, visualization via touchscreen, logging of the data, recipes, and communication with host systems.

Qualiscan QMS product family

Highlights

- Modern construction with intelligent sensors and traversing frames.
- Based on industry standard hardened computers running Windows embedded operating system.
- Components communicate through digital interfaces.

Benefits

- Savings in raw materials and/or energy at the manufacturing stage.
- Improvement in product quality, especially in conjunction with control functionality.
- Uninterrupted monitoring and logging of actual product quality.

Mahlo offers a range of quality control systems for technical textiles and non-woven manufacturing. To learn more about Mahlo's product range, contact us at processing@ategoup.com.

For further information, please contact :
A.T.E. Enterprises Pvt. Ltd
M : +91-98696 57281
T : +91-22-6676 6100
W : www.ategroup.com ❐

S. K. Associates

Major items manufactured and supplied by S. K. Associates

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.

And we 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 New Advanced Fully Automated Smart Plucker as follows :

We have three models with 2 types of variants (v1, v2)

V1 – Basic Model with 8 safety sensors.

V2 – Along with Basic model features fitted with Water tank 40 liters capacity 2 nos. (RO water not required) & 12 No. Special sensors provided.

Model	Beater Size	Cotton	Viscose	Polyester
		No. of Bales/Prodn. capacity in Kgs		
SP 5.5	1600 MM	22/400-500	20/400-500	16/400-600
SP 6.5	2200MM	36/500-700	34/500-700	26/600-800
SP 7.5	2800 MM	65/1200	62/1200	

SALIENT FEATURES

SENSORS EQUIPED

A. Front carriage safety sensor - 2 nos.
B. Beater up and down detector- 2 nos.
C. Beater step down sensor - 1 no.
D. Beater level sensor - 4 nos.
E. Chain level sensor - 2 nos.
F. Water level sensor - 1 no.
G. Beater Door Safety sensor - 1 no.
H. Material level sensor - 2 nos.
I. BEATER RPM sensor - 1 no
J. Front panel sensor - 1 no.
K. Pressure switch - 1 no.
L. Air pressure meter - 1 no.

BALE CAPACITY

MODEL	Beater Size	COTTON	VISCOSE	POLYSTER
SP4.5	1400 mm	16	12	10
SP5.5	1600 mm	22	20	16
SP6.5	2200 mm	36	34	26
SP7.5	2800 mm	50	48	38

OUTPUT (KGS/HR)

MODEL	COTTON	VISCOSE	POLYSTER
SP4.5	250-300	250-300	250-300
SP5.5	400-500	400-500	400-500
SP6.5	500-700	500-700	600-800
SP7.5	1200	1200	900-1100

ELECTRIC CONNECTION SLIP RING

We provide 12 rings which is specially designed, normally 8 rings are sufficient, we provide spare of 4 nos. In case of any emergency we can use the same.

ELECTRICAL PANEL

Siemens PLC equipped with 7" HMI display to facilitate all faults which will be displayed, user friendly, also energy meter is provided for knowing current consump. Running, stoppage , movement of beater, rotation of beaters etc will be displayed.

TRAVELLING MOTOR

Provided 2 travelling gear motors for smooth and friction less running.

Spec for 1&2 Model 3	1-	Main motor - 3.0 HP.
	2-	Travelling motor - 1.0 HP × 2 no.s
	3-	Up and down motor - 1.0 HP
	4-	Compressed air is required for spraying
Spec for Model 4	1-	Main motor - 5.0 HP.
	2-	Travelling motor - 1.0 HP × 2 no.s
	3-	Up and down motor - 1.5 HP
	4-	Compressed air is required for spraying

SPRAY TANK

Twin Spray tank is made up of Stainless steel with a capacity of 40 + 40 litres and the air jet nozzles can work with salt water also , No need for R. O. Water.

BEATER

Beater is dynamically balanced and the laser cut beater provides gentle rotation and avoid fibre ruptures.

Siemens inverter drive controls for main motor and carriage motor.

For further information, please contact :
S. K. Associates
10/23D, Shruthi Arcade, Ayyasamy nagar,
Thottipalayam, Chinniampalayam Post,
Coimbatore-641 062
Email : salesska@skassociates.org
Ph. +91 98940 54014/+91 99524 01838 ❐

Mayer & Cie.

Mayer & Cie first ever presence at ITMA in Milan with its both business units

Longer-lasting means more sustainable

Mayer & Cie. is to focus on longer life and greater efficiency at ITMA

When ITMA opens in Milan on 8 June 2023, the textile machinery manufacturer Mayer & Cie. will be there for the first time with both of its business units: circular knitting machines and braiding machines. Along with the circular knitting machines Mayer & Cie. is exhibiting a braiding machine at its stand E101 in Hall 2. The company focuses on similar features in both areas: sound machines fitted out with solutions that make braiders and circular knitting machines more efficient, longer-lasting and thereby more valuable. The solutions range from upgrade kits for individual machines and innovations to reduce waste zo digital solutions that improve the customer experience.

A tried and trusted choice: circular knitting machines from Mayer & Cie.

Mayer & Cie. will be exhibiting three circular knitting machines at ITMA: the revised OVJA 2.4 EM and Relanit 3.2 HS and the new three-thread fleece SF4 3.2 III. All three serve classical uses and, except for the new SF4-3.2 III, are established in the market.

The OVJA 2.4 EM knits double jacquard with electronic individual needle selection in the cylinder and double fabric with weft thread. It is currently the most productive machine in its class. Spacer fabric has now been added to its portfolio.

Machine number 2 is a byword for every knitter. For ITMA 2023 Mayer & Cie. has fitted out the existing Relanit 3.2 HS with improved yarn guides. It has a needle with an optimised hook and tongue shape and a pre-determined breaking point to improve safety at higher output. The new sinker is another feature of the Relanit 3.2 HS. It makes the machine run smoother and reduces wear and tear. "Many knitting mills all over the world already swear by Relanit machines," says Axel Brünner, head of product management at

Mayer & Cie. "For them and new customers we are working on further improvements to our bestsellers."

With the third machine on show Mayer & Cie. is addressing a major trend in the clothing industry. The SF4-3.2 III for three-thread fleece, especially for leisurewear, both in pure cotton and in blends, is in great demand. As Axel Brünner explains, "In this new machine we combine our tried and trusted MBF 3.2 and components of our MFC 3.2 that have proved advantageous in the Chinese market."

Brisk braiding: Extra-speed machine for textile braid

The MR-15/18 C/Single Deck braider on show at ITMA is designed for textile braiding. It comes with the new capstan wheel pull-off that is especially suitable for smaller-diameter hoses with textile braiding. The SpeedBooster upgrade kit delivers more speed and up to ten per cent more output.

Smart upgrades for long, efficient machine life

Longer, faster and with even greater precision, upgrade kits enable customers to benefit from technical progress at Mayer & Cie. The upgrade portfolio ranges from speed boosters to special plaiting and laying equipment. Another newcomer is spare parts with upgrade kits customised for individual machines. They deliver additional production and planning safety.

Upgrade kits – like all known spare parts – are available from the web shop. Along with an easy-touse search function the web shop provides smart additional functions and includes the new loyalty programme my.loyaltyclub with attractive discounts.

Smart functions: knitlink, knithawk and Control 5.0

Fewer faults and less waste is the simple truth. The new knithawk recognises and identifies knitting faults fast during the knitting process,

switching the machine off automatically. That makes production significantly more sustainable and efficient.

knitlink is the platform that links the manufacturer, representatives and customers. It is IIoT-based and the central location for all machine data that every customer can use to record and evaluate the performance of his machines. It is also a repository for documents such as operating instructions, manuals and spare part recommendations. In addition, knitlink provides every customer with remote access to the circular knitting machine.

knitlink incorporates the web shop, which is digitally linked to the new-generation Control 5.0. Circular knitting machines with Control 5.0 are IoT-enabled and can inter alia be operated from mobile devices, so the knitter no longer needs to be physically at the controls.

A sound choice: Opting for Mayer & Cie. pays off

"With our ITMA presentation we show why and how investing in Mayer & Cie. machines is worthwhile and pays long-term dividends," says Mayer & Cie. CEO Benjamin Mayer. "Last but not least we thereby also respond to the desire for more sustainability in the use of resources."

About Mayer & Cie.

Mayer & Cie. (MCT) is a world-leading manufacturer of circular knitting machines. The company offers the full range of machines needed to manufacture modern textiles: from fabrics for domestic textiles, sportswear, nightwear and bathing attire, seat covers and underwear to technical textiles. In addition, Mayer & Cie. regularly develops new approaches.

Since 2019 the manufacture of braiding machines has complemented Mayer & Cie.'s portfolio of services. They serve to produce sheathing for hydraulic hoses used, for example, in aviation, the automobile industry or for other special niche applications.

Founded in 1905, Mayer & Cie. earned 2022 sales revenue of approx. € 110 million (preliminary figures) with a payroll of about 450 employees, including around 350 in Albstadt. In addition to its headquarters in Albstadt, Germany, and subsidiaries in Czechia and China, Mayer & Cie. is represented by its circular knitting machine and braiding machine sales partners in about 80 countries.

For further information, please contact :
Mayer & Cie. GmbH & Co. KG
Email : Mayer-Straße 10, D-72461 Albstadt
Tel : +49 7432 700 520
Presse@mayercie.com, www.mayercie.com ❐

Crealet AG

In 2023 CREALET is celebrating 20 years of constant innovation!

Here is an overview of today's topics:

- Introducing a new innovation at ITMA 2023
- Since 2003: the CREALET company story
- The history of warp beam control since 1947
- Anniversary interview with Walter Wirz

Enjoy the insights into a new control for rope brakes, our company history and the evolution of warp beam controls.

Launching the New Kast ECR

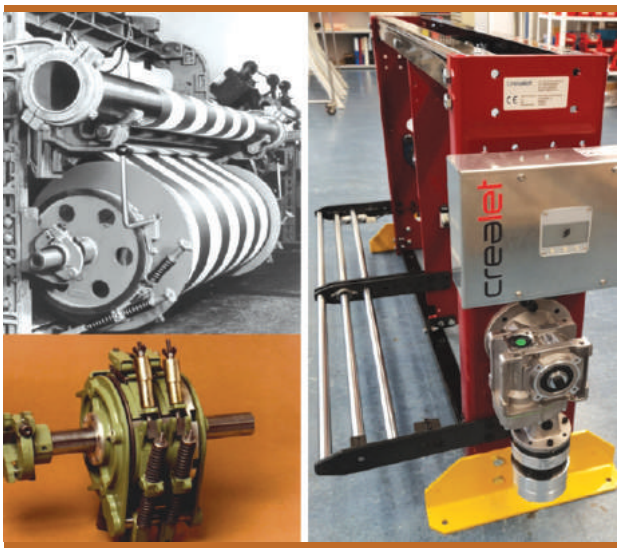
Electronic control for rope brakes in ribbon weaving

At the ITMA 2023 in Milan, the new KAST ECR warp tension control is presented to the world for the first time: the idea is that the warp beam does not need to be driven, as the warp tension is sufficient and the warp beam only needs to be braked. The warp tension is monitored by load cells or distance sensors.

The Crealet Company Story

The CREALET Company Story from the start in 2003 to today

Key moments of the CREALET Company Story on the path to the successful leadership in the development of electronic warp feeding systems for both wide and narrow fabric weaving.



The evolution of warp beam control from 1947 to today

Within our activities for the CREALET 20 years anniversary, we gathered some facts und stories in regard to the evolution of warp beam control, from the beginnings in 1947 to the present day.

Interview with Walter Wirz

20 years of constant innovation

Many wonderful and eventful days have passed since the foundation of CREALET AG in 2003. Walter Wirz, former CEO of Willy Grob AG and co-founder and Emeritus CEO of CREALET AG, gives a brief insight into the past 20 years.

For further information, please contact :
Crealet AG — Customized Warp Systems
Hüeblistrasse 41 — 8636 Wald Switzerland
 ❐

Radici Group

Radici EcoMaterials means 360-degree sustainability and it gained forefront of recycling field

A recycling production site offering the market traceable, high-quality, environmentally friendly materials

A little over three years have passed since RadiciGroup announced the acquisition of Zeta Polimeri, an Italian company headquartered in Buronzo (VC) with over 30 years' experience in the recovery of pre- and post-consumer synthetic fibres and thermoplastic materials. Today, the company has become a full member of the Group with its new name Radici EcoMaterials Srl.

The name quite aptly describes the nature of the company's activities: indeed, Radici EcoMaterials occupies a position in RadiciGroup at the forefront of the recycling field, thanks to its cutting-edge technology that optimizes its high value-added sorting and recovery processes. The new company's long-standing know-how, combined with RadiciGroup's as a whole, will create a virtuous production system that recovers worn-out materials (fabric, yarn and granules), or otherwise unusable materials, and processes them into raw materials available for other production cycles by taking advantage of industrial synergy.

"This is truly a circular economy business," Angelo Radici, president of RadiciGroup, emphasized. "We collect scraps and waste from our Group plants, as well as from external companies, and determine the most appropriate recycling destinations. RadiciGroup has already had some forty years of experience in recovering

post-industrial waste from all its processing activities and giving it a second life in the world of engineering polymers. Now, with the expertise of Radici EcoMaterials, we can also produce recovered materials of very high quality, nearly equal to virgin raw materials, ready to be used by our spinning lines to manufacture products that meet the textile market's demand for low-emission, sustainable products."

Radici EcoMaterials is a strategic production site because it handles all the preliminary recovery stages: the sorting, processing and pre-treatment of materials, including those used for the production of post-consumer yarns and engineering polymers. In this sense, Radici EcoMaterials is fully in line with the most recent European policies on sustainable textiles, which address minimizing the share of materials destined for disposal sites, favouring instead more structured recycling solutions.

"We can call our strategy a 360-degree approach to sustainability," Maurizio Radici, vice president of RadiciGroup, added. "In fact, owing to Radici EcoMaterials, we can now handle both pre- and post-consumer recovery activities and optimize the materials in a "zero waste" operation. During the last few months, we have also invested in new technologies to further improve the quality of the products headed for our spinning lines – for both carpeting and textile applications – and to double the production capacity of the site."

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

Uster Technologies AG

Recycled yarn – the future reality now

Uster outlines the challenges, and solutions

Vision for Textiles of 2030 calls for textile products to be made largely of Recycled fibre

Spinning yarn blends of virgin and recycled fibers is a much bigger challenge than any other commonly used blend. But the results can still be acceptable with comprehensive quality testing, know-how and experience – as well as the new Uster Statistics 2023 edition as a vital benchmarking tool.

The European Union has defined a strategy for sustainable and circular textile production, to make the sector greener and more competitive. Part of this 2030 Vision for Textiles calls for all textile products on the EU market to be durable, repairable and recyclable – and largely made of recycled fibers. Many leading retailers are also championing the use of recycled materials from 2030 onwards.

The use of mechanically recycled fibers in spinning has specific quality considerations: such fibers have a higher short fiber and nep content and may often be colored, particularly if post-consumer material is used. It's also true that recycled yarns have limitationsin terms of fineness. Officially, a yarn can only be branded `recycled´ when spun with more than 20% recycled fibers. This is set by the Global Recycled Standard (GRS), a voluntary product specification for tracking and verifying the recycled content of materials in a final product.

Spinning recycled yarns

Blending virgin and recycled cotton together is well known as a challenge for spinners. The smartest spinners and world-class processes simply can't overcome the fact that some important quality parameters will be adversely affected. It's clear that the use of recycled cotton in a blend with new fiber will impact on both the overall yarn strength and its CV%. Even the most sophisticated spinning machinery won't fix the problem.

Awareness of the risk of yarn quality deterioration with recycled fiber blends means that quality control is the only way to assure customer satisfaction. Even then, the task is far from simple. When spinning new materials, Uster strongly

recommends taking both numeric test results and graphic evaluations into account, toeliminate the risk of problems in further processing.

Avoiding fabric defects

Spinners face major difficulties because of the high proportion of short fibers in recycled cotton (CO-R) and the fact that, when mixing with virgin cotton (CO), the fiber length distribution is sometimes suboptimal. This results, for example, in incorrect guidance of short fibers in the drafting system and potential draft errors.

In tests, a Ne 20 rotor yarn of 75% CO and 25% CO-R was compared with a 100% cotton yarn. The values for evenness, imperfections and hairiness were measured and produced a CVm% of 22% in Uster Statistics, which might appear to indicate excellent quality for the recycled yarn if relying on numeric values alone. In fact, closer analysis with Uster Tester spectrograms showed a draft error at the draw frame. In this case, the problem was detected before causing an uneven structure in the subsequent fabric made from the yarn.

Common language for better communication

It is an unavoidable fact that blending virgin and recycled cotton will make some quality parameters worse. Using recycled fiber is often desirable, but it creates a new reality for the industry. To cope with the risks, better communication and a common understanding are needed throughout the textile value chain.

Uster's common language of quality will be – once more – vital in improving communication throughout the textile industry.For 66 years, Uster Statistics have been the only globally-accepted quality benchmark and the foundation for industry-wide quality improvement. The new edition, to be launched at ITMA 2023, includes for the first time a section for recycled yarn.

The Uster Statistics 2023 edition features an extended range of fiber data, supporting sustainability goals. An ideal fiber mix – with or without recycled content – also ensures meeting quality requirements for least waste. Fiber graphs will be newly available for every process step.

The new reality

Spinners need to find a way to transform their mills to a more sustainable future. The challenge of spinning recycled yarns must be acknowledged, and the big goal here is to succeed with it. Spinners already have the tools they need, allowing them to benefit from both laboratory instruments and quality monitoring systems to optimize quality and productivity. Their experience, combined with Uster knowledge and latest technology in quality control and analysis systems, are a promising basis for a sustainable future for the textile industry.

The new reality of the need for closer communication and cooperation will include all players from fiber to fabric. It's an essential debate for everyone – and Uster is ready to take the lead.

About Uster Technologies

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

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

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

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

Uster Technologies is headquartered in Uster, Switzerland and operates worldwide. It has sales and service subsidiaries in major markets

and Technology Centers in Uster (Switzerland), Knoxville (USA), Suzhou (China) and Caesarea (Israel).

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

Mimaki Europe B.V

Mimaki Technology and Collaborative Approach set to Captivate the Industry and Bring'New Perspectives' to FESPA 2023

- Mimaki to showcase latest cutting-edge technologies, including the new TxF150-75, at the international tradeshow.
- Mimaki to display its flagship printers and cutters

Mimaki Europe, the leading manufacturer of inkjet printing and cutting technologies, will make its return as a gold sponsor to the FESPA 2023 Global Print Expo (May 23rd– 26th in Munich, Germany - Stand B1-B10). The company will join FESPA and the wider printing industry to look at the sector with a 'new perspective' with its latest innovations, technologies and collaborative projects. On its booth, Mimaki will display its flagship printers and cutters for the sign graphic, industrial, and textile markets, including the recently announced TxF150-75 Direct-to-Film (DTF) machine, the high performing 330 Series and the entry-level 100 Series.

Mimaki's first foray into DTF technology, the TxF150-75 will make its international show debut at FESPA. Providing an easy and affordable process for decorating apparel, most commonly T-shirts, the TxF150-75 responds to the market need for a reliable, stable DTF technology. Equipped with Mimaki's core technologies, it prevents common issues, such as poor ink ejection and white ink clogging, ensuring that processes are carried out efficiently with minimal intervention needed.

Other notable technologies on show, include Mimaki's flagship sign and display technology from the entry-level 100 Series and the high performance 330 Series. The print and cut workflow will be demonstrated with Mimaki's latest cutting plotter, the CG-AR series.For industrial printers, visitors can see the Mimaki's advanced UV flatbed printers, from the smaller size UJF-6042 MkII e to the large format JFX600-2513. For textile printers, the sublimation printers, the TS100-1600 and TS330-1600, will also feature.

Mimaki's first DTF technology, the TxF150-75, will make its international show debut at FESPA 2023

Embracing FESPA's theme of 'New Perspectives', Mimaki will use this global show to recontextualise the print industry through the lens of sustainability - reinstating the company's commitment to it, as well as engaging and collaborating with creative eco-conscious minds from across the industry. This year Mimaki will be showcasing the Dutch surrealist Rik Lina's visually vibrant art inspired by the natural world. The artwork headlining the booth, titled "Fascinated Rainforest", is based on Lina's own travels in the rainforests of Saba,in which he seeks to capture the essence of nature and instil the same feeling of awe in the viewer that he had while there.

The staple customer gallery will also make a return and isset to include various inspiring applications created by Mimaki's customers across multiple sectors, from sign graphics and industrial to textile and 3D.

"The environment is a critical concern across all print sectors – including for us here at Mimaki. We are working towards the UN's Sustainable Development Goals, focusing on reducing wastage,

water and to encourage and help printers to create sustainable applications, where possible," comments Danna Drion, General Manager Marketing. "We will return to FESPAto join hands with the industry to collaborate on and hopefully inspire some creative, show-stoppingend-products. Like previous shows, visitors can also expect Mimaki to debut something new on our stand."

Please click here and enter the code FESLeIevx95 before 23rd April to register for free tickets to FESPA 2023.

For more information about products and services from Mimaki, visitwww.mimakieurope.com.

About Mimaki

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

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

TEXLAB Industries

Texlab Industries a leading manufacturer of Textile Machines

We introduce ourselves as one of the leading manufacturers of Textile, Dyes & Chemical Laboratory Testing Instruments, based at Ahmedabad and glad to inform you that we have been granted License to manufacture and Market Fabric Feel Tester—Highly sophisticated Machine developed by Indian Institute of Technology, (IIT) New Delhi.

Introduction

Fabric feel is a generic term for the textile sensations associated with fabrics, and remarkably influences consumer preferences of textile products. Although fabric handle is still being judged effectively to a large extent, the need for objective methods to measure the fabric handle has always existed. At present there are few instruments available for evaluating fabric handle objectively, like Kawabata evaluation system for fabrics. The main disadvantages of this instrument are high cost, complexity and the time consuming procedure. It is proposed to develop a comprehensive system which would give a feel value as well as other mechanical specifications of a fabric in a single test. The proposed instrument will be very helpful to the industries who are dealing

with the production, evaluation and applications of textile fabrics for process control, quality control and quick decision making. These industries are mainly weaving industries, processing industries, garment manufacturer, buying houses, test houses etc. It will be also very useful for the academic and research institutes for research and development of new types of fabrics.

Purpose of Instrument

- To measure fabrics softness, feel directly.
- To select the optimum fabric finish treatment by comparing feel
- To check change in fabric feel after chemical or mechanical treatment
- To develop newer fabric with better feel.

Users

- In dyeing & finishing industries
- In weaving industries
- In garment manufacturing industries
- In testing laboratories
- In academic and research institutes.

Salient Features

- Quick evaluation low cost
- Real time continuous graph
- Different nozzle diameter for different types of fabric
- Fixed operating speed
- Separate load cell for axial and radial force measurement
- Automatic stop motion.

High Performance Laboratory Package Dyeing Machine for Yarn - 50g & 200gm.

- Based on innovative Dyeing technique.
- Simulates bulk conditions.
- Each dyepot has independent 12 step program.
- One can carry out combination of different dyeing simultaneously in different dyepots like polyester, cellulosic or viscose dyeing.
- Highly repeatable and accurate dyeing with any class of dy including Dispers, Reactive, Acid.
- Available in 6/12 Pots.
- Available in 50gms and 200gms.

Introducing Auto Feed, Drain, Wash & Clean facilities in 50gm and 200gm

Range of Cotton, Yarn, Fabric, Dyes & Chemical, Processing and Testing Instruments.

High Temperature High Pressure Yarn Dyeing Machine

- 50-300 grams yarn dyeing machine 6 pot with 1 HP main pump and DP-01
- Controller with standard accessories for single pot
- Minimum order for 3 pots.

1. Machine capacity : 6 × 300 grams yarn dyeing.
2. Operation : with plc control and delta make HMI.(OPTIONAL)
3. Specification of YARN carrier : vertical star type.
4. Liquor ratio : about 1:10 for air pad and 1:12 for fully flooded operation.
   (This MLR is given for standard size packages. The MLR is directly dependent on the package size, package density)
5. Heating system : STD electric / steam heating (OPTIONAL)
6. Maximum working temperature : 1450c
7. Working pressure : 4 kg/cm2
8. Addition tank : nil
9. Heating gradient : up to 40c/min.
10. Cooling gradient : up to 30c /min.
11. Maximum bobbin diameter : 95 mm (vessel dia.110mm)
12. Total power : 16.5 kw. (2KW HEATING IN EACH POT WITH 1HP PUMP)
13. Size : 1500 × 1800 × 1250mm.

Utility requirements

1. Compressed air : 7kg/cm^2 dry and clean air.
2. Steam line : 7kg/cm^2 saturated steam. (OPTIONAL)
3. Water line : as per process requirement
4. Drain line : for drain out color, chemicals.

This machine is suitable for dyeing synthetic and natural fiber in different forms like loose stock, top or yarn wound on collapsible dye spring using suitable carriers.

The machine will have the following main components:

1. Main dyeing vessel
2. Necessary pipe line for the machine
3. Heating coil / jacket in the main vessel,
4. Stainless steel main pump
5. Fiber carrier (optional)
6. Control panel with dyeing programmer.

Function available with HMI is

1. Heating rate
2. Heating
3. Cooling
4. Pressurizing can be set as (for 10kg and above model)
5. De-pressurizing (for 10kg and above model)
6. Inside-outside and out side – inside working time.
7. Control of stop function in-between in – out and out in.
8. Operator call as and when required.
9. Alarm after complete the process.

Technical details

Main pump : 1HP × 6 NOS.

Injector pump : NOT REQ.

Loading details

The yarn carrier will be designed as the size of the package and will accommodate 300 GRAMS of yarn.

Package size: The carriage is designed for a standard package size.

Diameter of package : 95 mm.

Tube ID : 57mm

Tube height : MAX 230MM

Nett weight of package : 300 GRAMS

No. of yarn carrier poles : 1 no in each tank.

No. of package in each poles : one.

Main dyeing vessel

This vessel is made out of S.S 316/316L with a maximum working pressure of 4kg/cm^2 and working temperature of 145°C. The thickness of the shell is 4mm and the dished end is 5mm. The vessel is pressure tested up to 12kg/cm^2. The main lid of the vessel is easily operated and locking arrangement. The lid is interlocked with other safety devices.

Main pump

Main pump is an axial flow pump and it rotates in both directions for change the direction of the liquor flow.

Heating and cooling

Jacket is fitted on the vessel, is made out of S.S 316 / 316L seamless pipe to prevent leakage and long life. The same pipe is also used for cooling of the dye liquor.

Pipe lines

Complete pipeline with all necessary fittings, valves and hardware is made from stainless steel. Flanges for steam inlet and water inlet will be provided.

Pneumatic control valves

Following pneumatic control valves along with solenoid valves will be provided.

1. Heating
2. Cooling water inlet

Control panels

With the automation of DELTA MAKE HMI / DP-01 CONTROLLER the following function are controlled.

1. Heating rate
2. Heating
3. Cooling
4. Pressurizing can be set as (for 10kg and above)
5. De-pressurizing (for 10kg and above)
6. Inside-Outside and out side – inside working time.
7. Control of stop function in-between in – out and out in.
8. Operator call as and when required.
9. Alarm after complete the process.

Main vessel size will be id = 115mm × height 400mm.

For further information, please contact :
TEXLAB Industries
Texlab House, Purvadeep,
Near CTM Mills, NH-8,
Amraiwadi, Ahmedabad.380026, Gujarat (India)
Mob- +91-99252 27360/+91-9925227357
E-mail.Info@texlabindia.com

INDEX TO ADVERTISERS

APRIL 2023

rimtex®
Sliver Management Systems

the X-axis®
OCL

KALPAR® CASTORS
STRONG • STURDY • RELIABLE

Step into the future with Rimtex Group.

If you're...
striving to adapt to **Spinning Mill 4.0**,
passionate about **sustainable spinning**,
aiming to **empower** your customers,
deploying **new-generation** spinning technology,
seeking **agility** in your mill,
valuing the power of integration
in **combination spinning**,
embracing **change**,
and committed to **leadership**,
then we are here
to help you **achieve** your spinning goals.

Discover our transformative solutions and
join us in shaping a better tomorrow.

All products Designed & Manufactured in India by Rimtex Group
sliver management systems I castors & wheels I spinning rings & travellers
material movement vehicles I sliver intelligence

www.rimtex.com | www.thex-axis.com | www.kalpar.in

Lets Promote Quality®
Handling Sliver Since 1992

57
RIMTEX PRODUCTS ARE TRUSTED ACROSS THE GLOBE

PATENTED TECHNOLOGIES

Celebrate original thinking at:
ITMA 2023
08 —— 14 JUNE 2023
MILAN . ITALY
Stand details: H1–E202

+91 98799 54858 I enquiry@rimtex.com

EXPERT PERFORMANCE ELEVATORS

TEXTECH Specializes in the manufacture of Hi-Performance Retrofit kits to up-grade older generation Combers to the latest 4th generation for achieving Optimum Removal of Noils along with Improved Yarn Quality Levels. TEXTECH is the only company manufacturing all types of Technological Spare parts as OEM replacements for all models of Combers. TEXTECH is happy to be the only Expert Performance Elevator to more than 1000+ mills since 40+ years. TEXTECH with its rich technical experience will continuously offer profitable performance solutions with its core strategic value of the high-quality research-based products crafted with the latest technology for the Spinning Industry worldwide.

www.textechonline.com

CUSTOMIZED

High Performance Retrofit Kit for All Models of Combers

- PRODUCTIVITY
- QUALITY
- YIELD

We also manufacture all types of critical spare parts for all Models of COMBERS AND LAP FORMERS

ITMA 2023

VISIT US AT

Stall No. H-1 - E-207

08-14 June, 2023

FIRRA MILANO RHO MILAN. ITALY

TEX-TECH INDUSTRIES (INDIA) PRIVATE LIMITED

27 - D, V.N. Industrial Estate, Bharathi Colony Peelamedu, Coimbatore - 641 004. India.

Ph: +91 422 2562796 | M : 93606 65968 / 93608 66667 | E : textech@textechonline.com

GAYATRI

Delivering Qualitative Excellence

Cot Grinding Machine
Model GCGHY-200-25-AF

Cot Grinding Machine
Model GCGHY-200-AF

Hydraulic Cots Mounting &
De-Mounting Machine

Spindle Lubricating
Machine

Auto Feeder with Flocked Clearer
Roller Cleaning Machine

Ultra Violet Treatment
Machine

Our products are specifically engineered and designed for meeting the needs of spinning industry, with our expertise and continued in quality, we are providing leading solutions allowing you to increase efficiency and gain competitive advantage

Other Range of Products

- Eccentricity & taper tester machine
- Ultra violet treatment machine
- Top Roller greasing machine [Vertical]
- Top Roller greasing machine [Automatic]
- Top Roller de - greasing machine
- Clearer roller cleaning machine
- Fluted Roller truing machine
- Cot Mounting machine [Hand/Pneumatic]

GAYATRI

GAYATRI TEXTILE MACHINES

17, Harshad Ind. Estate, Margha Farm Compound, B/h. L.B.S. Stadium, Bapunagar, Ahmedabad - 380024. Gujarat (India), Tel.: +91 79 2277 5403, M: +91 98 9808 1503
E-Mail : gayatrirrp@gmail.com | Website : www.gayatritexmach.com

Registered with the Registrar of Newspaper for India R.N.I. No. 2815/1958
Postal Registration No. KOL RMS/264/2022-2024

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: Gita Printers, 51A, Jhamapukur Lane, Kolkata-400 009
Editor : Malay Chakarabarti