



4S SUSTAINABLE
SMART SOLUTIONS FOR
SPINNING
SUCCESS

Spinpact[®]
Suction Compact System



CRAFTING EXCELLENCE IN EVERY FIBER, EVERY SPINDLE

SUPERIOR YARN QUALITY WITH ADVANCED SUCTION COMPACT SYSTEM



RUNNING ON
8 Million+
Spindles worldwide

A versatile solution compatible with a plethora of applications like Siro, Polyester, Cotton, Viscose, Micro Modal, and Blends.

- Enhanced quality
- Higher productivity and performance in post spinning
- Reduced Twist Multiplier (TM)

- Special geometry for perfect compacting which ensures lower hairiness and better yarn strength
- Consistent quality through Direct Loading System (DLS)

INNOVATING VERSATILITY, RELIABILITY,
AND SUSTAINABILITY ACROSS APPLICATIONS

Ring Spinning System





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

Address : B-1102, Ratnatej, Dhaval Hills, Gawand Baug, Pokhran Road No.2,
Near Gawand Lawns, Thane West, Maharashtra, Pin: 400 610.

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

RISING COTTON PRICES

Invest in a
YARN CONDITIONING PLANT

To Improve Your
YARN REALISATION.



**MYLON OFFERS YARN CONDITIONING PLANTS
IN CYLINDRICAL & CUBICAL FORMATS**
With a production of **200 to 2000 Kgs per batch**

Mylon Metallics Pvt. Ltd.

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



Mangal Singh Brothers Pvt. Ltd.



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 Resistant

R 1406 - 64

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





PRODUCTS MADE WITH PRECISION AND PASSION



mail@rmpbearings.com | www.rmpbearings.com | [Instagram](https://www.instagram.com/rmpbearings) [Facebook](https://www.facebook.com/rmpbearings) / rmpbearings

RMP BEARINGS LIMITED :

Station Road, Ranpur - 382 245, Dist. : Botad, Gujarat, INDIA

Phone : +91 2711 238227/ 238343, **Mobile:** +91 98799 61178

REGD. OFFICE : 08, Pragatishil Society, Opp. Mangal Maitry Hall,
Paldi, Ahmedabad - 380 007, Gujarat, INDIA

Phone : +91-79-26581492, **Fax :** 91-79-26589135

“Where there is a Need of **Flexibility**, Think About

SIMTA

Bobbin Transport System”



- > OHTC
- > Spindle Tapes
- > Flocked Clearer Roller
- > Cone Transport System
- > Bobbin Transport System



SIMTA GROUP OF COMPANIES

S.F No. 683 A, Railway Feeder Road,
Ravathur Post, Sulur Via
Coimbatore 641 103, INDIA

Ph : 0422 2680705 | +91 98422 31483

www.sales@simta.com | info@simta.com



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

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

Address : S F No. 690/2A, 691/1A, S & P Industrial Area,
Madukkarai Market Road, Sidco industrial Estate Post, Coimbatore 641 021

Phone : +91 422 4518158, 81220 73158

Mobile No.: +91 98422 19650, 98422 21415

Email : sales@technotesting.com, contact@technotesting.com



www.technotesting.com

Delivering the Ultimate Perfection



Auto Doffer Retrofit



Bobbin Transport System

Autocone Packing System



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.



EXCELspin Compact

OUR PRODUCTS OFFER:

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

Kindly grace us with your presence
from 21st to 24th June, 2024



Visit us @

Stall No.: D25, D26, D27, D28
Codissia Trade Fair Complex
Coimbatore, Tamilnadu, India

ASPIRE GRAND EXCEL AUTOMATION

📍 111/109A, Civil Aerodrome Road, SIHS Colony
Coimbatore 641014, Tamil Nadu, India

☎ +91 97509 55133
+91 97509 55131

✉ aspiregrandexcel@gmail.com
www.aspireexcel.com

Join the India Pavilion at the Premier International Textile Sourcing Shows of South Asia



All Things Textiles for the Apparel Industry

BANGLADESH

30 May - 31 May - 1 June, 2024

Halls 2 - 3 - 4,
ICCB, Dhaka

SRI LANKA

7-8-9 August, 2024

Halls 1 - 2 - 3 - 4,
BMICH, Colombo

Organised by



Pavilion Organisers



Note: Eligible exhibitors would get MAI benefits with subsidized participation cost and airfare reimbursement (subject to approval)

For Booth Participation

Marian Freiter
+91 8007525035

Ajitesh Joseph
+91 9717735699

Pratima Kashyap
+91 86527 66488

Follow us on     

www.intexsouthasia.com

SCAN QR
TO BOOK YOUR
SPACE



VETRI TOP ROLLERS

“AVAILABLE AT SHORT NOTICE”



IN THIS PRESENT TEXTILE INDUSTRY RECESSION, WE BELIEVE SPINNERS CAN NOT AFFORD TO STOCK TOP ROLLERS FOR PREVENTIVE MAINTENANCE.

IN SUCH SITUATION, **VETRI** WITH ITS EXTENDED STATE OF ART **“IN HOUSE”** MANUFACTURING FACILITIES, **STANDARD & REGULAR TOP ROLLERS WITH END BUSHES** CAN BE MADE AVAILABLE WITHIN 24 HRS TO 72 HRS* FROM **VETRI STOCK**.



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**, THEY WILL ENSURE MILLS QUALITY YARN
PERFORMANCE, HIGHER PRODUCTIVITY AND PROFITABILITY

THUS WE ADD “VALUE” IN THE TEXTILE INDUSTRY.



VETRI ENGINEERS

TECHNOLOGY - QUALITY - VALUE - RELATIONSHIP



* CONDITIONS WILL APPLY

RINGMANN is a leading manufacturer and Exporter of Rings for Spinning, Doubling and Twisting frames for the past 30 years. Rings conforming 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



EXCEL



BLACK DIAMOND



SPICON RINGS



CONICAL RINGS

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

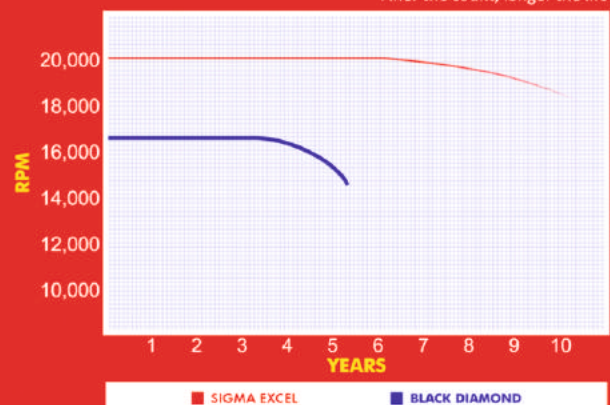
- ▶ Fine surface finish with low friction
- ▶ Low Running-In Period
- ▶ Instant start-up Speeds
- ▶ Longer Life
- ▶ Less Hairiness
- ▶ Fewer End-Breaks
- ▶ Less Pneumafil waste
- ▶ High Production of Yarn

- ▶ 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



RING LIFE for Cotton above 50s NE

Finer the count, longer the life



EFFIMILL

Monitoring System for Spinning Mills The solution for your spinning mill management, by reducing costs, quality and optimization of labour.

HARDWARE OPTIFIL OPTICAL YARN DETECTOR

Visit Us :



Stall No.B57
21-24th June, 2024
Codissia Trade Fair Complex
Coimbatore, Tamilnadu, India

Another big LED with two colors for every 24 spindles alarms the personnel about any irregularity from long distance.
RED LED : Alarms the Operator

By detecting the movement of the traveller it controls continuously the status and RPM of each Spindle

One LED in front of each Spindle shows the STATUS of the yarn by the use of different COLOURS.

BLUE: Low Twist

VIOLET: Rogue



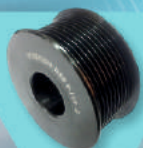
LED display can be installed on each ring frame. It shows the Ring frame production data in real time

From the New Touch Screen control unit it is easy to manage setting, options, troubleshooting.



Sumanlal J.Shah & Co

Spinning Textile Spares & Accessories



Mechanical | Sensing | Pneumatic

Sumanlal & Co. is a highly renowned suppliers & exporter of textile machinery replacement spare parts. The company is well established as an apex body in the community of textile engineers. Sumanlal & Co. is driven by quality... determined to offer quality products, coupled with premium services. Our motto is to be a reliable supplier of competitively priced spare parts of excellent quality. With the changes in the Textile and Machinery Technologies at the Global level the company has its products upgraded to cater the over all demand for quality replacement spare parts.

Sumanlal J. Shah & Co., is one of the stellar suppliers, exporters and

service providers catering to the entire requirements of the textile industry. Our products and services solve multifarious purposes of our customers engaged in textile industry its quality spares are used by clients in the textile manufacturing and machine production. Thus it has carved a niche for itself in the market. Sumanlal & Co. renders services and supply spares that are exclusively used by clients in their machine production.

Envisioned in the year 1945, has created a strong hold for itself in the textile industry. The company caters to the requirements of industry for quality spare parts and maintenance services.

📍 D.No. 53/1, S.F. No. 25, Atthipalayam Road,
Chinnavedampetti Post, Coimbatore - 641 049.
INDIA. 📞 +91 422 2665139, 2665239
📱 +91 9363104377 / 9363228694 / 8144404377

✉️ sumanlal90@gmail.com
🌐 www.textilemachineryspares.com

Textile Trends

67TH 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. LXVII

No. 01

APRIL 2024

Copyright Reserved

Advisors

Prof. Suranjan Das

*Ex Vice-Chancellor
University of Calcutta*

Shri R. C. H. Reddy

*Ex President
Lakshmi Electrical Control Systems Ltd.*

Shri A. N. Chaudhuri

*Sr. President - Marketing
Krissteel – Shinwa Industries Limited, Mumbai*

Publisher : Shri D. J. Dutta

Editor : Shri Malay Chakarabarti

Asst. Editor : Dr. Tapan Kumar Banerjee

Members of the Editorial Board

Shri G. T Dembla

*Chairman
Precitex Rubber Industries Pvt. Ltd., Mumbai*

Shri N . Subramaniam

*Chairman
Sagotharen*

Shri Anil R. Mehra

*B.Sc. (Hons), B. Sc. (Tech), (Textiles, UDCT, Mumbai)
M. Sc. (Tech), (Textiles Chemistry, UDCT, Mumbai)
M. B. A. (USA) (U. of Illinois, Champaign- Urbana, ILL, USA)
Graduate Fellow 1978 – ROTARY INTERNATIONAL
MIMA (Member, Indian Managrment Association)
Senior Member, AATCC, USA
C. Col-FSDC (UK), Chartered Colourist*

The Editor takes no responsibility for views expressed by contributors and correspondents. Articles and writings accepted are the copyright of the Journal's publishers.

Shri John C Nathan

*Manager - Marketing
Ph. : +91 98940 14500*

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

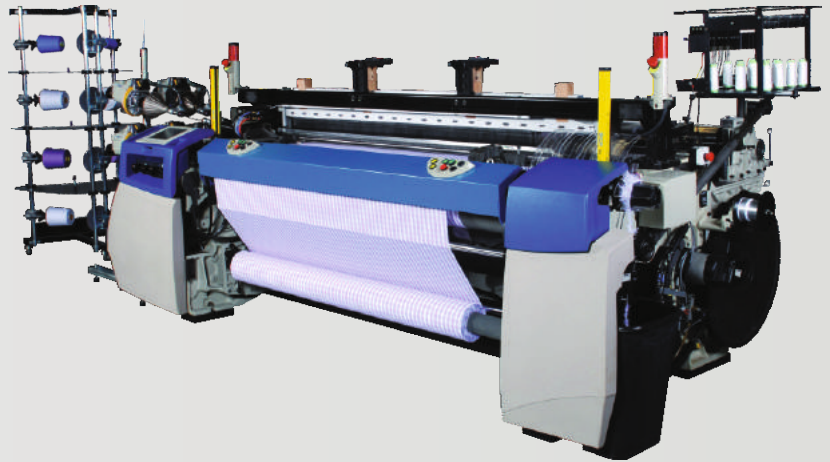
44, Chittaranjan Avenue, Kolkata - 700 012, India

Phone : 91-33-2212-2233, 91-33-2212-1096, Fax : 91-33-2212-1096

E-mail : textrend58@gmail.com/textiletrendstia@gmail.com | Website : www.textile-trends.in

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	----	19	Cotton consumption picks up as mills ramp up ops	----	30
World Economy and Trade Trends	----	21	An analysis of online shopping behaviour by consumers during the COVID-19 Pandemic	----	31
Indian Economy and Trade Trends	----	23	— Ms. A. Lakshika, Dr. E. Devaki, K. Gomathi	----	
Cotton growers holds back their produce after cotton Rs. 60,000/- candy	----	25	A Review on various biodegradable herbal materials used for sanitary hygiene products	----	37
Apparel Sellers slash Discounts to grow margins as sales lag	----	26	— K. Saravanan, S. Gopinath, S. Hema, M. Shalini	----	
Rising Costs, dwindling demand: Weavers in Bhagalpur, Bihar's silk city seek govt's support	----	27	Effective utilization of optical brightening agents on different woven and knitted fabric structures	----	46
Demand for Cotton from Textile mills determines price trajectory in cotton	----	28	— Patil J. M., Kulkarni G.M., Ghodawat Rishi, Ramane Vaibhavraj, Jamdar Rushikesh	----	
Govt working on augmentation of Textile sector's role in Viksit Bharat Journey: Modi	----	29	Export Prospects and Markets	----	51
So far cotton corp's has procured 32.85 lakh bales at MSP	----	29	LMW, Colorjet, KTTM, Savio & Staubli showcased latest Technology for Manufacturing at Bharat Tex 2024	----	55
Despite having the festival and wedding seasons apparel retail companies still see muted demand	----	30	Mumbai edition of Gartex Texprocess India focused on innovation and growth in textile and garment industry	----	58
			Corporate News	----	60
			Textile Events	----	71
			GarmentTech Istanbul	----	75
			Details of Office Bearers of ITAMMA for the year 2024-25	----	77
			Science in Industry	----	81
			Index	----	98

SKT'S

SRI KUMARAN TEXTILE SYSTEMS

- Exchange of Expertise Techniques



- Special Needle Bearings – F 208897, F 88049 NKIB 5903, NK 22/16
- Critical Needle Bearings - NKIB 5903, NK 22/16, RNA 4905, NKI 20/20
- Bottom Roller Bearings – KW 328, KW 3000, K 21/28,.,
- Tin Roller Bearings – GRAE 45 NPPB
- Jockey Pulleys – SR 60, BSR 70
- Can Castor Wheels (60*25mm, 80*25mm)
- Doffing Trolley Wheels (4*1.5", 4*2", 6*2")
- YCP Trolley Wheels (Stainless Steel Suplast Bush Wheels)
- Autowinders Cutters and Scissors
- Cutters Available for All types of Autowinders – Schalfhorst, Savio and Muratec.
- 5 Years performance assurance warranty for Brazed tip cutters
- All scissors are printed with Phoenix emblem for Identification
- Gots certified wax rolls
- Optimum wax pick up with less co-efficient of friction
- Improved Knitting Efficiency

Visit Us :



Stall No.D-80
21-24th June, 2024
Codissia Trade Fair Complex
Coimbatore, Tamilnadu, India

Address : 72, Krishnammal Street - 1st Cross, K.K. Pudur, Coimbatore – 641 038.
Contact : 9788331961/9842225586 | E-mail : srikumaran textilesystems@gmail.com



中国国际纺织机械展览会 暨ITMA亚洲展览会 ITMA ASIA + CITME 2024

14 - 18 October 2024

**National Exhibition and Convention Center
Shanghai, China**

www.itmaasia.com | www.citme.com.cn

ASIA'S LEADING BUSINESS PLATFORM FOR TEXTILE MACHINERY

Join leading textile machinery manufacturers and build quality connections
with buyers exploring advanced manufacturing technologies.

Apply for space now!

www.itmaasia.com
www.citme.com.cn



For more information, please contact

ITMA Services

Tel: +65 6849 9368

Email: itmaasiacitme@itma.com

Beijing Textile Machinery International Exhibition Co., Ltd (BJITME)

Tel: +86 10 5822 2655/5822 2955/5822 0766

Email: itmaasiacitme2@bjitme.com

Owners



Organiser



Co-Organiser



In Partnership With



Growing importance of circular economy and technical textile being surfaced in textile industry

Prime minister Narendra Modi's ambitious vision to propel the India into \$5 trillion economy within the next 3 years. We know textile is the second largest job provider in India, therefore, textile manufacturers can play a big role in accelerating the growth of Indian economy. The sentiment of Atma Nirbhar Bharat mission expects a lot from Indian textile sector. Local textile manufacturers can perform great function of gaining country's economic self-reliance by means of fortifying nation's export capabilities.

There is a new initiative being worked out in the garment and textile industry all over the world to work towards where clothes are made from safe and renewable materials. The new business models increase their use and old clothes are turned into new ones. When a product reaches the end of its life, its materials are kept within the economy. These can be productively used again and again and it is generating further value. This process is called 'Circular Economy'. The circular economy is a model of production and consumption which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. It implies reducing waste to a minimum level. One of the aims of new education policy is to allow workers to formalize their education through online blended learning program. This approach will empower more individuals with employment opportunities through skilled enhancement, training, and various initiatives of textile training institutes. This program will be bridging gap between industry needs and available skilled power.

Technical textile has immense opportunities to propel the economic growth potentials for bolstering the India's GDP by manufacturing machines essential for technical textile. Textile industry peers should cooperate with MANTRA(Man Made Textile Research Association) in developing innovative products catalyzing growth in technical textiles and textile industry at large. Machine and components are needed to be developed for manufacturing of technical textile, so the industry will be well acquainted with the operation and functioning of synthetic textile which will be considered as one of the major raw materials in the manufacturing of technical / engineered textiles. Textile's big players should have commitment to innovation, efficiency, and the continuance of technological excellence with the help of government initiatives.

**Speciality chemicals that have stood the TEST of TIME
For — TRADITIONAL molecules along with MODERN state
of art the INNOVATIVE products.**

Come To

AUXICHEM

**FOR
TEXTILE, PAPER, LEATHER
& JUTE INDUSTRIES**

Office :

22, Prabhadevi Industrial Estate,
402, Veer Savarkar Marg, Prabhadevi, Mumbai-25

Tel : 24300619/24300607/56602885

Fax : 24303787

E-mail : auxichem@vsnl.com

Factory :

D-109, MIDC, Shiravne, Thane Belapur Road

Navi-Mumbai

Tel : 27682626/27619095/56163514

Fax : 27671995

Selling Agent in Eastern Zone

BENGAL CHEMICOLOUR COMPANY

10, Armenian Street, Kolkata-700 001, Show Room : 35, Armenian Street, Kolkata-700 001

Telephone : 2268 5941, 2268 4334, 2235 1133

Fax : (033) 2235 6871, Gram : benchemco

E-mail : bccol@cal.vsnl.net.in

WORLD ECONOMY AND TRADE TRENDS

➡ Global trade may turn around in '24, but risks remain : Report

The International trade is expected to rebound in 2024, reversing the last year's downturn, amid lingering geopolitical uncertainties, the United Nations Conference on Trade and Development (Unctad) said. In its Global Trade Update report, the UN's trade and development body warned that the logistical challenges in the Red Sea, Black Sea and Panama Canal cast shadows over the optimistic outlook, and can raise costs and disrupt supply chains. "Projections for 2024 are more optimistic. Overall, moderating global inflation and improving economic growth forecasts suggest a reversal of the downward trends. Additionally, rising demand for environmental goods should boost trade in 2024. However, it's important to note that the global trade outlook for 2024 remains subject to significant uncertainties," the report said. In 2023, global trade saw a 3 per cent contraction, equaling roughly \$1 trillion, compared to the record high of \$32 trillion a year ago. Trade in goods dipped by 5 per cent compared to 2022. The services sector grew by 8 per cent year on year (Y-o-Y) in 2023. Quarter-on-quarter figures indicate a return to growth in some major economies, including China and India. "Overall, the comparison of annual and quarterly growth suggests significant improvement in trends for several economies. However, the overall statistics for 2023 remain negative," the report said. In India, merchandise exports grew by 5 per cent in the last quarter of 2023 as compared to the same period a year ago. However, on an annual basis, the export growth saw a 6 per cent contraction. In the case of services, exports remained flat in the last quarter of 2023 as compared to the same period a year ago. On an annual basis, services exports from India grew by 14 per cent in 2023. □

➡ UK Economy back to Modest Growth

Britain's economy rebounded slightly in January data showed recently sparking hope of an end to recession in a boost to embattled Prime Minister Rishi Sunak ahead of elections. Gross domestic product grew 0.2% following a slight 0.1% decline in December according to a statement from the Office for National Statistics (ONS). The news sparked hope that Britain could be on course in the first quarter to exit

a technical recession which it entered in the second half of last year." The economy picked up in January with strong growth in retail and wholesaling," said ONS director of economic statistics Liz McKeown. "Construction also performed well with housebuilders having a good month, having been subdued for much of the last year" The upbeat news comes after the economy shrank in both the third and fourth quarters of 2023, meeting the technical definition of a recession on the back of elevated inflation, high interest rates and a cost-of-living crisis. "While the last few years have been tough, today's numbers show we are making progress in growing economy," added the Conservative governments finance minister Jeremy Hunt in response to recent data. □

➡ China announced ambitious 5% growth target for 2024

Chinese Premier Li Qiang announced an ambitious 2024 economic growth target of around 5 per cent recently promising steps to transform the country's development model and defuse risks fuelled by bankrupt property developers and indebted cities. Delivering his maiden work report at the annual meeting of the National People's Congress, China's rubber-stamp parliament. Li also flagged higher defence spending, while hardening the rhetoric on Taiwan. In setting a growth target similar to last year, which will be harder to reach as a post covid-19 recovery is losing steam, Beijing signals it is prioritising growth over any reforms even as Li pledged bold new policies, analysts said. "We should not lose sight of worst-case scenarios," Li said in the Great Hall of the People in Tiananmen Square. "We must push ahead with transforming the growth model, making structural adjustments, improving quality, and enhancing performance," China also plans to issue 1 trillion yuan (\$139 billion) of ultra-long special central government bonds this year as authorities vow to ramp up fiscal stimulus for the world's second-largest economy. Premier Li Qiang outlined the proposal recently in a government work report delivered at the National People's Congress, an annual gathering of China's parliament in Beijing. It's only the fourth such sale in the past 26 years, with the most recent one in 2020 when authorities issued 1 trillion yuan worth of those bonds to pay for pandemic response

measures. China aims to issue such ultra long term special bonds for several consecutive years, though Li's report didn't include a target beyond 2024. Li said the government will "appropriately enhance the intensity of our proactive fiscal policy."

China increases defence spending by 7.2 per cent.

China will boost its defence spending by 7.2 per cent this year, fuelling a military budget that has more than doubled under President Xi Jinping's 11 years in office as Beijing hardens its office as Beijing hardens its stance on Taiwan, according to official reports recently. The increase mirrors the rate presented in last year's budget and again comes in well above the government's economic growth forecast. □

⇒ Global economy resilient and stronger than expected

The global economy has a growing chance of pulling off a soft landing, finance chiefs said in a draft of the G-20's closing statement recent meeting in Brazil, citing faster than-expected disinflation as one of the risks. "We note that the likelihood of a soft landing in the global economy has increased," said the draft communique dated February 23, seen by Bloomberg News. "Risks to the global economic outlook are more balanced. Upside risks include faster than expected disinflation." The text is no't final and wording is subject to intensive negotiations in Sao Paulo, before the recent arrival of finance ministers. The draft text refers to "conflicts in many regions of the world" among the challenges, without naming them, as well as "geoeconomic tensions." The statement reflects a relatively upbeat view of a global economy that's struggled in recent years to overcome the impact of the pandemic, soaring inflation and a sharp increase in interest rates. "Inflation has receded in most economies, thanks in large part to appropriate monetary policies, the easing of supply chain bottlenecks" and moderating commodity prices, the draft said. The International Monetary Fund in January boosted its forecast for global economic growth in 2024 to 3.1 percent, citing a better-than-expected expansion in the US and fiscal support from China. At a press conference in Sao Paulo recently. Treasury Secretary Janet Yellen emphasised the US role, saying that "America's path to a soft landing has underpinned global

growth." Yellen acknowledged risks to the outlook including prolonged conflicts in Ukraine and the Middle East, which pushed commodity prices up and disrupted supply chains, and debt troubles plaguing low-income nations. She noted that "inflation has been coming down in many countries," while stopping short of suggesting that interest-rate cuts might now be appropriate. □

⇒ US inflation rises to 3.2% in Feb

US Consumer Prices increased solidly in February and higher costs for gasoline and shelter, suggesting stickiness in inflation that cast some doubts on whether the Federal Reserve would start cutting interest rates in June. February marked the second straight month of firmer inflation readings. Inflation weary Americans, however, got some relief from their grocery bills, as food prices were unchanged. US central bank officials, including Fed chair Jerome Powell have indicated they are in no rush to start lowering borrowing costs. The higher cost of living is one of the key issues in the November 5 US presidential election. "Officials want to see some more evidence of a sustained deceleration in prices towards target before they pivot to rate cuts," said Rubeela Farooqi, chief US economist at High Frequency Economics. "The latest data further reinforce the case for a patient and vigilant approach from Fed officials as they consider future policy decisions." The consumer price index (CPI) rose 0.4% in February after climbing 0.3 in January, the Bureau of Labour Statistics (BLS) said of late. Gasoline prices rebounded 3.8% after declining 3.3% in January. Shelter, which includes rents, rose 0.4% after advancing 0.6% in the prior month. These two categories contributed more than 60% to the monthly increase in the CPI. Food prices were unchanged after rising 0.4% in January. There were decreases in the prices of dairy products, fruits and vegetables as well as nonalcoholic beverages. But prices for cereals and bakery products rose while meat, fish and eggs were slightly more expensive. In the 12 months through February, the CPI increased 3.2%, after advancing 3.1% in January. Economists polled by Reuters had forecast the CPI would gain 0.4% on the month and increase 3.1% on a year-on-year basis. The annual increase in consumer prices has slowed from a peak of 9.1% in June 2022, but progress has stalled in recent months. ■

INDIAN ECONOMY AND TRADE TRENDS

Exports climb 11-month high in Feb. but gold pushed imports to \$60 bn

India's merchandise grew 11.87% in February to hit an 11-month high of \$41.4 billion, while imports surged at a faster pace of 12.2% to hit \$60.11 billion, thanks to a sharp spike in gold imports which hit a four-month peak of \$6.15 billion. February marks only the fifth Occasion that india's goods exports have registered positive growth in 2023-24, recording the highest uptick so far. However, rising imports lifted the trade deficit to \$18.7 billion from January's 9-month low of 17.5 billion. "The export numbers in February have surpassed all our expectations, especially as it has been achieved despite tight monetary conditions in most markets, ongoing conflicts and lower commodity prices," Commerce Secretary Sunil Barthwal said. Exuding hope this year's overall exports, including services trade, may surpass last year's record \$776 billion. he said the World Trade Organization (WTO) has recently projected a higher 3.3% growth in world trade for 2024. "We feel that this will now be a rising tide for exports that will show in 2024-25 too," he reckoned. In the first 11 months of the year, goods exports have contracted 3.5% to \$395 billion, while imports have dropped 5.3% to \$620 billion, narrowing the trade deficit to \$225 billion from \$246 billion in the year-earlier period. "From trade deficit and current account deficit perspectives, there has been an improvement but rising imports of gold and electronics and the dip in exports of garments must raise a red flag", Bank of Baroda Chief Economist Madan Sabnavis said. Low global demand has hurt exports of readymade garments (which is down 11%) and engineering goods, which are down 9.3% so far this year, he said. □

Forex reserves India rose to over 2-year high of \$636.1 bn

Foreign Exchange Reserves reached an over two-year high of \$636.1 billion in the week ended March 8, data from the Reserve Bank of India (RBI) showed recently. The reserves jumped by \$10.5 billion in the reporting week, the biggest jump since the week ended July 14, 2023. They had risen by a total of \$9.6 billion in the prior two weeks, closing in on the record high of \$642.45 billion that hit in September 2021. RBI intervenes in the foreign exchange

market to curb excess volatility in the rupee. Foreign exchange reserves include India's reserve tranche positional in the international monetary fund. Foreign currency assets rose \$8.1 billion to \$642.4 billion in the week ended March 8. Gold reserves rose \$2.3 billion to nearly \$51 billion. Special drawing rights rose \$31 million to \$18.2 billion. Reserve position in the international monetary fund rose \$19 million to \$4.8 billion. In the week that the foreign exchange data pertains, the rupee rose 0.1% against the dollar and traded in a range of 82.7250 and 82.9275. □

Jan. industrial growth sluggish to 3.8%

India's industrial output growth slowed to 3.8% in January, from an upgraded uptick of 4.24% in December, with the manufacturing sector's growth slowing to 3.2%, from 4.5% a month earlier, and consumer non-durables slipping into contraction for the second time in three months. Mining and electricity generation accelerated to 5.9% and 5.6%, respectively. Consumer durables production jumped 10.9%, the highest growth in three months, but gained from effects as their output had contracted 8.2% in January 2023. Consumer non-durables output shrank 0.3%. Capital goods production picked up pace to grow 4.1% in January, and intermediate goods grew faster at 4.8% compared with 3.9% in December 2023. However, the growth rates for primary goods and infrastructure/construction goods eased to 2.9% and 4.6%, respectively, in January. Eight of the 23 manufacturing segments tracked by the National Statistical Office to compute the Index of Industrial Production (IIP) recorded a contraction in January, with computers, electronics and optic products seeing the steepest fall of 11.9%, while pharmaceuticals' output remained flat compared with last January. Between April, 2023 and January 2024, electronics and computers have now contracted 14%, second only to the 17.5% drop in output of wearing apparel over the same period. On the other hand, other transport equipment grew 25.3%, fabricated metal products rose 21.4%, followed by motor vehicles. Bank of Baroda's chief economist Madam Sabnavis said electronics' performance remained a disappointment as it was also covered under the Production-Linked incentive or PLI scheme.

“Clearly, it has not yet provided momentum to production so far,” he observed. □

⇒ GDP may rise to 8% in FY 24: RBI bulletin

The Country's Gross domestic product (GDP) may grow at rate closer to 8%, even higher than 7.6% seen by the National Statistical Office (NSO), according to a forecast model in the reserve Bank of India's monthly bulletin for March. The nowcast model sees GDP growth for Q4 in conjunction with high-frequency indicators. In April-December, India's GDP grew at 8.2%, so to reach 8% in FY 24, GDP in Q4 will have to expand by 7.2%. The NSO, however, has projected a much lower growth of 5.9% for the March quarter. The Bulletin's paper, titled 'State of the Economy' said that real GDP expanded at a six quarter high rate of 8.4% in Q3 FY 24, powered by strong momentum, robust indirect taxes and lower subsidies. The real gross value added (GVA) growth in Q3 was just 6.5%. "Aggregate demand in Q3FY24 was investment-driven, with some indications of a revival of the private capex cycle," the paper said. "The overall level of business confidence points to robust optimism about near-term (growth) prospects," it said, while adding that the Indian economy recorded "robust" growth amidst external headwinds in the form of supply chain disruptions. For FY 25, the RBI's Dynamic Stochastic General Equilibrium (DSGE) model suggests that the GDP growth is likely to remain robust at 7.4%, which is higher than the 7% forecast made in RBI's monetary policy statement for February. On inflation, the paper said that the steady decline in core inflation would have taken down headline inflation towards the target of 4% even "sooner and faster", but for the repetitive incidence of short amplitude food price pressures. Currently, CPI inflation stands at 5.09%. "The CPI readings for January and February 2024 show that the winter easing of vegetable prices turned out to be shallow and short lived", the paper said. "Cereal prices maintained strong momentum, and prices of meat and fish have registered a surge," it said. Overall, headline inflation's momentum turned positive in February, offsetting a favourable base effect. "Fuel prices remain in deflation and this may get pronounced in March due to the reduction in price of liquified petroleum gas (LPG)," the paper said. □

⇒ Core sector growth declines to 15-month low of 3.6% in January

The output growth of eight core industries slid to a 15-month low of 3.6 per cent in January 2024, which is also the lowest monthly print so far this fiscal. The latest reading was lower than the revised 4.9 per cent growth recorded in December 2023 and 9.7 per cent recorded in January 2023, official data released recently showed. Six of the eight core industries recorded positive growth for the month under review. Only refinery products output and fertilizers saw a contraction. For April-January 2024, core sector growth came in at 7.7 per cent, lower than 8.3 per cent recorded in same period last fiscal. The government has also revised the output growth the eight core sectors for October to 12.7 per cent. Coal output continued to sizzle with a growth of 10.2 per cent in January 2024, albeit lower than the 10.7 per cent growth in December last year. For the month under review, natural gas output grew robust 5.5 per cent (6.6 per cent in December) and steel output was at 7 per cent (7.6 per cent in December). Cement sector grew 5.6 per cent and electricity generation was up 5.2 per cent in January 2024. In January 2024, refinery products' output contracted 4.3 per cent (growth of 4 per cent); fertilizers contracted at 0.6 per cent (5.8 per cent). Aditi Nayar, Chief Economist, Head Research and Outreach, ICRA Ltd, said, "Core sector growth slid to a 15-month low of 3.6 per cent in January 2024, with contractions emerging in refinery products and fertilizers and a sub-1 per cent rise in natural gas." "Encouragingly, the other five components displayed a moderate-to-healthy expansion ranging from 5.2 per cent to 10.2 per cent in January 2024. With a relatively healthier trend displayed by various other high frequency indicators, we project the IIP to report a growth of 2-4 per cent in January 2024," Nayar said. Madan Sabnavis, Chief Economist, Bank of Baroda, said, "Core sector growth in January was a mixed bag. The good part is that cement and steel, which are reflective of capex of government, witnessed fairly good growth of 7 per cent and 5.6 per cent, notwithstanding the high base effect." "We could expect IIP growth to be between 2-3 per cent in March," He added. ■

Cotton growers holds back their produce after cotton Rs. 60,000/- candy

Cotton growers are holding back their produce again after prices on the Intercontinental Exchange (ICE), New York, surged to a one-and-a-half year high of 107.3 cents (₹ 70,200 per candy of 356 kg), but mills and traders are unfazed as there are ample stocks.

However, the ending stocks this season may be one of the lowest in recent years, particularly if demand for exports picks up in the wake of prices turning competitive in the wake of the rise on ICE, "Cotton prices saw an upswing during the early March. Cotton futures for May (on ICE) increased to 99.57 cents per pound (65,150/candy), finally settling at 96 cents level (₹62,824/candy). However there is no panic buying," said Maj Gen (Retd) OP Gulia, CEO SVP Global Textiles Ltd, a company listed on the Bombay Stock Exchange.

The price rise has resulted in arrivals dropping to around 80,000 bales currently from about 1.2 lakh bales a fortnight ago. "Farmers should be holding at least 100 lakh bales with them currently," said Anand Popar, a cotton, yarn and cotton waste trader based at Rajkot, Gujarat.

Recently, May ICE cotton contracts ruled at 96.33 cents a pound (₹63.030/candy). Prices have tended to cool a little after the US reported a 69 per cent lower sales of cotton the 2nd week of March the Multi Commodity Exchange, the natural fibre was quoted at ₹64,900/candy for May contracts. In Rajkot, lint or processed cotton was quoted at an average of ₹61,250 per candy. The Cotlook A Index, a benchmark for the natural fibre, is currently at 101.70.

At the Rajkot agriculture produce marketing committee (APMC) yard, the modal price of kapas (unprocessed cotton) was ₹7,750 a quintal against the minimum support price of ₹6,620 for the medium staple variety.

Prices are up over ₹1,000 over first week of March. On NCDEX, kapas (unprocessed cotton) for delivery in April ended at 1,647.5/maund of 20 kg (₹8,237.5/quintal). The spike in the prices saw the Southern India Mills Association urging the mills not to resort to panic buying.

Gulia said there is no panic buying by spinning mills. "The main reason is fresh crop arrivals are over and supply has become slow.

Good quality cotton has been stored for export purposes," he said. Domestic spinning mills have not been affected despite speculative and volatile movement on ICE cotton futures. "But it has resulted in arrivals slowing down and sales are tight forcing spinners to buy at around 60,000-61,000/ candy levels. The Cotton Corporation of India (CCI) is selling at around 62,3000-63,000 a candy, whereas multinational trading firms are offering at 64,000-65,000," said Ramanuja Das Boob, who sources cotton for domestic mills, exporters and multinationals from Raichur in Karnataka. "Farmers were bringing a good amount of cotton as long as prices were in the range of ₹55,000/ candy. After prices hit ₹60,000 they have slowed down holding back as there is no pressure on them," said Popar.

ICE futures are witnessing huge speculation resulting in prices rising. According to the US Commodity Futures Trading Commission weekly commitment of traders report, managed money funds added 7,900 contracts taking the net long position to 94,038 by February-end. However, net shorts during the same period were up at 1,34,264 contract, an indication of the speculation.

According to Gulia, a little dip in production due to rains in September 2023 and the US Department of Agriculture's February WASDE report projected a reduction of 3,55,000 bales in the 2023-24 world cotton production, primarily due to cuts in Australia and Benin, lent support to the surge. Buying by China after the New Year Holiday and Turkey from the biggest US Cotton also helped the uptrend, he said.

Though the Cotton Association of India (CAI) has pegged the cotton crop at 294.10 lakh bales (170 kg each), the Ministry of Agriculture and Farmers Welfare in first week of March estimated the crop this season at 323.11 lakh bales against 343.47 lakh bales last season. "In India, there is no cotton shortage but farmers have turned conservative by holding on. Ginners and stockholders are unable to exert any pressure on the market," said Das Boob.

The CCI holds nearly 32 lakh bales and of this, it has sold some 1.5 lakh bales. "Mills are buying from CCI for their needs since they also get a 60-day period to pay and the quality is also good,"

Cotton growers holds back their produce after cotton Rs. 60,000/candy

Das Boob said. Multinational trading houses are reportedly holding around 15 lakh bales, traders said.

Gulia said mills are yet to start operating at full capacity as the yarn market has not picked up yet. However, they are signs of pick up in Bangladesh since October 2023.

Das Boob said yarn prices have increased by ₹15-20 following the cotton price spurt but buyers may not be able to digest more hikes. "The current prices of ₹60,000-61,000/candy seems comfortable for everyone," he said.

Popat said as long as CCI sells, any sharp rise in domestic cotton prices could be capped. "But it will depend on the selling price of the corporation. I feel there are chances for prices to rise by another ₹1,000-2,000," he said.

However, prices may not rise beyond ₹65,000/candy, the Rajkot-based trader said, adding that export of cotton could be between 25 and 30 lakh bales. "Indian cotton is now at a discount to global cotton. Hence, there is some demand," he said. ■

Apparel Sellers slash Discounts to Grow Margins as Sales Lag

Leading fashion and apparel retailers are reducing their discount as demand remains subdued and their inventory much lower than earlier in order to focus more on margins and profit, chief executives said. These companies feel when store footfalls are weak, there is no need to provide additional discounts and instead focus on premiumisation of these consumers.

Aditya Birla Fashion & Retail managing director Ashish Dikshit said there is a slowdown which is reflected in the footfalls in malls and stores. The company has decided to scale down on discounting which has helped to significantly expand margins last quarter, he told investors recently.

"We recognized that in this market situation. it would be a sharper strategy to stay tight on discounts, manage for profitability, which is what we have done. So we were able to make the most of the footfalls, which came into the stores, which was linked with the premiumization strategy," said Dikshit, who runs stores like Pantaloons and sells brands like Allen Solly, Reebok and host of ethnic designer brands like Sabyasachi and Masaba.

Arvind Fashions, which sells brands like Arrow, Calvin Klein and Tommy Hilfiger, too has rationalized discounting at its stores. The company's managing director Shailesh Chaturvedi said the company's revenue growth last quarter could have been higher if it has participated in early end-of-season sales (EOSS) but instead made a choice to focus on profitability and discount reduction due to tight control on inventory.

"We also made a choice of increasing marketing investment by 130 basis points in order to support growth and keep our brands top of mind. We chose investment in marketing over investment into discounting," Chaturvedi told analysts. A basis points is 0.01 of a percentage point.

For Arvind Fashions, the growth in Ebitda (earnings before interest, taxes, depreciation, and amortisation) last quarter was 18% due to lower discounting while Aditya Birla Fashion & Retail achieved consolidated Ebitda of ₹605 cores with margin expansion of 150 basis points to reach 14.5% versus 13% last year same period.

Sales of apparel brands and retailers have been impacted since November 2022 after a massive surge in demand post Covid led by wardrobe refresh. The sudden lull in demand caught all brands unawares where by they were stuck with piles of unsold inventory forcing everyone to cut down on sourcing and clear stock with frequency and high discounting.

Demand did not revive even last festive season with brands saying the cricket matches during the ICC World Cup them impacted demand severely. But almost all brands managed to reduce their inventory levels with lower sourcing.

Shoppers Stop's apparel value retail format Intune business head Devang Parikh told analysts that this new format has beaten all estimates on the number of full price sell-through. The retailer did not go for any major discounting in the last EOSS. ■

Rising Costs, dwindling demand : Weavers in Bhagalpur, Bihar's silk city seek govt's support

As a fourth-generation weaver, Sunil Das, 55, cannot remember a time he was not surrounded by silk sarees. Now, he is tired. He bears many burdens; of low wages in the fast-dwindling market for handwoven sarees that often cost 10 times a silk, the rising costs of raw material, and the social stigma of belonging to the tanti or weaving community, classified by the Indian government under the Extremely Backward Classes.

Das lives in Bhagalpur town, once called the silk City of Bihar, situated on the banks of the Ganga. The district with the same name, in Bihar's southern most area, has 1,689 villages and a population of over 30 lakh, as per the 2011 Census. The sleepy town is also a centre of Manjusha painting, the green pink yellow hues depicting stories of the adopted daughters of Shiva and Parvati.

The Bhagalpur Regional Handloom Weavers Co-operative Union, a 25-year old organisation, records the business of silk handlooms in the area. "Five years ago, there were about 2 lakh weavers in Bhagalpur ; now there are 60,000," says Javed Saleh Ansari, 65, chairperson of the cooperative union-soaring yarn price dwindled the business down from ₹600 crores per annum in 2015 to its current 150 crore, he says.

"I don't know any other work. But if I don't work. what will I feed my family? There was a time we would get bulk orders and good money," says Das, as he weaves a saree of tussar, a wild silk of central India. the cocoons of which were traditionally foraged by tribes. It will take him two days to finish the natural brown gold 6.5 metres.

Das uses a traditional pitloom, where the weaver sits on the ground, feet in a pit, with the loom at ground level, so that adequate force can be applied while weaving with a fly shuttle. He manages to make just about ₹200 to ₹250 per day, on a loom owned by Subodh Kumar, 40, a fellow weaver. He comes to Kumar's house daily, walking the 2 km every morning, and working through the day.

Pinky Devi, 38, Kumar's wife, helps him by rolling the yarn used. Five years ago, Kumar's family had four pitlooms ; now they operate only two. It has become hard to find weavers ; most have migrated to powerlooms or simply left the profession behind. "When two looms were closed, I decided to help my husband. I finish the kitchen work and other chores early in the morning. After 12 noon, I start spinning the yarn. The more I

spin, the more fabric can be woven," Devi says, at her exposed brick home that is also their place of work. The family's monthly income ranges between ₹5,000 and ₹6,000. They still remember the slowdown during the pandemic, from which they are still recovering.

Five year ago, a kg of tussar silk thread was available at ₹3,000 ; now it costs ₹75,000. Similarly, eri, another wild silk from northeast India, which has the look and feel of cotton, was at ₹1,000, but is now ₹5,000. Mulberry silk, produced through sericulture, now costs ₹21,000 per kg., up from ₹10,000 ; while muga silk, from Assam's Brahmaputra valley, is at ₹8,500, previously ₹4,000.

About 10 or 12 years ago., traders would buy cocoons from Jharkhand and Chhattisgarh to process the yarn over a couple of days, unwinding filaments from cocoons, drying, boiling, and reeling the thread. Now, the yarn comes from cities like Surat, Ahmedabad, Bengaluru, and Kolkata, indicating a shift from the traditional value chain, where production took place within the central India landscape. Often, they warp the Korean or Chinese mulberry silk, with the weft being locally produced. In 2013, Bhagalpur silk got the government's geographical indications (GI) tag, protecting both the quality and distinctiveness of the product. "For a certification to be provided, the traditional process must be maintained, both in terms of sourcing materials and the way it is woven," says Sandeep Kumar, deputy director of the Weavers' Service Centre in Bhagalpur, a 50-year-old organisation under the Ministry of Textiles. There are about 1,000 weavers who have the GI certificates. Bimal Kumar, 48, a power loom owner, asserts that there was no profit in the handloom silk business, so he shifted to cotton and linen, "We hardly get any bulk buyers in Bhagalpur," Kumar says. Many weavers about 60% are Muslim have stopped weaving.

Nazish Ahmed, 42, shifted to construction, about a decade ago. "My father used to be a silk weaver, but there was no profit. There is no government support to expand the silk cluster, so we decided to close," says Ahmed, who himself has only dabbled in weaving.

Traditionally, every process of the value chain, from farming to weaving, was within a concentrated geographical area that formed a cluster. Today, there is a differentiation between, says, a farming and a weaving cluster.

Rising Costs, dwindling demand: Weavers in Bhagalpur Bihar's silk city seek govt's support

Abid Ansari, 50, another weaver, opened a grocery shop four years ago. "I used to earn ₹8,000 to ₹10,000 a month, which was not enough for a five member family. My three children are studying in private schools, and I was not able to pay their fees. Now, I earn ₹15,000 to ₹20,000 a month," Ansari says.

In 2022, Bihar Chief Minister Nitish Kumar had announced on National Handloom Day that an integrated weavers' development scheme would be launched for weavers, which would bundle several benefits into one, so separate paperwork wouldn't have to be processed for different schemes. Nothing has come of this year.

From 2017, the Satrangi Chadar Yojana, under which handloom bedsheets in seven colours (one for each day of the week) began to be sourced from weavers of cotton cloth for government hospitals and medical colleges. However, there had been no benefit for silk weavers. This scheme, too, collapsed after 2020, when private players began the supply of bedsheets.

"We expected the next generation to learn silk weaving, but seeing our difficulties, our children don't want to," says Javed, sitting in his house with the khat-khat of looms at work. One of his sons has migrated to Mumbai to run a carpet business;

his other son is a weaver who owns about 10 powerlooms, the 70% electricity subsidy benefiting him. "Today, we are labourers, not craftspeople, for big traders. The import of silk from China and Korea has badly affected weavers," he says, adding that thousands of people used to be involved in separating silk thread from cocoons. "They are now migrants to other States, daily wagers, mostly in construction." Another problem is the fluctuating rate of silk in the market. "It feels like the share market," says Javed.

Officers at the Weavers' Service centre claim that weavers have no difficulties, and that the Ministry is giving them ample support. "We serve weavers through the National Handloom Development Programme [aimed at providing raw material, design inputs, technology upgradation]. We provide loom accessories and training, apart from arranging buyer-seller meets," says Prabhat Singh, one of the officers working there. He says they recommend the names of prominent weavers in the community for handloom expositions at the State and national levels. "We have the Samarth Scheme, a skilling programme. I don't think that the silk industry is going down," Singh says, sitting on a plastic chair in the decrepit building. ■

Demand for Cotton from Textile mills determines price trajectory in cotton

Even as demand for cotton from textile mills remains subdued, traders say sustainability of the trend of a surge in domestic cotton prices in the last two weeks of February will depend on demand for textiles and apparels.

As per Nishanth Asher, secretary of the Indian Cotton Federation, more than 60% of the cotton produced this season has come to the market. With prices going up, arrivals have reduced from 1.8 lakh bales a day to almost one lakh bales a day. "Spinners are risk averse now as the global demand for textiles is low," he said.

"It is hard to say now what will happen to the prices. World cotton prices went up 15% in the late February and corrected 3%. The prices will cool down if the demand for the main textile products remains subdued," he added.

The International Cotton Advisory Committee (ICAC) on March 1 said the recent surge in global cotton prices "can be attributed primarily to a wave of speculative buying on the futures market." The real situation will unfold in the next few months when plantings intensify. If the planted area remained less than the previous season and consumer sentiment improved, prices would increase, ICAC observed.

Atul Ganatra, chairman, Cotton association of India, said the Intercontinental Exchanges (ICE) futures market went from 80 cents to 103 cents for a pound in recent days and eased a tad on March 1. At current prices, Indian cotton is cheaper than its international counterparts and hence, cotton exports are likely to cross 20 lakh bales this season, he said. ■

Govt working on augmentation of Textile sector's role in Viksit Bharat Journey: Modi

Prime Minister Narendra Modi recently said that the government is working on expanding the role of the textiles sector in the Journey of India becoming a developed nation by 2047. He added that the valuation of Indian textiles market has crossed ₹12-lakh crores and has seen a doubling of FDI in the past ten years. Speaking at the inaugural session of Bharat Tex 2024, Prime Minister Modi said, "We have resolved to make India a developed nation (Viksit Bharat) by 2047. We are working in a very wide ambit to further expand the role of the textiles sector in building a developed India. India's textile sector is deeply connected with the four main pillars of Viksit Bharat namely poor, youth, farmers and women. We are focussing on tradition, technology, talent and training."

He pointed out that the emphasis is on updating traditional designs to meet the demands of the contemporary world.

Keeping in mind the concept of five Fs—Farm to Fiber, Fiber to Factory, Factory to Fashion, Fashion to Foreign — which are elements of the entire value chain, he said that the government is encouraging farmers, MSMEs, weavers and exporters.

Modi stated that the valuation of the textiles market has crossed ₹12-lakh crores from less than ₹7-lakh crores in 2014.

There has been a nearly 25 per cent increase in production of yarn, fabric and apparel production. 380 new BIS standards are ensuring quality control in the sector. This has led to a doubling of FDI in the sector in the last 10 years, added.

New avenues

He said that the establishment of seven PM MITRA Parks in various States will create new opportunities for the textile sector.

"Our endeavour is to establish the entire value chain ecosystem in a single place where modern infrastructure with plug-and-play facilities are made available. This will not only improve the scale of operations but also bring down logistics costs," Modi explained.

Referring to the employment potential and participation of the rural population and women in textiles sectors, the Prime Minister said that 7 out of 10- apparel makers are women and in handloom, the number is even higher. He emphasised that the steps taken in the last 10 years by the government have not only made Khadi a strong medium of development and jobs but have also grown India's profile in cotton, jute and silk.

Modi said that the government is supporting cotton farmers and is buying cotton from them. He said Kasturi Cotton, launched by the government, will be "a big step" in creating India's brand value globally. He added that India is also focusing on emerging sectors such as technical textiles offering scope for new start-ups.

He added that on the one hand while there is a growing focus on technology and mechanisation on the other hand there is also a demand for uniqueness and authenticity and India has a place where both these demands can co-exist.

"Today a people's movement is going on in the country for 'Vocal for Local and Local to Global,'" he said, while stating that the textile sector should focus on tapping into the potential of exports. The PM underlined that the government is readily available to function as a catalyst and work towards fulfilling the dreams of the people, as he urged the industries to come forward with a new vision that caters to the world's needs and diversifies that markets. ■

So far cotton corp's has procured 32.85 lakh bales at MSP

The Cotton Corporation of India has procured about 32.85 lakh bales (of 170 kg each) of the natural fibre crop at the minimum support price (MSP), so far, in the current 2023-24 marketing season.

"Bulk of the procurement, about 24 lakh bales, has been procured from Telangana, while the rest has been purchased from other States," said Lalit Kumar Gupta, Chairman Cum Managing Director, CCI.

In Maharashtra, CCI's cotton procurement was 2.44 lakh bales till March 27, 2024 followed by 1.30 lakh bales in Andhra Pradesh and 1.27 lakh bales in Madhya Pradesh. In Gujarat, CCI's cotton procurement stood at 0.91 lakh bales, Odisha at 0.95 lakh bales and Karnataka at 0.62 lakh bales. Cotton procurement in Rajasthan stood at 0.52 lakh bales, Haryana at 0.43 lakh bales and Punjab 0.38 lakh bales.

Gupta said about a tenth of India's cotton crop for cotton season 2023-24 has been procured by the CCI so far. The Committee on Cotton Production and Consumption

(CCPC), an apex body of stakeholders set up by the government comprising cotton textile mills, cotton growers, traders, Central Government officials, etc recently raised the crop production estimates for the current season to 323.11 lakh bales against the earlier estimates of 316.57 lakh bales made in November 2023. The revision is based on the second Advanced estimate of Ministry of Agriculture.

With the open market prices moving above the MSP levels, CCI is not getting cotton in the *mandis* at MSP any more.

"Our procurement started going down from the first week of February as the domestic prices started rising as a result of rise in prices in international market. Our last procurement was on March 4th, 2024 and now the prices are prevailing about 7-8 per cent above the MSP levels. There is no place our intervention is required and no farmer is offering any cotton at MSP as they are getting better price in the market," Gupta said. ■

Despite having the festival and wedding seasons apparel retail companies still see muted demand

For the fourth consecutive quarter, the apparel retail sector has delivered a muted performance. Despite the festival and wedding seasons, most retail majors saw low single-digit growth or a decline in same-store sales. What exacerbated the already-muted demand environment was rising inflation and an inauspicious period (*shraddh*) during the quarter.

While revenue growth for the retail majors was in the 20-25 per cent range year-on-year, this was largely driven by new store additions. The outlier in the listed space was Trent, which delivered revenue growth of over 50 per cent, led by store additions and 10 per cent like-for-like growth.

IIFL Research points out that aggregate sales in the coverage universe grew by 12 per cent, excluding Trent, while growth was 7 per cent when comparing the July-September and October-December quarters to the respective year-ago periods.

Overall demand trends remain subdued, and management commentary across the board does not paint a rosy picture for the near term, say analysts at the brokerage, led by Percy Panthaki.

PhillipCapital (India) also believes that growth in the short term will be tough to come by. Research analysts Ankit Kedia and Rahul Jain of PhillipCapital state, "Despite the shift of peak winterwear demand to January 2024, the short-term outlook stays challenging, as the majority of the retailers haven't seen a substantial shift in the consumption trend in the fourth quarter of 2023-24 (FY24). Hence, we expect like-to-like sales to remain flat."

While margins expanded in the December quarter, there could be some pressure on the raw material front. Profitability improved in the quarter as gross margins expanded by 28 basis points (bps) over the year ago, aided

by falling raw material prices for the 18 retail companies tracked by PhillipCapital.

The brokerager points out that the average cotton price corrected by 30 per cent and 15 per cent, respectively, for the nine months of FY24 and the third quarter of FY24 as compared to the year-ago periods. Prices of Indian cotton increased in February by 5 per cent on account of lower crop arrivals. This could impact the margin outlook of the apparel majors.

At the operating profit level, Trent stood out, registering a growth of 85 per cent. Margins grew by 336 bps to 18.8 per cent. While Page Industries reported flat sales over the year-ago quarter despite volume growth of 4.5 per cent, margins grew 263 bps to 18.7 per cent.

Aditya Birla Fashion Retail (ABFRL) reported a 16 per cent growth in revenues, while operating profit was 27 per cent higher. Margins came in at 13.3 per cent, which was 141 bps higher than the year-ago quarter.

The beat on operating profit was led by better-than-expected margin performance in Pantaloons on the back of cost controls.

Trent remains the top pick in the apparel retail segment given the growth outperformance amidst a slowdown. While the stock is the key pick for Nuvama Research, it is cautious on Page Industries.

For Sharekhan Research and PhillipCapital, too, Trent remains the preferred pick. PhillipCapital is betting on Shoppers Stop among smallcaps while it is 'neutral' on ABFRL and Page Industries.

IIFL Research has a 'buy' on Trent and Shoppers Stop, while it has an 'add' rating on ABFRL, Page Industries, and Go Fashion (India). ■

Cotton consumption picks up as mills ramp up ops

Cotton consumption has picked up on higher market arrivals and increase in demand from textile mills. In the first four months of the cotton season 2023-24 starting October, consumption till January end was estimated at 110 lakh bales of 170 kg each, up by around 19 per cent over 92.50 lakh bales a year ago.

In the October-December quarter, the consumption was 81 lakh bales compared with 65 lakh bales a year ago, an increase of almost 20 per cent. "In the first quarter last year, mills were losing money. This year they are making small profits and so are running at full speed," Atul S. Ganatra, President, Cotton Association of India (CAI) told reporters.

In North and Central India, mills are running at 100 per cent capacity, while in the South the capacity utilisation is around 75 per cent. The total average running capacity of Indian mills is around 90 per cent this year, Ganatra said.

CAI has retained the pressing estimate for 2023-24 season starting October at 294.10 lakh bales of 170 kgs each. Total cotton supply till end of January 2024 is estimated at 210.05 lakh bales.

Market arrivals in the current season till January-end stood at 177.15 lakh bales compared with 115.70 lakh bales a year ago, according to CAI. Imports during this period were lower at 4.00 lakh bales against 5.8 lakh bales. The opening stock has been estimated by CAI at 28.90 lakh bales.

Exports till January-end are estimated to be 9 lakh bales, double that of 4 lakh bales a year ago.

Stocks at January end are estimated at 91.05 lakh bales of 170 kg each. This includes 41 lakh bales with textile mills, equivalent to about 48 days consumption and the remaining 50.05 lakh bales with Cotton Corporation of India, Maharashtra Federation and others (MNCs, traders, ginners, etc), CAI said.

The association has retained its total cotton supply till end of the cotton season 2023-24 at the same level as estimated previously at 345 lakh bales.

This includes opening stocks of 28.90 lakh bales, pressing numbers estimated at 294.1 lakh bales and imports for the season at 22 lakh bales.

Cotton imports are expected to be higher by 9.5 lakh bales compared with 12.5 lakh bales a year ago.

For the 2023-24 season, CAI sees domestic consumption at 311 lakh bales, unchanged from last year.

Exports for the 2023-24 season are pegged at 14 lakh bales against 15.50 lakh bales and the closing stocks at the end of September 2024 are estimated to be 20 lakh bales against 28.9 lakh bales the previous season. ■

AN ANALYSIS OF ONLINE SHOPPING BEHAVIOUR BY CONSUMERS DURING THE COVID-19 PANDEMIC

Ms. A. Lakshika, Assistant Professor, Department of Fashion Technology and Costume Designing, Bon Secours Arts and Science College for Women, Mannargudi

Dr. E. Devaki, Associate Professor, Department of Costume Design and Fashion, PSG College of Arts and Science, Coimbatore

K. Gomathi, Assistant Professor, Department of Costume Design and Fashion, Kongu Arts & Science College, Erode

ABSTRACT

Despite the fact that the fashion sector has been steadily developing over the years, it was severely impacted by the COVID-19 pandemic. The COVID-19 epidemic, as well as the lockdown and social separation laws, have impacted consumer buying and retail behaviours. Customers are learning to adapt and develop new behaviours. When customers are unable to get to the store, the store comes to them. While consumers return to old habits, new regulations and procedures in the way consumers shop and buy items and services are likely to change them. The study's goal was to figure out consumers shopping behaviour in clothing industry during the COVID-19 pandemic. The primary data was gathered using structured questionnaire using google form to discuss and analysis the result. To investigate the factors influencing changing consumer purchasing behaviour in the online shopping industry during the COVID 19 pandemic. The COVID-19 pandemic has not only had an impact on the health sector but also on the economy. Before the pandemic, the textile and fashion industry produced various kinds of fashion needs involving all its employees. The textile and fashion industry is one of the most significant contributors to the state revenue. However, during the pandemic, the textile and fashion industry sector decreased the amount of production. The aim of this research is to determine the impact of Covid-19 on the textile and shopping behaviour from the economic perspective. According to the rapid development of the internet, customer tastes have changed, as well as internet usage has a significant impact on their purchasing behaviour. It is absolutely essential to view and make significant aspects of consumer behaviour from a marketing perspective, such as the reasons behind consumer purchases, specific factors influencing consumer purchase patterns, analysis of changing elements within society that influence purchase behaviour, and some others. Various consumer-dominated variables influence textile and apparel purchases, and consumer involvement refers to consumers' mental or physical involvement in purchasing decisions. Still, it is necessary to investigate how the pandemic had also changed the way consumers are using digital solutions to make purchasing decisions for clothing.

KEYWORDS: COVID-19pandemic, Consumer buying behaviour, fashion industry, purchase decision, online shopping, production.

1.Introduction

The COVID-19 pandemic has drastically altered our understanding of the world. People are buying differently, living differently, and thinking differently in many ways. Customers' shopping habits and expenditures are being affected by the current crisis. The COVID-19 outbreak, as well as the lockdown and social isolation, have changed consumer buying and retail behaviours, not only in consumer habits, but also in the production industry [1]. Customers are learning to adapt and develop new behaviours. Nowadays customers go very digitally with this economic and digital world. In covid pandemic there has been a sudden shift and a peak reach in digitalized globe. During this time, the majority of consumers have chosen a digital lifestyle, resulting in a rise in digital penetration across the country. The goal of this research is to see how the Covid-19 epidemic has affected customer behaviour. Will consumers' consumption habits be permanently altered as a result of the global crises' lockdown and social alienation, or will they revert to their old habits once the crisis has passed [2]. The COVID-19 pandemic has had an impact on both the health and economic sectors. Prior to the pandemic, the textile and fashion industries worked together to meet a variety of not only a fashion need but also it has been credited in medical sector also. The textile and fashion industries are considered as one of the major sources of revenue for the state. The textile and apparel industries, on the other hand, reduced production during the pandemic [3]. The goal of this study is to grasp the content of how Covid-19 which has been considered as one of the crisis that has been seized the opportunity of routine build-up of economy. So, it affected the textile and shopping behaviour from an economic standpoint. As the COVID-19 pandemic ruined away the areas around the world, the amount of time people spent on social media sites and how they interacted with them changed dramatically [4]. While the rapid growth of social media and digitalized has been a long-standing trend, people facing social distancing measures used social media during lockdowns and quarantine to gather information

and stay connected with others in ways that may fundamentally change our relationships with these technologies [5]. Almost every business has been forced to close in the aftermath of COVID-19, and people are being forced to stay at home. As a result, people cannot go to markets to buy products, which is likely pushing people to do online shopping [6]. Online shopping enables consumers to meet their needs while remaining at home and avoiding market visits. This study will investigate whether the current pandemic is too held responsible for the fundamental shift toward online shopping [7]. As a result, the current study hypothesizes that consumer behaviour changed dramatically as a result of restricted movement among individuals during India overall lockdown. Their interest, intention, and behaviour preferred online shopping methods via multiple online website platforms. Consumers across the globe are looking at products and brands through a new lens [8]. According to the growth of the internet, customer tastes have changed, and internet usage has a significant impact on their purchasing behaviour. Customers' online purchasing behaviour is influenced by two factors: trust and benefit. The first component is trust, and the second is benefit. According to both customer satisfaction and convenience, the desire of consumers to make more internet purchases increases [9]. Products, prices, services, and customer reviews, among other things, influence consumers' purchase decisions when obtained through the online. The coronavirus outbreak seems to have an impact on every industry. Fashion, with its non-essential product lines, has been particularly hard hit, and many will, unfortunately, be unable to repair the damage and recover. This is an example of a new reality in the fashion industry. Winners and losers will emerge. Some companies in the industry are better positioned to cope due to stronger foundations, while many are in danger of going out of business [10]. Enterprises that can respond to current challenges while capturing necessary trends will emerge as winners. As economies gradually open up, those who survive will be those who recognize that the fashion industry will have a new normal and adapt their strategies accordingly. The Covid-19 pandemic has changed the way we work, shop, and communicate with others more than any other recent disruption (including technological ones). As more people begin working from home, they are sticking to the basics, going out only to buy necessities, and are constantly concerned about the

risks of becoming infected in crowded places such as malls and supermarkets [11].

2. METHODOLOGY

2.1 Sample of study

It is essential to view and study specific aspects of consumer behaviour and production from a marketing perspective, such as the reasons behind consumer purchases, specific factors influencing consumer purchase patterns, analysis of changing elements within society that influence purchase behaviour, and others. According to the growth of the internet, customer tastes have changed, and internet usage has a significant impact on their purchasing behaviour. Products, prices, services, and customer shopping habits among other things, influence consumers' purchase decisions when obtained online. This study is primarily aimed customers aged 20 to 25, as they tend to purchase more products than other age groups and the production unit how they managed production during and after the covid.

2.2 Study on fashion industry

The study's goal was to figure out consumers shopping behaviour and production in clothing industry during the COVID-19 pandemic. The primary data was gathered using structured questionnaire using google form to discuss and analysis the result. To investigate the factors influencing changing consumer purchasing behaviour in the online shopping industry during the COVID 19 pandemic.

2.3 Survey piolet study

A survey, usually on a small scale, carried out prior to the main survey, primarily to gain information to improve the efficiency of the main survey. For example, it may be used to test a questionnaire, to ascertain the time taken by field procedure or to determine them effective size of sampling unit.

2.4 Survey questionnaire

A questionnaire is a research instrument that consists of a set of questions for the purpose of gathering information from respondents through survey or statistical study. A research questionnaire is typically a mix of close-ended questions and open-ended questions. Open-ended, long-term questions offer the respondent the ability to elaborate on their thoughts. The Research questionnaire was developed by the Statistical Society of London in 1838.

AN ANALYSIS OF ONLINE SHOPPING BEHAVIOUR BY CONSUMERS DURING THE COVID-19 PANDEMIC

2.5 Shopping behavior during covid

The COVID-19 outbreak, as well as the lockdown and social isolation, have changed consumer buying and retail behaviours, not only in consumer habits, but also in the production industry. Customers are learning to adapt and develop new behaviours. During this time, the majority of consumers have chosen a digital lifestyle, resulting in a rise in digital penetration across the country. The goal of this research is to see how the Covid-19 epidemic has affected customer behaviour. Will consumers' consumption habits be permanently altered as a result of the global crises' lockdown and social alienation, or will they revert to their old habits once the crisis has passed.

2.6 Shopping behaviour post covid

Online shopping has become the habit for consumers even after the covid they purchase in online and their shopping habit change due to covid-19. They purchased more in online, post pandemic as the situation has become normal and people have started socialized.

2.7 Production

Production activities coming to a halt due to strict enforcement of social distancing norms. Suspended manufacturing activity does not bode well for the Indian textiles industry; since, this impacts exports, domestic commodity stocks and the employees adversely. The effect of COVID-19 on the textiles industry is manifold. Be it demand or supply, inputs or output, the flu pandemic has impacted almost all facets of the textiles industry. Needless to say, the issues and challenges presented by this pandemic need a proper discussion to mitigate and contain its impact not only on the industries but also on the entire economy.


2.8 Financial crisis

The Indian textile industry is estimated to have compounded annual growth rate (CAGR) of 10% between financial year 2016 and financial year 2021. Exports in the textiles and garment industry are expected to reach US\$300 billion by 2024. However, the COVID-19 pandemic has seriously affected the growth of textile industry. Many textile units have stopped their production. The crisis has pushed the textile entrepreneurs to take tough decisions such as lay-offs, introducing pay cuts, and asking employees to go on unpaid leaves. All these have resulted in entrepreneurs remaining vulnerable to emotional burnout, taking a toll on their physical and mental health. It therefore becomes essential to highlight the problems faced by this sector.

2.9 Impact on workers

Garment factories may find themselves in a situation where they will lack workers. In some countries, where it is common for factories to employ migrant workers, they may find that workers have gone back to their countries of origin. Workers could be unavailable as they are unwell, out of fear or because they need to take care of family. For the statistical analysis, SEM, a powerful tool that measures the causal relationship of the constructs, was utilized. The first step in the analysis would be to check, empirically and simultaneously, the relationships among the factors of the developed framework using SEM through SPSS Statistics 23 and AMOS version 26. SEM is broadly acknowledged as an empirical method in the marketing and consumer behaviour disciplines for theoretical research and expansion.

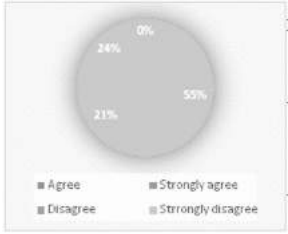



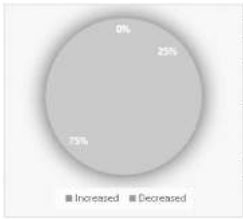
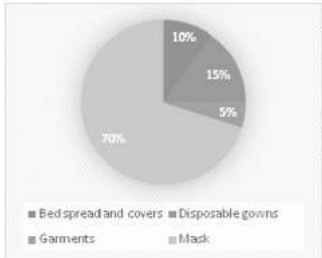
Survey- Pie Chart

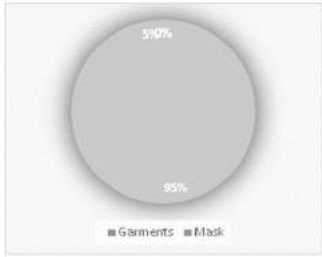
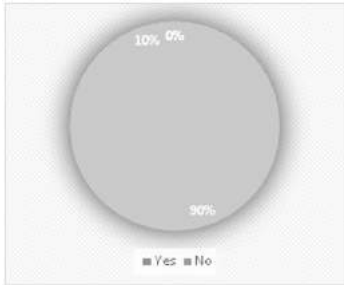
S. no.	Pie Chart	Count	Percentage	Comment
1.	 <p>A pie chart illustrating the distribution of consumer occupations. The chart is divided into four segments: a large dark grey segment for 'Self employed' at 69%, a medium grey segment for 'Student' at 17%, a light grey segment for 'Employed' at 13%, and a very small white segment for 'Unemployed' at 1%. A legend below the chart identifies these categories with corresponding colored squares.</p>	5 21 4 1	69% 17% 13% 1%	Most of the consumers are students, as they tend to purchase online more often because they always try to keep up with latest trends.

AN ANALYSIS OF ONLINE SHOPPING BEHAVIOUR BY CONSUMERS DURING THE COVID-19 PANDEMIC

2.	Monthly spending on fashion purchase	22 9 0 0	71% 29% 0% 0%	The majority of online customers purchase items for less than 2000. Some customers buy product in the range of 2-5000. So I have concluded that people are ready to invest only 2000 because they are hesitating to buy on internet, the customers trust on internet.
3.	Idea of choosing brand	10 21 31	76% 24% 0%	The idea of buying from a specific brand through online is because of the advertisements given online. Hence it is more effective for the consumer during covid phase.
4.	Shopping Habbit	19 12	61.3% 38.7% 0%	The majority of respondents agree that covid – 19 has an impact on buying behaviour. some of them disagree because they did not change their shopping habits. so many people have adapted to new shopping behaviour.
5.	Post - Covid	1 3 18 9 31	3.2% 12.9% 71.0% 100% 53%	Post covid gave the outbreak of special occasion as an alternative regarding clothing due to financial crises consumers reduced their purchase and only bought essential products.
6.	Alternatives regarding clothing	2 6 12 11 31	6.5% 25.8% 64.5% 100% 51%	
7.	Product post covid	8 1 6 16 31	25.8% 29.0% 48.4% 100% 49%	Western wear is being purchased more in online, post pandemic as the situation has become normal and people has started upgrading and socialized.

AN ANALYSIS OF ONLINE SHOPPING BEHAVIOUR BY CONSUMERS DURING THE COVID-19 PANDEMIC

8.	Increase in online purchase 	Agree Disagree	51% 21% 24% 0%	Following the pandemic, most customers prefer to purchase products online. They find it convenient and easy to purchase products online. As a result of covid 19, their shopping preferences change because of safety control most of the people adopted to buy online.
9.	Survey questionnaaire on production 	1 6 13	5% 30% 65%	Hence in most of the production industry the working hours were 7 hours.
10.	Income of employee 	18 2	90% 10%	Thus the employee salary has changed due to covid 19 raw material, transportation cost were increased and orders were reduced.
11.	Transportation cost 	20 0	100% 0%	People have agreed that the transportation cost has been increased during covid 19, transportation was difficult during at the time of covid 19 due to many restrictions which led to the increase in the cost of transportations.
12.	Income of manufacturers 	5 15	25% 75%	Covid 19 has affected the production in many different ways which led to decrease in production followed by decrease in salary of the employee.
13.	Types of order during pandemic 	2 3 1 14	10% 15% 5% 70%	Mask were in great demand during the outbreak of covid 19 as it become essential for people to wear mask to safeguard themselves from virus. While every industry was affected by covid 19, garment industry has managed their production unit by manufacturing masks.

14.	Types of order post pandemic	19 1	5% 95%	The production of mask reduced in post covid as the situation got better. The production of garments got increased like back to normal, so production and income has increased.
				
15.	Work process post covid	18 2	10% 90%	In this survey 90% of the people have agreed that they have returned to their routine work post covid.
				

CONCLUSION

Consumer behaviour has been significantly disrupted as a result of the lockdown and social distancing imposed to combat the covid-19 virus. As consumers adjust to lockdown for an extended period of time, they are more likely to adopt newer technologies that make work, study, and consumption more convenient. Adopting digital technology is likely to cause existing habits to change. The goal of this study is to see how the Covid-19 epidemic has affected customer shopping behaviour and production. The production industry has also gone back to their normal days and their scales were also started to rise. According to the majority of customers, COVID-19 has an impact on purchase behaviour. Because their shopping habits haven't altered, some of them disagree. Because so many people have changed their shopping habits, manufacturing and marketing must devise new ways to boost sales. As a result, staff salaries have changed because shipping costs have increased and orders have decreased as a result of the covid 19 raw material shortage.

Acknowledgement

The Authors are grateful to the management, PSG College of Arts & Science ,Coimbatore, India, for granting the SEED fund for this research. The authors thank the Management for their continuous support to this research.

Reference

- Sheth, J. (2020). Impact of Covid-19 on consumer behaviour: Will the old habits return or die? Journal of business research, 117, 280-283.
- Rajeswari, P Vijai, C. (2020). The Impact of COVID-19 on Consumers behaviour in India. 45.2249-6661.
- Eger, L., Komárková, L., Egerová, D., Mičík, M. (2021). The effect of COVID-19 on consumer shopping behaviour: Generational cohort perspective. Journal of Retailing and Consumer Services, 61, 102542.
- Mahmoud, A. B., Ball, J., Rubin, D., Fuxman, L., Mohr, I., Hack-Polay, D., ... & Wakibi, A. (2022). Pandemic pains to Instagram gains! COVID-19 perceptions effects on behaviours towards fashion brands on Instagram in sub-Saharan Africa: tech-native vs non-native generations. Journal of Marketing Communications, 1-25.
- <http://dspace.uiu.ac.bd/bitstream/handle/52243/2313/COVID%2019%20Effects%20on%20Consumer%20Purchasing%20Behavior%20.pdfDspace.pdf?sequence=1&isAllowed=y>.
- Kholya, R., Massey, S., & Hussain, A. (2022). An investigation of Indian consumer's buying behaviour during COVID-19 towards the purchase of apparel items. International Journal for Modern Trends in Science and Technology, 8(2), 41-50.
- Ali Taha, V., Pencarelli, T., Škerháková, V., Fedorko, R., & Košíková, M. (2021). The use of social media and its impact on shopping behaviour of Slovak and Italian consumers during COVID-19 pandemic. Sustainability, 13(4), 1710.
- Hie, Z. E. (2022). COVID 19 Effects on Consumer Purchasing Behaviour: Perspective of Online Shopping in Bangladesh. ■

A REVIEW ON VARIOUS BIODEGRADABLE HERBAL MATERIALS USED FOR SANITARY HYGIENE PRODUCTS

K. Saravanan, Professor, S. Gopinath, S. Hema, M. Shalini, Final year Student
K. S. Rangasamy College of Technology, Tiruchengode, Namakkal District, Tamil Nadu, India

ABSTRACT

Due to a shortage of accessible, inexpensive hygiene products, girls in low- and middle-income countries struggle to maintain proper menstrual hygiene. The success of girls' education and gender equality in low-income situations might be hampered by a lack of affordable and trustworthy health goods, which can result in absences from school. Sanitary napkins are specialised textile items that women use to collect menstrual fluids in a hygienic manner when they are menstruating. Additionally, a lack of adequate disposal facilities may cause environmental contamination and social irritation. The majority of South Korean women use sanitary pads that can be voided before and during menstruation and contain different organic solvents. However, they have not been given access to research on the consequences of sanitary pads on health. Menstrual pads are menstrual hygiene products that are worn externally, unlike menstrual tampons and cups that are worn inside the vagina. This simple study of physical materials from a technical point of view could increase school attendance, improve the level of education achieved by girls, and be a key step in achieving gender equality in low- and middle-income countries if it is further studied from the perspective of social sciences and policies. This article focuses on utilizing various environmentally friendly biodegradable materials for making sanitary napkin.

Keywords: Biopolymer, Biodegradability, Natural fibre, Sustainable material, Antimicrobial Finishes, Eco-Friendly, Sanitary Pad.

INTRODUCTION

The globe is currently struggling greatly with the carbon footprint of feminine hygiene products. Because there is a significant volume of non-biodegradable waste put in landfills, the atmosphere is exposed to hazardous gases. India is a growing nation with a population of 1.34 billion people, 323.6 million of whom are female and between the ages of 15 and 49[1]. In 1896, the first disposable sanitary pad was created. It was composed of cotton and gauze. In the United States of America, it was successfully commercialised in 1921. Finding a material that is readily available and affordable was necessary as material supply decreased. Wood pulp was then added since it is an absorbent material made from soft wood [2]. Sanitary napkins are part of the disposable sanitary products that belong to technical textiles because they contain functional textile materials [3]. Sanitary pads have a big market,

because almost half of the world's population is made up of women, and all women are suffering from menstrual bleeding [4,5]. Menstrual pads are manufactured from a variety of materials that vary depending on style, country of origin and brand [5]. Sanitary napkins are made of layered structures, and they must have different properties such as absorbency, leakage prevention and comfort. [3,4,5]. Materials used in feminine hygiene products are made from natural resources, primarily petroleum, and cannot be recycled or composted. Structures made of textile and film are found in these levels [6]. The topsheet is the top layer in touch with the body. Polypropylene spunbond nonwoven fabric or polyethylene film can be used as the topsheet material. Under the topsheet is an Acquisition-Distribution Layer (ADL), which transmits the menstrual fluid to the absorbent layer below by distributing it along the sanitary napkin [7,8]. Airlaid woodpulp nonwoven or multicomponent structures comprised of woodpulp and synthetic fibres can be used to create ADL. Superabsorbent polymer and wood pulp are the typical ingredients in absorbent layers. Different configurations of airlaid technology can be used to manufacture it. Backsheet, the bottom layer, is often an impermeable film [8,9]. Nonwoven textiles make up the ADL and absorbent layers. Nonwoven fabrics are excellent because they are quick and simple to create, absorb a lot of fluid, and give the user comfort [10]. In many different applications, including diapers and absorbent pads, superabsorbent polymers (SAPs) are functional materials made of a crosslinked hydrophilic polymer in a loose three-dimensional network [11]. Due to their highly crosslinked structure, SAPs have a remarkable ability for liquid absorption and can hold onto the absorbed liquid for an extended period of time even when compressed [12]. A crosslinked, partially neutralised polyacrylic acid is the main superabsorbent polymer used commercially. Acrylic acid and sodium hydroxide (or sodium carbonate), which are both cheap chemicals, are used to create the polymer. Although the disposal of synthetic SAP trash is a source of numerous environmental contaminants, the SAPs do not directly endanger human life or health [13]. The two primary categories of SAPs synthetic (petrochemical-based) and natural (polysaccharide- and polypeptide-based) are frequently separated [14]. Over the past few decades, numerous plant gum exudates have been found. Gum arabic, gum ghatti, gum karaya, and

tragacanth gum are prominent examples in this group. These organic gums, which are secreted by trees and bushes, solidify when they are exposed to air and sunlight, which causes them to become lumps, tears, and semisolid nodules. Exudation is not a phenomenon that occurs in typical trees. It is an absolute reaction, though, to the stimuli of an altering external environment. Gummosis is the term for the exudation of gums in reaction to biotic and abiotic stimuli such as infection, insect attack, mechanical injury, and chemical injury [15]. Natural fibre is made up of a variety of components, including cellulose, lignin, pectin, and other substances. Natural fibres have unique traits and distinctive properties as a result of the existence of these components, which will lead to a high moisture percentage and ultimately affect the attachment of the fibres to the matrix. Some chemical treatment techniques are used and are being researched in attempt to match the qualities of other man-made fibres in order to solve this challenge [16-20]. Use of cloth pads and/or disposable pads made of biodegradable materials such bamboo fibers, hyacinth fibers, and banana fibers is another solution to this problem that fits well with contemporary customs and practices. However, the lack of readily accessible and affordable commercial biodegradable products prevents these items from being widely adopted by low- and middle-income populations [21].

This article objective is to evaluate the naturally biodegradable materials for feminine sanitary products in low- and middle-income nations. Additionally, methods for utilizing these organic, biodegradable materials economically by working with neighborhood NGOs (Non-Governmental Organizations) were suggested.

THE GENERAL LAYOUT OF DISPOSABLE SANITARY PADS

Sanitary pads are composed of a three-layered structure that serves a particular purpose. The top sheet, middle layer, and bottom sheet are the three layers of sanitary napkins. The fluid is intended to be absorbed by the top sheet and swiftly transferred to the absorbent layer. Polypropylene fibres are used to make feminine hygiene products that are sold commercially. The fluid is absorbed and retained by the middle layer, also referred to as the absorbent core. The absorbent core, known as wood pulp or super absorbent polymer (SAP), is what absorbs the liquid and holds it in a jelly-like state. The bottom layer, sometimes referred to as a barrier sheet, keeps menstrual fluid from seeping out. However, the primary issue with the overall design is the use

of plastic layers, which are difficult for microbes to break down and decompose. Hence, when designing feminine hygiene products, an appropriate substitute material must be used [22]. They have become very interested in a variety of products, such as medical textiles and sanitary napkin design, since the revolution in plant fibres.

ISSUES RELATED TO DISPOSABLE SANITARY PADS IN THE MARKET PLACE

Most commercial sanitary napkins are made of petroleum-based materials that are not reusable. Sanitary pads have a carbon footprint that contributes to global warming by releasing gases into the atmosphere [22]. Wood pulp is a plentiful and readily available raw material that is mostly utilized in feminine hygiene products. The overuse of trees will cause deforestation and negatively impact the ecosystem [23]. The ingredients in sanitary napkins cellulose bleached pulp, rayon, dioxin, ultra-absorbent polymer, artificial perfumes, and petrochemicals cause ovarian cancer, allergic reactions, skin irritation, and toxic shock syndrome. Pads made of synthetic materials trap heat and moisture, which raises the possibility of bacterial and yeast infections. The non-biodegradable plastic used to make sanitary pads increases menstrual waste and pollutes the environment. Additionally, because the workers are picking up this trash with their bare hands, it poses an occupational risk [24].









SANITARY NAPKINS MADE WITH BIODEGRADABLE MATERIALS:

Cotton fibers are more absorbent than linen fibers, which are made from the flax plant [25]. More absorbent than regular cotton is cotton terry cloth, which has loops of cotton fiber woven into the fabric. The surface area of the loops is intended to absorb liquids, and fabric weight, thickness, and pile yarn twist all affect how well they can do so [26]. Natural fiber derived from a Cannabis sativa plant variety is known as hemp or industrial hemp. Hemp is both a good absorbent and has antimicrobial qualities [27][28]. Cotton does not absorb water as well as hemp [29]. Another extremely absorbent substance is bamboo fiber or bamboo cloth. Additionally, bamboo fiber is more absorbent than cotton [30]. According to a study on cloth diapers, which compared bamboo, cotton, and blended textiles, pure bamboo had the strongest antibacterial activity, while a bamboo cotton mixture has a higher capacity for absorption than pure cotton [31].

The variety of natural fibre with cellulose, hemicellulose, lignin and pectin percentages are mentioned in Table 1[32].

**A REVIEW ON VARIOUS BIODEGRADABLE HERBAL MATERIALS
USED FOR SANITARY HYGIENE PRODUCTS**

TABLE 1
CHEMICAL COMPOSITION OF DIFFERENT NATURAL FIBRES[32]

FIBRE TYPE	CELLULOSE	HEMI CELLULOSE	LIGNIN	PECTIN	FIBRE IMAGES
Bamboo	70-74%	12-14%	10-12%	2-3%	
Banana	71.08%	12.61%	7.67%	0.9%	
Jute	65.2%	22.2%	10.8%	0.2%	
Flax	85-87%	7- 9%	2.5-4%	1.5-2.5%	
Areca	55.82%	34.28%	6.82%	1-2%	
Hemp	77.77%	10%	6.8%	2.9%	
Sisal	71.5%	18%	6%	2.3%	
Cotton	95%	1-3%	7-16%	0.7-1.2%	

BAMBOO FIBRE

Bambusa vulgaris, the common name for the bamboo plant, is a perennial woody grass belonging to the Poaceae grass family that grows quickly[33]. Bamboo fibre can be extracted from the plant by machine or through a water retting procedure. The composition of bamboo culms was determined by Tomalang et al. (1980) to consist of holocellulose (60–70%), pentosans (20–25%), hemicelluloses, and lignin (20–30%). Bamboo has a cellulose content of 40–50%, which is comparable to the cellulose content of softwoods (40–52%) and hardwoods (38–56%) [34]. They have natural antibacterial, antifungal, and antistatic qualities due to the presence of Bamboo Kun, a natural antimicrobial agent. Because of the numerous micro gaps and micro holes, bamboo fiber has an absorption capacity that is three to four times greater than that of cotton. Because of these properties, sanitary pads made of bamboo fiber are softer and irritant-free, and they absorb more blood[35]. Bamboo fibres have a higher rate of moisture absorption (13%), surpassing that of modal, cotton, lyocell, viscose rayon, and soybean[36]. They are natural deodorizers that are hypoallergenic, elastic, biodegradable, bacteriostatic, antibacterial, and antifungal. Because of its inherent ability to fight bacteria, the finished product doesn't require an antimicrobial coating and won't irritate skin. Because bamboo fibre is anti-ultraviolet, it provides children and expectant mothers with protection from the damaging effects of UV radiation, making it appropriate for summer clothing[37]. Bamboo fibre can be spun into yarn because it is softer than silk and is both strong and flexible. They are frequently utilized in clothing, home furnishings, nonwoven fabrics (hygiene materials), and textiles used in medicine. Because of its many applications, bamboo fibres are used in the production of biofuel, building materials, food and feedstock, musical instruments, paper, pharmaceutical, textile, cosmetic, and sports industries[38].

BANANA FIBRE

The stem of the banana plant is a reusable, monocarpic, and replantable agricultural waste that decomposes naturally. Natural properties found in banana fibres include biodegradability, anti-oxidant, moisture absorption, UV protection, and weather resistance [39]. Banana fibre pads are one of the sustainable raw materials that can be used to make feminine hygiene pads because of these qualities[40]. One disposable sanitary pad emits roughly 0.041 kg CO₂, whereas the amount of CO₂ released from BFP

is thought to be less than 0.01 kg CO₂[40,41]. pH is one of the crucial factors for sanitary pads. It is determined that the ideal pH range for BFP is 6–8.5. Since no microbiological growth occurs in this range, women can safely use banana fibre pads[40,42]. They are utilized in many different products, including floor mats, wall hangings, baskets, and furniture. Banana fibre can be easily blended with cotton or other synthetic fibres to create blended fabric. Additionally, banana fibre is used to make drilling cables, currency paper, packing cloth for agricultural products, and ship towing ropes.

JUTE FIBRE

The long, glossy plant known as jute (*Corchorous capsularis*) is a member of the tiliaceae family[43]. Because of its soft and shiny texture, jute is one of the most natural, affordable, durable, and adaptable fibres that can be spun into long, strong, and coarse threads[44,45]. With a high yield per hectare and little need for pesticides or fertilizers, jute is a crop that is simple to grow. The term "golden fibre" refers to jute fibres, which are silky, lustrous, and range in length from one to four meters. With a high yield per hectare and little need for pesticides or fertilizers, jute is a crop that is simple to grow. The term "golden fibre" refers to the lustrous, silky, and golden brown colour of jute fibres, which can be as long as one to four meters[46].

FLAX FIBRE

Flax referred to as common flax or linseed, is an annual plant that is a member of the Linaceae family's *Linum* genus and can reach a height of 1.2 metres[47]. It is referred to as a "fibre plant" or "fibre crop" because it is an industrial plant that is grown primarily for its valuable fibre. 60–70% of the chemical makeup of flax fibre is cellulose. Pectins (10%), lignin (2–3%), hemicelluloses (17%), and waxes (2%–3%)[48]. Flax fibre is widely used in the premium paper sector to create printed banknotes and as a raw material for tea bags and rolling paper for cigarettes. Excellent strength, cooling properties in warm weather, and hydrophilicity—the ability to absorb water and dry quickly—are some of the benefits of linen fabric. The uses of linen extend to bed and bath textiles (tablecloths, dish towels, bed sheets, etc.), apparel items (suits, dresses, skirts, shirts, etc.), industrial products (luggage, canvases, sewing thread, etc.), and home and commercial furnishing items (wallpaper/wall coverings, upholstery, window treatments, etc.)[49]. The plant is used to make ropes, twines, fishing nets, fabric, paper, dye, hair gels, and soap, among other things[50]. More

A REVIEW ON VARIOUS BIODEGRADABLE HERBAL MATERIALS USED FOR SANITARY HYGIENE PRODUCTS

study is being done on the potential uses of flax fibres since they are more environmentally friendly, renewable, and biodegradable than synthetic fibres. Therefore, these fibres could be used in turn as a raw material for sanitary pads in order to create a green economy that is sustainable.

ARECA FIBRE

The tensile properties of untreated and chemically treated areca nut fibre reinforced composites are reported to be comparable in this literature. Typically, the larger portion of the common strands exhibits preferred stiffness superior to flexural quality. In the current analysis, the inflexibility of areca strands was evaluated, and a comparative analysis was conducted using the additional clearly recognised characteristic filaments[51]. To investigate the impact of maturity level, betel nut husk (BNH) fibres at three distinct stages of maturity raw, ripe, and matured were assessed. Fruits with betel nut showed good tensile strength for ripe BNH, so ripe BNH will be an excellent option for support within composites made of polymers. Due to low moisture dried BNH fibres with a content showed a somewhat low tensile strength of dried BNH fibres as opposed to ripe BNH fibres shown a high degree of dimensional stability[52]. It was hypothesized that the betel nut fiber's surface roughness would improve the fibres \interlocking within the matrix, and the mechanical characteristics of the T-BFRP composite were also discovered to have comparable CSM-GFRP tensile and compression strengths combinations[53]. Flexural properties of the composites made with vinyl ester were discovered by using betel nut husk fibres of varying maturities (ripe, matured, and unripe). with notable differences in terms of maturity. That is the flexural modulus improved the most, as was seen in the 10 weight percent ripe BNH fiber-reinforced composites. However, an additional increase in BNH fibre content caused a drop in modulus of flexion. It was discovered that fibre maturity had a very minimal impact on the BNH-reinforced material's flexural characteristics combinations[54].

HEMP FIBRE

Indian hemp, sometimes referred to as Himalayan hemp (*Cannabis sativa*), is an annual plant that grows to a height of four metres. Many products can be obtained from the entire plant, such as oil from the seeds, fibre from the stems, and narcotic drugs from the leaves and flowers. Because the plant is light-sensitive, early planting will result in longer fibres. One of the earliest plants is hemp, and its

fibre is thought to be environmentally beneficial[43]. The fibre made from hemp is environmentally friendly, biodegradable, moisture-permeable, anti-static, insulating, warmth-retaining, UV and mildew resistant, and antibacterial. Hemp fibre has a higher capillary action and is soft, with many cracks and tiny holes[55]. It performs well in terms of breathability and can absorb more moisture. Wearing hemp clothing will keep you cool even in hot weather, according to the National Textile Quality Supervision and Inspection Centre. Hemp fibres are excellent for composite products because of their strength and stiffness. The usage of hemp fibres has skyrocketed in recent years, making up less than 0.5 percent of all natural fibre[56].







SISAL FIBRE

Mechanical extraction or retting techniques can be used to remove sisal fibres from plant leaves. Retting is the process of removing the fibres from a sisal leaf by chemically or biologically breaking down the cement that surrounds the fibres[57]. Boiling plant leaves with chemical reagents like sodium hydroxide or sodium benzoate speeds up the breakdown of non-cellulosic material is known as chemical retting[58]. Depending on the plant's age, origin, and location, sisal fibres have different chemical compositions as well as mechanical and physical characteristics [59]. Sisal fibres are also applied in agriculture and packaging. Sisal fibres are used in the packaging industry to create various food product packaging because they are strong and biodegradable, allowing them to withstand a variety of food handling, storage, and transportation situations [60].

COTTON FIBRE

The cotton ball, a naturally occurring fibre with a very soft texture, is surrounded by fibres. Five lakh cotton fibres can be found in cotton and cotton balls. *Gossypium herbaceum* and other species' seeds contain epidermal trichomes, or hairs, which are the biological source of cotton. Malvaceae is the family name for cotton fibre. The primary components of raw cotton are 90% cellulose, 7–8% moisture, wax, and fat. Purified cotton, or absorbent cotton, is made up completely of cellulose and contains 6–7% moisture [61,62]. Growing cotton fibre plants requires a climate with 100 cm of rainfall and a temperature of 25°C. Black soil and a warm climate are required for cotton cultivation [63,64]. The strength and fineness of the yarn are influenced by the length uniformity strength. A higher length uniformity strength will result in less variation in the length of the fibres, which will improve the yarn's quality [65].

TABLE 2
PROPERTIES OF DIFFERENT HERBS
USED IN SANITARY NAPKIN

HERBAL NAME	BOTANICAL NAME	PROPERTIES	HERBS IMAGES
Neem	Azadirachta Indica	<ul style="list-style-type: none"> ➤ Immunomodulatory, ➤ Anti-inflammatory, ➤ Antihyperglycemic, ➤ Antiulcer, ➤ Antimalarial, ➤ Antifungal, ➤ Antibacterial, ➤ Antiviral, ➤ Antioxidant, ➤ Antimutagenic and ➤ Anticarcinogenic 	
Turmeric	Curcuma Longa	<ul style="list-style-type: none"> ➤ Strengthening the overall energy of the body, ➤ Relieving gas, ➤ Dispelling worms, ➤ Improving digestion, ➤ Regulating menstruation, ➤ Dissolving gallstones and ➤ Relieving arthritis 	
Aloe Vera	Aloe barbadensis miller	<ul style="list-style-type: none"> ➤ Anti-inflammatory ➤ Anti-bacterial ➤ Emollient ➤ Purgative ➤ Anti-microbial ➤ Antifungal ➤ Antioxidant 	
Indian Fragrant Rose	Rosa Indica	<ul style="list-style-type: none"> ➤ Anti-depressant ➤ Anti-spasmodic ➤ Aphrodisiac ➤ Astringent ➤ Cleansing ➤ Anti-bacterial ➤ Anti-septic 	
Sorrel Leaves	Hibiscus sabdariffa	<ul style="list-style-type: none"> ➤ Antioxidant, ➤ Antimicrobial, ➤ Anti-Swarming properties 	
Sitaashok	Saracaasoca	<ul style="list-style-type: none"> ➤ Antibacterial ➤ Antifungal ➤ Anticancer ➤ Anti-inflammatory, ➤ Antiarthritic ➤ Antiulcer ➤ Antioxidant, ➤ Antidiabetic ➤ Anti-nephrolithiatic 	

NEEM

Neem powder:

On the sanitary napkin, lightly dust a little amount of neem powder. Ensure that the powder is finely ground in order to avoid any pain. Check for allergies or sensitivities with a patch test prior to taking neem in any form. Apply a tiny bit to a tiny patch of skin, then watch for any negative reactions.

Neem oil:

Put a few drops of neem oil on the sanitary napkins outermost layer. Make sure everything is distributed equally. Permit the napkin's material to absorb the neem oil. This could require many minutes. When inserting the sanitary napkin into knickers, make sure the side that has been treated with neem faces the body. Neem is thought to possess inherent antimicrobial and antifungal qualities, which could aid in upholding personal cleanliness.

TURMERIC

Since turmeric extract may have anti-inflammatory and antibacterial qualities, it is occasionally used in sanitary napkins. Usually, it's absorbed into the fabric or combined with the pad's outer layer. Turmeric is thought to have anti-inflammatory and anti-infective properties. The feeling of freshness and comfort during menstruation may be enhanced by turmeric extract. Because of its anti-inflammatory and antibacterial qualities, turmeric extract is frequently added to sanitary napkins. It can act as a possible barrier against microorganisms, soothe skin, and lessen inflammation.

INDIAN FRAGRANT ROSE

Because of its inherent antimicrobial and calming effects, Indian fragrant rose is frequently used to sanitary napkins, however the exact properties may differ depending on the formulation. It might contribute to a pleasing scent and odour neutralisation. The anti-inflammatory qualities of the rose may also help to create a calming effect when used. The lovely aroma of Indian fragrant rose improves the user experience by disguising smells. Because of its well-known anti-inflammatory qualities, rose oil may help reduce irritation and offer comfort when used. The inherent antibacterial qualities of roses can help keep an atmosphere cleaner and possibly lower the incidence of infections. Rose may have a relaxing impact and encourage comfort and wellbeing when added. It's important to remember that the precise composition and concentration of the sanitary napkin can have an impact on its performance.

A REVIEW ON VARIOUS BIODEGRADABLE HERBAL MATERIALS USED FOR SANITARY HYGIENE PRODUCTS

ALOEVERA

Aloe vera is essential for many skin care uses. In fact, aloe's calming qualities come in especially handy when cleaning specific areas of the skin. Aloe Vera is an active skin conditioning agent because it enhances the skin's capacity to retain moisture. When applied externally, it is a natural skin that can permeate the skin and carry beneficial substances through it.

SORREL LEAVES

Because of its possible antibacterial and anti-inflammatory qualities, sorrel leaf extract may be used in sanitary napkins. These characteristics could make getting your period more comfortable and hygienic.

SITAASHOK

Sita ashok," also known as Ashoka tree (*Saraca asoca*), is sometimes believed to have certain properties in traditional medicine. It is thought to have anti-inflammatory and astringent properties, which could be beneficial in the context of sanitary napkins.

CONCLUSION

Nature holds the answer to every problem. Hygiene products will be more environmentally friendly if natural fibres are used in them. Sanitary pads made with natural fibre will be less expensive, which will help low-income women afford them. Since the product is biodegradable, avoid producing non-biodegradable waste. Technologists like us must create a sustainable solution if we are to leave the next generation with a better society. The most important performance requirements for sanitary napkins were found to be their absorptive, leakage prevention, dry sense, soft surface, and odour prevention capabilities. It was found that the most common complaints among the respondents were wetness, leaking, and the need for frequent changes. In conclusion, using natural fibres in sanitary napkins offers a potentially sustainable substitute. These fibres are breathable, comfortable, and biodegradable; they come from materials like cotton or bamboo. Their use promotes a healthier and more environmentally friendly atmosphere in line with the rising demand for menstruation products that are sustainable. The effectiveness of sanitary napkins made of natural fibres may be improved with more research and innovation in this field as technology develops, providing women with a more comfortable and sustainable option for feminine hygiene.

References

- [1] Roshan L. Shishoo, "Analysis Of Structure - Absorbency Relationship In Disposable Hygienic Products," Papers of International Conference on Nonwovens, published in 1992 The Textile Institute North India Section.
- [2] El-Dessouki, "Study of some Non-Woven Hygiene Products Properties Manufactured In Egypt," *Journal of American Science* 2013, 9 (12).
- [3] Wang, L. 2001. Sanitary napkins. pp. 21-34. Osada, Y., Kajiwar, K., ed. *Gels Hand*
- [4] Trickey, R. 2003. *Women, Hormones and the Menstrual Cycle*. Griffin Press, South Australia.
- [5] Ajmeri, J.R, Ajmeri, C.J. 2016. Developments in the Use of Nonwovens for Disposable Hygiene Products. pp.473-496. Kellie, G., ed. *Advances in Technical Nonwovens*, Woodhead Publishing, England.
- [6] Hogue, Cheryl (October 17, 2022). "What is in period products?". *Chemical & Engineering News*. American Chemical Society. 100 (37): 38–42. ISSN 0009-2347. Retrieved 29 October 2022.
- [7] Wang, L. 2001. Sanitary napkins. pp. 21-34. Osada, Y., Kajiwar, K., ed. *Gels Handbook*, Academic Press, USA.
- [8] Ajmeri, J.R, Ajmeri, C.J. 2016. Developments in the Use of Nonwovens for Disposable Hygiene Products. pp. 473-496. Kellie, G., ed. *Advances in Technical Nonwovens*, Woodhead Publishing, England.
- [9] Das, D. 2014. *Composite Nonwovens in Absorbent Hygiene Products*. Das, D., Pourdeyhi, B., ed. *Composite Nonwoven Materials: Structure, Properties and Applications*, Elsevier, England.
- [10] Pohlmann, M. 2016. Design and Materials Selection: Analysis of Similar Sanitary Pads for Daily Use. *International Journal of Engineering Research and Applications*, 6(11), 74-79.
- [11] F. Ullah, M.B.H. Othman, F. Javed, Z. Ahmada, H.Md. Akil, Classification, processing and application of hydrogels: a review, *Mat. Sci. Eng. C* 57 (2015) 414–433.
- [12] A. Adair, A. Kaesaman, P. Klinpituksa, Superabsorbent materials derived from hydroxyethyl cellulose and bentonite: preparation, characterization and swelling capacities, *Polym. Test* 64 (2017) 321–329.
- [13] F. Nandi, C. Brave, Environmentally friendly superabsorbent polymers for water conservation

- in agriculture lands, *J. Soil Sci. Environ. Manage* 2 (7) (2011) 206–211.
- [14] J.Z. Mohammad, K. Kourosh, Superabsorbent polymer materials: a review, *Iran. Polym. J.* 17 (2008) 451–477.
- [15] K. Miyamoto, T. Kotake, A.J. Boncela, M. Saniewski, J. Ueda, *J. Plant Physiol.* 174 (2015) 1–4.
- [16] Proceedings of the World Congress on Engineering, vol. II, (2008).
- [17] Bioactive Polymer Engineering Section RRL (CSIR), (2005).
- [18] *Int. J. Sci. Ind. Res.*, 74 (2015), pp. 589–594.
- [19] *Adv. Polym. Technol.*, 31 (2012), pp. 319–330.
- [20] Proceedings of the IV National Conference on Trends in Mechanical Engineering, TIME'10 (30th December 2010) pp. 30–33.
- [21] Kaur R., Kaur K., Kaur R. Menstrual Hygiene, Management, and Waste Disposal: Practices and Challenges Faced by Girls/Women of Developing Countries. *J. Environ. Public Health*. 2018;2018:1730964. doi: 10.1155/2018/1730964.
- [22] A.Barman, PM. Katkar and SD. Asagekar, "Natural and Sustainable Raw Materials for Sanitary Napkin", *Journal of Textile Science & Engineering*, vol.7, no.3, (2017), pp.1–3.
- [23] MA. Farage , "A Behind the scenes look at the safety assessment of feminine hygiene pads", *The New York academy of sciences*, (2007).
- [24] Anuradha Barman, M. Pooja Katkar, S.D.Asagekar, "Development of Eco-friendly Herbal Finished Sanitary Napkin", *International Journal for Innovative Research in Science & Technology*, vol.4, no.1, (2017), pp.183–189.
- [25] Ramadan A.R. Characterization of biobleaching of Cotton/Linen Fabrics. [(accessed on 10 September 2020)];*J. Text. Appar. Technol. Manag.* 2008 6 Available online: <https://ojs.cnr.ncsu.edu/index.php/JTATM/article/view/311/251>.
- [26] Cruzabb J., Leitão A., Silveira D., Pichandi S., Pinto M., Fangueiro R. Study of moisture absorption characteristics of cotton terry towel fabrics. *Procedia Eng.* 2017;200:389–398. doi: 10.1016/j.proeng.2017.07.055.
- [27] Chen Y., Sun L., Negulescu I., Wu Q., Henderson G. Comparative Study of Hemp Fiber for Nonwoven Composites. *J. Ind. Hemp*. 2007;12:27–45. doi: 10.1300/J237v12n01_04.
- [28] Hao X., Yang Y., An I. Study on Antibacterial Mechanism of Hemp Fiber. *Adv. Mater. Res.* 2014;887:610–613. doi: 10.4028/www.scientific.net/AMR.887-888.610.
- [29] Ramachandran M. Application of Natural Fibres in Terry Towel Manufacturing. [(accessed on 10 September 2020)];*Int. J. Text. Eng. Process.* 2015 1:87–91.
- [30] Ahmad I., Farooq A., Baig S.A., Rashid M.F. Quality parameters analysis of ring spun yarns made from different blends of bamboo and cotton fibres. [(accessed on 11 September 2020)];*J. Qual. Technol. Manag.* 2012 8:1–12.
- [31] Shanmugasundaram O., Gowda R. Study of Bamboo and Cotton Blended Baby Diapers. *Res. J. Text. Appar.* 2011;15:37–43. doi: 10.1108/RJTA-15-04-2011-B005.
- [32] L.Y. Mwaikambo, "Review Of The History, Properties And Application Of Plant Fibres", *African Journal of Science and Technology*, vol. 7, No. 2, (2016), pp. 120 – 133.
- [33] L. Yeasmin, M.N. Ali, S. Gantait and S. Chakraborty, "Bamboo: an overview on its genetic diversity and characterization", *Biotech.*, vol.201, no.5, (2015), pp. 1–11.
- [34] F.N.Tomalang, A. R Lopez, J. A., Semara, R. F. Casin and Z. B. Espiloy, "Properties and utilization of Philippine erect bamboo", In G. Lessard, & A. Chouinard (Eds.). *Proceedings of international seminar on bamboo research in Asia*, Singapore, May 28–30, 1980.
- [35] Ann Mburu and Joseph Kinyanjui, "Development Of A Highly Absorbent And Antibacterial Biodegradable Sanitary Pad From Bamboo", Conference 2014 Ministry Of Higher Education, Science And Technology National Council For Science And Technology 2nd National Science, Technology And Innovation Week, (2013), 13 - 17 May.
- [36] N.Erdumlu, B. Ozipek, "Investigation of regenerated bamboo fiber and yarn characteristics", *Fiber Text East Eu.*, Vol. 16, no.4, (2008), pp.43–47.
- [37] K. Saravanan and C. Prakash, "Bamboo Fibers and its Application in Textiles- An Overview", (2008).
- [38] S. R. Imadi, I. Mahmood , A. G. Kazi, *Bamboo Fiber Processing, Properties, and Applications* chapter book.
- [39] P. Priya , P. Ramya, B. Sarah Afreen, M. Ramya Krishnaveni, S.G. Harshi and D. Uma

A REVIEW ON VARIOUS BIODEGRADABLE HERBAL MATERIALS USED FOR SANITARY HYGIENE PRODUCTS

- Maheshwari, " Production of Cost Effective, Biodegradable, Disposable Feminine Sanitary Napkins using Banana Fibres", International Journal of Engineering and Advanced Technology., Vol.9, No.4, (2019), pp.789- 791.
- [40] A. Krishnashree, M. Sharanya , K. Vysakh Kani , B. Anju , S. Krishna and Aswathy Sreedev, "A novel banana fiber pad for menstrual hygiene in India: a feasibility and acceptability study", IBMC Women's Health., vol. 21, no.129, (2021), pp.1-14.
- [41] A. Hait and S.E. Powers, "The value of reusable feminine hygiene products evaluated by comparative environmental life cycle assessment", Resour Conserv Recycl., vol.150, no.104, (2019), pp.422.
- [42] IS: 5405-1980; Indian standard specification for sanitary napkins (first revision) (1993).
- [43] Ministry of Textiles. Government of India. Other natural fibers. pp.398-465.
- [44] Plant Fibres for Textile and Technical Applications M. Sfiligoj Smole, S. Hribernik, K. Stana Kleinschek and T. Krez e chapter book.
- [45] A. Afi, Y. Alimatu Sadia, J. Feng, C. Shi, L. Wangkung, " Jute Plant- A Bio-Degradable Material in Making Sanitary Pad for Sustainable Development", International Journal of Scientific Research and Management., vol.8, no.6, (2020), pp.162-170.
- [46] Rony Mia, Md. Ariful Islam, A.Bulbul Jalal Ibn Amin Mojumdar, "Woolenization of Jute Fibre", European Scientific Journal., Vol.13, No.30, (2017), pp.314-326.
- [47] R.S. Blackburn, editor, " Biodegradable and sustainable fibres", Cambridge: Woodhead Publishing Series in Textiles, vol. 47, (2005).
- [48] R.R. Mather, R.H. Wardman, "The Chemistry of Textile fibres", Cambridge: RSC Publishing; 2011.
- [49] D.Namrata, S.Rajshree, B.P.Nirmala, S.Hemant and M.Nandan, "Extraction Method Of Flax Fibre And Its Uses", Plant Archives.,Vol. 15 No. 2, (2015), pp. 711-716.
- [50] Tara Sen and H. N. Jagannatha Reddy, "Various Industrial Applications of Hemp, Kinaf, Flax and Ramie Natural Fibres", International Journal of Innovation, Management and Technology., Vol. 2, No. 3, (2011), pp.192-198.
- [51] G.C. Mohan Kumar, WCE 2008, July 2-4, 2008, London, UK Proceedings of the World Congress on Engineering, vol. II (2008).
- [52] L.Yusriaha, et al., Procedia Chem.(2012).
- [53] C. Girisha, et al., Int. J. Eng. Res. Appl. (IJERA) 2 (2012) 615-619.
- [54] L. Yusriah, et al., Polym. Compos. (2016) 2008-2017 <http://dx.doi.org/10.1002/pc.23379>.
- [55] Fiber Z. Hongjie , Z. Zhili, F. Lili , "Advances in the Performance and Application of Hemp", ISSN: 1473-804x online, 1473-8031 print. DOI 10.5013/IJSSST.a.17.09.18.
- [56] P. Joao Manaia , T. Ana Manaia and R. Lu cia, " Industrial Hemp Fibers: An Overview ", Fibers., vo. 7, No. 106, pp.1-16.
- [57] Summerscales J., Dissanayake N. P. J., Virk A. S. and Hall W. (2010). A review of bast fibres and their composites. Part 1 - Fibres as reinforcements. In Composites Part A: Applied Science and Manufacturing 41(10):1329-1335.
- [58] Sadrmanesh V. and Chen, Y. (2019). Bast fibres: structure, processing, properties, and applications. International Materials Reviews, 64(7): 381-406.
- [59] Ibrahim I. D., Jamiru T., Sadiku E. R., Kupolati W. K., Agwuncha S. C., and Ekundayo G. (2016). Mechanical properties of sisal fibre-reinforced polymer composites: A review. Composite Interfaces, 23(1): 15-36.
- [60] Ali H., Alghtani A., Felemban B., Abd El-Aziz K., Saber D., Ahmed E., Megahed M. and Fotouhi M. (2021).
- [61] Smole, M.S., Hribernik, S., Kurećić, M. et al. (2019). Surface Properties of Non-conventional Cellulose Fibres. Springer International Publishing.
- [62] Chand, N. and Fahim, M. (2020). Tribology of Natural Fiber Polymer Composites. Woodhead Publishing.
- [63] Gormus, O. and Yucel, C. (2002). Different planting date and potassium fertility effects on cotton yield and fiber properties in the Cukurova region, Turkey. Field Crops Research 78 (2-3): 141-149.
- [64] Pettigrew, W.T. (2008). The effect of higher temperatures on cotton lint yield production and fiber quality. Crop Science 48 (1): 278-285.
- [65] Krifa, M. (2006). Fiber length distribution in cotton processing: dominant features and interaction effects. Textile Research Journal 76 (5): 426-435. ■

EFFECTIVE UTILIZATION OF OPTICAL BRIGHTENING AGENTS ON DIFFERENT WOVEN AND KNITTED FABRIC STRUCTURES

Patil J. M., Professor, Kulkarni G.M., Lecturer, Ghodawat Rishi, Ramane Vaibhavraj, Jamdar Rushikesh
D.K.T.E.S Textile and Engineering Institute, Ichalkaranji, Maharashtra, India

ABSTRACT

This report documents and presents the results of a study on the effective utilization of optical brightening agents on different fabric structures such as knitted and woven, derived from cotton fibre. The response and performance of new enhanced and efficient methodology, helps to minimize the excessive use of optical brightening agents which will eventually lessen the burden on wastewater processing and the environment. The present experiment is designed with help of two different stilbene based optical brighteners applied on varied fabric samples differing in the weave. The present work investigates the suitable concentration of optical brightening agent giving the most efficient results in the whiteness Index when applied on different structural fabric. This in turn reduces the relative load on the environment and diminishes the non-biodegradable waste harming the natural habitat.

INTRODUCTION

Textile fibers do not appear perfectly white due to some natural and externally added impurities. These impurities are removed by chemical pretreatments such as scouring and bleaching. In bleaching the impurities are eliminated by oxidation which is accomplished by bleaching agents like sodium hypo-chloride and hydrogen peroxide. However these yellowness causing impurities are not completely removed during the process and excess use of bleaching agents may adversely affect strength of fibre (1,2). Therefore optical brighteners or fluorescent brightening agents (OBA or FBA) are applied on fabric in order to alter yellowish hue of the material to white. Sometimes bluing agents are also used. Optical brightening agents are colourless or pale yellow coloured organic compound which are directly applied on fabrics. It helps to counteract the yellowness of the fabric by increasing the reflection of blue light rays by converting invisible short-wave ultraviolet rays of sunlight into visible blue light and have a degree of whiteness which is comparatively more intense. (1) OBAs are categorized on the basis of solubility and chemical structure. Depending on solubility OBAs are classified as direct brightener which are water soluble and dispersed brightener and these are water insoluble. On the basis of structure optical brightening agent are classified into derivatives of stilbene, coumarin, 1,3 diphenyl

pyrazoline, derivative of naphthalene dicarboxylic acid, derivatives of heterocyclic dicarboxylic acid, derivatives of cinnamic acid and substance belonging to other chemical system. (4) Most of the optical brightening agents are not degraded easily and play vital role by adding unwanted chemicals in wastewater (2) hence there is strong need to avoid excess use of OBA by optimization of finishing recipes in which OBA are used.

The present research work focuses on identification of effective method of application of OBA and determining optimum concentration of OBA for different fabric structure. Stilbene based OBAs which are widely used were selected and applied on cotton fabric samples with different structure by varying concentration of OBA.

Material, Chemicals and apparatus

For conducting the experiment and describing in relation, fabric manufactured by two different methods: woven and knitted were sourced from weaving workshop of D.K.T.E's textile and Engineering Institute, Ichalkaranji. The fabrics were conditioned and pretreated at the suitable conditions for obtaining the required ready for finishing fabric with optical brightening agent. The fabrics of different weave structure for both knitted and woven fabric were taken. Knitted fabric samples consisted of single jersey, Lycra Rip, Lycra Jersey, Inter lock while the woven fabric consisted of twill and satin weave.

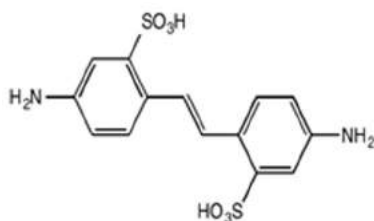
To execute the further process chemicals like optical brightening agents were used. Direct OBA 2B, OBA – BSU were selected for processing. Furthermore, stabilizers were used in the process to stabilize the demonstration.

The instruments taken into account to complete the experimentation were Rota Dyer, Computer Color Matchingsystem (Macbeth Premier), Laboratory Padding Mangle (vertical), and Laboratory drying curing and setting chamber with working width 450mm and maximum temperature zone of 250°C.

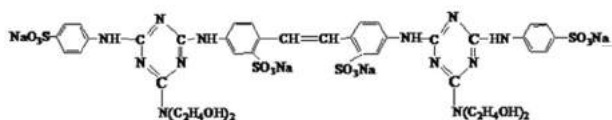
Performance of OBAs was checked using application method. For application of OBA on fabric samples, padding method and exhaust method were adopted. The former check of the chemical was executed since OBA is a textile auxiliary and is combination of numerous other components. This makes it difficult to identify and

EFFECTIVE UTILIZATION OF OPTICAL BRIGHTENING AGENTS ON DIFFERENT WOVEN AND KNITTED FABRIC STRUCTURES

determine the purity of the chemical and hence, the performance of OBA was checked as a parameter to ascertain the efficiency of the same. However chemical structure of main constituent responsible for increasing brightness in respective OBA was resourced.



Structure of OBA 2B



Structure of OBA BSU

Preparation of OBA solution – Five different concentrations of OBA 2B and OBA BSU ranging from 1gpl to 5gpl were prepared from the stock solutions supplied by Yogeshwar chemicals Mumbai.

PADDING METHOD

OBA is applied on fabrics under test by padding method. Selected fabric samples were treated and padded with 60% expression by two dip and two nip method. The samples were dried at 80°C and whiteness index was determined.

EXHAUST METHOD

OBA is applied on fabrics under test by exhaust method. Different concentration of OBA 2B and OBA BSU were prepared by keeping MLR 1 : 30. The pH was maintained between 5 to 5.5 and the temperature was kept between 80 – 90°. The treatment is carried up to 30 minutes. Then sample was dried at 80°C and whiteness index was determined.

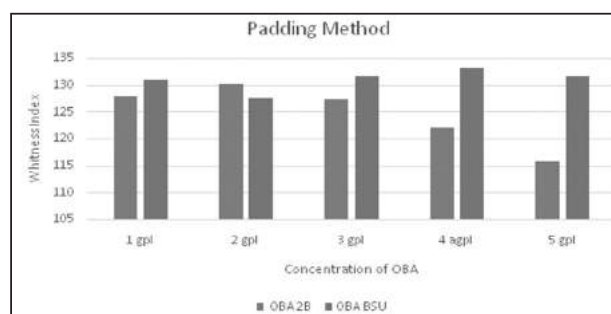
II) TESTING OF WHITENESS INDEX

OBA applied sample were cut in to the small size to fit in the window of Computer Colour Matching System (CCM). The CCM was calibrated with the standard white tile. First OBA untreated sample was scanned. It was used as a reference. The remaining fabric samples treated with various concentration of OBA were scanned and the percentage whiteness index with respect to untreated sample was noted.

Results and Discussion

Table : 2.1.A
Padding method for Single Jersey

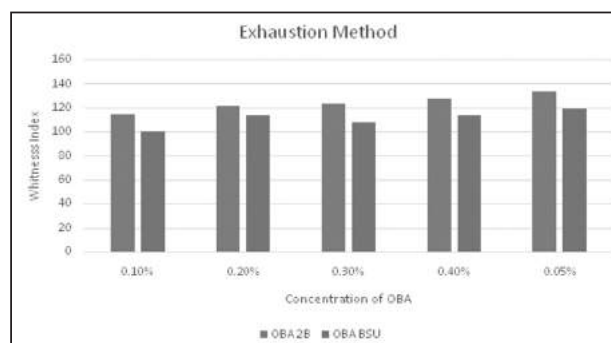
Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	127.834	130.156	127.334	121.977	115.811
OBA BSU	130.852	127.448	131.526	133.202	131.513



It is observed that OBA BSU gives maximum whiteness at 4GPL, while OBA 2B gives maximum whiteness at 2GPL by padding method for Single Jersey fabric.

Table : 2.2.A
Exhaust method for Single Jersey

Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	114.936	121.244	122.903	127.783	133.895
OBA BSU	99.939	114.123	108.072	114.021	119.236

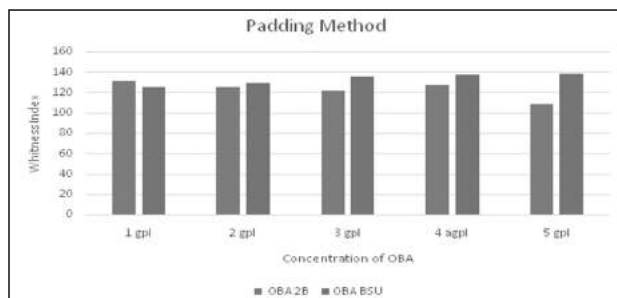


It is observed that OBA BSU gives maximum whiteness at 5GPL while OBA 2B gives maximum whiteness at 5GPL by exhaust method Single Jersey fabric.

Table : 2.1.B
Padding of Interlock

Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	131.133	125.194	121.589	126.694	108.452
OBA BSU	125.517	128.539	135.787	136.998	138.077

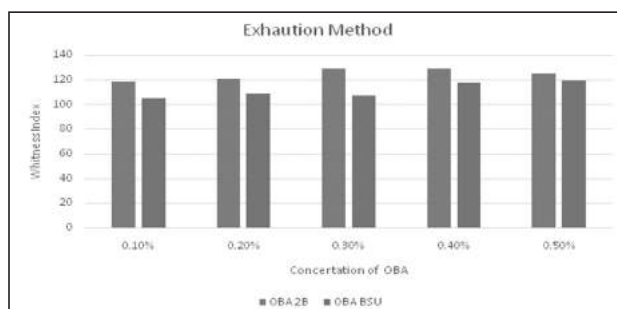
EFFECTIVE UTILIZATION OF OPTICAL BRIGHTENING AGENTS ON DIFFERENT WOVEN AND KNITTED FABRIC STRUCTURES



It is observed that OBA BSU gives maximum whiteness at 5GPL while OBA 2B gives maximum whiteness at 1GPL by padding method for Interlock fabric.

Table : 2.2.B
Exhaustion of Interlock

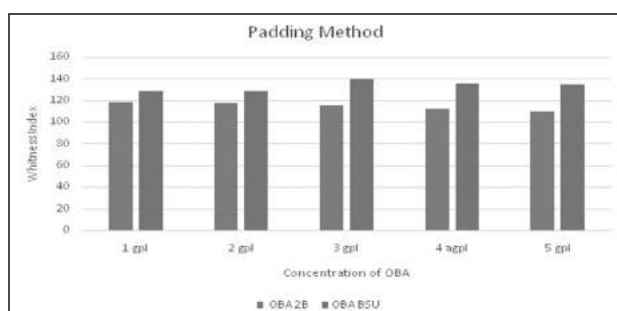
Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	118.487	120.822	128.526	128.889	125.237
OBA BSU	104.45	108.607	107.199	117.679	118.966



It is observed that OBA BSU gives maximum whiteness at 5GPL while OBA 2B gives maximum whiteness at 4GPL by exhaust method Interlock fabric.

Table : - 2.1.C
Padding of Lycra Fleece

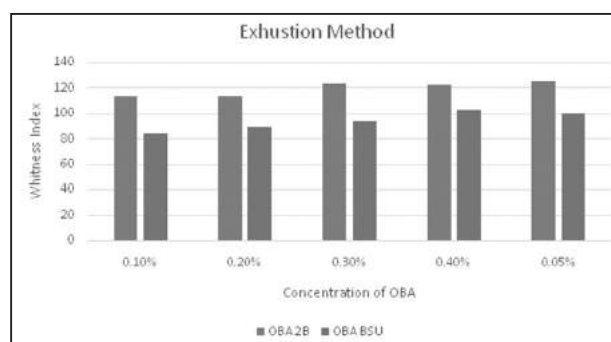
Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	118.438	117.541	115.527	111.969	109.178
OBA BSU	127.937	128.239	139.565	135.526	134.15



It is observed that OBA BSU gives maximum whiteness at 4GPL while OBA 2B gives maximum whiteness at 5GPL by exhaust method Lycra Fleece fabric.

Table : 2.2.C
Padding of Lycra Rip

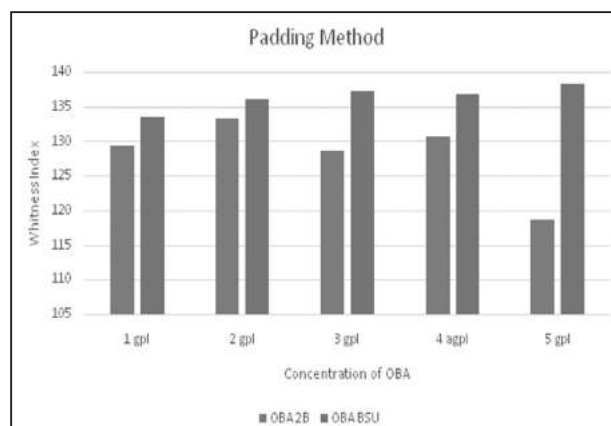
Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	113.263	112.816	123.378	122.438	125.143
OBA BSU	83.925	89.234	93.9	102.884	100.158



It is observed that OBA BSU gives maximum whiteness at 4GPL while OBA 2B gives maximum whiteness at 5GPL by exhaust method Lycra Fleece fabric.

Table : 2.1.D
Padding of Lycra Rip

Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	129.331	133.195	128.513	130.596	118.579
OBA BSU	133.464	136.073	137.156	136.796	138.289

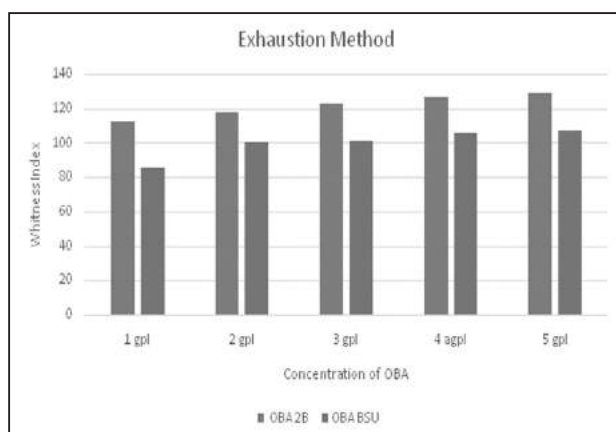


It is observed that OBA BSU gives maximum whiteness at 5GPL while OBA 2B gives maximum whiteness at 2GPL by padding method Lycra Rip fabric.

EFFECTIVE UTILIZATION OF OPTICAL BRIGHTENING AGENTS ON DIFFERENT WOVEN AND KNITTED FABRIC STRUCTURES

Table : 2.2.D
Exhaustion of Lycra Rip

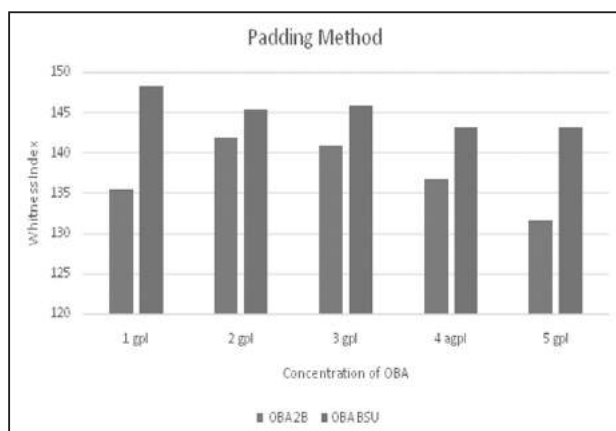
Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	112.15	117.29	122.564	126.389	128.915
OBA BSU	85.282	100.411	100.836	105.679	106.839



It is observed that OBA BSU gives maximum whiteness at 5GPL while OBA 2B gives maximum whiteness at 5GPL by exhaust method Lycra Rip fabric.

Table : 2.1.E
Padding of Satin

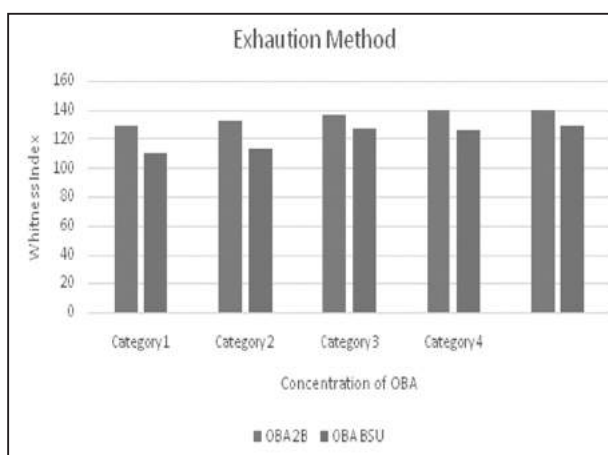
Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	135.324	141.761	140.846	136.737	131.496
OBA BSU	148.277	145.277	145.89	143.065	143.123



It is observed that OBA BSU gives maximum whiteness at 1GPL while OBA 2B gives maximum whiteness at 2GPL by padding method Satin fabric.

Table : 2.2.E
Exhaustion of Satin

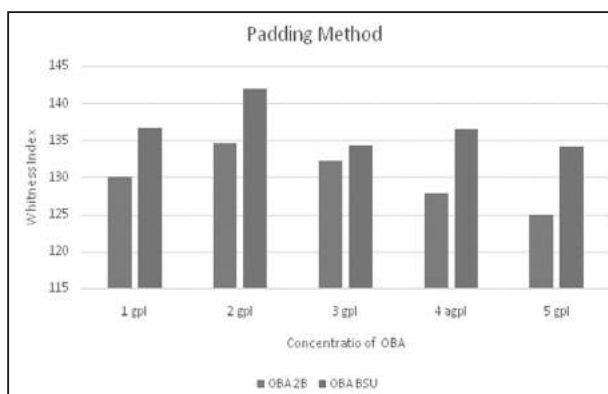
Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	128.737	131.763	136.822	139.595	139.987
OBA BSU	110.025	112.638	127.444	125.712	129.474



It is observed that OBA BSU gives maximum whiteness at 5GPL while OBA 2B gives maximum whiteness at 5GPL by exhaust method Satin fabric.

Table : 2.2.F
Padding of Twill fabric

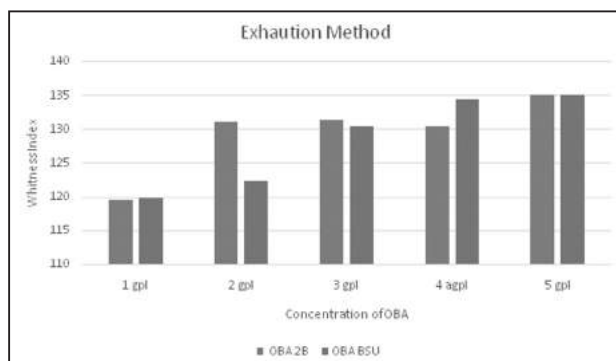
Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	130.126	134.608	132.149	127.88	124.877
OBA BSU	136.663	141.989	134.209	136.531	134.03



It is observed that OBA BSU gives maximum whiteness at 2GPL while OBA 2B gives maximum whiteness at 2GPL by padding method Twill fabric.

Table : 2.2.F
Exhaustion of Twill fabric

Fabric Structure	1GPL	2GPL	3GPL	4GPL	5GPL
OBA 2B	119.416	131.053	131.414	130.32	135.097
OBA BSU	119.712	122.405	130.321	134.35	135



It is observed that OBA BSU gives maximum whiteness at 5GPL while OBA 2B gives maximum whiteness at 5GPL by exhaust method Twill fabric.

Conclusions

By exhaustions method, OBA 2B provides greater whiteness at 5GPL concentration for single jersey fabric, whereas OBA BSU provides the same result at 4GPL concentration for padding method. As a result, OBA BSU performs better for Single Jersey padding at low concentrations. For Interlock fabric, OBA 2B delivers a higher whiteness at a minimum concentration of 1GPL. At a concentration of 5 GPL, OBA BSU produces the same outcome. As a result, OBA 2B produces better results for padding methods at low concentrations. For Lycra Fleece fabric, OBA BSU delivers better whiteness at 3 GPL concentration by padding method, whereas OBA 2B gives better whiteness at 5GPL by exhaustions method. By padding method, OBA BSU delivers superior whiteness at 5 GPL concentrations for Lycra Rib fabric, but OBA 2B gives better whiteness at 2 GPL. For Satin, OBA 2B provides greater whiteness at 2GPL concentration, whilst OBA BSU provides good whiteness at 1GPL using the padding approach. As a result, OBA BSU performs better for satin at lower concentrations and for shorter periods of time. For Twill fabric, OBA BSU provides maximum whiteness at 2 GPL, while OBA 2B provides maximum whiteness at 5 GPL. In terms of overall performance, OBA BSU outperforms OBA 2B. The performance of OBA, on the other hand, is dependent on the fabric structure as well as the technique of application.

REFERENCE

1. Anliker MullerCoulston F., Korte F., 2002. Aspects of Chemistry, Toxicology and Technology as Applied to the Environment. Environment Quality and Safety Vol.4 Global VII "76 S. gr.& mitAbbildungen. ISBN: 313516201X Thieme. Stuttgart. (1975).
2. Gitte Tang Kristensen, Danish Technological Institute, SerenSejer Donau, Morten Gardum Madsen, Danish Technological Institute, Dorte Rasmussen, DHI, YahviFrimandPaludan-Müller, BeirholmsVeverier A/S, Tina Hartman Egedal, BeirholmsVaverier A/S, 2018. Establishing the baselines of current OBAs, Substitution of optical frightened agents in Industrial textile. The Danish Environmental Protection Agency. ISBN: 978-87-93710-91-7.
3. Héctor Salas 1,* Carmen Gutiérrez-Bouzán 1 , Víctor López-Grimau 1,2 and Mercedes Vilaseca, 2019. Respirometric Study of Optical Brighteners in Textile Wastewater Materials (2019), 12, 785; doi:10.3390/ma12050785.
4. Luthfar Rahman Liman1,Tarikul Islam2, BappiSarker 1, Rafiul Islam1 ,Israt Parveen1, 2017. A Comparative Study on the Application of Optical Brightening Agent on Cotton Knitted Fabric in One Bath and Two Bath Exhaust Method. International. Journal of Textile Science (2017). 6(5): 135-142 DOI: 10.5923/j.textile.20170605.03.
5. M. Fátima Esteves.et.l, Pyrne de Noranha, R. Marques Marinho June 2004. OPTICAL BRIGHTENERS EFFECT ON WHITE AND COLOURED TEXTILES. World Textile Conference - 4th AUTEX Conference Roubaix, (June 22-24 2004). COELIMA, IndústriaTêxteis, SA Pevidé. 4835-368 Guimarães, Portugal.
6. Mohammad Irfan Iqbal, G M Nazmul Islam, GuizhenKe* , Soumya Chowdhury 2016. Analysis of the effect of Optical Brightening Agent (OBA) on whitening index of different cotton fabrics. (Proceedings (2016) The Seventh Cross-Strait Textile Academic Forum) 19- 22 May 2016. Wuhan Textile University. www.researchgate.net/publication.
7. Ruma Chakrabarti, A. Vighnesh, (March 18 2020). Chemistry Of Optical Brightener And Its Environment Impact. Textile Value Chain.
8. R. Williamson.(January 1980). Fluorescent brightening agents. Textile science and technology.Elsevier Science Ltd (1 September 1980) ISBN-10 : 0444419144 ISBN-13 : 978-0444419149.
9. S. M. Fijul Kabir, Mohammad Irfan Iqbal, ParthaPratimSikaar, Mohammad Mizanur Rahman, Shabiha Akhter, 2014. OPTIMIZATION OF PARAMETERS OF COTTON FABRIC WHITENESS. European Scientific Journal (December 2014) Edition Vol 10, No.36 ISSN: 1857 - 7881 (Print) e- ISSN 1857- 7431.
10. Xu Changhai, (2009). The Chemistry and Perception of Fluorescent White Materials. North Carolina State University. Raleigh, North Carolina. https://repository.lib.nesu.edu/bitstream/handle/1840.16/6592/etd.pdf?sequence. ■

EXPORT PROSPECTS AND MARKETS

National cotton committee pegs higher crop, exports and consumption

The Committee on Cotton Production and Consumption (CCPC), a body set up by the government comprising all textile industry stakeholders including farmers, has pegged the crop higher for the current season to September, while raising export and consumption estimates.

At a meeting held in Mumbai recently, the CCPC, earlier known as the Cotton Advisory Board, also lowered last season's production and estimated imports higher.

The CCPC raised crop production for the current season (October 2023-September 2024) to 323.11 lakh bales (of 170 kg each) against 316.57 lakh bales estimated in November 2023.

Last season, the crop was pegged at 336.00 lakh bales (343.47 lakh bales earlier).

Cotton production estimate is in line with the Ministry of Agriculture's second advance estimate released recently.

Govt Estimates

While maintaining imports unchanged for the current season (October 2023-September 2024) at 12 lakh bales, it pegged the shipments into the country at 14.6 lakh bales (10 lakh bales) for the previous season. With opening stocks pegged at 61.16 lakh bales (64.08 lakh bales earlier), the overall supply for the current season has been projected at 396.27 lakh bales (392.65).

The CCPC, which meets twice a year to take stock of the cotton scenario in the country, has projected exports to increase to 27 lakh bales this season against 15.89 lakh bales last season. In November, the advisory body had pegged shipments out of the country at 25 lakh bales.

According to trade sources, Indian cotton has gained demand after prices on the Intercontinental Exchange (ICE), New York, surged and domestic prices were quoted at discount to ICE futures.

Currently, ICE May cotton futures are ruling around 93.33 US cents per pound (₹61,125 per candy of 356 kg).

In Rajkot, Shankar-6 variety, a benchmark for exports, is quoted at ₹61,500 per candy.

The CCPC has projected consumption, including small spinners and non-textiles, of 317 lakh bales against its earlier estimate of 310 lakh bales.

The committee has cut the carryover stocks estimate to 52.27 lakh bales from 57.65 lakh bales earlier. □

Inspite of volatility, cotton prices stuck at bottom

Domestic cotton prices are still stuck at the bottom despite volatile movements while global cotton prices have surged to near three-month highs. Textile industry players and traders say they have not seen the market fluctuate in such a volatile manner.

According to Anand Popat, a Rajkot-based cotton, yarn and cotton waste trader, prices moved down on an hourly basis recently with any change in the fundamentals. "We are witnessing a short-term fluctuation with prices going up quickly and then taking a sharp u-turn," said an industry insider, who did not wish to be identified. Of late, prices of Shankar-6, the benchmark for exports, declined to ₹55,150 per candy of 356 kg. Prices are the lowest since January 18, when it ruled at this level before rising to ₹56,050 on January 25.

On the Inter Continental Exchange (ICE), New York, cotton March contracts quoted at 84.34 US cents a pound (₹55,450/candy) early recently.

The open interest on ICE has increased to 0.46 million US bales (62 lakh Indian bales of 170 kg each) signalling some bullishness, according to traders. "Currently, arrivals exceed demand. They are about two lakh bales on a daily basis. Mills are buying some 1.25 lakh bales, additionally about 25,000 bales, while the Cotton Corporation of India (CCI) 25,000 bales and multinational companies (MNCs) 15,000-25,000 bales," said Popat.

MNCs are providing support to the cotton market with their purchases making up 40 per cent of the arrivals, said an industry insider.

"Their purchases are providing liquidity in the market. They seem to be hedging by selling on ICE and buying here," said Ramanuj Das Boob, a sourcing agent from Raichur, Karnataka.

He said the Indian cotton crop was good and spinning mills were buying, though slowly. "Arrivals have been higher and they could be 170-175 lakh bales by January end and they are likely to be good in February too. Prices may rise once the arrivals drop to a trickle," he said.

But Prabhu Dhamodharan, Convenor, Indian texpreneurs Federation (ITF), said, "In this volatile environment, textile markets are behaving with short-term swings, both upside and downside. This leads to mills taking very careful and calibrated steps in cotton buying decisions."

Mills are buying cotton based only on their "own yarn and fabric order visibility," he said. □

Cotton exports gather momentum, may touch 22-25 lakh bales for 2023-24

With Indian cotton prices staying attractive for global buyers, exports of the fibre crop have picked up over the past three months to countries such as Bangladesh, China and Vietnam among others. Exports during the first five months of the 2023-24 season starting October were 15 lakh bales (170 kg), at par with 15.5 lakh bales during the entire 2022-23 marketing season.

The surge in shipments has forced the Cotton Association of India (CAT), the apex trade body, to raise its export projections for the 2023-24 season to 22 lakh bales. "Shipments could, possibly, touch 25 lakh bales for the 2023-24 season," Atul Ganatra, President, CAI, told reporters.

"Indian cotton prices were lower by about ₹4,000-5,000 a candy (356 kg) compared to the international prices during the December-February period making it attractive for overseas buyers. About 10 lakh bales were shipped during January-February. Though our prices are at par now with the international, we expect another 2.5-3 lakh bales to be shipped out in March," Ganatra said.

Inspite of higher crop

Based on the latest pressing data received from various stakeholders, CAI has revised upwards the production estimates of the fibre crop for the ongoing marketing season of 2023-24 by about 5 per cent at 309.70 lakh bales, up from the previous projections of 294.10 lakh bales made during January-end. Despite this upward revision, the crop estimates for the 2023-24 season starting October are still lower than the 2022-23 production of 318.9 lakh bales.

Per the cotton balance sheet for the period Oct-Feb in the current 2023-24 season, arrivals till the end-Feb were estimated at 226.82 lakh bales of *kapas* from the previous season, which was held

back anticipating higher prices, found its way to the markets during September-October leading to the revision in crop estimates," Ganatra said.

Cotton imports into the country till end-Feb stood at 4 lakh bales and the consumption during this period stood at 137.50 lakh bales. Stock with mills till end-Feb is projected at 42 lakh bales, while those with CCI, Maharashtra Federation, MNCs, ginners, traders and exporters is pegged at 65.22 lakh bales. □

Silk goods exports rose 20% to ₹1.534 cr during April-Jan 2023-24

Exports of silk products from the country have risen by about a fifth during the April-January period of financial year 2023-24 on rise in overseas demand for fabrics, made-ups and readymade garments from markets such as the US and Europe.

Silk goods exports stood at ₹1,534 crore during April-January period of 2023-24 compared with ₹1,269 crore during the same period a year ago. In dollar terms, the exports were up around 16 per cent at \$185.42 million over \$159 million the same period a year ago, as per the provisional official data.

Exports of silk readymade garments were up 16.27 per cent at ₹648.55 crore (from ₹557.79 crore in the same period last year). The shipments of fabrics and made ups were up 9 per cent at ₹492.81 crore (from ₹451.63 crore).

The exports of silk wastes registered an increase of 85 per cent at ₹275.93 crore (from ₹149.27 crore), while the demand for silk carpets was a tad higher at ₹79.03 crore (from ₹76.37 crore).

Raw silk exports registered a major growth at ₹8.35 crore (from ₹0.60 crore). However, the exports of silk yarn saw a decline of around 11 per cent during the period at ₹29.67 crore (from ₹33.23 crore).

Meanwhile, the imports of raw silk into the country has reduced by about a third during the April-January period of the financial year 2023-24 at 2,348 tonnes over same period last year's 3,474 tonnes.

The value of raw silk imported into the country fell 30 per cent of \$134.13 million during April-Jan 2023-24 from \$192.26 million in the same period last year. □

EXPORT PROSPECTS AND MARKETS

India plans ambitious \$600 billion target of textile export by 2047

India is working on an ambitious target to achieve \$600 billion of textile exports by 2047 from \$43 billion in FY22 and the domestic market to grow to \$1.8 trillion from \$110 billion in 2022, led by a surge in fast fashion and growth in ecommerce.

The textiles ministry is formulating its Vision 2047 based on five thematic pillars — research & innovations; infrastructure, trade & investment; marketing & brand promotion; skilling & quality and sustainability.

“We have had one workshop with the stakeholders. Discussions are on to have ambitious but realistic targets,” said an official.

As per initial discussions, the exports of apparel and made ups could cross \$350 billion by 2047 and those of technical textiles could be around \$85 billion. For the domestic market, apparels could grow to \$1.2 trillion and technical textiles to around \$460 billion.

Industry has raised challenges of raw material for achieving the \$350 billion export aim for apparels besides the need for an investment policy for textiles and a mission mode plan for supply augmentation.

Officials said promotion of domestic brands and suppliers as global champions and a mission on quality entailing the enhancement of productivity of natural fibres are being deliberated as part of the plan. Focus could also be given to indigenous machinery manufacturing, self-reliance in high-tech and high value exports and a self sustaining indigenous supply chain.

As per officials, milestones for 2030 are also under consideration wherein domestic market is seen growing to \$200 billion by 2030 and exports to \$100 billion.

The vision, includes making India a global leader in sustainable manufacturing with 30% share of global recycled fibres and setting up a new segment of the value chain—textiles recycling and waste management. Developing textiles

knowledge hubs and centres of excellence for national tech creation and sharing of intellectual property rights are also being discussed.

2047 would be the 100th year of India's Independence.

“The moment a new government comes, a 100-day plan and then a long-term plan till 2047 could be announced,” said another person aware of the deliberations. □

Merchandise exports may fall in FY24

Merchandise exports from India for the financial year 2023-24 (FY24) may show a contraction of around 1-1.5 per cent after two consecutive years of growth, even as March is likely to witness robust double-digit growth, according to initial trade data estimates. The final data is still being compiled and will be released by the commerce department on April 15.

“During FY23, India exported goods worth \$451 billion and FY24 is expected to see a small dip on a cumulative basis. The demand for Indian goods, in terms of volumes, is expected to grow. The contraction can be attributed mainly to the falling commodity prices,” an official told.

On a cumulative basis, during the April-February 2023-24 period, merchandise exports stood at \$395 billion, which is 3.5 per cent lower than during the same period a year earlier. During the 11 months — April to February — six months saw contraction and exports largely hovered around \$33-\$34 billion. The sustained uptick started only in December onwards.

India's merchandise exports grew at the fastest pace in 20 months at 11.9 per cent in February, despite the disruption due to the Red Sea crisis. Goods worth \$41.4 billion were exported. The momentum is expected to continue in March, said the person cited above.

“...We have surpassed all predictions. March figures should also be very good. It shows resilience in the export sector. The 2024-25 financial year will also be very good,” commerce secretary Sunil Barthwal told reporters in a briefing in March.

“LOOKING FOR SPINNING SPARE PARTS & ACCESSORIES”

LOGIN TO : www.tmmsma.com

EXPORT PROSPECTS AND MARKETS

A 1-1.5 per cent contraction in merchandise exports will mean that outbound shipments will hover around \$50 billion in March, surpassing the FY22 figure of nearly \$45 billion. If overall exports — goods and services — are taken into account for FY23, the growth is expected to be positive. During the April-February period, services exports stood at \$314.82 billion, as compared to \$294.89 billion during the same period a year earlier.

In the last week of March, commerce and industry minister Piyush Goyal said in FY23, India's exports are expected to be 'flat or a little bit on the positive side', despite the Israel-Hamas war and the Red Sea-related disruptions. "Goods and services together will continue to be positive despite two wars and the Red Sea crisis. We will be doing \$2 trillion of exports by 2030 and I have no doubt in my mind," Goyal said at the Business Standard Manthan event.

According to the United Nations Conference on Trade and Development (Unctad), international trade is expected to rebound in the calendar year 2024, reversing last year's downturn, amid lingering geopolitical uncertainties. However, it warned that the logistical challenges such as shipping disruptions in the Red Sea, Black Sea, and Panama Canal cast shadows over the optimistic outlook, and can raise costs and disrupt supply chains. □

Indian merchandise exports in Europe see silver lining

Despite tough economic conditions, Europe provided a modest boost to Indian merchandise exports during the calendar year 2023, even as overall shipments from the country contracted.

Exports to Europe, comprising 27 European Union (EU) countries, four European Free Trade Association (EFTA) nations, and seven other countries, witnessed 2 per cent growth year-on-year (Y-o-Y) at \$98 billion during 2023, while merchandise exports saw a 4.8 per cent contraction in the year.

The increase, even though modest, came even as the region was nearly hit by recession and recorded tepid economic growth. "Indian exporters shouldn't shy away from exporting goods to Europe, which is India's largest export market region-wise," a government official told reporters.

Exports to the EU saw 2.05 per cent Y-o-Y growth at \$75.18 billion in 2023, while those to the EFTA came in at \$1.88 billion, up 2.8 per cent.

Other European countries, including large markets such as the United Kingdom (UK), Turkey, and five other countries, imported goods worth \$21.56 billion from India, up 0.59 per cent.

The increase in exports to the following countries was robust: The United Kingdom (10.72 per cent), Switzerland (3.09 per cent), the Netherlands (24.57 per cent), Romania (116.85 per cent), the Czech Republic (25.51 per cent), Austria (4.43 per cent), Hungary (0.43 per cent), Norway (1.87 per cent), among others.

This was driven by demand for products such as pharmaceuticals, textiles, petroleum products, engineering products, machinery, as well as chemicals, the government data showed.

The jump was the sharpest in the case of the Netherlands. Exports grew by a fourth to \$23.11 billion. The UK also saw growth of almost 11 per cent to \$12.42 billion. Ajay Sahai, director-general (DG) and chief executive officer (CEO), Federation of Indian Export Organisations (FIEO), said one of the reasons that drove the growth was the ongoing free-trade agreement (FTA) talks with the EU and UK.

"Because of the FTA talks, exporters are keen to look into the EU and the UK market. In the hope of the UK FTA, exporters have started building trade relationships with businesses in these countries and even started exporting. Secondly, we have been able to increase our petroleum exports to Europe in 2023. Otherwise, many economies are in depression. Considering that, growth has been encouraging," Sahai.

However, India's otherwise big markets in the EU, such as Belgium, France, Germany, and Spain witnessed a contraction, indicating that growth was uneven.

The contraction can be attributed to the overall trend in most of the advanced economies of tepid demand largely due to inflation triggered by high interest rates. Exports to Belgium contracted 18.13 per cent at \$7.97 billion, while those to Germany fell 7.58 per cent to \$9.67 billion. In the case of France, the dip was 10.8 per cent at \$7.12 billion, with a contraction in exports to Spain at 3.88 per cent at \$4.62 billion. ■

LMW, Colorjet, KTTM, Savio & Staubli showcased latest Technology for Manufacturing at Bharat Tex 2024

India ITME Society, 45 year old apex industry body conducted an Enthralling Session on Manufacturing Technologies for Textiles at Bharat Tex

Where Bharat Tex 2024 celebrated Indian Textile Industry, the India ITME Society presented the importance of the textile machinery and technology segment with an engrossing panel session on the 2nd day of Bharat Tex- 27th February 2024 at Bharat Mandapam. It encompassed the importance of textile machinery & technology in the advancement of the textiles and apparel industry.

Mr. M. Sankar, Director (Operations), Lakshmi Machine Works Ltd. Esteemed panelists of Globally renowned Spinning Machineries, spoke on LMW's state-of-the-art smart solutions for benchmark productivity and quality. LMW stands among a select few global companies that undertake the complete cycle of designing, manufacturing,



Mr. M. Sankar, Director (Operations), Lakshmi Machine Works Ltd.

installing, and offering lifelong service for the entire range of machineries in the spinning line. Auto Blend LA10 machinery from LMW is a versatile cutting-edge solution which can blend a wide range of materials seamlessly. The Auto Blend can accommodate up to 4 feeders, each capable of handling 500 kg/hr, and a Two-line output. Online weight variation monitor continuously assesses weight and promptly halts the machine in the presence of any variations, ensuring consistency and excellence. Precise blending of diverse materials is guaranteed with this innovative automation solution. It also drives reductions in labour and operational costs while ensuring unparalleled material quality at the same time.

Ring Frame Auto Piecing (RAP), the fully automated yarn piecing system for Ring spinning machine, receives information on yarn break through YBS (Yarn Breakage Sensor) and travels to the particular spindle and automatically pieces the yarn instantly as a human does. By automating the piecing process, Rap reduces the dependency on skilled labour, streamlines operations and reduces the necessity for extensive training of the piecer. The unique design of RAP makes it compatible for Spinning. Auto Blend LA10 machinery from LMW is a versatile cutting-edge solution which can blend a wide range of materials seamlessly.

The solution can effectively blend at ratios up to 99:1, maintaining an impressive blending accuracy level of +/- 1 per cent.

Mr. Surjit Singh Mahajan, Managing Director, Staubli India Pvt. Ltd. spoke on Staubli providing advanced weaving solutions for technical fabrics. Staubli solutions for technical textiles are in operation worldwide & cover nearly every woven application, including the most demanding technical fabrics. Producing technical fabrics such as one-piece woven (OPW) airbags, custom fabrics



Mr. Surjit Singh Mahajan, Managing Director, Staubli India Pvt. Ltd.

for lightweight construction, and artificial grass is subject to the highest demands, and these are fully met by the company's broad range of solutions for an efficient weaving process. The New Staubli TF Series Weaving Systems for Technical Textiles features modular designs and allows individual configuration.

In Automotive – highest quality without compromise is the standard: In Automotive, two types of airbags are produced today: one-piece woven (OPW) airbags in custom formats and conventional airbags consisting of two sheets of fabric sewn into one bag. Stäubli offers solutions for both.

Healthcare applications are subject to very high-quality standard and this is where Stäubli with its SAFIR automatic drawing machines excels, e.g. with equipment for weaving ultra-fine filters for complex medical systems that temporarily replace heart and lung functions during open-heart surgery. Such filters are the result of purpose-optimized weave structures and are made of very fine monofilaments, typically polyester (PET) or polyamide (PA). With the SAFIR S60 automatic drawing-in system, weaving mills can count on efficient drawing in of warps for these purpose-optimized fabrics.

Sustainability: Their Textile designs products with high longevity and the recycling potential of this machine family is over 97%. Furthermore, their PRO range of Jacquard machines are at the forefront of reducing energy consumption: Featuring 30 % reduced energy consumption.

Mr. M S Dadu, Chairman ColorJet India Limited, expressed his gratitude to Honourable Prime Minister Shri Narendra Modi for applauding ColorJet 'Made in India' Technological Advancement



Mr. M S Dadu, Chairman ColorJet India Limited

when he graced ColorJet's stall at BHARAT TEX 2024. During his visit, Prime Minister Modi engaged with ColorJet's representatives and expressed particular interest in the Indian-made technology in digital textile printing. Impressed by the 'Made

in India, made for the world' machines, Honorable Prime Minister Shri Narendra Modi appreciated ColorJet's efforts in taking Indian innovations to the global stage.

ColorJet remains dedicated to leveraging cutting-edge technology and fostering indigenous innovation to support India's growth and development goals. It has been instrumental in representing India's innovative technological advancements in the global arena. It has been preserving the rich Indian textile heritage with its digital textile printing machines and making them useful for today's generations. Colorjet solidifies its position as a game-changer in the digital textile printing landscape. As one of the top global exporters of wide-format digital textile printers, they have revolutionized the industry, offering robust performance, minimal downtime, high-value addition, and quick return on investment.

Dr. Franco Bonello, Managing Director, Vandewiele - Savio India Pvt. Ltd said SAVIO has always acted as technological leader and innovative player in the textile machinery industry. Innovation, technology, and customer centricity are drivers for developing new products at Savio.



Dr. Franco Bonello, Managing Director, Vandewiele Savio India Pvt. Ltd

Focus areas for the Savio R&D:

- ❖ Machine Learning For Preventive Maintenance: Machines can Give Automatically Inputs To Service For Asking Intervention Or Spare Parts
- ❖ AI For Quality Monitoring: Complete Traceability Of Incoming And Outgoing Yarn.

LMW, Colorjet, KTTM, Savio & Staubli showcased latest Technology for Manufacturing at Bharat Tex 2024

- ❖ Enhance Software For Data Analysis: Plenty of data can enable to take decisions for better Productivity, Efficiency, Quality in the spinning mill.

The new Lybra Smart spinner marks the debut of Savio into the airjet spinning, a very competitive yarn and fast-growing spinning technology that in which there is still a very limited offer in terms of machinery options. It will bring the much needed innovation and will offer unique spinning options such as Multiblend which enhances the versatility and simplifies the operations in the backprocess. As far as post-spinning is concerned, Savio offers its well established families of Two-for-One twisters, Sirius and Cosmos. Both models, very popular in India where they are made, have been continuously improved and updated. The variant with Duo-Pot feeding allows to skip the yarn assembly preparation as the machine can be loaded directly with conical packages straight from the automatic winder.

Mr. Hisahiro Koketsu, Managing Director, Kirloskar Toyota Textile Machinery Pvt. Ltd. said "Safety First, Quality Second, Production Third" is the fundamental philosophy of KTTM, emanating from its parent company Toyota Industries Corporation, Japan.



Mr. Hisahiro Koketsu, Managing Director,
Kirloskar Toyota Textile Machinery Pvt. Ltd.

KTTM has a capacity to produce 65,000 spindles/month, customised to suit each spinner's requirement at its manufacturing facility in Bengaluru. They also spoke about their global model RX 300 for India market that has provided versatility and high reliability. In the current volatile market condition,

has been able to utilise 95% of its capacity and making continuous efforts to improve its global imprint. KTTM has launched Toyota's flagship and universally acclaimed "Roving machine FL 200" to the Indian domestic market.

The key highlights of the session were summarized by Mr. Avinash Mayekar, MD, Suvin Expo LLP

- ❖ LMW is introducing a Control Room system for Spinning plants to take care of complete data management for productivity and quality – at high production rates.
- ❖ STAUBLI will be taking a step forward to supply their own modern technical textile weaving machines for advanced textiles – innovative need-of-the-hour technology.
- ❖ COLORJET is already delivering machines that take care of any of the substrates and aiming to supply complete solutions for digital sustainable printing – a sustainable advanced solution.
- ❖ SAVIO is way ahead in developing the combination of Assembly winder and TFO twisting machines to eliminate assembly winding machines for production – an Automated advanced technology.
- ❖ KTTM is working on establishing new technology developments for India - HELIX Machine (Spinning Machinery without Rings) – cutting-edge technology in line with recent trends in the textile industry.

Efficient, Quality, Green, sustainable, economical, circular, and renewable are the green signals for textile ventures going forward. The technology is all set & adapted ready to provide cutting-edge technology to textile businesses that will assist them in meeting the 4x growth of India's textile landscape by 2030.

India ITME Society remains trusted partner to present and promote Textile Engineering Industry of India, facilitating Brand building & Customer connect for machinery manufacturers not only in India but also across the Globe.

Seema Srivastava, Executive Director
India ITME Society

India International Textile Machinery Exhibitions Society
1210-1212, Dalamal Tower, 'A' Wing, 12th Floor
Plot No. 211, Nariman Point, Mumbai-400021, India
Phone : +91 022 49724603, +91 85919 51769,
+91 80108 23774

email : itme@india-itme.com, projects@india-itme.com
Web : www.itme-africa.com ■

Mumbai edition of Gartex Texprocess India focused on innovation and growth in textile and garment industry

The 3rd Mumbai edition of GartexTexprocess India which concluded on 3 February, turned out to be one of the most recognised 'one-stop' platforms for selling and sourcing exciting and innovative products in the garment and textile manufacturing sector.

The event marked the presence of Shri Chandrakant Patil, Hon'ble Minister of Textile, Higher Education and Technical Education, Parliamentary Affairs State Border Defense and Shri Virendra Singh (IAS) Secretary Textiles, Maharashtra Government along with other industry stalwarts.

In the 3rd Mumbai edition of GartexTexprocess India, 105 exhibitors participated and 8,309 visitors explored the show floor which displayed cutting-edge garment manufacturing machinery, fabrics, advanced and new-age smart technology, textile printing solutions and others.

GartexTexprocess India also hosted knowledge-sharing sessions – 'Gartex TALKS' on day one and 'Denim TALKS' on day two. At 'Gartex TALKS', Mr Ramesh Gosai, Principle Consultant, RRGosai& Associates spoke on "Ease of Doing Business: In Garment Manufacturing". He briefed the attendees on what are the challenges faced by people in starting a business in the textile industry and how they can overcome those hurdles and establish their business successfully.

'Denim TALKS' conducted four sessions to discuss the latest trends and landscape of the Denim industry. It began with a fireside chat on the 'Denim Landscape' between Mr Amit Gugnani, Senior Partner, Technopak Advisors and Mr Aamir Akhtar, Group President and CEO, Jindal Worldwide Limited. In the next session Mr Manuj Kanchan, Division Director - Central Asia, Jeanologia SL shared a presentation on 'Water Era is Over, Air is the Future'. Through his presentation, he explained how Jeanologia SL is bringing a new era in Denim manufacturing by reducing water usage with the use of air technology in denim dying.

Exhibitors' view on 3rd Mumbai edition of GartexTexprocess India

Exhibitor Parvinder Singh, Sales Director at Optitex, said: "Gartex is a good platform for us, we have been participating for the last three years regularly in this show and getting very good response."

Ms Gunjan Panchal, Sales Team at Lion Denim said: "Our experience at Denim Show has been overwhelming. Our stall witnessed a good number of visitor footfalls and had a great interaction with other brands and manufacturers and various other players in the industry."

Sharad Jaipuria, President - DMA; Managing Director - Ginni International Ltd said:

"GartexTexprocess India Exhibition is one of the largest textile exhibitions being held in India. It has the complete value chain, it has fabrics, it has trims, it has machinery manufacturer, printing machinery, etc. This time almost 30 denim mills are also participating in this exhibition. We hope to do good business. There is a large footfall, we have a lot of customers coming and interacting with us trying to understand the latest trend of fabrics."

Mayur Ghatak, CEO and Co-Founder of Codverse Technology, said: "The visitor profile that we get is all niche, very relevant to what we do. We absolutely see our target audience and the quality of the visitors and the state of art facility that we provide is helping us in branding ourselves. You should consider GartexTexprocess India as a potential platform for your upcoming trade shows."

Sharing his experience as a first exhibitor at GartexTexprocess India Alok Parekh, Director - Shreenath Paper said: "This is my first time at GartexTexprocess India and the experience is truly great and we are looking forward to participating again. We are getting absolutely the right visitor profile and we are also getting export enquiries from various countries and visitors are coming towards us."

Suketu Shah, Chief Executive/Business Head - LNJ Denim, said "I am very happy to be at GartexTexprocess India once again. It gives great strength to meet all the brands and the distribution network, it gives an immense pleasure to be with them."

The upcoming 10th Delhi edition of GartexTexprocess India will be held from 1 – 3 August 2024 at YashoBhoomi (IICC) Dwarka, New Delhi which will continue to feature a variety of high-end innovations on the show floor.

For further information, please contact:

Swati Rana

Phone: +91 22 61038418, Mobile: +91 9967961876

Swati.Rana@india.messefrankfurt.com

Viral Parekh

Phone: +91 22 61445914, Mobile: +91 99308 37978

Viral.parekh@india.messefrankfurttradefairs.com

Messe Frankfurt Trade Fairs India Pvt Ltd

Gala Impecca, 5th Floor,

Andheri-Kurla Road, Chakala, Andheri (E),

Mumbai – 400093

www.messefrankfurt.com



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

ELGI

Bobbin Transportation System



Running Successfully in
300+ Installations Across the Globe

- ▶ Customised Design Linking Speed-Frame to Ring-Frame
- ▶ Manual / Closed Loop / Automated System with Reserve Station / Fully Automated with Creel Change System
- ▶ Exchanger for Auto-Doffer Speed-Frame (Single / Twin)
- ▶ Effective Stripping of Roving through Blowing and Suction

OHTC | BTS | FPS | MDS | YCS

✉ vsbala@eeh.saraelgi.com ☎ 9842272511

CORPORATE NEWS

By Partnering with Trützschler Zagis S.A. de C.V. embraces cutting-edge technologies

Zagis S.A. de C.V. is a family-owned spinning and knitting company in Tepeji del Río, Mexico, with a long history and big ambitions for a more sustainable future. Innovation is at the heart of its 60-year success story. By partnering with Trützschler, it is embracing cutting-edge technologies that boost efficiency, optimize quality and save resources – including the TCO 21 comber!

Today, Zagis S.A. de C.V. is a fourth-generation business with a leading position in the Latin American textile industry. Its spinning and knitting facilities are able to process a huge variety of fibers, with cotton as its main raw material alongside polyester / cotton blends. Its portfolio covers yarns including ring, open end and airjet spinning. And Zagis is now targeting further success worldwide.



f.l.t.r.: Ralf Grasmehr (Trützschler Area Manager, Customer Service), Mayer Zaga Dichi (Chief Operations Officer at Zagis), Rafael Zaga Saba (CEO Zagis and President of the Mexican Textile Association, CANAINTEX), Frank Dederichs (Managing Director of Trützschler Mexico).

The company operates 13 mills in Mexico that can produce up to 200 tons of yarn and 20 tons of fabric per day in line with international standards. Close cooperation with Trützschler has empowered Zagis to achieve those impressive numbers. As the latest step, it has added TCO 21 combers at its facilities to accelerate progress toward its ambitious growth plans and to produce combed yarns on high quality level.

Trust in Trützschler

“My grandfather founded this business with a sharp focus on the quality of its products and services,” says Rafael Zaga Saba, CEO of Zagis and President of the Mexican Textile Association (CANAINTEX). “That is made possible by state-of-the-art technologies. Trützschler has been a powerful partner for many years. Our factories have operated

a great variety of card models and now also combers TCO 21. That shows our deep trust in Trützschler’s machines and technical support.”



f.l.t.r.: Rafael Zaga Saba (CEO Zagis and President of the Mexican Textile Association, CANAINTEX), Frank Dederichs (Managing Director of Trützschler Mexico), Mayer Zaga Cheja (Chief Financial Officer at Zagis), Ralf Grasmehr (Trützschler Area Manager, Customer Service), Mayer Zaga Dichi (Chief Operations Officer at Zagis)

Protecting the planet

Zagis also has a sharp focus on reducing its environmental footprint. Since 2020, all of its energy consumption has been covered by renewable power. This enables Zagis to avoid 11,000 tons of CO₂ emissions per year. The company is also a member of the Cotton LEADS program, which connects businesses worldwide to lead progress for sustainable cotton sourcing and production.

Ambition for highest quality

Modern equipment supports Zagis’ ambition to produce highest quality. Trützschler carding machines, for example, achieve high production output with excellent sliver quality. At the same time, they boost energy efficiency and reduce waste. The TCO 21 combers at Zagis in Tepeji del Río are capable of manufacturing 550 nips per hour with outstanding yarn quality with minimum noil level.

Sharing success

“Zagis and Trützschler are both family-owned businesses,” says Rafael Zaga Saba. “On top of that shared history, we have a common set of values about what our work stands for. Quality and efficiency are

CORPORATE NEWS

incredibly important. We have a deep commitment to technological innovation. And we share a vision of a more sustainable future for the textile industry too. That's why I am so happy about our partnership with Trützschler."



The TCO 21 at Zagis

For future generations

Looking ahead, Zagis has a clear strategy to expand its position around the globe. In cooperation with Trützschler, it aims to continue its long track record of meeting customers' needs. And it is striving to maximize its success while also minimizing its environmental impact for future generations.

About Trützschler:

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

For further information, please contact:

Shiladitya K Joshi

Deputy General Manager-Product and Marketing

Truetzschler India Private Limited

Truetzschler Spinning

phone : +91 93768 56949

email: skjoshi@truetzschler.in

www.truetzschler.in



Domestic Textiles showcased their leadership across nature-based fibres and their unique Sustainability initiatives at Bharat Tex 2024

Domestic Textiles, a leading entity within Grasim Industries, Aditya Birla Group, and a pioneering force in India's linen, wool, and cotton markets, proudly announced its participation in Bharat Tex 2024, India's premier textile festival. As a market leader with a legacy dating back to 1949, Domestic Textiles stands as a prominent player in these segments and harnesses unparalleled expertise and nation-wide infrastructure across nature-based fibres, setting industry benchmarks for quality, design innovation and sustainability.

Bharat Tex 2024, organized by a consortium of 11 Textile Export Promotion Councils and supported by the Ministry of Textiles, took place from February 26-29 in New Delhi. This global textile mega-event served as a convergence point for entire textile value chain, industry luminaries, policymakers, and stakeholders, celebrating India's rich textile heritage and technological advancements.

Domestic Textiles, a formidable player in the Indian textile sector, operates through three key units -JayaShree Textiles, Vikram Woollens, and Grasim Premium Fabric.



- ✦ The company is a dominant player in the linen market, where it sources authentic European flax and offers a wide range of pure and blended linen products. Linen Club, a pioneer brand in linen under Domestic Textiles, serves the most extensive design collection in India and is renowned for its superior quality linen. With over 8500+ multi-brand outlets and 220+ exclusive stores, Linen Club is the ultimate destination for all linen enthusiasts, holding the prestigious title of India's No.1 Linen Brand. It is also a supplier of choice for providing

high quality linen fabrics to top international & domestic brands & retailers such as Louis Philippe, Blackberrys and more.

- » The company also excels in producing high-quality merino wool and offers a diverse range of worsted wool products.
- » It also manufactures premium cotton fabrics under brands like 'SOKTAS' and 'Giza House,' serving leading Indian and global menswear brands. With a customer-centric focus, Domestic Textiles ensures on-trend designs and innovative weaves & textures, meeting specific fabric needs in terms of quality, design, and exclusivity.

With Sustainability ethos at its core, the unique 'Wealth-out-of-Waste' initiative by the company is a testament to their commitment to good fashion. The initiative is centered around the idea of a circular economy and involves recycling and reusing waste linen materials. Here, the waste that is generated during flax production is upcycled to create blended yarn, linen-rich fabric and ready to wear apparel.



Domestic Textiles, as a market leader, prioritizes eco-friendly practices across its entire value chain. From sourcing authentic European flax for linen production to implementing waste-to-wealth initiatives, the company steadfastly reduces its environmental footprint. 16% of consumption is derived from renewable energy sources, while strict adherence to waste management policies includes the segregation of hazardous, non-hazardous, recyclable, and non-recyclable waste. Grasim Premium Fabric, Jayashree Textiles, and Vikram Woollens were also recognized with the esteemed Corporate Excellence Award at the CII-ITC Sustainability Awards 2022 for their sustainability efforts.

Satyaki Ghosh, CEO of Domestic Textiles, Aditya Birla Group, expressed, "Our showcase at Bharat

Tex highlighted our dominance in three natural fibre-based businesses and waste-to-wealth initiatives, demonstrating our commitment to innovation-driven transformation in the textile industry. As we participated in Bharat Tex 2024, we proudly uphold Domestic Textiles' legacy of authenticity, innovation, excellence, and sustainability."

The showcase of Domestic Textiles at Bharat Tex 2024 promised to be a testament to its unwavering commitment to excellence in Indian Textile industry. By seamlessly blending legacy with cutting-edge technology, Domestic Textiles continues to redefine the boundaries of the textile industry.

For further information, please contact
Palak Gupta, White Marque Solutions
Creative Strategy, Public Relations, Digital Outreach
Grasim Industries, Aditya Birla Group
Landline : 022-26335094-98, Extension : 13
Cell : +91 7043980720
Email : palak@whitemarquesolutions.com
Office No. 422/423, 4th Floor, Laxmi Plaza
Laxmi Industrial Estate,
Andheri (West), Mumbai-400053
Website : www.whitemarquesolutions.com □

VEOCEL™ collaborates with beauty and feminine care brands to rolled out carbon neutral products in Asia Pacific

- » VEOCEL™ continues to usher the industry towards carbon neutrality by encouraging brands and value chain partners to switch from harmful raw materials to responsible alternatives to achieve carbon emission goals
- » Personal care products produced using carbon neutral VEOCEL™ Lyocell fibers have been launched by BRIDGE 24/7 and Yejimiin for the first time in facial sheet masks and sanitary napkins across Asia Pacific.

VEOCEL™, the flagship specialty nonwovens brand of Lenzing Group, has reached new partnership milestones with leading beauty and feminine care brands in the Asia-Pacific region, including Taiwanese skincare brand BRIDGE 24/7, Korean feminine care brand Yejimiin, and a global healthcare and beauty retailer, to launch responsible personal care products made of carbon neutral VEOCEL™ Lyocell fibers. The extended partnerships highlight VEOCEL™'s commitment in driving the industry-wide shift from using fossil-fuel based materials to planet-friendly raw materials, reducing the overall carbon footprint of the nonwoven industry value chain.

CORPORATE NEWS

Through a recent partnership with Korean feminine care brand Yejimiin, which introduced feminine care top sheets made of carbon neutral VEOCEL™ Lyocell fibers, VEOCEL™ demonstrated the versatility of the fiber, which can be used across beauty, skincare, and hygiene care products.

“In recent years, Korean consumers have become more proactive in choosing brands which are socially responsible. They are not only interested in what the material of the product they purchased is made of, but also how the product is produced. Riding on this trend, our collaboration with VEOCEL™ to launch feminine care products made of carbon neutral VEOCEL™ fibers will encourage consumers to look out for planet-friendly alternatives and join us to protect the environment,” said Daisy Lee Koeun, Marketing Team Leader, Yejimiin.



“We are proud to work with leading personal care brands to address the growing consumer demand for high-quality, functional, and responsible products,” said Steven Tsai, Senior Regional Commercial Director for Nonwovens Asia, Lenzing. “Our partnerships with BRIDGE 24/7, Yejimiin, and healthcare and beauty retailers represent not only our unwavering commitment to empower partners in the region to achieve their carbon emission goals, but also demonstrate how VEOCEL™ fibers, which are gentle on skin and certified as clean and safe, are the trusted ingredients that support the sustainable evolution of personal care products.”

Versatile VEOCEL™ fibers address growing industry need for planet-friendly alternatives

VEOCEL™ has expanded its co-branding portfolio through the collaboration with Taiwanese skincare brand BRIDGE 24/7 to introduce the first-in-Taiwan market facial sheet mask using carbon neutral VEOCEL™ fibers.

“Our partnership with VEOCEL™ enables us to differentiate ourselves from other industry

players with high-quality certified carbon neutral fibers,” said Wallace Liu, CEO, BRIDGE 24/7. “As we advance into an ageing society, we believe the demand for personal care products such as invisible and thin adult diapers and sanitary pads that are soft on the skin will continue to grow. Being a brand that cares for consumers’ personal needs, it is essential for us to join hands with VEOCEL™ to recognize the importance of sustainability in everyday products and raise awareness of consumers or retailers around environmentally friendly options in the market.”

In addition, the VEOCEL™ brand has also teamed up with a global healthcare and beauty retailer to launch the latest facial sheet mask product using 100% carbon neutral VEOCEL™ branded lyocell fibers.

Advancing solutions to drive carbon reductions in the nonwoven industry remains a priority in 2024

VEOCEL™ continues to usher the industry towards carbon reductions by encouraging companies to switch from harmful raw materials to responsible alternatives.

“Adhering to VEOCEL™’s commitment as a ‘responsible care brand’, we will continue to further reduce the environmental and climate impact of our fibers, providing brands and consumers with solutions for responsible product options. We will also walk hand-in-hand with our partners on their journey in pursuit of a carbon neutral industry value chain,” added Steven.



VEOCEL™ believes low-carbon and environmentally responsible products are the future of the nonwoven industry, adhering to Lenzing’s science-based targets commitment to limit global warming. As a part of the journey towards net zero, VEOCEL™ offers carbon neutral lyocell fibers produced with reduced carbon emissions, while unabated carbon emissions are offset by supporting climate projects (such as reforestation) from the Climate Partner portfolio, thus making a meaningful contribution to climate action.

About VEOCEL™

VEOCEL™ is Lenzing Group’s flagship specialty nonwovens brand. Derived from renewable raw material wood, VEOCEL™ provides natural care every day, and is committed to driving industry

standards around sustainability and comfort in the nonwovens sector.

The VEOCEL™ product portfolio features VEOCEL™ Lyocell fibers and VEOCEL™ Viscose fibers that are tailored for eco-friendly lifestyles and help to maintain environmental balance by being fully integrated into nature's cycle. All wood-based VEOCEL™ branded fibers are clean and safe, biodegradable and compostable and manufactured in an environmentally responsible production process. They are derived from responsible wood sources coming from sustainably managed forests, following the stringent guidelines of the Lenzing Wood and Pulp Policy. Carbon neutral VEOCEL™ Lyocell and Viscose fibers have also been introduced by Lenzing as a solution for nonwovens industry partners and brands to reduce climate impact through the use of fibers with a net-zero carbon footprint.

The VEOCEL™ brand is categorized into four branded offerings including VEOCEL™ Beauty, VEOCEL™ Body, VEOCEL™ Intimate and VEOCEL™ Surface and its fibers are used in baby care, beauty and body care, intimate care, and surface cleaning products. VEOCEL™ fibers are biodegradable in soil, fresh water, and marine conditions and compostable in home & industrial conditions, enabling them to break down safely into raw materials and fully revert into nature.

To find out more about Lenzing's initiatives on sustainability, please visit: <https://www.lenzing.com/sustainability>.

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 ladies 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.

For further information, please contact:

Rimpa Pandi, Account Manager, Lenzing Group
m: +91 9821167282

rimpa.pandit@sixdegrees-bcw.com

WPP Gurugram, Level 7, Tower-B

DLF Cyber Park, Phase III, Udyog Vihar,

Sector 20, Gurugram, Haryana-122016



The relocation of Mayer & Cie. Chinese subsidiary in Jiangsu Province

Textile machinery manufacturer implements long-planned project

Mayer & Cie. CN Changzhou LLC, the Chinese subsidiary of the German circular knitting and braiding machine manufacturer Mayer & Cie., settled in Jiangsu Province at the beginning of the year. Until now, the Sales & Service subsidiary Mayer & Cie. China, founded in 2003 and later to become Mayer & Cie. China, had been based in Shanghai.



The new location within a Sino-German Innovation Park comprises a production hall of around 5,000 square meters. In the future, the circular knitting machines assembled for the domestic market will increasingly consist of locally sourced parts and components from various suppliers. All suppliers have been qualified to comply with and implement the high Mayer & Cie. standards to make sure there will be no compromises in terms of quality. The project had been planned since 2018 but had to be postponed due to the entry ban following of the Corona pandemic.

Motivations for the move

Since 2011, Mayer & Cie. has been assembling selected machine types for the domestic market at its Chinese plant in Shanghai. It started with a single jersey machine for the most common requirements. Today, China's domestic portfolio includes four types of machines. Until now, the knitting heads for these

CORPORATE NEWS

circular knitting machines had been pre-produced at the Mayer & Cie. plant in the Czech Republic and then transported to China.



The manufacturer is now saying goodbye to this "knitting head principle". It made perfect sense for the start of the assembly line, says Benjamin Mayer, managing partner of Mayer & Cie. However, it leaves little room for flexibility. He explains: "In the future, we will source all parts and components of the machines assembled in China from various local suppliers. This allows us to offer our local customers more attractive prices and faster delivery times with the same quality standards. We expect this change to improve the positioning of our products in the domestic market."

In addition, the new plant will be connected to the parent company in Albstadt via an SAP connection. This was imperative to increase efficiency, transparency and quality.

With a size of around 5,000 square meters, the new location offers the necessary space to map the increased installation effort on site. In addition, the province of Jiangsu generally offers very good conditions for industrial companies, as both well-trained workers and a large number of potential suppliers are located there.

New Chinese base in the Sino-German-Innovation Park (SGIP) in Jintan

The new headquarters of Mayer & Cie. CN is the German Chinese Innovation Park in Jintan in Jiangsu Province. The companies based there enjoy various advantages, including attractive location costs as well as proximity and exchange with other German companies on site. In addition, the administration of the SGIP supports companies in their search for employees, suppliers and service providers.

"We are pleased that we have now been able to successfully implement the decision we made years ago," says Benjamin Mayer. "We are confident that this step will bring us higher sales and revenue figures in the Chinese market."

Delay due to entry ban

The project has been on the agenda since 2018, but its implementation was delayed for a long time due to the Chinese entry ban as a result of the Corona pandemic. Preparations for the move did not begin until June 2023, which will now be completed in the first quarter of 2024. Production will start in April, and the IT connection to the parent company is scheduled to begin in March and be completed by the end of the year. The current location will be completely closed at the end of March 2024.



About Mayer & Cie.

Mayer & Cie. (MCT) is one of the world's leading manufacturers of circular knitting machines. The company offers the full range of machines needed for the production of modern textiles – from fabrics for home textiles, sportswear, nightwear and swimwear, seat covers and underwear to technical textiles. In addition, Mayer & Cie. regularly develops new approaches.

Since 2019, Mayer & Cie.'s service portfolio has been supplemented by the production of braiding machines. They are used to manufacture sheaths for hydraulic hoses, for example for use in aviation, the automotive industry or other special niche applications.

Founded in 1905, Mayer & Cie. generated sales of around 100 million euros in 2023 with around 450 employees, including around 350 at the Albstadt site, according to preliminary figures. In addition to its headquarters in Albstadt, Germany, and its subsidiaries in China and the Czech Republic, Mayer & Cie. is represented in a total of around 80 countries through its sales partners in the field of circular knitting and braiding machines.

For further information, please contact
Claudia Bitzer, Communication & PR
Mayer & Cie. GmbH & Co. KG
Emil-Mayer-Straße 10, D-72461 Albstadt
Telephone: +49 7432 700 520
Email: Presse@mayercie.de
web: www.mayercie.com



Virgio aligns with remarkable growth witnessed by nation announced in the interim budget

Finance Minister Sitharaman, in the interim budget announcement, encapsulated the remarkable growth witnessed by the nation in the last six years. Noteworthy initiatives such as green India initiatives, technological advancements, and startup-friendly budgets, including



PM Mudra Yojana, which approved 43 crore loans totalling ₹22.5 lakh crore for the entrepreneurial aspirations of the youth, have played a pivotal role in the country's economic progress. Additionally, schemes like Fund of Funds, Startup India, and Start-Up Credit Guarantee

have significantly contributed to the advancement of our youth.

FM Sitharaman emphasised a golden era for tech-savvy youth, introducing a corpus of ₹1 lakh crore with a fifty-year interest-free loan. This corpus aims to provide long-term financing or refinancing with extended tenors and low or negligible interest rates, fostering research and innovation in sunrise domains within the private sector. This move is particularly beneficial for D2C startups in India.

The circular aspect of Virgio aligns with the broader vision outlined in the budget, striving to create an ecosystem where sustainability and innovation coexist. We eagerly anticipate contributing to this transformative journey by utilising technology and research to shape a fashion industry that not only upholds the highest standards of quality but also champions environmental responsibility. The proposed measures will undoubtedly inspire and empower fashion brands to further integrate circular practices and innovative technologies into their business models.

For further information, please contact
Nikita Singh, Associate Consultant (Level 1),
Virgio, M: +91 7017173851

An Inspirational Full-year result of Oerlikon for 2023 in highly demanding atmosphere of Oerlikon

Resilient Operational Results in Highly Demanding Environment; Taking Final Step to Become a Pure-Play Surface Solutions Leader Over Next 12-36 Months

» 2023 Group orders, sales and EBITDA impacted by Polymer Processing Solutions downturn. Strong

performance in Surface Solutions with 7% organic sales growth at constant FX and sequentially improved profitability throughout 2023.

- » Oerlikon took substantial actions in Q4 to secure future growth and improved profitability; one-off charges, primarily non-cash, included in Q4 results.
- » Taking final strategic step to become a pure-play global market leader in surface solutions within next 12-36 months. Executive Chair Model to discontinue upon completion of this step.
- » Board to propose an ordinary dividend of CHF 0.20 per share in line with dividend policy.
- » 2024 outlook: Expecting high single-digit percentage decrease in FX-adjusted organic sales and operational EBITDA margin of 15.0-15.5%. Anticipate growth in Surface Solutions to be offset by Polymer Processing Solutions.

Key Figures of the Oerlikon Group as of December 31, 2023
(in CHF Million)

	FY 2023	FY 2022	Δ	Q4 2023	Q4 2022	Δ
Order intake	2 457	2 990	-17.8%	552	663	-16.7%
Sales	2 693	2 909	-7.4%	633	736	-14.0%
Operational EBITDA ¹	444	5132	-13.4%	100	1272	-21.0%
Operational EBITDA margin ¹	16.5%	17.6% ²	-110 bps	15.8%	17.22	-140 bps
Operational EBIT ¹	235	3012	-21.9%	47	722	-34.0%
Operational EBIT margin ¹	8.7%	10.4% ²	-170 bps	7.5%	9.7% ²	-220 bps
Net result	23	93	-74.9%	–	–	–
ROCE	2.7% ³	5.3%	–	–	–	–

¹ For the reconciliation of operational and unadjusted figures, please see tables I and II on page 3 of this news release. ² Operational EBITDA and operational EBIT were restated for effects from discontinued activities. ³ Operational ROCE, exd. M&A, is 7.7% in 2023 (2022: 10.8%).

“In 2023, we managed short-term market headwinds and adverse currency effects (CHF -174 million on 2023 sales) and executed on our strategy,” said Michael Suess, Executive Chairman, Oerlikon. “Our swift and decisive strategic actions, particularly in Q4, streamlined our existing business and strengthened our foundation for growth and profitability.”

“Today, we announce our final strategic step to become a pure-play leader in the broad surface solutions markets with attractive organic and inorganic growth opportunities. We will further leverage our technology leadership to drive growth and profitability by expanding regionally and into new applications and end markets,” added Suess. “The board and management will evaluate options for the separation of Polymer Processing Solutions with the aim of optimizing value for all stakeholders.”

CORPORATE NEWS

Taking the Final Step to Become a Pure-Play Surface Solutions Leader

Oerlikon began executing its strategy in 2014 to become a pure-play Surface Solutions leader. From five divisions, the Group has streamlined to its current two divisions. Both divisions occupy “sweet spots” in their respective markets, delivering leading technologies that act as high barriers to entry. The synergies between the divisions though are limited.

Oerlikon announces today its intent to take the final step in becoming a pure-play Surface Solutions leader. Oerlikon will implement this step over the next 12-36 months as Polymer Processing Solutions’ filament cycle recovers. The Group will look for the best value creative option for Polymer Processing Solutions, where it can better leverage its distinct brands and leading technologies in its end markets, which are driven by long-term growth trends, such as population expansion and increasing demand for clothing and housing.

With the final step, Oerlikon will become a pure-play leader in the Surface Solutions’ attractive end markets. The division serves a broad base of customers in diverse industries – from automotive, aerospace and energy to luxury, medical and semiconductors. Oerlikon will drive profitable growth by delivering innovative technologies that help customers achieve greater efficiency and productivity, while using less energy and producing less waste and fewer emissions. Oerlikon will continue to leverage its core competencies to grow and expand into Surface Solutions’ broad end markets. This includes exploiting new applications, markets and geographies.

Oerlikon confirms its mid-term target of 4-6% organic sales growth (at constant FX) for Surface Solutions. Disciplined cost management and the application of the strengthened capital allocation framework will support the division to achieve its mid-term operational EBITDA margin target of 20%+.

The Executive Chair Model is required to smoothly execute this final step in going pure play. With the completion of this step, the Model will be discontinued.

2023 Results Impacted by Challenging Environment in Polymer Processing Solutions

Group order intake decreased by 17.8% to CHF 2 457 million. Adjusted for FX and the Riri acquisition, orders decreased by 16.8%. Group sales decreased by 7.4% to CHF 2 693 million, including an FX headwind of -6.0% and an impact of +4.5% from the Riri acquisition. The FX-adjusted organic decline of 5.9% was driven by the filament downturn in Polymer Processing Solutions, while Surface Solutions saw an FX-adjusted organic sales growth of +7.0%.

EBITDA and EBIT

Group operational EBITDA decreased by 13.4% to CHF 444 million, versus CHF 513 million in 2022. The operational EBITDA margin was at 16.5% versus 17.6% in 2022, due to lower sales, higher input costs, adverse currency impact and unfavorable mix effects. The operational EBIT margin was 8.7% (CHF 235 million) compared with 10.4% (CHF 301 million) in the previous year.

Group unadjusted EBITDA decreased by 8.2% year-over-year to CHF 384 million, or 14.2% of sales (2022: CHF 418 million, or 14.4% of sales). Group unadjusted EBIT was CHF 105 million, or 3.9% of sales (2022: CHF 176 million, or 6.0% of sales).

Oerlikon has strategically realigned its additive manufacturing (AM) business, consolidating production and focusing the business in the U.S. to take advantage of the U.S. as the largest growth market for AM.

To strengthen the division’s resilience, Surface Solutions is optimizing its coating centers footprint in Germany and discontinuing its U.S. thermal spray coating services. In Polymer Processing Solutions, the Teknoweb business was discontinued, and its intralogistics offering was divested. These actions led to one-off charges, largely non-cash, which were included in the Q4 results. Operational EBIT and EBITDA for 2023 and 2022 were adjusted to exclude these activities.

The reconciliation of the operational and unadjusted figures can be seen in the tables below.

**Table I: Reconciliation of Q4 2023 and FY 2023
Operational EBITDA and EBITDA¹**

In CHF million	Q4 2023	Q4 2022	FY 2023	FY 2022
Operational EBITDA	100	127	444	513
Expenses/income from restructuring ²	1	-53	1	-54
Expenses related to discontinued activities ³	-36	-15	-58	-32
Expenses related to acquisition and integration costs	-1	-3	-3	-9
EBITDA	64	55	384	418

**Table II: Reconciliation of Q4 2023 and FY 2023
Operational EBIT and EBIT¹**

In CHF million	Q4 2023	Q4 2022	FY 2023	FY 2022
Operational EBIT	47	72	235	301
Expenses/income from restructuring ²	1	-53	1	-54
Impairment charges	-14	0	-14	0
Expenses related to discontinued activities ³	-83	-37	-114	-63
Expenses related to acquisition and integration costs	-1	-3	-3	-9
EBIT	-49	-22	105	176

The Group's net result was impacted by the downturn in Polymer Processing Solutions and the previously mentioned cost actions. It amounted to CHF 23 million in 2023, compared with CHF 93 million in 2022. Earnings per share in 2023 stood at CHF 0.10 (CHF 0.27 in 2022).

As of December 31, 2023, Oerlikon had net debt of CHF 1 151 million, corresponding to a net debt/operational EBITDA ratio of 2.6. This represents an increase compared to the ratio of 0.9 as of year-end of 2022 and was mainly driven by the acquisition of Riri and the downturn in Polymer Processing Solutions impacting EBITDA and net working capital. Oerlikon's total equity ratio was 25% as at the end of 2023.

Continued Commitment to Sustainable R&D

In 2023, Oerlikon filed 78 patents and continued to invest in innovation, spending 3.8% (CHF 103 million) of 2023 Group sales on R&D to develop new, improved and sustainable technologies designed to meet customer needs and demands.

Q4 2023 Performance

Order intake for the fourth quarter decreased by 16.7%, including an FX impact of -5.5% and a positive impact from the Riri acquisition of 5.0%. Group sales decreased by 14.0% to CHF 633 million. This includes an FX headwind of 5.5% and a positive effect from the Riri acquisition of 4.2%. The organic FX-adjusted sales decline of 12.7% was driven by the filament downturn in Polymer Processing Solutions, while Surface Solutions posted a solid FX-adjusted organic sales growth of 7.6%.

Group operational EBITDA decreased by 21.0% in Q4 2023 to CHF 100 million, or 15.8% of sales (Q4 2022: CHF 127 million, or 17.2% of sales). The operational EBITDA margin was impacted by the strong decline in sales in Polymer Processing Solutions, while Surface Solutions achieved a slight margin improvement. Group operational EBIT for Q4 2023 was CHF 47 million, or 7.5% of sales (Q4 2022: CHF 72 million, or 9.7% of sales).

Group Q4 2023 unadjusted EBITDA amounted to CHF 64 million, or 10.2% of sales (2022: CHF 55 million, or 7.5% of sales), and unadjusted EBIT was CHF -49 million, or -7.8% of sales (2022: CHF -22 million, or -3.0% of sales). The decrease was mainly attributable to the one-off costs and impairments booked in the fourth quarter.

Dividend of CHF 0.20 per Share In-Line with Policy

As per past years, Oerlikon's dividend payout is in line with its dividend policy and can be based on up to 50% of the Group's underlying net result and beyond, after considering the Group's financial position and affordability from the balance sheet. Thus, the

Board will recommend to shareholders an ordinary dividend payout of CHF 0.20 per share at the AGM on March 21, 2024, taking place at ENTRA, Rapperswil-Jona, Switzerland. Oerlikon's dividend policy will be reevaluated upon completion of pure-play execution.

2024 Outlook

For 2024, Oerlikon expects a high single-digit percentage decrease in FX-adjusted organic sales, and an operational EBITDA margin of 15.0-15.5%. Oerlikon anticipates growth in Surface Solutions to be offset by the downturn in Polymer Processing Solutions.

Division Overview

Surface Solutions Division

Key Figures of the Surface Solutions Division
as of December 31, 2023 (in CHF Million)

	FY 2023	FY 2022	Δ	Q4 2023	Q4 2022	Δ
Order intake	1 514	1 418	6.8%	370	348	6.4%
Sales (to third parties)	1 521	1 384	9.9%	391	358	9.3%
Operational EBITDA ¹	262	251	4.2%	72	65	10.7%
Operational EBITDA margin ¹	17.1%	18.0%	-90 bps	18.2%	18.0%	20 bps

Surface Solutions improved orders and sales, despite facing contracting manufacturing PMIs. The division's 2023 order intake increased by 6.8% to CHF 1 514 million (including an FX effect of -6.4%, an impact from the Riri acquisition of +8.9% and organic growth of 4.3%). In Q4 2023, order intake increased by 6.4% year-over-year (incl. an FX effect of -6.8%, an impact from the Riri acquisition of +9.5% and organic growth of 3.7%). Division sales of CHF 1 521 million in 2023 were 9.9% higher than in the previous year and includes an FX effect of -6.5%, an impact from the Riri acquisition of +9.4% and organic growth of 7.0%. In Q4 2023, sales increased 9.3% (including an FX effect of -6.9%, impact of +8.6% from the Riri acquisition and organic growth of 7.6%), supported by equipment sales and higher demand in the energy and automotive sectors.

To take advantage of the U.S. as the largest growth market for additive manufacturing (AM), the division is strategically realigning its business for this new technology. It is focusing its AM production in Huntersville, North Carolina, bringing the business closer to the U.S. growth sectors, such as semiconductor, and also enabling the business to benefit from the more conducive U.S. framework conditions and higher market acceptance for disruptive technologies.

To strengthen its resilience, operational actions were taken in 2023. The division is optimizing its footprint in Germany for surface coatings and discontinuing its U.S. thermal spray coating services.

CORPORATE NEWS

Operational EBITDA for 2023 improved by 4.2% to CHF 262 million, or 17.1% of sales. The margin was impacted by higher input costs, the strengthening Swiss franc and an unfavorable mix. Operational EBITDA for Q4 2023 increased by 10.7% year-over-year, and the margin improved by 20 basis points to 18.2%. The margin improvement was supported by pricing measures and positive operating leverage, counteracting the higher input costs, an unfavorable mix and the strong Swiss franc. Operational EBIT for 2023 amounted to CHF 117 million, or 7.7% of sales (2022: CHF 104 million, or 7.5% of sales).

Unadjusted EBITDA was CHF 230 million, or 15.1% of sales, compared with CHF 226 million, or 16.2% of sales in 2022. Unadjusted EBIT was CHF 51 million, or 3.3% of sales (2022: CHF 54 million, or 3.9% of sales), attributable to one-off costs and impairments related to the operational actions.

Polymer Processing Solutions Division

Key Figures of the Polymer Processing Solutions Division
as of December 31, 2023 (in CHF Million)

	FY 2023	FY 2022	Δ	Q4 2023	Q4 2022	Δ
Order intake	943	1 572	-40.1%	182	315	-42.2%
Sales (to third parties)	1 172	1 525	-23.1%	241	378	-36.1%
Operational EBITDA1	170	254	-33.2%	27	59	-53.8%
Operational EBITDA margin1	14.5%	16.6%	-210 bps	11.2%	15.6%	-440 bps

The division faced highly challenging filament and non-filament markets in 2023. Order intake decreased by 40.1% (35.9% FX-adjusted) to CHF 943 million year-over-year, including -42.2% (-38.2% FX adjusted) in Q4 2023. Sales declined by 23.1% (17.7% FX-adjusted) to CHF 1 172 million, including -36.1% (-31.9% FX-adjusted) in Q4 2023. The division's results were driven by the cyclical downturn in filament, as a result of the slowdown in consumption, production and investment in China. Furthermore, the division was impacted by weakness in the global nonwoven market and in the Oerlikon HRSflow market, the latter due to transitorily decline in car launches.

Toward the end of 2023, the division noted an initial return in demand for carpet yarn (BCF) plants from the automotive and nylon industries and first signs of recovery for Oerlikon HRSflow solutions.

In Q4 2023, the division discontinued its Teknoweb business and divested its intralogistics offering for large spinning mills (Oerlikon Barmag Automation) to Irico Gualchierani Handling S.r.l. This will structurally strengthen the division's profitability in line with Oerlikon's capital allocation framework.

Operational EBITDA for 2023 amounted to CHF 170 million, or 14.5% of sales, attributable to the

decrease in sales. Operational EBITDA margin for Q4 2023 decreased from 15.6% to 11.2% year-over-year, due to lower sales and limited pass-through of higher input costs to maintain volume. Operational EBIT for 2023 was CHF 122 million, or 10.4% of sales (2022: CHF 203 million, or 13.3% of sales).

Since the end of 2022, the division has been taking measures to mitigate impacts from the cyclical downturn. The division has started to see initial positive effects from these measures in the final quarter of 2023 and is expecting that these measures will further support the margin in 2024.

Unadjusted EBITDA amounted to CHF 143 million, or 12.2% of sales (2022: CHF 193 million, or 12.6% of sales). Unadjusted EBIT was CHF 61 million, or 5.2% of sales (2022: CHF 135 million, or 8.9% of sales). Both were impacted by the decline in sales and non-recurring expenses in conjunction with the discontinuation/divestment of Teknoweb and the intralogistics business.

To ask questions, please dial in using one of these numbers:

Switzerland/Europe	+41 58 310 50 00
United Kingdom	+44 207 107 06 13
United States	+1 631 570 56 13
Other international numbers	Please click here

FY2023 Documents can be downloaded from Oerlikon's website:

Annual Report 2023 (in English)	www.oerlikon.com/annualreport-2023
Sustainability Report 2023 (in English)	oerlikon.com/sustainabilityreport-2023
2023 FY Results News Release	www.oerlikon.com/pressreleases
2023 Results Presentation	www.oerlikon.com/en/investors/reports-publications

The recording of the analyst and investor conference will be available from February 21, 2024, onward at www.oerlikon.com/en/investors/reports-publications.

About Oerlikon

Oerlikon (SIX: OERL) is a global innovation powerhouse for surface engineering, polymer processing and additive manufacturing. The Group's solutions and comprehensive services, together with its advanced materials, empower customers by improving and maximizing the performance, function, design and sustainability of customers' products and manufacturing processes in key industries. Pioneering technology for decades, everything Oerlikon invents and does is guided by its passion to support customers' goals and foster a sustainable world. Headquartered in Pfaeffikon, Switzerland, the Group operates its business in two Divisions – Surface Solutions and Polymer Processing Solutions. It has a global footprint of more than 12 600 employees at 207 locations in 38 countries and generated sales of CHF 2.7 billion in 2023.

For further information, please contact:
Thomas Schmidt
Head of Group Communications, Oerlikon
Tel: +41 58 360 96 60
Thomas.schmidt@oerlikon.com, www.oerlikon.com
Stephan Gick
Head of Investor Relations, Oerlikon
Tel: +41 58 360 98 50
stephan.gick@oerlikon.com, www.oerlikon.com
Leng Wong, Head of Group External Communications, Oerlikon
Tel: +41 58 360 96 14
leng.wong@oerlikon.com, www.oerlikon.com □

Liva opens Sustainable Fashion Showcased at Bharat Tex 2024, India's Premier Textile Festival

Liva, India's leading fabric brand, Liva, announced its participation in Bharat Tex 2024. The event was set to celebrate the seamless fusion of culture and business and honouring the intricate legacy that defines India. The global textile mega event organised by a consortium of 11 Textile Export Promotion Councils and supported by the Ministry of Textiles was held from February 26-29 in New Delhi. Liva's presence at the event showcased the brand's unwavering commitment to innovation, collaboration, and sustainable practices within the textile industry, solidifying its position as a frontrunner in sustainable fashion.

Bharat Tex 2024 promised to be a tapestry of tradition and technology attracting the best and the brightest from the textile world. This unique platform is poised to showcase India's entire textile value chain and also highlight strengths in fashion, traditional crafts and sustainability initiatives. It featured exhibitions, knowledge sessions, thematic discussions, Government-to-Government (G2G) meetings, Business-to-Business (B2B) networks, the signing of Memorandum of Understanding (MoUs), product launches, thematic and interactive pavilions and various other activities. The event was graced by the Prime Minister and multiple stakeholders including top policymakers, global CEOs, international exhibitors and global buyers.

With a booth presenting its wide-ranging product portfolio and applications, Liva was keen engaging with industry leaders and showcasing its sustainable attributes. Liva is a high-quality sustainable fabric ideal for clothes, renowned for its fluidity, breathability, moisture-wicking properties, and resistance to wrinkles. This makes it the preferred choice for people because they demand both style and functionality. Liva has sold over 8 crores Liva-tagged garments annually, a testament to its growing influence and adoption by consumers worldwide.

Collaborations with esteemed brands such as Biba, Rangriti, and Juniper further highlight Liva's prominence in the fashion industry.

Liva embodies eco-consciousness throughout its production process, ensuring sustainability and responsible use of resources. Delivered through an accredited value chain, Liva fabrics stand as a beacon of environment friendly fashion. In addition to this, Livaeco by Birla Cellulose has found acceptance all around the globe owing to its sustainable credentials. The fabric contains a unique molecular tracer which helps in source verification across the value chain. A complete information on the journey of fibre from forest to fashion is available through a unique QR Code which can be made available to the consumer conveniently.

Birla Cellulose is also ramping up its production of Liva Reviva, a circular fibre created from pre-consumer cotton waste and closed-loop technologies. Liva Reviva stands out for its exceptional sustainability features, including notably reduced greenhouse gas emissions and water usage compared to conventional viscose fibres.

ManMohan Singh, CMO, Birla Cellulose, said, "Liva's participation in Bharat Tex 2024 underscores its unwavering commitment to sustainable fashion and its pivotal role in driving positive change within the textile industry. We are excited and proud to showcase our products at such a prestigious event. We look forward to engaging with industry leaders, exchanging ideas, and forging partnerships that will shape the future of textiles."

About LIVA:

Liva, a flagship brand of the Aditya Birla Group, is a nature-based fabric crafted using nature-based fibres derived from wood pulp. Liva offers natural fluidity, allowing the fabric to flow and gracefully move along the body.

Liva is committed to redefining fashion with its innovative and sustainable approach. It is renowned for producing comfortable, natural, and eco-friendly fashion fabrics. Made from renewable plant-based fibres sourced sustainably from wood pulp, LIVA fabrics are known for their fluidity, breathability, and luxurious drape. LIVA is committed to promoting sustainable fashion and contributing to a greener future for the fashion industry.

For further information, please contact
Namita Naik, White Marque Solutions
Creative Strategy, Public Relations, Digital Outreach
Liva, Aditya Birla Group
Landline : 022-26335094-98, Extension : 09
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 ■

TEXTILE EVENTS

ITMA ASIA + CITME

Singapore 2025

28-31 October 2025

The textile and garment industry in South and Southeast Asia is dynamic and emerging as a major global supplier. Many local manufacturers are looking to modernise their operations and be sustainability-ready. Similarly, leading manufacturers in the Middle East are also investing in new technologies to stay competitive.

At the heart of this regional growth story is the timely launch of ITMA ASIA + CITME, Singapore 2025. Join our webinar to find out how you can leverage the exhibition as a springboard to propel your regional growth.

Get Ready to Secure Your Stand Space on 9 April 2024

Stand space application will commence on 9 April 2024, 4pm SGT. Book your stand space early to get into the sector of your choice.

Join Us as a Supporting Partner

- » **Supporting Organisations**
- » **Supporting Media**
- » **Overseas Travel Agents**

Collaboration is vital to the success of the textile and garment industry. We invite relevant trade associations/organisations, trade publications/media and established overseas travel agents to be supporting organisations of ITMA ASIA + CITME, Singapore 2025, as a partner.

For further information, please contact:
info@itma.com



Sustainable, Leading in Digitalisation and Innovative Textile Technologies at ITM 2024

ITM 2024 Exhibition will host the latest innovations in textile machineries, technologies, artificial intelligence supported machines, software and design marvel devices. Visitors who visit the ITM 2024 Exhibition, where innovations from every field of textile from weaving to knitting, from yarn to digital printing, from finishing to denim will discover innovative, environmentally friendly and pioneering technologies in digitalization for a sustainable future.

ITM 2024 International Textile Machinery Exhibition, which will be organized in collaboration with Tüyap Tüm Fuarçılık Yapım A.Ş. and Teknik Fuarçılık A.Ş. and in partnership with Textile Machinery and Accessories Industrialists Association (TEMSAD), will open its doors to its visitors at Tüyap Fair and Congress Center between 4-8 June 2024. ITM 2024 Exhibition, which will turn into a platform full of state-of-the-art machinery, digital design trends and sustainable production solutions; will give exhibitors the opportunity to discover the most up-to-date and effective applications in the sector.

New Manufacturing Techniques such as Artificial Intelligence and Automation will be in the Spotlight at ITM 2024

2023 was a year in which sustainability, digitalization and innovation were highlighted. The use of recyclable materials, adoption of water-saving technologies and efforts to reduce carbon footprint heralded groundbreaking developments in the industry. Sustainability, digitalization, artificial intelligence and automation will continue to play a key role for the textile industry in 2024. Machines that are designed to increase production efficiency and reduce costs, new production techniques such as digitalization, artificial intelligence and automation will be one of the focus points of ITM 2024. Machinery and equipment designed to reduce environmental impact and made from sustainable materials will be featured at ITM 2024. Topics such as the use of recyclable materials, energy efficiency, waste reduction solutions, smart weaving machinery and production monitoring systems will also be presented at ITM 2024.

ITM 2024 Exhibition will bring together hundreds of products under one roof such as; weaving preparation, tufting, carpet weaving, cord and rope, narrow weaving, weft and warp knitting preparation machinery, flat and circular knitting, hosiery, embroidery, quilting, cotton and fiber preparation, yarn preparation, winding, twisting, texturing, dyeing and finishing, washing, bleaching, drying, folding, rolling, digital textile printing machinery as well as textile printing dyes and chemicals, nonwoven technologies, auxiliary machinery and accessories. Leading manufacturers of textile technologies will present their faster, more efficient and more flexible solutions equipped with automation and digitalization features.

Company owners, managers, employees and sector representatives visiting the exhibition, will have the opportunity to see the latest technological innovations for the first time and touch the firsts. Sector representatives, who will open up brand new horizons in their minds about textile technologies, will transform the extraordinary and original ideas they get at ITM 2024 into design and create brand new products. Company owners who will be able to get information from experts about the technologies they will use in their factories will develop their products and direct their investments.

Get Your Online Invitation Before It's Too Late!

Thousands of visitors from all over the world, eager to come to ITM 2024 Exhibition, where textile technology leaders will exhibit their latest technologies, are making intensive applications to Turkish Consulates and Commercial Attaché Offices in their countries. Thousands of visitors from Europe, Central Asia and Arab countries, especially Turkic Republics, will visit ITM 2024 to be informed about the latest trends in textile machinery. The visa agreement between Turkey and many countries such as India, Pakistan, Bangladesh, Indonesia, Vietnam, Egypt, Algeria, Tunisia, Morocco, Iran, Uzbekistan and Turkmenistan will be effective in increasing the number of visitors. We have an online invitation system that allows our visitors who do not want to miss this great meeting to easily enter the ITM 2024 Exhibition. Our visitors can register online by clicking on the e-invitation link at www.itmexhibition.com. After filling out the visitor information form, their e-invitation is sent to them by e-mail. With this e-invitation, they can get their badge at the entrance of the fairground and enter the ITM 2024 Exhibition without waiting in line. Those who register early for the online invitation system can also benefit from our advantageous prices.

Intensive Demand for ITM 2024 Exhibition from Professional Visitors and Trade Delegations

Hundreds of exhibitors from Turkey and abroad are counting the days to introduce their latest technologies for the first time at ITM 2024 Exhibition. Leading textile machinery manufacturers, global industry investors and professional visitors are planning to come to ITM 2024 Exhibition to see the latest technologies closely. Trade delegations from dozens of countries are requesting to come to the ITM 2024, which is included in the list of 'Domestic

Fairs Covered by the Ministry of Trade of the Republic of Turkey. Bangladesh, India, Pakistan, Indonesia, Malaysia, Vietnam, Iran, Egypt, Algeria, Morocco, Morocco, Tunisia, Uzbekistan, Turkmenistan, Serbia, Poland, Cameroon, Ethiopia, Tanzania, Mexico, Peru, Venezuela are among the countries that have requested a procurement delegation. Turkish Consulates and Commercial Attaché Offices are supporting trade delegations with visa applications. If you want to take your place among the trade delegations coming to ITM 2024 Exhibition, you can apply to the Turkish Consulates and Commercial Attaché Offices in your country.

For further information, please contact:
e-invitation link at www.itmexhibition.com. □

8th Bangladesh Int'l Garment Textstyle Expo 2024

October 24-26, 2024

Int'l Convention City Bashundhara (ICCB)
Dhaka, Bangladesh

Redcarpet Global, in association with BGMEA (Bangladesh Garment Manufacturers & Exporters Association) are inviting you to participate at 8th BIGTEX 2024 – Bangladesh International Garment & Textile Machinery Expo.

BIGTEX connects all kinds of garment & textile machinery, equipment, technology & accessory manufacturers, dealers, suppliers & importers from Home & Abroad. Targeting the entire Textile, Garment & Apparel industry of Bangladesh, BIGTEX has concurrent expos as below:

- ❖ 3P Expo - Bangladesh Int'l Paper, Printing & Packaging Expo 2024
- ❖ 8th Bangladesh Int'l Printing, Packaging and Signage Expo 2024
- ❖ 8th Bangladesh Int'l Dyes, Pigments and Chemicals Expo 2024
- ❖ 8th Bangladesh Int'l Fabric & Yarn Expo 2024

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

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

Booths are on First Come First Serve Basis.

Feel free to knock us for any query.

TEXTILE EVENTS

Industry Strength - Why Bangladesh ? Why Now?

- ✧ Bangladesh is the 2nd largest apparel exporter, with worth \$42.613 billion (FY 2021-22)
- ✧ Bangladesh eyes \$100 billion apparel exports by 2030
- ✧ Bangladesh's textile and garment machinery market now worth over \$4 billion
- ✧ Bangladesh imports garment machinery worth \$432 million (FY21)
- ✧ Bangladesh imports textile machinery worth \$177.24 million (FY21)
- ✧ Bangladesh imports yarn wash/clean/iron machinery worth \$275.6 million (FY21)
- ✧ Bangladesh imports sewing machines, related furniture worth \$263.1 million (FY21)
- ✧ Bangladesh imports printing machinery worth \$136.62 million in FY 21-22.

Who can Participate in this Fair - Profile of Exhibitors

- ✧ All kind of Garment Machineries & Accessories
- ✧ All kind of Textile Machineries & Accessories
- ✧ Circular Knitting Machinery
- ✧ Embroidery & Quilting Machinery
- ✧ Knitting Machinery
- ✧ Sewing Machinery (Industrial/Household)
- ✧ Sewing Machine Motors
- ✧ Spinning Machinery & Accessories
- ✧ Weaving Machinery & Accessories
- ✧ Yarn Dyeing Machines & Apparatus
- ✧ Accessories for Textile Machinery
- ✧ Apparel Machinery & Accessories
- ✧ Automation System, Machinery & Accessories
- ✧ Auxiliary equipment
- ✧ Washing & Bleaching Machinery
- ✧ Printing Machinery & Accessories
- ✧ Computer Software
- ✧ Creasing, Cutting & Laying Machine
- ✧ Embroidery Equipments
- ✧ Fastening Machines
- ✧ Felting Needles
- ✧ Finishing, Fusing, Pressing, Ironing & Steaming Equipment
- ✧ Heat Transfer Equipment

- ✧ Inspecting, Measuring & Folding Machinery
- ✧ Knitwear Equipment & Machinery
- ✧ Knives, Scissors & Grinding machine
- ✧ Labeling Machinery
- ✧ Laundry Equipments
- ✧ Looms Spinning machinery & accessories
- ✧ Over seaming Machinery
- ✧ Packaging Machinery & Equipment
- ✧ HVACR: Heating ventilation, air conditioning, and refrigeration
- ✧ CAD/CAM/CIM System
- ✧ Chemicals & Dyes
- ✧ Pocket Welting Machinery
- ✧ Sealing Machinery
- ✧ Sewing Machine Attachments & Parts, Drive & Control Systems
- ✧ Sewing Threads & needles
- ✧ Spreading/Winding Machinery
- ✧ Steaming Machinery
- ✧ Storage & Transport Equipment
- ✧ Testing Equipment & Controls
- ✧ Screen Printing Machinery
- ✧ Unit Production System
- ✧ Winding Machinery
- ✧ Yarn Processing Machinery

Who Visits?

Visitors Profile

7th BIGTEX 2023 - looking forward to visitors from entire Bangladesh & Neighboring countries from different sectors like

- ✧ Members of Bangladesh Garment Manufacturers & Exporters Association
- ✧ Members of Bangladesh Knitwear Manufacturers & Exporters Association
- ✧ Members of Bangladesh Textile Mills Association
- ✧ Marketing Chiefs, Professionals and Consultants
- ✧ Textile & Garment Machinery Importers & Exporters
- ✧ Senior Management of large retailers, purchasing/procurement Heads
- ✧ Apparel Brands & Fashion Labels, Apparel Domestic Manufacturers
- ✧ Distributors & Agents of Textile & Garment Machinery & Accessories

- ✧ Buying Houses & Agents, Buying missions from neighboring regions
- ✧ CEO, Engineers, and Technocrats
- ✧ Dealers of Textile & Garment Accessories
- ✧ Design Studios & Institutes
- ✧ Fashion Designers & Merchandisers
- ✧ Knitting Manufacturers
- ✧ Textile Agents, Distributors, Manufacturers
- ✧ Trade Association, Trade Body Representatives
- ✧ Wholesalers & More...

Visitors Showed Interest on Below Products

Sewing Machinery	13.15%
Printing Machinery	23.50%
Knitting Machinery	9.60%
Embroidery Machinery	14.30%
All Machinery	2.40%
Spinning Machinery	6.90%
Accessories/Supplies	3.15%
Finishing/Testing Machinery	3.50%
Weaving Machinery	2.40%
QC/Certificate Provider	3.60%
Information Services	1.20%
Dyeing Machinery	7.50%
Planning/Design/CAD	5.10%
Distribution/Logistics	2.50%
Others	1.20%

For further information, please contact:

BIGTEX

International Convention City Bashundhara (ICCB)

Dhaka 1229, Bangladesh

Ahmed Imtiaz

CEO & Head of Int'l Business

RedCarpet Global Ltd.

M: +8801819 863286

Wechat: aimtiaz

E: imtiaz.redcarpet@gmail.com

FB: <https://www.facebook.com/bigtex.expo>

RedCarpet Global Ltd.

House: 135 (3rd Floor)

Road: 05, New DOHS Mohakhali

Dhaka, Bangladesh

Tel: +88 02 8871412

Hotline: +9901715175552

Email : info@redcarpet365.net,

bigtex.redcarpet@gmail.com

Web: www.redcarpet365.net



8th Edition of HIMTEX

Hyderabad International Machine Tool & Engineering Expo

16-19, August 2024

HITEX, Hyderabad

The 8th edition of the (HIMTEX) Hyderabad International Machine Tool & Engineering Expo offers an excellent platform for untapped opportunities in the field of Machine Tools, Engineering, Robotics & Automation to experience technologically sound innovations. Over the years, HIMTEX has transformed into one of the most progressive industrial exhibitions in India. The event has been instrumental in contributing significantly to transforming the manufacturing capabilities of the state of Telangana and neighbouring states.

EXHIBITOR PROFILE

- ✧ Metal Cutting
- ✧ Metal Forming
- ✧ Cutting tools & accessories
- ✧ Robotics
- ✧ Industrial Automation
- ✧ Welding
- ✧ Material Handling
- ✧ And many more...

HIMTEX 2024 : SHOW HIGHLIGHTS

- ✧ 10,000+ sq mtr of gross exhibition area.
- ✧ 320+ exhibitors
- ✧ 15,000+ trade visitors
- ✧ 1000 + exhibits on display
- ✧ Pre-fixed B2B meetings
- ✧ Biggest machine tool expo of the region

For further information, please contact:

Vinoth Sasidharan

+9121211159

sv@hitex.co.in

Himanshu Dwivedi

+9154365906

hd@hitex.co.in

Bora Shanti Kumari

+9154214270

bsk@hitex.co.in



GarmentTech Istanbul

25-28, June 2025

FUTURE FASHION TECHNOLOGIES WILL COME TOGETHER AT GARMENTTECH İSTANBUL EXHIBITION

Turkey's leading garment machinery manufacturers and representatives of worldwide-known brands have collaborated with Teknik Fuarçılık for GarmentTech İstanbul Garment, Embroidery Machines Spare Parts and Sub Industry Exhibition. The first GarmentTech İstanbul Exhibition will be held at İstanbul Expo Center (IFM) between June 25-28, 2025. GarmentTech İstanbul Exhibition, which will bring together all the technologies used in garment and ready-to-wear production, will be the only and most comprehensive meeting point of the sector.



At the GarmentTech İstanbul Exhibition press conference; Teknik Fairs organization team, members of the Garment Machinery Advisory Board, KOMİD President, TEMSAD President and sector representatives took a family photo together.

The ready-to-wear and garment sector is among the locomotive sectors of the Turkish economy with both employment and export income. With 22 thousand 640 exporters and 42 thousand 434 manufacturers, the sector is among the priority sectors in the country's employment with approximately 700 thousand people working in production. Together with the retail and ready-to-wear sectors, total employment exceeds 2 million.



Left to Right: Alparslan Er, General Manager of Malkan Makina, Turgay Aşçı, Astaş Juki Board Member and General Manager, H. Kaya Aşçı, Vice Chairman of Astaş Holding, Temel Kamiloğlu, General Manager of Uğur Makina, Yavuz Çatma, Chairman of the Board of Çatma Makina, Necip Güney, Chairman of the Board of Teknik Fuarçılık, Murat Eren, Tetaş Sales and Marketing Assistant General Manager, Cengiz Albayrak, Alba Makina Chairman, Metin Kılıç, Malkan Makina Factory Manager.

Teknik Fuarçılık, which has more than 30 years of experience in exhibition organization and has made the ITM International Textile Machinery Exhibition a world brand, has taken action to make the success achieved by the garment and ready-to-wear sector sustainable. GarmentTech İstanbul Exhibition, which will be organized with the support of the

members of the Garment Machinery Advisory Board and in cooperation with the Apparel Automation and Machinery Manufacturers Association (KOMİD), will host professional visitors and global buyers from all over the world.

Necip Güney: We will make GarmentTech İstanbul Exhibition a World Brand

The press conference of GarmentTech İstanbul Exhibition, organized for the launch of this great meeting and cooperation, was held at Wyndham Grand İstanbul Europe Hotel. The press conference was attended by who is among the members of the Garment Machinery Advisory Board, Vice Chairman of Astaş Holding H. Kaya Aşçı, Astaş Juki Board Member and General Manager Turgay Aşçı, Chairman of the Board of Çatma Makine Yavuz Çatma, Chairman of the Board of Alba Makine Cengiz Albayrak, General Manager of Malkan Makine Alparslan Er, General Manager of Uğur Makine Temel Kamiloğlu, Tetaş Sales and Marketing Assistant General Manager Murat Eren, Malkan Makina Factory Manager Metin Kılıç and KOMİD President Haluk Akın, TEMSAD President Adil Nalbant, KOMİD Members Serkon Makina Chairman İzzet Savaş, Robotech General Manager Hüseyin Çetin, Chairman of the Board of NewTech Machinery Nezir Yazıcı, LGM Foreign Trade Specialist Yiğit Sağdıç Manav, Avtek Manager Oğuz Avcı and many sector representatives. Necip Güney, Chairman of the Board of Directors of Teknik Fuarçılık, made the opening speech of the meeting. Starting his speech with the words "I wish that our exhibition, which we will organize with the support and cooperation of the valuable members of the Garment Machinery Advisory Board and the Garment Automation Machinery Manufacturers Association (KOMİD), will be beneficial for our country and the entire garment industry.", Güney shared information about the garment and ready-to-wear sector.



Necip Güney, Chairman of the Board of Directors of Teknik Fuarçılık

Yavuz Çatma: As a Sector, I Hope We will have Many More 30 Years of Successful Exhibitions Together

Yavuz Çatma, Chairman of the Board of Directors of Çatma Makina, who made a speech on behalf of the Garment Machinery Advisory Board, said that as the Garment Machines Advisory Board, which was established 30 years

ago, they have organized numerous exhibitions so far. Çatma said, "I wish that the cooperation we have made with Teknik Fuarçılık will be beneficial for our sector. I hope that we will have successful exhibitions together for many more 30 years as a sector. We are among the top 3 fairs in the world in the field of Garment Machinery Exhibition, which we organise as the Garment Machinery Advisory Board. As a result of our cooperation, we aim to be one of the first 2 exhibitions. I would like to thank our sector representatives and consultative committee members for their support."



Yavuz Çatma, Chairman of the Board of Çatma Makine

Haluk Akın: Thanks to GarmentTech İstanbul Exhibition, We will not Have to Go to Exhibitions Abroad

Haluk Akın, President of the Apparel Automation and Machinery Manufacturers Association (KOMİD), reminded that domestic garment machinery manufacturers have visa problems when going to exhibitions abroad, "If we make GarmentTech İstanbul Exhibition a world brand just like ITM, we will not have to go to exhibition abroad. We firmly believe that Teknik Fuarçılık will make GarmentTech Exhibition a world brand with the support and cooperation of KOMİD and the Garment Machinery Advisory Board. As KOMİD, we will do everything we can to make this exhibition successful together with our members."



Haluk Akın, President of Garment Automation and Machinery Manufacturers Association (KOMİD)

Adil Nalbant: Garment Machinery Sector's Cooperation with Teknik Fuarçılık Makes Me Hopeful

Adil Nalbant, President of Textile Machinery and Accessories Industrialists Association (TEMSAD), talked about the importance of textile and garment sectors for Turkey. Stating that textile is the only sector in which we can compete with the world, Nalbant emphasized the experience of Teknik Fuarçılık in the field of exhibition organization. Nalbant reminded that the ITM Exhibition, which has been organized in partnership with Tüyap and Teknik Fuarçılık and in cooperation with TEMSAD since 2004, has become the most important exhibition in its field in the world.

Nalbant continued his words as follows: "I think that the garment machinery industry has made the right decision by cooperating with Teknik Fuarçılık for GarmentTech İstanbul Exhibition. GarmentTech Exhibition has made me very hopeful for the industry."



Adil Nalbant, President of Textile Machinery and Accessories Industrialists Association (TEMSAD)

Industry Professionals Who Want to Direct Their Investments will Pour Into GarmentTech İstanbul Exhibition

GarmentTech İstanbul Exhibition will be Turkey's most comprehensive gathering in its field; all technologies used in garment and ready-to-wear production from sewing to cutting, ironing systems to packaging, embroidery to printing and denim will be exhibited. The exhibition, where domestic and foreign manufacturers that focus on R&D and innovation will meet with global buyers, will host industry professionals who want to apply new technologies and direct their investments. Company managers who aim to produce perfect, fast and cost-effective clothing, who want to increase their capacities and expand their machine park will flock to GarmentTech İstanbul Exhibition.

Ease of Transportation and Visa will Attract a Huge Number of Visitors to GarmentTech İstanbul Exhibition

İstanbul, the center of the world textile and garment trade, will host this great meeting. The fact that the exhibition will be held in İstanbul, which serves as a bridge connecting east and west, will make GarmentTech İstanbul Exhibition a center of attraction. Due to its geographical location; companies from European countries as well as Middle East, North Africa, Turkic Republics, Balkans and Asian countries will be able to visit GarmentTech İstanbul Exhibition after a short 3-hour flight. ■

Details of Office Bearers of ITAMMA for the year 2024-25

Mr. Bhaveshkumar Patel – President (2024-25)



Mr. Bhaveshkumar Patel
President (2024-25)

Proprietor,
OM CORPORATION,
601-A.ABC-1, BEHIND GALA
COMMERCIAL COMPLEX
NR.WAGH BAKRI TEA CORNER,
OFF C.G.ROAD
NAVRANGPURA, AHMEDABAD-380 006
GUJARAT, INDIA.
Tel: +91-79-40062484, +91-79-2646 1104
Mobile: +91 98251 88333
Email: info@omcorporation.org
Website: www.omcorporation.org

M/s. OM CORPORATION manufacturer, importer and exporters of Textile weaving Machinery parts and dealing in all types of second hand Machinery.

He holds DME (Diploma Mechanical Engineer) from Bombay Board, India. He has Twenty five-years of very good experience at all types of weaving machinery spare parts for Air jet, water jet, Rapier & other weaving Machinery and exposure to the finer side of running all businesses successfully.

Om Corporation was established in the year 1985 and produced the export quality textile weaving machines spare parts. We produce high-quality spare parts from qualified engineers and technicians. OM CORPORATION supply all quality spares from all over INDIA as well as Export world-wide.

OM CORPORATION works with ethics and dynamic culture with reach at level of customers to fulfill their need world at large.

Mr. Omprakash Mantry – Vice-President (2024-25)



Mr. Omprakash Mantry
Vice-President (2024-25)

DIRECTOR
CENTURY INKS PVT. LTD.
A/14, BONANZA IND. EST.,
A.C.ROAD, KANDIVALI EAST,
MUMBAI – 400101.
Tel: +91-22- 42643060 /40031204
Cell: +91 9820000291
Website: www.centurymarkers.com
Email: info@centurymarkers.com

Omprakash Mantry is a first-generation self-made businessman from his family & has been in the manufacturing business for 35 years. He has immense experience and knowledge in marking instruments and devices used across the world. With the help of his expertise, 'Century Markers' the brand has grown exponentially in the industry registering a steady year-on-year growth in revenue and Technological Development in the past decade.

Company's strong ethics & commitment to loyalty is showcased with strong business relationships with several distributors in India & around the globe, for many decades.

With continuous R&D efforts over the last 3 decades our team has developed a wider range of cost effective marking instruments and devices with specialty inks to cater to wider industrial processes & applications namely pump-type textile markers, paint markers, High-Temperature chalks & laundry markers and the most talk of the town "CENTURY'S EVERON PEN".

He also owns & manages a government recognised star export house company 3S Corporation engaged in exports & distribution for specialty pharmaceuticals medicines.

He is currently serving as CHAIRMAN of Bonanza Industrial Estate Co-operative society (Kandivali) caretaking of ongoing renovation work for the society. He is Committee member of ALL INDIA PRINTING INK MANUFACTURER ASSOCIATION. Also, He was committee member of PLASTIC EXPORT PROMOTION COUNCIL.

Mr. Manan Shah, Hon'Treasurer (2024-25)



Mr. Manan Shah
Hon'Treasurer (2024-25)

DIRECTOR, KROSSMARK
INNOVATIONS
(EMBEE GROUP, AHMEDABAD)
KROSSMARK INNOVATIONS
(EMBEE GROUP)
Block No. 241,
Behind Bhagyoday Hotel,
Sarkhej-Bavla Road, Changodar,
Ahmedabad 382210, Gujarat, INDIA
M: +91 98795 36873
WWW.EMBEEINDIA.COM

Profile of Office Bearers of ITAMMA for the year 2024-25

Mr. Manan Shah, a highly skilled and experienced mechanical engineer, joined the family business (Embee group of companies) in 1992 bringing with him a wealth of passion and intelligence. Through his unwavering passion for the field he has driven Embee to become a leading manufacturer of Rotary printing machines, Engraving plants and equipment, and Colour Kitchen systems. This success has further expanded Embee's global reach as there company has its marketing network over 25 countries worldwide. Mr. Shah's critical role in shaping the company's growth and development cannot be overstated. Bringing innovation to the textile printing industry, His expertise and dedication have been crucial in establishing Embee as a prominent player in the industry.

The Embee group of companies, established in 1956 with a focus on manufacturing material handling equipment, has since expanded into a formidable hub for the production and distribution of textile printing machinery and accessories equipment's. Through years of dedicated effort and industry expertise, Embee has solidified its position as a leader in this specialized sector, offering cutting-edge technology and unparalleled quality to cater to the evolving needs of the global textile printing industry. Today, Embee brand stands at the forefront of innovation and advancement, continuously striving to exceed customer expectations and maintain its strong reputation as a trusted provider of Top-of-the-Line Textile Printing Solutions.

Mr. Nimesh J Shah – Immediate- Past President (2024-25)



Partner

Britex Industries,

11, Vatsa House, Ground Floor,

Janmabhoomi Marg, Fort,

Mumbai- 400 001.

Phone: - 022-22873494

Mobile: 9820086909

e-Mail:- jinesh@wiperdrive.com

Website: - www.wiperdrive.com

Young and enthusiastic, Nimesh is currently partner at Britex Industries (which is part of the Wiper drive Group) which is into selling of Textile spare product and accessories, he is Director at Transtec Overseas Pvt Ltd which manufactures Aviation Ground support Equipments and also Director of Oil gear India Pvt Ltd which manufacture and supply Hydraulic and Automation products and solutions.

He holds an MBA in International Marketing from Cardiff University, UK along with a B.E. in Production Engineering from Bombay University, India. He has Twenty five-years of rich experience and exposure to the finer side of running all business successfully. Dealt with customers such as Air India and Indian Airlines and executed sales up to the tune of Euro 20 million for Ground support Equipment.

At a young age of 45 he has played a key role in honing the operation of the group and has demonstrated considerable Financial and Marketing skills. During all these year, in a short period of time, he has initiated a significant thrust on the group export operations to Europe and Middle East companies. He also played a substantial role in getting all Group companies ISO 9001: 2008 certified and participating in international trade fair with thrust on exports. Nimesh is fully geared to spearhead his all Group companies in the area of world class product and service to exceed customer expectation.

For further information, please contact :

N. D. Mhatre, Director General (Tech)

Indian Textile Association & Machinery Manufacturers Association

Bhogilal Hargovindas Building

18/20, K. Dubash Marg, Kala Ghoda,

Mumbai-400001

Tele : (022) 40121421/40124828/8928144886

Fax : (022) 2287 4060

e-mail : info@itamma.org/admin@itamma.org

accounts@itamma.org

Web : www.itamma.org





New 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
S P I N N I N G

www.truetzschler.com



LARGEST EXPO OF TEXTILE MACHINERY, ACCESSORIES & SPARES

Perfect platform to showcase your innovations

www.simatexfair.org



- HIGHLY ECONOMICAL FAIR
- ORGANISED BY THE USER INDUSTRY

21 22 23 24
JUNE 2024

CODISSIA TRADE FAIR COMPLEX
Coimbatore, Tamil Nadu, INDIA

“RUSH YOU BOOKINGS”

To Book Stalls...

Website QR Code



- Step 1** Visit <http://www.simatexfair.org/book-your-stall/>
(OR)
Scan the QR Code on the left side
- Step 2** Download the floor plan
- Step 3** Enter the required details in the form and submit
- Step 4** Confirmation of stall no(s). is subject to availability and will be intimated by e-mail



Trützschler Group

To boost productivity the world's first 12-head comber, 'TCO 21XL' comes into service

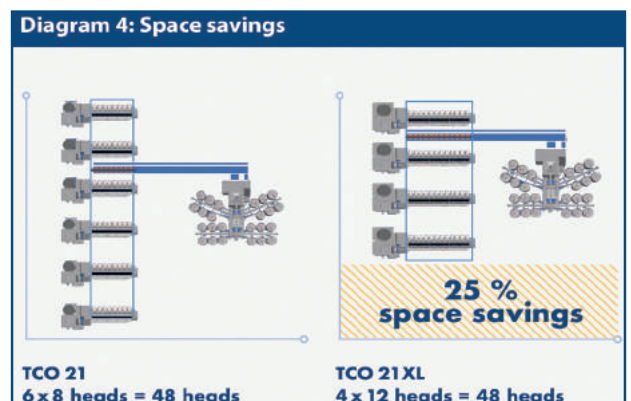
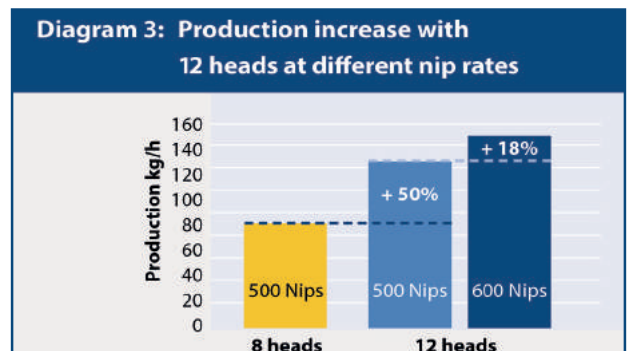
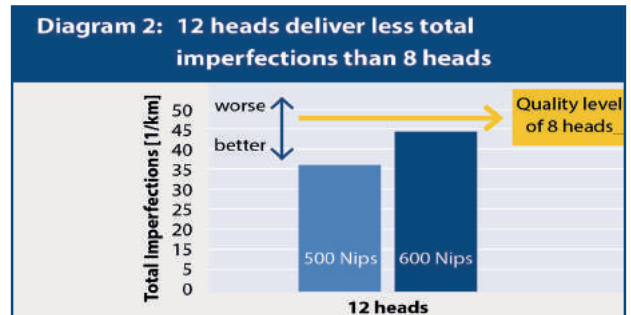
Boosting productivity has never been easier! The new high-performance comber TCO 21XL makes it possible to increase productivity by 50%. Real-world results from spinning companies worldwide – including Bakan Tex in Uzbekistan – have confirmed the TCO 21XL's high levels of performance and quality. Why is this new comber grabbing attention among top spinning companies? Find out here.



The world's first 12-head comber: TCO 21XL

Great performance in Uzbekistan

Our customer Bakan Tex, headquartered in Uzbekistan, has already enjoyed an exclusive sneak-peek at this machine. Bakan produces 14,500 tons of combed cotton yarn per year (ranging from Ne 20 to Ne 40) at its state-of-the-art spinning mill. The company has a high degree of automation and focuses on future-oriented technologies. "The production and quality data of the TCO 21XL are simply fantastic," says Mr. Sekar, General Manager at Bakan Tex. "We're incredibly excited about how the 12-head comber is going to benefit our business." Bakan Tex was able to perform a comprehensive comparison between eight-head and twelve-head machines under identical production conditions because it already has TCO combers installed. You can see the results on Diagram 1 and Diagram 2.



Further results are promising

The team at Bakan Tex was thrilled to see how one comber can meet its market needs so effectively. Further results in Turkey, for example, confirmed higher productivity at no compromise in quality, stable running performance and very satisfactory endurance test results. These trials were carried out for ring spinning with uzbek cotton as the raw material. The yarn count was Ne 30.

Lower cost of ownership

Next to boosting productivity, the TCO 21XL requires 25 % less space to accommodate the same number of combing heads (see Diagram 4). This reduces initial construction costs and also results in lower ongoing operating costs, including costs associated with lighting, air conditioning and other overheads. Our new ONLINE NOIL

MONITORING function also enables further cost savings by automatically detecting variations in the noil and giving a warning signal in case of significant changes. Of course, the TCO 21XL also features the proven drive technologies DUAL DRIVE and 2TWIN DRIVE for a completely synchronous running on all combing heads and a uniform combing result.



We are excited that this innovative comber has started fulfilling its most important role - delivering outstanding productivity and quality to customers worldwide!

About Trützschler:

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

For further information, please contact:

Shiladitya K Joshi

Deputy General Manager-Product and Marketing
Truetzschler India Private Limited

Truetzschler Spinning

phone : +91 93768 56949

email: skjoshi@truetzschler.in

www.truetzschler.in



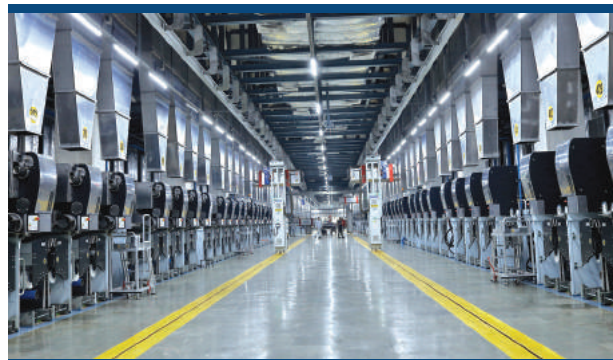
Oerlikon

Oerlikon Barmag WINGS FDY Technology for a sustainable polyester yarn production at Garden Silk Mills in India

Oerlikon once again proves to be world's leading supplier of man-made fiber plants with installation of polyester yarn facility in India

With the successful commissioning of the new polyester yarn production facility at Garden Silk Mills in Surat, India, Oerlikon Barmag once again proves that the company of the Swiss Oerlikon Industrial Group is rightly one of the world's leading suppliers of manmade fiber plants. The conversion and new construction of the polyester spinning mill, which now has a total of 216 WINGS FDY spinning units, was accompanied by extensive engineering work, which was conducted in close cooperation with experts from Germany and, above all, from India.

"We are particularly pleased to have equipped Garden Silk Mills, another successful customer, with our WINGS FDY technology," explained Oerlikon Polymer Processing Solutions CEO Georg Stausberg. "We are confident that the new, state-of-the-art spinning mill will be able to produce polyester yarns for the highest demands in an economically attractive way, so that they can be offered to the Indian market as well as the global market. We congratulate Garden Silk Mills on the successful commissioning and wish them all the best for the future," continued Stausberg.



The FDY yarn expansion project at Garden Silk Mills Private Limited (GSMPL) marks the beginning of a period of rapid progress in the textile sector by The Chatterjee Group (TCG) under the leadership of its visionary Chairman, Dr. Purnendu Chatterjee. With its state-of-the-art manufacturing plant at Jolwa, producing high

SCIENCE IN INDUSTRY

quality polyester chips, POY, FDY and other specialty yarns, and the iconic Garden Vareli brand having a contemporary collection of sarees and dress materials, the Chatterjee Group, that has investments of USD 8 billion globally, is truly creating the Garden of Tomorrow. "We at MCPI and GSMPL are committed to realize the strong textile vision of Dr. Purnendu Chatterjee, Chairman, TCG", said D.P.Patra, Whole Time Director and CEO, MCPI.

What is polyester yarn production with Oerlikon Barmag WINGS FDY all about?

The principle of producing a yarn is always the same: spinning pumps press the plastic melt under extremely high pressure through micro-fine nozzles, the resulting filaments are bundled into threads, stretched over godets, and wound up by a winding head. In order to master this principle reliably, high precision and extremely stable technology is required. These machines are in use day and night, year in, year out. The

slightest error during the spinning process cannot be corrected later.



Precise processes for textile and technical yarns

Oerlikon Barmag systems master almost all processes for the production of textile and technical yarns and spin the common polymers polyester, polyamide 6 and 6.6 or polypropylene. Garden Silk Mills focuses on so-called fully drawn yarns (FDY). They are processed into textile surfaces without further finishing. Fully drawn yarns are used wherever textiles need to fall smoothly or glide.


www.bharatbeams.com




Weaver Beams

Weaver Beams for Picanol, Toyota, Tsudakoma, Dornier, ITEM, SMIT, Sulzer and other types of Airjet, Rapier and projectile weaving machines in single section and double section construction with or without differential motions upto 1250mm flange diameter and 540cms working width.

Warper Beams

We offer dynamically balanced warper beams of flange diameter up to 1600 mm and warping width upto 2800 mm suitable for Karl Mayer, Benninger, Hacoba, Ukil, Ramallumin, Tsudakoma, Prashant West Point, Jupiter, Prism, Amritlakshmi and other high speed warping machines suitable for spun and filament yarn.

We also manufacture Warper and Weaver Beams suitable for Synthetic Industry and for Technical Textiles.

Manufactured by :

BHARAT BEAMS

PRIVATE LIMITED

Manufacturers of Weaver's Beams
Dynamically balanced Warper Beams

Plot No. 10/3, Phase I, G.I.D.C., Vatva Industrial Estate, Ahmedabad - 382 445. INDIA.

Ph. : +91 79 29706768 / 40321148

E-mail. : snehal@bharatbeams.com, jcpanchal@bharatbeams.com

Sustainable solutions for FDY production

Oerlikon Barmag is the technology leader in this field. The WINGS concept breaks through the limits of conventional FDY spinning systems. WINGS stands for optimized production processes, low waste rates and energy consumption reduced by around 30 percent. High yarn quality is a must. This pioneering technology can be used in the FDY process for polyester and polyamide.

Oerlikon Barmag's WINGS technology now supports Garden Silk Mills in the production of FDY premium yarns – high-performance spinning components such as spinning pumps, spinning beams and spinn packs through to crossflow quenching and the 216 WINGS winders were installed in the direct spinning process downstream of an existing polycondensation system at Garden Silk Mills. This is because the quality of the yarn is determined in the spinning mill.



Competition on the yarn markets is currently also extraordinarily strong for Garden Silk Mills. The result: constantly increasing cost pressure. The solution: optimized production processes, economical systems, sustainable technologies. Oerlikon Barmag WINGS FDY technology provides all of this. Efficiency is the key feature of WINGS: The winder can be operated entirely from the floor. All operating elements are at eye level. As a consequence, this reduces the time required for feeding by 25-40%; time in which FDY yarn of the highest quality can be produced – and, above all, no waste.

Oerlikon displays sustainable technologies at Techtextil 2024

Emphasize on road safety and health protection

At this year's Techtextil in Frankfurt from April 23 to 26, Oerlikon Polymer Processing Solutions will inform trade visitors about technologies for the production of technical textiles. At the VDMA

joint stand in Hall 12 C55/56, the focus will be on sustainable solutions in the areas of safety, automotive and health.

More safety in vehicles with high-performance filament yarns

In modern passenger cars today, an average of 30 to 35 kg of yarn ensures safety and comfort. Airbags play a large part in this: the yarns used are mainly made of polyamide. Due to the ever increasing variety of airbag applications and the ever growing size of the systems, polyester is also often used today, depending on the application requirements and cost/benefit considerations. In addition to high productivity and low energy consumption, the technologies from Oerlikon Barmag score particularly well with their stable production processes. "They meet all the high quality standards for airbags, which – like almost all other textile products in vehicle construction – must guarantee maximum safety for the occupants," confirms Dr. Jen Supra, Technology Manager Technical Yarn at Oerlikon Barmag. "And without any loss of function in any climate, anywhere in the world, for the entire service life of the vehicle."

Seat belts also play a life-saving role in vehicles. They must be able to withstand tensile forces of more than three tons and at the same time stretch in a controlled manner in an emergency to reduce the load in the event of a collision. A seat belt consists of around 300 filament yarns, whose individual highstrength yarn threads are spun from around 100 single filaments. Oerlikon Barmag's patented Single Filament Layer technology ensures a High Tenacity (HT) yarn process that is as sophisticated as it is gentle.



With the Oerlikon Nonwoven hycuTEC process, raw material savings of up to 30% can be easily realized.

Safe on the road – reinforcement with geotextiles

But technical yarns not only have advantages in the car, but also underneath it. Low elongation,

SCIENCE IN INDUSTRY

ultrahigh tenacity, high rigidity – technical yarns offer outstanding properties for the demanding tasks of geotextiles, e.g. as geogrids in the base course system under the asphalt. Geotextiles usually have extremely high yarn counts of up to 24,000 denier. System concepts from Oerlikon Barmag simultaneously produce three filament yarns with 6,000 denier each. Thanks to the high spinning titer, fewer yarns can be plied together to the required geo yarn titer in a more cost and energy efficient way.

The geotextile portfolio is complemented by Oerlikon Nonwoven's spunbond technology: the process for the production of nonwovens for the manufacture of geotextiles made of polyester or polypropylene is characterized by high production capacities and yields with low energy consumption.

Filter efficiency of over 99.99% with hycuTEC

The hycuTEC hydrocharging solution from Oerlikon Nonwoven is a unique technology for

charging nonwovens to increase filter efficiency to over 99.99%. For meltblown producers, this means a 30% material saving with significantly increased filtration performance. For the end user, this is noticeable in a gain in comfort due to the significantly reduced breathing resistance. With significantly lower water and energy consumption, the patent-pending technology is recommended as future-proof and sustainable.

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 as well as nonwoven production systems. It also develops and produces advanced and innovative hot runner systems and multi-cavity solutions for the injection molding industry. Its hot runner solutions serve business sectors, including

ELECTRONIC BOARDS ORION PRESSURE SWITCHES PRESSURE BAR SPACER



SJS 29102 SJS 28991 SJS 28992 SJS 28985

LIGHT RECEIVER / TRANSMITTER PNP/NP 24 vdc



SUMANLAL J. SHAH SONS (P) LTD.,
Spinning Textile Machineries Spares



SUMAN ELECTRICALS & INSTRUMENTS
Electrical Equipments & Instruments

No. 3, Raghavendra Colony, G.N. Mills (P.O.), Coimbatore - 641 029 Tamil Nadu, INDIA
Phone : +91 9600999576 Enquiry Call : +91 94431 51976, + 91 9655562701
 E-mail : sumanlal@sumanlal.com, sumanlal1947@gmail.com
 Visit at : www.sumanlal.com

automotive, logistics, environmental, industrial applications, consumer goods, beauty, and personal care and medical. Furthermore, Oerlikon offers customized gear metering pumps for the textile,



In the event of an accident, the number one lifesaver is not the car body or the airbag, but the seat belt. It holds the vehicle occupants firmly in position and thus enables other protective technologies to develop their full function. Yarns produced on Oerlikon Barmag machines ensure all-round safety.

automotive, chemical, dyes, and lacquers industries. Its engineering competence leads to sustainable and energy-efficient solutions for the entire polymer processing value chain with a circular economy approach. Oerlikon Polymer Processing Solutions 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 more than 13 000 employees and generated sales of CHF 2.9 billion in 2022.

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

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

Uster Technologies AG

From manual to automated fabric inspection
Step up to assured fabric quality for technical and sensitive applications

Uster Technologies offers a flexible solution to upgrade fabric inspection from manual to automated. Integration in existing production lines is quick and easy, and the data flow also brings extra benefits. It means fabric producers can significantly improve their yield with fast, accurate quality monitoring.

Any change starts with a new thought and a clear intention – but sometimes it takes time to make it happen. That's because issues might be expected during implementation. But that's not the case when switching from manual to automated fabric inspection with Uster. This article presents the key points, and offers further options for total understanding: discussing with a Uster expert at the upcoming webinar on another occasion; or to attend a webinar on April 11.

The path to automation

For maximum benefits – up to 50% lead time savings and 80% less waste – automated fabric inspection combines Uster EVS Fabriq Vision with Uster Fabriq Assistant. This integrates a reliable and sophisticated inspection system, delivering vital data, with practical analysis of that data to deliver the best results for users.



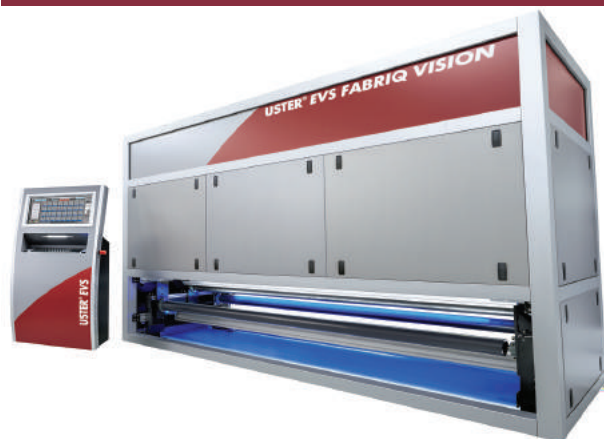
SCIENCE IN INDUSTRY

Prerequisites for automatic fabric inspection begin with a detailed evaluation of the current process, to identify the critical steps. Typical questions users will be asked include “what kind of optimization do you expect and what changes would you like to make to the production process?” Or “how does your final process step look before you ship the fabric to your customer?”

At the end of this analysis, the steps towards integration are planned, including the choice of the right hardware and software needed to achieve automation in the fabric inspection process.

The Uster Fabriq Vision inspection solution can be integrated into existing production lines – or used as an off-line inspection system. In both cases, the preconditions for optimal results from the optical system are the same: smooth and tension-controlled fabric flow, no creases in the fabric, stable light conditions in the inspection area and no dust or lint on the fabric.

The inspection cameras feature state-of-the-art technology, positioned at various detection



angles. Sophisticated illumination makes defects visible and raises detection performance to the maximum. Uster EVS Fabriq Vision provides real-time alerts for operatives, showing all defects and automatically creating roll inspection charts. All detected faults are collected in a dataset and transferred to Uster Fabriq Assistant.

ISO 9001:2008 COMPANY

MEHRA WAX ROLLS

100%
QUALITY

SPECIAL FEATURES:

- Mehra Wax Roll has suitable hardness to avoid uneconomical consumption and will result cost saving
- Mehra Wax rolls are Eco-friendly Bio-degradable, Free from Silicones and Penta Cholro Phenol
- Available Gots Certified Wax Rolls with Certificate



Under Certificate Number - C813639SUPPTEx01.2009

Manufactured by:



MEHRA WAX PRODUCTS PVT. LTD.

D-99, New Focal Point, Amritsar - 143 006, Punjab, India.

(T) 0183-2109100, 2109200, (M) +91- 98888 77000, Email: mehrawax@gmail.com

Data flow

Data generated by Uster fabric inspection systems feeds to Uster Fabriq Assistant, which creates statistics for quality and process improvement. Its automated features make Uster Fabriq Assistant more efficient and productive, as a reliable and tailored solution for processing, analyzing, and visualizing quality data.

Connecting data is no longer a big deal. The Uster solution offers an open interface to transfer data to the ERP system and to the Optimized Cut Control (OCC), allowing maximized yield. Uster recommends a customer workshop to discuss data requirements, key parameters, data flow in production and how to create a powerful infrastructure.

Additional benefits

OCC allows an increased fabric yield after inspection. It is a software tool using the defect map from inspection, enabling automated cut optimization to be installed on any existing debatching or cutting line. It automatically identifies the correct cutting position for maximum fabric yield according to the customer's quality requirements, and makes the cutting process highly efficient.

Invisible synchronization marks (applied during inspection) indicate the position of defects and cut positions in a roll, so these are always under control, allowing the cutting table to run at maximum possible speed.

When color consistency is critical, Uster EVS Fabriq Shade supports fabric producers to deliver a constant shade in end-products. The system provides standard shade measurements with high accuracy and continuously qualifies shade variation, based on a set reference point. To ensure lots have optimal color uniformity, the system offers grouping according to shade, for best fabric yield. Combining Uster EVS Fabriq Shade and Uster EVS Fabriq Vision in one process provides all relevant quality data in a single operation and increases the efficiency of fabric inspection.

The change explained

Automated fabric inspection requires newly-configured logistics as part of the detailed set-up plan – including a clear and traceable data flow for a paperless production. Finally, the calculation of the ROI will assure customers that profitability – as well as efficiency and quality – will also increase.

Ingo Kiefer, Senior Textile Technologist for fabric inspection at Uster Technologies, takes participants through the transition from manual to automated fabric inspection at the upcoming webinar. Ask

questions and register at [https://webinars.eu.on24.com/Uster/Automated Fabric Inspection](https://webinars.eu.on24.com/Uster/AutomatedFabricInspection).

Uster Technologies also invite interested parties to face-to-face discussions at Techtextil Frankfurt, from April 23 to 26, 2024. Meet their fabric inspection experts at the Elmatex booth D63 (Uster agent for Germany) in hall 12.

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 BV

Mimaki is set to mark to 20 Years of Innovation at FESPA with Latest Technologies for a Sustainable Future

- » As FESPA's UV Excellence Partner, Mimaki to showcase latest UV solutions and sustainable applications.
- » To mark 20 years of Mimaki Europe, the company's extensive portfolio of technologies, including new solutions, will be demonstrated both on the FESPA stand and at Mimaki's impressive Experience Centre, just 10 minutes from the show.

SCIENCE IN INDUSTRY

Mimaki Europe, the leading manufacturer of inkjet printing and cutting technologies, is set to bring the very latest in UV print technology, including brand new products, to FESPA Global Print Expo 2024 (19th-22nd March 2024). As FESPA's official UV Excellence Partner, Mimaki will present some of its most advanced, energy-efficient UV solutions at the centre of its stand (Stand F10, Hall 12) and at its own Experience Centre, just 10 minutes away from the show grounds.

During the daily Mimaki Experience Centre tours, visitors will have the unique opportunity to further explore the extensive Mimaki portfolio, spanning sign graphics, textile, and 3D printing technologies. The tour will also include exclusive demonstrations of two new, yet to be launched products, that will assist printers in signage expand their offering even further. Registration is available online at: events.mimakieurope.com/showroom-visits.



Mimaki's vision for the future will be evident throughout the show, with an innovative industrial textile printing system to be launched in the company's 'Sustainability Corner'. Mimaki's energy-efficient, UV technology FESPA line-up will consist of the recently launched UJV100-160Plus and UCJV330-160. The UJV100-160Plus boasts extraordinarily low power consumption, as well as additional functionalities to increase customer profitability. The UCJV330-160 integrated printer/cutter is a new addition to Mimaki's 330 series product portfolio, offering high-speed and high-quality printing for various applications.

Following Mimaki's recent move into the DTF market, the company's latest addition, the TxF300-75, will be demonstrated at an EMEA-wide show for the very first time. Both DTF printers fulfil market demand for a stable and efficient DTF platform, and this new system, released in August 2023, helps to cater to a diverse set of printing demands, with high-quality output combined with high productivity.

While Mimaki is looking ahead to ways in which it can support a sustainable future, the company will also reflect on its rich heritage as an innovator. Celebrating two decades of success in the market, Mimaki will commemorate 20 years of technology 'world firsts', an extensive list of creative applications printed, and its many partners, customers and industry collaborators who helped make it all possible.

Danna Drion, General Manager Marketing EMEA, comments, "This milestone anniversary for Mimaki Europe presents the ideal opportunity to celebrate success but, importantly, look to the future and establish how we as a team and a business can contribute to a more sustainable world during the next 20 years. Utilising our aptitude for innovation, we will look to apply it to technologies and initiatives that contribute to this long-term goal."

"This FESPA offers a compelling chance for visitors to fully immerse themselves in Mimaki's comprehensive product portfolio, both at the show and next door at our European headquarters. We're excited to present our latest product portfolio to our many customers and prospects and, of course, for everyone to join us in celebrating our landmark 20-year anniversary."



A trusted name in the field of

Slub/Fancy yarn making equipments



SLUB-O-GENERATOR



Reliable quality, remarkable
performance and best after
sale service

12-B Indl. Estate, Birla Nagar,
Gwalior - 474004 (M.P.) India

+91 93011 01572
+91 92291 14438

info@fancytex.com
skaushika@fancytex.com
www.beaelectronics.com

To register for FESPA 2024, please click here and use the promo code EXHX24 for free entry before 19th February or a €50 discount off the regular price after 19th February.

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

About Mimaki

Mimaki is a leading manufacturer of wide-format inkjet printers and cutting machines 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 ■

SIMTA Group

SIMTA group has developed many new products battling with emerging challenges

In India next to agriculture industry the largest industry is Textiles. So, in today scenario all the textile machine manufacturers are moving their product portfolio towards automation in order to reduce the need of human workforce and to ensure the working of the factories across the clock.

SIMTA group which has its strong footsteps in the textile industry for last 33 years have taken the challenges of the textile industry as their opportunity and has developed new products to support the textile industry at an affordable cost.

Now SIMTA group has started manufacturing of Auto Cone Transport System and Auto Cone packing system to enhance the productivity and the quality of packing in the textile spinning mills.

CONE Transport System, SIMTA has developed a unique transport system for the cones to transport the same from Vortex, link coner and standalone cone winding machines to the auto

packing machine or to the packing area. This will help the mills to transport the finished goods across the clock and avoid the mix up of cones and also reduce human work force in all the three shifts.

The autocone transport system will pick up the cone from the winding machine and the same is recorded with a RF id about the parameters of that cone and the same is transported to the respective area with the help of cone carriers this also records the no of cone produced from each winding machines.



Additional Modules:- SIMTA also provides additional modules of cone weight checking, cone tip checking and package deformation, this will avoid the human errors and also records the faulty cone which will not allowed to the packing machine and the mills can ensure 100% good quality cones are packed.

Auto Cone packing

The textile industry requires more human work force for the packing of cones in Bags/ Corrugated boxes/ Pallets. SIMTA has come up with the auto cone packing machine. In this system we collect the cones from the winding machine and the cones are weighed in the auto weighing scale the correct weight cones are then diverted to the auto packing machine which wraps the cone with the polybag. The cones are then formed a matrix as per the requirement and the same is stuffed inside the bag or box as per the requirement, This will allow the spinning mills to pack the cones across all the shifts and the machine will record the data with weight of each cone and weight of each bag including the shift timing and date this allow the mill management to have the important data's stored and the same can be mapped to the invoicing software. SIMTA gives an end to end customized solution at a affordable price, SIMTA Auto packing system is also made in a such way that the changing for one matrix to another will be also done thru touch screen and the operation of this packing machine is very user friendly and can be customized as per the requirement of the user.

For further information, please contact:

Simta Group of Companies

S.F. No. 683A, Railway Feeder Road

Ravathur Post, Sulur Via, Coimbatore-641103, India

Ph: 0422 2680705, +91 9842231483

Email: info@simta.com, Web: sales@simta.com ■

INDEX TO ADVERTISERS

APRIL 2024

Name	Page	Name	Page
Agma Products	*	Oerlikon Textile GmbH Co. KG	*
Associated Autotex Ancillaries Pvt. Ltd.	3	OM Corporation	16
Aspire Grand Excel Automation	9	Peass Industrial Engineers Pvt. Ltd.	C-III
Auxichem	20	Pinter Group	13
Basant Fibertex Pvt. Ltd.	*	Precision Rubber Industries Pvt. Ltd.	*
Bea Electronics	89	Rabatex Industries	*
Bharat Beams Pvt. Ltd.	83	Rimtex Industries	92, 93
Bharat Tex 2024	*	Ringmann	12
Bluemoon Machines Mfg Co.	*	RMP Bearing Limited	6
Dhara Engineering Works	*	S. B. Dye Springs (India) Pvt. Ltd.	*
DH Textile Engineering	*	Sheeba Enterprise	*
Dynamic Autolooms India Pvt. Ltd.	*	Shree Ram Textile	*
DTG 2024	*	ShreeTex Corporation	*
Elgi Electric & Industries Ltd	59	Simta Group of Companies	7
Gayatri Textile Machines	*	Skaat Machine Works India Pvt. Ltd.	*
Indian Dye Springs Co.	C-II	Spin Air Systems Coimbatore Pvt. Ltd.	*
Inspiron Engineering Pvt. Ltd.	*	Sri Kumaran Textile Systems	17
Intex South Asia	10	Sumanlal J. Shah & Co.	14
ITMA ASIA 2024	18	Sumanlal J. Shah Sons (P) Ltd	85
Jay-Tex Engineers	*	Sunrise Industries	*
KCI Bearings (India) Private Limited	*	Super Machine Works Pvt. Ltd.	*
Krsna Engineering Works	*	Supertex Industries	*
Laxmi Machine Works Limited	C-I	Tech Mech Engineers	*
Lakshmi Ring Travellers (CBE) Ltd.	C-IV	Technocraft Texmach Pvt. Ltd.	*
Laxmi Textile Products	*	Techno Electronics & Instruments	8
Mangal Singh Brothers Pvt. Ltd.	5	Texlab Industries	*
Mayur Reeds and Healds Pvt. Ltd.	*	Tex-Tech Industries Pvt. Ltd.	94
Mehra Wax Products Pvt. Ltd.	87	Texfair 24	80
M.K. Brothers Mfrs. Pvt. Ltd.	*	Tirupati Technik	*
Mohler Machine Works Pvt. Ltd.	*	Trutzschler India Pvt. Ltd.	79
Mylon Metallics Pvt. Ltd.	4	Unispin Card Clothing India Pvt. Ltd.	*
New Make Industries	*	Vetri Engineers	11
		Vishwaa Engineering	*

HERE TO
TRANSFORM



While others think life, we think
LARGER THAN LIFE.

A **NEW PERSPECTIVE** IN SPINNING QUALITY

ACTIVE LIFE OF RING

Breaking the age-old myth that life of rings & travellers is the sole criteria for its selection.



» SPINNING WELLBEING HELPS IN BETTER MANAGEMENT OF MILL'S HIDDEN LOSS-MAKING PARAMETERS

Beyond optimal life of ring & traveller the mill's WELLNESS QUOTIENT deteriorates damaging its profitability and productivity parameters.

Maintaining ACTIVE LIFE STATUS of Rings ensures prevention of loss and generates multiple gains for spinner.

An effort to lift the Indian spun yarn parameters:
RESEARCH & COUNSELLING CENTRE (RCC)

Centre's focus:

- > EVALUATION & ANALYSIS BY EXPERTS
- > IDENTIFY THE LOSS-MAKING PARAMETERS
- > OFFER CUSTOMISED SOLUTION FOR BEST SUITABLE RING & TRAVELLER COMBINATION

Get in touch to find out if you have crossed the ACTIVE LIFE of your rings & travellers.

Begin your mill's
journey of transformation with us:

ENHANCE
PROFITABILITY & PRODUCTIVITY
WITH THE X-AXIS
OPTIMAL LIFE PERSPECTIVE

www.theX-axis.com

+91 95123 66767 | enquiry@thexaxis.in

f t i n @thexaxisindia

Manufactured in India by:
RIMTEX ENGINEERING PVT. LTD. (an ISO 9001:2015 TUV certified co.)



Scan the QR code
to get started



Sliver Management Systems

YOUR GROWTH HAS ALWAYS BEEN OUR PRIORITY

With our transformative Spinning Can technologies, spinners are empowered to stay ahead in the yarn quality and growth curve.

Here to enhance
yarn realisation

Here to maximise
spinners's gain

Here to optimise
mill's efficiency

Here to improve
sliver quality

Here to usher
innovation

Here to help you
take a step forward

DUO

Most Advanced HDPE Technology
PATENTED

SUMO

Increased Sliver Loading Technology
PATENT PENDING

LAUNCHED GLOBALLY AT ITMA 2023

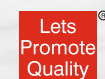
SUMObini

Increased Sliver Loading Technology
for Open end and Airjet
PATENT PENDING



WE ARE RIMTEX, WE ARE

HERE TO TRANSFORM



Handling
Sliver
Since 1992

Scan to
enquire



f t i n

+91 98799 54858 | enquiry@rimtex.com

rimtex.com

Amplify your growth potential with our
advanced sliver management systems.
Contact us now for more information.



EXPERT PERFORMANCE ELEVATORS



TEXTTECH 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. TEXTTECH is the only company manufacturing all types of Technological Spare parts as OEM replacements for all models of Combers. TEXTTECH is happy to be the only Expert Performance Elevator to more than 1000+ mills since 40+ years. TEXTTECH 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.

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

Visit Us :



Hall No.7 Booth No.713B
04 - 08th June, 2024
Istanbul Tüyap Fair and
Congress Center



HALL B- Stall NO.B5
21-24th June, 2024
Codissia Trade Fair Complex
Coimbatore, Tamilnadu, India

www.textechonline.com



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



PRECISION RE-WINDER

MASTER KEY TO EFFICIENT WEAVING

PPW C

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



PEASS RANGE OF PRODUCTS

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



Peass Industrial Engineers Pvt. Ltd.

website: www.peass.com

Regd. Office:

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

Mumbai Office:

Merchant Chambers, 2nd Floor,
41, New Marine Lines,
Mumbai - 400 020 INDIA
Tel: +91 022-22004948
Fax: 91-22-6631 0570
E-mail: mumbai@peass.com

Delhi Office:

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

Coimbatore Office:

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



1 WORLD LEADER.
5 DECADES OF EXCELLENCE.
INFINITE REASONS TO THANK
EACH OF YOU.

We've turned fifty. And over the years, we've grown into the world's largest manufacturer of ring travellers. Two milestones that wouldn't have been possible without you. As we build a blueprint for an exciting future, what will remain unchanged, is our quality and the strong relationship we share. Thank you.

Visit Us :



Stall No.B49
21-24th June, 2024
Codissia Trade Fair Complex
Coimbatore, Tamilnadu, India



Lakshmi Ring Travellers (Coimbatore) Private Limited

🌐 www.lrt.co.in ✉ sales@lrt.co.in ☎ +91-422-2205000

