TEXTILE VALUE CHAIN

www.textilevaluechain.com

ISSN NO.:2278-8972 | RNI NO.: MAHENG/2012/43707

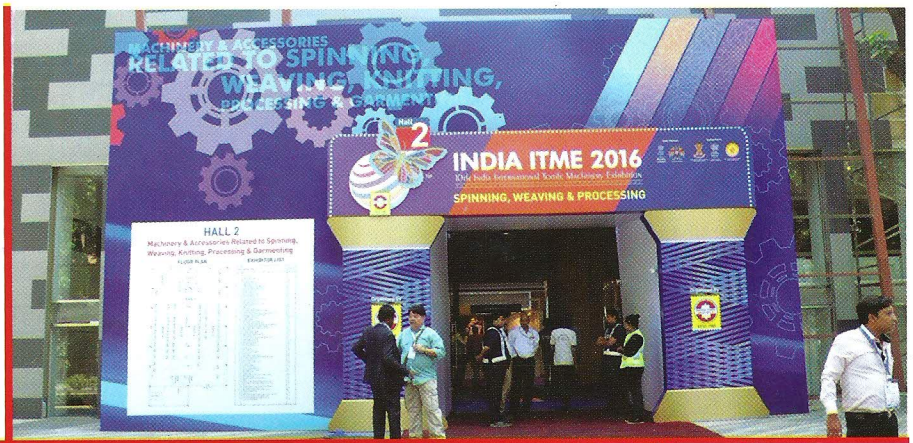
December 2016 | Volume 4 | Issue 12 | Pages 52

₹ 100

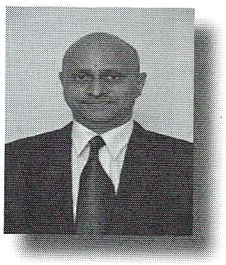
Registered with Registrar of Newspapers under | RNI NO: MAHENG/2012/43707
Postal Registration No. MNE/346/2015-17 published on 5th of every month,TEXTILE VALUE CHAIN posted at Mumbai Patrika Channel Sorting Office,Pantnagar- 75, posting date 17/18 of month

INDIA ITME 2016 ended with promise of implementation of new technology in the industry & memorable moments...!

INDIA ITME 2016



Glimpse of INDIA ITME 2016 through Suvin's lens



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It was a great feeling to be associated with ITME 2016 asa knowledge partner and technical advisor for 10thedition of **International Textile Machinery Exhibition (ITME)** -the largest textile machinery and accessory exhibition in India. It was a great task and almost 1 year preparation to manage the show, which was held from 3rd – 8th December 2016 at Bombay Exhibition & Convection Center, Goregaon, Mumbai. Spread over the area of 1,50,000sqm with more than 1000 exhibitors, the exhibition marked the overwhelming response of visitors across the globe. The exhibition covered the entire textile machinery value chain spanning from spinning, weaving, knitting, braiding, yarn dyeing, printing, processing, garmenting,finishing,technical textiles &other accessories. Visitors from more than 90 countries witnessed extensive range of new machineries, new launches & new technology advancement. It helped in bringing entire textile industry on one platform. The 6 days of event catalysed the enormous knowledge sharing & trade with the great success.Inspite of demonetization impact, industry has given a very positive indication towards the show.

Following are the glimpses of India ITME through Suvin's lens.

SPINNING

- **Toyota**

Toyota has shown its innovation capability by displaying new MOSAIC YARN e-draft spinning device. This drafting system is capable of spinning injection slub yarn mixed with coloured roving sliver. This system has the ability to produce yarns with a variety of fabric densities, yarn shapes and slub sizes. This process is accomplished by mixing different types of raw cotton and roving materials. Unlike conventional spinning technology that drafts and twists, this new technology detaches and attaches roving sliver. Maximum numbers of spindles are 1824.In ITME RX 300 ringframe was displayed with e-draft spinning system for MOSAIC Yarn.

- **Electro-Jet**

Electro-Jet, Spain has displayed their automatic roving frame ADR ROVEMATIC. Its unique feature is least doffing time of 90 seconds.The machine is equipped with new servo motors with iE3 technology and new Lenze drives (8000 Series) resulting more efficiency and less power consumption.This machine is available in series of 16 spindles to maximum 160 Nos. Maximum flyer speed can be achieved 1500 rpm.

- **Trutzschler**

o Trutzschlerdrawframe's new and unique creel with individual drive helps for more dynamic levelling. Tension draft can be optimized. Reduced creel length needed less space for the machine.

o 1200 mm jumbo cans results in greater efficiency of downstream machines. Its greatest economic advantage is 43% longer runtime in the creel results in reduced downtime on autolevellerdrawframe or superlap. Efficiencies can be increased by 1.5% to 2%. Jumbo can's reduces can transportation by 30%. Also reduces sliver piecing by 30% resulting improvement in yarn quality.

- **Rieter**

Rieter had introduced new Autoleveller Draw Frame RSB-D 50 at ITME 2016, it runs upto 33% higher delivery speed, maximum 1200 m/min. It saves energy with ECOrizeddrive concept with 25% less belts.

Rieter has also showcased C70 High – Performance Card, E 36 OMEGAlap& E 86 Comber, G 32 Ring Spinning, K 42 Compact Spinning, R 66 Fully Automatic Rotor Spinning Machine, R 36 Rotor Spinning Machine, J 26 Automated Air – Jet Spinning Machine Model and demo version of SPIDERweb – Mill Control System.

- **Teraspin**

Teraspin, a business unit of A.T.E had displayed its range of precision components comprising:

o Ring frame drafting system for cotton, synthetic fibres and blends up to 45 mm length with smart cradle

o Ring frame drafting system for synthetic fibre from 40 to 60 mm length

o Roving frame drafting system for roving frames

o Spindles in different configurations suitable for tape drive or tangential belt drive, suitable for hand doffing or auto – doffing ring frames

o Components like cradles & top rollers for a range of machines/ drafting systems

o New innovations in the area of drafting & spindles for ring spinning machines.

- **Saurer**

Volkmann's fusion twister has set new quality standards in quality and performance. 7" feed package allows to have a smaller pot size resulting into energy saving. Spindle speed range is from 12500 to 15000 r.p.m

- **Sieger**

Sieger had introduced new automatic packing machine C2C-APAC at ITME 2016. This automatic packing machine used for wrapping of yarn bobbins, conical and cylindrical packages into polyethylene film at the speed of 800cones/hour. This machine saves the labour cost drastically.

Sieger also showcased automatic cone transportation system from auto coner to container which includes palletizer, free conditioning, yarn conditioning, stretch wrap, weighing, barcoding and labeling.

- **AB Reiginer Industries Pvt. Ltd.**

Reiginer introduced new online bobbing stripping machine which removes the remnant rowing from bobbin and open the fibre without any damage to its structure for re-usage. Conventional method of cutting the layers with knives and open-

ing them directly in the blow room leads to damage of bobbins and rupture of fibre. In Automatic Bobbin Stripping Machine, the bobbin with remnant yarn from the track will be taken automatically and the suction nozzle will suck the remnant yarn in the bobbin through special vacuum technology and opens the fibre without any damage. There is no manual interference hence, stripping and cleaning of bobbin will be done automatically. Once the bobbin is cleaned, it will be put back on the bobbin transport track line. The next bobbin with remnant yarn will be picked from the track line and then cleaning operation goes on. The above can be installed in a separate line or incorporated with automatic / semi – automatic transport system for effective usage.

- **Rotorcraft**

It is a textile research company in spinning industry. They have introduced Green compact. It is the compact spinning solution for savings, simplicity and sustainability. It is the only compact spinning without any additional power consumption which will also minimize the cost of production. RT3 - Top Arm for any ring and roving frame. With RT 3 Top Arms all counts from coarse to super fine can be spun and all kinds of fibers can be processed without turning single screw. There is no additional adjustment required wit RT3.

- **Weavetech**

Weavetech has displayed low cost spun TFO Twister – SD – 8 with 2 tear spindles arrangements. This machine costs around 50% lesser than other machines. This is space saving machine for the clients who are having space constrains. Spindle drive is curved tangential type. Twisting speed is upto 1200 rpm, 60 meters/minute. Up to 2 kg package can be produced and power consumption is around 0.81 UKG.

They have also showcased assembly winder AW – 22 with electronic traverse. BW 32 model is winding for yarn dyeing. Both machines are suitable for spun, filament and lycra yarns.

- **Panna Spin Equipment's Pvt. Ltd.**

They have introduced new technology of Cot Grinding Machine with eccentricity & taper checking with ultra violet treatment.

The machine will be fully automatic and in the beginning they have provided diameter checking by camera so the required size of the Rubber Cots will process for grinding. After grinding it will check eccentricity & tapper and from there it will process for ultra violet treatment.

- **Technoweb**

Technoweb has indigenously developed for last 20 years the following products:

- o 'Techno' pin strips – They manufacture high quality press – in – strips in all sizes. Customized high quality pins for smooth action on wool, silk & synthetic fibres. High durable fixation of pins due to superlative quality engineering grade plastic from Europe withstands very aggressive stress on pins.
- o Disposable faller bars – They manufacture high quality disposable faller balls for NSC Gill boxes in all sizes

- **Apex Precitech**

Precitech is a small scale industry in Coimbatore which has pioneered many new concepts in measurement technologies in spinning mills. The full comprehensive range for drafting roller measurement is the single strongest contribution of this company. Spindle concentricity setter, optical checker, saddle setting device, vacuum gauge and load enhancing spacers are the unique products being manufactured by Apex Precitech.

- **Perfect Equipments Pvt Ltd**

Perfect Equipments Pvt Ltd introduced total automation in compact spinning top roller grinding in the history of spinning world. In cradles the top rollers are dismantled and assembled without employing any manpower. 3 numbers of cradles (6 top rollers) can be dismantled and assembled in a minute. Also new cot grinding machine ACG 600 can handle 1000 top rollers per hour.

- **Fadis s.p.a**

Fadis has introduced winders & soft package winders with step brushless motor to reduce the power consumption. It is a semi-automatic machine with automatic tension sensor to avoid winding tension and snarl.

WEAVING

- **Karl-Mayer**

In warp preparation section for weaving ,Karl-Mayer introduced "PROSIZE" sizing machine with unique size box (HSB& VSB type), it is no-immersion unit equipped with 3 high turbulent and uniform application zones with spray bar technology and final application/squeezing roller. As warp cover is increased by 100% in VSB type, there is no need to have double size box machine. Machine runs upto 180 meters/minute with 10% reduction in size add on.

Automatic Short Length Sectional Warping Machine – NOV-O-MATIC is a fully automatic sectional warping machine for manufacturing medium-sized sample and production warps. It is having patented laser controlled feed regulation and with automatic leasing.

- **Dornier**

DORNIER GmbH is presenting innovative machine concepts for the production of highly sophisticated fabrics at the ITME in Mumbai. Under DORNIER's sustainability initiative "the green machine", which manufactures machines exclusively in Germany, will present the latest technical solutions, which allow producing the most modern technical textiles, sophisticated decorative fabrics and clothing with refined quality for the premium segment with very high economic efficiency.

Furthermore, as at the ITMA 2015 and ITMA 2016, DORNIER as the technological market leader is presenting comprehensive solutions for "green technologies". Citing the traditional green color of DORNIER's weaving machines, this also encompasses the "sustainable effect" of the fabrics produced on them. Their performance is of decisive importance in many sectors: Whether finest filters for purifying water or air, airbags and antiballistic structures to protect against death or injuries, composites made of glass or carbon fibers to reduce moving masses and consequently the CO_2 emission. For all these and many more applications, DORNIER's "Green Machines" are indispensable tools manufacturing customized precision fabrics.

The latest machine types of the DORNIER system family comprising rapier and air jet weaving machines are the center point of the presentation. Experts are demonstrating how Indian weavers can utilize the superior DORNIER technology to master the current weaving mill demands as to the highest quality for fabrics and applications in the individual segments

- **Toyota Weaving Machines**

Toyota introduced wider width (340cm) airjet weaving machine JAT 810 with E-Shed. In live demo Toyota's JAT 810 E-shed wider width loom (210 cm) was running at 1000 rpm for weaving of DENIM fabric with ability to weave double weaved fancy denim fabric with high speed operation. E-shed loom also enables to weave fab-

ric appearance equal to cam shedding which are not possible with dobby shedding motion.

- **Picanol**

Picanolhas displayed their latest models Optimax-i for rapier &OmniplusSummum in airjet technology with highest productivity and good quality of product.

- **PANTERTextile Machinery**

Panter Textile Machineryexhibited the "Hercules" model suitable for weaving of Canvas fabric of 830 GSM with fabric construction Ne 8/5 OE x Ne 8/5 OE / 29 x 22, 64"

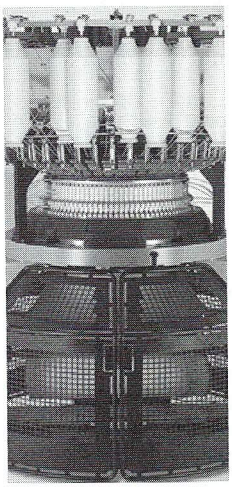
Another machine displayed was "Maxi" model with running quality 20/2 Den. Silk x 20/2 Den. Silk /120 x 100, 42", 46"

- Airjet weaving machines of Picanol, Tsudakoma, Toyota, Itema are having speed more than 1000 rpm

KNITTING

- **Mayer & Cie**

Mayer & Cie has been displayed circular knitting machine "Spinit 3.0 E" the 3-in-1 concept (Spinning, Cleaning and Knitting in one machine). Knitwear is manufactured not from the yarn but straight from fibre roving. Three steps process are combined in one machine.



- Spinning
- Cleaning
- Knitting

Rewinding process that was previously required has been eliminated.

This machine is introduced for Indian market. For producing the single jersey fabric fewer machines are needed and capital investment is reduced. Significant space and energy savings become possible, yarn storage can be reduced and less waste is produced. Production costs can be reduced considerably and reduction in CO_2 emissions makes valuable contribution towards sustainability.

The fibres are knitted directly into loops gently and without twisting (False Twist Spinning). High- quality single Jersey knitwear is produced with totally new properties soft, fluffy and even with luxurious sheen and without spirality after washing.

Installed power is of 10Kw and machine can run at the speed of 25 rpm. Cost of production is reduced by 20% of per Kg of fabric produced.

- **Changzhou Runyuan Warp Knitting Machinery Co. Ltd, China**

Changzhou Runyuan Warp Knitting Machinery Co. Ltd, China has introduced TS4-T Tricot machine to Indian market which can produce warp knit terry towel used for forming towels, cleaning cloth, bath towels, bathrobes, sofa cushions, beach clothing, footwear accessories etc. the production speed for synthetic yarn is 1000 rpm & for cotton yarn is 600 rpm. This warp knit machine produce terry towel which has better productivity and pile strength than regular terry towel. Manufacturing cost of this terry towel is lesser than the regular terry towel. They have also showcased other warp knit machines.

- **Ferraro S.P.A**

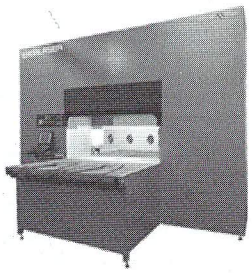
Ferraro has introduced squeezing line for wet tubular knitted fabrics. Some of the features of this machine are detwister with adjustable height important for managing different fabrics especially smaller diameter fabrics & inlet balloon after detwister allows machine to run at high speed reducing tension.

- **Bharat Machines**

Bharat Machines have showcased Bharat sinker body machine, Hose knitting machine model BM-YAS & Semi Computerized flat knitting machines. Sinker body Machine has been specially designed to knit sinker fabric for under & over purpose. It is built on sturdy single storage stand for trouble free & top efficiency at the highest running speed of 40rpm.

PROCESSING

- **IBERLASER**



IBERLASER is a Spanish company leader in innovation in laser technology & manufacturer of cut and engraving laser machines. Following effects can be engraved on fabricHoles, Whiskers, Blowout, Destroy o Grinding, Worn Effect, Brushing or Hot Zone, Grinding effect.

Benefits of using this machine are

- Less water waste
- It does not use chemicals that were required in traditional procedures
- Minimal maintenance requirement
- Does not required consumables
- Low energy consumption
- The laser system does not use abrasive substances. It is most efficient & sustainable for our environment
- Causes no damages to operators
- Maximum productivity for single operator
- The laser does not damages the components of the fabrics, it just eliminates indigo coloration in the denim

In India the machine is marketed by M/s Sagar Group.

- **SPI Equipments India Pvt. Ltd.,** Coimbatore introduced India's first robotic lab dispensing system "Color Chef" for processing laboratories. This volumetric dispenser is having very high dispensing accuracy of 0.02ML. It works with 24 standard recipes in 24 minutes. Solution making is having manual option also.

Infracolor Lab Dyeing Machine, Washing Fastness Tester, Padding Mangle, Hot Air Oven, Magnetic Stirrer, Magnetic Lab Printer, Color View are the other lab equipment from SPI Equipments.

- **Gayatri Industrial Engineers**

Gayatri Industrial Engineers from Gujarat have showcased singeing machine model G1EX12 at ITME 2016. It has the tree collision burner shifting mechanism for better singeing. This machine can minimize the gas consumption compared to other singeing machines. Also this singeing can be used for any type of fabric.

- **Corino machine S.P.A**

Corino machine spa from Italy have displayed super slit. Super slit is the finest rope opening machine cum slitting machine for knitted fabrics. Super slit is the result of over 40 years of experience and continuous developments. The main feature of this machine is with golden eye digital camera for high pre vision drop stitch detection. The machine can be operated in 100 mts/min with low height of 5 mts.

- **B- Tex Textile Machinery**

The machine displayed is model Nirvana which is made in Indian – Italian know how. Nirvana is the combination of Italian design fabric inspection machine cum rolling machine with auto cut pack inclusive of inspection and grading software with touch screen.

- **Narayan Oil & Gas Burners Co.**

Narayan Burners unique turbine air flow design system enables greater efficiency, long lasting performance, easy maintenance and low operating cost. They have showcased Monoblock oil burner, Monoblock dual fuel, Monoblock gas burner, customized/split gas burner

- **Manoj Engineering**

Manoj engineering has introduced fully automatic yarn dyeing machine with lowest liquor ratio i.e. 1:4 and developed with turbo pump. Automation in PLC can withstand each and every climate and humidity.

- **Strayfield**

Strayfield has introduced radio frequency drying system to dry material under atmospheric, stress free condition. This system is designed for thermal sensitive materials and the PLC controller incorporates self-diagnostic feature.

NONWOVEN

- **Balkan**

To meet the global demand of Non-woven Textile BALKAN has introduced following products –

1. B-14 – Computer controlled weighing system with weighing hoppers "TUFT BLENDING SYSTEM" By using B-14 Computer controlled weighing system with weighing hoppers Tuft Blending System is possible to have an sensitive mixture of the materials different features (like cotton, polyester, acrylic and viscon) in line with the required mixture ratios.

Different fibers can be hand-feed on the B-14 Weighing Bale Opener conveyor bands or can be automatically feed from the fiber cleaner or opener line with B-16 Scaled Bale Opener with B26 Condenser and an sensitive weighing can be made.If needed, it is possible to follow up the statistical information on the cv values and the total weights by getting a print out from the industrial computer. Besides that the computer provides the opportunity of using the information and rapidly following it up by storing the mixture ratios in the organizations into the memory of the computer in a recipe from when the previously recorded recipes are needed. The material mixed after weighing is feed from the FM Band to the B40 Multi Mixer so that a homogenous mixture is obtained. For the mixture thread producing organization manufacturing with a weighing is very important when laboring and quality is taken in to consideration.

2. DT30 – mega pulling machine - the Balkan pulling Machine with high performance and production capacity is recycled of textile wastes and uses open-end, nonwovens other types of textile. It is composed of six section cylinders. The cylinder prices may be change as different types of Textile. Setting of the cylinder with pin and feeder tray while the machine is running. Actual setting is made on a digital display as mm. setting of the waste knife flap easy. The feeder neck cylinders are running with press by first cylinder steal grooved roller and other rubber rollers. The neck cylinder motors were preventing squeezed by ampere control.

3. B-18 – Wet Opener - the Balkan wet opener opens the 25-60% Squeezed fiber in cake from that is centrifuged after washing and regularly feeds in to the machine in the hydrophilic cotton and fiber painting facilities. The squeezed fiber in cake form is fed into the machine through the galvanized and piped band system. Opening of the fiber in accordance with the demanded effect is made possible by adjusting the distance between the spiked lattice (mat) and the opening cylinder.

LAB TESTING EQUIPMENT

- **Mesdan Lab**

They have introduced Maturity & Contamination tester (CONTEST) that tests cotton fibre for stickiness, fragment, neps, trash, fineness, maturity etc.

This CONTEST makes the difference in the working principle; it stimulates the carding process like in real spinning conditions. The operator feeds a 3, 5 g sample which is processed into a 10 m fine fibre web. The whole process is automatically achieved in about 1 minute. They also showcase other equipment like NATI for Neps& trash, MT Evenness Tester and some other QC testing equipment etc.

GARMENTING

- **Juki Corporation :**

Machines displayed

DDL- 9000 c - It is for single needle direct drive lock stitch machine

AMS – 221 ENHS 3020/Placket device– Polo placket stitching machine for T Shirt

AMS – 221 ENTHL 3020/ X90002 – It is pocket setter model for jeans with two coloured stitch.

Conclusion

Indian demand for textile machinery was around Rs. 19174 Crores in 2015 and it is expected to reach Rs. 42,473 Crores by 2020 with a CAGR of 17%. The domestic demand of textile machinery is increasing and demand met by indigenous manufacturer is not even half of the total demand, hence we need to depend on imports for fulfilling the demand.The Indian Government has already declared "Make in India" drive to boost manufacturing sector and which will also help to build a global scale infrastructure in manufacturing. It should also support the R&D activities & allocate special funds for development of R&D centers. Also our education pattern should develop research and innovation based concepts for Textile Engineering students so that the real growth happens within our country. Low material costs and operating costs along with our own huge market will give India an edge over other countries.

In ITME 2020, we are hoping to see many new Indian players to exhibit in the event. In every 4 years we see the new development in spinning, weaving, finishing, printing & technical textile sector. Digital Printing is also the next 'Big Thing' that is changing the world order in textiles.

So let's come together & create India as "NEXT TEXTILE MACHINERY HUB"

Few Companies Innovations / Upadates During India ITME 2016

ELGI ELECTRIC YCS WINS A STRATEGIC ORDER FROM JYOTIRMAYE .

The enclosed photograph shows from L to R.
Mr.Shivashankar Reddy, VP - M/S. JYOTIRMAYE TEXTILES.
Mr. Danda Prasad. MD - M/S. JYOTIRMAYE TEXTILES and President (elect) of Andhra Pradesh Spinning mills association.
Mr. V.S. Balasubramanian DGM – Voltas.
Mr. P.Kumaraguruparan.Senior Product manager – Voltas
Mr. N Ravichandran Executive Director - Elgi Electric and Industries Ltd.
Mr. R.Srinivasan , Sales Manager – Voltas, Guntur.

Segment: Spinning

Every spinner had to use YCS (YARN CONDITIONING SYSTEM) to improve the yarn quality like hairiness, strength, elongation as well increase in moisture gain to reap the full benefits and attain highest yarn selling price.

It is done, by creating a vacuum in the main vessel and injecting the cold saturated steam to the desired level with respect to all kinds of yarns cotton, cotton mercerised yarn, rayon, viscose rich blends as well as autoclave applications for setting polyester, high twist yarns for twist setting.Can also be used for bulking acrylics in cone and hank forms.

ELGI PROFIX YARN CONDITIONING SYSTEM (YCS) is ideal choice as it has plc based control panel with the option to interface with the Mill production data system, increased productivity up to 20 – 25 % or reduction in power by 25 – 30 % maintaining performance and safety standards.

M/S. JYOTIRMAYE TEXTILES during ITME has finalized is requirement of 1800kg YCS with ELGI ELECTRIC and released the order and advance along with Elgi Electric's selling partner M/s Voltas Limited.

In conversation with Mr. V. M. Shah , VP – Technical of Rabatex Industries

Segment: Weaving

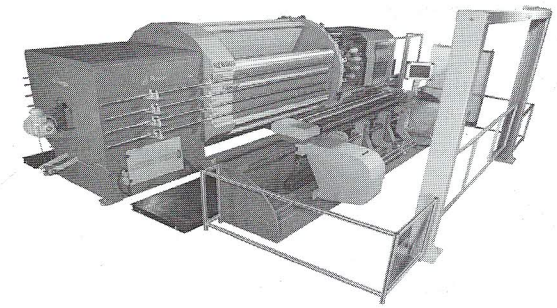
RI -6001 new model, high speed sample warping machine suitable for the samples as well as bulk production up to 450 meter. This development useful for fashion& premium sectors, always having issue of short length production. With this development, this problem is overcome, producing the with minimum yarn packages, with zero wastage and shortest possible time.

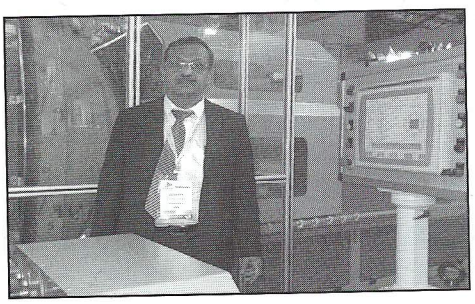
Productivity of this machine is very high;as no. of threads are wound on the drum with the help of servo controlled thread needles. This is single man operated machine. Specially use for linen, silk, designer or high value fabric industry where short length of fabric is required i.e. Up to 400 to 450 meter. Also good for Calf, collar where short length special pattern is required along with the bulk front & back panel. Effective space utilisation by installing this machine as very short space is required to install the machine.

Targeted Customer: Customers, who uses high end fabrics, 400-300 meter one design and silk industry. Also for the sampling industries, who wants to produce maximum nos. of samples in very short time span, with minimum yarninventory.

Price range:being astate of art Indigenous technology, "MAKE IN INDIA" having used user friendly automation technology, It is a very affordable price range.

India ITME 2016 generated many enquiries, we are happy to get good response from each segments of the textile industries.





'MENZEL' HAVE INTRODUCED H-CONTROL CONTINUOUS DYEING H-900 MACHINE

Segment: Processing

Till now we have been manufacturing wet processing ranges like continuous single stage bleaching range, two stage bleaching range, merceriser - chain, chainless&combi, different types of washers, pad steam dyeing, etc

This time we are introducing H-Control (Humidity Control) continuous dyeing machine.

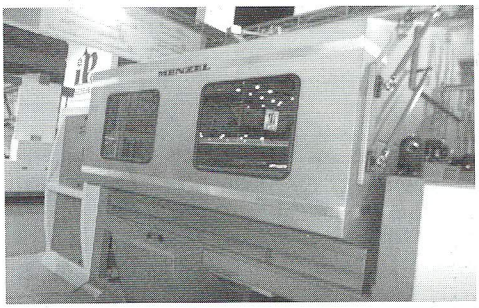
The new 'Menzel' humidity controlled Pad Dye Range having uniform air flow via slot nozzles with fabric content 45 meters per section with Teflon coated roller 178 mm dia. to run crease free fabric with humidity control system.

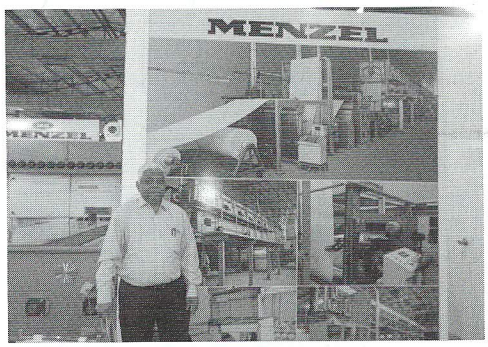
Application: hot flue drying after dye application combined with infrared predrying zone.

Pad dry process : can be expanded with continuous thermosol range.

Chamber construction: Uniform airflow, uniform temperature, with humidity control, very effective 150 mm insulation to reduce thermal energy consumption, filter can be pulled out from outside for cleaning.

Heating: Direct gas, steam or oil, IR Predryer.





O RANGE O TEC PVT. LTD, Views of Mr. Aayush Rathi

Segment: Digital Printing

Exclusive interview with Mr. AayushRathi, Director of ORANGE O TEC, Distributor of Digital printing machine MS printing Solutions - Italy ,in India. In India ITME 2016, they have displayed MS JP7 machine of MS printing solution from Italy.

MS brand believes that "the Digital revolution is far more significant than the invention of writing or printing."

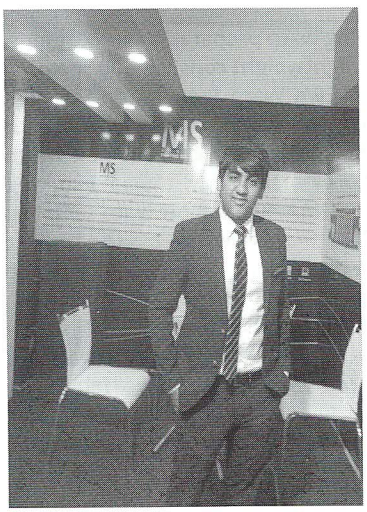
USP of Machine

Commercially viable printing machine, competitive in pricing, cost effective,with happy customers. Service is biggest USP, **service engineers across India &timely spare parts delivery to the customer within 24 hours.**

SPR(Same Print Result) concept, is a very important concept which distinguishes the MS product range from its competitors. With MS you can start with an entry level device such as JP5 EVO which runs upto 1000 meter / day and as your business and production expands you can build your business up to the LaRio whilst maintaining the same print quality throughout with up to 30000 meter/ day. Consistency of print quality is guaranteed throughout range. Buying an MS Industrial Textile Printer guarantees your print quality as well as your future demands!! SPR allows the customer to select any level of our product range and achieve the same print result, by using the same inks and software.Conventional printing replacing to digital printing very fast.

MARKETING

- **Product** is from Italy with updated R & D centre, Technology wise we are in growing stage in digital printing industry.Indian customer feedback implemented to product development process.
- **Price:**comparison to European machines we are cheapest, quality, warranty wise better than other competitors.
- **Distribution:** our offices are in Mumbai, Delhi, Surat, Jodhpur and Chennai. Order to delivery time is approximately 2 months time.
- **Promotion:** distributors do their city level promotion.
- **Market Share:** India have more than 50% market share in high speed machine product, other Technology like Kyocera Print Head: 60-65% market share in India. In Europe MS occupies top 3 positions.
- Indian digital printing machinery manufacturer are copying European and American technology. Still they are growing fast in Indian market.



As a O ORANGE O TEC we are also distributors of Caldera Software, cutting machines, Calendars machines, CNC machines and other few market leaders in Industrial machinery.

KARL MAYER

Innovative warp knitting and warp preparation technology for the Indian clothing sector

Segment : Knitting

KARL MAYER travels with an extensive exhibition program to INDIA ITME, 03. – 08.12.2016 in Mumbai. The renowned producer will be showing at INDIA ITME 2016 innovations from warp knitting, warp preparation and technical textiles in Hall 6, Stand B 3, on an area of 504 m².

Tricot fabrics in lace look, a HKS 3-M of the fourth generation and a highly productive newcomer for garment lace

For the Warp Knitting Business Unit KARL MAYER will be showing its successful duo belonging to the tricot segment: the HKS 3-M as another representative of the fourth generation of high-performance tricot machines, and the HKS 4-M EL, the high-speed allrounder that sets new standards in terms of patterning possibilities and productivity. Both models will be shown in a working width of 218" and a gauge of E 28. Besides, LEO® – a clever technology for energy saving and, thus, for cost saving – is supplied as standard feature on all these machine types.

At INDIA ITME the HKS 4-M EL will make use of its design advantages offered by the EL function; it will be producing a lightweight, very delicate fabric in lace look for the clothing sector. The semi-transparent article has only a weight of 31 g/m². It consists of a very delicate, filigree, embroidery-like fabric ground made from monofilament yarn, and a relief-like patterning made from a textured PES yarn.

In Mumbai the HKS 3-M machine will be producing a rigid sportswear textile with a filigree, grainy surface in woven look. The max. targeted speed is 2,800 min-1. Despite its impressive speed, the HKS 3-M is highly efficient due to the specific function integration on the basis of KAMCOS® 2, and with its new ergonomic machine design it also has a stylish look.

KARL MAYER will be presenting its new lace machine concept LACE.EXPRESS for the first time in India. LACE.EXPRESS sets new standards in terms of price-performance ratio when manufacturing garment lace.

Efficient solutions for weaving warp preparation and composite machines that stimulate the lightweight construction sector

The highlights of KARL MAYER's Warp Preparation Business Unit are innovative solutions for sizing, sectional warping and for the denim business. The exhibits include a smart Size Box which operates on the basis of the spray technology, thus, minimizing the process costs, and the new ISOMATIC – a short warp sampling machine for standard applications that convinces by its excellent price-performance ratio. For the denim sector KARL MAYER will be showing the model of the complete indigo dyeing unit PRODYE.

For those interested in innovations in the field of Technical Textiles, KARL MAYER will be offering a Meeting Point with valuable information for the manufacture of reinforcement layer fabrics for composites. The fiber-reinforced composite materials are used for wide-ranging applications – from sports equipment to aircraft – as will be seen on KARL MAYER's stand.

KARL MAYER's 360° service takes the mobile devices on board of its support activities

The technical show will be complemented by decorative islands showing, among other things, attractive sari, lace and sportswear collections, video films and the presentation of the KARL MAYER ACADEMY INDIA. This facility for a practical know-how transfer is part of the company's own support program which has only recently been expanded to an all-round concept. The 360° service mainly integrates mobile devices, by means of the new KARL MAYER CONNECT app for a highly efficient communication between machine operator and service specialist in case of need, and by the KARL MAYER CHECK PARTS app for an uncomplicated check of the spare parts in terms of their originality. Besides, the SPARE PARTS WEBSHOP ensures a simple ordering of the required parts by just a single mouse click. It is quite easy to use KARL MAYER's new offers for mobile devices – as will be demonstrated during INDIA ITME.

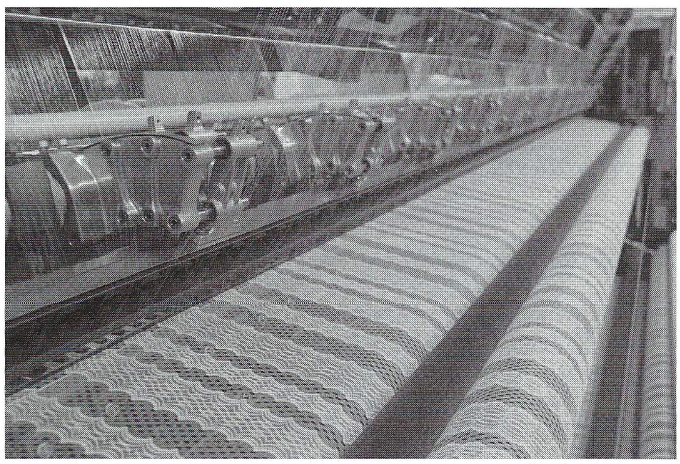


Fig.: Fabric in lace look made on the HKS 4-M EL

Interview with Savio India Ltd. & Savio Macchine Tessili S.P.A.

Segment : Spinning

In an exclusive interview with Savio's Top Management : Mr. Mauro Moro, Worldwide Commercial Director, Savio Macchine Tessili, Dr. Franco Bonello, Managing Director, Savio India Ltd., Mr. Shrikant Gajabi , Sales Director, Savio India Ltd.

TVC : What was the new technology company have launched in INDIA ITME 2016 Exhibition? Brief

SAVIO : EcoPulsarS, with bundle load of innovation has been launched in ITMA – Milano in 2015. With its individual suction on each drum, responds to market demand of saving in energy including room air conditioning. It also removes the exiting limitation on the scalability of the machine length. Together with improved productivity due to various new innovations gives high quality packages and renders utmost flexibility. Spindles and bobbins feeding systems are set independently the level of suction required. Suction is generated as needed and used without losses. The new Controlled Cut System, Yarn Tension Control System, Waste Collection & Separation System and Upgraded Splicing Solutions, each contribute to the overall reduction of the process downtimes.

TVC: Is this technology in sync with Market trend? What is the USP of Technology?

SAVIO: Its comparatively new technology in market, with its innovative platform, it save up to 30% power bills thanks to Suction On Demand System. Improved productivity and overall reduction in process down time due to New Controlled Cut System, Innovative Waste Collection & Separation System, New Yarn Tension Control System.

TVC: Any Patent Applied for this technology?

SAVIO: Yes, its patented technology and various patents are involved to make this machine a most innovative machine, and keep us ahead of the rest of our competitions.

TVC : What's your Marketing Strategy in terms of following :

SAVIO

- **Price : Premium or Competitive ??**

It is premium price and gets superior services too in package along with innovations. This new EcoPularS automatic winding machine is bound to give Savio customers across the globe, leverage to reduce their production cost and make them more competitive.

- **Place:** Market you supply? India/ International – State Country Name

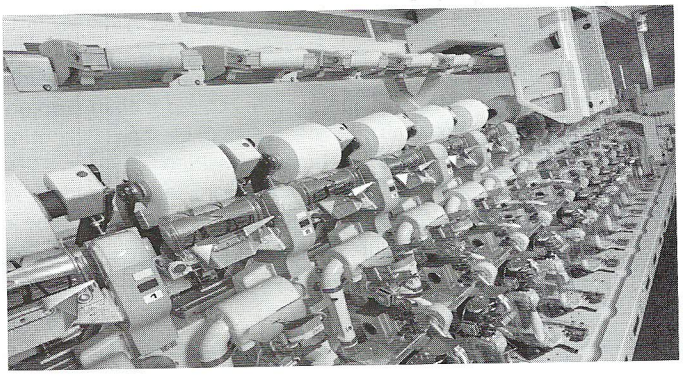
Since launch in Milan this machine has attracted lots of attention across the globe and we are supplying this technology across the world.

- **Brand Promotion strategy: How & where do you promote your brand?**

Participate in International trade exhibition, Trade media advertisements, Online e-portal, service tie ups and symposiums and customer meets.

TVC: Do you have R&D / Innovation Centre in your Factory / Office? If yes, how many % of Revenue you invest in R&D?

SAVIO: Yes, we have huge R&D centre in Italy and also in process of setting up R&D facilities here in India, approximately 5 % of revenue we invest in R&D activities.



TeraSpin makes its presence felt

Segment : Spinning

TeraSpin, a business unit of A.T.E., showcased its range of precision spinning components at ITME 2016, held on 3-8 December 2016 at Mumbai, India. TeraSpin's drafting components are already a preferred choice amongst OEMs across the world. The products that were displayed at the stall included:

- Ring frame drafting system for cotton, synthetic fibres, and blends up to 45 mm length with Smart cradle
- Ring frame drafting system for synthetic fibre from 40 to 60mm length
- Roving frame drafting system for roving frames
- Spindles in different configurations suitable for tape drive or tangential belt drive, suitable for hand doffing or auto-doffing ring frames
- Components like cradles and top rollers for a range of machines/ drafting systems
- Latest innovations in the area of drafting and spindles for ring spinning machines

The TeraSpin stall was brimming with curious visitors all through the exhibition. Many spinners met TeraSpin technology experts to discuss their requirements of customised solutions on their existing machines.Machine makers in India and abroad visited the booth to discuss opportunities for further cooperation."It

was good to meet both existing and new customers at our stand in ITME and heart-warming to note their interest and confidence in TeraSpin products. Some OEMs showed keen interest in our new product offerings and discussed minute details thereof. " said Mr K P Singh, Director-TeraSpin.

At this event, TeraSpinfelicitated BanswaraSyntex Limited (BSL), a well-known, vertically integrated textile mill in India, for its continued support and patronage ever since the inception of TeraSpinin 2012. A small event to felicitate BSL was held at the TeraSpin stall in which Mr R L Toshniwal, Chairman of BSL, was presented with a memento by the A.T.E. management team.

TeraSpin closed the show on a high note with more orders and a good number of enquiries for its established product range like PK 2025, PK 1500, spindles with HF1, HF21 and HF100 inserts

Lakshmi Caipo bags prestigious order from Jyotirmaye Textiles

Segment : Spinning

M/s Jyotirmaye Textiles Limited a reputed ultra-modern spinning mills in Andhra Pradesh placed order for Slub Systems with M/s Lakshmi Caipo Industries Limited a premium Fashion Systems Manufacturer on 06th December 2016 in ITME INDIA 2016.

Lakshmi Caipo Industries Limited is a market leader and continuous innovator in Fashion Systems manufacturing Slub, Multi count Multi Twist , Injection, Variosyros and Core Spinning Systems.

M/s Lakshmi Caipo Industries Limited has done a fashion revolution in India by supplying Fashion Systems to more than 9,00,000 Spindles within a short span of time. It's market share is continuously growing and retains it's number uno position for years.

M/s Jyotirmaye Textiles Limited pioneer in Andhra Pradesh region for their Product Range, now enters into value addition by incorporating Lakshmi Caipo slub system in their existing KTTM Ring Frames to have better and wider product range to cater to Premium Segment of Fashion Yarns.

Image: Mr. Danda Prasad, Managing Director of M/s Jyotirmaye Textiles Limited is handing over purchase order to Mr. Mohanakumaraswamy, Executive Director of M/s Lakshmi Caipo Industries Limited.

Stäubli at India ITME 2016 in Mumbai

Segment: Weaving

TVC :What was the New technology company have launched in INDIA ITME 2016 Exhibition? Brief in details with pictures.

At India ITME 2016 customers had the opportunity to see many products from the Stäubli textile machinery range and also to talk with our experts about their benefits. A Jacquard weaving installation was demonstrated in operation whilst other products could be seen on demonstration stands. Exhibits includedweaving preparation systems, shedding solutions including cam motions and dobbies, and electronic Jacquard machines.

The Stäubli brand Schönherr carpet systems was showinga collectionof exclusive carpet samples produced on ALPHA 500series carpet-weaving machines at the booth, where complete information about the ALPHA 400 and 500 serieswasavailable.

Furthermore, state-of-art electronic control solutions for textile machines by DEIMO, such as the 2900SL controllerwere exhibited.

There is another fact, important to highlight: Stäubli, driven by passion for innovation and quality, could exhibit novelties at India ITME that have never been presented before, and thus even after ITMA Milano in 2015 and the important trade fairs in 2016.

TVC : Is this technology in sync with Market trend as of now? Or it's completely new?

Stäubli, as a leading supplier of machinery for the textile industry is always seeking for developing and providing technologies that offer a real plus to our customers who are active in a market where high productivity, reliability and precision are essential. In order to achieve this target, we are partnering with our customers; we are steadily keeping in mind the optimization of workflows and processes, and are translating needs into latest developments.

TVC : Any Patent Applied for this technology ?

The Stäubli Group holds about 2'000 patent applications, pending or granted, worldwide. More precisely in India Stäubli Textile holds over sixty patent applications or granted patents for its machinery.

TVC : What's your Marketing Strategy in terms of following ?

- **Product :** Development Strategy/ up gradation techniques

Stäubli products, are constantly improved, reengineered or newly developed in order to offer best technologies for highest reliabilityand productivity in textile production, perfectly in line with steadily changing market and customer needs.

- **Price :** Premium or Competitive ??

The Stäubli product range is renowned for its important service life at highest quality levels, and the customer behavior shows us that our pricing is perfectly in line with the markets we supply. Our office in India offers service with proximity to our Indian customers.

- **Place :** Market you supply ? India/ International – State Country Name

The Stäubli Group is an international company with headquarters in Switzerland. Today the Group has 12 industrial production sites and business units in 25 countries. The import of Stäubli textile machinery into India began in 1947. In 1993, Stäubli established its own Indian subsidiary, which became a private limited company in 2009. This strong national presence with a team of sales and aftersales personnel allows weaving mills to fully benefit from our products today and for the long-term. We not only deliver machines but ensure their optimal availability by providing maintenance services, consultation, technical support, and supply of original spare parts for an extended period of time.

- **Brand Promotion strategy :** How & where do you promote your brand?

StäubliTextile is regularly participating in the most important trade fairs worldwide. We are present with our own booth to promote our different machinery solutions, such as

- weaving preparation solutions for automated processes (automatic warp tying and drawing-in machines such as the renown SAFIR Series) that improve the workflow and the quality output of any weaving mill
- shedding solutions including cam motions and dobbies for basic and patterned weaves for shirting, linen and so on
- high speed Jacquard machinery for most versatile applications including technical textiles
- carpet weaving systems for rugs and wall to wall applications
- and knitting solutions such as the automatic toe linking device for shortened workflow.

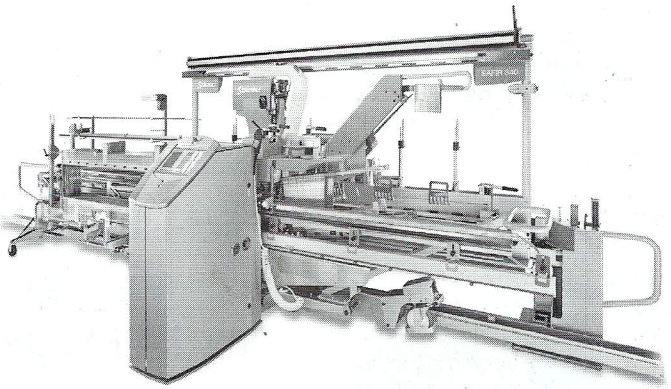
In certain countries we participate with our agents booth, this is the case e.g. in Pakistan, where we are exhibiting with the company Simag who is representing Stäubli Textile.

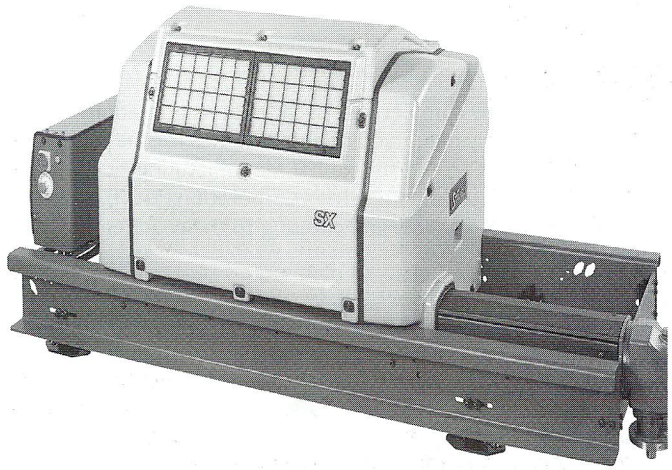
About media presence of Stäubli Textile: As a B2B supplierwere are regularly presenting our company in the dedicated textile press worldwide, with adverts, editorials or questionnaires like yours.

TVC: Do you have R&D / Innovation Centre in your Factory / Office? If yes, how many % of Revenue you invest in R&D ?

The Stäubli Group has three main activities: Connectors, Robotics and Textile, and employs about 4'500 employees worldwide. In order to assure optimum customer relationships and the above mentioned partnering, the Group employs over 1'500 sales and customer service engineers. About 500 R&D specialists and application engineers are caring about the constant development, reengineering and improvement of the Stäubli product range.

Mr. Fritz Legler





In conversation with Mr. M.S. Dadu, Director of Colorjet, Digital printer manufacturer.

Segment: Digital Printing

Product / Market / Competition

Colorjet is the first company manufacturing Digital printing machine in India. Theystarted digital printing in other sectors, eventually came to the Textile industry, as textile future printing technology is digital printing. Initially machine was sold only in India, so they know pulse of the Indian market &know real time issue in tough situations. Company has Stronghold in technical development and control system. Company also have software control system to control colour management & ink management. Colorjet machine hardware technology is very strong, made up of Japanese technology which ensures quality and speed.

USP: In digital printing every drop of ink is important, colorjet ensures no single drop gets wasted while printing, matches the exact color/ design as per software design shown on computer. Customer gets what they see virtually and get in reality. This saves time, money& delivery time.

Colorjet provides complete solution and not just technology. We assist the customer on pre & post treatment for digital textile printing. Running cost of machine is very important for our customer, so we give holistic advice & warranty, which gives our customer maximum productivity and satisfaction.

Our machine print run capacity is from 900 Sq.Mts/ day to 3000 Sq.Mts/ day.

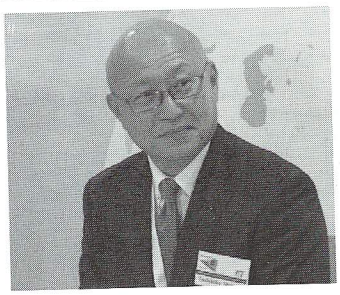
Innovation& research is part of system,. We are the only company in India got the "R&D approved from Department of Science and Technology by GOI in 2011". We got 3 patented technology ie. Printing, Jet Airing core technology.

New technology in Digital printing: Pigment printing: Europeans are using this technology ie waterless technology. It produces good result in fashion fabrics and home textile fabrics. Pigment printing is conventional way of printing but in Digital printing its comparatively new technology.

On Competition: we are at par with any European machine and in fact we compete the quality and technology with them. But our Indian mindset is different; they feel anything international is good. We work closely with our customer since their feedback is important to upgrade the technology. We are exporting our machines to Dubai, Sri Lanka, Egypt, Bahrain, many more.

Promotion: Major exhibition in World, print media, online

Price: Rs. 38 lac to Rs.95 lac . **Payback period: 1.5 Year**



Exclusive interview with Mr. Toshihiko Shimizu, Managing Director of Kirloskar Toyota Textile Machinery Pvt. Ltd.

Segment: Spinning

Kirloskar Toyota Textile Machinery Pvt. Ltd. (KTTM), Started in 1997, will be shortly completing 2 decades of its operations in India, KTTM was primarily manufacturing ring frames for the Indian market. Today it has become the global Manufacturing hub for spinning machines for Toyota Industries Corporation (TICO), exporting to all major global markets and catering to the requirement in the domestic market as well.

"Mr. Toshihiko Shimizu has taken over as the Managing Director of Kirloskar Toyota textile Machinery Pvt Ltd (KTTM) from Nov-2016. He has been associated with the Toyota Industries Corporation (TICO) - Japan for more than 30 years. He has vast experience in Quality, Production Management Systems and Strategic Business Planning "

TVC: What was the New technology company have launched in INDIA ITME 2016 Exhibition?

KTTM: We have displayed the state of the art MOSAIC Yarn attachment on the Ring Spinning Machine during the ITME-16

TVC: Is this technology in sync with Market trend as of now? Or its completely new ?

KTTM: At this point of time In India it is an Evolving technology. However we expect this will create a special value segment in Yarn market.

TVC : What is the USP of Technology?

KTTM : The biggest feature of the Mosaic yarn system is the ability to control the switching of the yarn color and thickness intentionally. This gives our customers the satisfaction of creating a one of a kind product that differentiate itself from their competitors.

TVC : Any Patent Applied for this technology?

KTTM : Yes

TVC : What's your Marketing Strategy in terms of following ?

◈ **Product :** Development Strategy/ up gradation techniques

- The Product is completely developed, fully evaluated and being offered regularly in global market.
- Further as and when any specific needs comes up, customer specific upgradation can be thought-of.

◈ **Price :** Premium or Competitive??

- It is a premium product

◈ **Place:** Market you supply? India/ International – State Country Name

- It is available both in global and domestic market, KTTM will supply this product as factory fit attachment in both the markets

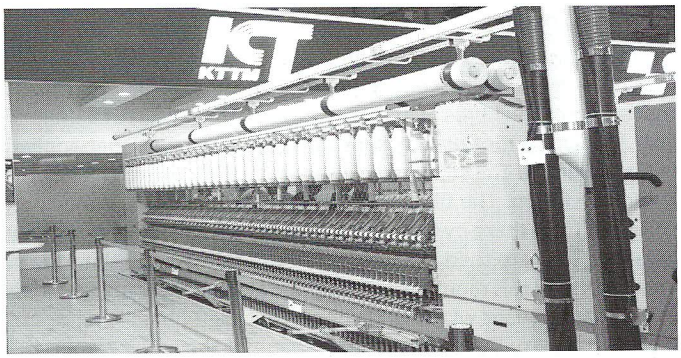
◈ **Brand Promotion strategy:** How & where do you promote your brand?

- 'TOYOTA' as a brand doesn't need any specific promotion. For this new technology ITME was a best available platform for us to display, we continue to promote this to bring value to our customers.

TVC: Do you have R&D / Innovation Centre in your Factory / Office?

KTTM : We have full-fledged design centre in our factory and it is very important to us to be relevant in this competitive market by coming out with new technologies.

- Our parent company Toyota industries corporation (TICO) also provides lot of inputs in terms of design and R&D aspects



IMPACT ON ROTOR & AIR-JET YARN PROPOERTIES DUE TO COMPONENTS AND PARAMETER

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Prof Dr. S. P. Borkar
Veermata Jijabai Technological Institute (VJTI), Mumbai
Dr. Stephan Weidner-Bohnenberger
RIETER Machine Works Ltd.
Marc Schnell
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RIETER

Abstract

Today Ring, Rotor and Air-jet spinning system are commercially used for yarn production. Each spinning technology creates a typical yarn structure. This yarn structure determines the characteristics of the yarn itself, the characteristics in downstream processing and finally of the subsequent textile product. Textile fabrics with the softest touch can be undoubtedly produced from combed ring yarn. In order to manufacture a soft rotor yarn, the twist factor must be set low and supportive measures need to be undertaken in textile finishing. Rotor spinning has a great potential to reduce the twist factor, which is the basic prerequisite for the production of knitted fabric with a soft touch; by support of a new spin box generation and its components. Similarly the air-jet spinning system is now moving from 100% CV into new applications like CO blends and 100% CO combed for knitting. The challenge is to compete the softness of a conventional ring yarn. The main objective of this study is to compare the effect of twist level, spinning components, process parameters on yarn properties such as yarn packing density which will support in improving the fabric hand for Rotor and Air-jet yarn. The other objective of this study is to check the impact on strength and elongation due to reducing the twist.

Keywords: Ring spinning, Rotor Spinning, Air-jet spinning, New spinning geometry, Yarn properties, Yarn packing density, Yarn diameter

1 Introduction

The yarn structure is dependent primarily upon the raw material, spinning process, spinning principal, machine settings, twist, etc. The structure can be voluminous or compact, high or low hairiness; soft or hard; round or flat.

Yarn structure has a greater or lesser influence on Hand, Strength and Elongation, Resistance to abrasion and Dye absorption.

Rotor and Air-Jet yarn compare to ring spinning, offer the advantages such as High production rates, Elimination of processing stages, Considerable reduction in personnel and space and energy consumption and relative ease of automation.

On other side, Yarns produced from new spinning systems like rotor and air-jet spinning have harsher feel compared to ring spun yarn due to the different outer structure of the yarn. With the proper selection of raw material, spinning components and machinery setting, now it would be possible to compensate in order to improve softness even on new spinning systems. With this the gap between new spinning system and ring spun yarn can be narrowed down without compromising the parent benefits like better abrasion and pilling resistance of Rotor and Air jet spun yarn respectively.