Shetkari Sahakari Spinning Mill Ltd. Sangole.
Dist. Solapur. Maharashtra India. 413307
Tel: 0091-02187-220301/2/3 Fax: 0091-02187-220370 or e-mail: shecospin@sancharnet.in

The Infrastructure

Following is the general information about the infrastructure of the spinning mill.

Name Of Company	Shetkari Sahakari Soot Girni Ltd. Sangole
Address:	Sangole Dist. Solapur. Maharashtra
Chief Persons for Contact	Mr. S. G. Anuse (Managing Director) Tel: 91-02187-220301/2/3 Fax: 91-02187-220370 shecospin@sancharnet.in or md@shecospin.com
Land (Area)	42.82 Hectors (44,82,00,000 sq.ft)
Main Business	Manufacture And Sale of 100% Cotton Yarn
Capacilty	41606 Spindles Unit 1: 31056 Spindles Unit 2: 10560 Spindles
Date of Registration	28th Jan. 1980
Source Of Power	Maharashtra State Electricity Board
Bankers:	State Bank Of India The Solapur District Central Co-operative Bank Ltd.
No Of Shifts / Day	Three
Name Of Preferred Transporter:	As per Buyer's Recommendation
Import Export Code:	IEC No. 3192007290 dt. 22/02/1993 Joint Director General of Foreign Trade Pune
PAN No	AAAAS373OQ Commissioner of Income Tax Kolhapur
Texprocil No:	RCMC No. MY/8854/90 (S) dt 09/02/1999 The Cotton Textile Export Promotion Council, Mumbai. Valid Up to: 31/03/2007
Other Registration No	MST: 413307-S-00103 Dt. 01/04/1996 CST: 413307-C-00026 Dt. 01/04/1996 ECC No: AAAA-S-3730QXM 001 Kolhapur Range

Machinery Details of Unit 1, 2 and 3.

Following are the details of entire Machinery with Capacities and Testing Facilities

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Ginning

The role of the cotton gin has changed dramatically in the last 50 years to keep up with technological & production changes in the cotton industry. At one time, the gin's only function was to remove cottonseed from the fiber. Today, gins must not only separate the seed from the fiber, they must also dry and clean the fiber and package it into bales before it reaches the textile mill.

We have a complete ginning section with double roller gins with following features

- No degradation of fiber / Lint
- Glossy appearence of lint due to retaining wax contents of seed cotton.
- Bulkiness due to gentle ginning.
- Eliminates seed breakages.
- Eliminates lint raptures..
- Better lint recovery due to provisions for finer adjustments in the gin machine.

Following machinery is setup in the Ginning section.

Department	Particulars	No. Of Machines	Section
Ginning	Bajaj Double Roller Gin	12	Ginning Section
Ginning	Jadhao Double Roller Gin	12	Ginning Section

Blow Room

With all harvesting methods, however, the cotton seed, together with the fibers, always gets into the ginning plant where it is broken up into trash and seed-coat fragments. This means that ginned cotton is mostly contaminated with trash and dust particles and that an intensive cleaning is only possible in the spinning mill.

Nep content increases drastically with mechanical harvesting, ginning and subsequent cleaning process. The reduction of the trash content which is necessary for improving cotton grade and apperance unfortunately results in a higher nep content level.

The basic purpose of Blow room is to supply small fibre tufts + clean fibre tufts + homogeneously blended tufts if more than one variety of fibre is used to carding machine without increasing fibre rupture, fibre neps , broken seed particles and without removing more good fibres.

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The above is achieved by the following processes in the blowroom

- Pre opening
- pre cleaning
- mixing or blending
- fine opening
- dedusting

Following machinery is setup in the Blow Room section.

Department	Particulars	No. Of Machines	Section
Blow Room	Lakshmi-Rieter	2 Lines	Unit No: 1
Blow Room	Lakshmi-Rieter	1 Line	Unit No: 1
Blow Room	LMW Lines	02	Unit No: 1 Expansion
Blow Room	Bale Pluker- (Uniclean / Vario clean)	02	Unit No: 1 Expansion
Blow Room	Crossrol UK	1 Line	Unit No: 2
Blow Room	RIETER - Vision Shield	01	Unit No: 2 Expansion
Blow Room	RIETER - Vision Shield	01	Unit No: 2 Expansion

Cards

Well carded is half spun. Carding is the heart of spinning. This clearly shows the role played by cards. LC300A is a new generation card, which effectively does the carding, cleaning and gives a consistent sliver at higher delivery speeds. It gives a very high nep removal efficiency due to the effective carding zone, flat zone and stationary flat system combinations. Consistent sliver quality is possible through highly reliable auto levelling system, which takes care of feed weights of 350 to 1000 gms/mtr.

Effective micro-dust and trash extraction through new suction system.

Salient features

- High production with excellent carding and cleaning action
- Hi-tech engineering of main frame, side frame, cylinder and doffer for higher cylinder and doffer speeds
- Excellent quality with in-built short and long term auto

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leveller with multi-sensing

- Compact doffer drive arrangement
- Effective suction with synthetic ducting for waste collection
- Highly reliable mechanical and electronic system
- Flat drive system

Following machinery is setup in the Cards section.

Department	Particulars	No. Of Machines	Section
Cards	LMW - LC 300AV3	20	Unit No: 1
Cards	Lakshmi-Rieter C 1/3	10	Unit No: 1
Cards	Crossrol MK 5	10	Unit No: 2

Following are the details of entire Machinery with Capacities and Testing Facilities

Combers

The performance of combers has a considerable bearing or yarn quality as well as the amount of waste extracted. The poor combing performance arises due to improper settings and timings, poor upkeep and inadequate maintenance, unsatisfactory lap preparation and unsuitable process parameters. If the sliver is allowed to proceed unnoticed, thickness variations might occur. Since a higher U% and CV of sliver results in higher count variation in yarn resulting in more end breakages, control of short-term irregularity of comber sliver is very important.

Following machinery is setup in the Combers section.

Department	Particulars	No. Of Machines	Section
Combers	Lakshmi-Rieter E 7/4	12	Unit No: 2

Following are the details of entire Machinery with Capacities and Testing Facilities

Draw Frames

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Rieter draw frames have set global standards for sliver quality. More than 20,000 RSB and SB draw frames sold in 98 countries bear witness to the exceptional success of these machines.
Drawframe is a very critical machine in the spinning process. It's influence on quality, especially on evenness is very big.If drawframe is not set properly, it will also result in drop in yarn strength and yarn elongation at break.The faults in the sliver that come out of drawframe can not be corrected . It will pass into the yarn. We have a total regulated control on draw frame

Following machinery is setup in the Draw Frames section.

Department	Particulars	No. Of Machines	Section
Draw Frames	Rieter D-35	03	Unit No: 1
Draw Frames	Lakshmi-Rieter RSB- 851	02	Unit No: 1
Draw Frames	Lakshmi-Rieter DO-6	02	Unit No: 1
Draw Frames	Lakshmi-Rieter DO-6	02	Unit No: 2
Draw Frames	Vouk	02	Unit No: 2

Following are the details of entire Machinery with Capacities and Testing Facilities

Speed Frames

The proper control of the speed frame effectively increases the quality of silver. The following parameters are very important in SPEED FRAME. They are

- Roving tension
- break draft
- Drafting system
- Bottom roller setting
- Top roller setting
- Twist in the roving
- flyer speed

Lakshmi - Speed Frames LF 1400

- The speed frame condenses the sliver in to roving.
- Model LF 1400A with Pneumatic Drafting 4 over 4

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Following machinery is setup in the Speed Frames section.

Department	Particulars	No. Of Machines	Section
Speed Frames	Lakshmi-Rieter LF-1400	09	Unit No: 1
Speed Frames	Lakshmi-Rieter LF-1400A	01	Unit No: 1
Speed Frames	Lakshmi-Rieter LF- 1400	03	Unit No: 2
Speed Frames	Lakshmi-Rieter LF- 1400A	01	Unit No: 2

Ring Frames

Ringframe Technology is a simple and old technology, but the production and quality requirements at the present scenario puts in a lot of pressure on the Technologist to select the optimum process parameters and machine parameters, so that a good quality yarn can be produced at a lower manufacturing cost.

Following are the points to be considered in a ringframe.

- Draft distribution and settings
- Ring and travellers
- spindle speed
- Twist
- lift of the machine
- creel type
- feed material
- length of the machine
- type of drive, above all
- Raw material chracteristic plays a major role in selecting the above said process parameters

Following machinery is setup in the Ring Frames section.

Department	Particulars	No. Of Machines	Section
Ring Frames	Lakshmi-Rieter G 5/1 (864 Spindles)	29	Unit No: 1
Ring Frames	Lakshmi-Rieter G 5/1 (1008 Spindles)	05	Unit No: 1
Ring Frames	Lakshmi-Rieter G 5/1 (960 Spindles)	01	Unit No: 1
Ring Frames	Lakshmi-Rieter G-5/1 (960 Spindles)	11	Unit No: 2

Winding

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Ring spinning produces yarn in a package form called cops. Since cops from ringframes are not suitable for further processing, the winding process serves to achieve additional objectives made necessary by the requirements of the subsequent processing stages. Following are the tasks of winding process

- Extraction of all disturbing yarn faults such as the short, long thick ,long thin, spinners doubles, etc
- Manufacture of cones having good drawing - off properties and with as long a length of yarn as possible
- paraffin waxing of the yarn during the winding process
- introduction into the yarn of a minimum number of knots
- achievement of a high machine efficiency i.e high produciton level

The winding process therefore has the basic function of obtaining a larger package from several small ring bobbins. This conversion process provides one with the possibility of cutting out unwanted and problematic objectionable faults. The process of removing such objectionable faults is called as yarn ‘ clearing’ .

Following machinery is setup in the Winding section.

Department	Particulars	No. Of Machines	Section
Winding	Autoconer-Schlafhorst-338 (Siro Cleaner)	05	Unit No: 1
Winding	Autoconer Padmatex - 138	03	Unit No: 1
Winding	Autoconer 238 Schalfhorst	03	Unit No: 2
Winding	RJK Winding	01	Unit No: 2
Winding	RJK Winding	04	Unit No. 1

Ply Winding

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Following machinery is setup in the Ply Winding section.

Department	Particulars	No. Of Machines	Section

Doubling / TFO

Features

- excellent bundling function to all kinds of staples and filaments, uniform tension and stable releasing of post-stage procedure;
- grooved roll shape, stable and reliable, applicable for various kinds;
- electric broken-end inspection and electric length meter are integrative, to improve the quality of product;
- adopt linear yarn track to avoid the change of tension during doubling period;
- reasonable and well-marked yarn guiding structure, appropriate platform height of machine, very high speed, lowest energy consumption and noise, more convenient to operate.

Following machinery is setup in the Doubling / TFO section.

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Department	Particulars	No. Of Machines	Section
Doubling / TFO	Texmaco (400 Spindles)	05	Unit No: 1

Humidification

The atmospheric conditions with respect to temperature and humidity play very important part in the manufacutring process of textile yarns and fabrics. The properties like dimensions, weight, tensile strength, elastic recovery, electrical resistance, rigidity etc. of all textile fibre whether natural or synthetic are influenced by Moisture Regain.

Moisture regain is the ratio of the moisture to the bone-dry weight of the material expressed as a percentage. Many properties of textile materials vary considerably with moisture regain, which in turn is affected by the ambient Relative Humidity (RH) and Temparature. If a dry textile material is placed in a room with a particualr set of ambient conditions, it absorbs moisture and in course of time, attains an equilibrium.

Some physical properties of textile materials which is affected by RH is given below:

- Strength of COTTON goes up when R.H.% goes up
- Strength of VISCOSE goes down when R.H.% goes up
- Elongation %ge goes up with increased R.H.% for most textile fibres
- the tendency for generation of static electricity due to friction decreases as RH goes up
- At higher levels of RH , there is also a tendency of the fibres to stick together
- Temparature alone does not have a great effect on the fibres. However the temperature dictates the amount of moisture the air will hold in suspension and , therefore, temperature and humidity must be considered together.

Following machinery is setup in the Humidification section.

Department	Particulars	No. Of Machines	Section
Humidification	Batliboi	Complete	Unit No: 1
Humidification	Luwa	Complete	Unit No: 2

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Y.C.P.

Removal of contamination from cotton is technically very challenging. The ever growing demand of customers was instrumental in development of SIEGER 'Sonoptic' with following features.

- Direct material flow
- Hybrid system-Optic+ Ultrasonic
- Dust free, no mirrors
- Highly reliable state-of-the-art imaging and electronics

The direct system eliminates unnecessary bends in material flow thereby minimizing fibre neps.

Combination of Optics and Ultrasonic results in efficient identification of coloured, white as well as hidden contamination with high efficiency

Following machinery is setup in the Y.C.P. section.

Department	Particulars	No. Of Machines	Section
Y.C.P.	Sieger CSS (1000 KG)	01	Unit No: 1
Y.C.P.	Siger C.C.S. (350 KG)	01	Unit No: 2

T.F.O.

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- Tension Device .... gives feeding tension to the yarns gradually and maintains Constant twisting to minimize fluffs, loops and yarn - breakage.
- Take Up Tension : Control Combination of a unique feed roller and appropriate overfeed ratio ensures constant take-up tension.
- High-Precision Oval Alignment of Spindles .... sets uniform contact of each spindles and running belt, and minimizes uneven revolution of each spindles to prevent irregular twists.
- Spindles Cradle Type Take-Up .... Obtains even and parallel taking-up of twisted yarns on the cylinders and eliminates inferior shaped tapered take-up. It also simplifies doffing of the packages to enhance working efficiency of the machine and lessen idle time.
- Ribbon Wind Prevention Device .... eliminates jagged take-up by changing traverse speed. Even and parallel take-up ensures satisfactory releasing of the twisted yarns at the next process.

Following machinery is setup in the T.F.O. section.

Department	Particulars	No. Of Machines	Section
T.F.O.	TFO- Star Volkman	02	Unit No: 1