

Basic Spinning

(i) The ring spinning frame complete the manufacture of yarn

By drawing out the roving
By inserting twist
By winding the yarn on bobbins.

(ii) Ring Spinning draws; twists & winds in one continuous process.

The traveler carries the yarn as it slides around the ring, thus inserting the twist.

The ring spinner is made up of the following parts:

1. Spools on which the roving is wound.
2. A series of drafting rollers through which the roving passes.
3. A guiding ring or eyelet.
4. A stationary ring around the spindle.
5. A traveler-a small, V-shaped clip on the ring.
6. A spindle.
7. A bobbin

The roving is fed from the spool through the drafting rollers. The rollers elongate the roving, which passes through the eyelet, moving down and through the traveler. The traveler moves freely around the stationary ring. The spindle turns the bobbin at a constant speed. This turning of the bobbin and the movement of the traveler impart the twist to the yarn. The yarn is twisted and wound onto a bobbin in one operation. Bobbins must be removed from the machine when full. From here, bobbins are transported to a winding machine where yarn is wound onto packages. Automated systems for doffing and winding have been developed and are widely used. Winding is considered an important step. It provides an opportunity to condition yarn that is, to bring the yarn into equilibrium with the moisture in the atmosphere, and to add wax or other coatings that will facilitate weaving. Winding also allows the identification of flaws in the yarn and formation of larger yarn packages than the spindles on the spinning frame.

1. The value and character of a yarn are determined by

- Kind and quality of fibers
- Amount of processing necessary to produce fineness.
- Amount of twist, which increases tensile strength in the finished yarn.

2. The purpose of the yarn must be anticipated, as this determine the number and kind & many manufacturing operations.

3. The formation of yarn from staple fibers by spinning becomes possible when they have surfaces capable of cohesiveness. This quality is exemplified by the natural twist of the cotton fibers, which enables them to entwine around each other, the roughness of the linen fibers, which cause them to cling together, and the scale on the surface of the wool fibers, which cause them to graph each other.

4. Flexibility permits the fibers to be twisted around one-another.

5. Uniformity & staple give yarn a required evenness & improve the quality.

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