TRINITY COLLEGE FOR WOMEN
NAMAKKAL

DEPARTMENT OF COSTUME DESIGN & FASHION

KNITTING & NON-WOVEN

ODD SEMESTER

Presented by

Ms. A.P.PAVITHRA

ASSISTANT PROFESSOR & HEAD

DEPARTMENT OF CDF

http://www.trinitycollegenkl.edu.in/

CIRCULAR RIB KNITTING MACHINE

INTRODUCTION

My presentation topic is

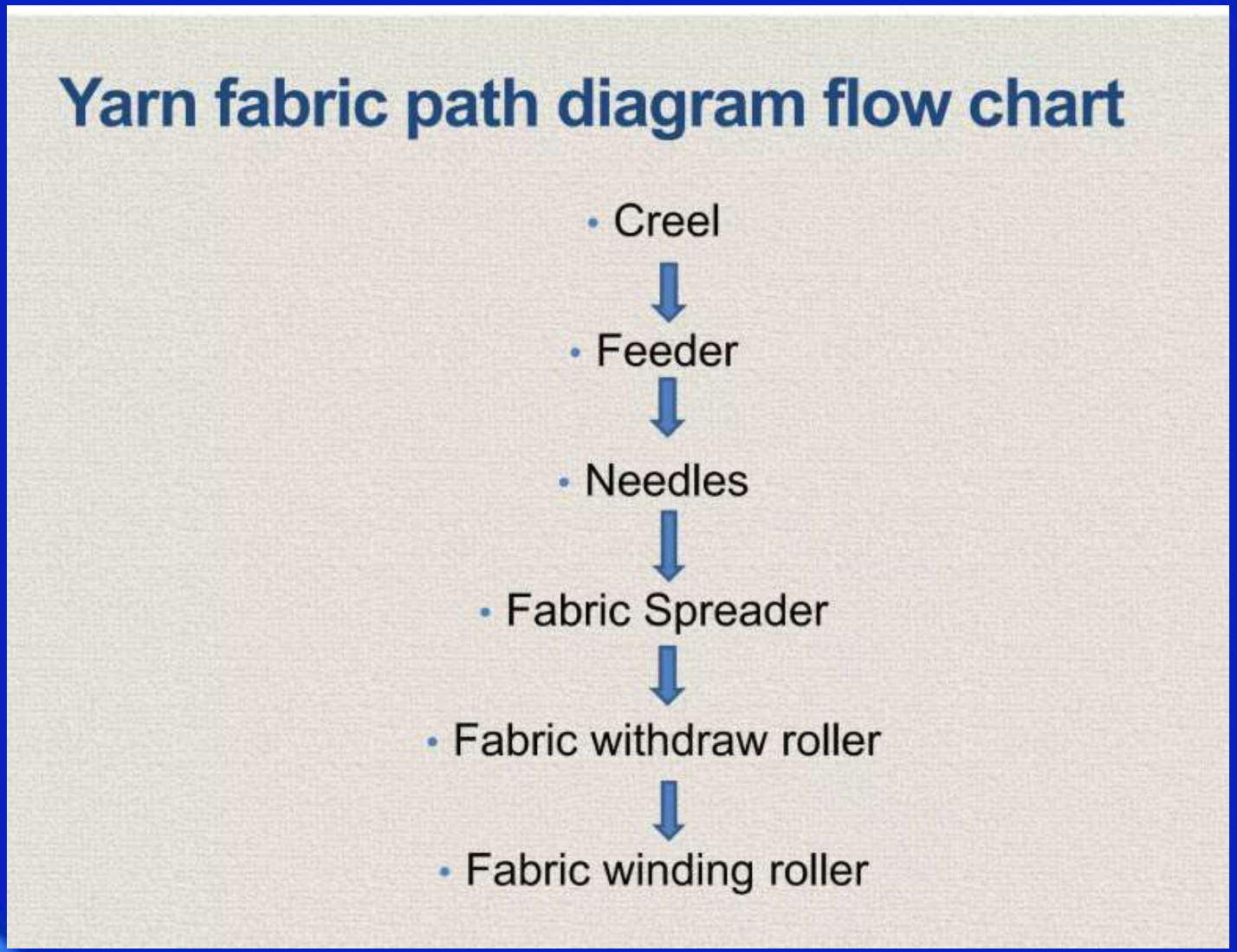
Rib circular knitting machine

- It contains
- Rib fabric & its features
- Rib circular knitting machine working procedure
- Uses of rib fabric

Rib circular knitting machine : The structure in which the face and back loop occurs along to the coarse successively but all the loops of a wale is same is called rib structure. The circular knitting machine which is used to produce the rib structures is known as rib machine.



Yarn fabric path diagram flow chart



Functions of rib circular machine's different part

1.**Creel:**Creels are the knitting elements which carry the yarn packages to feed the knitting zone.

2.**Feeder**:The feeders feed the yarn into the needles hooks and control the needle latches in their position while the needles attain their position.

3.**Dial**:Dial is the upper steel needle bed used in double jersey knitting mc. Into the grooves of the dial ,the needles are mounted horizontally and near allowed to move radically in and out by their dial cam.

4. **Guide**: Guides control the yarn path which is very necessary

5. **Needle:** It is the principal element of knitting m/c. The function of the needle to retain old loop & to receive the new loop.

6. **Cam:** The cams are the mechanical devices which convert the rotary m/c drive into a suitable reciprocating action for the needles.

7. **Cylinder:** The cylinder is a steel circular bed having grooves on its outer periphery where the needles are mounted.

8.**Fabric Spreader:** A simple fabric spreader is a solid wooden plate, placed above the take down rollers & held in position by the fabric tube.

9.**Cloth roller:** this mechanism withdraw the fabric from the needles & winds them into cloth roller

Knitting action of the rib circular machine

1 .**Rest position:** The rest position for the cylinder and dial needles. Needles are constant. Loops are present in their hooks. Latches are close.

2. **Tucking position for dial needle**: The dial needle moves forward. Loop is present on the latch. Latch is open. Cylinder needle is in the rest position.

3. **Tucking position for cylinder needle:** The cylinder needle moves forward. The cylinder loop is present on the latch. Here dial needle holds down the fabric on the cylinder needle. So that the latch of the cylinder needle is opened.

4. **Clearing position of dial needle:** The dial needle further moves forward to clear the old loop from its latch. Here dial latch is open.

Knitting action of the rib circular machine

5 .**Clearing position of cylinder needle:** The cylinder needle will further move forward to clear the old loop from its latch. Cylinder latch is open.

6 .**Yarn presenting position:** The cylinder and dial needles are pulled back again and they move into their yarn presenting position. The newly presented yarn is laid in the open needle hooks of both the needles.

7. **Cast on position**: The cylinder and dial needles are pulled further and move into their cast on position. Here the loops lie over the closed needle head and the newly presented yarn is held in the closed needle head.

8 .**Knock-over position:** The cylinder and dial needles are pulled further .The new yarn is drawn through the loops of the both needles. The loops are knocked-over as stitches and new loops are formed out of the yarn presented.

THANK YOU

http://www.trinitycollegenkl.edu.in/