SPECIFIC ASPECTS ON YARN TENSIONS PRODUCED DURING THE RING SPINNING FRAMES OPERATING

Lucian Constantin Hanganu[1], Carmen Loghin[2] & Vasile Ciprian Stamate[1]

[1]Technical University "Gheorghe Asachi" of Iasi-Romania, Department of Machine Design and Mechatronics
[2] Technical University "Gheorghe Asachi" of Iasi, Knitting and Clothing Department

Corresponding author: Lucian Constantin Hanganu, lchanganu@yahoo.com

Abstract: The modernization concept of spinning processes is found not only in new solutions for machinery and their components, but also in very deeply control of all technological parameters involved mainly in the final quality of the yarn produced on these equipments. In this way in the paper are developed original contributions to the theoretical and experimental studies concerning the analyzis of yarn dinamics for the section between traveller and bobbin which are very important for the functioning of ring frames. The study takes into account only the period coresponding to the bobbin body forming and, for this situation, it is established the mathematical equation corresponding to the yarn tension. Based on this study there are opened specific ways to improve not only the most important machine components directly implicated in yarn processing but the tehnological management aspects specific of the entire spinning processes helped by a complex inteconecting between architecture for optimum information exchange in the field of product analysis and estimation of textile processes.
Key words: ring frames, spinning, yarn, textile technology, textile equipment.