An optimum standard techniques of Two-For-one-Twister m/c for combed cotton yarns.

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Every twisted yarn has different specifications according to end use (raw material- blend ratio- yarn count- spinning method- T.P.I- twist direction- number of single yarn). So techniques of Two-For-one-Twister spindle must be changed with every item for example : The Tensor Device content (Spring Type- Tension Dial- Break Disk- Washer Tensor), Balloon Guide Rod, Over Feed Roller, Tension Ball Bearing (Guide Roller) and T.F.O Spindles Speed. With every item must make many experimental work to defined all these techniques exactly and produce plied yarn with regular T.P.I to prevent snarl, in addition to techniques of Two-For-one-Twister spindle are different according to m/c company (country mad in). Industrial establishment produce every day a lot of combed cotton plied yarns with different specifications and to avoid mistakes thinking to create database using to obtain right data of previous standard techniques to every plied combed cotton yarn two- fold, three fold and four fold. By this method safe time, effort and money using three different types of (T.F.O) m/c Lee Wha m/c, Murata m/c, Volkmann m/c and Definition the best one for combed cotton plied yarns through physical and mechanical properties of produced yarns. Objectives : Design database for optimum standard techniques of Two-For-One-Twister spindle on three different types of machines using the majority of combed cotton plied yarns (two- fold, three fold and four fold). Save time, efforts and avoid production mistakes, thus increase performance level due to several techniques of Two-For-One-Twister spindle and several items of combed cotton plied yarns. Definition the best type of Two-For-One-Twister m/c suitable for combed cotton plied yarns through physical and mechanical properties of pied- twisted yarns that increase product quality and achieve functional performance. Methodology : experimental and analytical methods. Results : Using optimum standard techniques of Two-For-one-Twister database save time, efforts and prevent production mistakes that increase performance level. Volkmann VTS 09 M/C the best type of Two-For-One-Twister m/c suitable for combed plied cotton yarns through physical and mechanical properties of pied- twisted yarns. Volkmann VTS 09 M/C decreased Hairiness and imperfections of ply- twisted yarns compared with Murata M/C and Lee Wha M/C. The tensile strength and breaking elongation of Plied twisted yarns used Volkmann VTS 09 M/C was higher than Murata M/C and Lee Wha M/C. Volkmann VTS 09 M/C Plied- twisted yarns T.P.I regular than Murata M/C and lee Wha M/C. Optimum standard techniques of Two-For-one-Twister for combed cotton yarns (Z/S) is the same with combed cotton yarns (S/Z).

Keywords:
Two-For-One-Twister , Combed Cotton Yarns, Twisted Yarn

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