

VIBRATION MONITORING OF THE RING SPINNING

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INTRODUCTION.

In the ring spinning process the yarn has two basic types of motion: a rotation upon the spindle axis and a longitudinal displacement controlled by the roller draft system. Due to the yarn rotation results the yarn balloon which shape depends on the ring spinning parameters [1]: yarn linear density ρ ; traveller rotational speed ω ; traveller mass m ; ring-traveller friction coefficient μ ; ring radius R ; ring bar position l ; and spindle winding radius r .