



## SPINNING MACHINES AT ITMA '03

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### ABSTRACT

*The paper reviews new developments in spinning machinery as judged from the exhibits at the recent ('03) ITMA. There were few surprises and the offerings were mainly improvements in existing technologies. The most notable features were the introduction of a new rotor machine by Savio, the new Murata vortex spinning machine, and novel approaches to compact spinning.*

*Keywords: Self-Twist Spinning, Fasciated Yarns, Compact Spinning*

### INTRODUCTION

The charge of reviewing developments in spinning equipment, at a machinery show, where several of the major players were absent, could be viewed as a daunting task. This however proved not to be true since greater emphasis could be placed on the limited offerings of those manufacturers that elected to exhibit. There were notable developments from several machinery makers but perhaps the most noticeable feature was the general change in color of the offerings of the major spinning machinery, from the traditional blue/green to much lighter shades of grey/cream with highlights in bolder colors. An additional feature was that the exhibitors only showed a small selection of their range of potential offerings, and these tended to be the newer developments. The following review is constructed according to technology and includes systems for both long and short staple.

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- Less hairy yarns, which yield products with lower pilling propensity. Additionally the lower hairiness is claimed to yield benefits in preparation and fabric formation, including the possible elimination of sizing, singeing and waxing. This can also result in improved print quality.
- Stronger yarns, yielding fewer breaks during spinning and subsequent processes.
- The possibility of utilizing lower twist (and hence higher production speeds) to achieve "normal" yarn strength.
- Softer yarns and fabrics.

Unfortunately the benefits may be mutually exclusive, thus if softer yarns are required then this would require the lower twist and associated higher production but the hairiness benefits may not be realized.

### RING SPINNING

In recent years the major development in ring spinning has been the introduction and promotion of "compact spinning". This technology promises yarns with a more consolidated structure and this in turn can offer:

While this system is claimed to have gained acceptance in Europe and Asia it has had very limited success in the USA. The major players in this area are Rieter with the Com4 system, Zinser with CompACT<sup>3</sup>, Suessen with Elite and more recently Marzoli with Olfil. Unfortunately the first three elected not to exhibit at ITMA 2003 and Marzoli restricted their exhibit to a carding machine.