



# Courtaulds Textiles

**Courtaulds Spinning  
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W Roy Parker Esq.,  
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30<sup>th</sup> September 1994

Dear Roy,

## **Re: Visual Trial Comparisons**

I refer to the recent comparisons of yarn spun on your friction spinner with those of our rotor yarns from the same sliver.

You asked for my opinion in general terms which is as follows :

- (a) Belroy's yarns are bulkier and will therefore give more cover.
- (b) On a blackboard comparison there is little difference in appearance or lustre.
- (c) Belroy's knitted swatches have a softer handle than those knitted from our rotor yarns.
- (d) The Belroy yarns appear to be better than those we produced on the 10 position Masterspinner in the early part of the 1980's.
- (e) Therefore based on my own personal experience working with this small and manually operated Masterspinner machine the Belroy friction yarns should have adequate strength for commercial knitting.
- (f) If the mechanical and bearings problems we found on the Masterspinner and the unit difficulties have been overcome I see no reason why a spinning machine based around Belroy's unit should not be able to compete in the knitting yarn market.
- (g) I must add the proviso that although Courtaulds never bought a full production machine from Platts, the Belroy unit must be capable of facilitating automatic piecing at least as good as the Schlafhorst Autocoro machines whose yarns we used for comparison with the same sliver Belroy yarns.

I trust this is adequate for your deliberations on the way forward.

Yours sincerely,

David Whitehead  
General Manager

## GENERAL MARKET RESEARCH INFORMATION

A few interesting things came out of David Rigby & Associate's market research survey for Mackie which you contributed towards, and also from subsequent discussions we held with Leopold Schoeller jr.

Some of the comments and observations may be of general background interest to you, but the overall picture for Western spinners is bleak.

1. **The split on a world wide basis between knitting and weaving is about 75% weaving and only 25% knitting.**
  - The UK, probably because of the Leicester knitting industry, still being relatively large, gives the British a distorted view of the world, and even the European situation. I think Italy is also primarily knitting.
  - It must be of concern to the UK knitting industry that China has a targeted short term aim to massively increase its share of the world wide knitted fabric market.
  - Through a friend at Textile Month I have got hold of a market analysis on market trends in staple yarn to the end of the century which you can borrow if you want.
2. **Knitting needles have to be changed about four times more often on rotor yarn than ring yarn.**
  - There is some evidence that the new high speed rotor yarns give far greater wear problems.
  - I had never realized the difference was as great as this.
3. **The new high speed rotor yarns are harsher and contain more wrapper fibre than your lower speed rotor yarns.**
  - Leopold Schoeller jr. describes these high speed yarns as like wire.
4. **Under EEC Environment Laws, the polluter must pay concept may affect the use of fabric softeners to make high speed rotor yarns usable.**
  - Schoeller Textil and other German spinners, together with knitters/weavers consider that in the not too distant future more stringent environmental regulations will be introduced in Europe.
  - This they believe will make it exorbitantly expensive for the fabric producers to use the softeners needed to make the fabrics from high speed rotor yarns usable
5. **Nothing to cause you to doubt that the decision to go for niche markets was anything but correct as far as Swan Lane was concerned.**
  - Schoeller have gone, and are to continue to go, in a totally opposite direction, based on complete automation and the very latest in-built quality control aimed at specific, but very large market sectors.
  - It confirms all my experience over the years on the machinery side of the textile industry that no two textile companies in similar market areas ever take similar decisions.
6. **But without drastic rethinking and faster capital intensive machinery, there is no future in the Western World for large scale spinning operations.**
  - Particularly more so for those who suffer logistically because their premises were built lengthwise to house 1,200 position spinning mules and, as such, are not conducive to modern ring & rotor spinning operating requirements.

## HOW TO PRODUCE AESTHETICALLY ATTRACTIVE AND BULKY ROTOR YARNS

1. **It did appear in our discussions last year on the core yarn idea that there was great interest at Courtaulds in producing bulkier yarns.**
  - I still think there will be something in the core yarn idea with micro fibres on the surface and intend to return to it when I get some spare time.
2. **The rotor machine manufacturers in their quest for speed have continued to make rotor yarns leaner and leaner.**
  - How else, but by having an increased speed, could they persuade people to buy new rotor machines.
3. **It may be worthwhile for you to consider taking a step in the other direction.**
  - We carried out experiments several years ago at Bolton Institute comparing the SpinWell's friction yarn with a wide variety of rotor yarns that could be produced on their Autocoro.
  - One particular set of experiments concentrated on comparing surface appearance.
  - We were trying to see which were the best yarns, from a surface appearance viewpoint, that could be produced on rotor yarn to compare with the SpinWell's friction yarn.
  - We ran the yarns with quite large rotors. I cannot remember exactly, but I think it was 51 mm and at a fixed rotor speed of 65,000. We produced rotor yarns with twist factors from 2.0 to 5.0.
  - On polyester /cotton, I think acrylic /cotton would perform similarly, it was possible to spin GOOD strength yarns with a twist factor of 2.5 and even lower was feasible, also the piecer would also piece up at this condition.
  - We did not run enough to get a feel for end break rates, but this did not seem to be a problem.
  - The use of the larger rotors, not only reduces wrapper fibre, but also increases spinning tension which is probably why the piecer worked OK
  - There was little doubt in our minds that the yarns at a twist factor of 2.5 were aesthetically very attractive.
4. **Traditionally people never run with twist factors lower than 3, but traditions are meant to be broken.**
  - We have the test results available if they are of interest, although you can easily do your own experiments on your own fibre.
  - With a twist factor of 2.5 and rotor speed of 65,000, then production per hour is equivalent to a rotor speed of 104,000 at a twist factor of 4.0.
5. **The real advantage to you is that the new higher speed rotor machines will not be able to produce these types of yarns any better than you can.**
  - If you do carry out experiments, I recommend you knit test the yarns first before even disclosing they are rotor yarns, even to your own marketing people.
  - The yarns we produced were very different from traditional rotor yarns.
  - Consequently, it may not even be necessary to disclose how you have spun the yarns.