

**FLAINOX**

### Special air finishing of fabrics in rope

Recent years have seen an increasing use of man-made yarns such as nylon and polyester (often blended with lycra, some with cotton) to produce clothing (mainly jackets and pants), sports-wear, hobby-wear, but also for uniforms, leather and footwear (synthetic or natural), furniture and for the automotive industry.

That's high tech fabrics and garments waterproof, anti-tear, flame-retardant, stain-resistant, wrinkle-free, no-shrink, easy-care.

The need to produce those textiles, garments and other articles should not leave room for criticism due to the rigidity, lack of comfort, look and feel somehow more comfortable and fashionable if made of natural fiber. Why penalize the product and thus reduce the chances of development and why not, revenue growth in this sector?

**Flainox** contributes to the development of those products since 1995 with Multifinish.

The fabrics are treated in rope exploiting the kinetic (air) force generated in a Venturi pipe. Direct steam injection, drying of squeezed fabrics, soda treatments, application of resin are among other finishings.

All this serves to permanently enhance the look and touch, giving dimensional stability and added value at the fabric.

More recently, to address the demand for increased productivity Flainox introduced Multi-Plus that works roll to roll retaining the high efficiency of the air treatment given by the Venturi pipe.

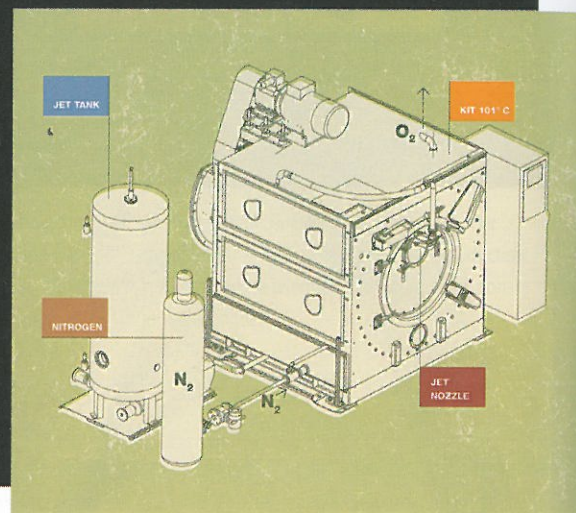
**TONELLO**

### G1 N2: nitrogen dyeing machine

Performance, flexibility and energy savings are but a few of the features of the new G1 N2 Dyeing Machine conceived by **Tonello**. The result of on-going research, G1 N2 allows dyeing processes to be carried out in a Nitrogen atmosphere, considerably limiting the use of reducing agents, ensuring a cleaner and safer work environment and guaranteeing substantial economic savings as well as improved stability in the dyeing processes.

The G1 N2 automatic machine is equipped with a 101° kit which keeps it completely closed; it has a controlled dosing of nitrogen, dyestuffs and chemical and, on request, can also be equipped with the special Jet system to dye with 1:2 liquor ratio on wet garments.

This is an eco-friendly machine, drastically reducing the use of polluting chemical products and, being extremely adaptable, it allows - a part from the nitrogen application - any standard dyeing process to be carried out as well.



**TECNORAMA**

### Optimising dyeing processes

The R&D department of **Tecnorama** followed year after year the evolution of the spectrometric analysis of the dye-bath and it applied technologies working in transmittance, i.e. equipment that analyses the spectrum of absorbed light of a dye in a coloured solution (absorbance). This analysis is essential for studying and optimising dyeing processes and controlling principal qualitative characteristics, such as: the uniformity of dyeing, the reproducibility of dyeing, the compatibility of dyestuffs, control of the degree of absorption of single dyestuffs, optimisation of the duration of processes, energy savings, water consumption (very important in

particular during the dyeing processes with reactive dyestuffs), optimisation and savings by using auxiliary and chemical products.

The Spectrodye® system can be used to obtain a complete and true picture of what is happening during the entire dyeing cycle, step by step, e.g. the checking of the amounts of dyestuffs present in the bath at the start of the cycle, pH value, temperature and the exhaustion of single dyestuffs during the process conditions change, and finally the checking of amounts that are discharged during the various washing phases. Simple comparative controls can also be performed, checking the yield of different batches of single dyestuffs and their dyeing compatibility, thus improving the quality of procurements and avoiding waste and errors.

