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Tunnel Tip #3

Start with accuracy, finish with quality

EXTRACTION AND CONDITIONING OF GARMENTS

The proper operation of a tunnel finisher relies on the condition of the garments running through it. This includes proper washing, extracting and, if necessary, conditioning to the right moisture content to achieve a balance between productivity and quality. This tunnel finishing tip will cover the extraction and conditioning of the garments.

Because tunnel finishers are designed and used primarily for the finishing of 65/35, polyester/cotton blended industrial rental shirts, the following comments are based on that style of garment. Other styles and fabrics may require even more careful handling to achieve production with quality.

First, operating extracted-to-dry (i.e., no tumbling at all) is the preferred method of tunnel finishing industrial and linen garments. Sometimes, due to the type of equipment available, it is not practical to operate extracted-to-dry.

One such example is the squeeze-type extractors which, apply pressures of 100 to 400 psi to literally squeeze the water out. The garments are wadded up inside the extractor. When the pressure is applied, the wrinkles are squeezed in as the water is squeezed out. If the wrinkles are put in with 200 pounds of pressure, then it stands to reason that it would take more than 200 pounds of energy to remove those wrinkles. Such energy cannot be applied by a tunnel finisher to the fabric.

In cases where squeeze-style extractors or

washer/extractors that give high "g" forces are used, conditioning the garments in a dryer would be helpful. The mechanical action and heat of a dryer will soften the wrinkles put into the fabric by the force of the extraction and will help improve the quality produced by the tunnel finisher. Usually just a few minutes in a dryer on hot, followed by a short cool-down cycle, is adequate. The dryer time should be such that the garments are left with approximately 15% to 20% moisture retention.

In some cases, customers prefer to operate tunnel finishers as dry-to-dry systems to achieve higher productivity. If this is done, it is very important the garments are never fully dried in the dryer. If garments are fully dried, there is a probability of over drying and heat setting wrinkles in them.

To achieve the best balance of quality and maximum production, just condition the garments to no less than 5% moisture retention. The chance of heat-set wrinkles is greatly reduced and the small amount of residual moisture has no effect on production. It is of the utmost importance garments are cooled down to room temperature before being pulled from the dryer. If they are not, there will be heat-set wrinkles created when they are placed in a basket.

Polyester-blended garments have been a tremendous innovation in the rental industry. It is necessary to work with their limitations to reap the benefits of this fabulous fabric. 