

Sustainability that pays off.

Permanent monitoring of energy consumption by performance indicator



Production facility with view on the converging filament yarns.

In dynamic production processes, a permanent monitoring of the energy efficiency with immediate notification of a possible deviation is required. Setting, measuring and monitoring energy consumption is also gaining importance in the yarn-processing textile industry.

The process stages of the production of surface covering floors involve considerable use of electrical energy. Particularly in the area of carpet yarn production, the use of energy in the direct cabling system is around 1 kWh per kilogram of yarn.

In product development, we have combined two systems for better adjustment and monitoring of energy efficiency, as well as made it possible to display the energy consumption online.

In yarn processing plants, in this industry, several thousand processing stations integrate into machines of 160 units each. A manual setting at every processing station would take a long time. By interconnected controls, a central motor adjusts the position of the thread guide in such a way that the rotating thread balloon forms as small as possible and this saves around 5% energy. This number may seem small at first glance, but taking into account the average annual consumption of a plant, it will result in a saving of around 1000 - 3500 MWh.

For effective monitoring of the machine, the system constantly measures the energy consumption and forward it to the central computer. The representation of the consumption is numerically or graphically in a diagram and this realizes an easy accessible online moni-

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toring. In addition, a specified operating point with consumption tolerances will output a warning message if exceeded.

We will continue to develop innovations for the effective and resource-efficient processing of yarns. This is our contribution to joint climate protection and optimal and cost-effective production.

Facts:

- A reduced thread balloon saves 3 - 5% energy per year
- Common production sides save 1000 - 3500 MWh/year
- At 8 cents/kWh, the cost savings are 80 - 280 TEuro per year

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