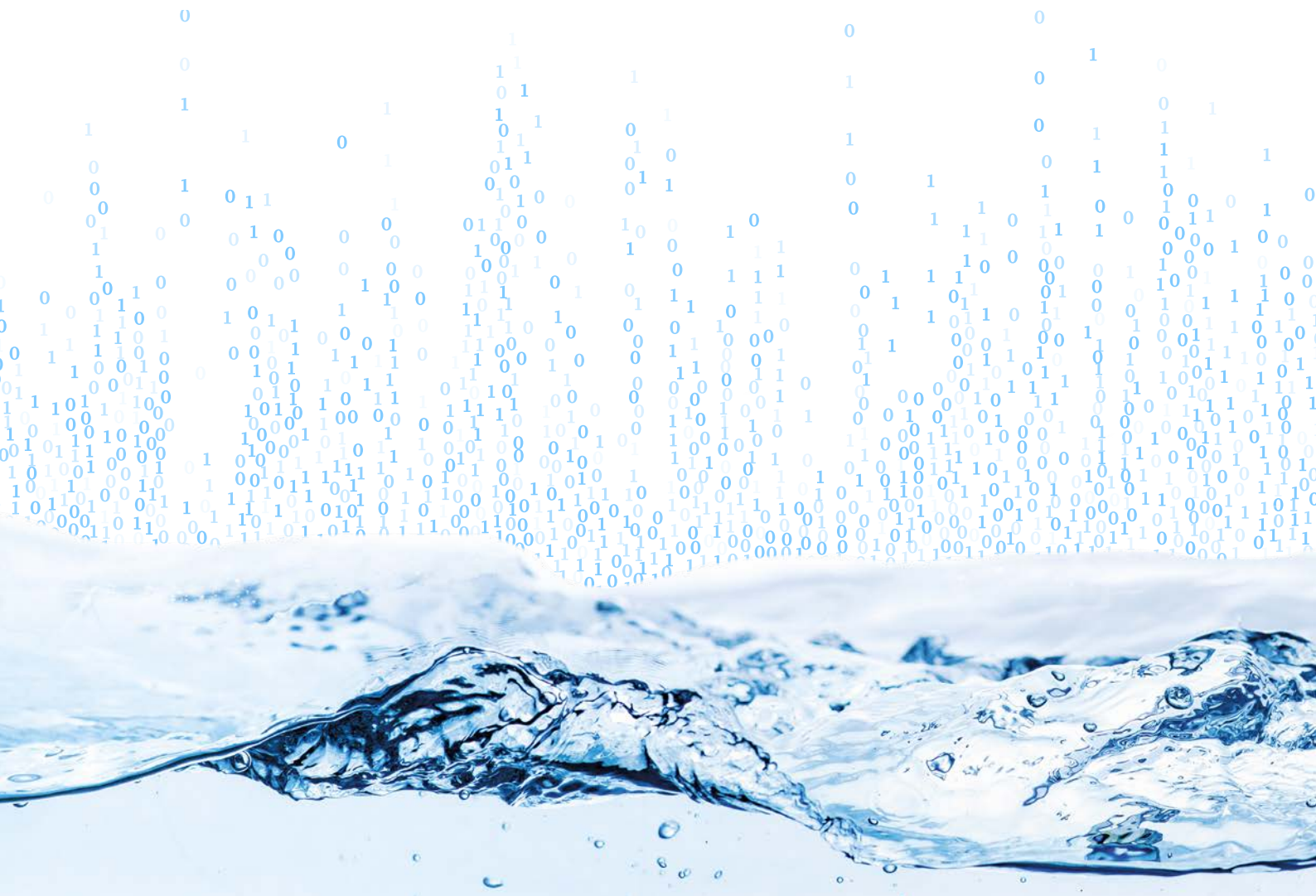


PROCESS CONTROL

A PRODUCTION MANAGER'S GUIDE TO SUCCESS!

Numbers and Calculations for
Individual Improvements



RESIDUAL MOISTURE: TEXTOMETER RMS

Residual moisture down – Productivity up



One of the most important criteria in drying processes is the product moisture. Overdrying of the textile must be avoided since this results in weight loss and lower profits. If the textile is overdried in the stenter, this also means an enormous narrowing of the dryer capacity, since the dryer speed remains far below what it is capable of.

The useful increase of the residual moisture of the product from 4-8% prevents overdrying and results in:

- Increased productivity speed by 10%
- Drop of production costs per running metre by 11%
- Drop of energy consumption by 4%

PAYBACK

- ➔ Productivity
- ➔ Production costs
- ➔ Energy consumption
- ➔ Product quality
- ➔ Process reproducibility

SAVINGS INDEX

Productivity increase
min. 10%

AMORTISATION TIME

< 20 weeks



Scan for your
individual savings!

EXHAUST AIR MOISTURE: ECOMAT AML

Exhaust Air Moisture up – Energy down



Much unused energy is wasted through the exhaust air during drying processes without appropriate control. Without control, you lose twice:

1. Too much energy vanishes with the hot air
2. The speed of the fan consumes unnecessary power

The Ecomat AML adapts the heating energy to the actual demand by monitoring the vapour content of the exhaust air and then controls this factor through the fan speed or the exhaust air vent control.

- The energy consumption is reduced because the temperature is kept inside the stenter
- Less power consumption due to controlled fan speeds

Maximising the exhaust air moisture from 8 to 15 vol.% results in:

- Reduction of energy consumption by 23%
- Reduction of production costs by 6%
- Maintaining a consistent production speed

PAYBACK

- ➔ Energy
- ➔ Product quality
- ➔ Process reproducibility

SAVINGS INDEX

Energy saving up to 25%

AMORTISATION TIME

< 12 weeks



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DWELL TIME: PERMASET VMT

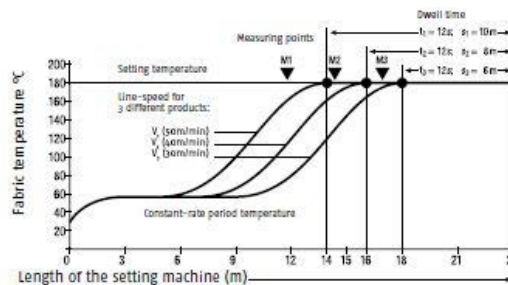
Dwell time down – Productivity up



Heat setting, thermoinsulating, condensating and many other processes require a defined time at a specific temperature. To fulfil this task, it is necessary to identify clearly when this temperature has been reached. The temperature curve is determined through the exact measurement of the product's surface temperature throughout the whole process. This enables the precise calculation and control of the product's dwell time.

Intelligent dwell time control avoids unnecessary safety margins and as a result

- the production speed increases by **10%**
- the production costs per running meter drop by **11%**
- the energy consumption drops by **4%**



Scan for your individual savings!

PAYBACK

- ➔ Productivity
- ➔ Production costs
- ➔ Energy consumption
- ➔ Product quality
- ➔ Process reproducibility

SAVINGS INDEX

Productivity increase min. 10%

AMORTISATION TIME

< 12 weeks

DENSITY/BASIS WEIGHT: FAMACONT PMC

Optimal Basis Weight – Less Claims



Precise monitoring of the weight of metre goods or of weft thread and course density is important in many processes of the textile value added chain. The key is to determine the basis weight under the given industrial conditions online and with high repeatability.

In addition to ensuring product quality, an appropriate setpoint with narrow tolerances can provide considerable savings in material and energy consumption, achieve process reliability, and at the same time increase production. On top of that, the risk of unjustified claims is also reduced to the minimum.

The intelligent control of the over-feed at the stenter infeed results in

- reduced material use
- increased product quality
- ensuring consistent thread/course density and basis weight

PAYBACK

- ➔ Material costs
- ➔ Production costs
- ➔ Process reproducibility

AMORTISATION TIME

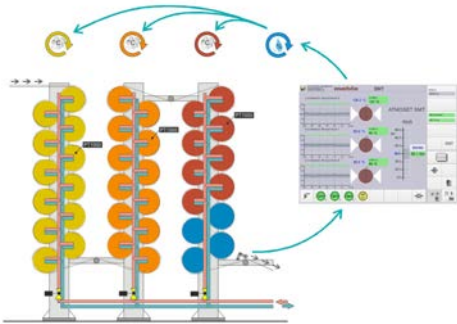
< 20 weeks



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CYLINDER DRYER CONTROL: ATMOSSET SMT

Optimising the heat output depending on the product



One of the most important criteria in drying processes is the product moisture. Overdrying of the textile must be avoided since this results in weight loss and lower profits. If the textile is overdried in the stenter, this also means an enormous narrowing of the dryer capacity, since the dryer speed remains far below what it is capable of.

Benefit:

The ATMOSSET SMT enables a stable and effective drying process. The optimal degree of drying is always reached, regardless of the weight of the product or the web speed. Continuity of the production process and reproducibility of the product quality are ensured. The energy consumption of the dryers drops significantly due to the optimised heat output. This saves energy costs. The drum dryers can be optimally dimensioned during preparatory project planning with the customers resulting in reduced investment costs.



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PAYBACK

- Reproducibility
- Energy costs
- Reprocess
- Efficiency

AMORTISATION TIME
< 12 weeks

Monitoring and control systems, automation:

MAHLO GUARANTEES QUALITY. WORLDWIDE, IN YOUR VICINITY.

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- ✓ Service partners in over 100 countries
- ✓ Direct service and spare parts delivery within 24 hours
- ✓ Remote diagnostic system
- ✓ Service Hotline: +49-180-5062456



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