

Next Generation Period Panty:
Advanced Machine Technology meets
Performance Viscose Fibres



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Kelheim Fibres & Santoni Spa.

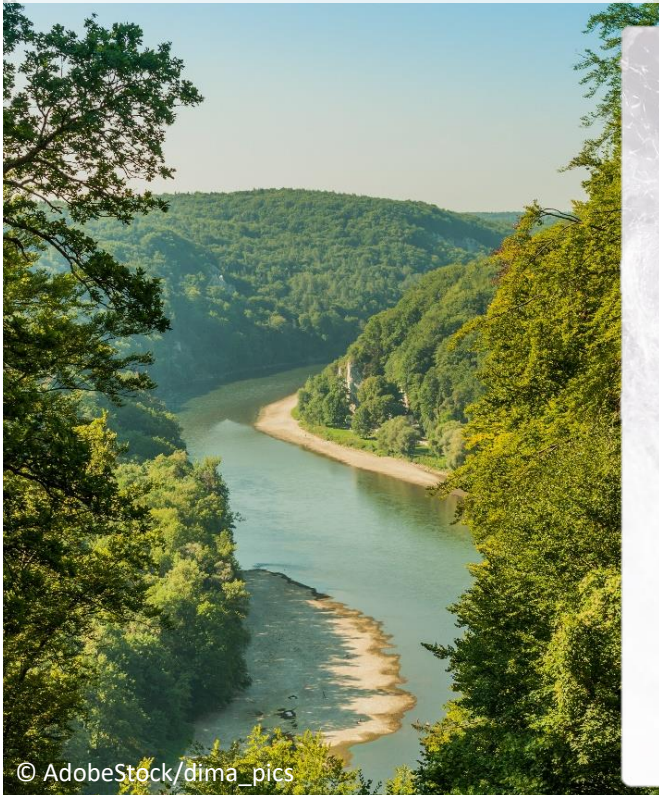


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Location: Kelheim, Bayern

Employees: ~ 500



Fibr technology:



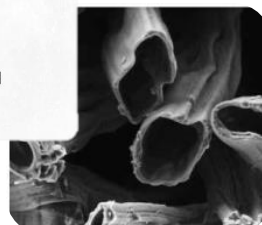
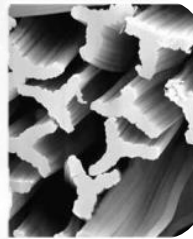
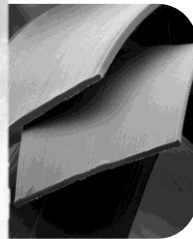
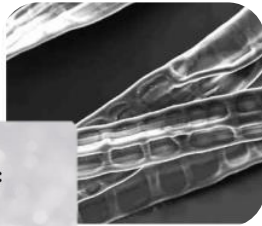
CROSS-SECTION
FUNCTIONALISATION



INTRINSIC
FUNCTIONALISATION



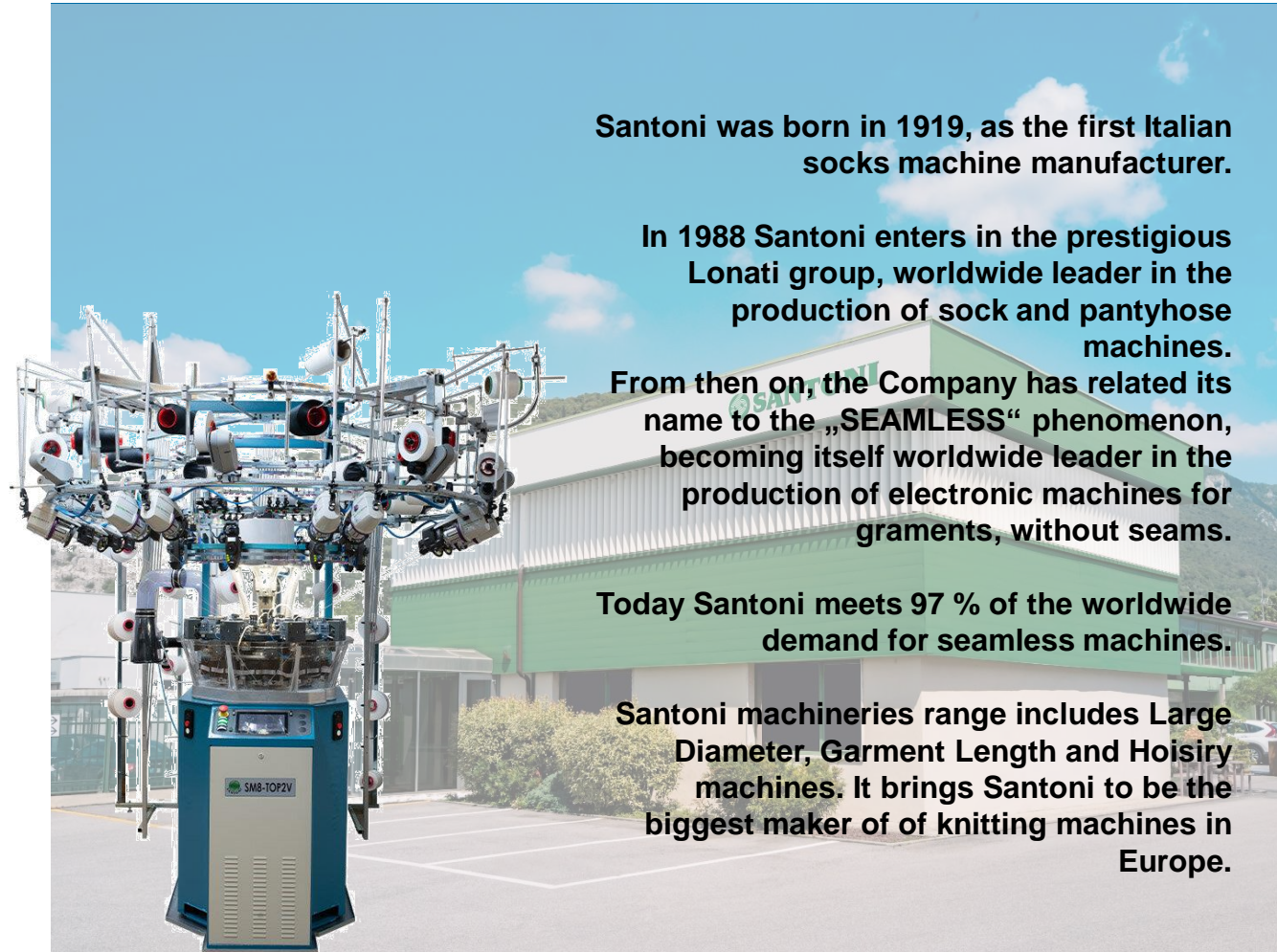
DIVISIONAL
FUNCTIONALISATION



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Production Capacity: ~ 80,000 to/Year

Revenue ~ 180 Mio. EUR



Santoni was born in 1919, as the first Italian socks machine manufacturer.

In 1988 Santoni enters in the prestigious Lonati group, worldwide leader in the production of sock and pantyhose machines.

From then on, the Company has related its name to the „SEAMLESS“ phenomenon, becoming itself worldwide leader in the production of electronic machines for garments, without seams.

Today Santoni meets 97 % of the worldwide demand for seamless machines.

Santoni machineries range includes Large Diameter, Garment Length and Hosiery machines. It brings Santoni to be the biggest maker of of knitting machines in Europe.

Problem – Solution Fit for Reusable Hygiene products



26.52 %
of the material used is
wasted [1]



Cutting alone generates
13.57 %
of the waste [1]

Problem – Solution Fit for Reusable Hygiene products



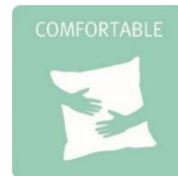
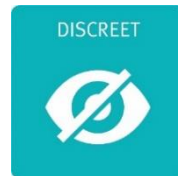
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Sustainability



Comfort



Performance



Advanced Machine Technology



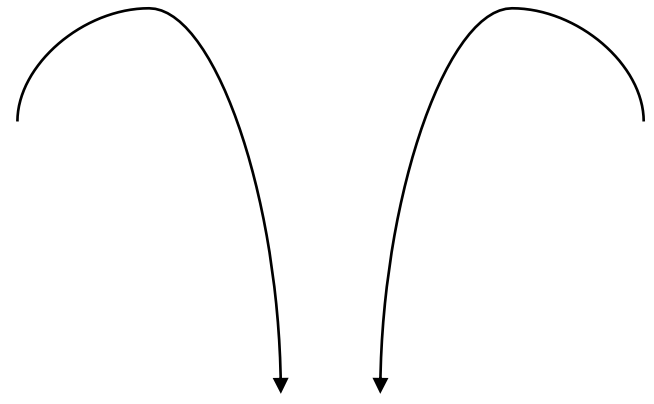
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X-Machine



Functional Inlay
using performance
Viscose Fibres



Both parts are
combined to create
a Period Panty

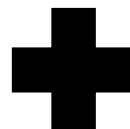
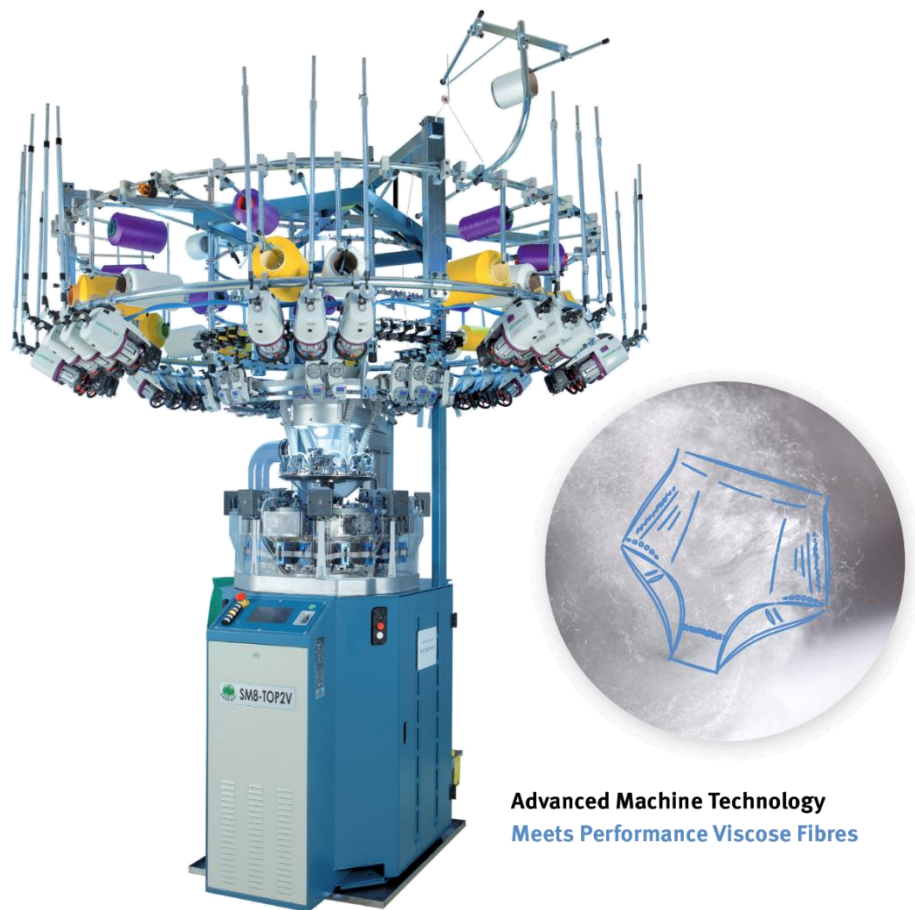


Outer part of the
Panty



SM4 TL2 / TOP 2V

Advanced Machine Technology



- Improved Performance
- Material Efficiency
- Safe Production
- Increased variety of sustainable Femcare Products
- Reduced Waste
- Reduced Energy Consumption
- Reduced Quantity of Operation

Sustainable Period Panty: Fibre composition



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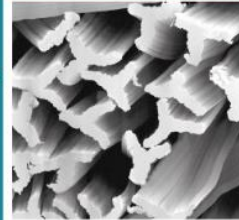
Danufil® Viscose
Standard viscose fibre with a cloud shaped cross-section

Topsheet

Acquisition Distribution Layer

Absorbent Core

Backsheet



Galaxy®
Trilobal cross-section ideal for the liquid transportation and distribution



Bramante
Hollow fibre, ideal for the liquid storage even under pressure

Blending Options



Viloft®
Flat cross-section

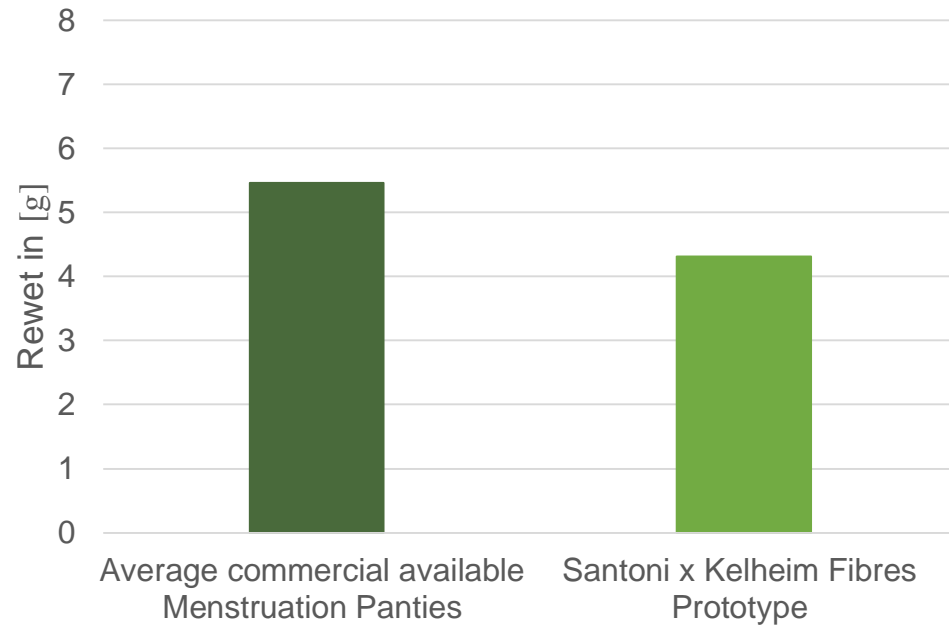


Danufil®
Cloud shaped cross-section

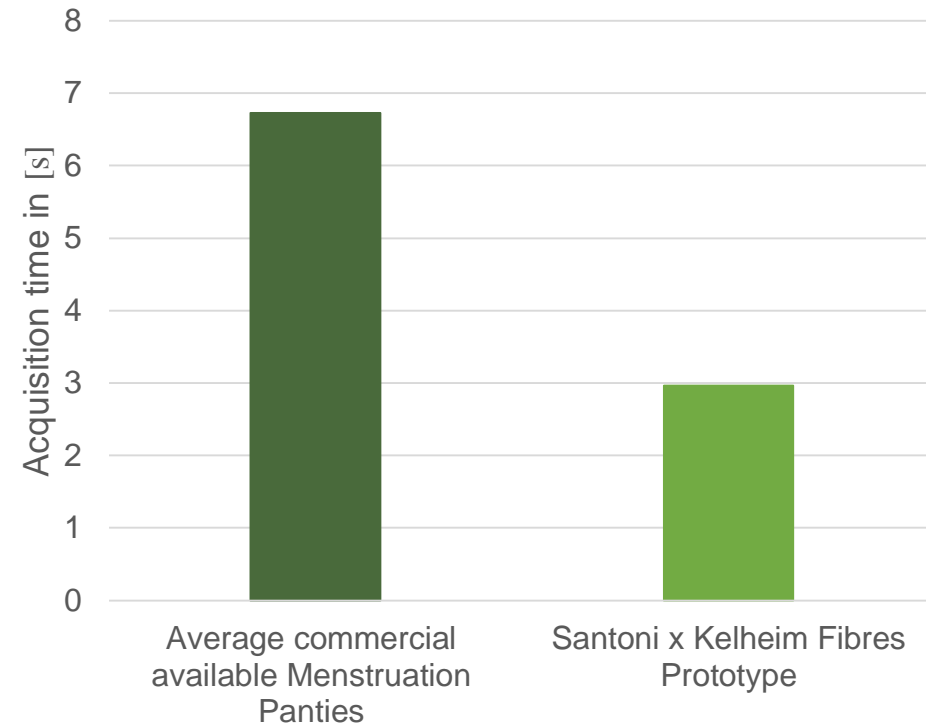
Improved Performance



Rewet (15 ml)



Acquisition time (15 ml)



Sustainable Development Goals



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With **our long-lasting & high performing** product we want to ensure that women have access to menstrual products that support their health & well-being.

Within our **Open Innovation** approach we strive to collaborate with partners to ensure that new & innovative products can be brought to the market as fast as possible.

To meet these challenges, the entire textile industry needs to work together, with everyone bringing their specific expertise to the table. We would like to **invite the whole textile value chain to practice this open innovation approach** together with us.



By informing & education we want to help **break the Taboo** about menstruation and support an **informed choice for the menstrual product selection** for every women without having to compromise on health, comfort or sustainability

With the Period Panty 2.0 **resource consumption can be minimized** as energy as well as raw material and chemical input is minimized through the use of the seamless technology and spun-dyed specialized viscose fibres.



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