FASHION-FORWARD TO SUSTAINABLE FINISHING

The finishing revolution taking the textile industry to new sustainable heights.

This trends report explores the revolution and charts a path for you to be part of it.

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“63% of consumers consider a brand’s promotion of sustainability to be an important purchasing factor.”

McKinsey & Company, Survey: Consumer sentiment on sustainability in fashion, 2020.

TRYING TO OPTIMISE OLD WORLD PROCESSES IS MISSING THE REVOLUTION

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The revolution is on.

WHY NOW?

Change is happening.

School Strike for Climate, Global Climate Strike, Digital Climate Strike, Greta Turnberg.

Driven by Gen Z, uninfluenced by governments or COP26, climate change has been democratised and people are taking action.

They're choosing sustainable foods, holidays, sustainable transport, sustainable energy, sustainable cities, and **sustainable fashion**.

They are choosing brands that share their view of a sustainable world and... **they are prepared to pay more for sustainable fashion brands**.

> ***Females are likely to pay a higher premium (up to 20%) for fast fashion with sustainability features.***
>
> Consumer Attitude towards Sustainability of Fast Fashion Products in the UK. MDPI 2021.

Fabulous fashion favours fabulous finishing

If fossil fuels, over farming, deforestation, chemical production, water contamination and indifference to the planet was the prices to pay for World1.0, World 2.0 will be a very different planet.

Inhabited by people, governments, companies and brands who behave profoundly differently from today.

Innovators and early adopters will own the success, no matter if in EV's or textiles. The bigger the industry, the greater the pressure will be to adapt.

The revolution is on.

Change is happening.

> ***The fashion industry is the world's third biggest manufacturing industry behind automotive and technology industries.***
>
> Francis, D. Mending the capitalist model. Financial Post, 27 June 2014.

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Who pays for sustainability?
The polluter pays!

But who is the polluter?

The issue brands face around sustainability is who pays for it. Real-time fashion has whetted a consumer appetite and demand for frequently changing collections at affordable prices. The expectation is the **brands are the owners of the problem** so they must absorb any costs.

An **industry inertia** against migrating away from old wasteful processes, is not helping the perception. One process is the archaically **wasteful pad-based finishing** process of dipping fabrics into chemical baths. Water, energy and chemistry consumption all being malignant to the concept of sustainability.

But what if **there was a way to reduce consumption** of all three *and increase efficiency*, and **reduce cost** and **produce a high-quality product**?

"Social media has a greater influence on consumption behaviour than word-of-mouth from friends and family where it relates to sustainability in fashion."

Consumer Attitude towards Sustainability of Fast Fashion Products in the UK, MDPI, 2021.

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THE SOLUTIONS

Performance products need performance finishing

> ***The fashion industry is responsible 10 per cent of global CO2 emissions and 20 per cent of global waste streams.***
>
> McKinsey & Company. The State of Fashion 2019.

Eliminate Chemical Waste

With non-contact precision spray, the finishing chemicals are not contaminated with coloured fabric fluff particles. Consequently, on fabric colour changes it is not necessary to discharge the chemical mix from the spray system into wastewater treatment.

Conventional foulards can release up to 150 litres of chemical and water waste on every foulard change.

Reduce Energy Consumption

Wet-on-wet applications using non-contact precision spray allow for a significant reduction in the amount of energy used in your stenter frame, or a higher process speed.

The biggest savings with non-contact spray is on wet-on-dry processes, with up to 50% drier fabrics entering the stenter frame. These drier fabrics allow for higher production speed and lower energy requirements.

Operate Efficiently

Single-sided applications

Why would you bathe an entire fabric with chemistry when it is not only unnecessary, but also not desired, to apply chemicals to both sides? Only non-contact spray allows you precisely spray single sides of the fabric.

Double-sided application

Conversely, where you have two incompatible chemicals which you cannot apply on a single application, with non-contact spay you can

spray opposite sides of the fabric with the different chemicals on the same pass. For example, water repellent and fire retardant.

Continuous Production

Production becomes agile and lean. A mill can start with a blue fabric, switch to a yellow and then go to a red, with chemistries continually spraying, with no need to stop. Any chemistry that does not absorb into the fabric is filtered and reused, so there is no contamination.

Traceability

Industry 4.0 enabled spray systems are fully integrated to the ERP system. This provides a secure and reliable download of the recipe and real-time batch data for audit and analysis. Not possible with a foulard method.

Hand Feel

Elimination of squeezing rollers using non-contact finishing retains the bulkiness of the fabric and results in superior hand feel.

Workwear warrants world-beating finishing

THE CHALLENGES

“inertia”

a tendency to do nothing or to remain unchanged.

Upholstery underscores the need for unparalleled finishing

> ***67% of consumers consider the use of sustainable materials to be an important purchasing factor, and 63% consider a brand’s promotion of sustainability in the same way.***
>
> McKinsey & Company, Survey: Consumer sentiment on sustainability in fashion, 2020.

> ***Old habits are hard to change and when a process works, then what is the motivation to change?***

Non-contact spray

Retrofits can be done with minimal disruption to operations as testing can be performed onsite at the equipment manufacturer to exactly replicate the chemical and textile finishing requirements.

Training to use the machinery is minimal as jobs can be pre-programmed and then accessed through a digital display and key user information such as when to run system cleaning are clearly communicated with easy-to-follow QR code videos.

Chemical coverage couldn't penetrate or give as good coverage as foulard/pad method.

Tests prove that non-contact precision spray drives chemistry as effectively or more effectively into the core of the yarn, and as there are three overlapping sprays per nozzle, not only is the penetration and coverage equivalent or superior to traditional methods, it is also more even and simultaneously less wasteful of chemicals.

Blocked Nozzles

With this in mind, the technology was designed with a system in place that can detect and check there are no nozzle blockages ensuring always uniform coverage.

THE WINNERS

From Polluting Pad to Pure Precision

Manufacturer: Large global apparel manufacturer.

Mill: Big scale, high volume.

Mission: Increase sustainability and reduce costs.

Application: Tubular knitted jersey fabric.

Action: Replaced its double-pad chemical application system to non-contact technology.

Results: Waste elimination. Improved product quality. Better productivity.

Read the full case study here

Let's look at some textile manufacturers who have broken the inertia and adapted to more sustainable finishing processes.

Delight for Turkish knitted fabric printing and dyeing company

Manufacturer: Sezginler Tekstil.

Process: Wet-on-wet softener finishing.

Mission: Reduce chemical waste costs, increase mill productivity and deliver consistent product quality.

Action: Converted conventional pad/foulard method for their finishing processes to non-contact precision spray.

Results: More consistent quality product with reduced time spent on manual processes, energy and chemical saving and with the option of applying chemistry to only one side of the fabric when running printed fabric. Added benefit of being more environmentally sustainable.

Read the full case study here

How are industry progressives embracing the new world order and reducing waste, costs and being sustainable?

Textile finishing is in a revolution.
Mills are juggling brands' demand for sustainability while maintaining commercial success. Trying to optimize old world inefficient finishing processes is missing the revolution.

This just released trends report explores the revolution in sustainable finishing, the challenges faced by mills and brands and a path to achieving success.

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Pioneering the revolution in textile finishing.

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