

Sustainable Denim Finishing



XEROS
TECHNOLOGY
GROUP



CORE PURPOSE

Our core purpose at Xeros Technologies is to radically improve the sustainability of water intensive processes in industry and the home.

CONVENTIONAL HYPOTHESIS

Water is the only effective medium to affix and/or remove molecules in fabric and garment dyeing and finishing and its subsequent laundering.



XEROS PROVEN HYPOTHESIS

The effectiveness of water to affix and/or remove molecules in fabric and garment dyeing and finishing and its subsequent laundering is **drastically improved** when used with Xeros' proprietary polymer technologies.

Overcoming high water usage in denim

Conventional denim washing uses large volumes of water. This high dilution leads to inefficient use of chemistry and a significant volume of effluent is produced.

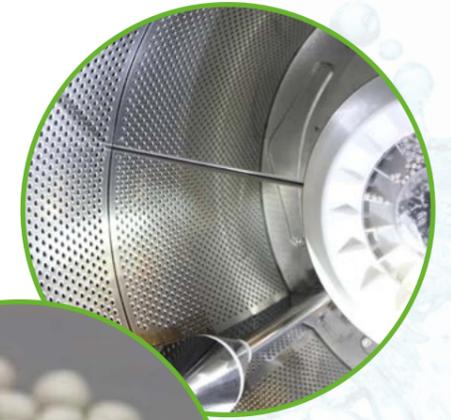
Xeros has developed products which go a long way to providing a solution - reducing inputs, emissions and processing time, whilst producing three quality garments.



TECHNOLOGY

Revolutionary
Delivery
Mechanism

XDrum™
Xeros In-Drum Technology



Green
Solution

XOrb™
Xeros Polymer Technology



Our technology is a step change in water sustainability

Xeros' proprietary XOrbs™ replace conventional methods while reducing water and chemistry consumption. They do so in a single process cycle, using the proprietary XDrum™ design.

Xeros' XDrum uses XOrbs to produce an authentic stone wash look. Unlike other finishing processes they last for a very large number of cycles before being recycled into new XOrbs.

Xeros' XOrb cycles can be tuned to produce any and all desired product outcomes - stone washing, surface effects and shading.

XDrum denim finishing machines automate the process of adding and removing XOrbs from the cycle. Thereby reducing labour intensity, increasing efficiency and reducing costs.

Commercial Laundry XOrbs
remove molecules

Textile Processing XOrbs
affix molecules

The Xeros process offers many significant benefits over conventional methods.

PARTNERS

Ramsons license of platform technology

Ramsons have licensed Xeros Technology Group to develop and commercialise their joint technologies to radically improve the sustainability, performance and economics of water intensive processes.

Developing an opportunity to purchase a brand new enabled XDrum machine or have the capex flexibility to retro fit XDrum technology into existing front-loading denim machinery delivers savings by reducing:

- Effluent Treatment Plant costs
- Drum replacement costs
- Labour costs associated with:
 - machine cleaning
 - down-time
 - use of multiple machines

“XDrum™ is used in all of our fabric and garment manufacturing applications.”

Ramsons

With the Xeros process, manufacturers can achieve any and all desired outcomes - stone washing, surface effects and shading using a single machine...with less inputs, less emissions and less time.



Ramsons

Ramsons' XDrum™ Garment Finishing Machine

BENEFITS

XOrb benefits in denim finishing



BETTER

Finished denim looks and feels better



GREENER

Less water, less energy, less chemistry and less waste



FASTER

No pumice leads to reduced labour and quicker production times



CHEAPER

Fewer raw materials, improved throughput

Multiple operations in one machine

Unlike conventional processes, Xeros undertakes all operations (abrasion, bleaching and tinting) in one machine.



Abrasion, bleaching and tinting results from one machine

BETTER PROCESS

EVEN CHEMISTRY APPLICATION



XOrbs deliver chemistry more efficiently and evenly than conventional methods.

LOWER TEMPERATURE PROCESS



XOrbs provide a gentle mechanical action which reduces the need for large volumes of water and extreme temperatures.

CLOSED LOOP HARVESTING SYSTEM



The closed loop harvesting system requires no handling of XOrbs.

REDUCED ENZYMES



XOrbs lead to reduced enzymes including amylase, cellulase and peroxidase leading to a greener process.

BETTER PRODUCTS

Without compromise, delivering better products than conventional processes



REDUCED BACK-STAINING



REDUCED CREASING



SUPERIOR APPEARANCE

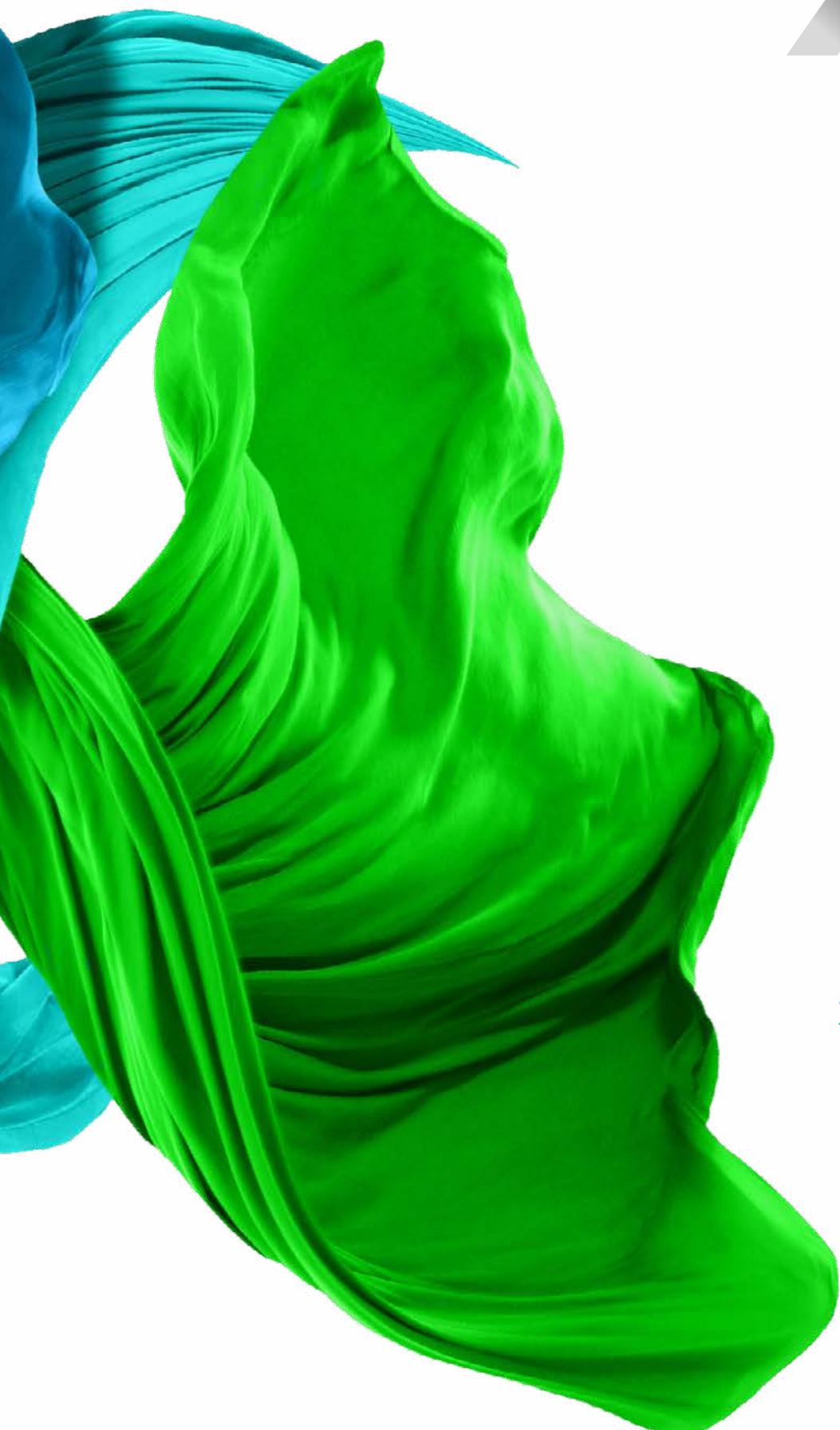


REPLICABLE RESULTS





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