COLOURizd™

RADICALLY SUSTAINABLE TEXTILE COLORATION

COLOURizd™ REVOLUTIONARY TEXTILE COLORATION
SUSTAINABILITY WITH NO COMPROMISE

BEAUTY   **QUALITY**   **SUSTAINABILITY**

COLOURizd™

SUSTAINABILITY WITH NO COMPROMISE

RECREATING TEXTILES THAT CONSUMERS LOVE WHILE REDUCING COST, WATER USAGE, ENERGY, AND CARBON FOOTPRINT.

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THE PROBLEM

THE TEXTILE INDUSTRY IS ONE OF THE WORLD'S TOP POLLUTERS

Pollution

Textile dyeing and finishing contributes approximately 20% of the global industrial waste water pollution.

Clean Water Crisis

The textile industry is a major contributor to the world clean water crisis. By 2030 annual global water requirements will exceed current sustainable water supplies by 40%

Growing Global Market

If demographic and lifestyle patterns continue as they are now, global consumption of apparel will rise from 62 million metric tons in 2019 to 102 million tons in 10 years.

Chemical Usage

Using conventional textile dye methods up to 30 chemicals regularly used cannot be removed from our water supply. Only 60% of colorant is utilized the rest is waste.

Carbon FootPrint

The fashion industry is responsible for 10 % of annual global carbon emissions, more than all international flights and maritime shipping combined.

Textile Industry Is Slow to Change

In 2017, the Boston Consulting Group took the pulse of the fashion industry scoring it only 32 out 100, concluding that the industry is slow to improve its sustainability.

COLOURizd™

THE SOLUTION

COLOURizd™ Replaces Conventional Yarn-Dye Technologies for Cellulosic Fibers

Zero Discharge

COLOURizd™ coloration process has no wastewater discharge from it's process. Allowing for pollution free textile coloration. .

Global Market

With a greatly reduced infrastructure and water needs, COLOURizd™ machines can be placed in arid areas and locations where traditional dyeing was not welcome.

73% Reduction in Carbon Foot Print

COLOURizd™ is a process that dramatically reduces carbon foot print and will help companies meet ESG requirements. All claims are independently verified by Peterson/Control Union.

SUSTAINABILITY WITH NO COMPROMISE

Near Waterless

Provides textile coloration in a dry factory environment utilizing 98% less water than conventional yarn dyeing methods.

Chemical Usage

Uses no harmful chemicals with a 98% utilization. All chemicals do not appear on any RSL.

Fully Industrialized Equipment

COLOURizd™ has 2 full size production machinery ranges in operation. We can provide textile equipment to manufacturers worldwide with a 4-7 month lead time.

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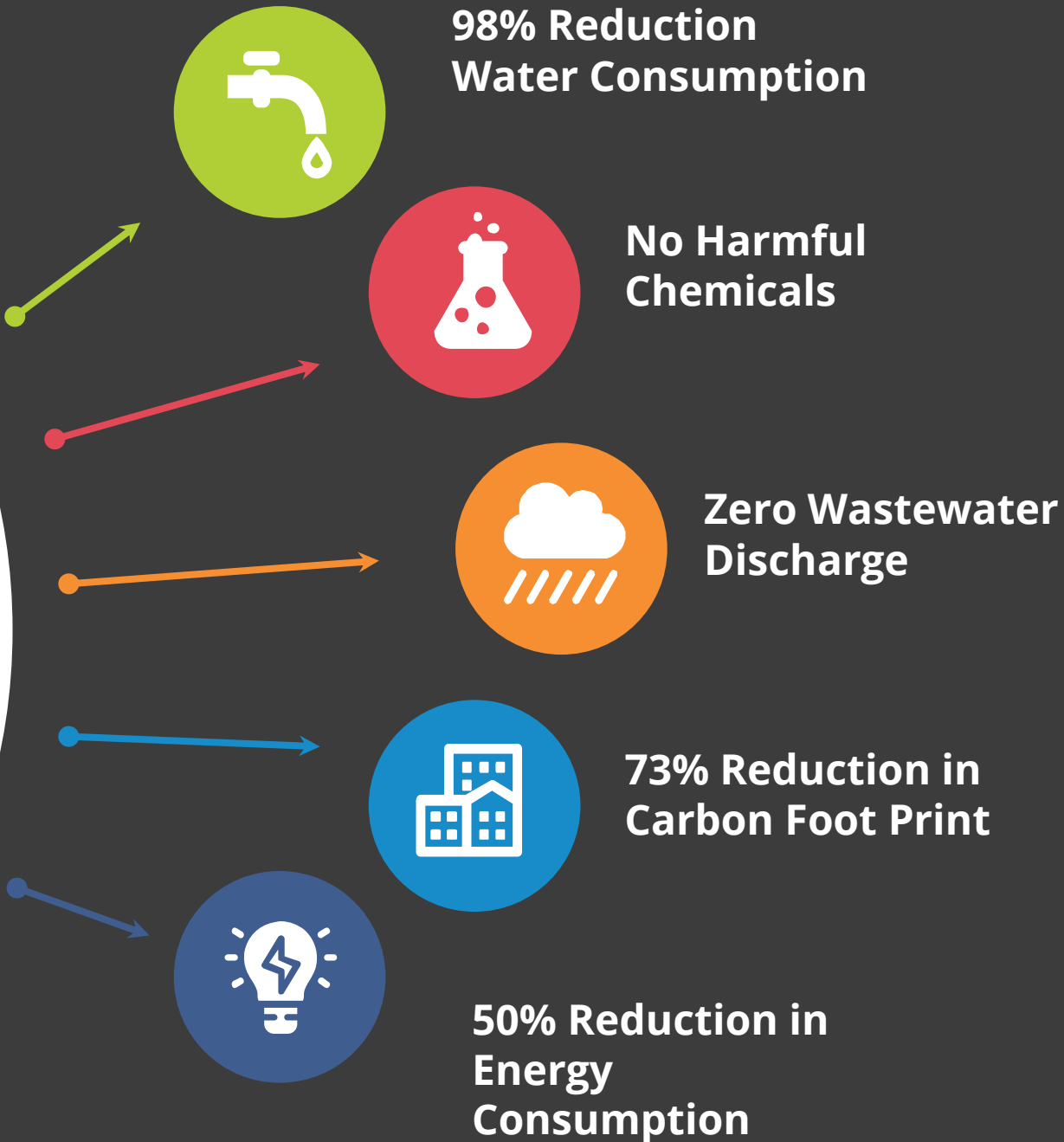
COLOURizd™

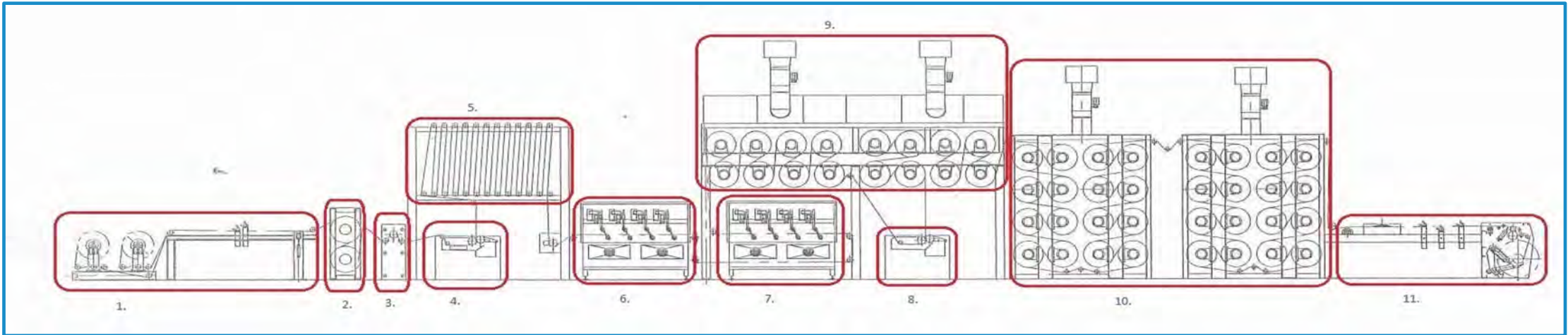## RADICALLY SUSTAINABLE TEXTILE COLORATION

COLOURizd™
INDEPENDENTLY VERIFIED

PETERSON CONTROLUNION

Ø ZDHC
Zero Discharge of
Hazardous Chemicals

OEKO-TEX®
INSPIRING CONFIDENCE
MADE IN GREEN

OEKO-TEX®
CONFIDENCE IN TEXTILES
STANDARD 100

OEKO-TEX®
INSPIRING CONFIDENCE
STeP

**98% Reduction
Water Consumption**

**No Harmful
Chemicals**

**Zero Wastewater
Discharge**

**73% Reduction in
Carbon Foot Print**

**50% Reduction in
Energy
Consumption**

COLOURizd™
RADICALLY SUSTAINABLE TEXTILE COLORATION

SUSTAINABLE YARN COLORATION FOR CELLULOSIC FIBERS

The world's leading quality apparel retailers find that COLOURIZED™ yarns and fabrics are the only products that meet their sustainability goals, as well as produce materials that are better looking, softer, and stronger.

CERTIFIED PROCESS

With COLOURizd™ what we claim is what you get. Our processes have been independently verified by Peterson/Control Union and scrutinized by industry leaders. No Green Washing Here!

FIVE STEP FULLY INDUSTRIALIZED PROCESS

A simplified manufacturing footprint that utilizes a significantly reduced infrastructure making it an ideal option for areas with limited resources like water and energy, or constricting environmental laws. Installed systems have capacity for 120 tons of yarn per month or the equivalent of approximately 500K yards of woven fabrics.

SAVES MONEY AND RESOURCES

Due to an efficient production system, cost savings are realized in fiber, chemicals, energy, water, and infrastructure. This results in an average saving of $0.35 USD per KG of yarn in the coloration process Other savings in infrastructure, yarn and finishing can be realized as well. .

COLOURizd™
RADICALLY SUSTAINABLE TEXTILE COLORATION

Greige Yarn
Yarns are not scoured or bleached prior to coloring

Wet Out
Proprietary wetting agent with 99% efficiency of use

Color Diffusion
Patent pending yarn coloration

Dry
Drying & curing of colored yarn

Package Winding
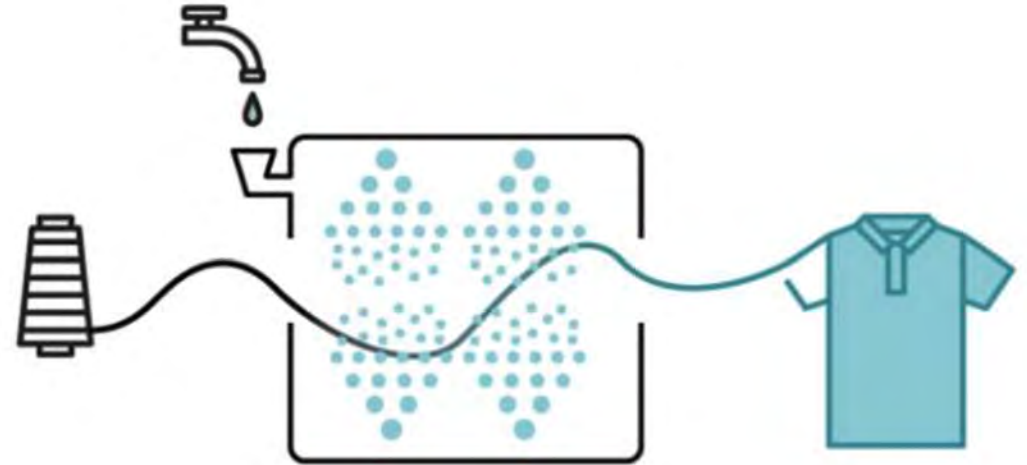Yarns can be delivered on beam for weaving or wound on tubes

COLORATION BEFORE COLOURizd™

COLORATION AFTER COLOURizd™

FIBER REACTIVE DYEING PROCESS

- 30 Step Process
- 30 Chemical Classes
- Up to 8% yarn strength decrease
- Up to 5 % decrease in yarn volume

COLOURizd™ PROCESS

- 5 Step Process
- 3 Chemical Classes
- Up to 14% yarn strength increase
- Up to 10 % increase in yarn volume
- Bleach Safe
- Reduced Pilling

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COLOURizd™ Production Outputs

Projected optimal monthly outputs per range size

COLOURizd™ Color Diffusion Range Production

Colourizd Color Diffusion Machine	6/1 Nec Kg per month	10/1 & 20/2 Nec Kg per month	16/1 & 30/2 Nec Kg per month	20/1 Nec Kg per month	30/1 Nec Kg per month
Small/Sample Range	54,000 kgs	36,000 kgs	24,000 kgs	18,000 kgs	12,000 kgs
Medium Range	108,000 kgs	72,000 kgs	48,000 kgs	36,000 kgs	24,000 kgs
Large Range	210,000 kgs	140,000 kgs	93,000 kgs	70,000 kgs	46,000 kgs

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INFRASTRUCTURE & RESOURCE COMPARISON

Key Differences

Infrastructure	Fiber Reactive Package Yarn Dying	COLOURizd™
Multilevel building	✔	
Standard Industrial Building		✔
Large Circulating Pumps	✔	
Specialized High Volume Water Input	✔	
Structural Plumbing and Drainage Systems	✔	
Water Input (similar to home laundry) No Drain Needed		✔
Waste Water Treatment Facility	✔	
Chemical Storage Facility	✔ 30+ Chemicals + Dye Colors	✔ 3 Chemicals + Pigment
Overhead Crane	✔	
Warp Truck		✔
Steam Generation System including Boiler and Specialized Piping	✔	
Water Extractor	✔	
Industrial Power Supply	✔	✔
Gas or Electric Supply for Drying		✔
Disposable or Reusable Dye Packages	✔	
Warp Beams		✔
Hydraulic Press	✔	
In-process Skein Testing for Color Accuracy	✔	

COLOURizd™

SUPPLY CHAIN IMPACT

FROM FIBER TO PRODUCT

Yarn Manufacturing
Deliver colored yarn without the need for a third party dyer

Coloration
Replacement or addition to incumbent technologies

Weaving or Knitting
Ability to accept greige yarns and color just in time

Garment Manufacturing & Finishing
Reduced finishing

TARGET

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

INDICATOR

6.3.1 Proportion of wastewater safely treated

SOLUTION

COLOURizd™ allows for nearly a dry factory in the processing of textiles. Zero waste water discharge, 98% reduction of the water needed to color textiles, and significant reduction in finishing.

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SUSTAINABLE DEVELOPMENT G🔆ALS

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

TARGET

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

INDICATOR

9.4.1 CO_2 emission per unit of value added.

SOLUTION

COLOURizd™ reduced carbon foot print by 73% over fiber reactive dyeing, 50% reduction in energy, and efficient chemical usage.

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SUSTAINABLE DEVELOPMENT GOALS

TARGETS

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

INDICATORS

12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment

12.6.1 Number of companies publishing sustainability reports

SOLUTION

COLOURizd™ produces zero discharge of harmful chemicals and allows for adoption of sustainable practices and reporting.

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WHY COLOURizd™?

Cost Reduction & Environmental Impact

Textile manufacturing continues to migrate to low cost and less environmentally strict countries. Africa, South East Asia and Latin America continue to the preferred areas of textile manufacturing. Water scarcity is becoming a global problem.

Location Independent

Coloration can now be done any where in the world. There is no need for large quantities of water. And due to our environmental practices we meet the most stringent requirements world wide.

Meet Social and Consumer Pressures

Brands are looking for ways to meet consumer demands around sustainability. This provides a practical and actionable way forward. With our certifications you can be assured that our claims are accurate.
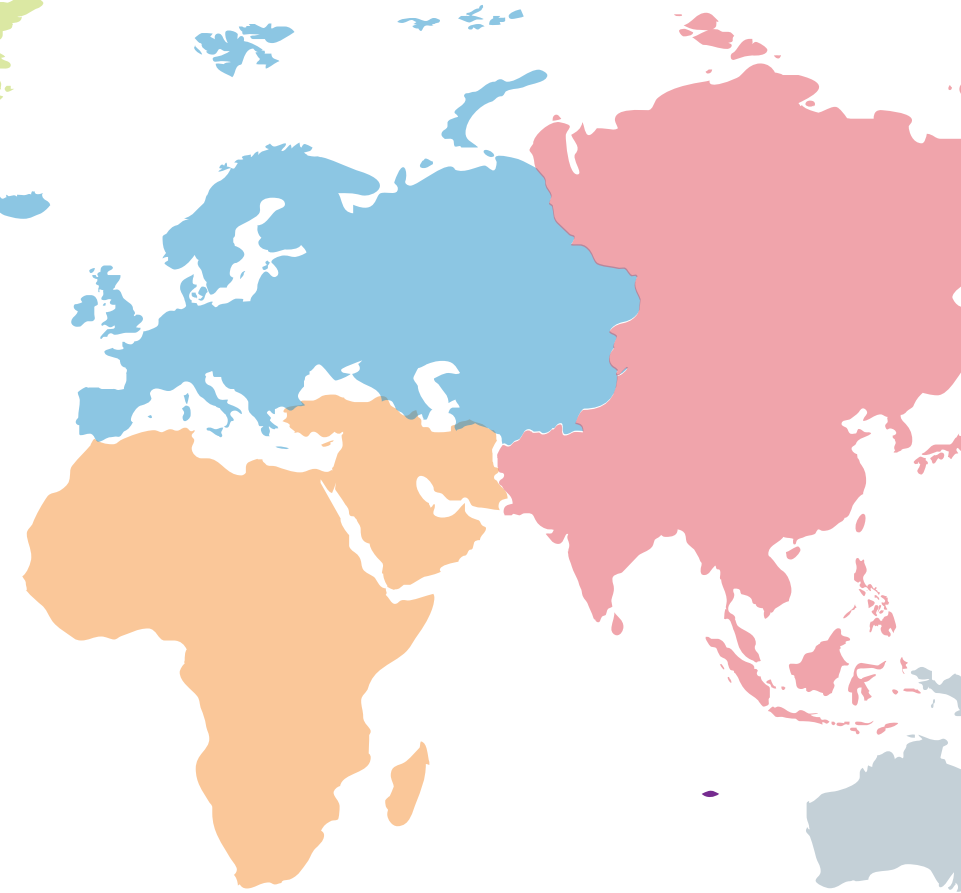
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THANK YOU

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