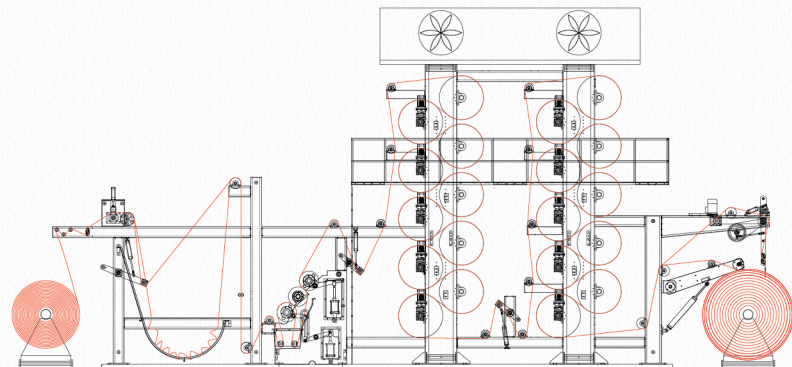


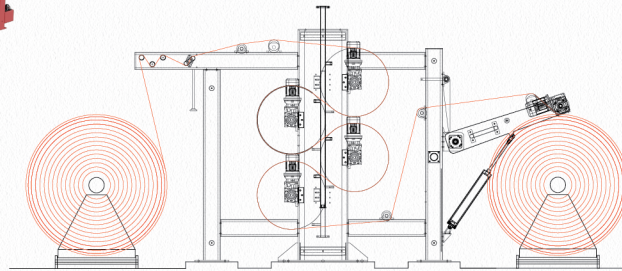
1 VERTICAL DRYING RANGE MACHINE

Precision Contact Drying
Technology for Advanced Textile Finishing



Energy-Saving Add-On (Optional)

Optional ceramic-coated drying cylinders and high-density insulation sheets are available to reduce heat and steam losses. These enhancements improve thermal efficiency, lower steam consumption, and support energy-efficient operation in line with EU sustainability and performance standards.



Key Performance Advantages

- » Long-life, industrial-grade construction with minimal maintenance
- » Extremely low energy and steam consumption
- » Fast start-up with rapid heating response
- » Operator-friendly PLC-based control interface
- » Low-tension, fabric-safe drying throughout the process
- » Wrinkle-free fabric movement across all drying zones
- » Excellent temperature uniformity across the full fabric width
- » Consistently high and reproducible product quality

Engineered Performance Specifications

- » Working Width: 1200 mm to 4000 mm
- » Cylinder Diameter Options: 400 MM | 570 mm | 600 mm | 760 mm | 800 mm
- » Steam Operating Pressure: Up to 5 Bar
- » Maximum Design Temperature: 165°C
- » Production Speed: 10 m/min to 150 m/min
- » Cylinder Arrangement per Stack: 4 / 6 / 8 / 10 / 12
- » Stack Construction: Heavy-duty MS or SS fabricated structure
- » Cooling Cylinder Designs:
 - › Single-shell type
 - › Double-shell jacketed type
 - › Spiral-flow high-efficiency cooling cylinders

High-Precision Drying Cylinders

Dhara drying cylinders are engineered using thin-walled precision manufacturing technology to ensure optimal heat transfer, smooth fabric contact, and long operational life.

- » Stainless steel cylinder shells with superior corrosion resistance
- » Precision balancing for minimal radial run-out
- » High-quality welding and surface finishing
- » Surface-belt grinding for enhanced fabric contact
- » Premium Teflon-coated surfaces for non-stick drying and easy cleaning

Applications & Process Benefits

The Dhara Vertical Drying Range Machine provides an energy-efficient and highly reliable contact-drying solution for textile finishing. It ensures gentle, low-tension, and reproducible drying conditions, making it ideal for both intermediate and final drying stages.

Suitable for:

- » Woven and knitted fabrics
- » Technical and industrial textiles
- » Non-woven and filament materials
- » High-quality finishing lines requiring precision and consistency

Advanced Drive & Tension Management Technology

The Dhara Vertical Drying Range is equipped with an advanced direct-drive system, ensuring precise synchronization between fabric behavior and cylinder rotation.

- » Direct cylinder drive using frequency-controlled geared motors
- » No intermediate belts or mechanical transmission elements
- » Automatic speed compensation for fabric shrinkage during drying
- » Preset fabric tension limits are never exceeded
- » Smooth operation with extremely low maintenance requirements

Flexible Customization & Process Integration

- » Selective cylinder or zone shut-off for energy optimization
- » Temperature control per stack or per cylinder group
- » Steam pressure reduction and safety control systems
- » Compensators between stacks for smooth fabric transfer
- » Choice of direct drive or alternative belt drive system
- » Integrated or standalone cooling cylinders
- » Feeding-in scaffold with batching, plaiting, or surface winder units
- » Exhaust hood with axial fan or fully insulated enclosure
- » Synchronization with finishing machines or independent operation
- » Optional 2-bowl or 3-bowl padding mangle

Intelligent Steam & Moisture Control System

Segmented Steam Pressure Regulation

- » Independent steam control for individual cylinder groups
- » Fabric-specific thermal profiling
- » Optimized drying balance and reduced energy usage

Centralized Steam Management

- » Stable, uniform heat distribution across the entire drying range
- » Ideal for high-speed continuous finishing lines

Real-Time Residual Moisture Control

- » Inline moisture sensors monitor fabric wetness continuously
- » Automatic steam adjustment prevents over-drying
- » Preserves fabric softness, strength, and appearance

Closed-Loop Automation


- » Continuous feedback between sensors, controllers, and steam valves
- » Self-regulating process control
- » Enhanced productivity and consistent output quality


Modular Vertical Configuration


- » Vertical layout with 1 to 6 stands
- » 4 to 12 drying cylinders per stand
- » Suitable for continuous production or standalone operation



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