



6 ATMOSPHERIC PAD-STEAM CHAMBER STEAMER

Advanced Steam Fixation System for Continuous Textile Processing

The Dhara Atmospheric Pad-Steam Chamber Steamer is a high-performance steaming system engineered for continuous textile wet processing lines, including desizing, bleaching, dye fixation, and chemical treatment processes.

Designed to operate under controlled saturated steam conditions, the system ensures uniform heat penetration, precise humidity control, and optimized dwell time, delivering consistent and reproducible processing results across a wide range of fabric types.

With its advanced chamber design, steam saturation technology, and intelligent sealing systems, the Dhara Steamer provides superior fixation efficiency, reduced chemical consumption, and enhanced fabric quality, making it an essential component for modern textile finishing plants.

Engineered Performance Specifications

- » Working Width: 1400 mm to 4000 mm
- » Chamber Configuration: Modular (2 / 3 / 4 Compartments)
- » Operating Temperature: Up to 102°C
- » Steam Condition: Saturated Steam (Atmospheric)
- » Fabric Speed: 20 m/min to 100 m/min
- » Dwell Time Range: 1 – 10 Minutes
- » Machine Construction: SS 304 / SS 316 (Optional)
- » Insulation: High-density thermal insulation with cladding
- » Operation Mode: Continuous
- » Fabric Form: Open Width / Rope Form

Operational Advantages

- » Improved color fastness and fixation
- » Optimized chemical utilization
- » Reduced reprocessing and rejection rates
- » Stable and reproducible process control

Key Performance Advantages

- » Superior dye fixation and chemical reaction efficiency
- » Uniform steaming across full fabric width
- » Reduced steam, water, and chemical consumption
- » Gentle, low-tension fabric handling
- » Wrinkle-free fabric movement and loop formation
- » High productivity with stable process control
- » Long operational life with corrosion-resistant construction
- » Consistent and repeatable fabric quality

Advanced Steam Saturation & Distribution

External Steam Saturator System

The Dhara Steamer is equipped with an external steam saturator unit, ensuring:

- » Delivery of dry, saturated steam
- » Elimination of wet steam and condensate carryover
- » Stable and uniform steaming conditions

Uniform Steam Distribution Network

- » Engineered steam header and nozzle system
- » Balanced steam flow across all chambers
- » Elimination of temperature variation and cold spots

Heated Roof Design

- » Prevents condensation formation inside chamber
- » Eliminates water droplet marks on fabric
- » Ensures clean and uniform processing

Advanced Entry & Exit Sealing Technology

Steam Lock at Entry (Steam Lips System)

- » Prevents air ingress into the chamber
- » Maintains saturated steam environment
- » Improves dye fixation efficiency

Energy Efficiency & Sustainability

- » High-efficiency insulation system
- » Reduced thermal losses
- » Optimized steam consumption design
- » Lower operating costs
- » Heat recovery integration

Fabric Handling & Dwell System

The Dhara Steamer is designed to provide optimized dwell time and gentle fabric handling through a controlled internal fabric path.

- » Extended dwell path inside chambers
- » Loop / guided fabric movement system
- » Low-tension transport to prevent distortion
- » Suitable for both lightweight and heavy fabrics

Condensate & Moisture Management System

- » Efficient bottom drainage system
- » High-performance steam traps
- » Continuous condensate removal
- » Prevents water accumulation and fabric marking

Drive & Synchronization System

- » Fully synchronized with padding mangle and washing range
- » VFD-controlled fabric speed
- » Smooth entry and exit fabric control
- » Stable operation across varying production speeds

Process Integration

Padding → Steamer → Washing Range → Dryer

The Dhara Advantage

The Dhara Atmospheric Pad–Steam Chamber Steamer represents the next generation of textile steaming technology—combining precision engineering, advanced steam control, and intelligent process design.


Engineered to outperform conventional systems, it delivers superior fabric quality, higher efficiency, and long-term reliability, making it a preferred choice for modern textile manufacturers targeting global quality standards.


Dhara — Precision Steaming. Superior Fixation. Global Performance






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