BENNINGER

# TECHNOLOGY

# Dyeing Excellence for Every Fabric Challenge

**Benninger presents advanced solutions for high-quality dyeing and efficient processing at India ITME 2026**

Benninger, a complete system supplier with leading technologies for continuous wet processing and discontinuous dyeing, offers proven solutions that meet the needs of Indian textile manufacturers, who are under growing pressure to process a wider range of fabrics faster while using less water, energy and chemicals. At ITME 2026, Benninger presents FabricMaster, SynthMaster and CPB Knit – reliable solutions for demanding woven and knitted articles, from sportswear and heavy jersey to sensitive synthetic blends and high-value underwear fabrics.

In every dyehouse, some articles place considerably greater demands on the machinery than others. Fabrics may mark easily, develop uneven shades or require longer processing times. As fashion cycles shorten and product diversity increases, the ability to process demanding qualities reliably is becoming an important competitive advantage for Indian mills serving both domestic and export markets.

## Benninger FabricMaster: versatile dyeing, from sportswear to heavy jersey

Discontinuous dyeing is one area in which fabric quality and machine performance are particularly closely linked. Processors must handle an increasingly diverse range of woven and knitted fabrics while reducing cycle times, water consumption and energy use. The ability to switch efficiently between fabric qualities without compromising colour consistency is therefore essential.

Benninger addresses these requirements with the FabricMaster jet dyeing machine. It processes woven and knitted fabrics rope-mark-free, including articles that are difficult or impossible to process on other machines. These include heat-set polyester sportswear, smooth viscose-elastane blends and heavy 20s cotton jersey.

Intelligent liquor circulation, efficient liquor penetration, high rope speeds and gentle fabric transport enable shorter processing times while reducing water and energy consumption. The result is greater flexibility without compromising productivity or dyeing reliability.

## Benninger SynthMaster: gentle processing of sensitive textile articles

The Benninger SynthMaster is designed for fabrics that are sensitive to compression during processing.



*Benninger FabricMaster – the fastest and most versatile jet of the industry*

Nylon-elastane blends, high-value viscose-wool underwear fabrics and non-heat-set polyester articles, both knitted and woven, may retain compression marks in the finished product. The SynthMaster's horizontal jet dyeing concept provides smooth, tension-free fabric movement while maintaining consistent process conditions throughout the machine. This allows the goods to leave the machine free of compression marks.

Its nozzle technology and optimised chamber design enable operation at low liquor ratios, helping to reduce water and energy consumption. The compact machine footprint also helps mills use existing production space efficiently, an important consideration where increasing capacities within existing facilities is a priority.

Because the SynthMaster shares key components with the FabricMaster, customers benefit from simplified maintenance, operational familiarity and a high degree of compatibility between the two machine platforms.



*Benninger SynthMaster – for the most gentle treatment of sensitive fabrics*

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*Benninger CPB Knit – gentle and sustainable dyeing of knitted goods*

**Benninger CPB Knit: resource-efficient dyeing of knitted goods**

The Benninger Cold-Pad-Batch system, CPB Knit, provides salt-free dyeing for knitted goods with water consumption of less than one litre per kilogram. The system offers tension-free, non-curling fabric transport, requires no biopolishing and achieves high dyestuff yield.

**Booth D1F2, Hall 3**
**India ITME 2026**

At the centre of the system is a padding mangle with two Küsters S-rolls. Their nip profiles are adapted to the fabric and process requirements, supporting level dyeing without listing or tailing.

The compact design includes a dyeing trough that swivels downwards and backwards, improving accessibility and operator safety.

**Expertise beyond continuous and discontinuous dyeing**

Benninger's experience and know-how extend across continuous and discontinuous dyeing and finishing. The company integrates technologies that reduce the consumption of water, energy and chemicals while improving process stability.

These include automated liquid dispensing, powder dissolving and distribution systems, wastewater heat recovery and caustic soda recovery for mercerising ranges.

With more than 165 years of experience in textile machinery, Benninger remains focused on solving the practical challenges faced by dyehouses and finishing plants. By combining Swiss engineering, process expertise and close collaboration with customers, supported by a strong presence in India, the company helps textile manufacturers transform fabrics into high-value products efficiently, sustainably and with consistently high quality.

Visitors can benefit from Benninger's experience and expertise and gain first-hand insights into finishing solutions that support competitive business operations at the upcoming India ITME. They are warmly invited to meet the experts at Booth D1F2 in Hall 3.