

M-clean™ System

Product Guide



High-performance cleaning to effectively remove contaminants from fabrics, belts, and rolls in process industries.

M-clean System

The M-clean system is a modular cleaning system for fabrics, belts, and rolls in process industries. The modular design provides flexibility allowing all new equipment or a combination of new and existing equipment. Key components such as spray nozzles are also interchangeable to fit the application. The three customizable M-clean systems available are the M-clean PRO, M-clean ULTRA, and M-clean BRUSH.

Standard setup is with an intermittent cleaning mode but are well suited for continuous operation if required. Parameters such as water pressure, traversing speed, cleaning frequency can be optimized for the application.

Product Name	Wet End	Press Roll	Dryer	Coater	Tissue	Non-Woven	Glass Mat
M-clean PRO	X	X	X		X	X	X
M-clean ULTRA	X				X	X	X
M-clean BRUSH				X			

M-clean™ PRO

The M-clean PRO has the largest installation base and is the most powerful unit within the M-clean system product line. It contains a complete set of high-pressure pumps, evacuations, and control systems where a desired number of cleaning units are connected. The control system offers a range of features and cleaning modes with an optional digital communication to the machine's DCS.

The system effectively cleans both the surface and deep inside the fabric structure or roll cover and ensures that all removed impurities are collected and discharged outside the machine.



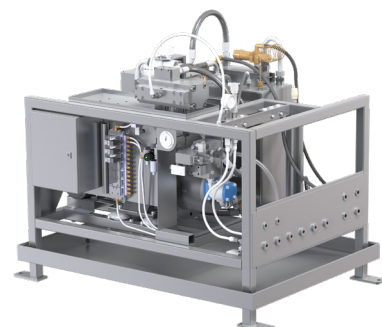
M-clean PRO beam



Control system



Evacuation system



High-pressure pump

Overview



Features

- Stainless steel construction
- Designed for up to 285° F (140° C) ambient temperature
- One central unit for up to six cleaning units
- Efficient cleaning with up to 8,700 psi (600 bar) water pressure



Benefits

- Improved machine runnability and production quality
- Clean and dry fabrics or rolls
- High air permeability values during fabric life
- No water marks during cleaning
- Increased drying efficiency
- Simple, low cost maintenance



Applications

- Dryer fabrics
- Top former fabrics
- Press rolls

M-clean™ ULTRA

The M-clean ULTRA builds upon the same rigid construction and quality as the M-clean PRO, however it is constructed with a simpler, more streamlined design to suit narrow and tight installation positions. The M-clean ULTRA works with lower water pressure and a simplified pumping and control system but offers all necessary features suitable for a high-quality system.

The M-clean ULTRA was designed to offer an alternative to traditional full width oscillating showers in wet end applications and is a simplified version of the M-clean PRO.

Compared to conventional full width high pressure showers, the system consumes up to 95% less water while maintaining or improving fabric cleaning. The M-clean ULTRA can operate with existing pump systems or, if the application demands higher pressures, a dedicated high pressure pump is available.

The M-clean ULTRA is designed for continuous operation; however, some applications require only intermittent use.

If a chemical application is required, the system is designed to accommodate an additional nozzle.

Overview



Features

- Stainless steel construction
- Designed for up to 248° F (120° C) ambient temperature
- Efficient cleaning with up to 5,000 psi (345 bar) water pressure
- Venturri vacuum (optional)



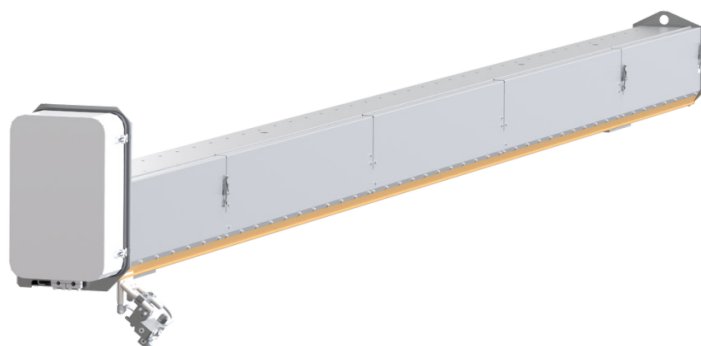
Benefits

- Up to 95% water savings and spot cleaning function
- Improved machine runability and production quality
- Low energy consumption
- Decreased machine down time
- Simple, low cost maintenance

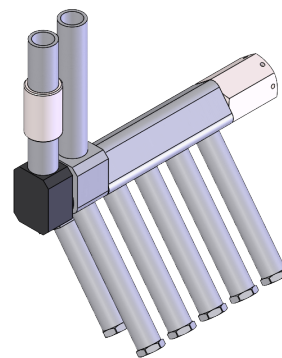


Applications

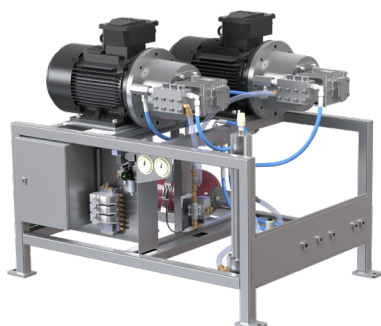
- Bottom forming fabrics
- Tissue forming fabrics
- Nonwovens machines
- Saturater fabrics



M-clean ULTRA beam



Nozzle Assembly



Piston pump



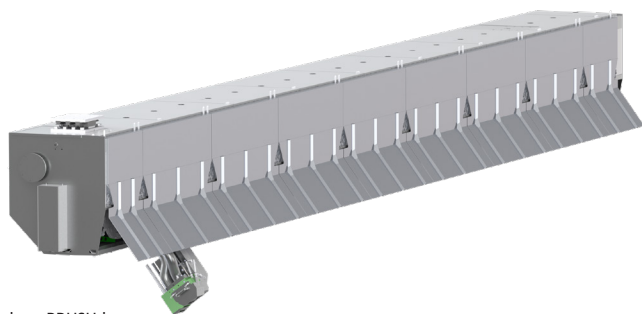
Control panel

M-clean™ BRUSH

The M-clean BRUSH uses the same method of high-pressure water, evacuation, and air knife system as the M-clean PRO. Additionally, it has a rotating brush which is an integrated part of the cleaning head for removing contaminants from the roll surface. The cleaning head includes double nozzle bodies for shock cleaning during breaks and continuous cleaning.

The high-pressure water, brush, and air knife system work in combination to remove impurities, dried out coating color residues, and roll contaminants.

The system operates at a rapid speed over the roll. With the wide cleaning head, strong air knife, and evacuation system no moisture streak is left on the roll. The M-clean BRUSH is suitable for cleaning during production and breaks.



M-clean BRUSH beam

Overview



Features

- Stainless steel construction
- Designed for up to 160° F (70° C) ambient temperature (higher temperature available upon request)
- One central unit for up to four cleaning units
- Efficient cleaning with up to 400 bar (5,800 psi) water pressure
- Integrated rotating brush with evacuation



Benefits

- Improved machine runability and production quality
- Efficient, gentle cleaning of roll surface contamination during production
- Intelligent safety features for trouble free production
- No moisture is left on the roll surface
- Simple, low cost maintenance



Applications

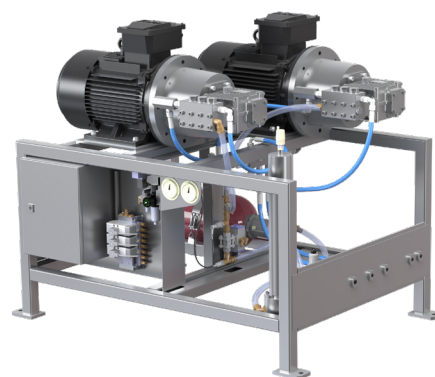
- Backing Rolls



Dual evacuation system



Control system



Piston pump