

Vacuum Media Filters

Vacuum roll media filter systems remove composite fines or metal chip fines and grinding swarf to achieve coolant clarity of 10 microns or less.

The perfect choice for high coolant flow rates, over 200 gpm, and for machining carbon fiber as used in aerospace industry applications.



FEATURES

- Fabricated with modular filter and tank components for a custom fit and filtration requirement
- Standard Automatic Media advance
- “Low Media Roll” detection switch to provide pre-warning to machine
- “No media” alarm sensor to provide fault condition to machine
- Effective pre-clean system for high pressure coolant
- Stainless steel designs available

BENEFITS

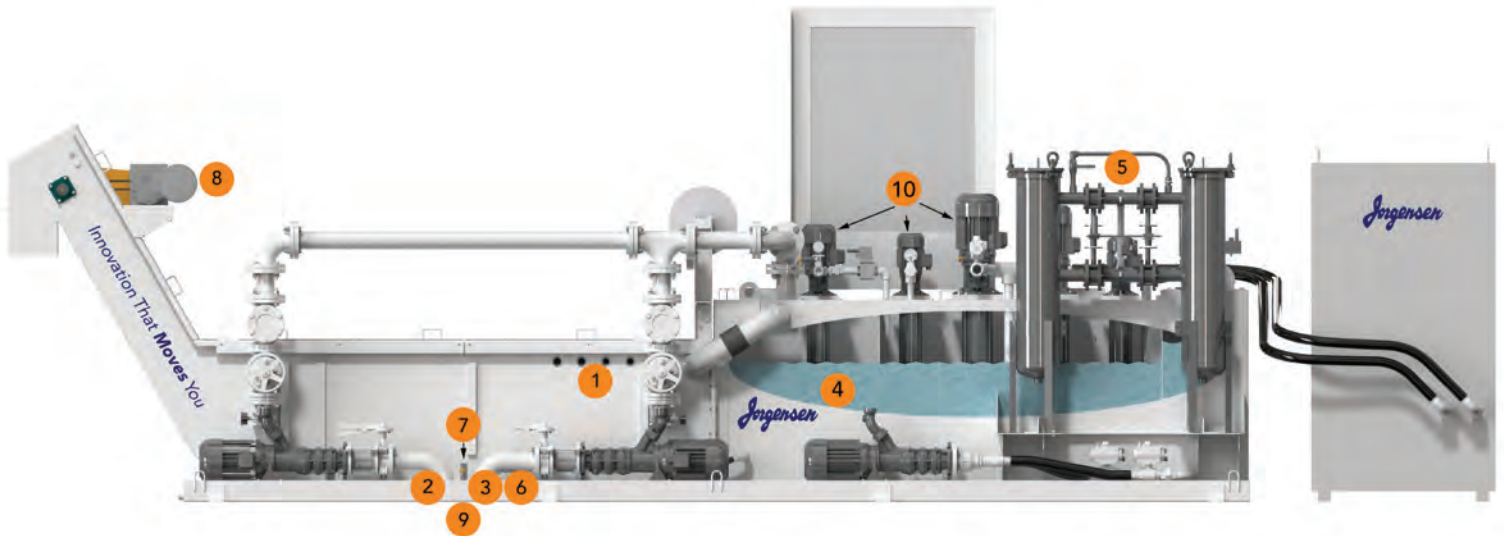
- Provides positive filtration up to 10 microns in very difficult applications
- Effective removal of fine chips, grinding sludge and swarf
- Deep filter cakes for efficient cost saving coolant use
- Positive seal design used to eliminate fines migration
- Vacuum systems allow for smaller footprints in higher flow rate applications
- Can be used for primary or secondary filtration

APPLICATIONS

- Coolant Filtration
- Oil Filtration
- Fluid Filtration
- Central Systems
- Water Filtration

OPTIONS

- Optional controls, pumps, high pressure coolant system equipment, downstream filtration or chillers/heat exchangers
- Various electronic sensors including liquid level monitoring, coolant temperature, etc.
- Full stainless-steel option available



HOW IT WORKS

1. Unfiltered coolant and chips enter the dirty coolant area of the system via inlets.
2. The vacuum pump draws coolant and chips to the paper media, located on the bottom of the dirty tank.
3. Coolant passes through the paper media, leaving the chips and fines behind.
4. The filtered coolant is then transferred to the clean tank where the machine supply pumps are located and are used to provide clean coolant directly to the machine.
5. In cases where ultra-clean coolant is required (high pressure/through spindle), a designated pump transfers the clean coolant through bag filters and into a separate ultra-clean section of the main clean tank.
6. As media begins to become coated with chips and fines, a vacuum builds within the vacuum chamber.
7. Once the vacuum sensor detects a certain level of vacuum, it will trigger an index cycle to introduce clean new media.
8. The index cycle will turn on a drive motor which moves a scraper belt along with the paper media across the dirty section of the system. The dirty media is pulled off of the vacuum chamber and discharged out of the conveyor.
9. Once new, clean media is above the vacuum chamber, the index cycle will end, and the process of filtering coolant through the media continues.
10. Throughout this cycle, the machine supply pumps continuously run, which guarantees no unnecessary down time at the machine(s).

Vacuum media filters are engineered to meet customer specifications and are fabricated with a coolant reservoir per your requirements.