



# FilClean<sup>TM</sup> CMS

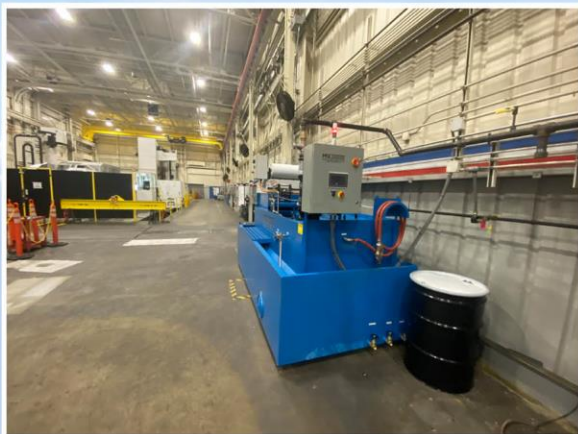
## Centralized Machine Tool Coolant Management System and Recycler

The FilClean CMS Machine Tool Coolant Management System is a cost-effective solution that empowers customers to recycle their coolant, resulting in significant savings on new machine tool coolant costs annually. Its advanced design provides a centralized location for removing tramp oil and particulates from coolant, along with coolant rebalancing and optional ozone treatment to control biological growth.

The FilClean CMS is incredibly user-friendly, requiring very little operator attention or training to operate. Once coolant has been pumped in, the processing is fully automatic, making it an ideal solution for businesses looking to streamline their coolant management process. Moreover, it's gentle on coolant and does not affect its chemistry, which ensures longevity and sustainability.

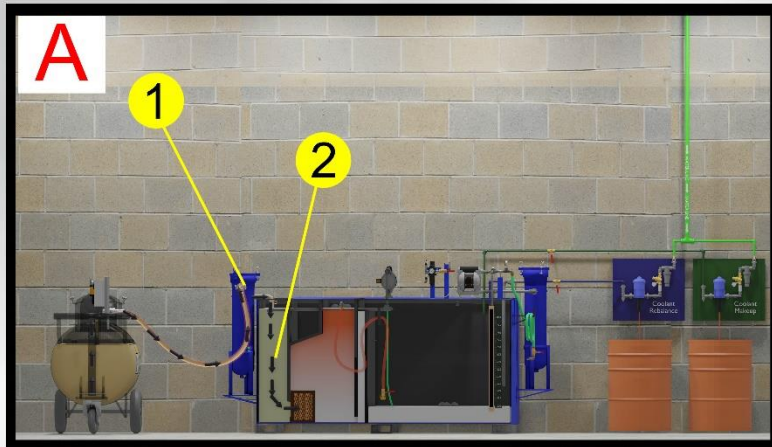
One of the standout features of the FilClean CMS is its simplicity. With only two moving parts, two air diaphragm pumps, it requires minimal maintenance, and its running costs are exceptionally low. The only consumables required are disposable bag filters, which cost just a few dollars each, or roll media, which costs a few dollars a yard if the optional FilClean IDX gravity indexing inlet filter is chosen.

Finally, the FilClean CMS is upgradable, providing customers with a range of options to customize their coolant management system. These include a variety of inlet filter options, magnetic cleanable filters, and ozone treatment. This flexibility ensures that the FilClean CMS can meet the evolving needs of businesses as they grow and develop.



- Reduce Annual Coolant Purchase Costs
- Improve Tool Life
- Reduce Dermatological Issues
- Reduce Machining Scrap
- Improve Parts Finishes

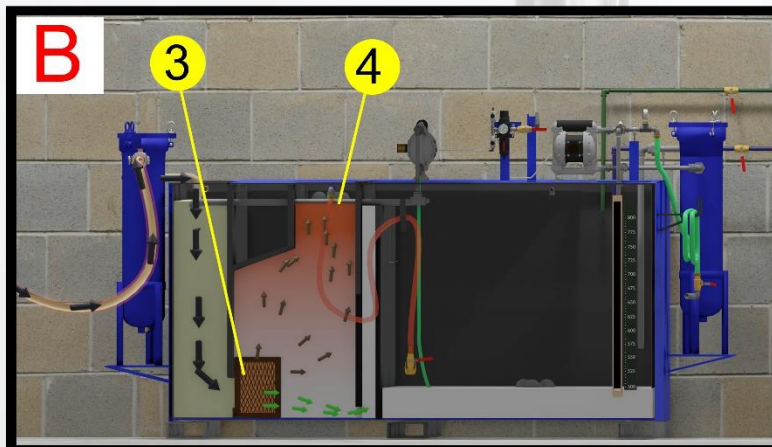




**1 Pump In:** Dirty Coolant is first pumped through a bag filter for particulate filtration.

**2 Dirty Coolant Section:** Dirty coolant drops via gravity down through the dirty section of the CMS Coolant Recycler.

**3 Tramp Oil Separation:** Coolant passes through MSC Filtration Technologies proprietary coalescer basket which coalesces and separates Tramp Oil from the coolant.



**4 Tramp Oil Collection:** Tramp Oil becomes trapped in the Tramp Oil Removal section of the CMS system where it floats to the top and collects as a thick film for removal later.

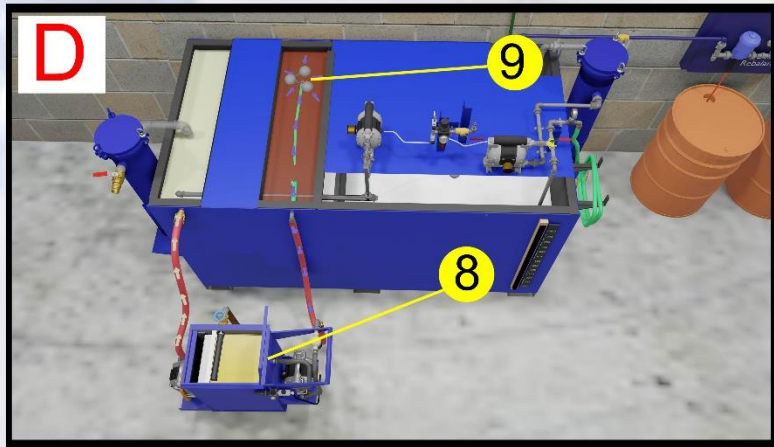
**5 Clean Coolant Section:** Clean coolant passes under one baffle and over an overflow baffle into the clean coolant storage section of the CMS system.



**6 Tramp Oil Polishing:** Clean Coolant is pulled off the top and recirculated through the CMS system for 8 hrs in order to polish off any remaining Tramp Oil.

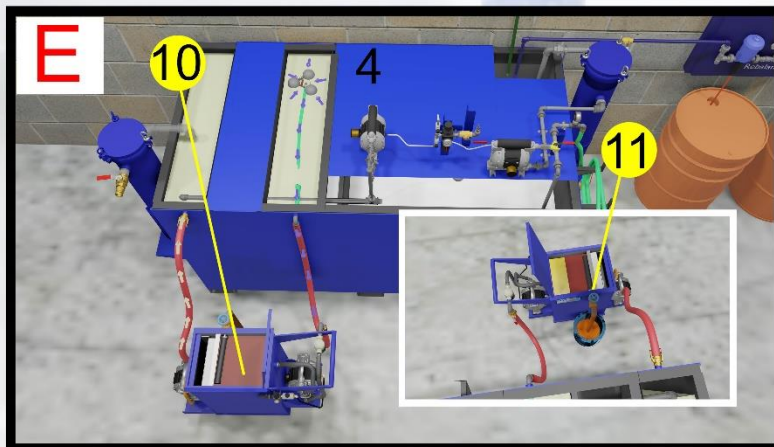
**7 Particulate Polishing:** During Tramp Oil Polishing clean coolant is also recirculated through a fine bag filter for fine particulate removal.





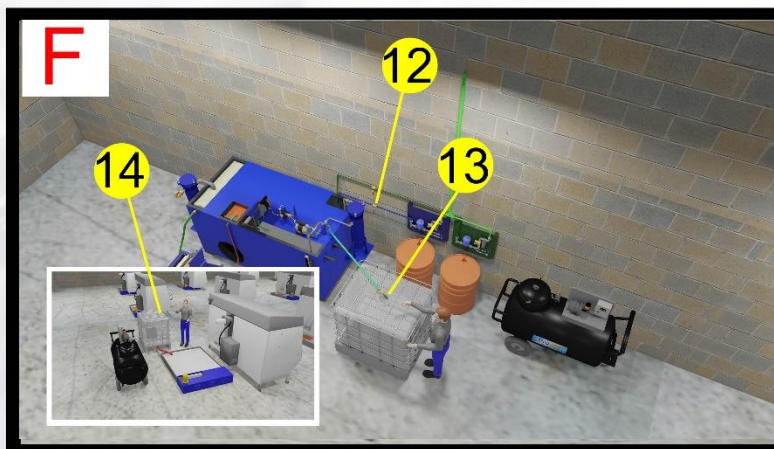
**8** OilSep CR2.5: A portable Tramp Oil Separator is supplied with the CMS System for easy connection using hoses and quick disconnects.

**9** Tramp Oil Removal: Tramp Oil is pulled off the top of the CMS Tramp Oil Collection section for removal by the OilSep CR2.5 which can also be used at the machine tools themselves.



**10** Tramp Oil Collection: As coolant recirculates through the OilSep CR2.5 Tramp Oil collects in the top of its separator section.

**11** Tramp Oil Drain: Once enough Tramp Oil has collected in the portable OilSep CR2.5 it is intermittently drained off into a collection vessel for disposal.



**12** Coolant Rebalance: After 8 hrs of autonomous processing water may be added to the coolant in the clean tank in order to rebalance based on refractometer readings and a simple calculation.

**13** Clean Coolant Removal: Clean Coolant is now ready to be pumped into a transfer tote using the transfer pump, hose and spigot provided with the CMS System

**14** Machine Tool Fill: Based on a predetermined schedule of a machine tool, dirty coolant is then exchanged for recycled coolant and the whole process of recycling begins again.

# Available Models

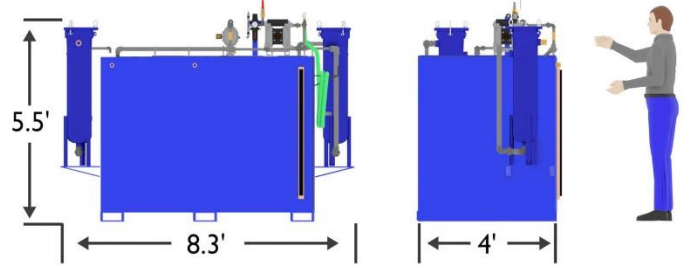
## Specifications

# FilClean™ CMS

## Centralized Machine Tool Coolant Management System and Recycler

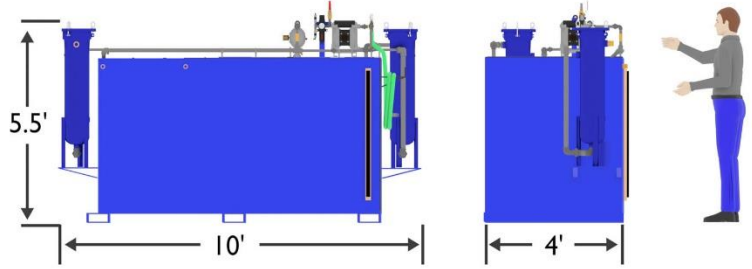
### FC-CMS-200-25

Max Recycling Capacity: 200 gallons/day  
Max Pump Out Rate: 25 gpm  
Utility: Compressed Air 50-100 psig 6 CFM



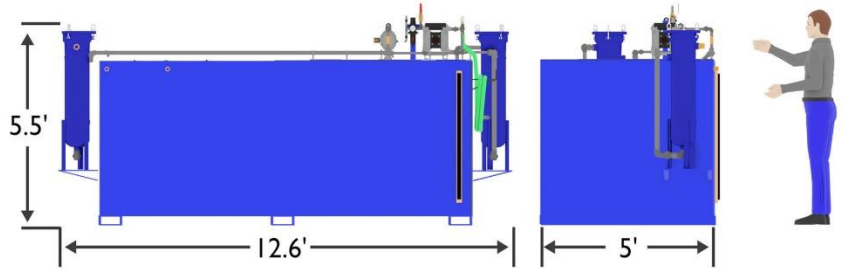
### FC-CMS-400-25

Max Recycling Capacity: 400 gallons/day  
Max Pump Out Rate: 25 gpm  
Utility: Compressed Air 50-100 psig 6 CFM



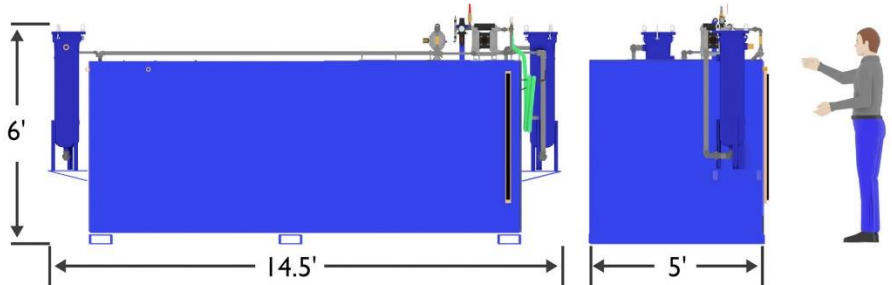
### FC-CMS-800-25

Max Recycling Capacity: 800 gallons/day  
Max Pump Out Rate: 25 gpm  
Utility: Compressed Air 50-100 psig 6 CFM



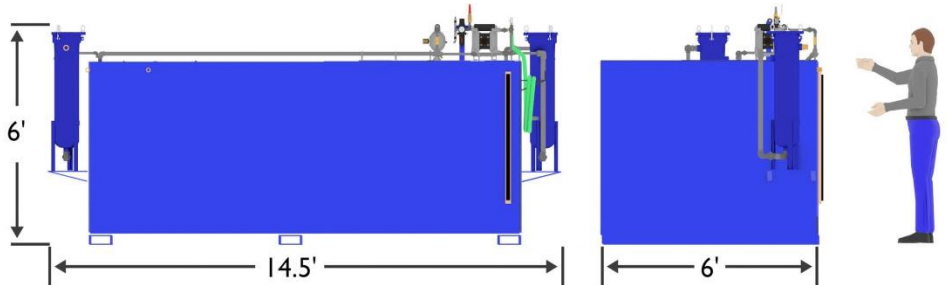
### FC-CMS-1200-50

Max Recycling Capacity: 1200 gallons/day  
Max Pump Out Rate: 50 gpm  
Utility: Compressed Air 50-100 psig 10 CFM

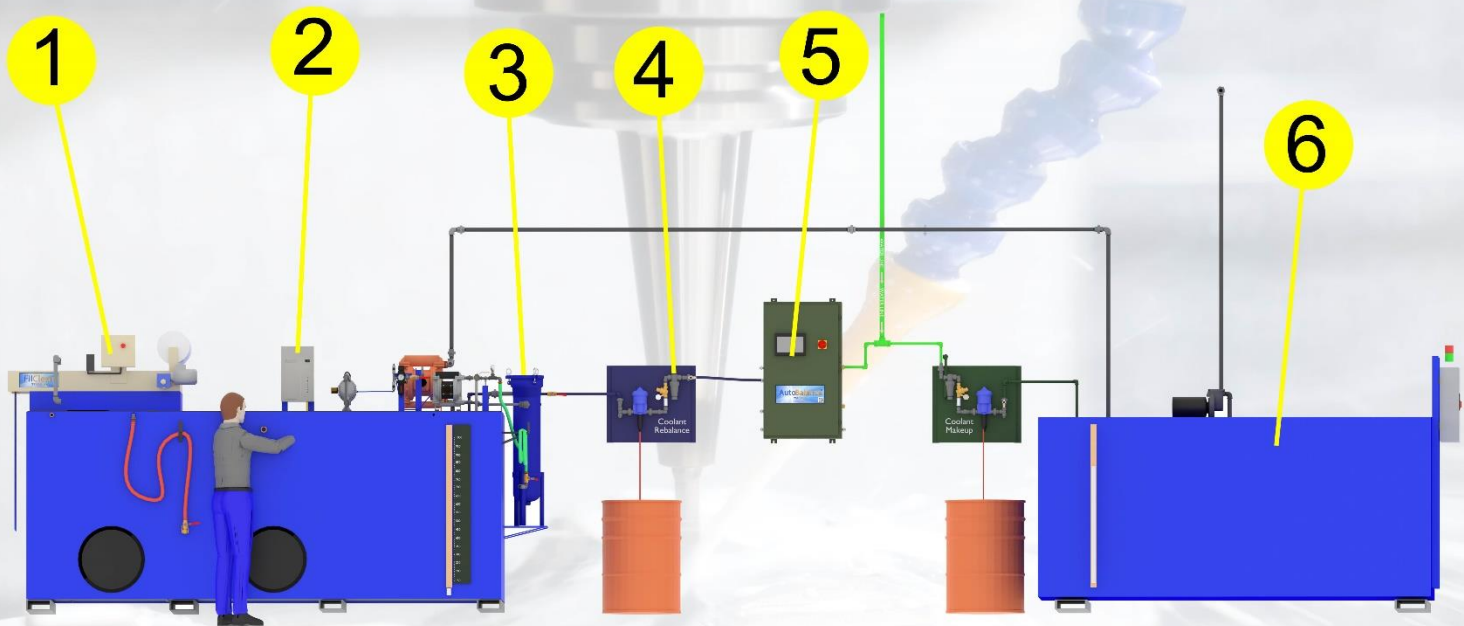


### FC-CMS-1500-50

Max Recycling Capacity: 1500 gallons/day  
Max Pump Out Rate: 50 gpm  
Utility: Compressed Air 50-100 psig 10 CFM

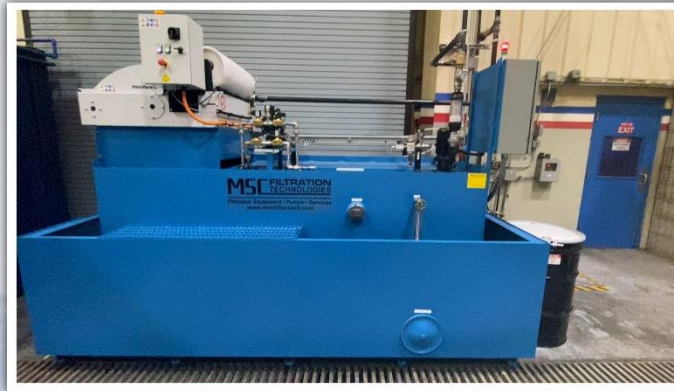






- 1** For applications with high dirt-loaded coolants, the FilClean Self Cleaning IDX Gravity Indexing Paper Bed Filter is an excellent alternative to the inlet disposable bag filter housing supplied standard with the FilClean CMS System. This filter can be used on its own or in combination with a FilClean RDM Rotating Drum Magnetic Filter as a pre-filter, which can remove ferrous particles indefinitely. If required, the FilClean CMS system can be upgraded to include this option at a later time.
- 2** For effective biological control of recycled machine tool coolants, we offer an optional Ozone gas generator and bubbler. This can be included with your initial purchase or added to your system even after purchase. .
- 3** FilClean MagFil prefilters are an effective solution for extending the lifespan of bag filters when filtering ferric particles. By installing these reusable magnetic prefilters, CMS systems can improve bag filtration efficiency and reduce the frequency of filter replacements. These prefilters are versatile and can be included with the initial CMS system purchase or bought later as an add-on.
- 4** Our Proportioning Coolant Pumps are designed to accurately blend coolant concentrations for optimal performance in industrial settings. Whether compensating for drag out loss or rebalancing due to water evaporation, these pumps provide precise control over coolant concentrations.
- 5** Our FilClean Autobalance controller is an advanced option that provides automatic rebalancing of coolant to specified concentration levels, without requiring operator involvement. The controller monitors the coolant level in the clean coolant tank, as well as the current and specified coolant concentration, to determine the appropriate amount of water needed for proper rebalancing. This precise control helps to prevent overflowing of the clean tank and ensures there is sufficient room for the correct amount of water required for proper rebalancing.
- 6** Our FilClean Autobalance system integrates with the AutoFil system to automate the transfer of recycled coolant to a clean holding tank, which distributes clean coolant directly to machine tools via a header. This eliminates the need for manual transfer and enables easy topping off of machine tools with clean, balanced coolant. The AutoFil system can also automatically add makeup coolant to its tank when recycled coolant levels are low. Note that the AutoFil system is an optional add-on that requires the initial purchase of the Autobalance system with the CMS Coolant Management System. .





## Need More Information

Watch our CMS video at:

<https://vimeo.com/user95279009/review/807622808/805cd78739>



[www.mscfiltertech.com](http://www.mscfiltertech.com)

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