



Crossflow Microfiltration System



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For Small to Midsized Wineries

The standard system comes with Manual Controls to help achieve clarification of wine in a compact and reliable process. The MP CF System is fully CIP capable without the need for back flushing. The Crossflow System is designed to run with low energy consumption on a broad array of wines and to Clean in Place without the disassembly of the manifolds and membranes.

Operating Conditions

- Wine inlet: 7—50 psi
- Temperature: 32 Deg. F—70 Deg. F
- Power: 230V 3 phase 60 hertz

Standard Equipment and Options



- One to Three six inch diameter KMS WINEFILTERS.
- Control panel with toggle switch for on/off pump control
- 2 hp feed pump
- 5 hp Crossflow pump
- Stainless steel frame on casters
- 304L Stainless steel process piping
- 20 gallon 304 stainless steel CIP tank
- Low flow and high pressure shut off switches
- Feed flow control
- Concentrate and Permeate control valves
- Concentrate and Permeate flow meter
- Wine sampling valve

Dimensions:

We build our skids 75 inches high so it can fit through a standard door.

They are 34 inches wide and 72 inches long.

We design these systems with one, two or three MF 6” Hollow Fiber Cartridges.



Model	Membranes	Control	Performance (estimate)	
MP CF1	1	Manual	240 gal/hr	
MP CF2	2	Manual	480 gal/hr	
MP CF3	3	Manual	720 gal/hr	

Standard Equipment for a Manual Crossflow System

- Operator control panel mounted on skid with start/stop controls in a Stainless Steel nema 4 enclosure
- Low flow safety switch
- Alarm circuit notification of system not running
- Main safety disconnect for three phase 230/460 VAC power source tie in
- One VFD for feed pump and one motor starter for recirculation pump with fusing
- Modular SS 304 Ornamental frame, polished finish for mounting of mechanical apparatus
- Feed pump with non corroding-non pitting SS/compatible materials and SS motor
- Recirculation pump with non corroding-non pitting SS/compatible materials and SS motor
- Feed balance tank of 15 gallons for Cleaning of system use
- Three pressure gauges for system monitoring
- Pre filter for dense suspended solids removal
- One pressure regulator rated for nitrogen use for product purge
- Two nitrogen purge check valves SS style with on/off hand valves
- Two backflow prevention SS style check valves
- Six 1.5” to 2.0” SS valves for product diversion/system drain down
- Two CIP return lines to CIP tank
- 1.5” and 2” tri clamp connections for product connections
- Process flow design for two round MF filter
- Process piping to sanitary food grade quality with purged welds that are cleaned and polished
- Four caster wheels for ease of movement of machine
- One manual sanitary flow meter for monitoring of permeate rate and system performance
- Manual for reference to system operation and use

Standard Equipment for a Semi-Automatic Crossflow System

- Operator control panel mounted on skid with start/stop controls in a Stainless Steel NEMA 4 enclosure
- Required program select and sequence initiate push buttons
- Allen Bradley Micro Logix PLC programmed to run auto CIP sequence and system safeties
- Low flow safety switch (for loss of feed to system)
- Alarm circuit notification of system not running
- Main safety disconnect for three phase 230/460 VAC power source tie in
- One VFD for feed pump and one motor starter for recirculation pump with fusing
- Modular SS 304 Ornamental frame, polished finish for mounting of mechanical apparatus
- Feed pump with non corroding-non pitting SS/compatible materials and SS motor
- Recirculation pump with non corroding-non pitting SS/compatible materials and SS motor
- Feed balance tank of 10 gallons for Cleaning of system
- Three pressure gauges for system monitoring
- Pre filter for dense suspended solids removal
- One pressure regulator rated for nitrogen use for product purge
- Two electric actuated nitrogen purge valve solenoids, two check valves SS style with SS on/off hand valves
- Two backflow prevention SS style check valves
- Six 2.0" to 4.0" SS valves for product diversion/system drain down equipped with air actuators
- Two CIP return lines to CIP tank
- 1.5" and 2" tri clamp connections for product connections
- Process flow design for three round MF filter
- Process piping to sanitary food grade quality with purged welds that are cleaned and polished