Mop Water Recycling System Model UFV250T and UFV250/500T

Mop Water Recycling system designed for unattended operation in the recycling or waste minimization of various cleaners and coolants containing suspended, colloidal, and emulsified matter. This single pass, skid mounted system is pre-piped, pre-wired and designed to meet the NEC Standard. Pertinent features are:

- The system will remove solids and mechanically separate the oily emulsion to provide a recyclable cleaner for reuse as mop water or waste minimization of coolants

- The system includes ultrafiltration membrane technology as an economical, non-chemical method of concentrating an emulsion and reducing waste volume.

- The membrane typically produces a high quality permeate containing less than 100 mg/l (ppm) oil and grease. The tubular configuration usually eliminates the need for fine particulate pre-filtration as fine solids will not plug the wide channel membrane elements. The cross-flow filtration design discourages membrane fouling, however, periodic cleaning is required using a mild alkaline wash solution.

- The nominal capacity of the UFV250T system is 250 gallons per day (24 hours). The actual process rate may be more or less, depending on the wash water condition. As a result, no minimum output can be guaranteed or implied. This system can be easily expanded to process up to 500 gallons per day with an optional expansion package (UFV250/500T).

- The system controls are relay logic in a single control enclosure designed for unattended operation. For system protection, the recirculation pump automatically shuts off when a low pressure or high temperature condition arises.

- The system is designed for ease of installation. An optional free oil separator, interconnecting piping, process and cleaning pumps, process and cleaning tanks, membranes elements and controls are mounted on a single a compact skid. Level controls in the process tank control a solenoid for the transfer pump. Dimensions of the UFV250T are: 80" L x 38" W x 70"H and the expanded UFV250/500T are: 141" L x 38" W x 70"H. If recycling of mop water is required, a customer supplied recycled water holding tank will be required for storage and dispensing

of the recycled water. Customer supplied utilities include electrical power (230 or 460 VAC, 3 Phase, 60 Hz), compressed air and city water.

The principal system components are:

Item	Qty.	Description
1.	1 ea	System skid for horizontal or vertical (option) mounting of 5 foot membrane elements, cleaning and process tanks, cleaning and process pumps, and electrical controls panel.
2.	1 ea.	Process and Cleaning Tank - Rectangular, molded high-density polyethylene tank divided to form a 180 gallon process tank and a 50 gallon clean tank, 60"L x 30"W x 30".
3.	1 ea.	Y-strainer- 1/8" perforated stainless steel insert for pump protection. Screw closure for easy maintenance.
4.	2 ea.	Pumps, carbon steel vertical centrifugal, open impeller with TEFC motor. Pump sized for 50 gpm @ 70 psi. (Process & Cleaning)
5.	1 ea.	High temperature switch set at 125°F for automatic system shutdown for membrane protection.
6.	1 ea.	Low pressure switch set at 45 psi for automatic system shutdown during low pressure (flow) condition.
7.	4 ea.	Tubular membrane 5 foot length are 1/2" wide channel design elements providing 7.0

		ft.^{2} per element of active membrane area. Temperature limit 125°F, pH range 2-12.
8.	1 ea.	Electric controls, NEMA 12 enclosure containing main disconnect, motor starter, overload and short-circuit protection, transformer, pilot lights and relays. Control circuit - 115 VAC. Controls are designed and built to meet the NEC code.
9.	1 ea.	5 gallon SANDON membrane detergent.
10.	2 ea.	Instruction Manuals.

Optional System Equipment

1.	1 ea.	500 gpd expansion package, includes (4) ea 10' membrane tubes, rack, pump modification, associated piping
2.	1 ea	Level Controls – mounted in process tank that control the transfer pump for topping off.
3.	1 ea	Level controlled transfer pump (air)
4.	1 ea	Sanborn Free Oil Separator, Model SOS mounted on process skid
5.	1 ea	Mop Bucket Transfer station, stainless steel, 16 gallon capacity, with level controlled transfer pump (air)

General Specifications

	UFV250T	UFV250/500T
Dimensions (LWH)	80x38x70	141x38x70
Weights (lbs)	450	500
Processing Rate (gpd)	250 Max	500 Max
Process Tank Cap (gals)	180	180
Cleaning Tank Cap (gals)	50	50
Motor(s)	5 HP	5HP
Control Panel	NEMA 12	NEMA 12
PH Range	2 – 12	2 – 12
Temp Range (deg F)	125	125
Electrical	12 AMP@230V	12 AMP@230V
	6 AMP @ 460V	6 AMP @ 460V

City Water: Intermittent to fill cleaning tank

NOTE The system performance parameters are based on results of typical field installations. If materials such as chlorinated hydrocarbons and solvents are introduced to the system which are incompatible with the membrane material or the system is not operated within guidelines as specified by Sanborn Technologies, we cannot be responsible for permeate water quality or membrane life. Also, all waste minimization of hazardous materials must conform to federal, state, and local rules and regulations. Proper authorization must be obtained.