ULTRAFILTRATION SYSTEMS

UFV 250T • UFV 500T • UFV 750T • UFV 1500T

SANBORN's UFV Series of Ultrafiltration Systems bring compact wastewater disposal/reuse technology to manufacturing facilities. Designed for waste volumes of up to 1,500 gallons per day (GPD), these economical systems allow for simple, continuous operation with a minimum of energy and operator involvement.

All UFV systems employ ultra-filtration membrane technology to separate water and dissolved chemicals from suspended solids and emulsified oils. The process reduces wastes by as much as 98% without the use of chemical additives.

UFV 750TV SHOWN WITH OPTIONAL FREE-OIL SEPARATOR

The state-of-the art designs include vertical centrifugal pumps that handle the abrasive solids encountered in most manufacturing waste fluids without the potential for pump seal leaking and failure.

The separation process is mechanical and operates without messy and expensive prefiltration and, in most cases, produces a reusable or directly sewerable effluent thus dramatically reducing waste disposals costs.

Models are shipped pre-wired and pre-piped for easy installation. Options include an integrated free-oil separator, automatic fluid transfer system, flushing shutdown system and packaged water reuse designs.

Primary applications for the systems include waste minimization of:

- **Metalworking Coolants**
- **Aqueous Parts Washer Solutions**
- **Burnishing and Deburring Wastes**
- **Mop Water**
- **Food Processing Wastes**
- **Air Compressor Blowdown**
- **Printing and Paint Washwater**

SANBORN Technologies

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TOOLING & MACHINERY
COMPLETE METALWORKING SOLUTIONS

UFV ULTRAFILTRATION SYSTEMS

Cutaway of Tubing Shows
Wide-Channel Tubular Membranes.

FEATURES

- High-tech polymeric membrane is highly insensitive to chemical and concentration changes in the waste feed stream.
- Half-inch tubular membrane allows processing of high- solids waste.
- System operates in batch or continuous mode.
- Skid-mounted units install easily in the plant.

BENEFITS

DIRECT COST SAVINGS

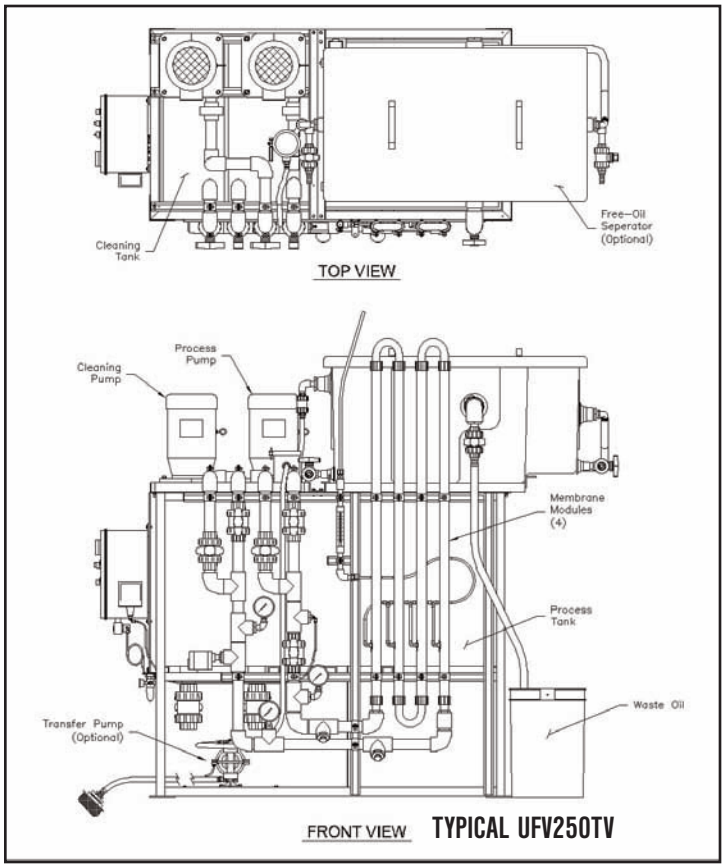
- Reduced waste volume saves on disposal costs.
- Simple operation saves on labor costs.
- Extremely low operating costs.

ENVIRONMENTAL BENEFITS

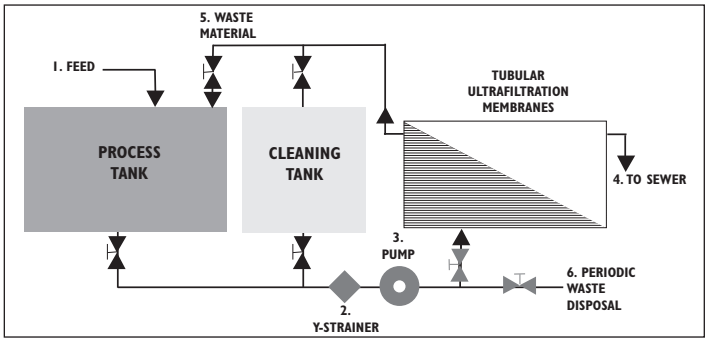
- Positive membrane barrier ensures consistent effluent quality.
- Lower waste volumes reduce environmental liability.
- Low-pressure, non-chemical system is safe to operate.

VALUABLE TIME SAVINGS

- Unattended operation and limited maintenance saves man-hours.
- Less storing, monitoring, and hauling away of waste-water.



UFV OPERATION SUMMARY



1. Wastewater enters the process tank.
2. Wastewater passes through a strainer that protects the pump.
3. The liquid is continuously pressure driven across the semipermeable UF membrane where emulsion dewatering occurs.
4. Clean water is continuously discharged from the system.
5. Waste material rejected by membranes is recycled back to the process tank.
6. Concentrated waste is periodically removed for disposal.

GENERAL SPECIFICATIONS

Model	UFV250TV	UFV500TV	UFV750TV	UFV1500TV
Volume Processed (GPD)	250	500	750	1500
Process Tanks (gals)	180	180	330	330
Cleaning Tank (gals)	50	50	70	70
Number of Membranes	4	4	12	12
Length of membranes (Ft)	5	10	5	10
Process & Cleaning Pumps GPM/Pump	50	50	100	100
Pump HP	5	5	10	10
Amp Draw @ 460 volts	7.5	7.5	15	15
Dimensions (LWH) Inches	74 x 39 x 81	74 x 39 x 142	86 x 4 8 x 81	86 x 48 x 145
With SOS (Free-Oil Separator) (LWH) Inches	89 x 39 x 81	89 x 39 x 142	100 x 48 x 81	100 x 48 x 145
Weight	1700	1800	2100	2200
Weight with SOS	2000	2100	2400	2500
Operating Conditions	pH Range 2-12	Temperature 50 - 125 deg F		

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