

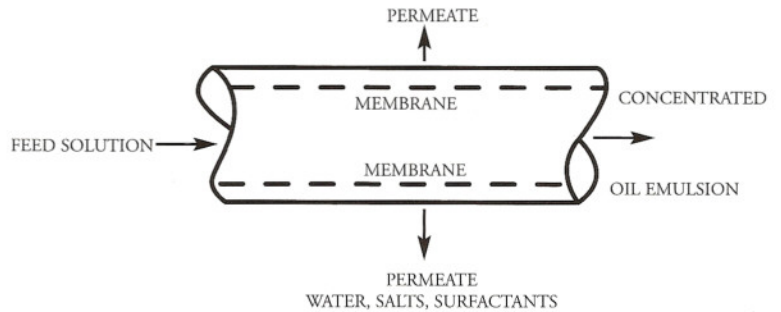
Hylander Ultrafiltration Systems

The Solution to Emulsified Oily Wastewater

There are two forms of oil that we find in wastewater. **Free Oil** is oil that will separate naturally and float to the surface. **Emulsified oil** is oil that is held in suspension by a chemical substance (Detergents - Surfactants) or electrical energy.

When making an evaluation, **Free Oil** will normally separate by gravity and float to the surface in approximately 30 minutes. **Emulsified Oil** is held in a molecular structure called a micelle and will not separate on its own.

FIGURE 1
DIAGRAMMATIC Hylander Ultrafilter System HUF Series



Principles of Ultrafiltration

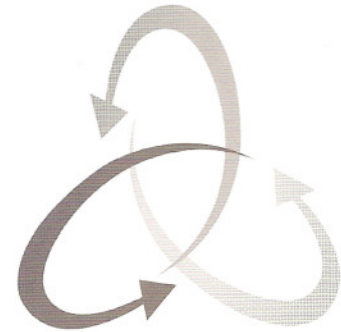
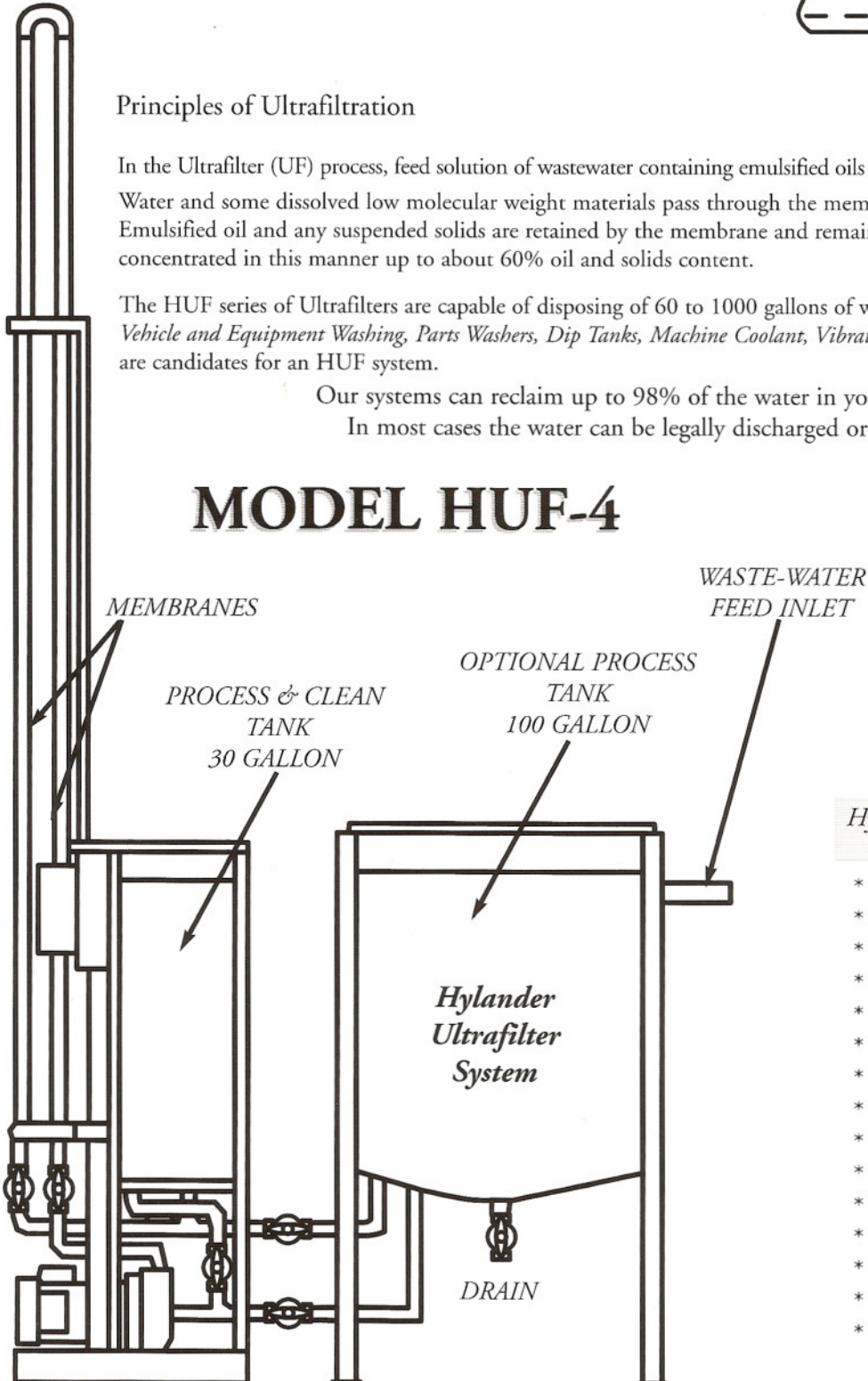
In the Ultrafilter (UF) process, feed solution of wastewater containing emulsified oils is pumped through a membrane unit (see figure 1). Water and some dissolved low molecular weight materials pass through the membrane pores and exit the system as permeate. Emulsified oil and any suspended solids are retained by the membrane and remain in the wastewater feed. The emulsified oil is concentrated in this manner up to about 60% oil and solids content.

The HUF series of Ultrafilters are capable of disposing of 60 to 1000 gallons of wastewater per day. Oily wastewater generated by *Vehicle and Equipment Washing, Parts Washers, Dip Tanks, Machine Coolant, Vibratory waste* and other forms of industrial wastewater are candidates for an HUF system.

Our systems can reclaim up to 98% of the water in your oily wastewater stream.

In most cases the water can be legally discharged or re-used in the process.

MODEL HUF-4



Hylander Ultrafiltration Systems HUF Series
Oily/Water Separator Applications

- * Mop/Floor Washwater
- * Spent Metal Working Coolants
- * Phosphate Cleaner Baths
- * Aqueous Degreaser Baths
- * Compressor Condensate (Non-synthetic)
- * Dye Penetrant Rinsewater
- * Wood Preservative Wastewater
- * Vehicle Washwater
- * Bulk Transport Cleaning Water
- * Tank Cleaning Washwater
- * Parts Washer Effluent
- * Vibratory Wastewater
- * Rolling & Drawing Compounds
- * Pressure Washer Wastewater
- * Bilge Water.....