



S.W.A.T

Separation Waste and Treatment System

PROVEN EFFECTIVE:

The EdgeTech Separator Waste and Treatment (S.W.A.T.) System is designed to help the Industrial Fluids Manager control his coolant and production wash water waste. S.W.A.T. is an economical ultra filtration system that will process waste coolants, wash waters, and other waste liquids to help meet zero discharge goals and comply with EPA and RCRA requirements.

The S.W.A.T. Systems are designed to be operator friendly and not require highly trained technical personnel to operate or maintain. The operator need only put contaminated waste coolant, wash water or mop water in the system and allow the S.W.A.T. to do the rest.

Total Effectiveness

- No hazardous chemicals required
- Units fully assembled and skid mounted
- Highly efficient membrane modules
- Automatic Membrane cleaning cycle
- Microprocessor controlled for automatic operation
- Post treatment modules available

Economical, Field Proven Performance

- Automatic operation
- Long membrane life
- Designed simplicity means low maintenance
- Low operating pressures for reduced energy cost
- Compact, self contained
- System pay back is typically 3 to 9 months



EdgeTech Services
Edjean Technical Services, Inc.
22036 Fairgrounds Road
Wellington, Ohio 44090

Ph. (800) 242-0525
Fax (877) 806-2400
E-mail: sales@edjetech.com
Web site: www.edjetech.com



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Benefits

- Removes free floating and chemically bonded oil
- Separated free oils can be sold or reused
- Removes suspended solids
- Reduces waste disposal and hauling costs
- Effluent as permeate can be discharged or reused
- Reduces new fluid purchases
- Chemical resistant paint

Applications

INDUSTRIAL PARTS WASHERS – Clarifying acid and alkaline wash water solutions containing emulsified oils.

WASTE WATER COLLECTION – Emulsified oily wastewater collected from floor scrubbers, drain basins, and yard drainage.

GENERAL APPLICATION – Any process water or wastewater containing emulsified oils and other hydrocarbons.

GRINDING AND MACHINING - Water extended cutting, grinding, drill and tapping fluids used in manufacturing operations.

EdjeTech S.W.A.T. System Flow Diagram

- A. **Dirty Inlet Tank**
Dirty fluid is discharged into this tank
- B. **Tramp Oil Separation System**
The dirty fluid is processed through the tramp oil separator to remove suspended solids and free-floating oils.
- C. **Process Tank**
The clean fluid from the tramp oil separator is discharged into this tank. The tank will fill and overflow back into the dirty tank for continuous solids and oil removal.
- D. **Clean-In-Place Tank**
This tank is used to clean the ultra filtration membranes when they become dirty. EdjeTech recommends that the membranes be cleaned every 8 hours or before shutting the system down for more than 24 hours.
- E. **Ultra filtration Module**
The U/F supply pump (1) pulls fluid from the process tank and discharges it through a prefilter (2) and the U/F membrane (3). The U/F membrane generates two fluid streams, the permeate and concentrate. The permeate stream is the clean fluid stream and is reused or sent to a post treatment module (for example carbon) and then to sewer. The concentrate stream returns to the process tank for further filtering. Eventually, the process tank will become so concentrated that the fluid will have to be removed from the tank and the process start all over.

