



HILCO® Oil Reclaimers



Restores Oil,
Reduces Waste,
Saves Money

Reduce and save

Throwing away dirty waste oil is like throwing away money. Industrial oils lose their de-sired properties when they get contaminated or wet. Dirty oil can be purified and re-used to save on new oil replacement costs. Hilco® Oil Reclaimers restore contaminated oils to like-new condition. Simply, Efficiently, Economically.

Quick payback. Continued savings

Economy is easily measured by comparing cost to savings. The economy of Hilco Oil Reclaimers has been documented by users who have reclaimed their initial investment in less than a year, with continued savings of \$13,000 to over \$30,000 a year in oil purchases alone.

No matter how oil prices fluctuate in the future, the days of low prices are gone forever. So, it will pay you to restore and maintain industrial oils with a Hilco Oil Reclaimer.

Designed to meet your needs

There is a Hilco Oil Reclaimer or Reclamation System for any size plant operation. Direct connection to equipment sumps, or in process lines, provides a constant supply of purified oil. When direct connection is not feasible, the batch method applies. Oil for reclamation is brought to the Reclaimer or a portable Reclaimer is taken to the equipment. Completely engineered and integrated systems, built around the Hilco Oil Reclaimer, are also manufactured by Hilco. These incorporate storage tanks, filters, delivery pumps and controls to accommodate special purifying requirements or larger quantities of oil.

The Hilco process. Heat and vacuum distillation

Hilco's vacuum process provides a highly efficient means for removal of moisture, solvents, dissolved gases and volatile impurities having a boiling point lower than oil.

The process starts when contaminated oil is drawn by vacuum through an easy-to-clean basket strainer, an adjustable flow control valve and an electric heater into a vaporizer. Since the contaminated oil is under vacuum during this process, the absolute pressure is lowered, resulting in a substantially lower boiling temperature for the contaminants. As the heated contaminated oil flows through the vaporizer, it is spread to a thin film, and the vacuum pump draws off the moisture and dissolved gases in the form of vapor. Purified oil is then pumped from the vaporizer to the outlet for re-use.

The vapor, drawn by the vacuum pump, passes through a water-cooled condenser, reverts back to a liquid and is collected in the distillate tank or exhausted into the atmosphere. Automatic-dumping distillate tanks are available on special order.

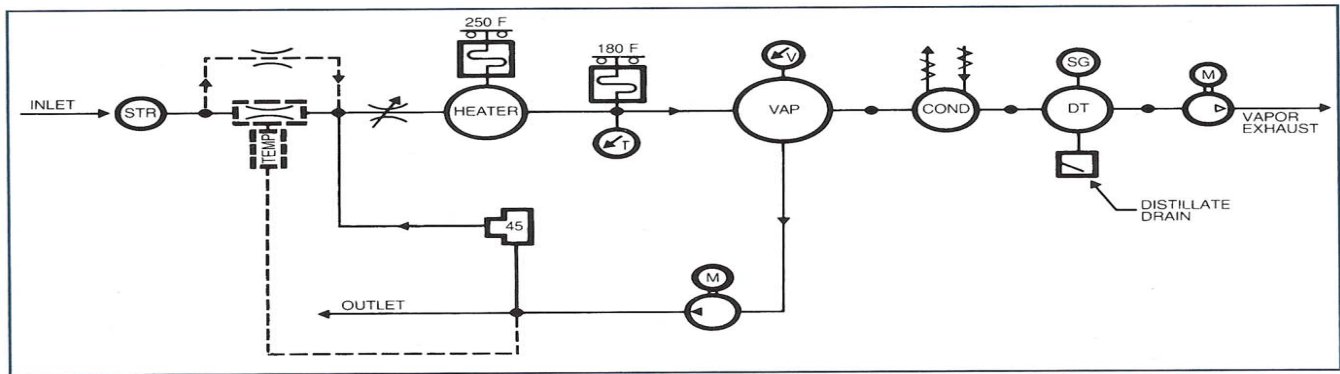
Simply put, this process of vacuum distillation produces oil that is virtually free of moisture and dissolved gases.

The Hilco System.

With the addition of a settling tank, a clean-oil tank, filters and controls the basic Hilco Oil Reclaimer is converted into an extremely efficient reclamation system. The settling tank allows much of the free water and sludge to be drawn off before the oil enters the pre-filter. Then, oil goes through the pre-filter and returns to the settling tank, completing the recirculation loop. When the Reclaimer is activated, oil is drawn off this loop through a tee and into the Reclaimer. Then the reclamation process takes place.

From the Reclaimer, the oil can be pumped through a polishing filter, where any remaining minute particles of solid contaminants are removed. The oil is then pumped into a clean-oil holding tank.

Operator training for any Hilco Oil Reclaimer or system is minimal. Hilco Reclaimers are manufactured using quality materials and craftsmanship for durability and low maintenance.



Features:

- Compact design
- Distillate tank with sight port for monitoring fluid level
- Integral vacuum pump lube system
- High efficiency vacuum chamber
- Vacuum gauge, 0-30 in Hg (0- 100 kPa)
- TEFC motors
- Low watt density, thermostatically-controlled, electric heater
- Automatic high temperature shutdown at 250°F
- Temperature gauge, 50°F - 300°F
- Nema 12 control enclosure
- Water-cooled vapor condenser
- Relief valve on outlet
- Basket strainer on inlet
- Channels for fork-lift

Options:

- Prefilter with pump set
- Final, polishing filter
- Condensate shut down control- Condensate high level float switch shuts unit down. Manual drain
- Automatic condensate drain- Float switch and solenoid valves to shut unit down, drain condensate and restart unit
- Automatic recirculation controls- Low temperature and pressure switches to recirculate oil internally
- Automatic inlet flow control valve - (for water slugs over 1%) Reduces inlet oil flow to compensate for excess moisture
- Vaporizer level control - High level float switch shuts unit down
- Portable unit with handle and four 5" hard rubber wheels
- Air-cooled vapor condenser
- Higher capacity heater
- Flow meter
- Regenerative heat exchanger to reduce energy consumption

Benefits:

- Compact
- Economical
- Quiet operation
- Simple to operate
- Easy maintenance
- Removes all free water
- Extends fluid life
- Protects system components from corrosion
- Decreases equipment downtime
- New oil cost savings provide quick payback on investment
- Heater capacity can be matched to water content and inlet oil temperature
- Adaptable to handle various flow rates (up to 100 GPH) and handle intermittent water slugs to 20% in incoming oil at reduced flow with optional flow control valve.

Typical Applications:

Fluids:

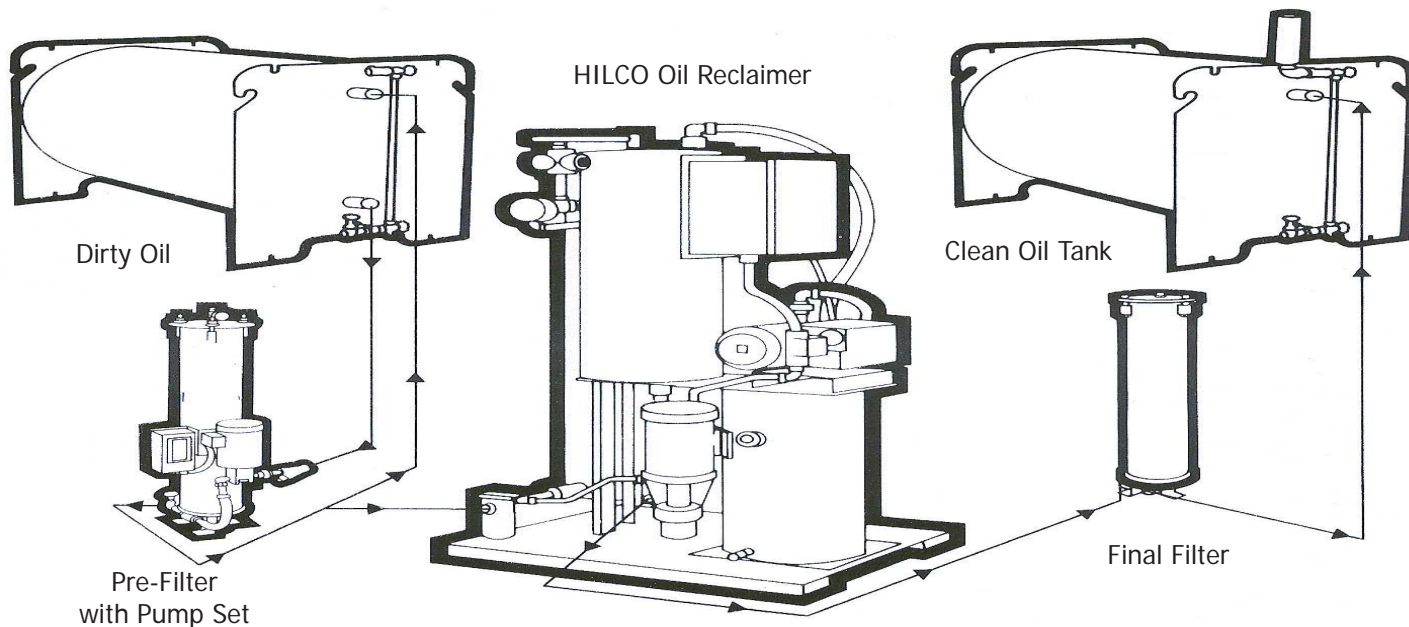
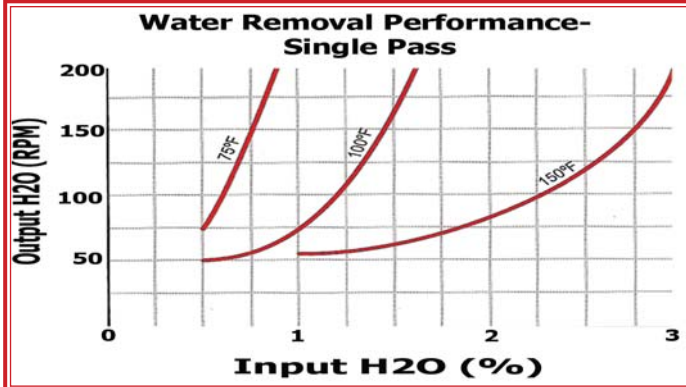
- Caster Oils
- Cutting Oils
- Heat Transfer Fluids
- Hydraulic Fluids
- Insulating Oils
- Lubricants
- Quench Oils
- Phosphate Esters
- Synthetic Fluids
- Transmission Fluids

Markets:

- Automotive
- Aviation
- Chemical Process
- Electronics
- Glass Forming
- Machine Tool
- Marine
- Metal Forming
- Petrochemical
- Pharmaceutical
- Plants
- Plastic Forming
- Power Plants
- Refineries
- Rubber Stamping
- Steel Mills
- Utilities



Hilco Model No	Input H ₂ O Content					
	10%	5%	3%	2%	1%	0.5%
Time to reduce H ₂ O to oil saturation recirculating on 50 gal. tank at 100°F inlet oil temperature. (Hours)						
02R050	7	6	5	4	1*	1
02R100	3.5	3	2.5	2	0.5*	0.5
Amount of H ₂ O removed per hour. (LBS.)						
02R050	6.0	3.5	2.5	2.1	4.2	2.1
02R100	12.0	7.0	5.0	4.2	8.4	4.2
*Inlet oil temperatures below 100°F may require recirculation						
Will handle intermittent water slugs to 20% in incoming oil at reduced flow with optional flow control valve						
Bold indicates reduced flow						



Model Number	02R050	02R100
Capacity - GPH	50	100
Operating pressure- in. Hg	28-29	28-29
Water consumption- GPH	1.6	1.6
Heater capacity- KW	6	12
TEFC Motors:		
Horsepower:		
Vacuum pump	1	1
Oil pump	1/3	1/3
Voltage	230 or 460v, 60Hz, 3 Ph	230* or 460v, 60 Hz, 3 Ph A
Connected load:		
230/60/3-KW (amps)	7.9 (20)	13.9 (35)*
460/60/3-KW (amps)	7.9 (10)	13.9 (17.5)
Avg. power consumption per day** - Kwh	190	334
Oil inlet & outlet sizes - in. FPT	1/2	1/2
Water inlet & outlet sizes - in. FPT	1	1
Dimensions:		
W x L x H - in.	26 x 35 x 75	26 x 35 x 75
Approx. Net Weight - lbs.	725	775
Approx. Domestic & Export		
Shipping weight - lbs.	954	1,004
Crated size:		
W x L x H - in.	29 x 38 x 78 1/2	29 x 38 x 78 1/2
Cubic feet	50	50

* Special option
 ** With 1% water and 100° inlet temperature.

Metric Conversions:
 Inches x 25.4 = millimeters
 Inches x 2.54 = centimeters
 Cubic feet x 37.03 = cubic meters
 Gallons x 3.785 = liters
 Pounds x 0.4536 = kilograms



The Hilliard Corporation
 100 W. Fourth Street
 Elmira, New York 14902-1504
 (607) 733-7121
 Fax (607) 733-0928
<http://www.hilliardcorp.com>