

OIL RECONDITIONING STATION

MODELS:	PRICE CODE NO.
50RS3-6-S1	1216
250RS6-12-S1	1217
500RS6-12-S1	1218

MODELS:	PRICE CODE NO.
1000RS9-18-S1	1219
1000x2RS9-18-S1	1220

DESCRIPTION

The SERFILCO Oil Reconditioning Station is designed for low cost operation, flexibility of use and efficient removal of metallic fines and impurities from oil. Tank is used for storage of dirty oil at elevated temperature to accelerate settling. Holding oil temperature at 130° to 140°F for approximately one hour will have a significant effect on personnel in the reduction of dermatitis. Filter component "polishes" oil to 5 micron clarity although coarser or denser filter media is available for specific applications. Storage tank provides safe supply of recovered clean oil.

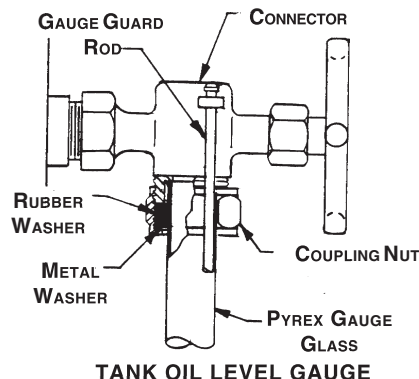
PRE-START-UP

1. Arrange basic components: Settling tank, ladder, pump-filter assembly and storage tank, into approximate location as shown on page 2. Ladder is not provided with Model 50RS, which is skid mounted.
2. On Model 250RS6-12 only, assemble mounting legs to storage tank.
3. Connect and tighten pipe sub-assemblies to corresponding components A to A, B to B, etc.
4. Install sight gauge glass. Install one rubber washer, metal washer and nut at each end of glass approximately two inches from end. Turn top connector approximately 30° from center, insert glass in lower connector and move top connector in line. Push rubber washers toward ends of gauge glass and tighten with coupling nuts. Install gauge guard rods.
5. Securely bolt ladder to settling tank.
6. Install suction and discharge hoses to valves 5 & 6.
7. Be sure that all pipe connections are tight and all valves are closed.

ELECTRICAL INSTALLATION

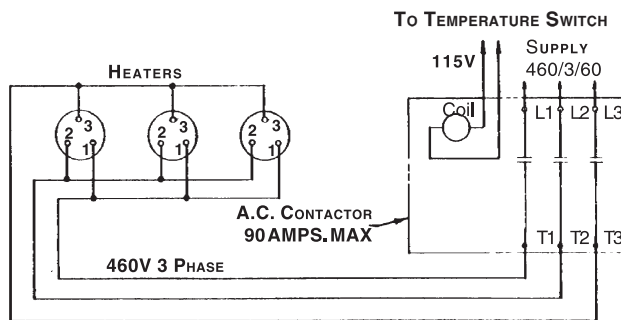
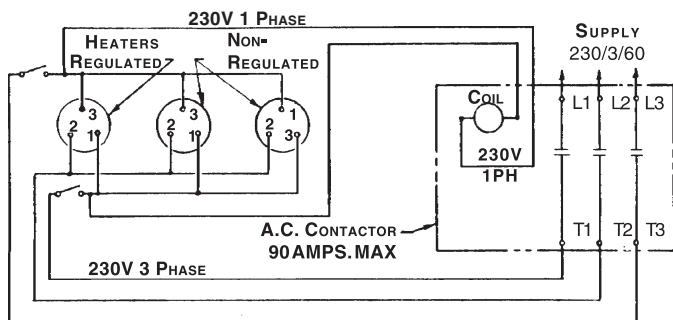
1. Wire heater thermostat and motor starter to correct power supply. Be sure that thermostat and motor starter are OFF before wiring. Wire in accordance with National Electrical Code.
2. Momentarily "jog" pump motor to verify correct direction of rotation if motor is three phase. Directional arrow is on pump housing.

MODEL HEATER	POWER KILOWATTS	NO. OF HEATERS	TOTAL AMPS
50RS	1 @ 120V 4 @ 240V	1	5 @ 120V 10 @ 230V
250RS	5	3	19 @ 460V
500RS	10	3	38 @ 460V
1000RS	10	6	76 @ 460V



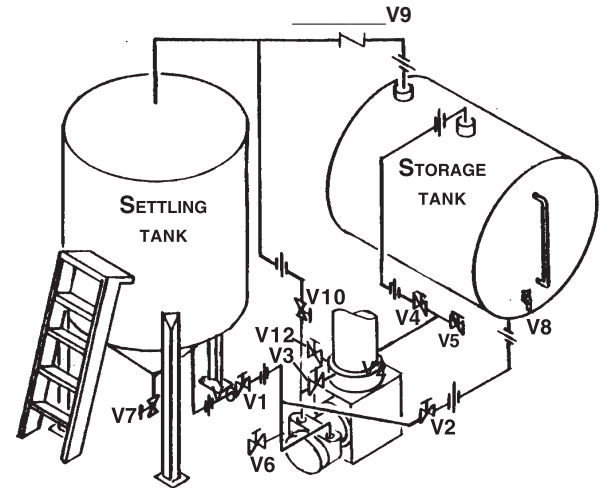
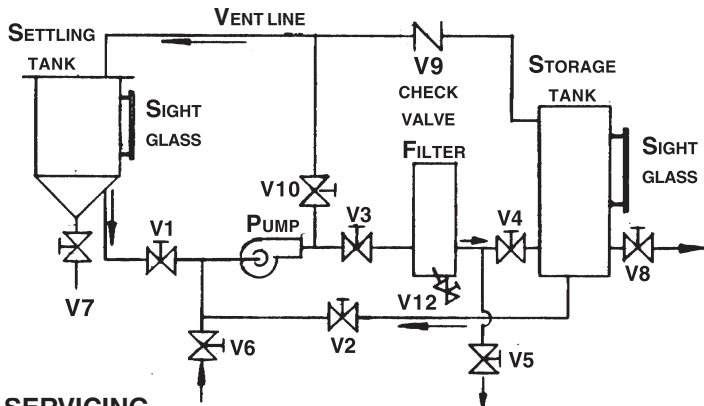
SYSTEM OPERATION

1. Fill settling tank with dirty oil by:
 - a. Pumping from drum on floor.
 - b. Pumping from remote location.
 - c. Hand dumping over top of settling tank.
2. Oil must always be visible in gauge glass to maintain immersion of heaters. A pipe riser inside settling tank prevents oil level from being pumped below bottom of gauge glass.
3. When oil level is between mid-point and top of gauge glass, adjust thermostat to approximately 100° to 120°F. The increase in oil temperature will reduce viscosity and accelerate settling of fines and solid impurities. Type of oil, contamination, settling rate, available time interval and experience will determine the ideal temperature and time duration.
4. Oil should remain in tank for approximately 6-8 hours to permit efficient settling of fines.
5. Raising oil temperature to approximately 130° to 140°F for about one hour will have a significant effect on reduction of dermatitis on personnel.
6. Dump sludge from settling tank into 5 gallon pail.
7. Transfer and filter the oil from settling tank to clean storage tank or into floor drum. Oil in storage tank (or floor drum) can be recirculated through filter for improved clarity.
8. Draw clean, filtered oil from storage tank valve or pump out through filter discharge hose.
9. Insulating cylindrical section of settling tank will minimize heat loss in cool areas and prevent condensation on inside wall above oil level.



START-UP

Assuming that all valves are in CLOSED position, the following operations can be performed by opening the valves stated.	OPEN VALVE
a. Pump dirty oil from a floor drum to settling tank	6, 10
b. Transfer and filter settled oil from settling tank to storage tank.	1, 3, 4
c. Recirculation and filtration of oil in storage tank.	2, 3, 4
d. Transfer and filter settled oil from settling tank to floor drum.	1, 3, 5
e. Recirculation and filtration of oil in floor drum.	6, 3, 5
f. Draw clean oil from storage tank to container.	8
g. Pump clean oil from storage tank to container or machine.	2, 3, 5
h. Dump sludge from settling tank to bucket.	7
j. Drain for filter chamber.	12



SERVICING

- For general servicing and cartridge replacement, refer to Operating Instruction O-200, SERFILCO Trans-O-filters.
- *For replacement cartridges refer to chart below.

*Micron Size	5	15	30	50	75	100
Computer Code No.	5C10TV	15C10T	30C10T	50C10T	75C10T	99C10T

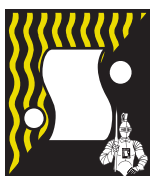
- Table below shows number of 2½ x 10" cartridges required for respective standard Oil Reconditioning Stations.

MODEL	50	250	500	1000	1000 x 2
NO. OF 2½" x 10" CARTRIDGES	6	12	12	18	18

- Periodically clean suction strainer on pump to prevent blockage and subsequent cavitation.
- Depending upon type of filter cartridge, micron density, oil viscosity and size of filter, pressure gauge will have an initial pressure of approximately 5-10 PSI with clean cartridges. At 35 to 40 PSI, cartridge replacement is recommended.
- Pump relief valve is factory set at approximately 50 PSI. Pressure relief setting can be lowered by removing acorn nut on pump, and "backing-off" screw adjustment.
- Relief valve setting can be checked by opening valves 1 and 3 only. Gauge will show pressure at which relief valve is opening and internally relieving pump.

FILTRATION TIPS

- Be sure to check pump-motor direction of rotation if a three phase motor was furnished.
- A transfer pump should be considered as a convenient means of removing oil from storage tank and distributing it to convenient locations in the department.
- When storage tank is full, excess oil is transferred to settling tank via vent line.
- Never fill either tank to level above gauge glass. Never empty either tank to level below gauge glass. Pipe riser inside settling tank prevents oil level from being pumped below bottom of cylindrical section of tank.
- Dump sludge into bucket before pumping and filtering settled oil to storage tank. This procedure also assures that oil level in settling tank will always be above heaters.
- Depending upon oil contamination, rate, duration of settling and settling tank capacity, 5 to 25 gallons of sludge can be dumped from the cone section.
- Dump sludge until none remains in cone section. Do not draw clear oil through valve 7 at bottom of cone. Experience will be the most accurate factor in determining volume and frequency of dumping.
- When pumping dirty oil from floor drum to settling tank, be sure to bypass filter.
- Highly contaminated oil should be dumped into the settling tank to prevent plugging of pump suction strainer or premature abrasive wear of pump.



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