

# **PORTABLE TEST RIG**

# Operation — Maintenance — Specifications

Centrifugal-action filtration in a compact, convenient and carryable unit for on-site demonstration use.

The performance capability of a LAKOS separator is confirmed by this complete minisystem, featuring portability, versatility and convenience. Matched with a reliable pump and all necessary fittings, valves, gauges, hoses and hardware. The PTR quickly verifies the filtration capabilities of a LAKOS Separator for any system. Immediate on-site results increases user confidence and saves valuable time.



## SPECIFICATIONS

Separator: LAKOS Model ILB-0037 Flow Rate: 5-6 U.S. gpm (1.4 m<sup>3</sup>/hr) System Weight: 45 lbs (20.5 kg) Pressure Output: 33 psi (2.3 bar) Pump: Teel Water Systems, Model 2P110A Centrifugal, 1/2 H.P. Pump Lift: 10 feet (3 meters) Pump Housing: Cast Aluminum Impeller: Valox 420

#### Shaft & Volute Seal: Buna N

Power Cord: 8 ft (2.4m), 18-3 SJTO

**Motor:** 1/2 H.P., Single Phase, 50-60 Hz, 115V 8,000 R.P.M. Series

Motor Shaft: Cold Rolled Steel

Motor Bearings: Permanently Lubricated

Maximum Amps: 8.0

Maximum Fluid Temperature: 100°T (38°C)

# SET-UP

- 1) Remove the bolt from the separator support stand. Place separator support stand vertically so that the separator is in an upright position. Re-insert the bolt, fastening the separator support stand to the skid.
- 2) Connect the suction hose (one end is screened) to the inlet of the demo pump. Place suction hose into the solids-laden liquid to be tested. IMPORTANT: Make sure that the suction hose is elevated at least three inches (76 mm) above any settled solids to avoid an excessive intake concentration. (Note: By removing the suction screen, this hose may also provide a flexible connection to a 3/4 inch F.I.P.T. for side-stream testing.)
- 3) Connect the discharge hose to the outlet of the demo separator. Its other end is typically placed into the same source where the suction hose is currently placed. (Note: This hose may also be used as a flexible connection to a 3/4 inch F.I.P.T.)
- 4) Prime the pump by opening the priming valve and pouring approximately one quart (or liter) of water into the open valve. Close valve.
- 5) Close the purge and separator outlet valve completely.

### **OPERATION**

- 1) Start the demo by connecting the electrical cord into a suitable 110v, 60Hz outlet. When the pressure gauges indicate a reading of 35 psi (2.4 bar), the pump is ready for operation.
- 2) Slowly open the valve at the separator outlet until the pressure differential between the inlet and outlet gauges reaches 12 psi (0.8 bar). (Note: The flow rate at this point should be 6 gpm (1.4 m<sup>3</sup>/hr) and may be confirmed by using a measurable pail and the sweep-second hand of a watch or clock.)
- Separated solids will collect in the separator's lower chamber. A plastic freezer bag is recommended for capturing purged solids. Tilt the bag so that the solids will settle into a corner of the bag for maximum visibility and evaluation purposes.

## **RECOMMENDED MAINTENANCE**

- 1) Clean suction screen on hose after each use.
- 2) Pump clean water (five gallons/liters or more) through the PTR to flush the separator and hoses.
- 3) Drain pump.
- 4) Drain separator by opening purge valve.
- 5) Clean purge collector bag, if used.



1365 N. Clovis Avenue • Fresno, California 93727 USA Telephone: (559) 255-1601 • Fax: (559) 255-8093 www.lakos.com • info@lakos.com