LAKOS
Separators and Filtration Solutions

Closed Recovery System

CRS-836-B

An effective closed-tank method for handling purged solids and liquids.

Capturing separated solids for easy handling and returning purged liquid back into the system, this compact package eliminates costly liquid loss, messy open containers and the problems often encountered when drains or other means of solids/liquids disposal are remote or nonexistent. Separated solids are simply purged at a continuous rate directly into a solids retention vessel, which is integrally equipped with three solids collection bags in stainless steel baskets. Purged liquid, passing through the polyester-felt bags, is then drawn back into the system typically by means of the system pump's suction (see diagram).

Basic CRS Package

Retention Vessel: Carbon steel[1]. Internal epoxy coating.

Retention Vessel Lid: Carbon steel dome, with "T" Bolt Closure and a spring-assisted opening mechanism.

Internal Baskets: Three stainless steel.

Purge Collector Bags: Polyester-felt material, 50-micron rating. NOTE: an optional 25-micron bag may be specified. Six (6) bags provided.

Air Relief Valve: 1/4" Float vent valve.

[1]Also available in stainless steel. Consult factory for any special application requirements.

NOTE: Manual valves are required, but not included in basic package.

Optional Indicator Package

To help determine when bag change-out is necessary, choose the Optional Indicator Package. Responsive to increased pressure differential as the vessel accumulates with purged solids, this assembly identifies when the solids collection bag is full, minimizing routine servicing.

❶ **Ball Valves:** Two per package; 1-1/2-inch (female, N.P.T.) manual; bronze body[2], stainless steel ball, teflon seat.

❷ **Pipe Fittings:** Three 1-1/2-inch pipe nipples (female, N.P.T.); bronze[2] and two 1-1/2-inch pipe tees with 1/4-inch reducer bushings.

❸ **Sightglasses:** Two per package; 1-1/2-inch (female, N.P.T.); bronze[2].

❹ **Annunciator:** One per package; 1/8-inch (female, N.P.T.) tubing connections; "pressure indicator" style[3].

❺ **Flow Control Orifice:** One per package; 2-1/2-inch (female, N.P.T.); chrome-plated. Included also are two 2-1/2-inch x 1-1/2-inch bell reducers for proper installation. Maintains a constant flow of 50 U.S. gpm (11.5 m^3/hr) through the CRS.

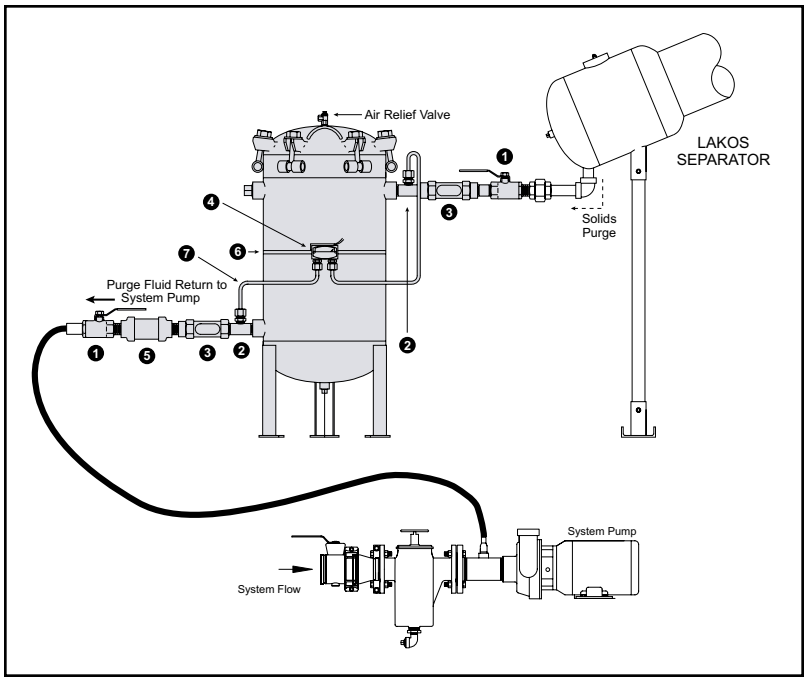
❻ **Clamp:** Stainless steel band with hardware to mount Annunciator to body of CRS vessel.

❼ **Tubing:** To hook up high/low pressure connections on Annunciator; 1/4-inch diameter poly tubing for 150 psi (10.3 bar) or less; water use only; 6 feet (1.8m). End connectors also provided.

[2]Also available in stainless steel. Consult factory for any special application requirements.

[3]Optional electronic contact switch is available to operate a 12W light; 125/250 VAC-28 VDC, 2 amp. (Voltage booster relay available to activate buzzer or other indicator device).

NOTE: Annunciator is pre-set by the factory at a prescribed pressure differential of 15 psi (1 bar).



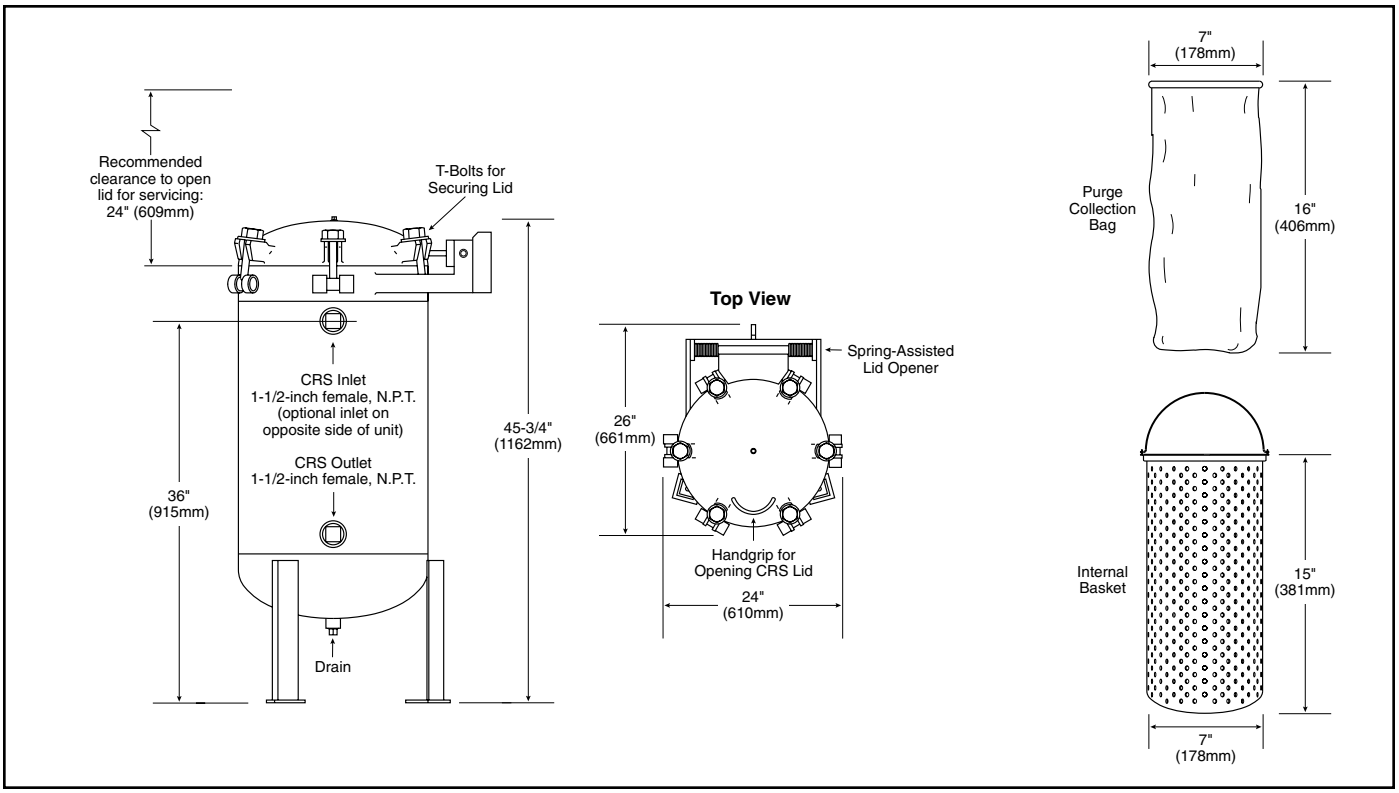
See reverse for additional specifications

General Specifications

CRS-836-B

Solids Collection Capacity: 1080 cubic inches/18 liters
Liquid Retention Capacity: 30.5 gallons/115.4 liters
Total System Weight (without liquid): 285 pounds/129 kg

Maximum Pressure: 150 psi/10.3 bar
Maximum Operating Temperature: 200°F/93°C



Maintenance Procedures

Separated solids collected in the SRV vessel must be periodically removed. The collector bag may be cleaned and re-used or discarded and replaced. This operation can be performed without interrupting system flow or the LAKOS Separator's operation (see instructions below). Recommended maximum solids load per bag is 25 lbs. (11 kg).

The Indicator Package uses a pressure-differential sensor to identify when the bag should be serviced. The standard gauge will point to a red zone, indicating needed servicing. The optional dry electric contact will engage whatever indicator is connected (a light, buzzer, horn, etc.).

Follow these steps:

1. Close the manual valve on the purge line. Wait for 30-45 seconds.
2. Close the manual valve on the liquid recovery line.
3. Open the manual pressure relief valve to release trapped air.
   IMPORTANT: *Wait until all pressure has been released before proceeding.*
4. Open the lid to the SRV vessel. Remove the retainer. Grasp the stainless steel basket handle and remove the entire assembly from the SRV vessel. Remove the bag(s) and clean/replace in the basket.
5. Check o-rings on the basket lip and SRV vessel lid; replace if damaged. Replace the basket/bag assembly in the SRV vessel. Replace the retainer. Close lid and secure properly.
6. Fully open the manual valve on the purge line.
7. Use the manual pressure relief valve to vent all air from the SRV vessel. Close this valve when liquid begins to discharge (indicating that the SRV vessel is now full of liquid).
8. Fully open the liquid recovery line valve. If the Indicator Package is installed, check the sightglasses for proper flow to and from the SRV vessel. System is now back in operation.

Lakos Separators are manufactured and sold under one or more of the following U.S. Patents:
5,320,747; 5,338,341; 5,368,735; 5,425,876; 5,571,416; 5,578,203; 5,622,545; 5,653,874; 5,894,995; 6,090,276; 6,143,175; 6,167,960; 6,202,543; 7,000,782; 7,032,760 and corresponding foreign patents, other U.S. and foreign patents pending.

LAKOS®
Separators and Filtration Solutions

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