Tru-Clear Belt Oil Skimmers

Operating and Maintenance Instructions

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Description

The Tru-Clear brand of Oil Skimmers are designed to mount easily for top or side mount options to any coolant tank, external sump or parts washing apparatus. They effectively skim and remove an average of ½ gallon of free-floating oil per hour extending the life of the water-based solution used in processing, machining, and washing operations. It is important to note that oil skimmers can only remove oils that have "split emulsion" and are floating on top of the solution.

Precision formed of type 316 stainless steel and sealed against moisture, chips and dirt, these skimmers are designed for rugged duty and years of operation.

Installation

1. Using either ¼-20 or 6mm screws and nuts, mount the unit to best fit your application while taking care not to obstruct the belt or its drive system. There are two separate mounting positions for "top" or "side" utilizing the same mounting plate.
2. Position the skimmer so that the discharge trough can flow skimmed oil, via gravity, to a collection point/reservoir for disposal. Optionally, you can use a ¾" ID tube to attach to trough and divert to collection point-this collection is supplied by other and can be a bucket, box or and other vehicle used to hold the skimmed oil.
3. Ensure the tail section of the skimmer (lower pulley) always remains in contact with the liquid during its operation. Also, be sure that the liquid level does not fall below the lower tail pulley of skimmer. Maximum liquid level is 3" below skimmer mounting plate. You may need to use spacers or other means to mount.
4. Connect the line cord to a 120V-60Hz supply. A switch or a timer device can be used in order to turn the unit on/off based on your preference.
5. The skimmer is now ready for operation.

Operation

During operation, oil floating on the surface of the fluid in the sump area of tank adheres to the belt on the skimmer---the belts "oleophilic" design qualities attract oils and repel water. The oil is carried up the belt where it is removed via a scraper and flows down the chute to a collection vestibule for disposal (by others).

While the skimmer is running, you may notice some small amount of fluid (i.e. coolant, detergent, emulsion) being removed along with the oil. This is normal as varying chemistries used in detergents and coolants, temperature and oil types react differently based on their state of emulsion and ability to break emulsion. If this "drag out" of chemistries seems excessive, contact your chemical supplier to determine if the chemistry used is designed to allow for releasing emulsion of oils.

Maintenance

Your skimmer is designed with premium components and constructed for years of industrially rated duty. As with any product, there are tasks and replacement of parts is required to continue operations.

Daily:

- Inspect the discharge trough for obstruction and build up, clear when necessary.
- Visual inspect the belt and upper drive assembly/roller for rotation when powered.
- Inspect and dispose of captured and removed waste oil

Weekly

- Inspect belt tension, after a period of use, the belt may stretch nominally. The spring-loaded lower pully will automatically compensate and self-tension.
- If belt is stretched beyond acceptable operations, is frayed or visibly deteriorated, replace belt
- Ensure proper tension of belt scraper to belt. There is a "knurled" fastener which is required to be hand tightened on trough discharge of unit. Loosen to push the trough assembly downward, to seat fully and tighten knurled fastener.

Replacement parts such as belts, troughs, motors are available from Tru-Clear or your distributor. Provide your model number when ordering. Optionally, measure the belt width and usable length (folded over) for a comparison.

WARNING

Do not activate or rotate the belt/motor assembly by hand. This internal direct drive system can be permanently damaged and not covered by warranty

SEE THE FOLLOWING BELT CHANGE INSTRUCTIONS FOR PROPER REMOVAL AND INSTALLATION

BELT CHANGE INSTRUCTIONS

The following procedure must be followed when installing a replacement belt

1. **WARNING:** Unplug skimmer from power source or disconnect power if its part of an assembly
2. Remove skimmer from mounting location and place on suitable work area
3. Loosen the scraper/trough tensioning screw slightly, removal is not necessary (Figure 1a)
4. Apply slight upward pressure on scraper/trough and "disengage" the 3 hook sections from skimmer pulley assembly. (Figure 1b.)
5. Remove the trough and set aside. (Figure 2)
6. Compress the skimmer tail section to release belt tension and remove belt from upper drive pulley (Figure 3)
7. While Still maintaining compression, slide belt from upper pulley and remove from lower tail pulley (Figure 4)
8. Reverse Instructions for belt installation

FIGURE 1A

FIGURE 1B

FIGURE 2

FIGURE 3

FIGURE 4