Maintenance and storage book – ACO Oil separators and sludge traps

OFFLOADING AND HANDLING

Offload the P/ P-SD tanks (Oil separator, sludge trap, sampling shaft, etc.) from delivery vehicle using forklift or other appropriate machinery, which allows handling the particular dimension and weight. Selected tanks have located lifting hooks, those that can lift the tank. **It is always necessary to verify with ACO customer service.** Do not throw the tanks!

STORAGE INSTRUCTION

If the tank is stored at the installation site, it must be stored on a flat surface without any sharp protrusions and secured so that it is not locally damaged. The storage location must be chosen in such a way as to avoid accidental damage to the tank as much as possible.

When long-term storage is envisaged (greater than 6 weeks), the ACO P/P-SD tanks must be protected from direct sunlight, if protection cannot be provided, consideration must be given to the effects of daily exposure to direct sunlight. Protect from prolonged sub-zero temperatures and temperatures above 25°C. Do not allow heavy materials to be stacked on or against the P/P-SD tank.

INITIATION OF AN OPERATION

CHECK:
- That the separator is filled with water up to the outlet level
- That coalescence unit is mounted over coalescence unit holder
- That the automatic shut-off valve is properly adjusted and float freely
- That the sensor reacting to a thick oil layer reaches at least 150 mm below the outlet.
- That the sensor that reacts to a damming is mounted - approximately 100 mm above separator inlet
- That the functional test of the alarm is done.
- Optional - if alarm sensors installed

Important! To prevent the separator outlet from blocked by filling water, the automatic shut-off valve must be removed from the separator, or lifted from its seat.

CLEANING AND MAINTENANCE

ACO Oil separators and separators with integrated bypass system should be emptied when awarning indicates that maximum oil or sludge volume has been reached. According to EN 858-2 is emptying shall been performed when 50% of max. sludge level or 80% of max. oil level has been reached.

When emptying
- Raise coalescence unit, alarm sensors (if installed) and automatic shut-off valve. Clean and visually inspect. Clean the coalescence unit by flushing with water hose or high-pressure washer (keep about 150 mm distance between the coalescence unit and the high-pressure nozzle).
- Vacuum the separator by way of a sewage/sludge disposal vehicle (truck, cart,) to remove all water and sludge/mud at the bottom
- Protect the inner parts of the OLEOPATOR P/P-SD from strong impacts, and be careful not to harm the inside surface of the separator.
- Refill the separator with water until it starts to come out of the outlet pipe.
- Reassemble the automatic shut-off valve in holder and ensure that it floats freely.
- Lower the coalescence unit over the automatic shut-off valve's holder so the bottom of the coalescence unit rests on its support base mounted on the end of the outlet pipe.

SAND/SLUDGE TRAP
Empty sludge traps often by way of a sewage/sludge suction vehicle (truck, cart, other) to minimize the volume of sludge in the separator.

Supervision

Once a week:
Measure sludge level (measuring rod)

Once a month:
- Measure sludge level (measuring rod)
- Measure oil layer (measuring rod)
- Make visual inspection of coalescence unit
- Check alarm function (see separate. D & D for alarm)

Once every 6 months:
Maintenance is to be done by experienced personnel, in accordance with EN 858-2.
1 Sludgetrap
Measure sludge level (measuring rods).

2 Separator
- Measure oil layer (measuring rod).
- Test function of the automatic shut-off valve.
- Test function of the alarm (see D & D for alarm).
- Inspect and clean the coalescence unit. Exchange if necessary.
- Structural stability and condition (damage, etc.)

3 Sampling well
Visual inspection and possible cleaning.

Once every 5 years (as per EN 858-2):
Every 5 years, do a more extensive inspection of the oil separator and/or sludge separator. The separator is to be completely emptied and inspected by way of extension neck. This inspection must include the following elements:
- Components - inspect for density.
- Structural condition - inspect for possible cracking of the tank, etc.

- Inspect interior finishes.
- Inspect the attachments and function of controls for inlet dampers, screens, pipes, coalescence unit, etc.
- Check and adjust the automatic shut-off valve.
- Inspection of electrical components and alarms.

Safety precautions

Toxic and in some cases dangerous flammable gases can form inside the separator. Use caution when emptying the separator. Never go inside a separator unless it is well ventilated.
Whenever entering the separator, workers must wear protective clothing. At least one additional person must be present to provide assistance should it be required. Workers must follow existing regulations governing work done in confined spaces and safe use of tools or equipment that can produce sparks.

Consider the requirements of:
Work in confined spaces: see local/national requirements.

Important!
- Use only a self-separating, non-emulsifying solvent cleaner that does not interfere with the process of oil-water separation. Emulsifiers do not allow the separation of oil from water inside the separator.
- Replacment of the detergent combination should be done only when the separator is emptied.
- Oil can be difficult to separate from water if a large amount of hot water is poured into the separator.
- Emulsions may occur, resulting in a grease discharge that is too high. The separator works optimally when the wastewater temperature is a maximum 35 °C.
- Emptying and maintenance records must be kept, stored and made available to the supervisory authority. Records are to be kept of all activities and/or incidents associated with the separator including service, repairs, accidents, emergencies, etc.