

# “OIL EATER” DUAL TUBE OIL SKIMMER (DTOS)

PRODUCT BULLETIN



## REMOVAL OF FLOATING TRAMP OILS WITH SINGLE OR DUAL TUBE TYPE OIL SKIMMER

In many applications, tramp oils find their way into coolants, quenchants, surface waters, and other aqueous solutions. This can have detrimental results such as reduced cooling in machining and drawing processes, poor product quality such as dimensional instability and contamination of manufactured parts as well as the process fluids.

Typically tramp oils have a lower specific gravity than water and tend to be immiscible in water. This causes the tramp oil to float on the surface of the aqueous solution or coolant.

Filtertech's Oil Skimmer provides an effective means for removing tramp oil from the liquid surface. The unique design Model DTOS "Oil Eater" Oil Skimmer allows the ability to have a single tube skimmer or dual tube skimmer. When operated as a dual tube skimmer, the skimming tubes can be arranged to operate on the same side for single tank cleaning or the tubes can be positioned on opposite sides of the skimmer to allow simultaneous cleaning of both compartments.

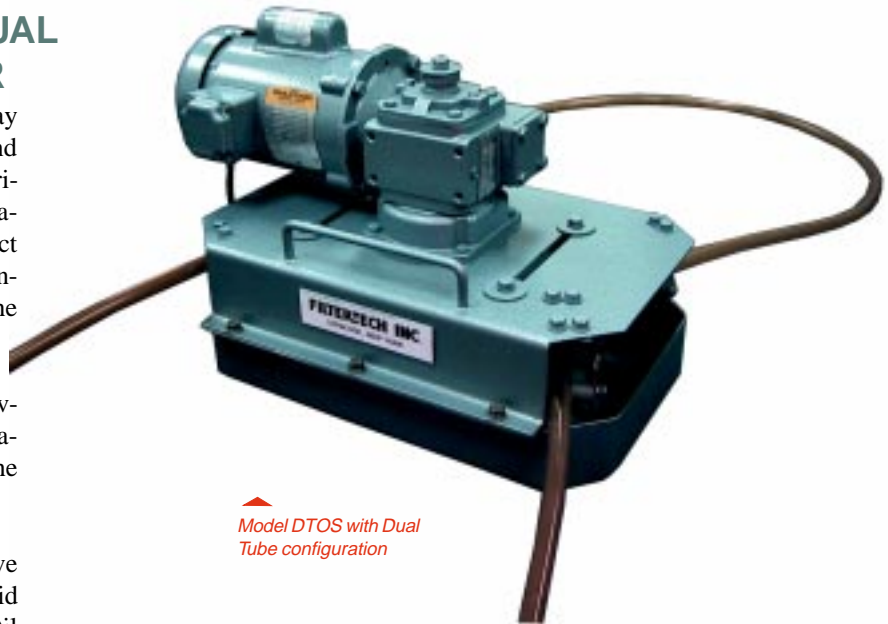
## EQUIPMENT FEATURES

### Standard

- Heavy-duty stainless steel frame construction.
- Single and dual tube design with various length skimming tube(s).
- 1/2 HP drive and gear reducer with 110V/1Ø T.E.F.C. motor.
- Unique hemispherical wiping gland design.
- Oil discharge trough integral to the unit.
- Mounting brackets for tank, top or side mount.
- Thermoplastic drive wheels with adjustable tension control.
- Compact horizontal design.
- 110V single phase NEMA 4 control.

### Optional

- Variable speed control.
- Timer control.
- Oil decant tank.
- 230/460V/3Ø/60Hz.
- 220/3Ø/50Hz.



Model DTOS with Dual Tube configuration

## TYPICAL APPLICATIONS

- Machining & Grinding Coolants
- Drawing & Rolling Emulsions
- Annealing Quenchants
- Aqueous Cleaners
- Coalescing Tanks
- Oil-Water Separators
- Catch Basins
- Collection Ponds



Model DTOS with Tramp Oil Discharge Outlet

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## MODE OF OPERATION

The “Oil Eater” Model DTOS Oil Skimmer can be mounted over the top of a tank, or over the tank side. An optional control panel can be remotely mounted from the skimmer.

Due to the lower specific gravity of the tramp oil, contaminants will float to the surface of the liquid. The Model DTOS uses a specially-designed capstan drive that moves an elastomer skimming tube into the tank where the tube floats on the surface of the liquid. As the tube moves along the surface, the tramp oils adhere to the tube surface. The tube then exits the tank, and the tramp oil is removed from the tube by specially-designed hemispherical wiping glands that provide a complete 360° removal from the tube. The tube then passes over the drive capstan and is returned to the tank for more oil removal.



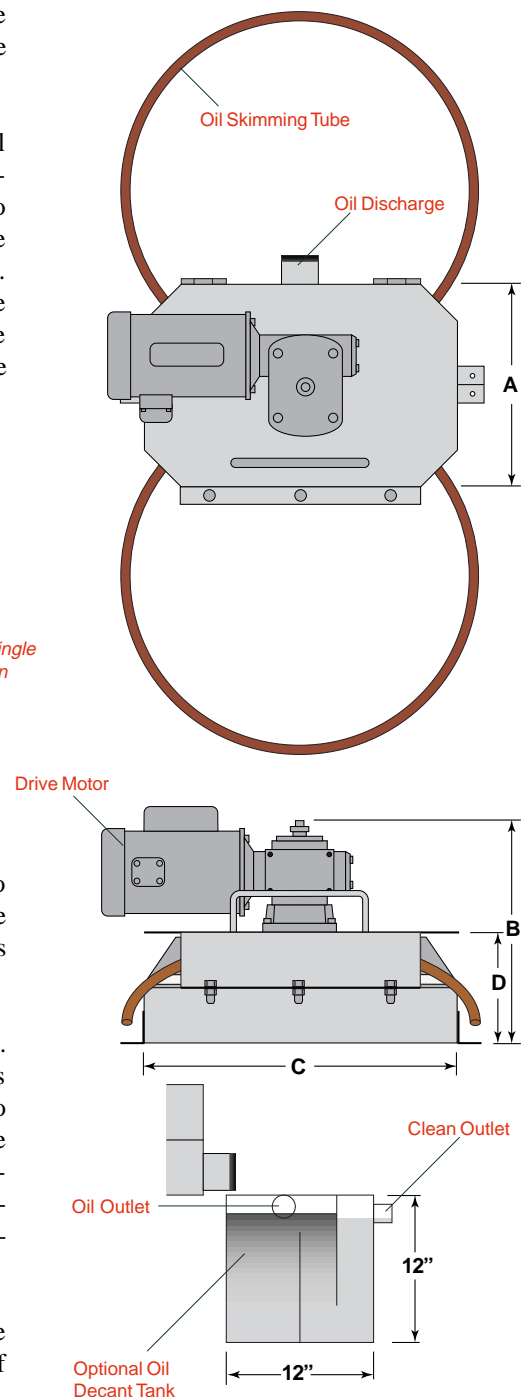
Model DTOS in Single Tube configuration

The oil that is removed from the tube then drains by gravity either to a collection receptacle or to an optional decantation tank. There the tramp oil is concentrated further, and the excess water or emulsion is returned to the main tank.

The Model DTOS is available in both single and dual tube versions. Additionally, the dual tube design can be configured with both tubes skimming on the same side of the skimmer or on opposite sides to allow skimming of two separate compartments simultaneously. The Model DTOS with single tube configuration has the flexibility of being easily retrofitted to a dual tube configuration. A dual tube configuration can also be easily converted between the single compartment to two compartment operation.

As an option, the Model DTOS can be equipped with a variable speed drive or timer to provide improved control over the rate of tramp oil removal.

FIGURE 1



## SPECIFICATIONS

Model†	Dimensions in (cm)				Drive HP	No. of Tubes	Oil Removal* GPH (lph)	Est. Weight LBS (kgs)
	A	B	C	D				
DTOS-1	12" (30)	13.5" (34)	19.5" (50)	20.25" (51)	1/2	1	60 (225)	78 (35)
DTOS-2	12" (30)	13.5" (34)	19.5" (50)	20.25" (51)	1/2	2	120 (250)	80 (36)

† Other systems are available on a custom basis.

Use the following suffix designations for the various options.

- /V - variable speed control
- /T - timer control
- /D - decant tank
- /SM - side mounting bracket
- /TM - top mounting bracket
- /230 - 230V/3Ø/60Hz
- /480 - 480V/3Ø/60Hz

\* Variations in viscosity will affect the oil removal rate. Specifications subject to change without notice.

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