

# Oil Skimmer

## Model 1U

The Friess oil skimmer model 1U removes floating oils and greases from liquids such as cooling lubricants, cooling water, degreasing agents, waste water, and many more. A small compact device for basins with a surface of max. 1 m<sup>2</sup>



## Advantages

- Rapid ROI due to increased service life of emulsion and degreasing baths
- Minimal maintenance required thanks to robust design and high-quality, durable materials
- The oil is removed from a large area by the free floating oil collector tube
- Level fluctuations in the tank are compensated
- Low assembly effort, as prefabricated assembly systems are available for almost all applications

## Technical Data

Removal capacity	2 - 30 l / h
Surface of the tank	min. 400 mm x 400 mm
Installation height above liquid	max. 600 mm
Level fluctuations	max. 3 m
Operating temperature	- 20°C to +95°C
Drive power	0,09 kW
Voltage	230 V / 400 V
Dimensions incl. oil collecting pan L x W x H	228 x 224 x max. 270 mm

## 1. How it Works

The oil collector tube of the oil skimmer model 1U creates a uniform rotating movement on the entire surface of the liquid and thus reliably removes oil and grease even from corners. Because the oil collection tube floats on the liquid and can be flexibly adapted to the respective container shape, large-area oil removal and exact oil-water separation are guaranteed.

## 2. Construction Principle

An endless, smooth plastic tube - the so-called oil collector tube - floats freely on the surface of the liquid. Oils and greases as well as dirt particles bound in them adhere to the surface of the oil collector tube. The tube is pulled through special, highly abrasion-resistant ceramic scrapers in the oil skimmer. In the process, the oil is scraped off, fed into an oil collecting pan and finally to an oil storage tank.

## 3. Range of Application and Special Features

The oil skimmer model 1U is specially designed for continuous operation in harsh industrial environments. The oil collecting pan and base body are made of stainless steel. The drive wheel is fitted with highly abrasion-resistant ceramic and therefore guarantees long service life even with heavily contaminated cooling lubricants and degreasing baths. Since the angle of inclination of the oil skimmer can be adjusted as required, the unit can be optimally adapted to the conditions at the place of use.

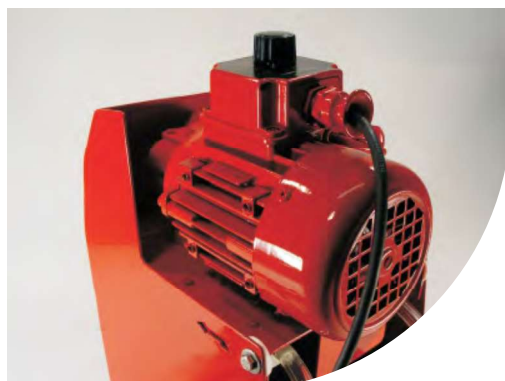
## 4. Options

### Oil Skimmer 1U with Open Drain / Slide

Often greases & oils mixed with shavings and dirt particles as well as other highly sticky substances float up on the liquid surface. These sticky oils and greases are easily removed by the oil skimmer, but the drain often clogs after a short period of use. To remove these sticky, non-flowable contaminants quickly and easily, the oil skimmer model 1U can be used with an oil collecting pan with drain slide. Because of the steep drain angle, the sludge slides easily into a collection container. In addition, the slide is easier to clean than a pipe or hose.



Oil skimmer with open drain / slide



Oil skimmer with electric speed control

### Oil Skimmer 1U with Electric Speed Control

The capacity of the oil skimmer 1U can be optimally adjusted to the actual amount of floating oil by means of an electronic speed control. The speed of the drive motor can be continuously adjusted between 100 % and 50 % of the nominal speed. Particularly in the case of low oil input, the quantity of used fluid to be disposed of is significantly reduced and thus disposal costs are reduced.

## Oil Skimmer 1U with Built-in Oil Separator

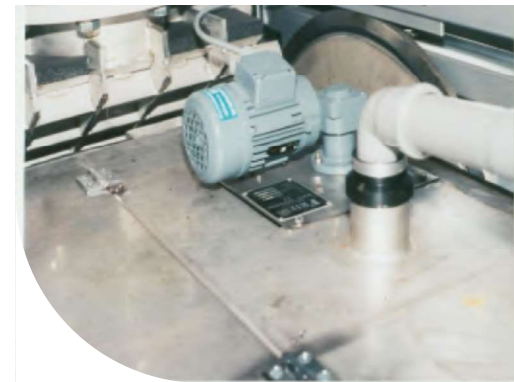
Especially in degreasing systems, the bath surface must be free of floating oils to ensure optimum cleanliness of the surfaces of the parts to be washed. The oil skimmer must therefore constantly remove the floating oil phase. Since the floating oil layer is often very thin, a certain amount of washing water is removed with the oil. The wash water settles in the integrated separator and is returned to the working tank, while the oil drains off in a collection tank. The discharge of wash water is reduced and the amount of used oil to be disposed of is reduced.



Oil skimmer 1U with oil separator

## Built-in Oil Skimmer 1U

Many tanks are closed for various reasons such as odor, heat loss, etc. To remove oil from the bath surface, a section of the tank would have to remain open. The oil skimmer model 1U built-in version can be placed like a lid on a corresponding cut-out in the tank cover. The oil skimmer can thus operate while the tank remains completely closed. Other installation versions for a closed tank, such as a flange connection are also available.



Built in oil skimmer 1U

## Oil Skimmer 1U for use with Aggressive Fluids

Already the standard version of the oil skimmer model 1U is made of corrosion-resistant stainless steel 1.4301 (AISI 304) and ceramics. Especially for the food and chemical industry, the oil skimmer model 1U is available in materials such as 1.4571 or 1.4404 (AISI 316). For use in pickling baths or fluids containing chloride, the Model 1U oil skimmer is also offered in an all-plastic version.



Oil skimmer 1U plastic version

### For more information, consultation and ordering:

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