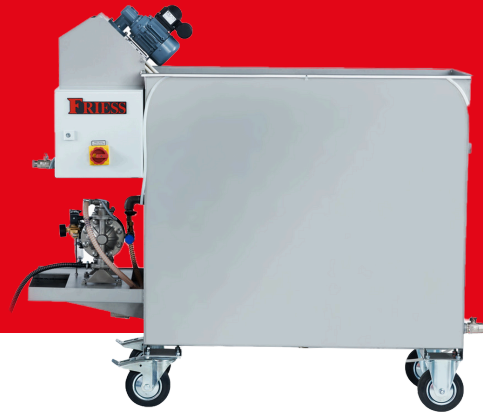


Oil Separators

Skimmtelligent



Oil separators are used where tramp oil is present, but it does not float. In such situations, an oil skimmer cannot be used, as the oil is emulsified in the liquid and does not rise to the surface.

To remove the oil nevertheless, the liquid must be settled so that the oil has enough time to rise to the surface. This is achieved using an oil separator that works in the bypass flow. This process is made more effective by means of coalescence (the merging of many small droplets into larger droplets, which then rise to the surface).

Skimmtelligent mini

Specifically designed for cooling lubricant applications, the Skimmtelligent mini oil separator has a mobile design and can therefore be operated on several systems. It does not matter whether the tramp oil floats in the cooling lubricant tank or is mixed with the cooling lubricant. Additional coalescence plates improve the rising of the oil droplets to the surface.



The oil drain is designed to be user-friendly so that it can be adjusted without tools, to really only remove the oil from the surface. Should some liquid be removed, this is removed again in a further separation stage.

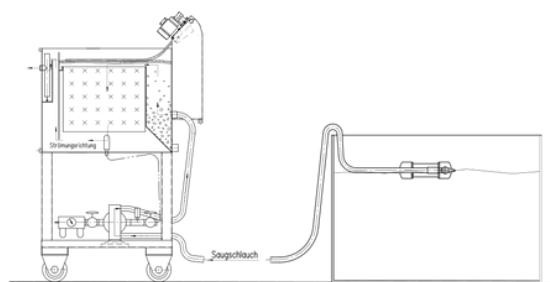
Advantages of the Skimmtelligent mini:

- Robust stainless steel construction for a wide range of applications
- Coalescer plates for improved separation behavior
- Automatic separator for separating cooling lubricant from the separated oil

Skimmtelligent 10, 20, 40

The larger models are also mobile. The special feature of these models, however, is that these oil separators do not use an overflow baffle, as is usually the case, to separate the oil, which is often imprecise or requires

a lot of maintenance. Instead, one of our tube oil skimmers is integrated to ensure fully automatic oil removal without the need for maintenance. It really is a case of fully hands-off operation. Naturally, these models are also equipped with a coalescence package to ensure the most thorough oil removal possible. The entire operation of the oil separator is controlled via the integrated control unit, including the safety devices that prevent the oil separator from overflowing.



Advantages of Skimmtelligent 10, 20, 40:

- Robust stainless steel construction for a wide range of applications
- Coalescer for improved separation behavior
- Integrated oil skimmer for removing floating oil
- Reliable operation and low maintenance

Application Examples

Washing Water Optimization through Oil Removal using an Oil Separator

A manufacturer of textile machine components was faced with the challenge of efficiently removing oil that got into the washing water after quenching the parts in an oil bath. Previously, the oil was removed at night using an oil skimmer that was over 15 years old, but the switch to three-shift operation meant that there was no longer enough time to remove the oil completely. A Skimmtelligent 20 oil separator was therefore installed, which continuously extracts the contaminated wash water and separates the oil. This tripled the service life of the washing water and significantly improved the cleanliness of the parts, with around 20 liters of oil being removed every day.



Oil Separator in Mobile Use for Cleaning Cooling Lubricant in Machine Tools

A machining company had a problem with the ingress of tramp oil in the form of spindle oil on several machine tools. The customer does not operate a central cooling lubricant treatment system, but operates all machines with the internal tanks in the machine bed. A Skimmtelligent mini mobile oil separator, which works in combination with a magnetic filter, is used to remove the tramp oil. This means that not only is the tramp oil removed, but also fine magnetizable particles. After operation on one machine tool, the oil separator is simply moved to the next machine tool. In this way, the cooling lubricant of the machine tools can be easily maintained without having to purchase several devices or an expensive central cooling lubricant system.



Stationary Oil Separator used on Large Cooling Lubricant Systems

A company that manufactures railroad wheels had a problem with increased levels of tramp oil in its two cooling lubricant systems, each with a capacity of 16,000 liters and each supplying three large machining centers. This tramp oil came from leaks in the hydraulic units. The solution to remove the tramp oil that had entered the system, was two Skimmtelligent 20 oil separators. These work as bypass separators, as the high turbulence in the systems does not allow a separate oil phase to form. The oil separators are equipped with magnetic filters that first remove magnetizable particles before the fluid is settled and a separate oil phase is formed. Coalescing elements improve the rise of the oil droplets, resulting in thorough oil removal. After the successful test phase, both the maintenance manager and the cooling lubricant supplier were impressed by the effectiveness of the oil separators, as the percentage of tramp oil and the particle load in the cooling lubricant were significantly reduced.



Use of an Oil Separator in an Immersion Electroplating System

In a coating process at a manufacturer of lightweight structures in the automotive sector, tramp oils and greases were accumulating in the degreasing stage of the immersion electroplating process. This led to an increased use of chemicals in order to keep certain chemical parameters and the result within the target range. Due to the three-shift operation, the oil did not settle on top. With the successful use of a Friess Skimmtelligent oil separator, the percentage of tramp oil was drastically reduced, resulting in a significant reduction in the use of chemicals.

