

Friess Oil Seperator Skimmtelligent

Oil separator with continuous and automatic oil discharge



Advantages

- Operates independently of production
- Removes smallest amounts of tramp oil
- Significantly increased service life for emulsion and wash water
- Significant savings on purchase and disposal of emulsion concentrate and detergent
- Reliable oil removal by using an oil skimmer making constant readjustment a thing of the past

Technical data

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Flow rate	300 l / h	600 l / h	1200 l / h
Tank volume approx.	100 l	200 l	400 l
Keeps clean per year	7500 l	15.000 l	30.000 l
Dimensions ca. L X W X H in mm	1190 x 560 x 1455	1200 x 570 x 1720	1750 x 600 x 1440
pH value	5 - 14	5 - 14	5 - 14
Max. working temperature	60 °C	60 °C	60 °C

1. Why Remove Oil?

In the case of cooling lubricants, the lubricating and cooling performance of the cooling lubricant is reduced by the constant introduction of oil. A closed oil layer on the emulsion surface reduces the oxygen input and leads to bacteria and fungus growth in the emulsion. In the case of washing and degreasing agents, the cleaning performance is reduced by the increased oil concentration. The service life of the fluid can be increased many times over by constant separation of the introduced tramp oil and consistent maintenance of the cooling lubricants and degreasing agents. Significant savings result from reduced disposal costs and optimized process procedures.



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2. Operating Principle

A pneumatic diaphragm pump is used to suck in a mixture of liquid and floating oil. The working principle of the pump ensures particularly gentle conveyance without additional emulsification of the tramp oil. The extracted oil-liquid mixture is pumped into the Friess Skimmtelligent oil separator. In a first preliminary stage, the coarse dirt settles. Only then is the oil-liquid mixture fed into a large coalescence separator, equipped with coalescence material. The oil droplets contained in the liquid accumulate on the coalescence material. Several oil droplets combine to form a large droplet until there is sufficient buoyancy for the tramp oil to float upwards. Oil separation is supported by additional aeration of the fluid. Furthermore, bacteria formation is effectively prevented by the additional oxygen input. The tramp oil floating on the surface of the separator is skimmed off by an oil skimmer and conveyed to an oil collection tank. The use of the oil skimmer ensures that the floating oil phase is regularly removed. The oil skimmer does not require any continuous readjustment and always reliably removes floating oil despite high levels of solids and other contaminants. As a result, the liquid to be cleaned is in contact with oxygen in the air and the formation of anaerobic bacteria is prevented. The de-oiled liquid flows back into the working tank through a drain chamber. The unit operates fully automatically in a bypass, without the need for monitoring.

For more information, consultation and ordering:

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