

Alfie 500



 HYDRAULIC  
COMPONENTS  
& FLUID CONTAMINATION  
CONTROL



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Less downtime



Better product quality



No more sticky tools



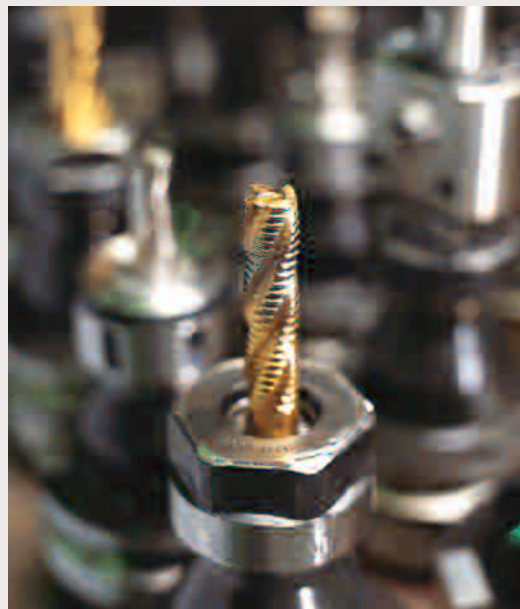
No odour



Reduced allergic reactions



Reduced tool wear



# Clean coolants save more than you think

For the metalworking industry, coolants are a major expense. Some are obvious: Replacing them – a messy and time-consuming task. Disposing of them – a continually rising expense in the face of today's environmental regulations.

But dirty coolants also incur other less obvious but no less expensive costs. For example, tramp oil and solid particles in coolants can cause increased tool wear, quality problems during later processing and health problems for your personnel.

In short, it's well worth the effort to take steps to keep your coolants clean.

And with Alfa Laval's centrifugal separators, it's not much of an effort to begin with.

- Low fluid replacement/disposal costs
- Longer tool lifetime
- Cleaner components, improved end-product quality
- Less downtime for service since the separator is installed in bypass flow
- Fewer man-hours required for maintenance of service fluids
- Healthier work environment
- Reduced impact on the environment



## We see a potential to cut cost and boost productivity

### Every machining stage in your plant needs coolants. Always having clean coolants offer clear benefits.

#### Alfie 500 – worth evaluating

Alfie 500 is specifically designed to remove contaminants from coolants in smaller systems, using the time-tested technique of high-speed centrifugal separation. With its compact design, Alfie 500 is easy to move across a workshop floor. And you can use it to service several tanks, or just one, for volumes of up to 15 m<sup>3</sup> (7,500 gallons). The equipment is easy to operate thanks to a PLC-based control panel. And just about anyone can quickly learn how to operate and service it.

Since the separator is installed in a bypass flow, Alfie 500 can treat the

coolant during a production run or at standstill. Alfie 500 separates tramp oil as well as metal fines and solid particles down to 1 µm from the coolant.

#### Recycling means major savings

Install Alfie 500 and your fluids will last much longer. Continuous cleaning extends the life of your coolants and, with top-ups, it can last as long as 10 years!

Imagine the savings on fluid disposal and replacement. No filters to replace or dispose of. Clean coolant is returned to your tanks, “pure” free oil or tramp oil is collected in a tank and a compact

dry cake of particles collects on the inside of the separator bowl.

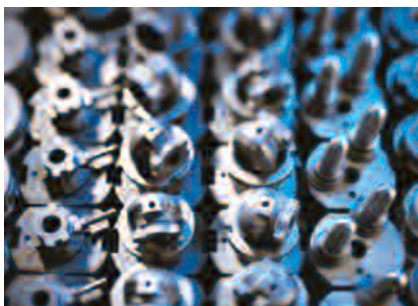
#### Precise tools – better end quality

In light of today’s zero-defect production philosophy, Alfie 500 is a clear asset in any metalworking plant.

Clean coolant minimises tool wear caused by contaminants, giving more precise machining and fewer rejects.

#### Keep your tools running

The Alfie 500 will raise your productivity. Clean coolants mean longer tool lifetime and longer production runs without tool changes. It also means fewer breakdowns due to solid particles clogging pumps and other equipment. Fewer stops for tank cleaning is yet another benefit.





## The Alfie 500 – look how easy

The Alfie 500 is the perfect solution for cleaning coolants in metalworking operations.

### Install in any system

Install Alfie 500 in a bypass flow. No redesign is necessary on your machine.

### Extremely simple to operate

The Alfie 500 is ingenious, very effective, and very easy to work with. All functions are controlled by a PLC-based control system. And with a well thought-out design.

### Plug-and-play operation

Hook up Alfie 500 and start it up. The system works automatically and requires no supervision. Your coolants will last longer than ever before.

### Support worldwide and around the corner

Alfa Laval's global resources include 50 sales companies and an extensive Parts & Service network, supporting customers in more than 100 countries. A network of local distributors and service providers can also provide support.



1 Solid particles accumulate inside the rotating bowl. When the bowl needs to be cleaned, it can be opened with a few simple operations.

2 When the tramp oil has reached a certain level in the collecting tank, a microswitch is activated, stopping the cleaning process and turning on an indicator light.

3 The surface of the rotating bowl is coated with a material that is 12 times harder than steel.

4 Mobile and compact. Large wheels make it easy to move the Alfie 500 even when the floor is not entirely smooth.

5 Suction hose with surface suction device.

6 Hose for return of clean fluid.

# Designed to improve your processes time and time again

## Easy to operate and service



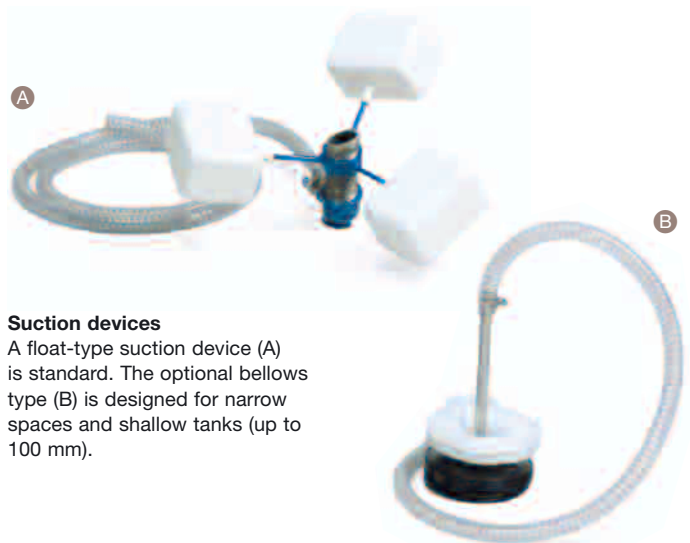
**Step 1**  
Fold down the safety yoke and remove the three bolts to open the separator.



**Step 2**  
Attach the tool and simply lift the separator bowl.



**Step 3**  
The dry sludge is easily removed from the inside of the bowl. After depositing the sludge, the system is ready for operation.



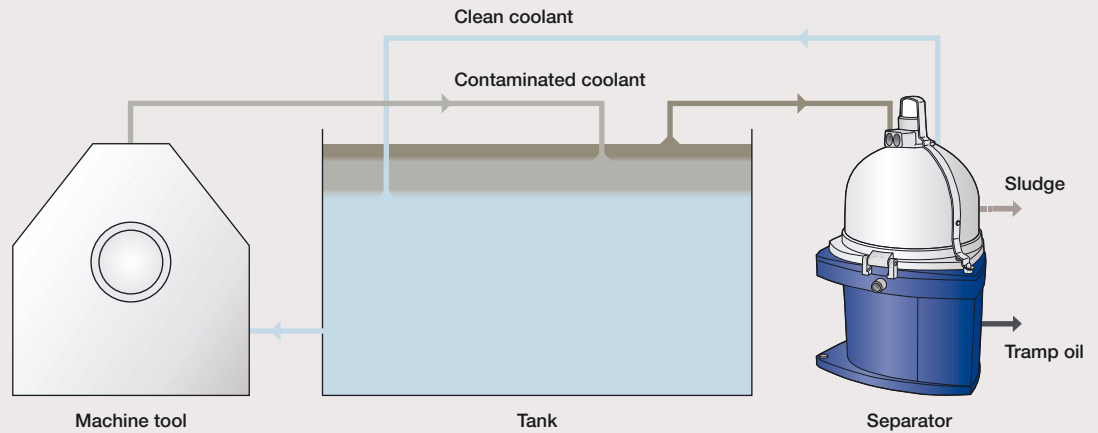
**Suction devices**  
A float-type suction device (A) is standard. The optional bellows type (B) is designed for narrow spaces and shallow tanks (up to 100 mm).



**Clearly controllable**  
The system is fully automatic and starts at the push of a button.

### Plug-and-play

Alfie extracts a side stream of contaminated coolant from the tank and returns the clean coolant to the tank without interrupting the machining process. No alterations to existing equipment are necessary.



### Technical data

#### Capacity

Max. flow, 50/60 Hz	500 l/h (2.2 gpm)
Sludge space	0.6 l (0.16 gal)

#### Liquid requirements

Max. temperature	70°C (160°F)
pH value	6–9

#### Electrical data

Voltage	230 V or 100–230 V single-phase (±5%)
Frequency	50/60 Hz
Amperage	10 A

#### Weight

Total weight, incl. stand	60 kg (135 lbs)
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#### Dimensions

Length	620 mm (24")
Width	510 mm (20")
Height	1140 mm (45")

### The Alfie 500 is only a fraction of what we can help you with

Alfie 500 is a perfect example of how an innovative product can be developed by combining proven technology with advanced materials and design solutions. Alfie 500 is our smallest separator for the cleaning of coolants; the largest model has a capacity of 8,000 l/h (35 gpm), and can handle tanks with capacities up to 300 m<sup>3</sup>.

Our total product range includes some 20 separators that also treat wash liquids, oils, other emulsions and paint waste. Alfa Laval is also the world's leading supplier of heat exchangers, helping customers around the world heat, cool and transport any type of fluid.



**AlfaPure Z3** – a larger separation system from Alfa Laval.





# Alfie 500 for cost-effective cleaning of coolants

## Separator system

Using high-speed centrifugal separation makes it possible to extend the life of your service fluids. Alfa Laval's disc-stack separators provide fast, efficient, simultaneous three-phase separation of oil and sludge.

Alfie 500 removes contaminating oil, grease and solid particles from coolants. The result is lower costs due to reduced fluid consumption, lower disposal costs and improvements in both product quality and working environment.

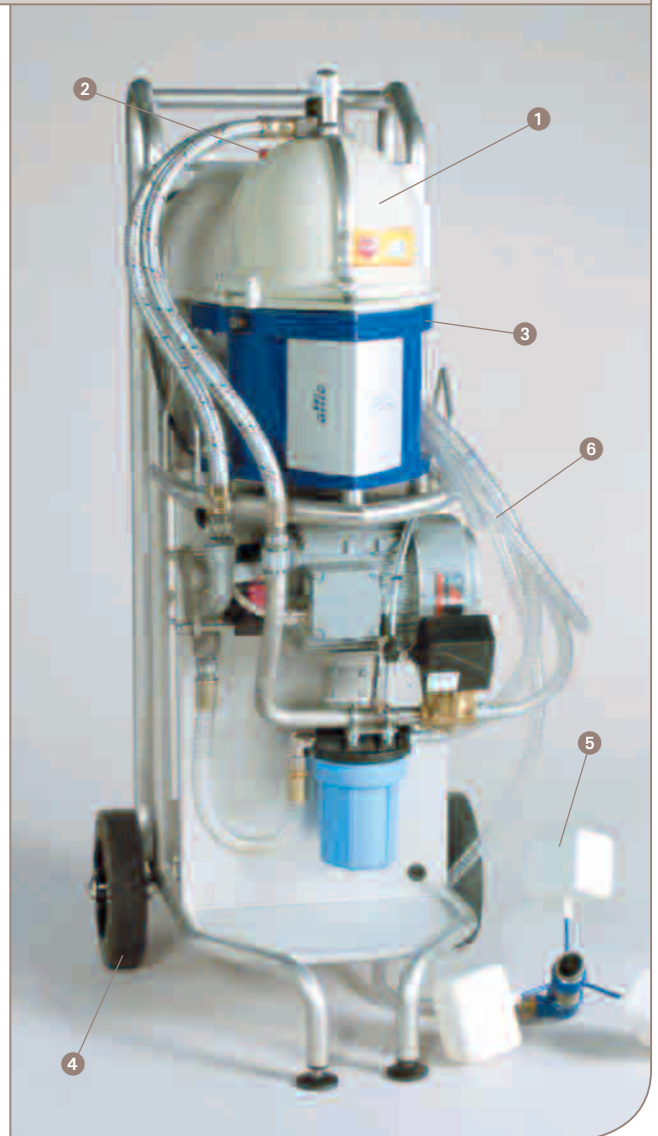
Alfie 500 is a complete compact system, including separator, feed pump and control system. The control panel makes it easy to operate. The Alfie 500 has a high capacity-to-size ratio. Handling tanks have volumes of up to 15 m<sup>3</sup>. Alfie 500 is installed in a bypass system and operates continuously.

### User-friendly operation

Operator convenience is a key parameter in the design of the Alfie 500. The PLC-based control system is operated by means of a control panel. The symbols and messages in clear text are easy to understand. Quick couplings make it easy to connect the hoses when the cleaning unit is moved from tank to tank.

With its compact and ergonomic design, Alfie 500 is easy to move across the workshop floor. And you can use it to serve several tanks or just one.

- 1 Solid particles accumulate inside the rotating bowl. When the bowl requires cleaning, it can be opened with a few simple operations.
- 2 When the tramp oil has reached a certain level in the collecting tank, a microswitch is activated, stopping the cleaning process and turning on an indicator light.
- 3 The surface of the rotating bowl is coated with a material that is 12 times harder than steel.
- 4 Large wheels make it easy to move Alfie 500 even when the floor is not entirely smooth.
- 5 Suction hose with surface suction device.
- 6 Hose for return of clean liquid.



Alfie 500.

## Meeting your needs

To meet all your needs, Alfa Laval offers a wide range of stationary or mobile separator systems for all types of fluids. Our offering ranges from systems with capacities suitable for smaller workshops to larger systems designed to clean complex and heavily contaminated fluids.

Our global organization guarantees easy start-up and, if you need a helping hand, an Alfa Laval service engineer is always close by. To support your operations further, Alfa Laval has a network of distributors and service partners who are always available to assist you. We call this Nonstop Performance.

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Alfie 500 is delivered complete with stand, collection tank for tramp oil, surface suction device, hoses, service tool kit and instruction book.



The Alfie 500 user-friendly control panel.



A float-type suction device is included as standard (left). The optional bellows type (right) is designed for narrow spaces and shallow tanks (up to 100 mm).

## How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at [www.alfalaval.com](http://www.alfalaval.com)

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