

Oil cleaning with Emmie pays back in one year



Now everyone can afford efficient oil cleaning

Using centrifugal separators for oil cleaning has until now been an economic privilege for companies with big oil tanks.

Not any more. Today any size company has the same opportunity to save money, thanks to Emmie

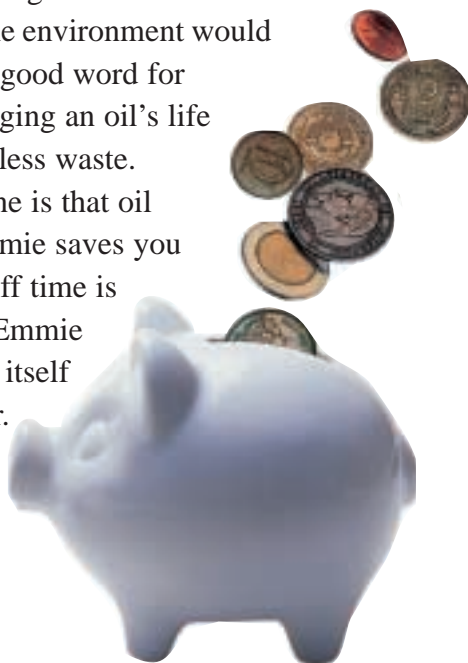


from Alfa Laval. Emmie, our new compact separator, removes particles and water from dirty oil in a single, easy operation.

A number of commonly used oils can be cleaned. The process is so efficient that the service life of the oil can be prolonged many, many times. In some cases, the cleaned oil can last almost indefinitely.

What this means in terms of economics is obvious: more production uptime, as well as reduced wear and corrosion on the equipment you use. You can also look forward to lower costs for buying and disposing of oils and filter cartridges. And the environment would probably put in a good word for Emmie, as prolonging an oil's life inevitably means less waste.

The bottom line is that oil cleaning with Emmie saves you money. The pay-off time is incredibly short. Emmie will often pay for itself in less than a year.



Reduced wear



Reduced costs for filters



Less clogging and corrosion



More uptime



Decreased oil consumption



Reduced disposal costs



Hydraulic oils

Lube oils

Compressor oils

Cutting oils

Diesel oils

Gear oils



Wherever oils are used, Emmie can save money

Particles that contaminate oil come from different sources, including wear from metal, plastic, and rubber components, paint flakes, and even airborne dust. Left alone in the oil, these particles will wear down and clog the equipment.

The smallest particles, less than 5 µm, are the worst problem. It is not economical to catch such small particles with a filter. But it is economical to catch them with Emmie. And its removal efficiency is higher than 99% for particles in the 2 µm - 5 µm range.

Water in oil is bad news, too. It deteriorates the oil's properties. It also damages valves and pumps, due to oxidation of oils and additives, as well as corrosion. Emmie quickly removes virtually all water, even at high initial water contents. You'll be happy to note that Emmie does not remove the additives, which stay in the oil.

Emmie can clean many types of oils, including hydraulic oils and lube oils. The following application story shows what a customer has achieved, with a little help from Emmie.

Five years with Emmie

Internordisk Spännarmering specializes in pre-stressed concrete constructions, such as large-scale bridge modules that are pressed together by armour cables to withstand high loads. Of course, the pulling of armour cables requires big hydraulic pumps.

The company has around 150 hydraulic pump units stationed at construction areas all over Scandinavia, including the new Öresund bridge between Sweden and Denmark currently under construction.

The pumps must work properly for months in all kinds of weather – any delay is extremely expensive. So Internordisk Spännarmering has learned the importance of having clean oils.

Peter Lindgren, their supervisor, explains that they have been using Emmie successfully for five years. And he can really tell the difference.

“Before, condensation was a big problem. Hydraulic pumps in operation outdoors would soon have their oils mixed with water, and even worse, ice if the weather was cold.”

Dirt particles were another problem. The company had to spend a lot of money on frequent oil filter changes, and was throwing away large amounts of oil that had been contaminated.

But since Emmie was installed, that's all history. Today, Emmie removes all particles and reduces the amount of water. A typical cleaning result – what was once over 4 % of water is now down to 58 ppm after running Emmie just one hour.

“We have been using Emmie successfully for five years”, says Peter Lindgren at Internordisk Spännarmering.



Mobile to serve small systems

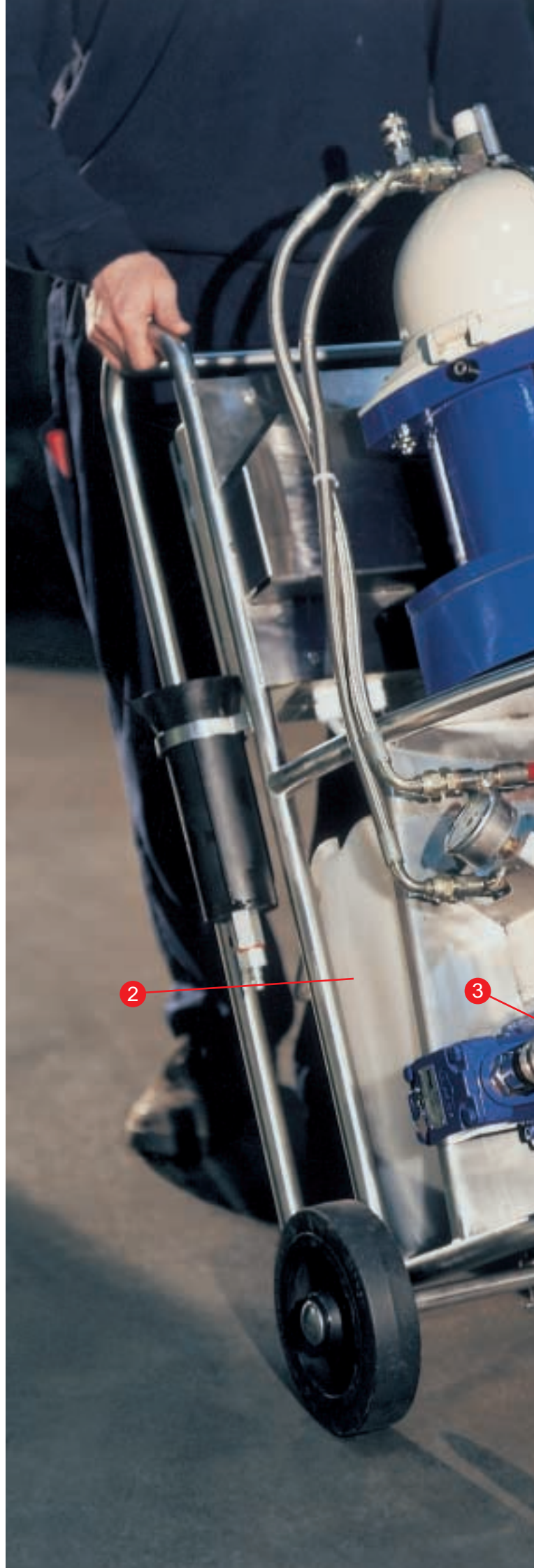
Emmie is a complete separation system that is ready for immediate use. The module can be easily wheeled around between oil tanks, to serve many different production stations.

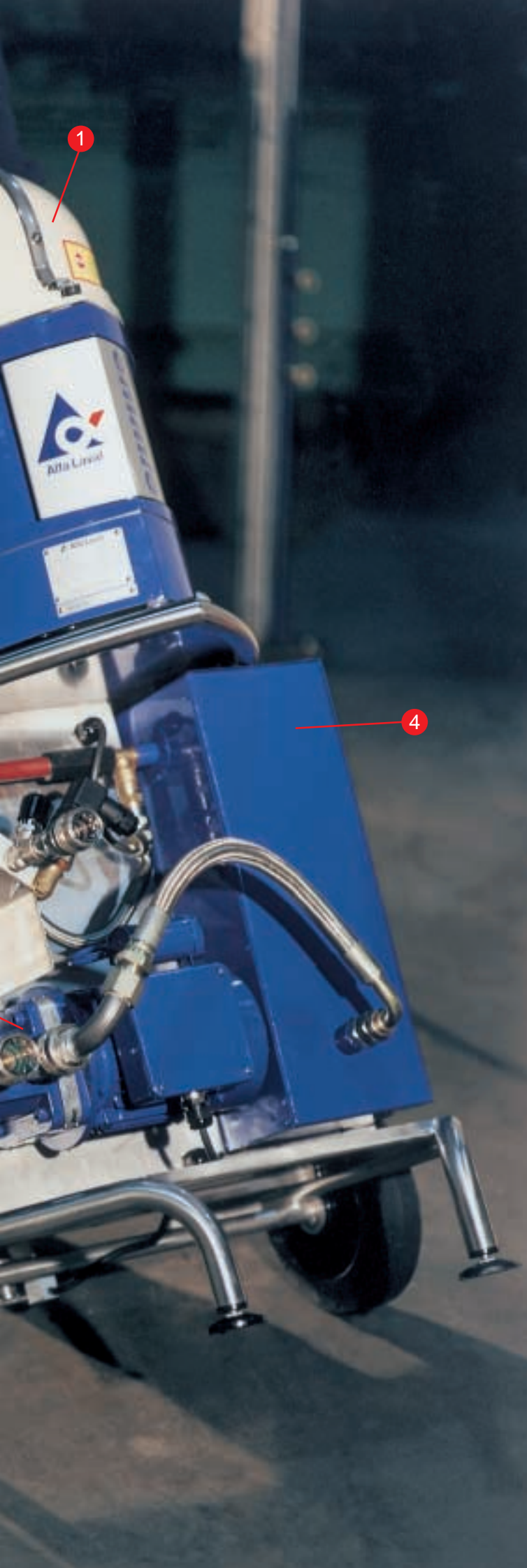


Emmie is extremely easy to use. The control panel has only two buttons. You can learn all that's needed to operate and maintain Emmie in less than one hour.

The separation process takes place close to the oil tank. Dirty oil is pumped from the tank, cleaned, and then recirculated. This by-pass principle provides two benefits. First, no modification needs to be done to existing equipment. Second, production can go on while oil cleaning is in progress.

- 1 *Solid particles are captured at the inner surface of the rotating bowl. Cleaning the bowl is easy and takes only about five minutes.*
- 2 *When water separated from the oil has reached a certain level in the collecting tank, a microswitch is activated, stopping the cleaning process.*
- 3 *Emmie's ergonomic design facilitates both operation and maintenance. Pump, motor, and other main components are easily accessible.*
- 4 *The system incorporates a built in electric heater, which heats the oil to reach optimum viscosity prior to purifying. For separation of low viscosity oils the module can be delivered without heater.*





Technical data

Capacity

Max flow, 50/60 Hz 170/200 l/h (0.75/0.88 gpm)

Sludge space 0.7 l (0.18 gal)

Liquid requirements:

Viscosity at separation

temperature Max 40 cSt

Max separation

temperature 70°C (160 degrees F)

pH-value 6-9

Electrical data

Voltage 230 V or 110 V single-phase
(±10%)

Frequency 50/60 Hz

Amperage 10/16 A

Weight

Without heater 60 kg (130 lb)

With heater 100 kg (220 lb)

Dimensions, mm	Standard	With heater
Length	620 (24 1/2")	620 (24 1/2")
Width	515 (20")	660 (26")
Height	1140 (45")	1140 (45")

Emmie is delivered complete with stand, collection tank, suction device for hydraulic tank and hoses.

From little Emmie to large stationary units

Emmie is a perfect example of how an innovative product can be developed by combining proven technology with advanced materials and design solutions.

Emmie is our smallest separator for cleaning of oils at flows up to 170 l/h, while the largest module has a capacity of 15 cubic meters/h. Our total product range includes some 20 separators that also treat coolants and wash liquids as well as paint waste.

If you want to know more about Emmie, or would like to discuss cleaning of industrial fluids, please do not hesitate to call or write us today.



Alfa Laval Separation AB

Industrial Separation Division, SE-147 80 Tumba, Sweden
Phone +46 8 530 650 00. Fax +46 8 530 665 07. <http://www.alfalaval.com>



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