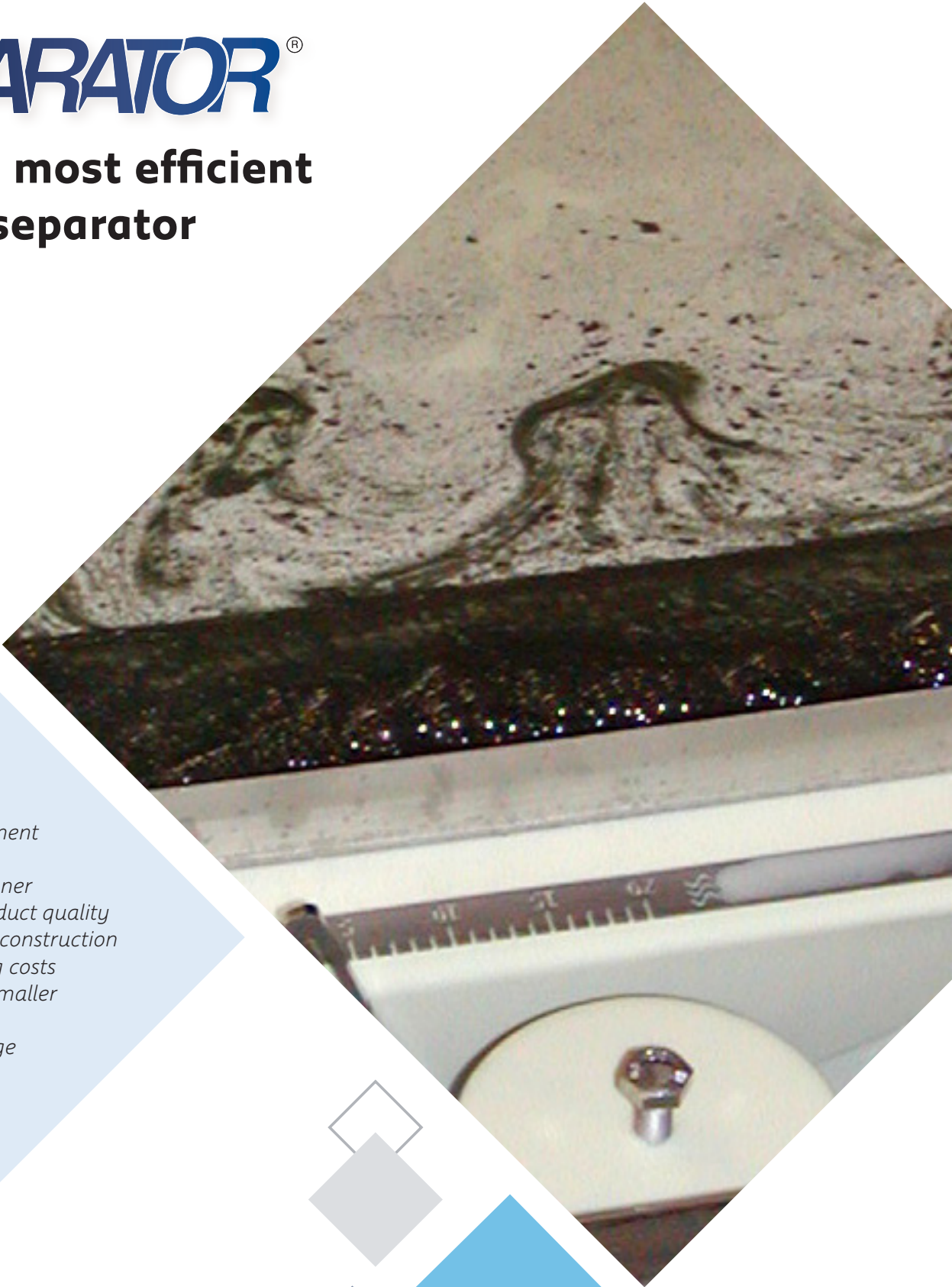





ESSELENT
solutions

SUPARATOR[®]

**The most efficient
oil separator**

- 
- *Very short
Return On Investment*
 - *Maximizes the
lifetime of the cleaner*
 - *Gives optimal product quality*
 - *Maintenance free construction*
 - *Minimal operating costs*
 - *Also effective for smaller
installations*
 - *Provides for a range
of capacities*
- 



SUPARATOR®

The most efficient oil separator

Cleaning and degreasing baths are used everywhere in industry. Optimal cleaning is of fundamental interest to ensure the quality of the product. The ability of a cleaner to degrease parts, decreases rapidly as more oil and grease are absorbed by the cleaner, together with dirt like dust and grinding residue. Optimal and fast oil separation therefore is a necessity.

Independent research confirms¹, that the Suparator®, is the most effective oil separator in the market. Oil gets separated from the cleaner within minutes, minimizing contact time of the oil with the parts to be cleaned. This results in cleaner parts and maximum bath life, as it no longer requires to be dumped due to oil and grease built up.



Suparator® unit type 86/240



A Suparskim® skimmer in use



**Most automotive
companies use
the Suparator®**

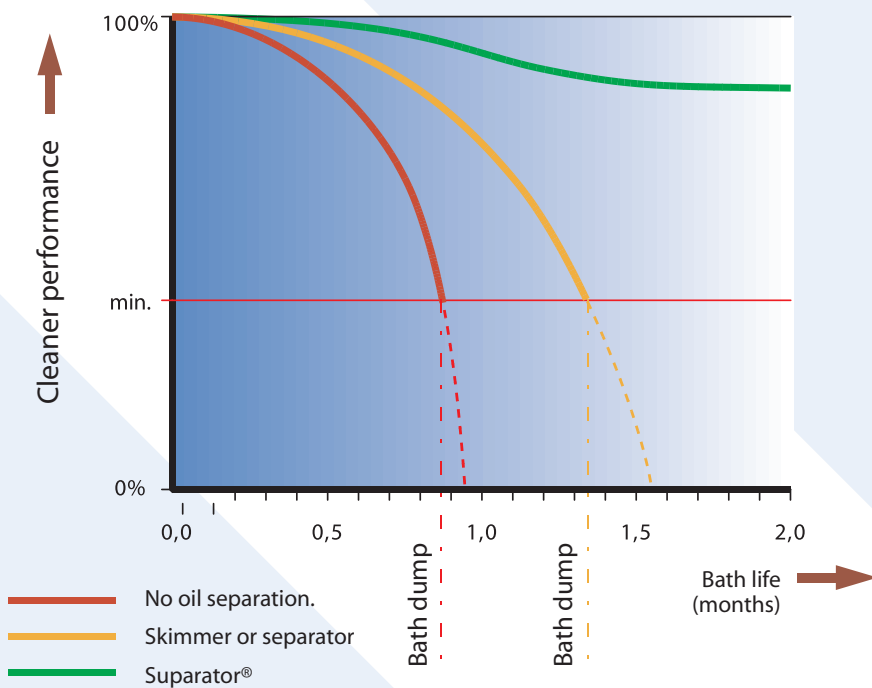
¹ Independent research carried out by the Toxic Use Reduction Institute (TURI) at the University of Massachusetts USA

Also effective for smaller installations

The clever patented design for the Suparator®, together with the patented Suparskim® skimmer, makes it possible to remove even small amounts of oil and grease from a washer or cleaning bath. The increasing cost of waste disposal makes oil separation economical even for smaller cleaning operations. That is why Suparator® is used in so many different industries. It can also be used for wastewater and coolant applications.

Maximum cleaner lifetime.

An aqueous cleaner is not particularly expensive but the associated costs, however, can be substantial. For instance the costs involved in emptying a bath, cleaning and re-filling it and heating up again. The biggest cost factors however, are the disposal of the spent cleaner and the cost of poor product quality and rework. The Suparator® keeps the cleaner free of oil; that means trouble free cleaning for a much longer period of time.



Cleaner performance degrades over time, due to pollution. Without oil separation (red line) the effect is noticeable very quickly, making an early bath dump necessary. Skimmers, conventional oil separators or coalescers (orange line) improve matters but only do so much. The Suparator® (green line) eliminates oil as the cause for bath changes.



Two photos, one sample. At the top the sample, immediately after the oil was separated with the Suparator®. At the bottom the same sample, 2 months later.

Notice the incredible amount of sludge that has settled from the oil. Conventional oil separation technology would have caused this sludge to remain in the bath or in the coalescer. The result would be degraded performance and a shortened bath life.

The Suparator® extends the life of your cleaner 4-10 times

The Suparator® generates profit on installations, starting from 1000 litres

Optimal product quality

Suparator® systems and solutions differ in a number of essential ways from any other, conventional, separator. For instance the patented Suparskim® skimmer, which automatically adjusts to the level in the bath.

Due to the unique construction, the top layer in the bath is quickly transferred into the Suparator® unit where the oil is removed from the cleaner in a matter of minutes. This is important because, inside conventional separators, the oil accumulates on top of the cleaner over a long period of time. This will give entrapped dirt, like dust and grinding residue, ample time to separate from the oil and re-enter the aqueous phase. Oil and dirt accumulate in the bath, causing cleaner performance to drop and resulting in unclean products. Only the Suparator® maintains the cleaner effectively enough, by separating the oil before dirt settles out keeping the oil concentration in the cleaner low all the time, no matter how long you use it. See the photos on the left.

Very short Return On Investment

The Suparator® requires a slightly higher investment but pays back faster by providing improved product quality, extended cleaner lifetime, and lower costs. As a result, the Suparator® on average has a ROI of one year, often shorter than that. In the mean time you benefit from a cleaner process and because the Suparator® is maintenance free, it soon pays for itself.



Maintenance free construction

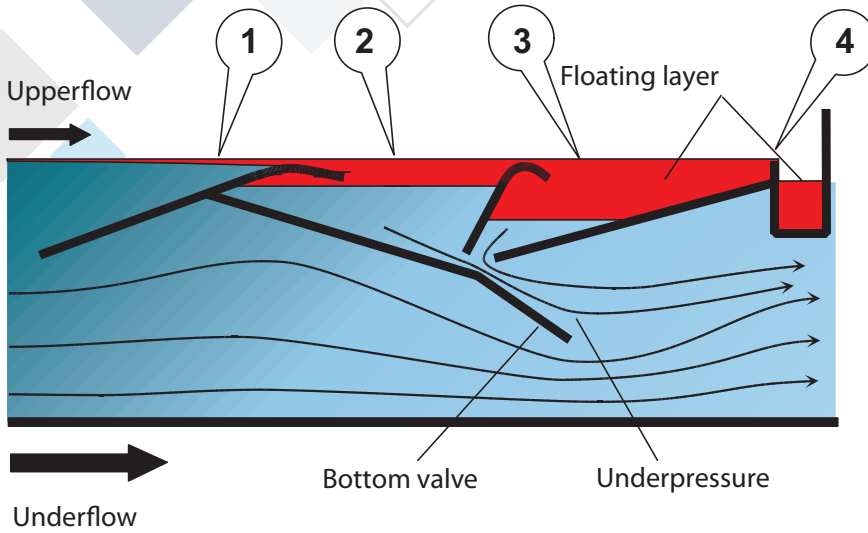
The heart of a Suparator® unit is a passive construction without any moving parts. Since the Suparator® does not use a filter or membrane, it is truly maintenance free. Cleaning only needs to be done occasionally; as the oil is separated quickly, dirt does not get a chance to sediment inside the unit. For applications with very high pollution levels, simple, automatic flush provisions are available which practically eliminate the need for cleaning.

More control over the quality of your products with the Suparator®

Even with small amounts of oil, the initial cost for the Suparator® is soon recouped

Save on maintenance with the Suparator®

SUPARATOR®



The four step Suparator® principle:

The upper flow carries any traces of oil into the device at 1. Traces get collected and start to accumulate in 2 after which concentration and layer build up takes place at 3. Finally at 4, oil only is being recovered, without water or chemistry.

A range of capacities

Suparator® units are available in a range of capacities. The variety of different models and options to choose from, make it possible to tailor a Suparator® system to match any manufacturing process. The Suparator® is now used for cleaning baths from 1000 up to 400.000 litres !

*From large to small;
there is always a suitable
Suparator®*



SUPARATOR® UNITS		
Series	Sizes (Litres)	Capacity m ³ /h
83	120	0,3 thru 0,5
86	160-240-320	0,6 thru 1,5
84	540-810 -1080-1800	1 thru 8,0
88	735-1200-3000-4500	1 thru 20,0

SUPARSKIM® SKIMMERS		
Series	Level variation	Capacity m ³ /h
91/xxx/304	Up to 90 mm	0,3 thru 2,0
91/xxx/404	Up to 150 mm	1,0 thru 8,0
91/floating	Any level variation	0,5 thru 8,0



88-3000 package unit

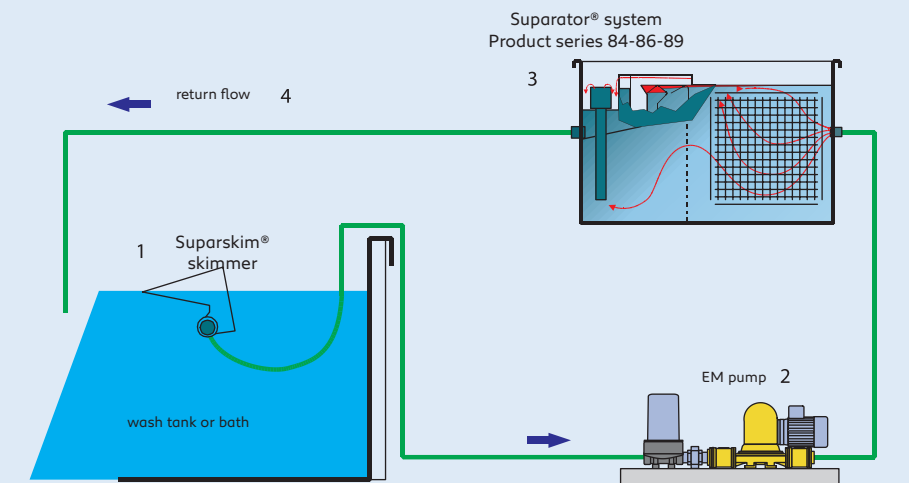
How is the Suparator® used?

The Suparator® is the only oil separator that keeps the oil concentration in the cleaner low at all times. How does it work?

1. It starts with a Suparskim® skimmer which is mounted in the bath or tank and which follows the liquid level. The skimmer is designed to skim off the top layer continuously, inhibiting the formation of a floating layer.
2. The top layer, cleaner with traces of oil, is transferred into the Suparator® unit using special, non-emulsifying pumps which prevent mixing of the oil.
3. Inside the Suparator® unit a laminar flow is generated. With an ingenious construction of valves and plates, the oil is collected, accumulated and concentrated in a number of consecutive steps (see "The four step Suparator® principle" previous page). The clean fluid is discharged via the bottom section of the unit. The oil, with the dirt in it, is separated; without any cleaner
4. The clean fluid is returned to the bath under gravity or by means of a pump, ready to be used again.



A Suparskim® skimmer in action, mounted in the clients washer tank. Any oil is automatically and immediately carried off with the flow.



De Skim & Treat method

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