

Biological Parts Washer



A.B INDUSTRIAL RECYCLING TECHNOLOGIES



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Drawbacks of solvent parts washers

- **Danger for user and environment :**
 - ⊙ Toxic by contact or inhalation
 - ⊙ Fire or pollution risk
 - ⊙ VOC emission (Earth Heating)

- **Rules constraints :**
 - ⊙ Drums inventory and disposal (DIS)
 - ⊙ Have to declare to authorities the use of dangerous substances (since April 2002)



⇒ **Today, you've got a real alternative !**



Clean your parts without solvent nor any reject !



- Combine actions of :
 - ⊙ cleaning parts
 - ⊙ biological degradation
 - ⊙ dipping
 - ⊙ filtration

- Optimum condition of hygiene and user safety.

- No more solvent to retreat (solution's cleaning life from 12 to 18 months)

- Efficient and economical cleaning.



SOLVENT / WATER-BASED / BIOLOGICAL COMPARISON

SOLVENTS	WATER BASED	<u>BIOLOGICAL</u>
<ul style="list-style-type: none">• Flashpoint = flammability• Hazardous for users• Expensive waste costs• Heavy maintenance• Frequent draining	<ul style="list-style-type: none">• High pH rate 10-13 = harmful and corrosive for users• Cleaning solution loses its efficiency during the degreasing process• Frequent bath replacement• Heavy maintenance and servicing• Decreasing efficiency of degreasing power• Increasing oil quantity in the bath• Risk of deposit on parts	<ul style="list-style-type: none">• No danger for user and environment• No flashpoint• High bath cleaning life (12/18 months)• Very low maintenance• Constant cleaning quality• Leaves no residue



OUR's bio parts washer...

■ Cleaning systems

- ⊙ Flexible spigot for aspersion
- ⊙ Multi flow brush



■ Filtration systems

- ⊙ Double stainless steel filtration in the middle of the sink
- ⊙ Stainless steel filter in a cartridge at the back of the sink
- ⊙ All filters are washable and re-usable



■ Air agitation

- ⊙ Integrated air pump oxygenating micro-organisms
- ⊙ Micro bubbles stir up the solution

... associated with...



... our safe technologies



■ Bio Liquid : SRBL

The cleaning solution contains specific surfactants. With non toxic products, this liquid is non-flammable and does not release V.O.C. Totally biodegradable, it respects at 100% the user's health and safety.

In its concentrated form, this degreasing Bio Liquid is very economical: the dilution ratio is 1:4. One canister of 19 L for 95 L of solution « ready to use ».



■ Tablets : SRBT

Concentrated form of micro-organisms in tabs.

In addition to the Bio Liquid, bacteria purify continuously the cleaning bath by biodegrading oils and greases.

These bacteriological tabs naturally reinforce the liquid's efficiency, and reduce accumulated sludge and stops odours.

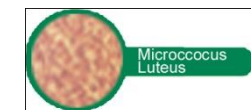
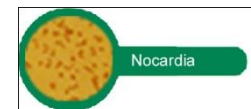
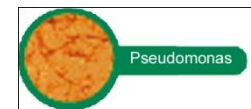


Natural technology of treatment for pollutants

Bioremediation is an organic process where natural micro-organisms recycle specific pollutions.

After a series of complex chemical reactions, organic waste is metabolised and transformed into water, carbon gas and other non-toxic sub-products. Those chemical reactions give bacteria the energy they need to develop, increase and reproduce themselves.

Due to this process, organic waste are digested and eliminated from the environment, with no residue that could be toxic or hazardous for humans or nature. Once the pollutants are degraded, microbes - deprived of their carbon energy source - naturally die.

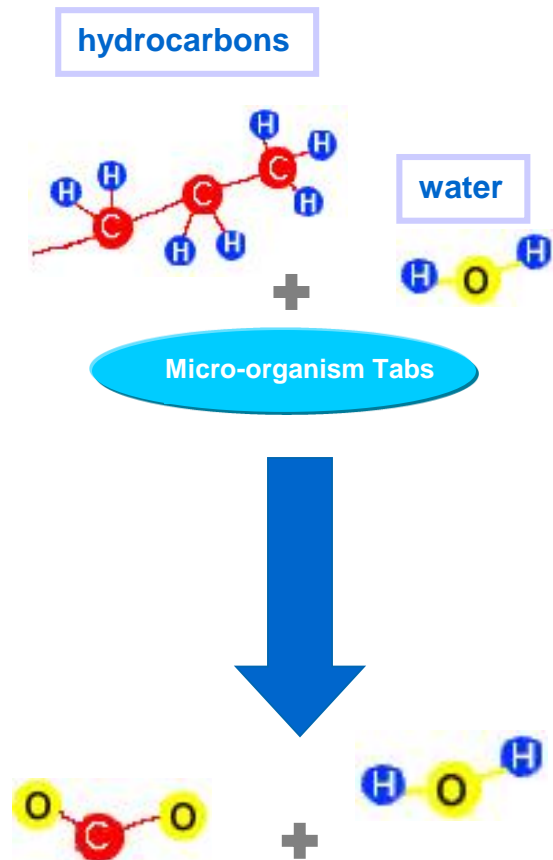


Biological process

Bacteria are living organisms that need elements which constitute their molecular structure (hydrogen, oxygen, carbon, nitrogen, phosphorous...) so that they can live and reproduce themselves. They find those elements in hydrocarbons, water, air and also in specific nutrients.

To assimilate this « food », bacteria use enzymes which cut the links of the large molecules into smaller ones capable of going through their membranes, then transforms the latter into nutritious and energizing elements.

Thanks to this process, hydrocarbons are destroyed and transformed by micro-organisms into non-toxic elements for human and the environment. (CO₂, H₂O, biomass).



Security & ...

■ Parts washer

- ⊙ Pump control in case of low level
- ⊙ Automatic stop of parts washer in case of overheating
- ⊙ In accordance with C E regulations, ETL approved

■ Bio Liquid:

- ⊙ Water based
- ⊙ pH slightly alkaline
- ⊙ No pathogenic agent
- ⊙ Non toxic, non flammable = no security label
- ⊙ Regulation for hazardous substances non applicable

The *biological parts washer* is naturally non hazardous!

■ Micro-organisms tabs

- ⊙ Micro-organisms = class 1, mix culture



... Environment

■ 0 waste

- ⊙ Micro-organisms degrade and transform hydrocarbons into CO₂ and H₂O
- ⊙ They continuously regenerate the cleaning bath
- ⊙ There are no residue or waste to retreat

■ No solvent

- ⊙ Water-based liquid concentrate
- ⊙ Specific surfactants « to take off» dirt from parts

■ No VOC emission

- ⊙ Do not generate volatile organic components
- ⊙ No vapour released
- ⊙ No irritation due to the cleaning product

The biological parts washer perfectly suits your ISO 14001 environmental process. It allows you to respect your objectives and even to go beyond them !



Note : It is advised to wear gloves to avoid contact with oily residue as it may cause mild skin irritation



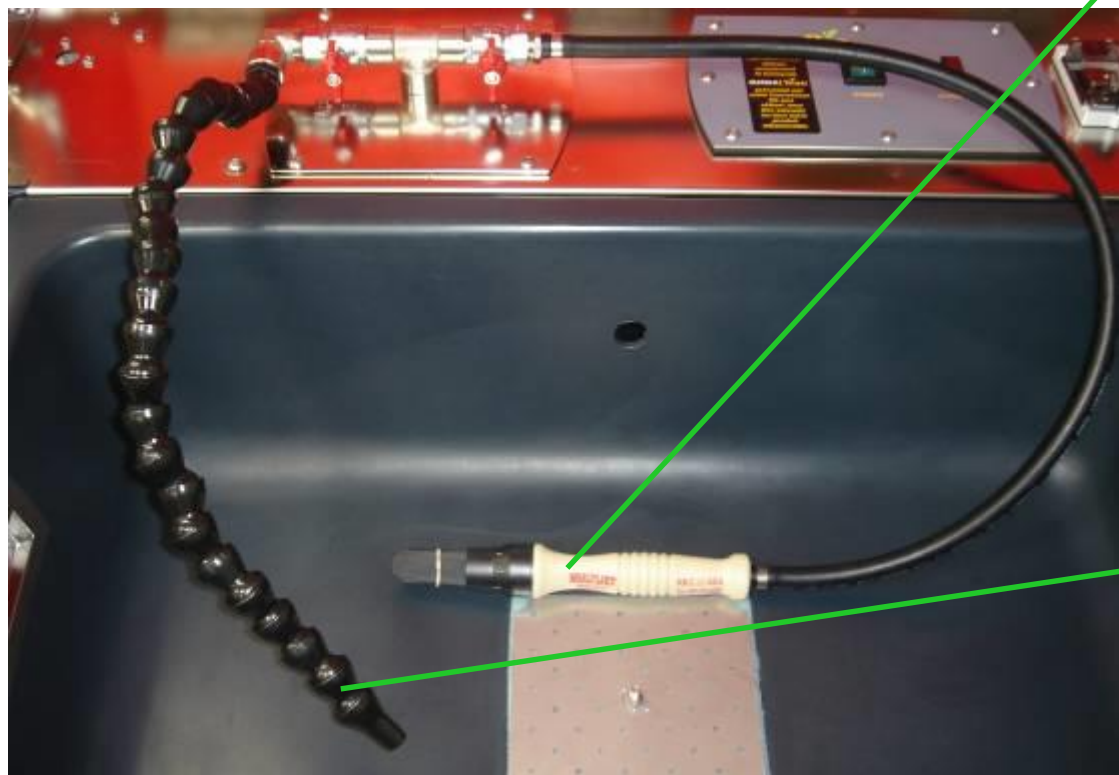


The biological parts washer SR 5000 avoid regulation constraints such as: transport, storage, manipulations, etc.

No more conformity problems (retention, vapours aspiration, authorisations...) :

SR 5000 is naturally safe!

Cleaning systems: spraying and brush



Multi-jet brush:

Direct output from the flow through the centre of the brush and the 8 holes around the brush (adjustable flow). The brush is self-cleaning, highly useful to avoid thick grease adhering

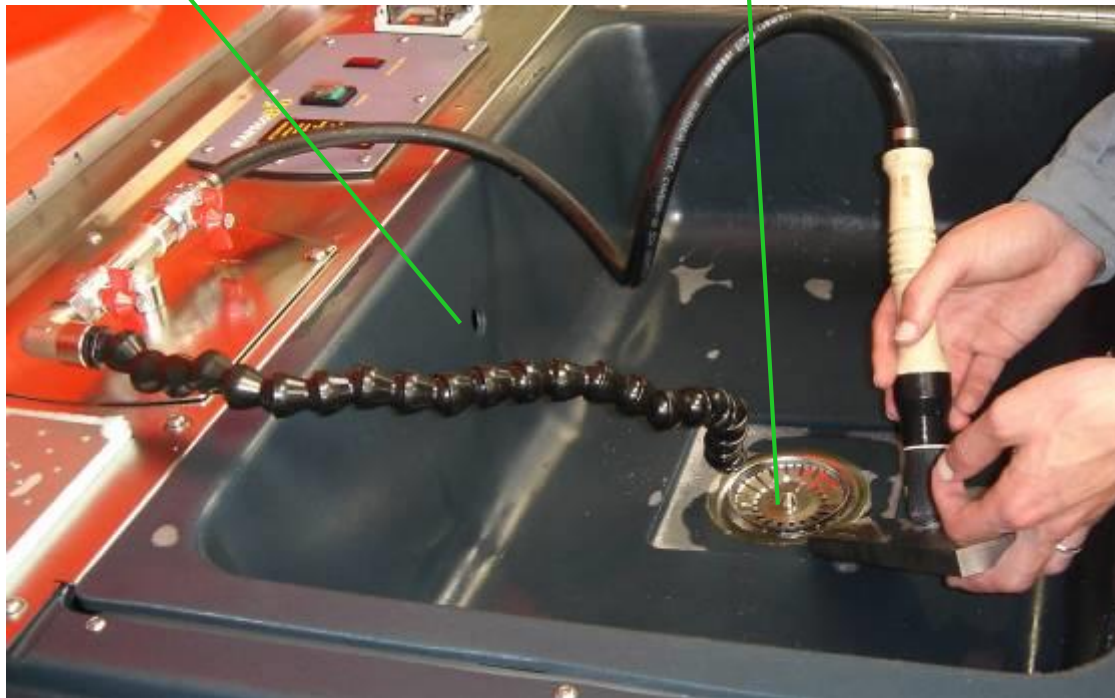
Hose tap:

Provides constant spraying of the components and easy orientation for the flow (adjustable flow).

Cleaning systems: soaking components

Overflow

Filler plug



The very large tank enables components to be soaked easily. This simply requires shutting the filler plug located at the back of the tank. The overflow will control the amount of soaking fluid.

The soaking bath's volume is 30 litres

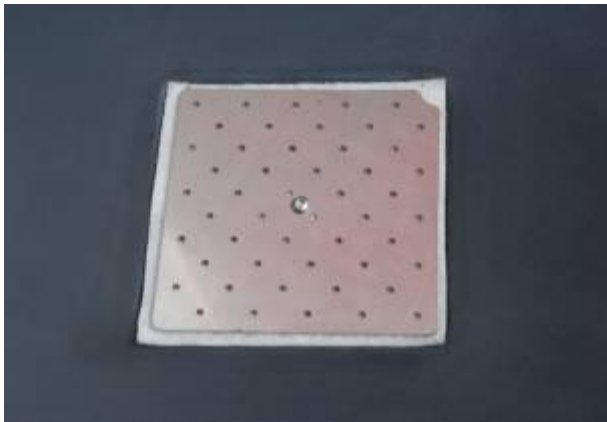
The bath can accommodate items weighing up to 125 kg.

TECHNICAL CHARACTERISTICS

Reference	Model	Dimensions in mm (LxWxH)	Tank dimensions in mm (LxWxH)	Number of litres of Maroloclean for use	Max permissible weight in the tank	Weight in kg	Cover	Voltage supply
801256	Marolobio 80	750 x 770 x 970	600 x 420 x 200	80	125	47	No	220V Single-phase
801250	Marolobio 100	940 x 880 x 1080	750 x 450 x 200	100	150	62	Yes	220V Single-phase

Operating principal: filtration systems

Identical systems throughout the range!



Micro air filter at the back of the tank



Stainless steel basket filter, located under the plug. Washable and reusable



Washable and reusable 50µ easy access cartridge filter.

All the filters are washable and reusable!!

A large range



... Environment

Possibility of having the lid in the same colour as your fleet bonnets on orders for 24 items or more.



Biological fountains avoid the regulation constraints relating to the transport, storage, handling and reprocessing of waste.

**You no longer have any problems with bringing into compliance (retention, fume removal, Declaration to the Prefecture...):
The fountains are safe, naturally!**



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