

## Ecoplast water treatment

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Canplast has been specialised for 50 years in the manufacture of structures intended for the treatment and pre-treatment of wastewater. The product range offered by **Ecoplast** is aimed at responding to the growing requirements in the field of environmental protection.

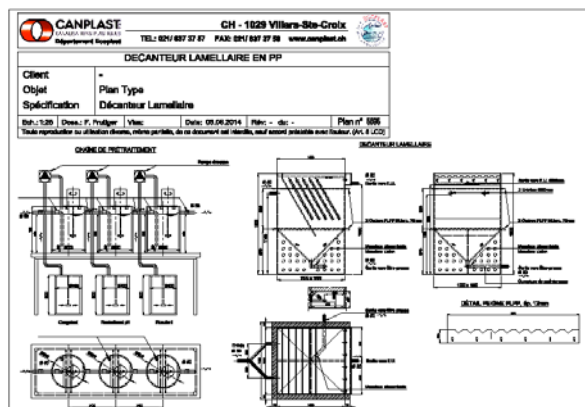
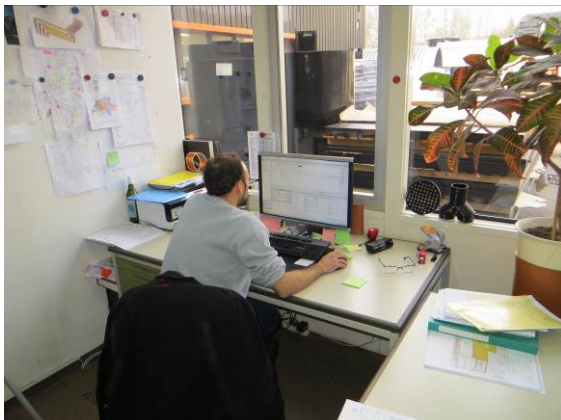


Canplast is equipped with modern and efficient manufacturing workshops that guarantee fast fabrication according to applicable professional standards and practices. It also has an engineering planning office which can study your project, therefore providing you with the product that is best suited to your situation.

### Our manufacturing workshops



### Our engineering planning office



## Some Ecoplast products

- ◆ Grease and hydrocarbon separators (with or without special equipment)
- ◆ Decanters, dumps, pumping tanks
- ◆ Settling tanks, digestion tank, individual sanitation
- ◆ Physiochemical pre-treatment of industrial wastewater
- ◆ Pre-treatment of wastewater from garages and bodyshops
- ◆ Mini-treatment plants
- ◆ Treatment of construction site water and paint-loaded water
- ◆ Custom-made solutions.





## Ecoplast grease separators

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### Scope of application

Grease separators are located downstream of kitchens in restaurants, hotels, hospitals, caterers, canteens, etc. Their function is to retain grease to prevent it from clogging the wastewater pipes and/or disrupting the operation of WWTPs.

### Advantages

**Custom-made fabrication** : In the event of site constraints (accessibility, dimensioning, configuration), it is possible to manufacture the separator entirely on site. One simple call and our technicians will intervene to take all the necessary measurements and study the best solution suited to your particular case.

**Ease of installation** : Whether it is made of PVC or HDPE, the Ecoplast grease separator is easy to handle and install without using lifting equipment, since it is quite light.

**Quality of material** : Synthetic materials offer resistance to sewage and gas corrosion effects. Also, the watertightness of the structure is guaranteed, especially in the vicinity of the water table.

**Easy maintenance** : The low roughness of the walls reduces the adherence of the fat and facilitates cleaning.



## Creation realisation

The solution with concrete encasement and cast iron cover is chosen when it is possible to place the separator outside the building, or during major structural work. In this case, it is incorporated under the apron or the foundations of the building.

For existing objects or during conversion, the freestanding solution will, in principle, be retained. If the separator has to be placed at a lower level than the wastewater collector, it is possible to install a pumping tank downstream.

Ecoplast separators comply with SN 592000 standards, the guidelines of the Association of Water Treatment Professionals (ASPEE) and the requirements of the cantonal directives, in particular the DCPE 560.



On-site assembly

## Maintenance

The separator must be drained periodically. The frequency of intervention is determined according to the workload and in agreement with the company in charge of emptying the tank as well as the competent local authority. For this purpose, a contract will be established between the operator and a specialised company approved by the Department of public works, planning and transport (DTPAT).

**It is mandatory to empty the tank at least once a year.**

The company in charge will respect the ordinances on the transport and treatment of special waste. After the tank has been emptied, they will fill up the installation with clear water.

## Grease degradation by Biofood<sup>®</sup>

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### For the pre-treatment of kitchen wastewater

The degradation process in a grease separator can be accelerated by the addition of microorganisms specifically selected for their ability to degrade grease.

These microorganisms are marketed by Ecoplast in liquid form under the name of Biofood<sup>®</sup>.

The application is made by a tank equipped with a dosing pump.

The application of Biofood<sup>®</sup> allows :

To limit clogging in pipes,  
to reduce the risk of unpleasant odours.

Important note : the use of grease reducing product depends on the local sanitation conditions, and is therefore subject to approval by the competent authorities.



### Additional information

Grease degradation by Biofood©. The experience of using biotechnological processes in the food industry has allowed application to small units, such as grease separators.

The micro-organisms used come from the natural environment. They are selected and multiplied into fermenters in order to obtain very high concentrations. The fixing of these micro-organisms is done on nutritional supports, providing the medium with nutrients necessary for its balance and allowing bacteria to develop rapidly. These micro-organisms are completely harmless, compliant with international regulations OECD, EU, FDA, NF. Class 1, and they are not genetically modified.

Grease degradation is achieved through enzymes, breaking down carbon chains into molecules that are small enough to allow micro-organisms to assimilate them.

The assimilation of these carbons gives the micro-organisms the energy necessary to reproduce and therefore to bio-degrade the grease. This degradation will produce small amounts of mineral matter, water and gas.

Reproduction of micro-organisms has limitations. Indeed, the genetic message, from generation to generation, loses its authenticity. The new generations of micro-organisms tend to become weaker after a certain period of time. At some point, the population of micro-organisms becomes similar to that you would find in the medium, before treatment. It is therefore necessary to supplement these losses regularly.

This process is comparable to the functioning of our own digestive system, where enzymes consumed from milk, bread and cheese can play the same function.





## Carrofiltre® XS

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### Scope of application

Your optimal solution for pretreatment of wastewater containing hydrocarbon emulsion and heavy metals.

The cantonal directives impose a pretreatment of wastewater to the establishments of the automotive industry : garages, bodyshops, paint shops, transporters, etc. Carrofiltre® XS is a patented, multi-award winning device, specifically designed for professionals in the automotive sector, in accordance with the Federal Ordinance of December 8th 1975 on the discharge of waste water.

Carrofiltre® complies with the requirements of DCPE 550 and its appendix.

### Description

The new generation Carrofiltre® XS is a compact, safe and advantageous device.

It is entirely made of synthetic material (polypropylene), which eliminates corrosion problems.

The Carrofiltre® is fully automatic and equipped with a programmable **relay board** that manages the different phases of treatment.  
No manipulation is necessary to operate the unit.



### Maintenance

According to the applicable canton directives and the volumes to be treated, Canplast offers the possibility to operators to subscribe to a **service contract**, including the guarantee of compliance with the standards regarding discharge, evacuation of wastes and their routing towards a treatment station.

## Advantages

**Reliability** : The filter bag process ensures a **high degree of operational safety** and allows contact-free handling of the purification residues.

**Competence** : Canplast is able to offer its services for the manufacture of all works making up a pre-treatment chain: dump, hydrocarbon separator, pumping pit, Carrofiltre® pre-treatment unit.

**Economy** : The Carrofiltre® has been conceived to obtain a minimal water treatment cost. It is the most economical solution for both buying and running costs.

**Distinctions** : The Carrofiltre® system has been awarded several times: 1983: European INDEX award for the judicious use of nonwoven filter bags 1988: Award of Excellence from Junior Chambers of Commerce.

**Experience** : Carrofiltre® is one of the first pretreatment devices developed specifically for garages and bodyshops. It was approved in 1985. To date, it is one of the best-selling devices in French-speaking Switzerland.

**Availability:** The Carrofiltre® was developed and is entirely produced in our workshops of Villars-Ste-Croix (near Lausanne), where all our parts, bags and flocculants necessary to the functioning of the device are also stored.

**Quality of material:** All Carrofiltre® components are made of a synthetic material which is inert, thereby protecting it against corrosion damage.



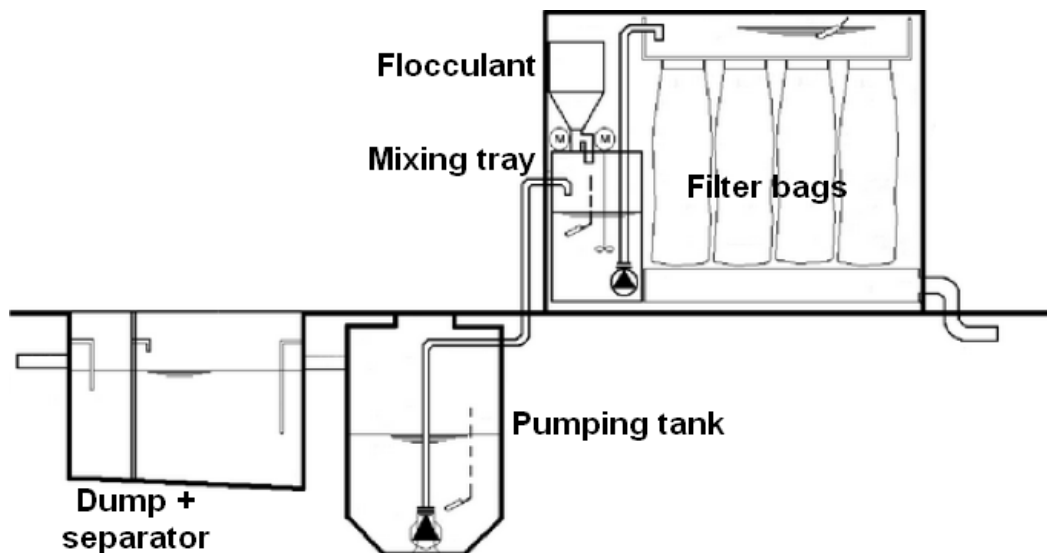
## Working principle of the Carrofiltre® type XS (garage/bodyshop model)

### Garage/bodyshop model

It is then pumped into a tank incorporated in the apparatus where it undergoes a flocculation treatment with a powder product which converts the hydrocarbons into large flocs. These are retained by Carrofiltre® bags, while the filtrate is evacuated toward the wastewater pipe.

The different phases of the Carrofiltre® are fully automated. Human intervention is limited to periodic bag changes and supplies with flocculant, approximately once a month. This can be provided by one of our specialists, subject to a service contract.

An alarm system ensures the proper functioning of the installation.



## Characteristics

### Standard equipment, Carrofiltre® Type XS - Garage / bodyshop Model

Type	Dimension	Flow rate l/h	Mixing tank lt
4 XS	2000 L x 1500 H x 600 P	500	100
8 XS	2150 L x 1500 H x 850 P	1000	200

Power supply : 220 V single phase

Consumption : approx. 0,8 kW/m<sup>3</sup>

Filtration capacity : 250 to 1000 litres per hour, depending on setting

Discharge pump flow rate : Approx. 1.5 litres/second - 4'm CE

Consumption (according to importance of the garage) :

- ◆ Flocculant consumption : approx. 0,9 à 1,2 kg/m<sup>3</sup>
- ◆ Consumption of filter bags (according to hydrocarbon concentration) : approx. 1 bag for 1-2 m<sup>3</sup>



## Ecoplast hydrocarbon separators

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### Scope of application

The purpose of the hydrocarbon separator is to retain petrol, fuel oil, oil or lubricants before discharge into the wastewater, in order to ensure the proper functioning of the WWTPs and to avoid risks of damage to the natural environment. Hydrocarbon separators should be installed in **garages, bodyshops, service stations, car parks, vehicle storage areas, and industries**, in order to prevent any risk of **pollution**.



### Advantages

**Custom-made creations** : In the event of site constraints (accessibility, dimensioning, configuration), it is possible to **manufacture the separator entirely on site**. One simple call and our technicians will intervene to take all the necessary measurements and study the best solution suited to your particular case.

**Ease of installation** : Whether it is made of PVC or HDPE, the Ecoplast hydrocarbon separator is easy to handle and install without using lifting equipment, since it is quite light.

**Quality of material** : Synthetic materials are very resistant to sewage and gas corrosion effects. Also, the watertightness of the structure is guaranteed, especially in the vicinity of the water table.

**Easy maintenance** : The low roughness of the walls reduces the adherence of the fat and facilitates cleaning.



## Description

Ecoplast hydrocarbon separators are **custom-made**, according to flow requirements and site constraints. The materials used are PVC or Polyethylene (PE).

The structures (dump and separator) are generally circular in shape. In certain cases (high flow, site configuration), they will be built in a rectangular version.

## Execution

The option involving concrete encasement and cast iron cover is chosen when the separator can be placed outside the building or in the course of major structural work. In this case, it is incorporated under the apron or the building's foundations.

If the site plans allow it, it is possible to build the separator as a freestanding version. This has the advantage of limiting costs by eliminating the need for earthworks and concreting of the separator.

If the separator has to be placed at a lower level than the wastewater collector, a pumping tank should be installed downstream.

Ecoplast hydrocarbon separators comply with SN 592000 standards and the guidelines of the Association of Water Treatment Professionals (ASPEE).

## Maintenance

The separator must be drained periodically. The frequency of intervention is determined according to the workload and in agreement with the company in charge of emptying the tank and the competent local authority. For this purpose, a contract will be established between the operator and a specialised company approved by the Department of public works, planning and transport (DTPAT).

It is advisable to empty the tank at least twice a year.

The company in charge will respect the ordinances on the transport and treatment of special waste. After the tank has been emptied, they will fill up the installation with clear water.

To increase the efficiency of the purification process, Ecoplast offers the possibility of installing a coalescence filter inside the hydrocarbon separator.



## Ecoplast coalescence filter

### Scope of application

Ecoplast coalescent filters are placed inside the hydrocarbon separators to increase their purification efficiency.

The purpose of the Ecoplast coalescence filter is to improve the efficiency of the hydrocarbon separator in special cases such as high pressure, hot water motor and chassis washing. Indeed, the high-pressure jet creates, by spattering, a fine, unstabilised dispersion of the hydrocarbons.

### Description

The Ecoplast coalescence filter is custom-made according to the flow and dimensions of the separator. It is usually made of Polyethylene (PE) and consists of a rectangular foam filter whose pores provide optimal coagulation of fine oil droplets, and a cylindrical body bringing the water without hydrocarbons to the outlet.

### Advantages

It is possible at any time to add an Ecoplast coalescence filter to an existing separator, even if it is made of concrete. In addition, the ease of installation allows important savings.

### Maintenance

When emptying the separator (recommended twice a year), remove the filter from its support and rinse it. Water resulting from this operation will be considered to be loaded with hydrocarbons and treated accordingly. A handle makes it easy to remove the filter from its support for rinsing.

***NB : If the engine and chassis washes are carried out using cleaning chemicals, the cantonal directives require a physico-chemical treatment of the polluted water. In this case, do not hesitate to contact us. Canplast will be happy to advise and inform you about its patented Carrofiltre® device. Our filters are available in standard or custom-made PE, PP or PVC models. On request, our technicians provide on-site installation of the filter in the separator.***







## Ecoplast pumping tanks

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### Scope of application

- ◆ Domestic pumping
- ◆ Industrial pumping
- ◆ Clean wastewater pumping

Ecoplast pumping tanks can be fabricated as "buried" or freestanding versions. In case of access problems (door, crawl space etc.) Ecoplast can install and weld the pumping tank on site.

### Advantages

Ecoplast pumping tanks are made entirely of plastic (HDPE, PVC or PP) which offers the following advantages:

- ◆ Watertight structure
- ◆ Easy handling
- ◆ Totally guaranteed against corrosion
- ◆ Very good impact resistance



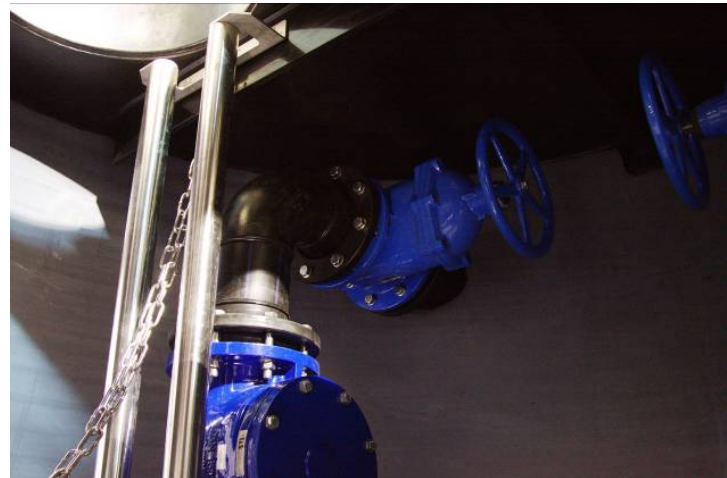
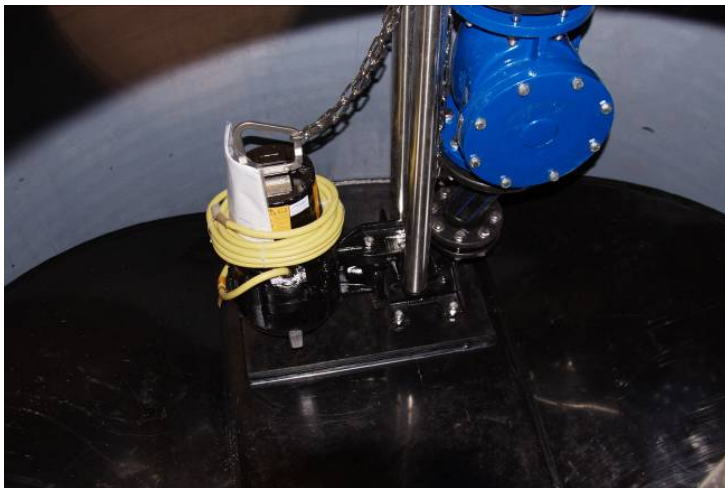
## Equipment

On request, Ecoplast pumping tanks can be completely equipped in our manufacturing workshop with :

- ◆ Pump base plate
- ◆ Valves
- ◆ Guide rails
- ◆ Ladders, etc.

This solution makes it possible to set up the tank and facilitate rapid commissioning of the installation.

Ecoplast is also able to offer you a **turnkey** solution that includes the study and sizing of the entire project. We can supply you with the tank with the pump(s) and the control panel.



**Example of manufacturing and assembly of a completely equipped pumping tank in our Villars-Ste-Croix manufacturing workshops**



Tank with reinforced inclined base (for laying in the vicinity of the water table)



Mounting the discharge outlet in PE pressure



## Ecoplast self-priming chambers

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### Scope of application

To prevent the clogging of drains or deposits in wastewater pipes, Ecoplast has developed and patented a system allowing the automatic and gravitational emptying of tanks.

The **self-priming double-float** chamber patented and developed by Ecoplast aims to avoid clogging of pipes and drain pipes. The Ecoplast double-float automatic discharge system allows a "flush" discharge and therefore avoids the deposit of solids in the drains, thus allowing an optimal operation.

### Advantages

**Economy:** The self-priming double-float chamber prolongs the life of the drains and pipes and therefore reduces the frequency of cleaning or replacement thereof.

**Reliability:** The operating principle of the Ecoplast double-float results in high operational safety. Custom manufacturing can meet any flow constraint or discharge conditions. The self-priming double-float chamber is made of PVC or PE, which implies total sealing and absolute resistance to sewage.

**Easy installation :** The self-priming double-float chamber, thanks to its light weight, allows a quick and easy installation with very little to no lifting equipment.





## Ecoplast digestion tanks

### Scope of application

For the pre-treatment of domestic wastewater.

Ecoplast digestion tanks are intended to treat domestic wastewater, for instance when purifying water from farms, isolated dwellings, cottages, campsites, etc.

The Ecoplast digestion tanks will be installed before discharge into the natural environment or upstream of a filter trench.



### Price

Model	Diameter (mm)	Weight (kg)	Outlet total capacity (lt)	Price
5	2680	420	9'600	12'250.-
6	2840	490	11'600	13'150.-
8	2 x 2500	270 + 325	15'200	18'760.-
10	2 x 2680	320 + 385	19'200	20'860.-
12	2 x 2840	390 + 465	23'200	22'970.-

(VAT not included)

### Description

Ecoplast digestion tanks are made of fibreglass-reinforced polyester. They are subdivided into 3 compartments. The sizing is in accordance with the standards of the Swiss Association of Water Treatment Professionals (ASPEE).

## Advantages

Ecoplast settling tanks offer the following advantages:

- ◆ A guaranteed watertight structure, especially in the vicinity of the water table.
- ◆ Easy handling and placement very little to no lifting equipment.
- ◆ Totally guaranteed against corrosion.
- ◆ High resistance to sewage and gas attacks
- ◆ Produced according to ASPEE standards.
- ◆ Easy maintenance due to the low roughness of the walls.

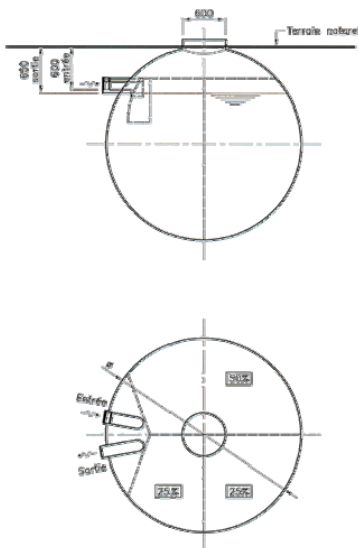
## Technical data

The wastewater passes through the 3 compartments (50% - 25% - 25%) of the digestion tank across several days, which ensures a removal of about 50% of the organic substances.

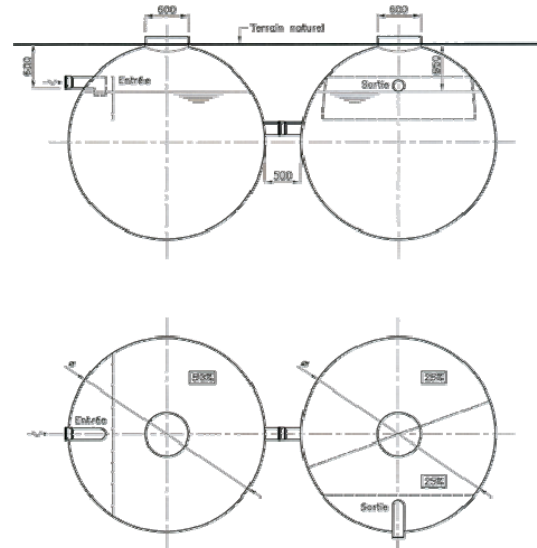
It is possible to install a bacterial bed in the second compartment, which increases the purification capacity to about 70%.

For an optimal system operation, it is necessary to remove the sludge every one to two years, while leaving between 30 and 50% of it as seeding sludge.

**Tanks 5 and 6 EH**



**Tanks > 6 EH**



## Implementation tips

- ◆ Place the tank on a bed of sand and fill it with water.
- ◆ Backfill with sand or 0-16 mix.
- ◆ In the case of a zone used by vehicles, a concrete slab should be placed around the manhole.
- ◆ Installation of a closing lid (Von Roll or similar) or made of plastic.



## Klaro individual Micro-treatment plant

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### Scope of application

Although the majority of dwellings in Switzerland are connected to a centralised treatment plant through a collective sanitation system, there are several cases where the use of an individual treatment solution remains the best solution, especially in rural areas.

The « digestion tank + self-priming chamber + infiltration trench » has been used by Canplast for nearly 20 years in areas where hydrogeological conditions and environmental requirements allow it.

**Klaro** non-collective sanitation system, Canplast offers high quality solutions that are easy to set up (light weight).

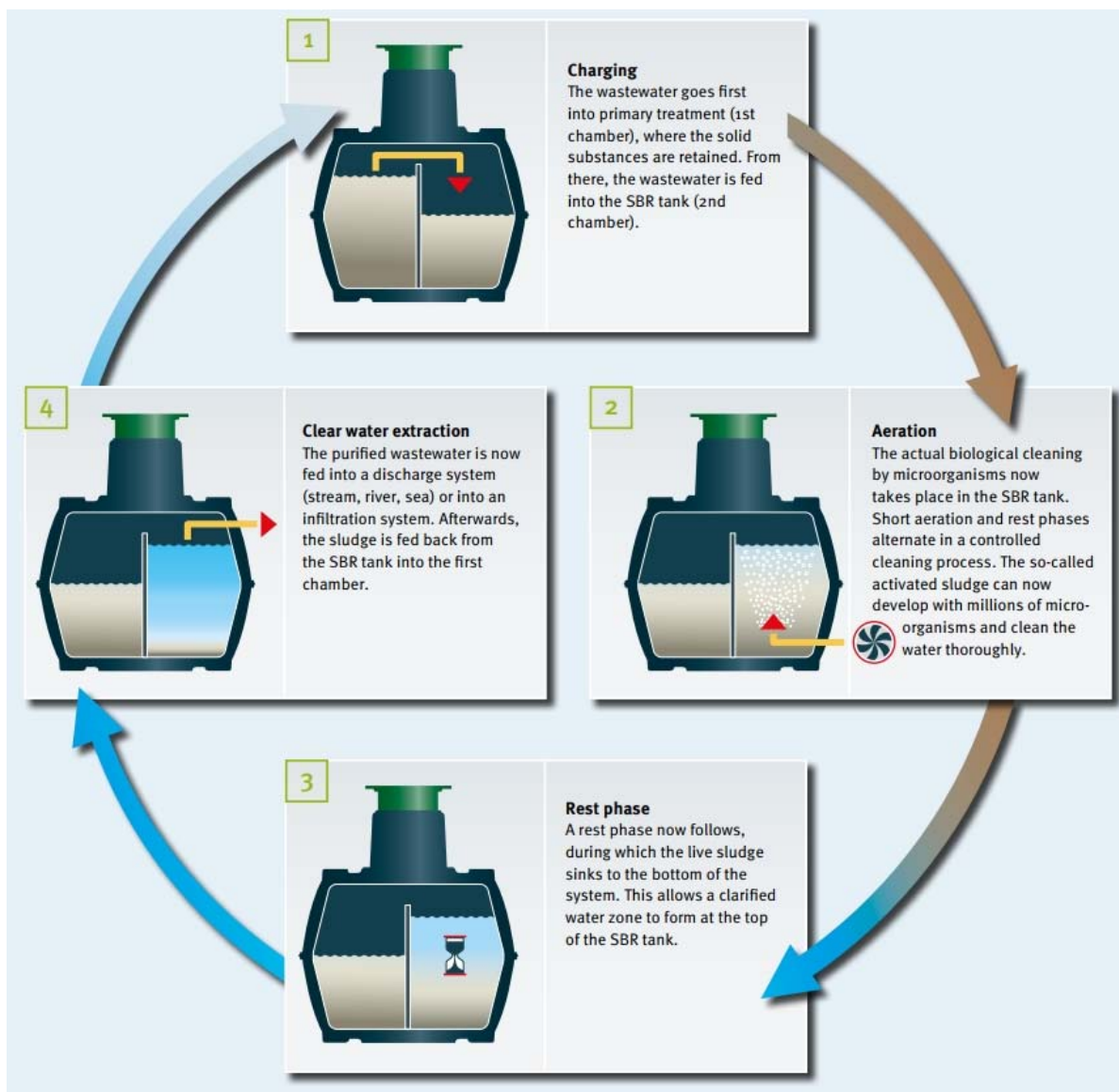


## Klaro mini-treatment plant

- ◆ The Klaro mini-treatment plant works with the **sequencing batch reactor (SBR)**. No pump, no current conductor and no mechanical part moving in the tank. Hoses provide air transfer between the compressor and the purification system. The compressor sends air through a membrane tray in order to aerate the treatment chamber and purify the wastewater.
- ◆ The compressor and the technical components are pre-installed in a control cabinet, which is to be installed either in a room inside the house, or in a box outside. The compressor stands out for its longevity and low sound level.
- ◆ **Easy maintenance.** The whole installation is controlled by the compressed air management technical cabinet (low sound level), which is installed either in a technical room inside the house, or in a box outside, so it is easy to access. On the screen, one can read the total hours of operation of the system. Power outages are identified with an audible and visual alarm. All components of the control cabinet can be easily replaced. The conception of the cabinet allows easy maintenance and is inexpensive.
- ◆ **Simple assembly.** A colour code facilitates the connection of the air hoses between the control cabinet and the SBR treatment system in the tank. No connection error is possible. The SBR system is pre-equipped with fittings for fixing the air hoses. In the case of a single tank (Klaro Quick), the SBR system is simply positioned on the partition wall and mounted in series on the tank. The SBR system is conceived to be assembled quickly without tools. For mini-treatment plants consisting of two tanks (Klaro Easy), the SBR system is always pre-assembled in our workshops.
- ◆ **Flexible and modular.** The treatment system can be adapted to the conditions of use. The original setting can be modulated by changing the cycle times, in order to adapt it to the actual conditions of use. During periods of prolonged absence (e.g. : holidays) a simple intervention on the control cabinet makes it possible to put the installation in "holiday" position. The mini-treatment plant can absorb a temporary overload (a weekend) of 25% without specific adjustment. The "comfort package" is an option offering a keypad as well as an under load detector. Treatment solutions up to 200 EH are available upon request.



## Operating principle of the Klaro mini-treatment plant



### Maintenance service

According to the directives of the canton concerned and the volumes to be processed, Canplast offers the possibility to operators to subscribe to a **maintenance contract**. Canplast provides a unique maintenance service in French-speaking Switzerland, including, in particular :

- ◆ A guarantee on parts and labour
- ◆ Operation control
- ◆ Technical control
- ◆ Maintenance of installation components that require it
- ◆ Planning of sludge emptying
- ◆ Effluent tests according to the requirements of the competent cantonal authority
- ◆ Drafting of a service report and delivery of the document to the owner, the municipality and the cantonal authority

## Documentation and regulations

- ◆ Federal Act on Water Protection (LEaux, 1991)
- ◆ Federal Ordinance on Water (OEaux, 1998)
- ◆ Guideline for selection, type and sizing of low capacity wastewater treatment plants (VSA, 1995)
- ◆ Memorandum for the planning, assessment, operation and maintenance of wastewater disposal and treatment systems for Isolated lands and small agglomerations (VSA, 2006)
- ◆ European standard EN 12566-3 on small wastewater treatment plants up to 50 PTE
- ◆ Cantonal directives on individual treatment

## Tables

### Mini-station

### SBR

Purification system	SBR
Application	High performance and maximum user comfort with many accessories available
Standard up to	18 EH
On request until	200 EH
Emptying	1 – 2 times per year
Plastic materials guarantee	25 years
Purification system guarantee	3 years
Sampling kit	integrated
Denitrification	optional
Phosphating	optional
U.V. treatment	optional
“Comfort” pack	optional
Power outage detection	integrated
Temperature sensor	optional
“Holiday” mode	optional
Remote monitoring (modem)	optional
External control cabinet	optional

### Limit rates

### VSA Directive limit values (2006)

### Klaro purification performances\*\*\*

COD (Chemical Oxygen Demand)	90 mg/L	44 mg/L
BOD5 (biochemical oxygen demand after 5 days)	30 mg/L	5 mg/L
SS (suspended solids)	30 mg/L	6 mg/L
NH4-N (ammoniacal nitrogen)	3 mg/L	0.3 mg/L

\*\*Results of the tests carried out on the approved platform of Aix-la-Chapelle (France).

## Treatment of construction site water Carrogaz®

Since 1997, the SIA 431 standard requires the treatment of construction site wastewater. This includes concrete mixer wash water which, after primary settling, must be treated before it is discharged into wastewater or clean water plastic pipes.

To meet these guidelines Canplast developed **Carrogaz®**. This treatment device regulates, via CO<sub>2</sub> gas emission, the pH of the water to be treated.

Carrogaz® meets the requirements of ASPEE in the case of discharge into wastewater or clean water.



### Description

Carrogaz® has a treatment capacity of approx. **1500 litres**

It is equipped with a complete CO<sub>2</sub> kit including a fixing for a 40 kg gas bottle, a regulator, a 6mm hose, an outlet with a manual valve for the treated water and a lower outlet for the elimination of possible residues.

It is made entirely of high density polyethylene which, despite its light weight, provides excellent resistance to corrosion and impact.

Its simple operation requires a minimum of manpower.

Dimensions: Ø1500 mm • Height 1200 mm

Approximate weight: 190 kg

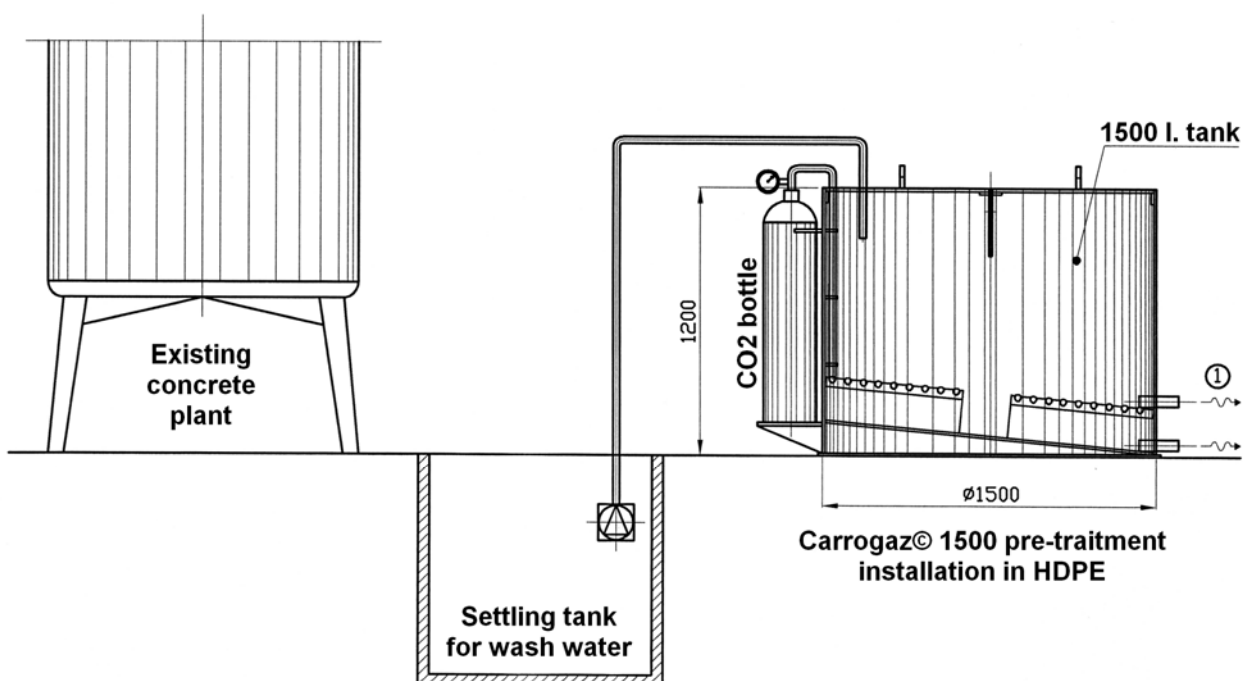
Treatment duration : approx. 30 -40 min. per 1'500 liter cycle.



## Procedure for treatment

1. Fill the Carrogaz<sup>®</sup> with water to be treated to the indicated level. (About 1,500 litres/cycle)
2. Open the regulator of the gas bottle at 1.5 bar and let the CO<sup>2</sup> act for approx. 30-40 minutes.
3. Once the desired pH has been reached (control with pH paper), open drain valve n°1 located at the bottom of the tank, allowing the water to flow by gravity infiltration or directly into the existing network.

## Principle of operation



**Carrogaz<sup>®</sup> sale price : Fr. 5,640. - (VAT and gas bottle not included)**

Our price includes :

- ◆ Free on-site delivery
- ◆ Testing and commissioning of Carrogaz<sup>®</sup>
- ◆ Instruction and training of the staff responsible for the use of Carrogaz<sup>®</sup>

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### CO<sup>2</sup> gas bottle order :

Carbagas Lausanne (Tel : (+41) 021 621 11 36) : "Technical CO<sup>2</sup>" 40 litre bottle

## Treatment of construction site water - Carroflocc®

Since 1997, the SIA 431 standard requires the treatment of construction site wastewater. This includes concrete mixer wash water, which, after primary settling, must be treated before it is discharged into wastewater or clean water plastic pipes.

At to meet these guidelines, Canplast developed **Carroflocc®**. This flocculation treatment apparatus added to a CO<sub>2</sub> treatment is economical, mobile and compact.

Carroflocc® meets the requirements of the ASPEE for discharge to wastewater or clean water and complies with the requirements of the DCPE 872.



### Description

The Carroflocc® consists of an upper tank with a capacity of about 600 litres, an agitator, a drain valve, a filter bag and a discharge outlet.

It is equipped with a complete CO<sub>2</sub> kit including fixing for a 30 kg gas bottle, a regulator and a 6 mm hose.

It is made entirely of high-density polyethylene which, despite its light weight, provides excellent resistance to corrosion and impact.

Its simple operation requires a minimum of manpower.

Dimensions : Ø1200 mm • Height : 1750 mm

Weight : approx. 190 kg

Treatment duration : approx. 15 min. per 600 litre cycle.



## Procedure for treatment

1. Fill the upper tray with water to be treated to the indicated level (about 600 litres per cycle)
2. Add a dose of powdered flocculant to the tank (100 gr/100 lt) and turn on the agitator.
3. When the flocs are formed, open the regulator of the gas bottle at 1.5 bar and let the CO<sup>2</sup> act for approx. 4-5 minutes.
4. Once the desired pH has been reached (control with pH paper), open the drain valve located under the tank, allowing the water to pass through the filter bag.
5. Evacuate treated water to clean or wastewater system.
6. Replace the bag as soon as it is full.

## Results of analyses carried out on site

### Treatment with flocculation and CO<sup>2</sup> gas

	elements	units	before treatment	After treatment
Work site N° 1	<b>Suspended solids</b>	Mg/l	179	<b>3.3</b>
	<b>pH</b>		12.1	<b>7.2</b>
Work site N° 2	<b>Suspended solids</b>	Mg/l	1386	<b>15</b>
	<b>pH</b>		11.9	<b>7.0</b>

### Carroflocc<sup>®</sup> sale price :

**Fr. 5,480. -** (VAT and gas bottle not included)

Our price includes :

- ◆ Free on-site delivery
- ◆ Testing and commissioning of Carroflocc<sup>®</sup>
- ◆ Instruction and training of the staff responsible for the use of Carroflocc<sup>®</sup>
- ◆ Check and periodic verification that Carroflocc<sup>®</sup> is working properly for the duration of its use

**Consumption charge for 1 m<sup>3</sup> of water to be treated approx. Frs 4.20**

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CO<sup>2</sup> gas bottle order :  
Carbagas Lausanne (Tél : (+41) 021 621 11 36) : "Technical CO<sup>2</sup>" 40 litre bottle



## Ecoplast plaster filter

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### Scope of application

- ◆ Industrial premises
- ◆ Craft workshops (plastering, painting)
- ◆ Secondary work sites
- ◆ Vocational schools

Ecoplast plaster/paint filters will be installed before discharge into the wastewater network. They can be placed under a sink or used independently.

In the case of a paint-laden water treatment, flocculation before the passage of water in the filter will be necessary to obtain a result in accordance with the cantonal regulations in force. This manipulation will be done in the sink located on the tank or in any other appropriate tanks.

### Advantages

Ecoplast plaster/paint filters are made entirely of PP (polypropylene). They offer the following advantages:

- ◆ Guaranteed watertight structure
- ◆ Easy handling
- ◆ Totally guaranteed against corrosion
- ◆ Very good impact resistances

**Sales price : CHF 1'340. --**

(VAT not included)

Dimensions : 600 x 400 x h 500 mm



Supply of filter bag : Frs/part 6.40  
Supply of flocculant powder : Frs/kg 4.40

excl. VAT  
excl. VAT (10 kg bag)

## Principle of operation

The Ecoplast plaster filter consists of a basket with drilled holes around its circumference and a filter bag. The water, to be treated, passes through the basket, the filter retaining the plaster particles and/or suspended solids in the case of a treatment with flocculation for paint. Then the clean water is evacuated by simple gravitation.



In order to carry out a flocculation, add a dose of flocculant powder in the water to be treated, allow to stir for a few minutes and once the flocs are formed, let the water pass through the filter. This operation takes about five minutes. The average dose of powder used is about 100 grams per 100 litres of water to be treated.

## Maintenance

- ◆ When the filter bag is full, lift the lid and remove the bag.



- ◆ Then put a clean bag in and put the device back in place.

It is possible to produce '**custom-made**' filters.  
We are at your disposal to study your particular case.

## Carrofiltre® XSL pretreatment of industrial water

### Process

- ◆ Prefiltration and decantation of water to be treated
- ◆ Elimination of suspended solids (SS) by in-line or filler (polishing ceramics, trovalising, etc.) coagulation/flocculation
- ◆ Neutralisation of the pH (acid/base)
- ◆ Separation and conditioning of sludge by lamellar settling, filter press, or filter bags.



## Advantages

**Competences** : Canplast provides services for the manufacture of all structures making up the pre-treatment chain : decanter with filtration, separator, storage tank, pre-treatment unit (in-line or filler).

**Canplast** in collaboration with a chemistry company, takes care of the whole project, i.e. the study of the chemical process, the manufacture and installation on site, the sanitary and electrical connections, as well as testing and commissioning of the installation.

**Guarantee** : Canplast guarantees a water discharge in compliance with the standards and directives in force.

**Quality of material** : All components of the chain are made of plastic (PP, PE or PVC) which guarantees total reliability and resistance to gases, acids and corrosion.



## Examples of applications

### Pre-filtration before treatment



### In-line treatment

(Coagulation / pH neutralisation / Flocculation)



### Lamellar settling before filter press



### Before treatment



### After treatment





## List of references - Pretreatment of industrial water

<b>Companies</b>	<b>Place</b>	
<b>Morel-Cottet SA</b>	39400 Cottet	France
<b>Préci Jura SA</b>	39250 Mignovillard	France
<b>Sapem – Schneider SA</b>	73230 Saint Alban Leysse	France
<b>Best in Class SA</b>	1272 Genolier (VD)	Switzerland
<b>Joray Wyss SA</b>	2800 Delémont (Ju)	Switzerland
<b>HSM SA</b>	2114 Fleurier (NE)	Switzerland
<b>Ruetschi Technology SA</b>	1400 Yverdon (VD)	Switzerland
<b>Decayeux STI (France)</b>	325700 Otelu Rosu	Roumania
<b>Mimotec SA</b>	1950 Sion (VS)	Switzerland
<b>OMEGA</b>	2501 Bienne (BE)	Switzerland
<b>BTG SA</b>	1312 Eclépens (VD)	Switzerland
<b>UNT SA</b>	39400 Morbier	France
<b>ETA SA Manufacture</b>	2740 Moutier (BE)	Switzerland

## List of references – Grease separators

Restaurant Manora	Lausanne
Hôpital des Cadolles	Neuchâtel
Restaurant Tennis de Vidy	Lausanne
Hôpital Orthopédique	Lausanne
Ecole de Chantepierre	Lausanne
Restaurant du Palace Hôtel	Montreux
MC Donald – Plainpalais	Genève
Auberge Communale	Thonex
Restaurant de l'UBS	Genève
Restaurant le Mövenpick	Lausanne
Réfectoire des Télécom	Fribourg
Réfectoire du Crédit Lyonnais	Genève
Restaurant Bull'Burger	Bulle
MC Donald – St Laurent	Lausanne
Restaurant du Poisson	Marin
Restaurant du Golf Club	Villars
Réfectoire de Nestlé	Vevey
Restaurant Centre COOP	Yverdon
Hôpital de Cery	Lausanne
Restaurant de la Navigation	Lausanne
Restaurant Metropolis	Morges
Buffet de la Gare	Meyrin
Restaurant Centre COOP	Lausanne
Caserne militaire	Payerne
Réfectoire Reynolds Tabacco	Champel
Ecole Cantonale d'Ingénieurs	Fribourg
Clinique Cecil	Lausanne
Hôtel du Rhone	Genève
Auberge de la Couronne	Apples
Centre Commercial Jumbo	Villars-sur Glâne
MC Donald rue de Rive	Genève
Restaurant Le Fabiola	Leysin
Restaurant Le Bocalino	Lausanne
Buffet de la gare	Fribourg
Hôpital Samaritain	Vevey
MC Donald	Martigny
Restaurant Globus	Genève
Pizzeria Frascati	Lausanne



Séparateur à bétonner  
Château de La Tour-de-Peilz



## List of references – Grease separators (following)

Hôtel Ibis	Crissier	Foyer du soldat	Sion
Restaurant du Château d'Ouchy	Lausanne	Tea-Room Le Surf	Glyon
Réfectoire du TCS	Genève	Réfectoire Medtronic	Tolochenaz
Café le Ranch	Clarens	Hôtel Mirabeau	Lausanne
Restaurant de l'Univers	Yverdon	Ecole d'Ingénieurs	Genève
Restaurant de l'Opéra	Yverdon	Hôtel de l'Ours	Ormont-Dessus
Restaurant COOP	Orbe	Auberge Communale	Confignon
Café des Bains	Avenches	MC Donald	Nyon
Réfectoire Industrie Baxter	Neuchâtel	Restaurant Bavaria	Montreux
Restaurant Cécil	Chexbres	Réfectoire Bon Génie	Lausanne
Restaurant Galeries du Cinéma	Lausanne	Auberge Communale	Préverenges
Centre Le Forum	Fribourg	Centre Migros	Fribourg
Centre Balaxer	Genève	Théâtre Municipal	Lausanne
Hôpital de Sainte-Croix	Sainte-Croix	Café du Simplon	Renens
Auberge du Lausanne-Sport	Lausanne	Château de Montagny	Lutry
Restaurant Gare du LEB	Echallens	Café Le CAB	Lausanne
Restaurant de la RSR	Lausanne	Restaurant Le Domino	Genève
Centre Commercial MMM	Crissier	Tennis de Montreux	Territet
Restaurant Banquets & Saveurs	Lausanne	Ecole du Bois-gentil	Lausanne
Restaurant Frascati	Lausanne	Centre Espagnol	Bussigny
Château du Châtelard	Clarens	Cité Centre	Montreux
Restaurant Aqua-Parc	Bouveret	Migros / Jowa	Ecublens
EMS Burier	Clarens	Mc Donald	Collonges
Tetra Laval	Pully	Centre BCV	Vers-chez-les-Blanc
China House	Vevey	Salle Communale	Tannay
Hôtel Mövenpick	Genève	Café St Michel	Lausanne
Clinique La Colline	Genève	Institut Serix	Palézieux
Restaurant Lion d'Or	Cologny	Tennis Club	Echallens
Restaurant Hôtel de Ville	Bussigny	Auberge Communale	Gilly
Restaurant Jen Ly	Broc	Tea Room La Crémèrie	Châtel-St-Denis
Hôpital de la Broye	Estavayer	Pizzeria Maj	Neuchâtel
Etc.....			



## List of references - Carrofiltre®

Garage Promocar SA	Meyrin/GE
Garage des Jordils SA	Boudry/NE
Garage Honda SA	Crissier/VD
Garage Schmitt	Clarens/CD
Garage Transalpin	Martigny/VS
Garage du Transit	Montana/VS
Garage de Chermignon	Chermignon/VS
Garage Migrol	Avry/Matran/FR
Garage Mischler	Bossonnens/FR
Garage de Boissonnet SA	Lausanne/VD
Garage du Lac SA	Morges/VD
Garage ACB	Estavayer-le-Lac/FR
Garage Citroën Suisse SA	Genève
Garage Macherel et Durnat	Bex
Garage André Maire	Chavornay
Garage du Gros-de-Vaud	Vuarrens/VD
Garage Edelweiss	Lausanne/VD
Garage Edelweiss	Morges/VD
Garage Atu-Transport	La Cote aux Fées/NE
Carrosserie Scheidegger & Jaccottet SA	Cugy/VD
Carrosserie Glur	Lausanne/VD
Carrosserie Marmier S. à r.l.	Lausanne/VD
Carrosserie Veese	Lausanne/VD
Carrosserie Scheidegger SA	Morges/VD
Carrosserie d'Orbe SA	Orbe/VD
Carrosserie du Centenaire	Plan-les-Ouates/GE
Carrosserie Nova SA	Thonex/GE
Carrosserie d'Auvernier	Auvernier/NE
Carrosserie Gachnang	Aigle/VD
Carrosserie Schweizer	Aigle/VD
Carrosserie Jeampierre	Bex/VD
Carrosserie Masson SA	Cheseaux-sur-Lausanne/VD
Carrosserie Leuthold	Corcelles/Payerne/VD
Carrosserie Angeloz SA	Matran/FR
Industrie Comadur SA	Les Brenets/NE
Industrie Scheuchzer SA	Bussigny/VD
Industrie Calame SA	La Chaux de Fonds/NE
Industrie PWP SA	Payerne/VD
Industrie ETA	Fontainemelon/NE
Galenica SA	Ecublens/VD
Atelier Geilinger SA	Yvonand/VD
Ecole Cantonale d'Art	Lausanne/VD
Centre de voirie et service du Feu	Cologny/GE

## List of references - Carrofiltre® (following)

Veze SA	Ecublens/VD
Commune de Lausanne (magasins)	Lausanne/VD
Menuiserie Gabella	Lausanne/VD
Sagrave SA	Lausanne/VD
Adm. Communale Parcs et Promenades	Lausanne/VD
Service du Feu	Lausanne/VD
Jallut peinture SA	Bussigny/VD
Dépôt Quennoz SA	Pont-de-la-Morge/VS
Station de lavage Autocentre	Peseux/NE
Tuileries & Briqueteries SA	La Croix-de-Rozon/GE
Centre d'entretien de la Blécherette	Lausanne/VD
Menuiserie Gruyeria	Bulle/FR
Maison du Feu	Lens/VS
Artisanat Cocims	Meyrin/GE
Station BP	Meyrin/GE
Société fribourgeoise de recyclage	Posieux/FR
St. Mauron SA	Estavayer-le-Lac/FR
Künzli frères SA	Villeneuve/VD
Centre COFOP	Lausanne/VD
Entreprise Piasio	Bremblens/VD
Fédération vaudoise des entrepreneurs	Tolochenaz/VD
Dépôts du SIGE	Villeneuve/VD
Industrie Oxycolor	Etagnières/VD
Ecoles CIFOM	Le Locle/NE
Industrie Manufacture Bernoise	Leysin/VD
Locaux artisanaux	Chatelaine/GE
Industrie Joray Wyss	Délémont/JU
Industrie BESTinCLASS SA	Genolier/VD
Chauffard Transport	Lucens/VD
Garage Mettraux Transports	Savigny/VD
Ateliers de signalisation	Lausanne/VD
Carrosserie Graz	Savigny/VD
Industrie Serono	Genève/GE
Usine Matthey	Apples VD
Station lavage	Menière VD
Industrie Cottet	Morbier France
Industrie Precijura	Champagnol France
Industrie Prototech	La chaux de Fond/NE
Société Sapem- Scheider	Saint-Alban France
Geneva Airpark GAP	Genève Cointrin/GE
Industrie Waeber HMS	Fleurier/JU
Industrie Ruetschi	Yverdon/VD
Société de peinture Varrin SA	Bremblens/VD