

— catering and food service

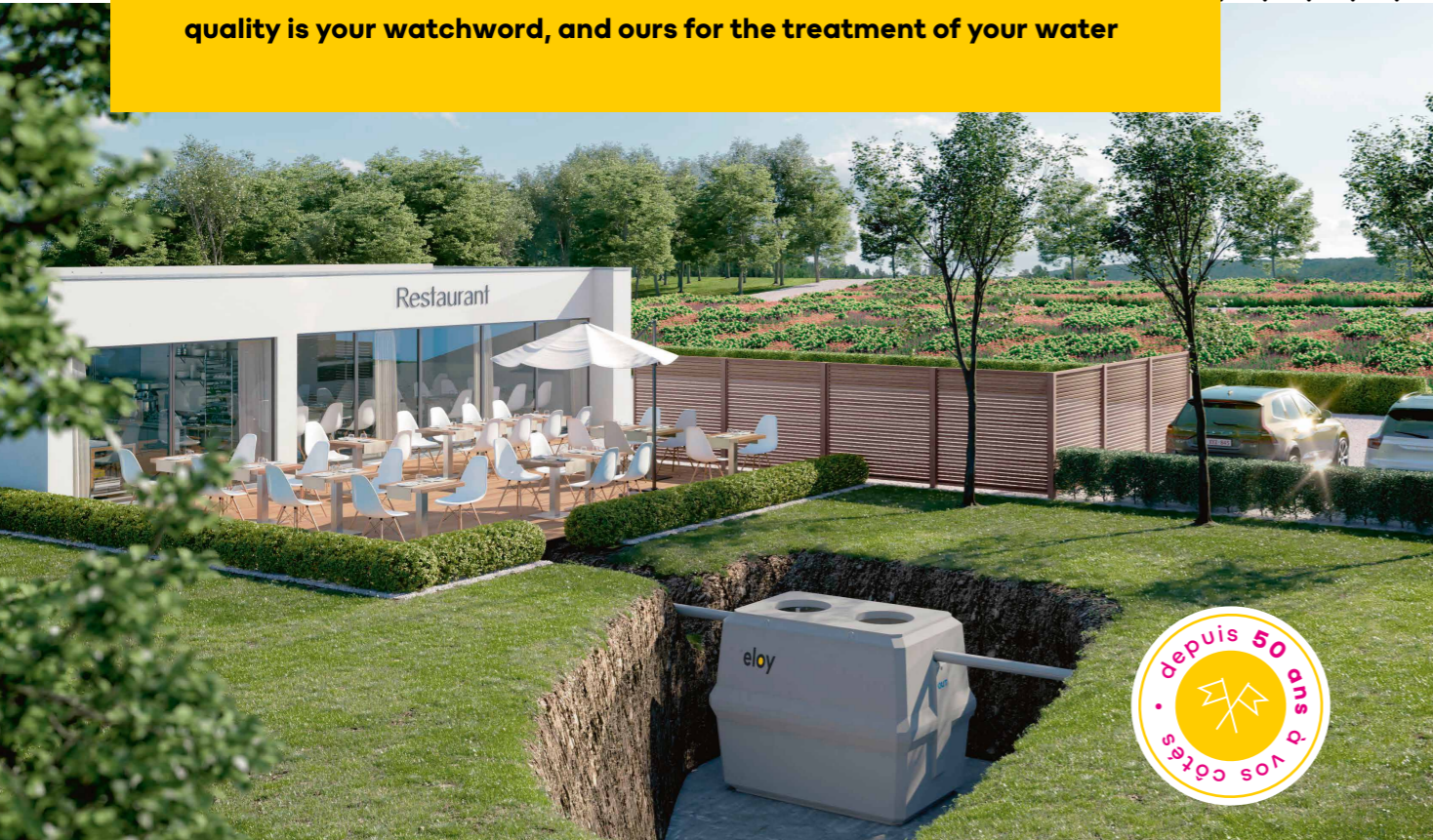
# treat your restaurant's wastewater

**eloy**



# you cook, we purify

whether boiled, used in a bain-marie, vaporized or emulsified, water is the source of your cooking and the food you work with it is also what you use to wash your ingredients, your kitchen, but also your dishes, your dining room and your bathroom  
**quality is your watchword, and ours for the treatment of your water**



- ✓ 20 years of experience in the treatment of restaurant wastewater
- ✓ suitable wastewater treatment plants for all types of restaurants guaranteed
- ✓ odorless
- ✓ ease of management and use
- ✓ operation and maintenance service
- ✓ support from an expert throughout your project
- ✓ energy and budget management
- ✓ optimal landscape integration
- ✓ scalable solution in case of extension



# why treat the wastewater of your restaurant?

Your restaurant is unique, and so is your cuisine. And yet, wastewater from all restaurants has a lot in common. Whether in the kitchen, dining room or bathroom, the water you use is loaded with various pollutants. A complex recipe to master.

## cooking water

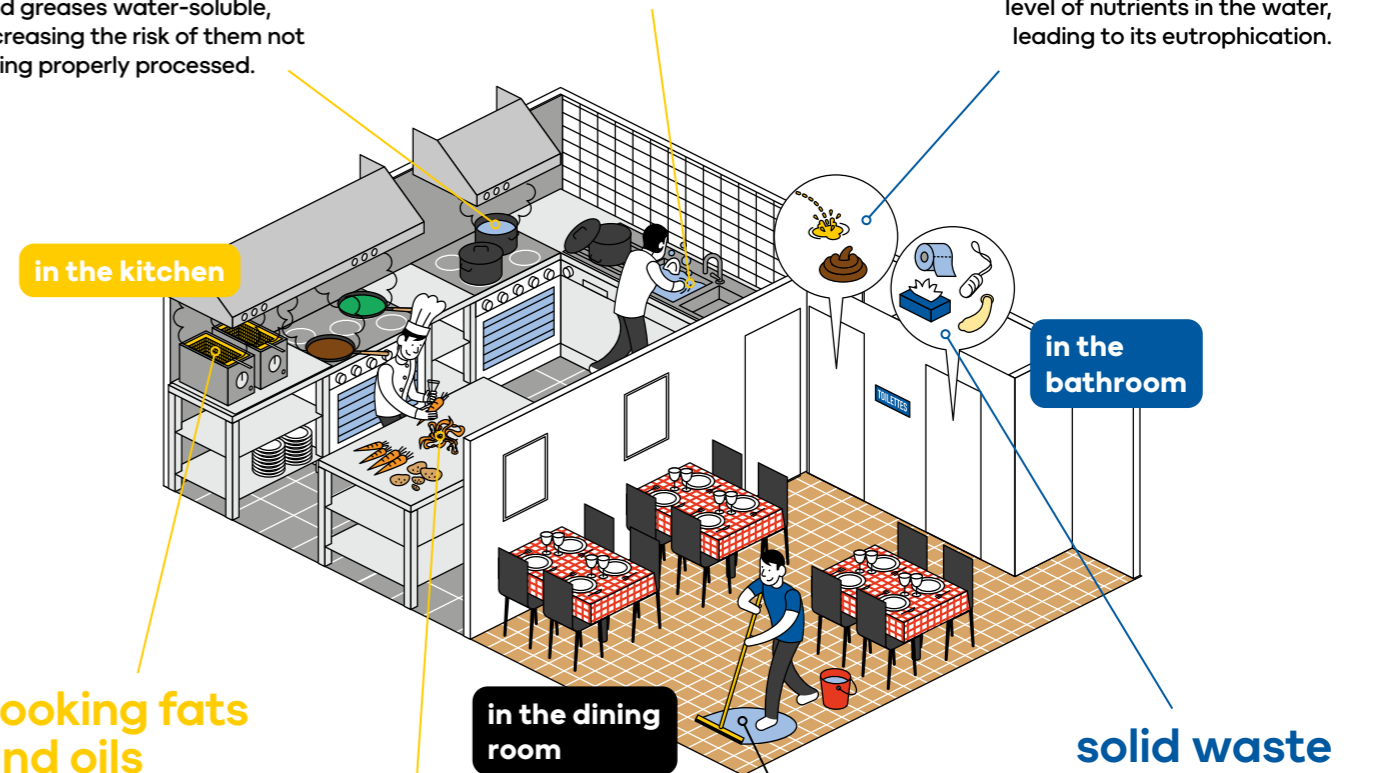
Cooking water is often discharged untreated and at a high temperature. Warm water will unbalance the receiving environment through the massive production of bacteria. Moreover, they will make oils and greases water-soluble, increasing the risk of them not being properly processed.

## dishwater

It may contain chemicals such as detergents and surfactants, as well as oil and grease, which are toxic to flora and fauna, especially aquatic ones. Moreover, dishes are often washed by machines using high-temperature water, which will produce bacteria that will destabilize the receiving environment.

## black water

Black water is made up of urine and feces. It can contain pathogens, bacteria and parasites that can cause diseases and infections. It is also loaded with nitrogen and phosphorus, which are responsible for increasing the level of nutrients in the water, leading to its eutrophication.



## cooking fats and oils

Fat is life! It transmits heat to food while adding flavor. Cooking fats and oils have a devastating effect on the environment. Apart from the obstructions they can cause, they are above all difficult to biodegrade. Greases and oils must be removed before water treatment.

## organic solids

A kitchen produces a lot of organic waste of both animal and vegetable origin. As these elements decompose in water, they ferment, producing among other things hydrogen sulfide (H<sub>2</sub>S) and methane. In addition to the gases released, this fermentation causes odors and the appearance of insects.

## solid waste

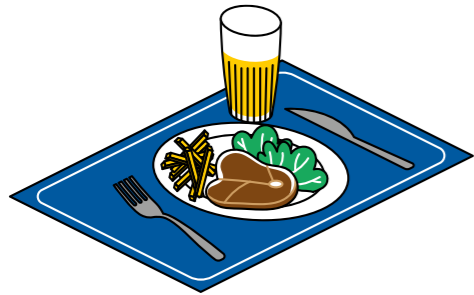
Toilet paper, wipes, tampons, condoms... and much more. All this waste should not normally end up in water, given its slow or even very slow degradation. It is also the cause of many blockages and clogs.

## cleaning water

To keep your restaurant clean with grease-free floors, many detergents and surfactant-based products are used. They cause moss formation, reduce the level of oxygen dissolved in water and affect the soil quality.

# the right solution for each restaurant

Changes in our lifestyles have driven the restaurant industry to constantly adapt to consumers' desires and needs. Today, different forms of food service co-exist, each with its own particularities, especially with regard to the wastewater generated.



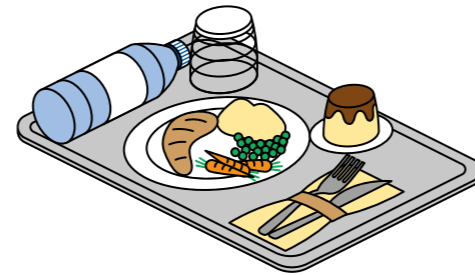
## traditional food service

classic restaurants, brasseries, hotels...

Privately-owned establishments focusing on traditional cuisine and simple products, with an emphasis on generous dishes. They serve food to a wide range of customers, and offer both plate and menu services. Traditional restaurants are popular and focus on sharing, conviviality and generous food.

### water features

- **a menu with numerous preparations**  
large volume of water per preparation
- **many different cooking types**  
management of cooking grease and water
- **regular dish washing**  
constant influx of water loaded with cleaning products
- **numerous bathroom visits**  
black water and solid waste

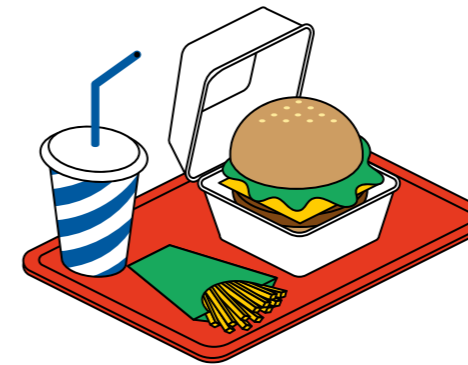


## community catering companies, retirement homes, schools, barracks...

The community kitchen is a professional kitchen whose purpose is to prepare meals for a large number of people in community facilities. It must be able to produce large quantities of food while meeting strict hygiene, food safety and nutrition standards.

### water features

- **standardized cooking with few different dishes**  
low volume of water per preparation
- **restricted and concentrated opening hours**  
high activity variation over the day
- **large number of customers at the same time**  
management of cooking grease and water
- **industrial dishwashing**  
sudden influx of high-temperature water loaded with cleaning products

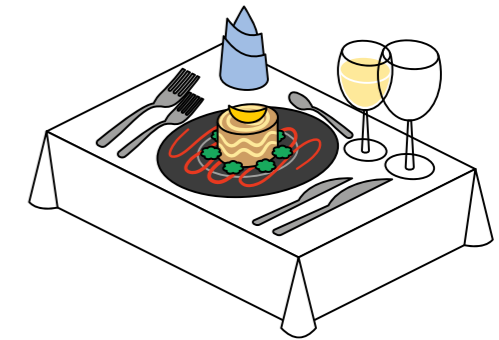


## fast food

Fast foods offer meals prepared and served quickly. Fast foods are often chain restaurants offering a counter or drive-thru service, without crockery. Meals are often simple, standardized and inexpensive.

### water features

- **type and number of dishes delivered**  
oil and grease management
- **no crockery**  
little wastewater during the day
- **complete cleaning at the end of service**  
sudden influx of hot water and grease
- **numerous bathroom visits**  
black water and solid waste



## gourmet restaurant

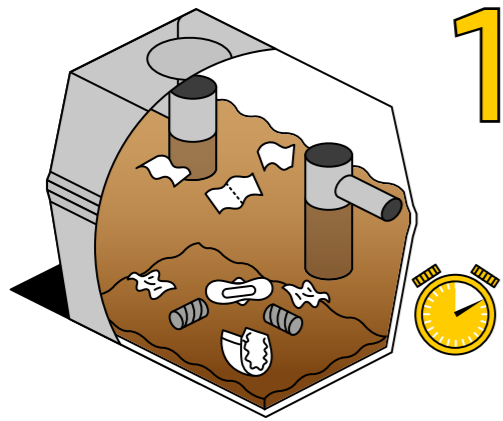
Gourmet restaurants offer a sophisticated culinary experience that can include many dishes in a tasting menu. Chefs working in gourmet restaurants use advanced cooking techniques to create innovative and unique dishes.

### water features

- **constant high activity in the kitchen**  
permanent influx of organic waste and water
- **continuous dish washing and laundry**  
constant flow of hot water loaded with many different detergents
- **advanced cooking techniques**  
nature of greases and oils and large volume of water per preparation

# pretreatments

Your restaurant's water is special and requires special pretreatments. This phase takes place before your wastewater is discharged into the public sewer system (when this is compulsory) or before it is treated individually. **Not all eloy pretreatment components will be included in your wastewater treatment plant.**



## desilter

Whether it is biodegradable kitchen waste (peelings, bones, etc.) or non- or slightly biodegradable waste from the bathroom (wipes, towels, etc.), all these solids need to be trapped.

The desilting process separates solid and floating matter from the wastewater. It can also be used to protect the pumping solutions in the next module.

Desilting can be carried out either in a separate module or directly in the degreaser, depending on the type of restaurant.

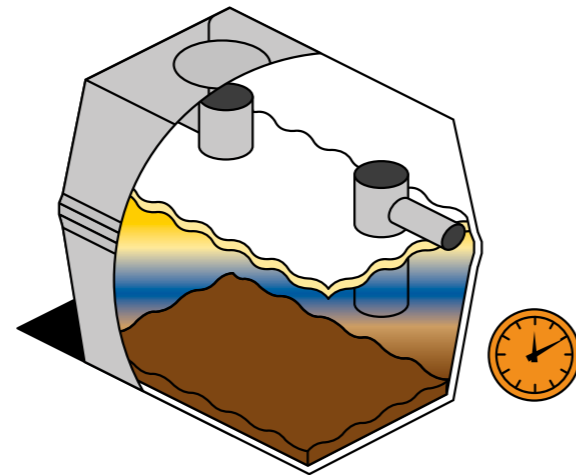
**Do the costs of discharge to the wastewater treatment plant vary according to your pollutant load?** Pretreat your wastewater yourself with our wastewater treatment plant ensures that your water has a controlled quality.

indispensable

## degreaser

We have already highlighted the importance of oil and grease in the catering and food service industry, while also pointing out the harmful impact they can have on the environment. They can also seriously damage a sanitation solution, whether public or individual. Grease treatment is an essential pretreatment for further wastewater treatment in a restaurant.

The choice of the degreaser model is based on the grease load in the wastewater, but also its variation.



## static degreaser

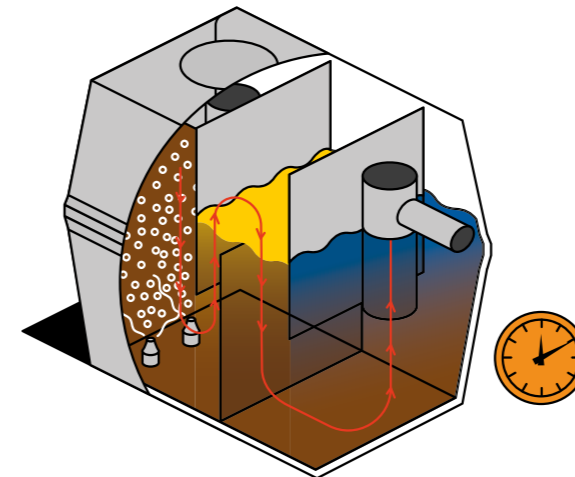
A static degreaser physically separates grease and oil. This operation is achieved thanks to the thermal shock between the warm/hot water loaded with grease/oil and the cooler water already contained in the degreaser. On contact, grease/oil congeals and rises to the surface. It is then trapped in the storage volume of the degreaser.

These pretreatment elements are **sufficient if your building is connected to the public sewer system**. The pretreated wastewater has then all the characteristics of a conventional effluent.

**90%**  
grease removal  
and oils  
grease and oils  
removal ?

2

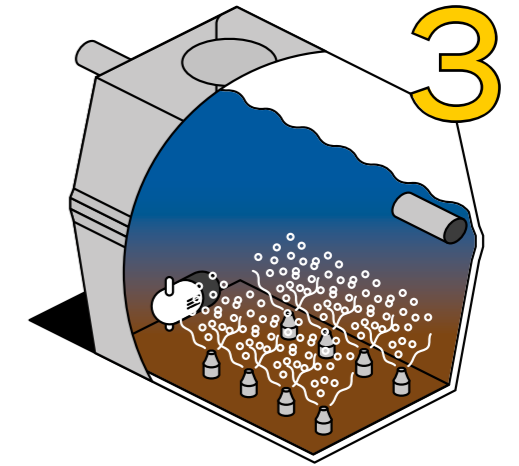
For your comfort and peace of mind at your business, **all our degreasers can be fitted with sensors and an alarm system**. You will be notified immediately when draining is due.



## aerated degreaser

An aerated degreaser works in the same way, with one difference: air is blown at the bottom of the tank to improve its efficiency. Oils surround the bubbles and rise with them to the surface. Air also changes the density of water, making it easier and more efficient to separate light and heavy materials.

recommended  
for separating the  
most stubborn  
greases/oils



## buffer tank

The buffer tank will homogenize the quality and temperature of the water coming from your restaurant, while controlling the flow of water to be treated by the downstream solution. Particularly well-suited to restaurants with high hydraulic variations, the buffer tank will smooth out the inflow of water as well as its capacity.

The quality of the effluent in the buffer tank can be guaranteed by mixing and/or aerating the water.

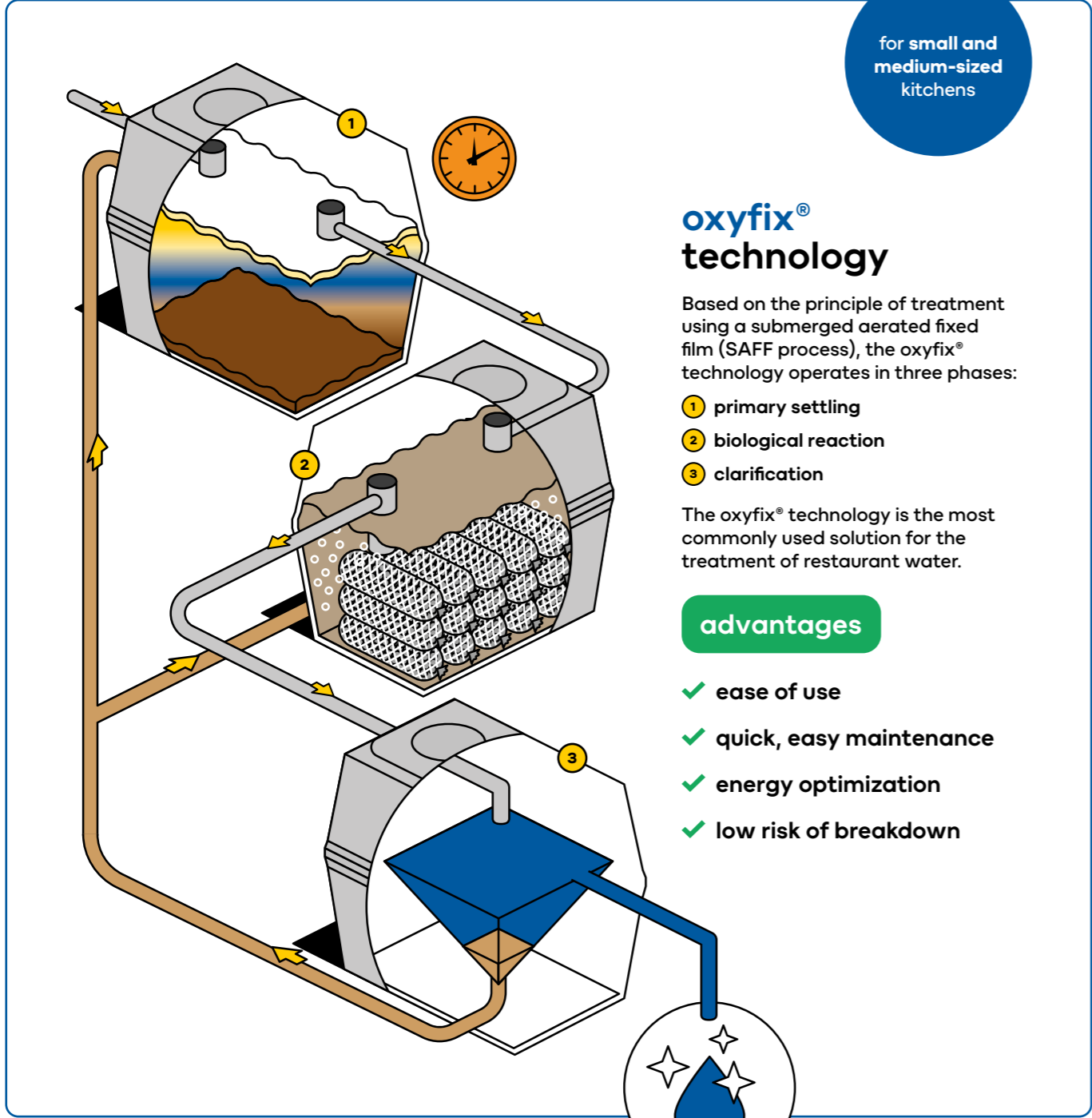
The installation of a buffer tank is optional and used only for projects that require it.

The size of the tanks and especially of the grease traps is calculated to obtain the best performance/draining frequency ratio. Moreover, we take into account your opening hours and the operation of your restaurant to optimize the size. Larger, more efficient and requiring less draining: the right recipe.

# treatment

It ensures the sanitation of your wastewater if you are not connected to the public sewer system.

for small and medium-sized kitchens



## oxyfix® technology

Based on the principle of treatment using a submerged aerated fixed film (SAFF process), the oxyfix® technology operates in three phases:

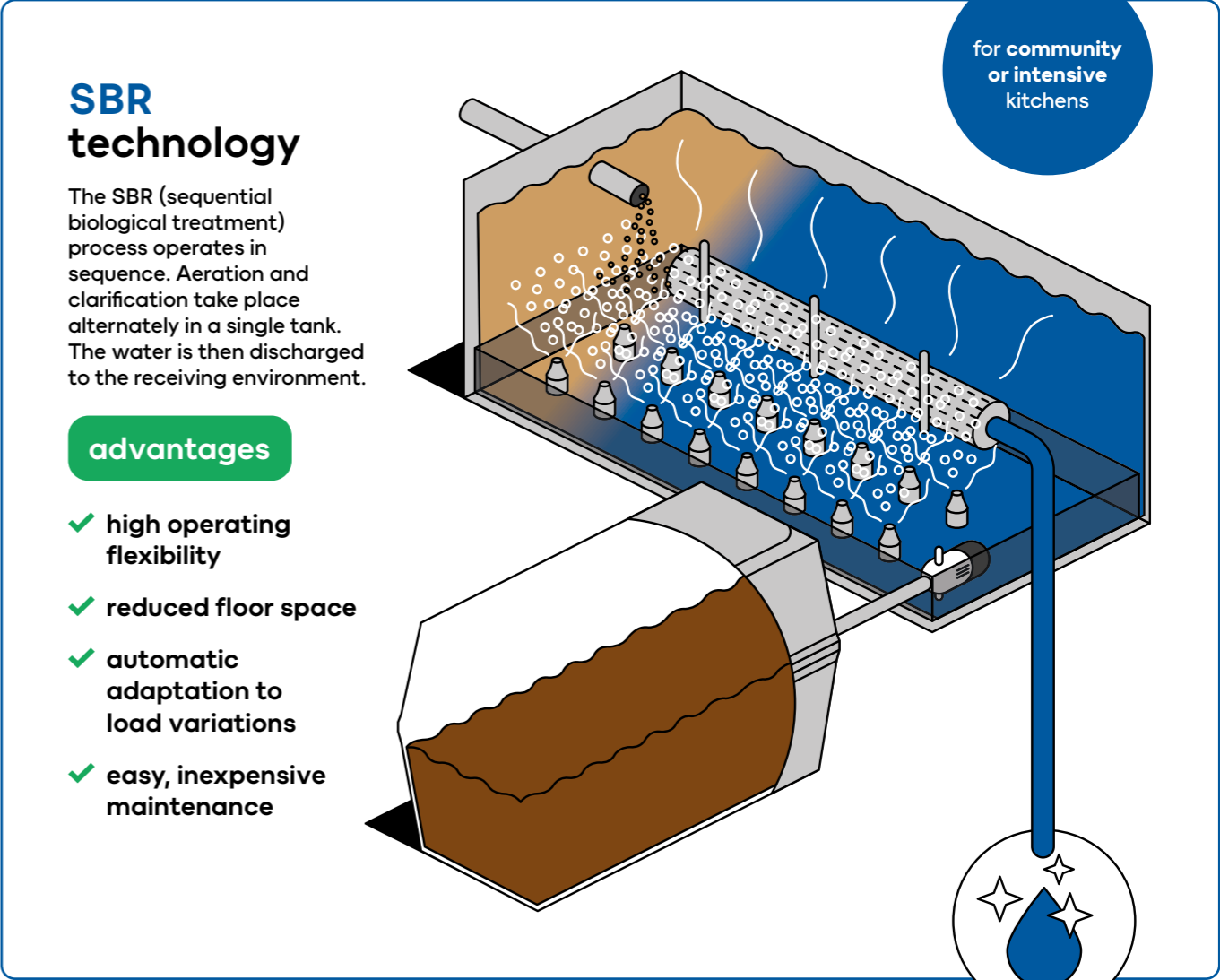
- 1 primary settling
- 2 biological reaction
- 3 clarification

The oxyfix® technology is the most commonly used solution for the treatment of restaurant water.

### advantages

- ✓ ease of use
- ✓ quick, easy maintenance
- ✓ energy optimization
- ✓ low risk of breakdown

for community or intensive kitchens



## SBR technology

The SBR (sequential biological treatment) process operates in sequence. Aeration and clarification take place alternately in a single tank. The water is then discharged to the receiving environment.

### advantages

- ✓ high operating flexibility
- ✓ reduced floor space
- ✓ automatic adaptation to load variations
- ✓ easy, inexpensive maintenance

If you are not connected to a public sewer system, our solutions guarantee that your wastewater is discharged in compliance with the required standards. All without odor. eloy's technical support and sizing service ensure that you choose the wastewater treatment plant that is best suited to your current and future needs: wastewater volume, discharge standards and your budget.

Have you thought about rainwater? Rainwater can become your ally, not only for watering your green spaces, but also for cleaning your exteriors and floors. Real savings for water resources and your budget!

# full support for your restaurant



## the choice of a flawless technology

Because your restaurant is unique, so is our support.

Together, we will review **your current needs** and **prospects** to choose the right technology and size for you.



## control of your costs

To **keep your installation and running costs under control**, we guarantee you the solution and size that are best suited to your needs.

The chosen modules and their sizes ensure an effective treatment while keeping draining frequencies to a minimum.



## narrow cooperation

**With you, but also with your design office.**

We facilitate their design work by providing drawings and measurements. We also help them to prepare the applications for allowances, where possible.

**Your advantage?** You have just one contact throughout the entire process: eloy.



## installation and start-up support

We work alongside your installer to **coordinate the entire project:** installation and start-up.

This includes our presence during handling, numerous visits during the construction period, the supervision of the hydraulic and electrical connections, clean water tests prior to start-up, etc.



## ease of use

**Your team will be trained** to operate and monitor the solution.

If you prefer to concentrate on managing your restaurant and kitchen, we can also offer you a customized operating contract that will enable us to manage your solutions, monitor their progress and react directly to any problems that may occur.



## guaranteed reliability and durability

It is a **commitment to quality** we make with you.

With our maintenance contracts and support service, we ensure that your solution delivers top performance at all times.

Anticipating  
your future  
needs

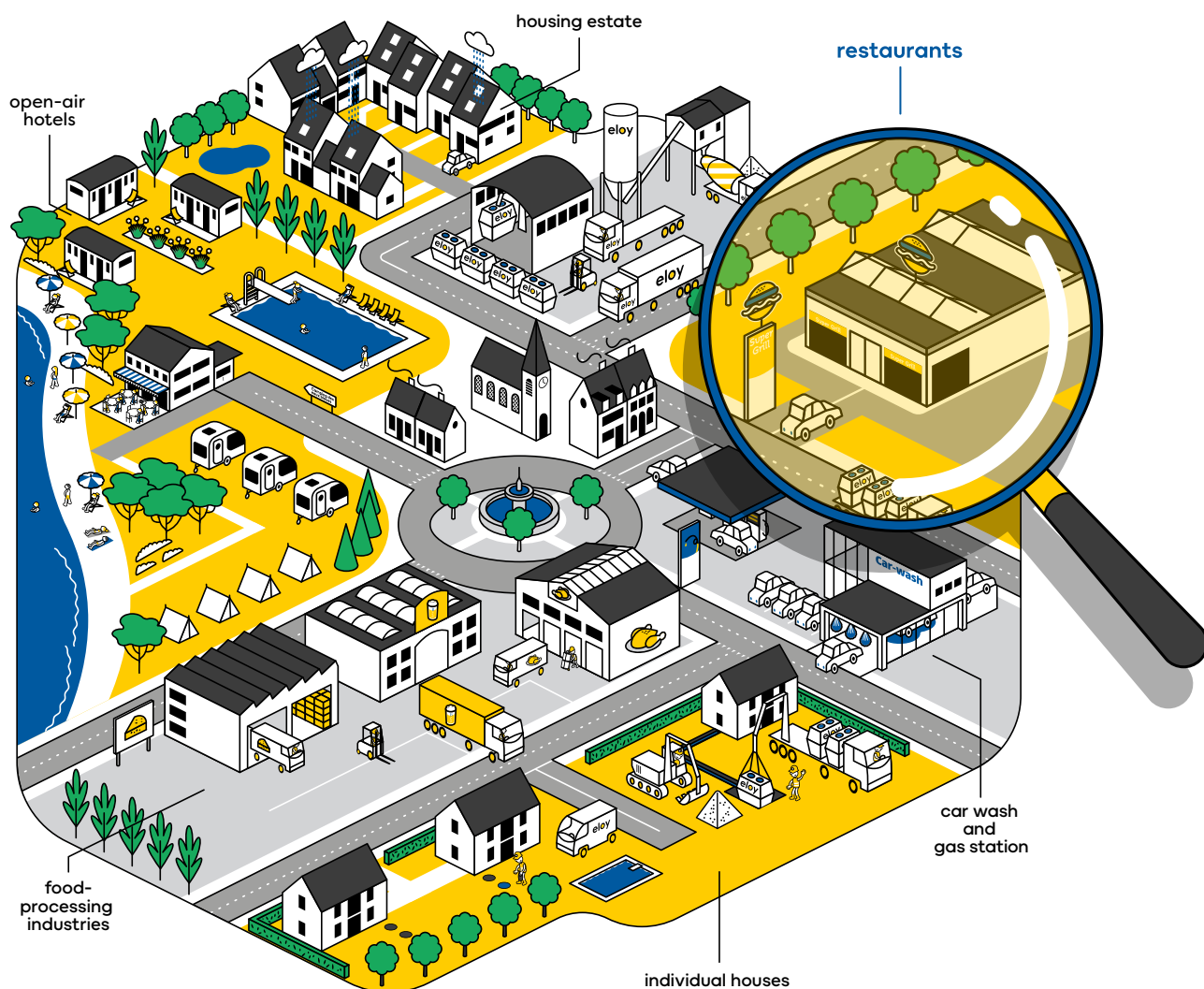


As your menus evolve, so does your restaurant. **Our plug and play wastewater treatment plants are scalable** and allow you to plan with peace of mind the evolution of your practices or simply an increase in the number of place settings. Thanks to these plants, your future just needs to connect with your present.

discover our case studies on [eloywater.com](http://eloywater.com)

# you cook, we purify

eloy water, your restaurant partner for over 50 years:  
advice, sizing, installation, operation and maintenance



more information on  
[eloywater.com](http://eloywater.com)

[info@eloywater.com](mailto:info@eloywater.com)



# eloy

The information contained in this document is purely indicative and does not constitute a contractual offer likely to commit eloy water S.A. or its network of dealers and partners. Changes may occur without prior notice to the products, offers, prices and warranties contained in this document. We invite you to contact us to get precise information about the general terms and conditions of sale of our company. Do not throw on the public highway. Responsible publisher: eloy water S.A. - rue des Spinettes 13, BE-4140 Sprimont - 11/2023