





LABIOTEST®

on air since 1988

Labiotest

1987: foundation of Labiotest as a laboratory for chemical analysis.

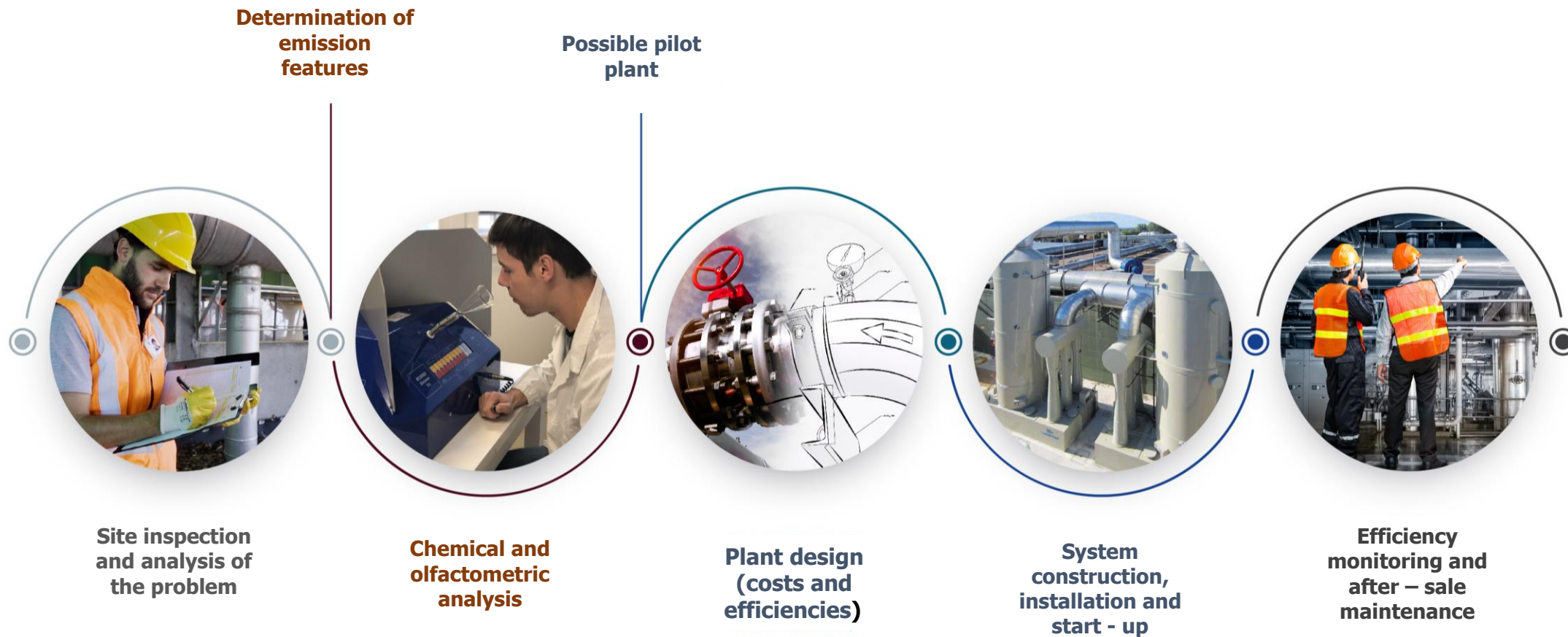
1990: development of specific activities for the control and neutralization of odours.

1995: installation of the first deodorizing plant in Europe.

1999: start of the first olfactometric campaign to control odour abatement efficiency of Labiotest's solutions.

2006: installation of the first deodorization plant in China in a wwtp.

Our Approach



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Solutions and activities

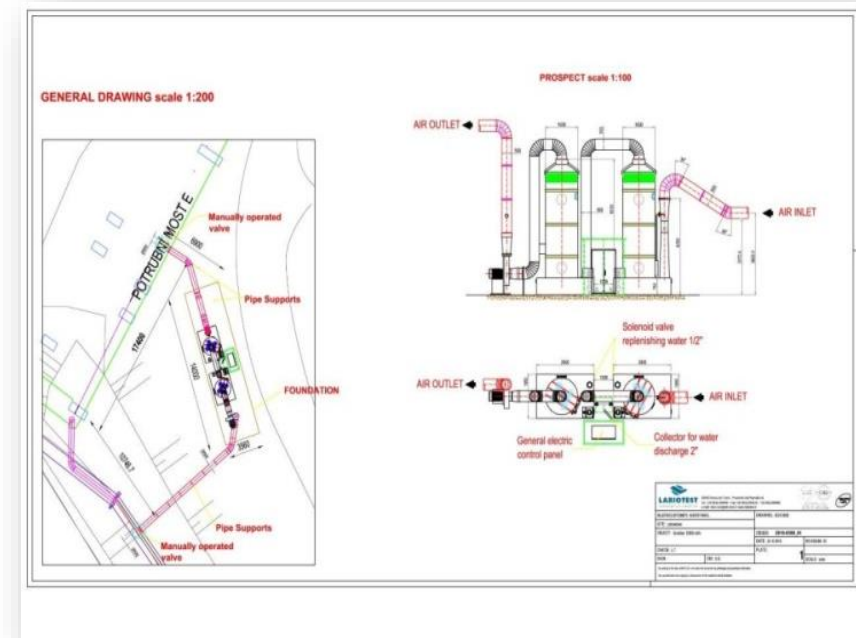
- Osmogenic barriers;
- Biological products;
 - Chemical products;
- Dry Scrubber - DKFIL®
 - Wet Scrubber
 - Dust Suppression

Services

Labiotech , offers a complete service that can cope with the requirements of the most exacting customers.

In particular:

- ✓ analysis of the problem on site;
- ✓ counseling on norms;
- ✓ design;
- ✓ realization, start-up and testing of the plant;
- ✓ assistance and after-sale maintenance;
- ✓ efficiencies monitoring.





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Osmogenic Barrier

Osmogenic barrier

What is it?

- It is a technology for odour abatement that uses specific systems combined with deodorizing products.
- It is suitable to solve many odour problems because it is easy to design, install and use.
- It is also cheaper than other technologies and can be used in any sites.

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How it works

- **osmogenic barrier** works using dilution water and specific deodorizing products.
- **Osmogenic barrier** is the only abatement technology in case of diffuse emissions, but it is also very effective also with conveyed emissions.
- Up to now the products used were made of molecules having an enveloping or direct chemical action. In LABIOTEST **osmogenic barrier** come into play various molecular aggregates called **micelle**, that have specific characteristics allowing the adsorption and blocking of molecules that generate bad smells.
- Osmogenic molecules are eliminated definitely in the environment simply by blocking them inside nanostructures and anchoring them outside such structures from which they cannot escape anymore.

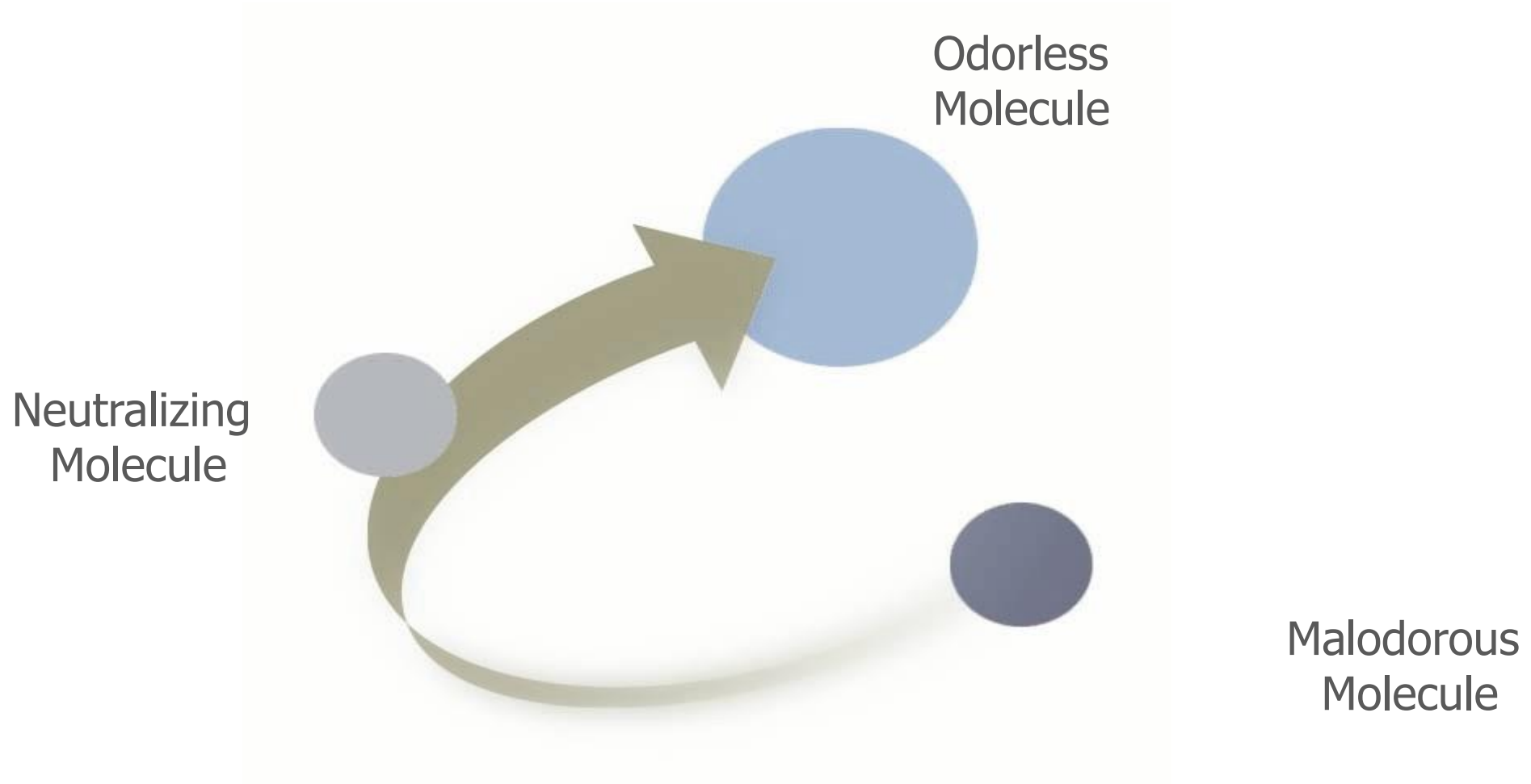
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Advantages

- High deodorizing rate.
- No introduction of chemical reagents in the environment.
- No use of substances producing secondary products, which are often dangerous.
- Present components do not oxidize and are not modified in the air; they are classified as biodegradable. There is no danger of a further restoration of the malodorous molecule.
- Components are not particularly photo-reactive and the process is not influenced by sun rays.
- Natural essential oils have the technical purpose of acting as olfactometric indicators as regards, optimal dilution.

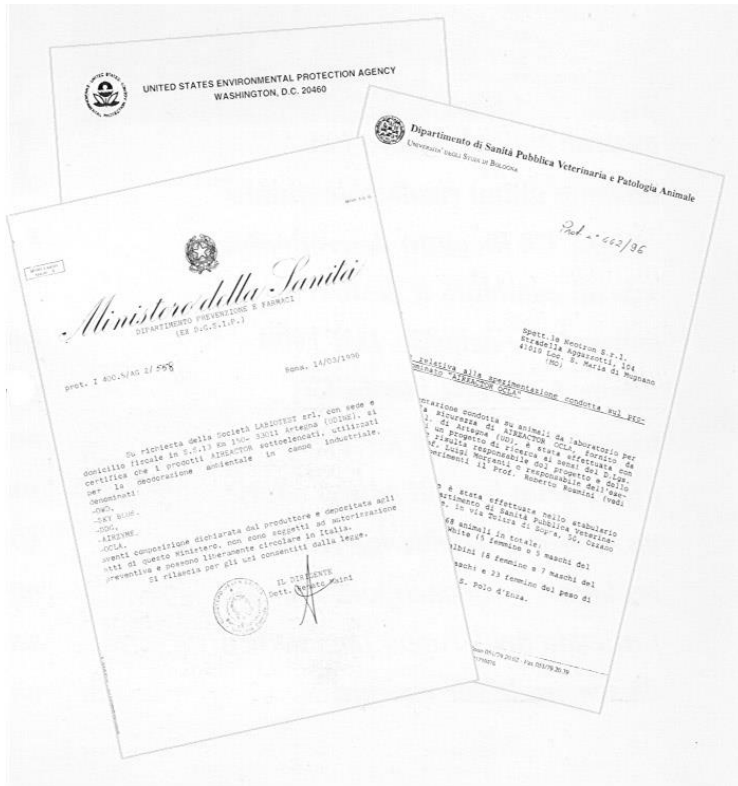
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Mechanism of action



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Our products are guaranteed by:



E.P.A. U.S. Environmental Protection Agency

U.S. Department of health and human services – Ministry of health

I.S.P.E.S.L. Higher Institute for Prevention and Work Safety – Law Decree 626/94

C.N.R. Department of Applied Hydrobiology
Department of work medicine (MI)

Bologna University - Department of Animal Pathology.

Department of industrial chemistry of the Polytechnic Institute in Milan - Toxicology and Olfactometry Laboratory

Fields of application



Waste disposal

Treatment of civil and industrial waste water



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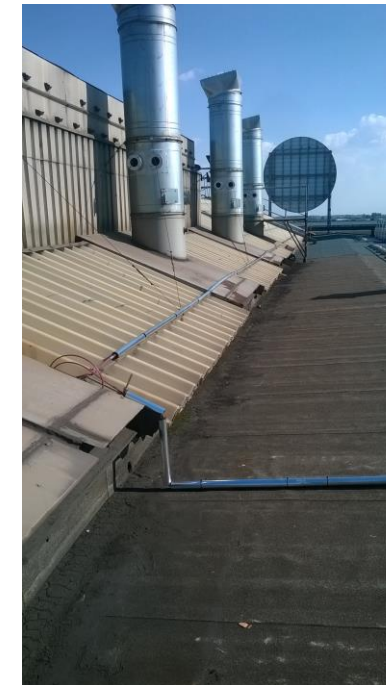
Fields of application



Animal Breeding



Industry



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Fields of application



Others



Composting



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Installations

HPS evo

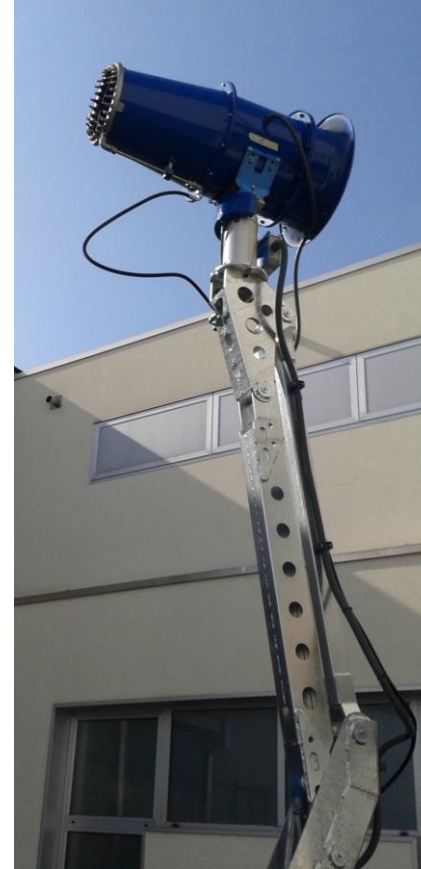


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Installations



Big Fogger



La.Biofog 400

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Installations

Zephiro UTS



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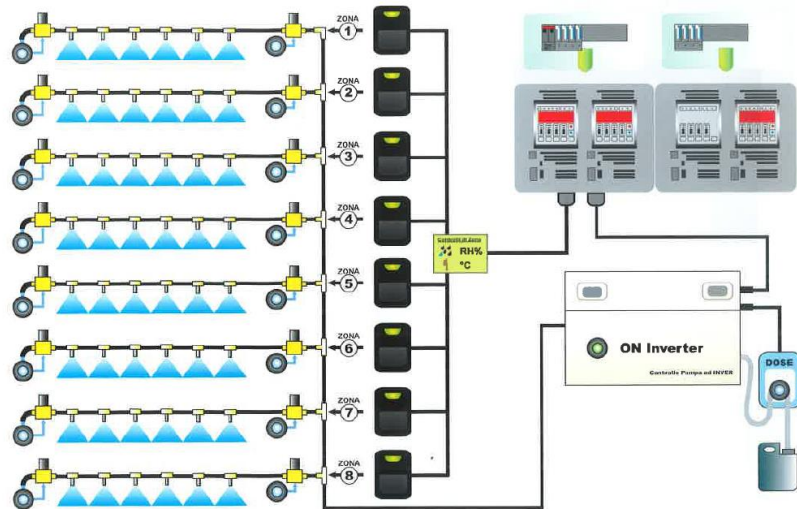
Installations



HPS midi var



HPS midi Fresh



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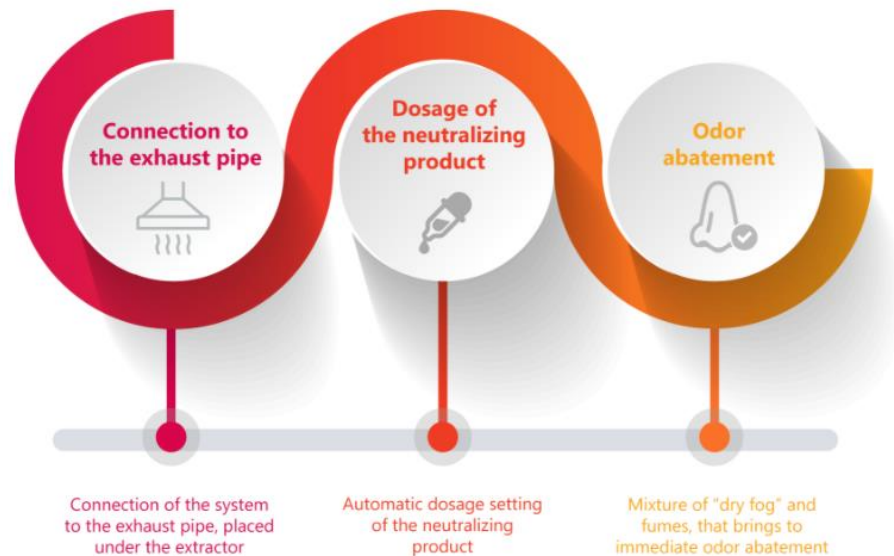
presents

zephyro[®] UTS

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Zephiro UTS:

Innovation and technology for a long-lasting solution



- Easy to install
- No structural works needed
- Small in size
- Suits every space
- Top performance in odor abatement

Our efficiency standards



Dynamic olfactometry is the only measurement technique universally recognized in accordance with UNI Norms (European Commission – Integrated Pollution Prevention and Control, Reference Document on the General Principles of Monitoring – July 2003), and this is the methodology **that attests Labiotest abatement technology and efficiency standards.**

SAMPLE	% DILUTED PRODUCT	SCHEDULED SAMPLING	C _{od} ou _E /mc
1	OWD 0,3	13:00	3886
		13:05	1731
		average efficiency	55,5
2	OWD 0,4	13:00	3886
		13:10	1122
		average efficiency	74,1
3	OWD 0,5	13:00	3886
		13:15	817
		average efficiency	79,9
4	OWD 0,6	13:00	3886
		13:20	1224
		average efficiency	68,9
5	OWD 0,7	13:00	3886
		13:25	1335
		average efficiency	65,6
Labiotest guarantees the efficiencies of its solutions through olfactometric investigations performed as of standard UNI EN 13725.			

Zephiro UTS abates odor concentration thanks to the action of ultrasounds.

The objective is clear: **neutralize odors** before they exit the exhaust pipe, so that they do not reach the surrounding area.



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smasher

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smasher is made of bacterial strains specialized in the degradation of organic substances in waste water, the reduction of nutrients represents a sort of food antagonism against pathogenic bacteria and insects.

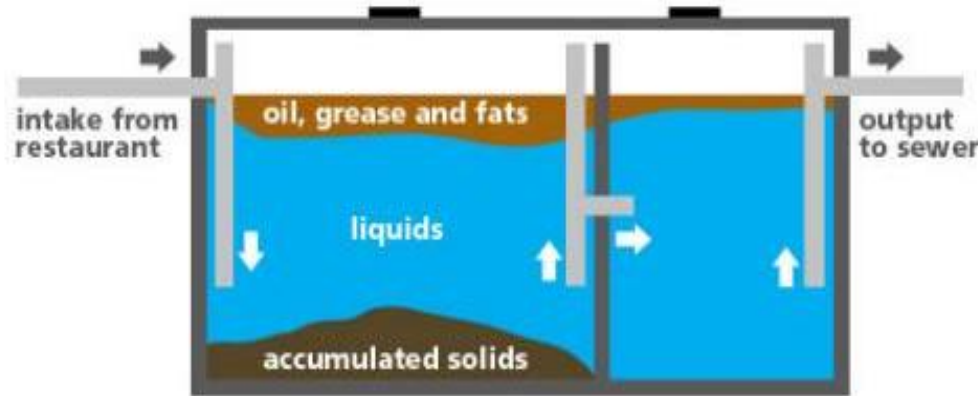
It is a blend in liquid form of bacterial spores of Bacillus genre, cellular enzymes and natural extracts that neutralizes bad smells.

The product is dosed automatically downstream from the sink's syphon or dishwasher tank, with a practical and safe automatic time-released system. It is completely natural and harmless for humans, animals and environment.

smasher

smasher *p* is a formulation with spore-forming bacteria and free enzymes, lyophilized that accelerate the degradation action of the bacteria through direct enzymatic hydrolysis.

It degrades all organic substances presented, particularly urea, ammonia, oils vegetal and animal fats and it fluidifies effluents and one dosed in sewages, it degrades also molecules causing bad smells.



smasher

combines a double action:

- **Immediate neutralization of bad smells** thanks to its natural extracts that neutralize instantly the malodorous molecules.
- **Organic substances degradation (long-lasting action)** thanks to its good microorganisms that produce specific enzymes to fluidify organic substances (fats, proteins, sugars, starches...) by transforming these complexes substances in water and carbon dioxide.