

PFS INDUSTRY

PFS Industry is a filtration system using advanced enzymatic technology. It is customized to your process to effectively reduce industrial wastewater contaminants or other organic substances by up to 99%. The system is adaptable with the purpose to create value and increase cost-savings for the customer. The specialised modular unit, easily installed with the lowest market cost when compared with other technologies.

FILTER MATERIAL

The unique filter material and binding method results in high enzymatic activity



High degradation rate

The enzymatic activity ensures removal rate up to 99% for all targeted organic substances.



No energy consumption

Based on natural catalytic effect and inherent flow, no energy is needed for effect.



A broad reach

Our enzyme repository ensures a very efficient system which easily adapts to new developments in detection and process.



Future advancements

Improvements are applied to all existing systems for integration of best available technology.



Process water flexibility

The matrix can be adjusted to fit any industrial process for optimal efficiency

PFS INDUSTRY

Advanced enzymatic filtration for all industrial processes in need of organic pollutant removal



Fit any process

Project based implementation of the system to meet customer demands



Modular system

The modular system is scalable to any size facility and requires minimum surface area.



Low cost & simple installation

Its compact size and the plug-and-play design makes it feasible to install at any location at low cost.



Low cost maintenance

Easy and safe maintenance with no hidden costs.

SAFETY & MAINTENANCE

Simple maintenance with user safety as the target point.

Filter treatment

The chambers are emptied for maintenance or refilling of new filter material

Individual maintenance

All chambers can be closed separately which gives excellent run-time and safety for the maintenance



Safest system available

Based on natural processes, PFS Industry adds no additional safety measures to existing protocols.



Short start-up timeframe

The system is quickly installed due to its plug-and-play design and requires no complicated infrastructure



Maintenance plan

A customized maintenance plan is established for every installed system

APPLICATION

The adaptable filtration system gives many application opportunities to reduce costs for managing industry processes and effluents

TREATMENT OF INDUSTRY
EFFLUENTS

TREATMENT OF SELECTED
INDUSTRY PROCESSES

CONVERSION OF WASTEWATER

Overall benefits of PFS - Industry

Low CAPEX offers great cost benefits over time

Higher tolerance to TOC and BOC compared to activated carbon

Less cost sensitive to TOC and BOC compared to ozone

No power consumption

No risk to worker environment

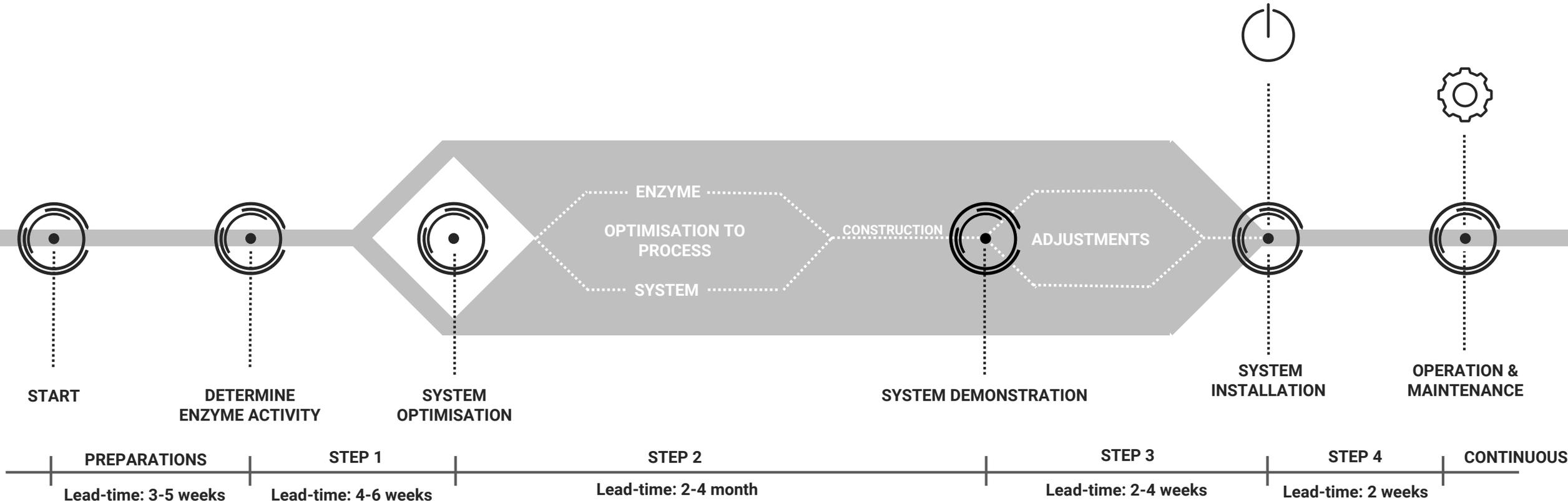
TECHNICAL DATA SHEET

A selection of technical data and information regarding PFS Industry

Subject/Area	Description/Information	Data
Removal rate	PFS secures high removal and flexibility due to its patented technology. The installation process ensures that enzymes, filter chambers and filter material is adapted to guarantee wanted removal rate	Up to 99%
Filter chamber standard measurements	The filter chambers are cylindrical and have a diameter of 300mm. All chambers can adapt to the existing standard connection of the facility (in-flow and outflow) and are often installed standing.	1000x300 (mm, HxØ)
Maximum flowrate/chamber (no upper limit)	The combination of high enzymatic efficiency and the filter material the standard PFS chamber can handle a high flowrate. Each installation customizes the chambers flow-rate to the process and to optimize removal rate	~8 m³/h per chamber
Maintenance space	The module is designed to be very compact and easily maintained. By adding space to the width of the module it will provide a very comfortable maintenance access.	1250 mm
Optimal temperature range	The system is fully functional in various temperature-ranges and is designed according to the specific needs from facility and the process water. The temperature range given should be seen as the optimal temperature range. Upwards temperature usually increases the removal rate.	10 -25 °C
Need for pumps	The system does not need pumps to be fully operational and ensures guaranteed removal rate. PFS uses the existing flow in the existing process	No pumps needed
Power input and energy usage (per chamber)	Due to its design PFS does not require any energy to be fully functional. Flowrate sensors or control systems can be installed, but the yearly energy consumption of these sensors and systems is very low.	Power input, 200V Energy usage, < 0.1 kV
Control system	PFS uses industry standard flow-rate sensors and controls which makes it highly adaptable to any control system.	Any

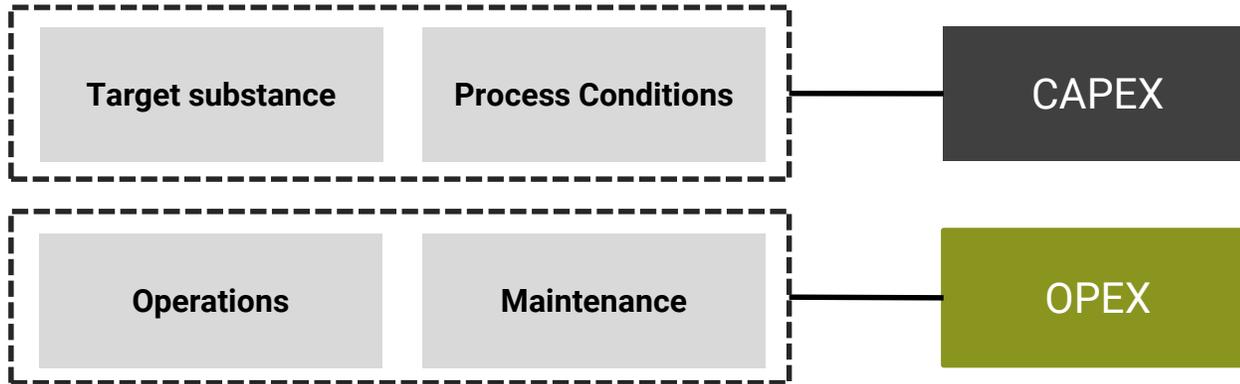
THE STANDARD INSTALLATION PROCESS

PFS Industry is offered with a standard installation process which ensures adaptation, installation and operation in the exist facility. The lead time is based on the targeted facility, but is normally 4-6 month.

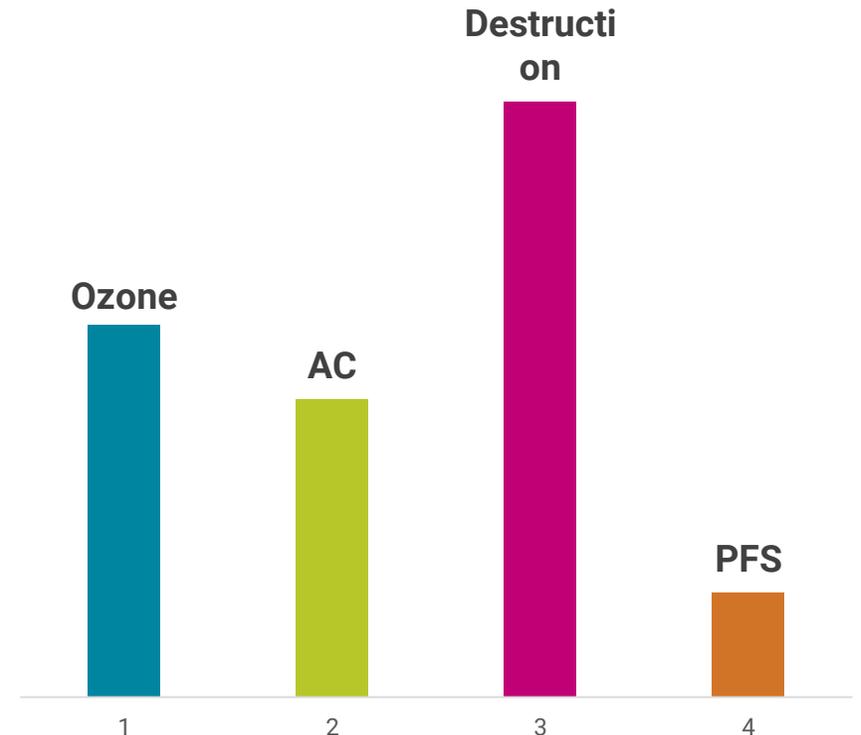


PRICING MODEL

Pricing is divided into three major areas; Target substances (removal). Process Conditions (Installation), and Operation/Maintenance (Final installed solution)



Subject/Area	Description
Target substance	The adaption of the system takes into account target substances, concentrations, disrupting substances and many other process conditions.
Process Conditions	The adaption of the system also takes in consideration the process physical nature, such as flow-rates and installation requirements, in order to optimize the system.
Operation/Maintenance	The total Operational costs mainly consist of the filter changes. This is directly calculated based on the final design of the installed system.



10 year overall cost comparison of different waste management solutions

OPPORTUNITIES

Existing, pending and forthcoming



PFS Industry offer a **low cost** solution on **complex organic pollutants**. Current customers are within the field of pharmaceutical production and construction



Enabling Business Opportunities. Low-cost for waste management, circumventing expensive solutions and government fees. Giving trademark value with a sustainable production chain.



Pharem offer cooperation in solving complex pollutant issues within most industries. Enabling companies to reduce process costs of industrial waste water.

CONTACT US

..and share our passion for water sustainability!



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