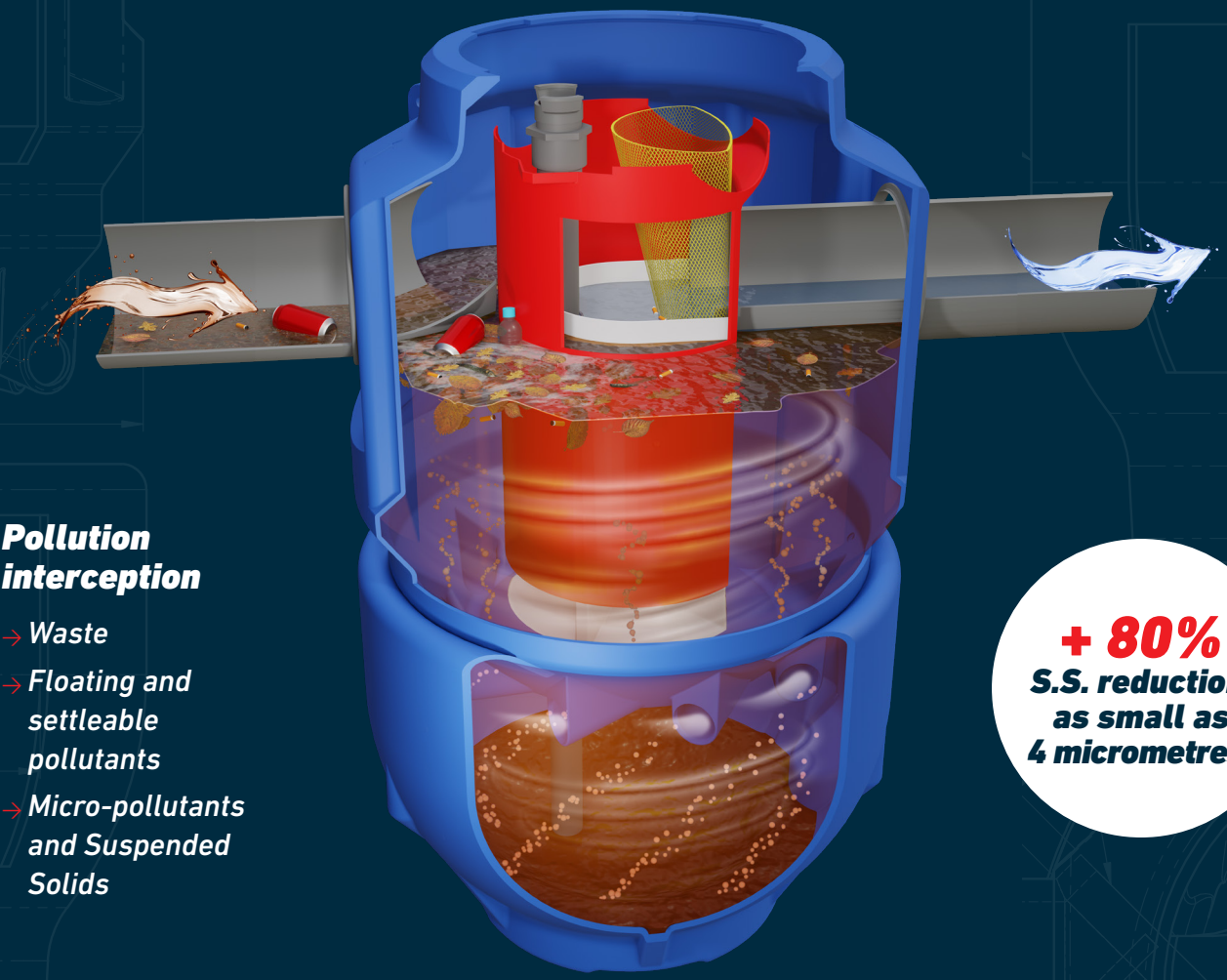
DECANT'EAU

A VERTICAL AND COMPACT PARTICLE INTERCEPTOR FOR

STORM

RUN-OFF TREATMENT



Pollution interception

- *Waste*
- *Floating and settleable pollutants*
- *Micro-pollutants and Suspended Solids*

+ 80%
S.S. reduction* as small as 4 micrometres!

**Suspended Solids*

EASY TO INSTALL

EASY TO MAINTAIN

FABRIQUÉ EN NORMANDIE

Techneau

OUR SOLUTIONS ENSURING CLEAN WATER SINCE 1991

AN OPTIMIZED TREATMENT TECHNOLOGY IN A PATENTED COMPACT SOLUTION*

BIOMETISM, A SOURCE OF INSPIRATION FOR DEVELOPING FUTURE TECHNOLOGIES

By drawing inspiration from nature and applying its 30 plus years of expertise, Techneau has developed the new generation of compact particle interceptors designed to intercept run-off water pollution.

The aim of the Decant'eau: Intercept micro-pollutants as well as solid waste and light liquids before returning the run-off water to its environment or in an existing network.

THE DÉCANT'EAU TECHNOLOGY IS BASED ON FOUR PROCESSES:

- **A gyratory circulation of the flow** that extends the settlement period, therefore improving the decantation process;
- **Notching on the interior walls** generating recirculation zones specifically designed to optimize the agglomeration of particles;
- **Guide nozzles** ensuring even effluent distribution & silt separation from the water flow;
- **A large-volume sludge tank** isolated from the water flow for maximised operating autonomy.

WELL-DESIGNEDT TECHNOLOGY

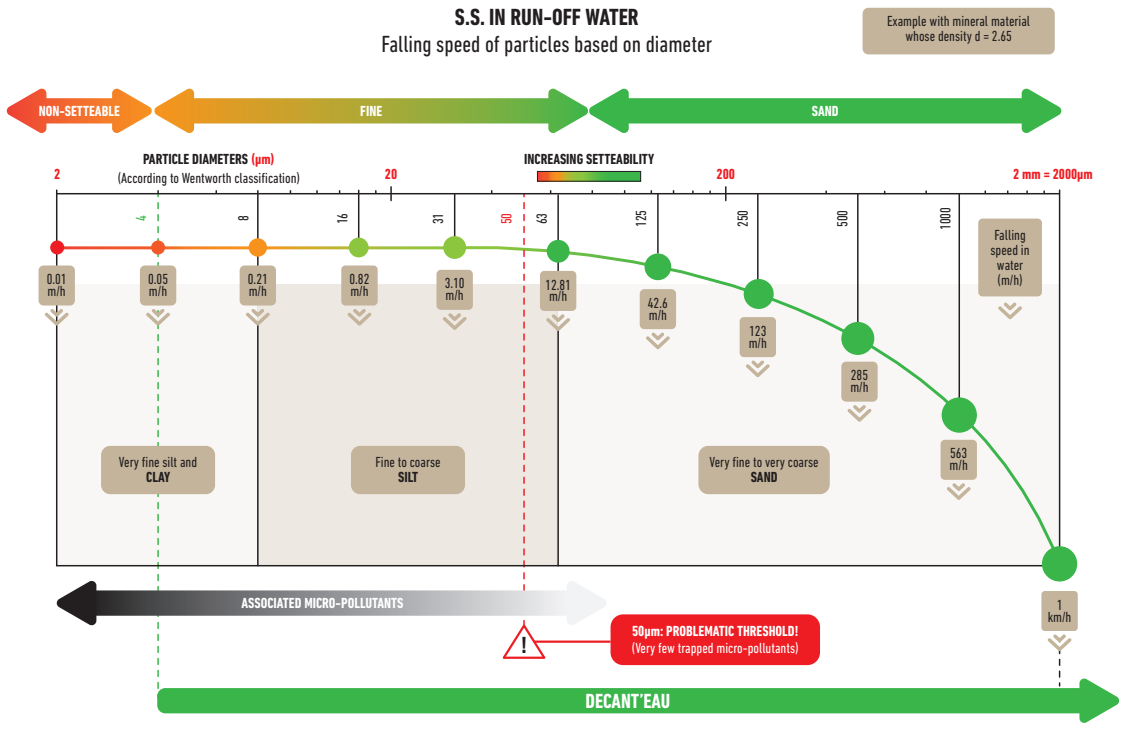
- A simple operating system: no additional energy, consumables or filters needed
- More than 80% SS reduction > 4 micrometres (the finest particles making up the majority of micro-pollutants)*
- Exceptional flow management
- Interception of floating solid waste and accidentally spilled light liquids
- Compact and easy to install
- Easy to maintain and service, with no consumables to replace

DECANT'EAU

relies on the principle of a gyratory circulation system of flow that combines gravity decantation and the centrifugal effect.

4-MICROMETRE FINE PARTICLES INTERCEPTED

Suspended Solids in waste water absorb micro-pollutants, and the Decant'eau technology is able to capture the smallest of these polluting particles, as tiny as 4 micrometres, thereby intercepting a maximum amount of pollutants.



*Dimensioning calculation report upon request

PROVIDING EFFECTIVE TREATMENT OF URBAN RUN-OFF WATER

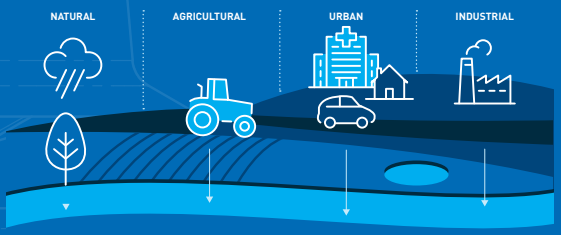
SUSPENDED SOLIDS: A POLLUTING ELEMENT IN RUN-OFF WATER

When it falls to the ground, rainwater leaches and erodes the surface material that it washes over.

It can carry visible waste as well as fine solid particles that are both natural (atmospheric dust) and produced by human activities (automotive manufacturing, industrial processes, traffic, etc.), and carried in the air and water, i.e., Suspended Solids: (SS).

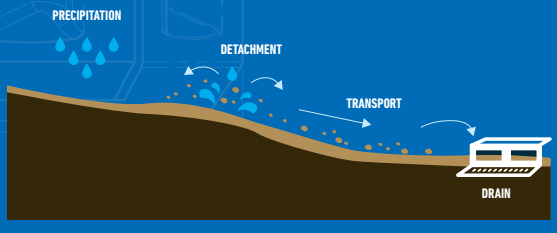
The real polluting factor of Suspended Solids comes from how they enable micro-pollutants (heavy metals, combustion residue, hydrocarbons, etc.) to cling to their surface through absorption before carrying them in run-off water. Intercepting Suspended Solids and the pollutants they carry has become essential for protecting the receiving environment and, more broadly, our environment.

ORIGINS OF POLLUTION IN RUN-OFF WATER



Examples of micro-pollutants: *tyre and brake wear, combustion residue (cars, etc.), roadway surface wear, corrosion from metal parts, accidentally spilled hydrocarbons, oil and synthetic fluid leaks, etc.*

THE EROSION OF SURFACE MATERIALS



LIMITING THE DISTANCE TRAVELLED

The nature and amount of Suspended Solids and their pollutant load depends on roadway activities and traffic as well as surroundings activities. Several factors should be taken into account when measuring the pollutant load:

- → Rain intensity
- → run-off magnitude
- → Type of surrounding activities
- → Distance travelled by the run-off

PRESERVING AND PROTECTING WATER RESOURCES IS EXTREMELY IMPORTANT

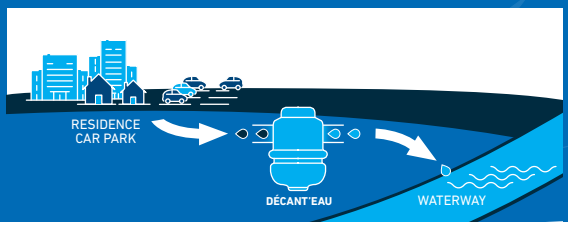
The longer run-off water travels, the greater the amount of Suspended Solids and various waste it will transport (cigarette butts for example).

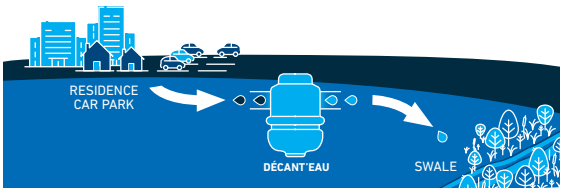
Limiting the distance that run-off water travels limits the spread of this pollution and makes it easier to intercept these environmentally harmful Suspended Solids. This "plot-centric" or "decentralised" management is employed to manage urban run-off water more efficiently and discharge the water into the network or an infiltration system.

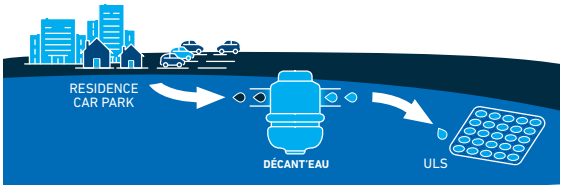
A system that is part of a comprehensive run-off water processing solution

Installing a Decant'eau upstream from a stormwater infiltration system fits perfectly into an overall treatment solution: intercepting and storing micro-pollutants and solid waste (hydrocarbons, sand, particles, cigarette butts, etc.) will extend the lifespan of the infiltration system (swale, filtration basin, etc.)

Installation examples:







EXAMPLE:

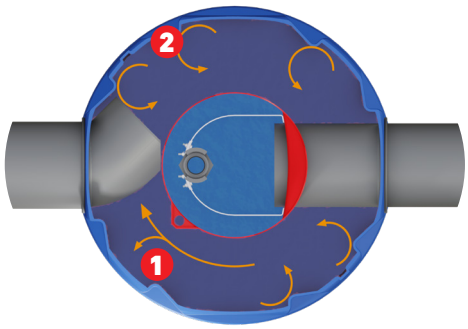
1 hectare of urban roadways and car parks generate between 500 and 1,000 kg of SS per year. This amount can double if the car traffic is particularly heavy (ring roads, high-traffic city intersections, motorway tollbooths)

FOR MORE DETAILED INFORMATION:

70- 2 leaflet: Storm water collection, storage and re-use systems
FD P 16-009: The decentralised management of pollution in urban run-off water

DECANT'EAU OPERATING PRINCIPLE

OPTIMISED WATER FLOW TO MAXIMISE THE INTERCEPTION OF SUSPENDED SOLIDS (S.S.)



→ **The DECANT'EAU is composed of a spreader head and a sludge tank. This unique design, resulting from 36 months of research & development, is a perfect combination of multiple innovations and is capable of trapping Suspended Solids, regardless of their size.**

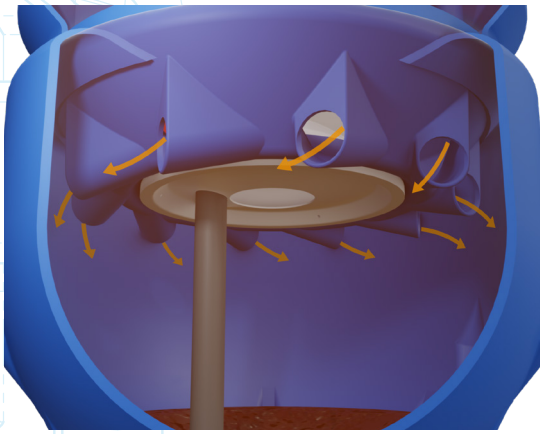
The Décant'eau technology is based on two water flow trajectories:

❶ The gyratory circulation of the flow around the central column, which extends the SS settling time and improves their decantation process.

❷ The recirculation zones, generated by each notch built into the head, optimise particle agglomeration and ease their decantation process

A UNIQUE AND PATENTED FLOW DISTRIBUTION SYSTEM

GUIDING NOZZLES SPECIFICALLY DESIGNED TO HOMOGENIZE THE WATER FLOW



One of the many strengths of the Decant'eau is the flow distribution in the lower part of the diffuser head, which incorporates a system of guiding nozzles.

These nozzles guide and evenly distribute the effluent towards the bottom of the tank while directing it towards the tank's walls.

This flow distribution helps maintain a clean central area so the now particle-free flow can move towards the outlet.

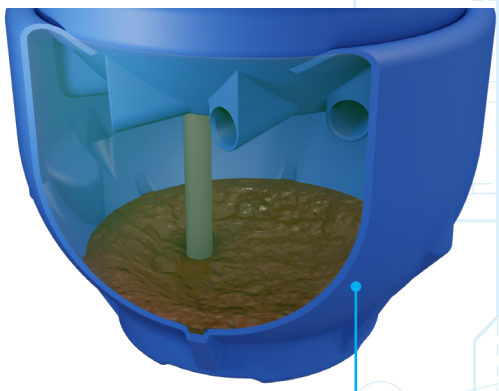
This system also separates the passing flow of sludge that has already settled on the bottom of the tank.

A LARGE STORAGE CAPACITY FOR BOTH SLUDGE AND PARTICLES

ISOLATED FROM THE PASSING FLOW

The sludge silo, fully isolated from the top part of the device, traps mud and particles from the passing flow, thus avoiding their re-suspension in case of heavy rainfall.

Its large storage capacity minimises the maintenance frequency.

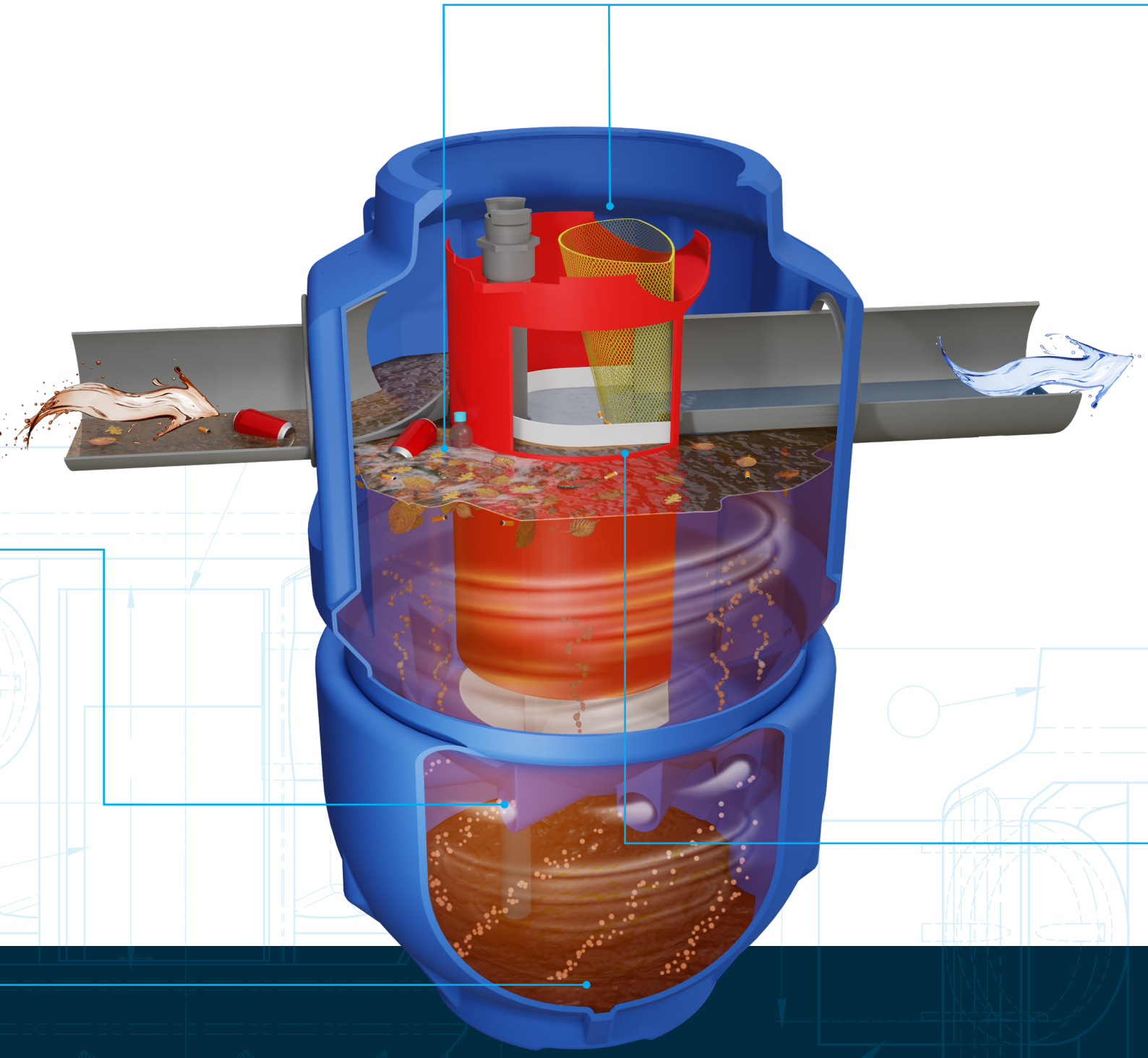


THE EXCEPTIONAL
FEATURES IN THE DÉCANT'EAU PRODUCT SPECS:

- TREATMENT EFFECTIVENESS
- EASY TO MAINTAIN AND SERVICE

RUN-OFF WATER TREATMENT

DECANT'EAU

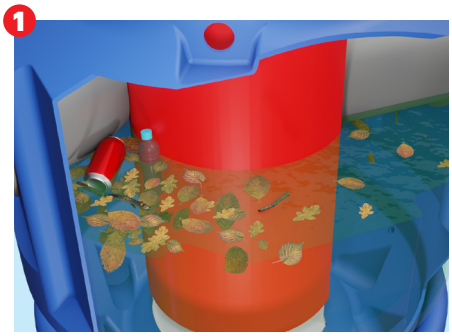


DOUBLE WASTE INTERCEPTION

1

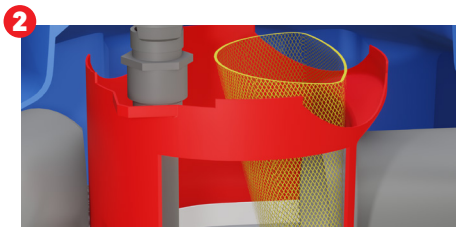
- In case of any accidental hydrocarbon spillage or floating waste (plastic bags, bottles, masks, etc.), **the DÉCANT'EAU has a large enough storage capacity to prevent the release of untreated flows through the outlet.**
- **The system can momentarily store 300 litres of hydrocarbons** (the equivalent of 6 car petrol tanks).
- **The large surface area(1) of the barrier can hold back non-settleable waste** (cigarette butts, plastic bags, etc.) with its adapted mesh screen.

Its cone shape minimises load losses (loss of loads smaller than 2 cm) and allows peak flows to pass through in case of heavy rainfall without releasing intercepted floating waste.



2

- **The barrier's design makes it easy to use:** no additional servicing is needed to clean it. The waste stored inside the Decant'eau is sucked up during the cleaning process.
- **For specific applications:** (Industrial sites working with plastic for example), there's the option of installing a barrier with a finer mesh screen.

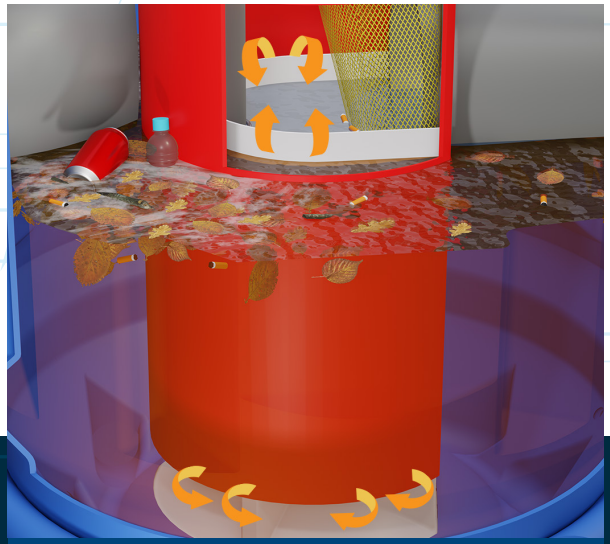


(1) The usable surface area of the barrier is at least 4 times larger than the section of connecting pipe

CIGARETTE BUTTS, THE NO. 1 WATER POLLUTANT

- **Separate sewer systems drain household waste water into the waste water treatment stations and the rainwater directly into waterways.** This rainwater is thus not treated and the cigarette butts end up in the waterways. A single cigarette butt can pollute up to 500 litres of water and it contains a hundred different harmful, even carcinogenic substances, which contaminate the water, air and soil. They take more than 12 years to biodegrade.
- **Of the 137 billion cigarette butts thrown on the ground each day throughout the world,** 40% end up in the oceans.
  Sources: *www.cieau.com et https://www.ceseau.org*

TOTAL CONTROL IN CASE OF EXCEPTIONAL WATER FLOW

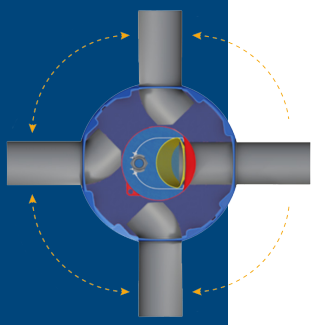


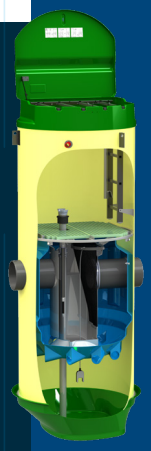
- **In case of heavy rainfall,** the **DÉCANT'EAU** is equipped with a discharge shaft to manage peak flows.
- **This discharge shaft** is designed to drain the majority of peak flows while preventing the release of floating waste and already settled mud.

FROM STANDARD TO TAILOR-MADE

ADAPTABLE INLETS AND OUTLETS DEPENDING ON INSTALLATION CONSTRAINTS

- Upon request, the direction of the inlet can be adjusted +/-90°, so an additional chamber does need to be installed in the rainwater system.





POLYETHYLENE AND POLYESTER VERSIONS AVAILABLE

- **The polyester version** can adapt the height of the unit depending on the position of your water inlet, and it also can adapt the sludge tank's storage capacity according to your constraints.
- **Even in case of a deep network,** the slatted platform makes using it simple and safe

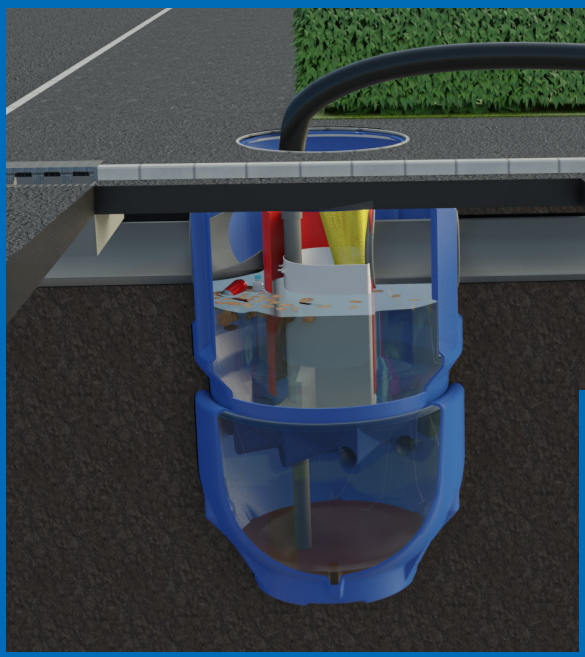
A COMPACT AND VERTICAL DEVICE FOR EASY INSTALLATION

The DECANT'EAU comes fully equipped, ready to install. Decant'eau installation is the same as for our other same-size systems, and its cylindrical and vertical shape make it even easier.

The polyethylene version reduces transport costs and installation time thanks to its weight, which lighter than concrete. Heavy hoisting machinery is therefore not necessary.

Impervious to corrosion, polyethylene guarantees a longer lifespan than steel or concrete.

A SYSTEM EASY TO SERVICE AND INSPECT



The system's operation is based on gravity separation. No filters or substrates are needed for the Decant'eau to function.

The sludge tank's large storage capacity can be directly accessed through the central column or through a draining shaft, which significantly reduces maintenance costs.

TECHNEAU IN A FEW WORDS

AN INTEGRATED RESEARCH & DEVELOPMENT DEPARTMENT

For designing the products of the future, **10 EMPLOYEES in the design and R&D office** are responsible for evaluating your needs and anticipating the products of the future.

A LARGE STOCK FOR GREATER AVAILABILITY

350 REFERENCES are kept in stock.

24 - 72 HOURS: order on Monday and receive the delivery on Thursday (in France).

MORE THAN 30 YEARS OF RECOGNISED INDUSTRIAL EXPERTISE

Since 1991, Techneau has designed, manufactured and offered water treatment solutions throughout France and its European subsidiaries.

Products tested from their initial design up through manufacturing.

All of our products are tested in the factory and under real usage conditions.

From design to production, each step is validated by our R&D department to guarantee the reliability of each of our products.

All manufacturing sites are ISO90001 certified.

A DEDICATED DEPARTMENT TO MEET YOUR REQUIREMENTS

18 REPRESENTATIVES IN THE FIELD, and 10 technical sales people at our headquarters are fully dedicated to assessing your needs and offering the most suitable technical solutions for your projects.

With more than 25,000 technical offers per year, Techneau remains steadfast in its initial commitment: guaranteeing you a precise, personalised assessment within 24 to 48 hours.

GAEAU DÉVELOPPEMENT, A TECHNICAL CENTRE OF SKILLED EXPERTS

3 COMPLEMENTARY SUBSIDIARIES (Techneau, Plasteau and Chaudreau) have provided cutting-edge water management solutions for over 30 years. The group's products are sold in Europe and Northwest Africa as well as exported all over the world.

All tanks are made in Normandy, France.

FABRIQUÉ EN NORMANDIE

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02/23b Edition