# Advantages of the SBR **ACTICLEVER®** Technology

- Monoblock tank, easy to install
- Only one hose to connect
- + Exceptional processing performance
- Very low energy consumption
- + A single visible cover for the AT122, 6 EH model. Two 400 mm diameter covers for the 9 EH. 13 EH and 15 EH models
- Partition wall: Clarifier/reactor
- + No secondary ventilation
- + Station supplied complete with accessories
- Made of HDPE, lighter than concrete and steel

+ 20-year warranty on tanks and 2 years on electromechanical equipment (control unit and booster pump)

# ACTICLEVER 185 9 EH

# **Operating principles**

The ACTICLEVER® system's operation is controlled by a microprocessor, which is located in the control box. It manages the booster pump that is used to distribute the air inside the membrane aeration system and/or to evacuate the treated effluents (air lift). The treatment process (cycle) is triggered by the water level inside the ACTICLEVER® system. Based on an average daily water consumption, 1 to 3 treatment cycles can take place each day.

The raw effluents enter the 1st treatment compartment. The opening in the partition wall leads to a hydraulic balancing (levelling) across the ACTICLEVER® system, whereby daily hydraulic surges can be buffered. A float valve installed inside the 2nd compartment then directs the compressed air either to the membrane aerators or to the effluents transfer system (air lift).

As long as the water level in the ACTICLEVER® system stays below the maximum level (HWmax), the two treatment compartments are aerated sequentially. Once the water level in the ACTICLEVER<sup>®</sup> system reaches the maximum (HWmax), the float valve is switched over and then directs the compressed air to the effluents transfer system (air lift).

The float valve's position is detected by a level sensor (AQUAswitch®) and registered by the control unit, which triggers the settling phase. Once the settling phase has ended and prior to the discharge of the treated effluents, the sampling tank and transfer column are rinsed.

The treated effluents then flow to the sampling tank and are discharged into the receiving environment in accordance with the amended decree of 7 September 2009 relating to the technical requirements applicable to non-collective sanitation installations which receive a gross load of organic pollution less than or equal to 1.2 kg/d of BOD5.

The discharge of treated effluents leads to a drop of the water level inside the ACTICLEVER® system, which allows the float valve to return to the low position (HWmin). This position is detected by the level sensor (AQUAswitch®) and is registered by the control unit which initiates a new treatment cycle.

If the low level (HWmin) is not reached within a predefined time, an alarm is activated and the control unit initiates a treatment cucle.

If the high level (HWmax) is not reached within a predefined time, the control unit switches to economy mode. When the water level rises to the high level (HWmax), the control unit resumes its normal operation.

> ACTICLEVER® control cabinet 0.5 kWh day for a 6EH

# Our team is at your service

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# **ACTICLEVER**®

## Micro-purification stations

For domestic wastewater treatments 6EH-9EH-13EH-15EH



# Basic operating principles of the SBR ACTICLEVER® technology







### The ACTICLEVER®

The ACTICLEVER<sup>®</sup> system is a device for the treatment of domestic or similar wastewater, known as an «activated sludge micro-treatment plant», which works based on the SBR (Sequential Batch Reactor) process. It mainly consists of a tank, a control unit and a booster pump. These two essential components are connected to each other via a flexible air hose, which is 16 metres long and buried inside a technical duct. All ACTICLEVER<sup>®</sup> network elements can be accessed via covers that can withstand pedestrian loads and which are locked in place to ensure the protection/safety of  $\rightarrow$  Nitrogen (NH<sub>4</sub>+) : 94 %

users (opening them requires a specific tool). All the materials that make up the ACTICLEVER® system are resistant to corrosion thanks to the choice of manufacturing materials (PE, PVC, fastenings made of class 316 stainless steel).

### Treatment performance :

- → DCO : 95%
- → DBO<sub>2</sub>: 97%
- → MES : 96 %

# SBR ACTICLEVER® ventilation

Secondary ventilation is not necessary because there is no anaerobic compartment and therefore no malodorous (H2S) or dangerous (methane) gas. The aeration (oxygen supply) is continuous.

Air circulation takes place freely via the primary ventilation, with the addition of air provided by the boosters.



### Dimensions

Description	ltem code	Inhabitant equivalent	Total volume	Weight including pallet in	Inlet and outlet diameters in	Total length in	Total width in	Height in	Inlet/ outlet height in	Manhole cover in
		EH	l	kg	mm	cm	cm	cm	cm	mm
ACTICLEVER® 122 6EH	37261	6	4000	200	100	318	122	164 including extension: 1 x D600/H250	127 / 122	1 x 600
ACTICLEVER® 185 9EH	37262	9	5000	300	100	277	185	169 including extension: 2 x D400/H200	122 / 117	2 x 400
ACTICLEVER <sup>®</sup> 185 13EH	37263	13	8000	380	100	420	185	169 including extension: 2 x D400/H200	122 / 117	2 x 400
ACTICLEVER® 185 15EH	37264	15	10000	420	100	497	185	169 including extension: 2 x D400/H200	122 / 117	2 x 400

# **ACTICLEVER®** registration

The ACTICLEVER® is registered following the acceptance of the works by the owner and the installer, by posting Annex B, as described in the user manual, within 60 days of installation, or directly on our website: https://service.rikutec.fr/enregistrer-mon-produit/

The ACTICLEVER®'s registration allows the user to benefit from the advantages of the ACTICLEVER® maintenance contract offered by RIKUTEC France and the ACTICLEVER® purification performance guarantee.

# How to setup the ACTICLEVER<sup>®</sup>

### INSTALLATION IN PERMEABLE GROUND, WITHOUT GROUNDWATER



### INSTALLATION WITH GROUNDWATER



### INSTALLATION IN LOW PERMEABILITY TERRAIN WITHOUT GROUNDWATER



hydraulically packed

psoil stored separately during the excavation

0/6 lean concrete dosed at 250 kg of cement per m³ with a sistency of S1 (firm) or S2 (plastic) or small-sized

)/6 lean concrete dosed at 250 kg of cement per m3 with a consistency of S1 (firm) or S2 (plastic)



The aeration of the ACTICLEVER® system is ensured by the wastewater drop pipe which is extended into the primary ventilation across its diameter (100 mm minimum) right up to the open air, to the outside and above the inhabited premises. The installation of the ventilation tube features a constant incline towards the roof (see below)

