

# ACTICLEVER

## ⊕ ADVANTAGES OF SBR ACTICLEVER

- ⊕ Monobloc tank, easy to install
  - ⊕ Only one flexible hose to connect
  - ⊕ Outstanding processing performance
  - ⊕ Low energy consumption
  - ⊕ A single visible cover for the AT122, 6 PE model. Two 400 mm diameter covers for the 9 PE, 13 PE and 15 PE models
  - ⊕ Partition wall: Decanter/Reacto
  - ⊕ No secondary ventilation
  - ⊕ Station supplied complete with accessories
  - ⊕ HDPE, lighter than concrete and steel
- ⊕ **20 YEAR WARRANTY** on tanks and **2 years** on electromechanical equipment (control unit and booster)



ACTICLEVER 185  
9PE

## ⊕ OPERATING PRINCIPLES

The operation of the ACTICLEVER® system is controlled by a microprocessor, located in the control box. This manages the booster used for distributing the air in the membrane aeration system and/or to evacuate the effluents treated (air lift). The treatment process (cycle) is triggered by the water level in 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 results in a hydraulic balance (levelling) throughout the ACTICLEVER® system, making it possible to buffer daily hydraulic surges. A floating valve placed in the 2nd compartment then directs the compressed air either to the membrane aerators or to the effluent transfer system (air lift).

As long as the water level in the ACTICLEVER® system is lower than the high level (HWmax), the two treatment compartments are aerated sequentially. If the water level in the ACTICLEVER® system is high (HWmax), the floating valve switches and directs the compressed air to the effluent transfer system (air lift).

The position of the floating valve is detected by a level sensor (AQUAswitch®), and is recorded by the control unit, which starts the decantation phase. After the end of the decantation phase, and before the evacuation of the treated effluents, the extraction tank and the transfer column are rinsed.

The treated effluents then flow to the extraction tank, and are discharged into the receiving environment in accordance with the Decree of 7 September 2009 as modified, relating to the technical requirements applicable to non-collective sanitation installations receiving a gross organic pollution load less than or equal to 1.2 kg/day of BOD<sub>5</sub>.

The evacuation of treated effluents leads to a drop in the water level in the ACTICLEVER® system, which enables the floating valve to switch to the low position (HWmin). This position is detected by the level sensor (AQUAswitch®), and is recorded 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 cycle.

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 normal operation.



ACTICLEVER  
control cabinet  
0.5 kWh day for a 6PE

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# ACTICLEVER

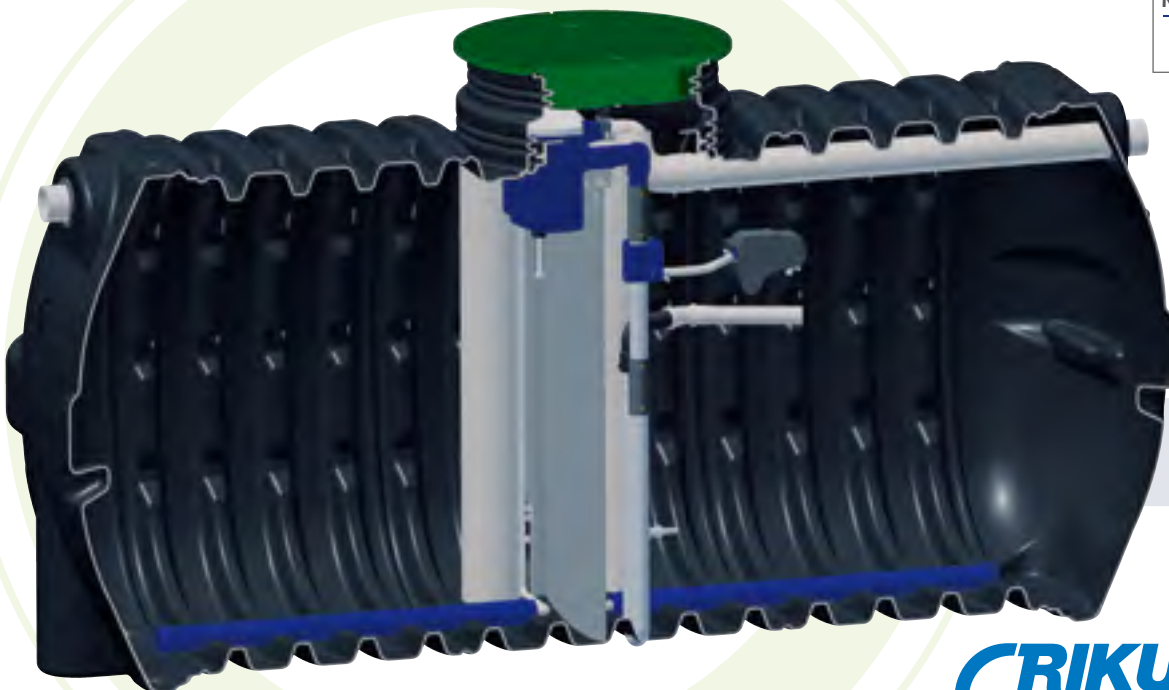
FOR THE TREATMENT  
OF DOMESTIC WASTEWATER  
6PE-9PE-13PE-15PE



## ACTICLEVER<sup>®</sup> Wastewater treatment stations

MINISTERIAL APPROVALS

ACTICLEVER 2018-07



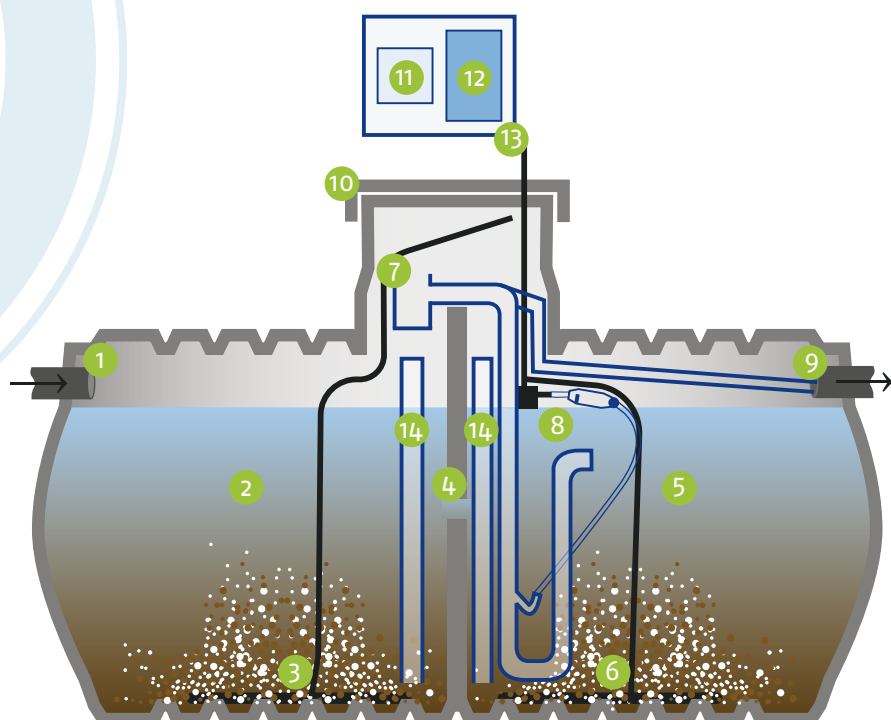
ACTICLEVER 122  
6 PE

# ACTICLEVER

## ⊕ BASIC OPERATING PRINCIPLES OF SBR ACTICLEVER TECHNOLOGY



- 1 Effluent inlet
- 2 First treatment compartment
- 3 Membrane aerator
- 4 Wall with controlled opening
- 5 Second treatment compartment
- 6 Membrane aerator
- 7 Extraction tank for treated effluent
- 8 Floating gate
- 9 Outflow of treated effluent
- 10 Lockable and secure screw-down cover
- 11 Control cabinet
- 12 Membrane compressor
- 13 16 metre flexible air hose, but installation at 10 metres maximum
- 14 Drainage tubes



### L'ACTICLEVER®

The ACTICLEVER® system is a device for treating domestic or similar wastewater, known as an "activated sludge treatment plant", operating according to the SBR (Sequential Batch Reactor) process. It mainly consists of a tank, a control unit and a booster. These two essential components are connected to each other by a 16 metre long flexible air hose, buried in a technical sheath.

All the parts of the ACTICLEVER® system are accessible by means of covers that cannot support pedestrian loads, locked to ensure the protection/safety of users (opening requires a specific tool).

All the materials making up the ACTICLEVER® system are resistant to corrosion thanks to the choice of manufacturing materials (PE, PVC, fastening in class 316 stainless steel).

### Treatment PERFORMANCES:

- COD: 95%
- BOD<sub>5</sub>: 97%
- SS: 96%
- Nitrogen (NH<sub>4</sub><sup>+</sup>): 94%

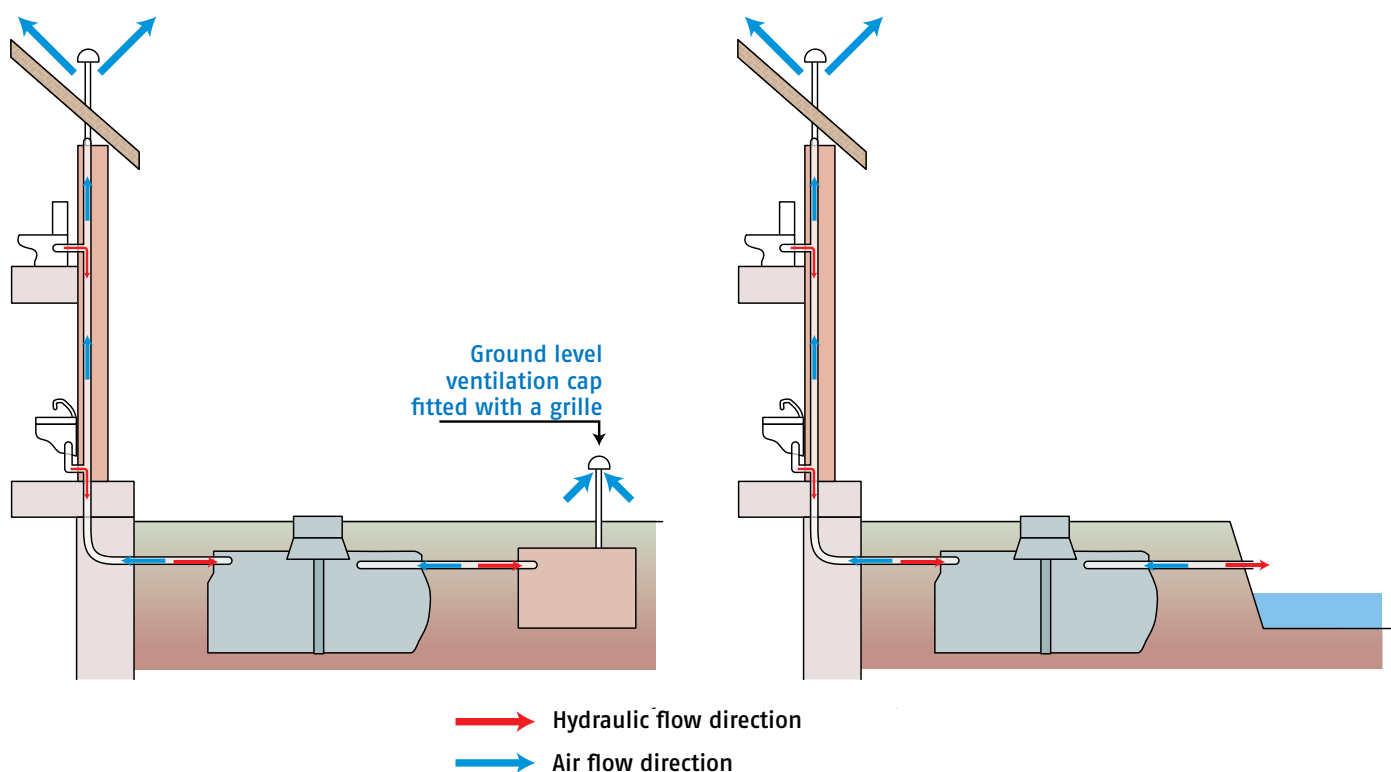
### Dimensions

Item name	Item Code	Total volume m <sup>3</sup>	Capacity EH	Total length mm	Total width mm	Total height with extension mm	Diameter Inlet/Outlet mm	Height Inlet/Outlet mm	Extension optional	Total weight kg
ACTICLEVER 122 4000	37261	4	6	3180	1220	1640 with extension: 1 x D600/H250	D100	1270 / 1220	D600/H150 and/or D600/H300	140
ACTICLEVER 185 25-25 QR	37262	5	9	2771	1850	1690 with extension: 2 x D400/H200	D100	1220 / 1170	D400/H200	200
ACTICLEVER 185 40-40 QR	37263	8	13	4200	1850	1690 with extension: 2 x D400/H200	D100	1220 / 1170	D400/H200	294
ACTICLEVER 185 50-50 QR	37264	10	15	4973	1850	11690 with extension: 2 x D400/H200	D100	1220 / 1170	D400/H200	336

# ACTICLEVER

## ⊕ VENTILATION SBR ACTICLEVER

- Secondary ventilation is not necessary because:
  - there is no anaerobic compartment, so no malodorous gas (H<sub>2</sub>S) or dangerous gas (methane). Aeration (oxygen supply) is permanent. There is free air circulation via the primary ventilation, with the addition of air from the boosters.
  - The ventilation of the ACTICLEVER® system is ensured by the channelling of the waste water flow, extended in primary ventilation within its diameter (100 mm minimum) to the open air, outside and above the inhabited premises. The installation of the ventilation tube will be rising constantly towards the roof (see below).



If the drainage channelling contains an anti-return flap, the diagram on the left applies. The requirements relating to waste water flow channelling are understood within the meaning of standard NF P 40-201 (Reference NF DTU 60.1).

## ○ ACTICLEVER® REGISTRATION

The registration of ACTICLEVER® is carried out following the acceptance of the works by the owner and the installer, by sending Annex B, as set out in the user booklet, within 60 days of installation, or directly to our website:

<https://service.rikutec.fr/enregistr-mon-produit>.

ACTICLEVER® registration enables the user to benefit from the advantages of the ACTICLEVER® maintenance contract offered by RIKUTEC France, and the ACTICLEVER® purification performance guarantee.

# ACTICLEVER

## ⊕ RULES FOR INSTALLING THE ACTICLEVER

**INSTALLING ON PERMEABLE GROUND, STABLE and without the presence of groundwater**  
(Permeability coefficient  $\geq 50$  mm/hr)

**LAYING BED 0.20 m** made of gravel or chippings (2/4 or 4/6)





**THE SURFACE OF THE LAYING BED IS COMPACT**

**SIDE BACKFILL OVER A WIDTH OF 0.20 m** in successive layers, with self-stabilising sand (e.g. limestone sand) or gravel (2/4 or 4/6). The immersion in water is carried out simultaneously with lateral backfilling, to balance pressures.



\* diagram with OPTIONAL additional extension D600/H300

diagram's unit is centimetres (cm)

-  Topsoil stored separately during stripping
-  0/5 neutral raw sand according to NF P11-300 (GTR 92) hydraulically packed
-  Self-stabilising sand (e.g. limestone sand) small gravel (e.g. 2/4 or 4/6) stable
-  Small gravel or chippings (e.g. 2/4 or 4/6)



## WARNING

In difficult soils (e.g. clay, unstable, etc.) the bed and lateral backfilling must be carried out exclusively with stabilised sand (dry mixing of 200 kg of cement for 1m<sup>3</sup> of sand). If groundwater is present (for example a water table or spring water), the user booklet must be consulted.

**INSTALLING ON IMPERMEABLE GROUND or in the presence of groundwater**  
(Permeability coefficient  $\leq 10$  mm/hr)

**LAYING BED 0.20 m** consisting of a reinforced concrete apron (laid at 350 kg/m<sup>3</sup>) and equipped with 4 hooks for hanging by tank. Hooks connected to the wire mesh. Fasteners (straps or lines) will pass through these hooks and the anchor tubes.





**SIDE BACKFILL** over a width of 0.20 m with concrete (350/m<sup>3</sup>) up to the upper part of the tank.

### Installation in impermeable soil or in the presence of groundwater



\* diagram with OPTIONAL additional extension D600/H300

The diagram's unit is centimetres (cm). These are minimum distances.

-  Topsoil stored separately during stripping
-  0/5 neutral raw sand according to NF P11-300 (GTR 92), hydraulically packed
-  Concrete ballast (laid at 250 kg/m<sup>3</sup>) up to the level of the generator of the tank (if extension, add 20 cm)
-  Reinforced concrete apron (laid min. 350 kg/m<sup>3</sup>) with min. 4 anchor hooks (2 per side)