

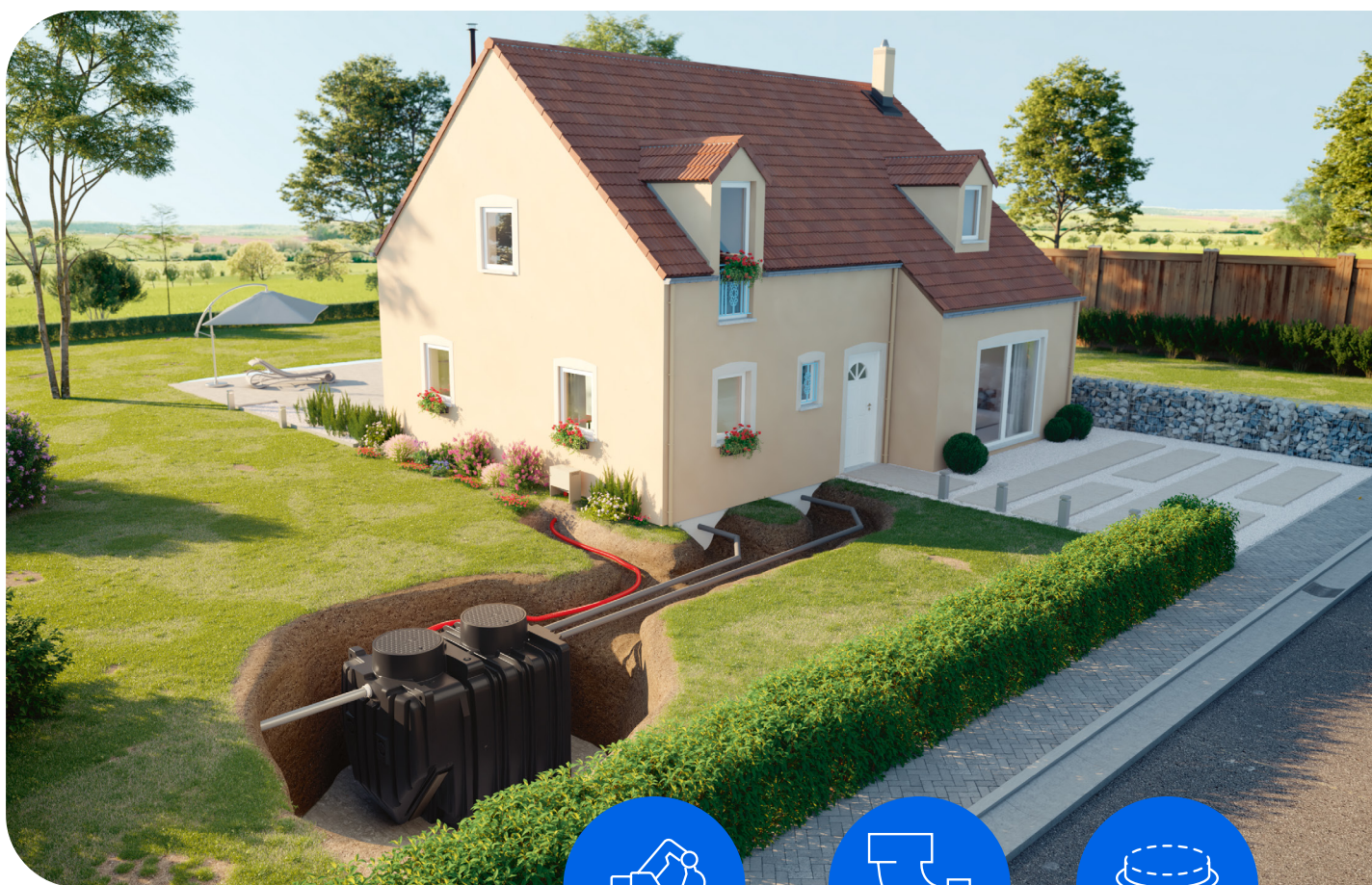
Installation Guide

Discover all our recommendations for your **oxyfix® R-90**



ATTENTION

- The information in this guide does not replace the need to consult the complete **Installation Guide** for the oxyfix® R-90.
- We recommend **following the chronological order** of the steps described in this document to ensure optimal product commissioning.
- Contact your **dealer** if you have difficulty accessing your site or for any technical information regarding your product.



**Installation and
Handling**



Connection



Accessories



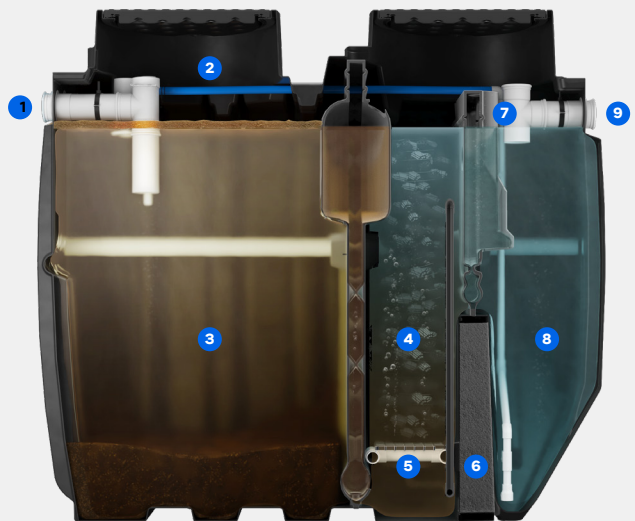
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1 — What parts are included with my product?

oxyfix® R-90 product composition

1. IN/Entry
2. Sludge recirculation
3. Primary settling tank
4. Biological reactor and media (oxybee®)
5. Air diffuser
6. Polystyrene wedge
7. Sampling chamber
8. Clarifier
9. OUT/Outlet



1. IN/Inlet
2. OUT/Outlet
3. Bulkhead fitting – DN63 duct for air supply
4. Polystyrene wedge

 Retain during product installation



1. Integrated 200 mm Risers
2. A15 covers compliant with EN 124-6 standard, delimitation not required
3. Interchangeable ventilation
4. IN/Inlet

Components delivered with your oxyfix® R-90 product



PVC plug DN 110 male
(x1)



20 m éolo connection kit
for the Booster
pump



Booster pump adapted to
your oxyfix® R-90
model



Polyethylene cover A15 ac-
cording to EN 124-6 Ø 600
With lockable key (x2)
)



User guide inserted in
accessories bag



1T strap of 0.5 m
Single use
(x4)



PVC reducers 110/100
(x3)



Polystyrene wedge to be
kept in place during in-
stallation

oxyfix® R-90 model	Booster pump model
OXYFIX® R-90 4 EH	Secoh EL-S-60N
OXYFIX® R-90 5 EH	Secoh EL-S-60N
OXYFIX® R-90 6 EH	Secoh JDK-S-80

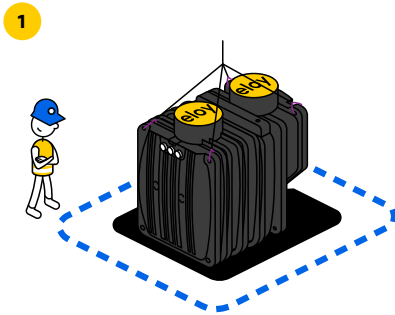


Discover the list
Detailed list of additional
accessories supplied
with your product in the
**TECHNICAL DATA
SHEET**

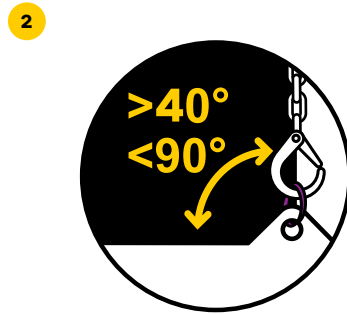


The access covers support an A15 load and do not require additional visual demarcation.

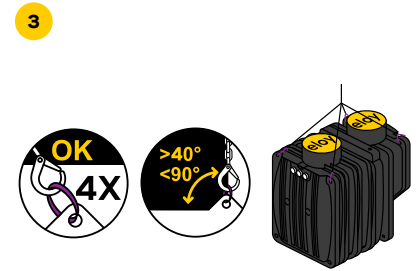
2 — Handling & Logistics



Use four slings of sufficient length.
Do not pass under the tank.



Ensure the correct angles are maintained
at the straps.

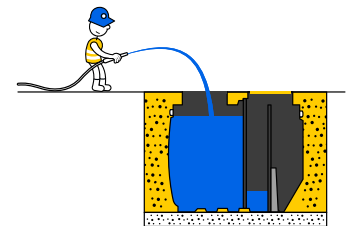


Handle only with hooks
suitable for anchoring.



WARNING

A tank that is not backfilled and is filled with water may deform.
Therefore, filling a tank with water, even partially, is prohibited until it has been backfilled completely around its perimeter and up to the lid level. Fill the tank immediately after completing the backfilling process.



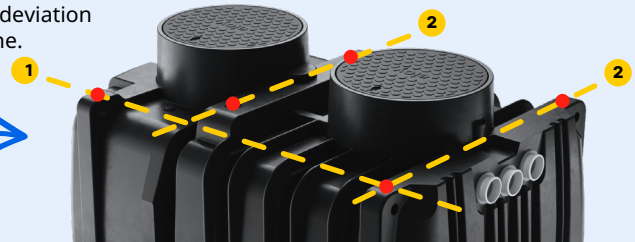
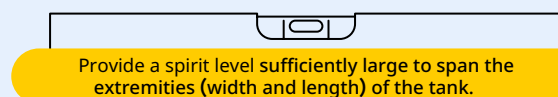
Product	Minimum sling dimensions (cm)	Load per sling (t)		
		Direct placement in excavation Via delivery truck	Unloading with appropriate equipment on level ground	Unloading with appropriate equipment on uneven ground
OXYFIX® R-90	140, with a 40° angle	0,25	0,31	0,62

Use 4 slings certified by an accredited organization and rated for the weight and dimensions of the tank.

Anchor the slings to the 4 straps positioned in the designated rings.

Position the inlet (IN/entrée) for the water supply and the outlet (OUT/sortie) on the discharge side.

Once the tank is positioned, check the flatness deviation. This deviation must not exceed 0.5% along either axis of the installation plane.



WARNING

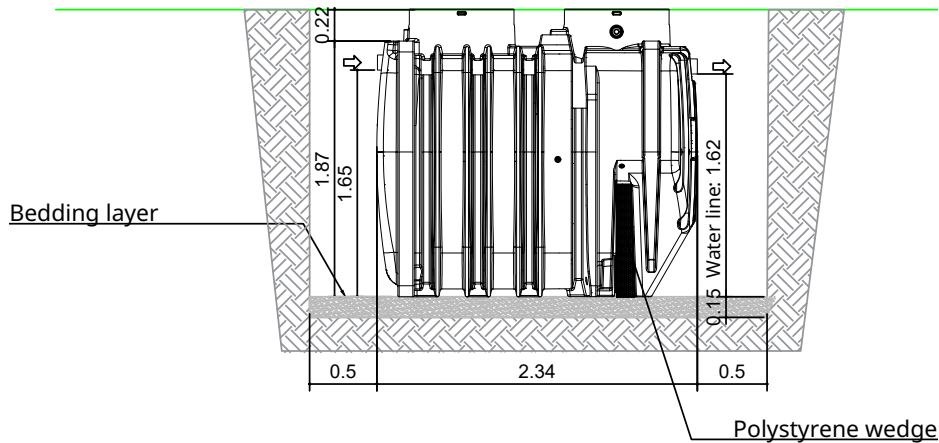
- **Maximum permissible load without a distribution slab:** 50 cm backfill + pedestrian traffic.
- A load distribution slab is required if the backfill is between 50 cm and 1 meter, or if installed under a rolling or static load from a vehicle < 3.5 t.
- **When the backfill height is between 50 and 80 cm**, we strongly recommend installing concrete or polyethylene Risers with a larger cross-section, ideally 80 x 80 cm, to ensure access to all installation equipment.
- When the backfill height is between **80 cm** and a maximum of **1 meter**, it is imperative to provide access manholes with a section of **80 x 80 cm** above both compartments.
- Contact eloy if the system is located near a light vehicle passage with vehicles weighing less than 3.5t.
- **No rolling or static load exceeding 3.5 t is permitted within 3 m** of the oxyfix® R-90.

3 — Earthworks & bedding layer

Minimum 15 cm bedding layer, stable, load-bearing, and level, consisting of:

- Sand (not recommended if a water table is present)
- Gravel with a particle size distribution between 2 and 20 mm
- Stabilized sand dosed at 150 kg/m³ of sand (mandatory where light vehicle traffic is expected)

Maintain a minimum spacing of 50 cm between the tank and the edge of the excavation.



ATTENTION

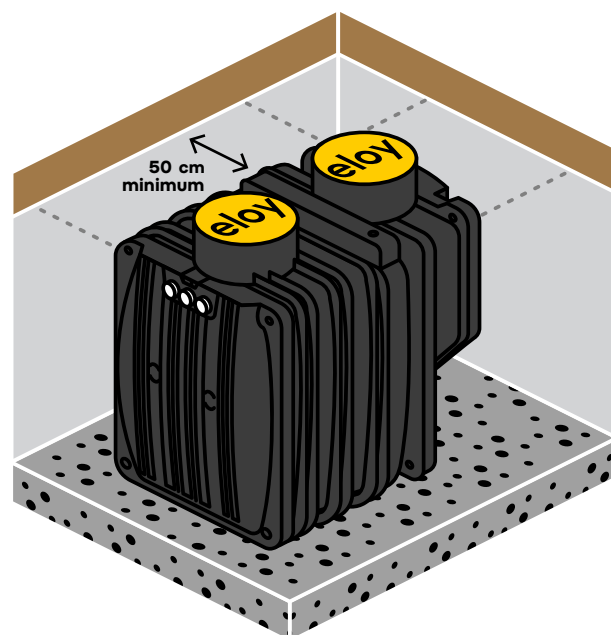
- Ensure the polystyrene wedge is correctly positioned before performing lateral backfill.
- Ensure that the horizontal reinforcements are correctly positioned.



Tank dimensions:
See TECHNICAL DATA SHEET

4 — Installation methods

4.1 — Dry ground



CAUTION: Backfilling with the excavated soil is prohibited.

- A** Final backfill
- B** Lateral backfill - sand or gravel - particle size distribution 0-20 mm - minimum thickness 50 cm
- C** Bedding layer: 15 cm minimum

4.2 — Wet Ground

The diagrams below illustrate the permissible water level in the excavation before the empty tank is at risk of flotation, based on the backfill height above the tank roof.

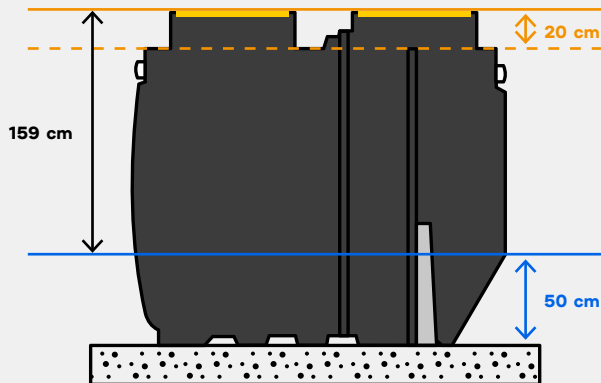
If the permissible groundwater threshold is exceeded, an anchoring slab or ballasting is required to counteract Archimedes' buoyancy.

The water table must never be above the outlet water level (OWL) of the tank.

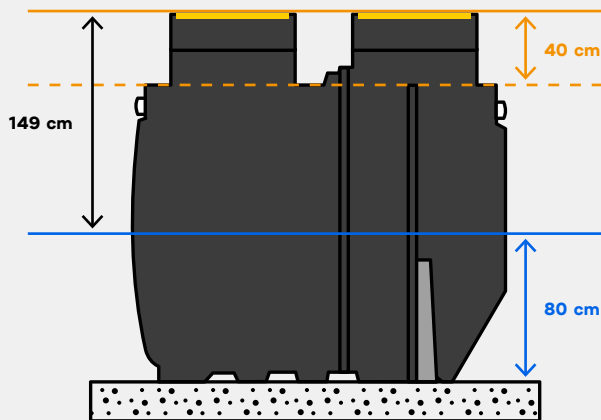


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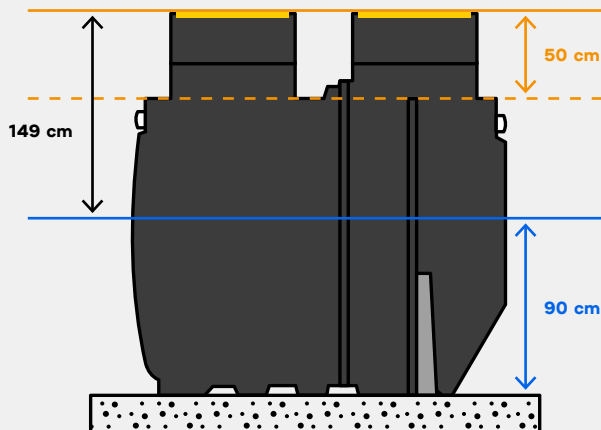
- Installation **in a flood zone is not permitted.**
- Maximum groundwater level: **Below the FES**



20 cm of backfill over the tank
OWL:- 44 cm

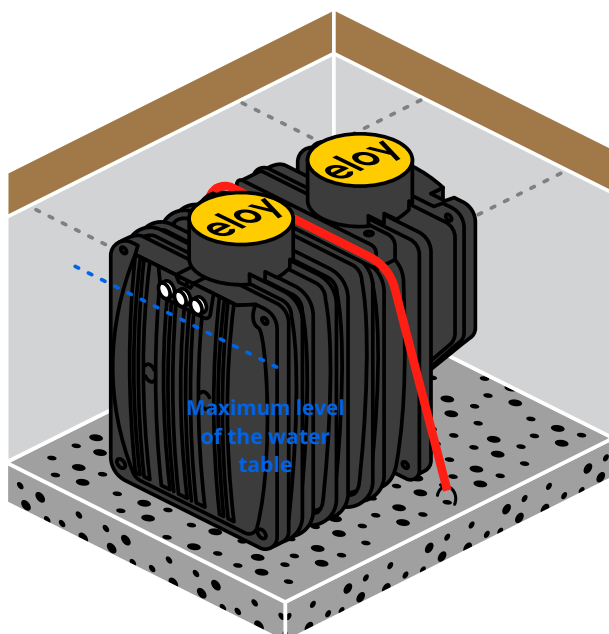


40 cm of backfill over the tank
OWL:- 64 cm



50 cm of backfill over the tank
OWL:- 74 cm

4.2.1 — Anchoring slab



A Final backfill

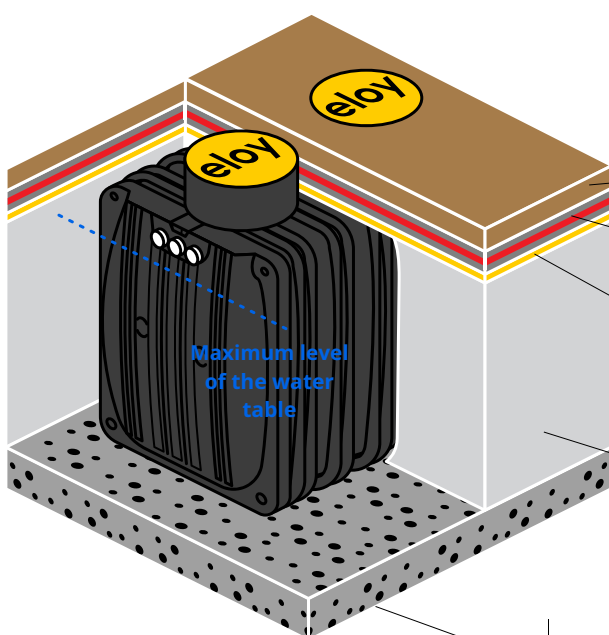
B Lateral backfill - sand or gravel - particle size distribution 0-20 mm - Minimum thickness 50 cm

C Anchoring slab - 15 cm - provide a 5 cm layer of gravel 2/4 or 4/6 gravel between the slab and the tank



For more information on the anchoring kit, **CONSULT YOUR ELOY DEALER**

4.2.2 — Ballast slab



Backfill Finishing

Ballast slab with top reinforcement

Layer of sand covering all Ribs

Lateral backfill - sand or gravel - particle size distribution 0-20 mm - minimum thickness 50 cm

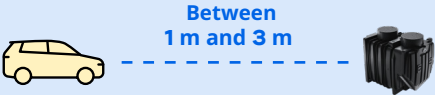
Bedding layer of 15 cm minimum (sand not permitted)



CONTACT US for the calculation of your ballast slab.

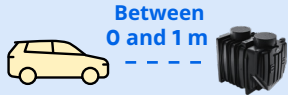
4.3 — Passage under or near a traffic lane

4.3.1 — Installation near a light vehicle crossing



Backfill with stabilized sand
150 kg of cement/m³ of sand

No distribution slab required.



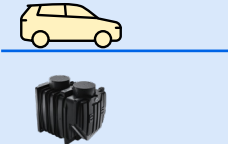
✓ Backfill with stabilized sand
150 kg of cement/m³ of sand

✓ Distribution slab required (see section 4.3.2 below).



WARNING
Heavy vehicle traffic/parking is prohibited within 3 m of the station.

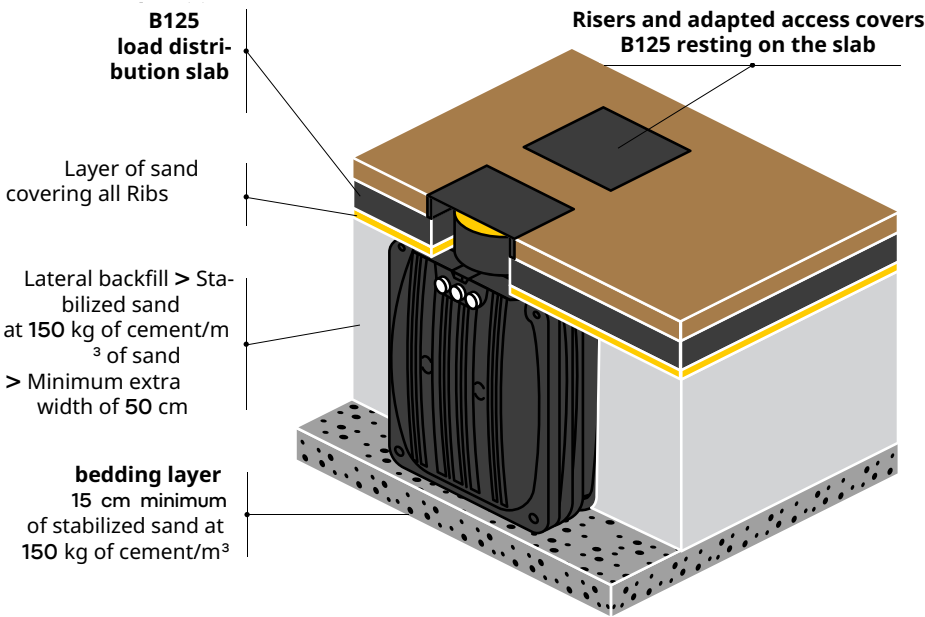
4.3.2 — Passage of vehicles ≤ 3.5 t



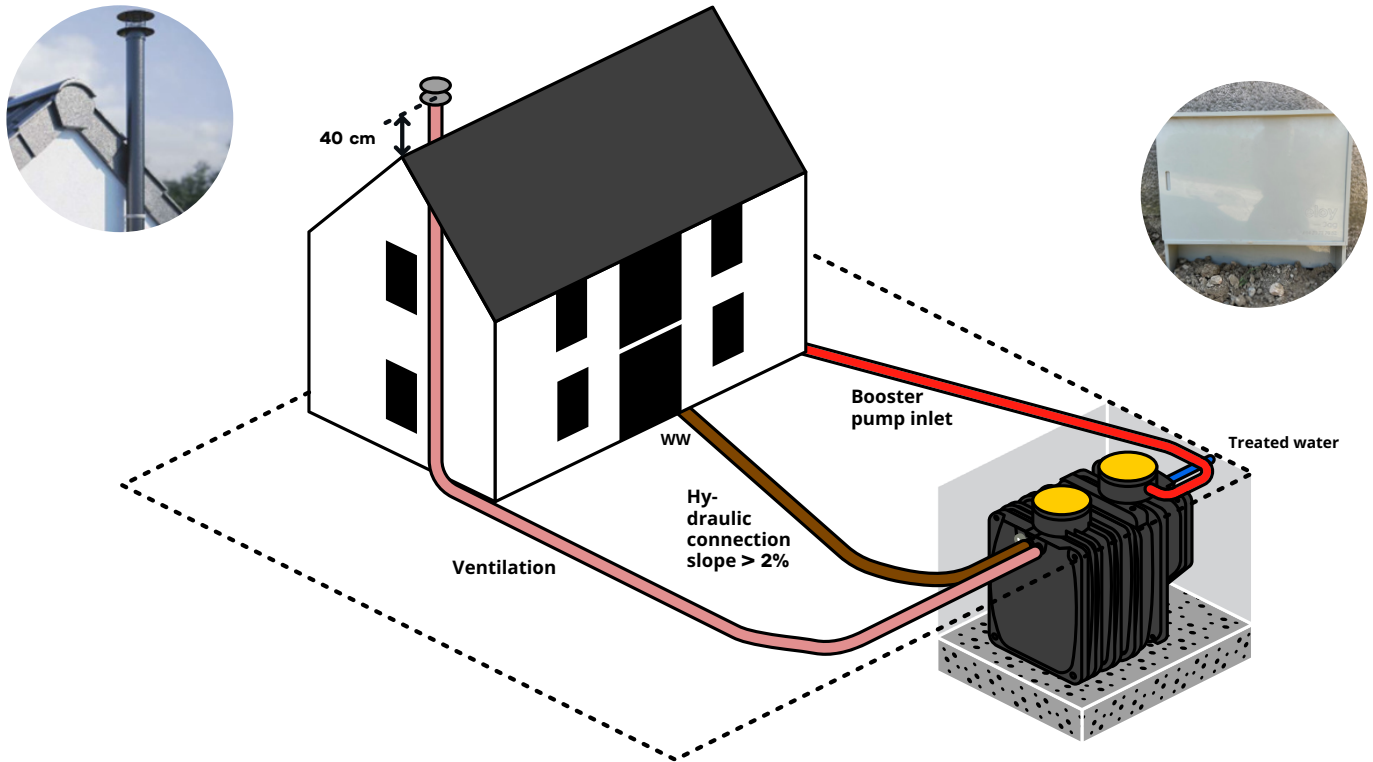
✓ Light vehicle
(B125) traffic and
parking permitted
**WITH a distribution
slab.**



**CONTACT US for the
calculation of
your distribution slab.**



5 — Hydraulic connection & ventilation of the all-in-one septic tank



5.1 — Hydraulic Connection

Prior to commencing the hydraulic connection:

Install the Ø 110 x 100 mm reducers in all inlet/outlet ports of your system. Markings (IN and OUT) indicate the direction of water flow (hydraulic path).

The inlets and outlets will be connected via socket joints to Ø 100 mm PVC pipes.

Particular precautions will be taken to **ensure the complete stability of the backfill area around the inlet and outlet pipes**. It is imperative that these pipes are perfectly secured in place to prevent any subsequent deformation attributable to soil settlement.

If the site's topography does not allow for a consistent slope, it is preferable to utilize the existing terrain, prioritizing the slope upstream of the unit. To facilitate the flow of raw wastewater, a 2% slope (2 cm per meter) is required, whereas treated water can function with a lesser slope.

5.2 — Ventilation

- ✓ **The settler must be equipped with a ventilation system conforming to DTU 641**. Specifically, fermentation gases must be evacuated via a ventilation system equipped with a static or wind-driven extractor, positioned at least 0.40 meters above the roof ridge and at least 1 meter away from any opening or other ventilation source.
- ✓ The air pipe must be at least DN100 and maintain an upward slope.
- ✓ The connection for the gas extraction pipe should be adapted to the site configuration and made at one of the two dedicated locations on the tank, identified by a "VEN" marking. The ventilation pipe terminates at the all-in-one septic tank with a plunging PVC tee.

Option 1

Ventilation tee positioned as delivered from the factory; plug on the right.



Option 2

In this case, invert the ventilation tee; plug on the left.



- ✓ Ensure the ventilation tee inside the unit is securely connected to the designated ventilation tapping.
- ✓ Install the plug provided with the tank onto the unused tapping, ensuring the lip seal is clean and free of any debris that could compromise the seal and fitting.

6 — Blower Installation

- ✓ Position the Booster pump no more than 20 m from the oxyfix® R-90 and above the water level in the Station.
- ✓ Connect the Booster pump to the Station as directly as possible to avoid changes in direction and minimize the bending radii (max. 45°).



- ✓ Install the Booster pump in a clean, dry, temperate, and properly Ventilated technical compartment.
- ✓ Prefer an installation location in a frequently accessed area (garage, laundry room, etc.). The Booster pump has a red indicator light that illuminates to inform the user of a malfunction.



- ✓ The Booster pump can also be installed in a Ventilated outdoor cabinet mounted on a stand. Contact your dealer if you require this outdoor cabinet.



- ✓ Route the eolo pipe through a 63 mm corrugated conduit.
- ✓ Insert the conduit into the bulkhead fitting provided.



- ✓ Remove the red cap.
- ✓ Connect the air pipe to the quick-connect fitting.



- ✓ Cut off any excess pipe, if necessary.
- ✓ Push the rubber nozzle supplied with the booster pump into the air pipe.



- Attach the air pipe to the booster pump outlet.
- Position the hose clamp.
- Connect the booster pump and check for leaks

7 — Accessory installation

Eloy A15 or B125 accessories are available upon request.

Polyethylene A15 EN 124-6 lid and frame resistance



200 mm
+ mechanical fixings



300 mm + me-
chanical fixings
Coming soon



Ø ext. 705 mm

Polyethylene Risers with watertight seals

Polyethylene A15 EN 124-6 lid



**WITH 20 CM OF Backfill, use
the integrated extension**

FEE / GL:- 44 cm



WITH 40 CM OF Backfill
Use a 200 mm extension.

FEE / GL:- 64 cm



**WITH 50 CM OF Backfill, use
a 300 mm extension (soon
available).**

FEE / GL:- 74 cm

- ✓ Position the cover on the integrated extension. After cleaning the surface, place the watertight seal provided with the tank around the access point, avoiding the 3 inserts.

Place the 200 mm or 300 mm extension on the seal.

Tighten the lag screws provided with the extension from the inside to compress the seal.

Position the cover on the integrated extension and lock it by turning it a quarter turn with the provided key.



Our accessories are certified A15 according to EN124-6.
No visual demarcation is necessary upon installation.

8 — Conclusion

8.1 — Finishing and Adjustment

Continue backfilling to the base of the Risers, then finish with topsoil or excavated soil free of stones.

Continue surface backfilling to a sufficient height to compensate for external settlement.

All covers and closing mechanisms must be visible and flush with the finished ground level, preventing the ingress of runoff water.

Only backfill the micro-treatment plant when:

Fill the micro-treatment plant with clean water via the primary settling tank until all three compartments are full and water discharges from the tank through the outlet pipe.

Connect the booster pump to its electrical power supply and ensure continuous operation.

Verify that fine bubbles are visible on the surface of the biological reactor (central compartment) and that the airlift recirculates water from the clarifier to the settler.

Your micro-treatment plant is now operational!

8.2 — Commissioning checklist



Commissioning

xyfix® R-90

		REMARKS
EXTERIOR	☐ Secondary ventilation connected to the primary settling tank, and presence of a static or wind-driven extractor on the roof (without back slope)	
	☐ The air hose is protected within a 63 mm diameter sheath integrated into the bulkhead fitting.	
GENERAL PRODUCT	☐ The Risers are sealed to the tank.	
	☐ Level tank (0.5% tolerance on both axes of the installation plane)	
	☐ Fill the product (settler / reactor / clarifier) with clear water	
SETTLER PRIMARY	☐ Product nameplate present	
	☐ PVC reinforcements are present and correctly positioned.	
	☐ Once the booster pump is running, there is good water recirculation from the clarifier.	
	☐ The ventilation tee in the primary settling tank is correctly installed on the VENT outlet.	
REACTOR BIOLOGICAL	☐ The protective cap has been removed from the Geka fitting.	
	☐ Air hose properly connected and no air leakage during booster pump start-up	
	☐ Homogeneous fine bubble aeration in the reactor compartment	
CLARIFIER CATEUR	☐ No bubbling is observed in the compartment.	
	☐ Free discharge into the outlet Tee	
BOOSTER PUMP	☐ Distance between the booster pump and the reactor Less than or equal to 20 meters	
	☐ The booster pump is installed above the water level in the tank.	
	☐ The booster pump is installed in a dry, ventilated room and on a stable, resonance-free support.	
	☐ Verify that the serial number matches that of the station.	
	☐ No air leaks are present (hose clamps, seals).	

Particular precautions must be taken to ensure the backfill area around the inlet and outlet pipes is perfectly stable. It is imperative that these pipes are securely held in place to prevent any subsequent deformation attributable to ground settlement.

PLACE - DATE



After proper commissioning of the system, it is mandatory to provide the end customer with the USER GUIDE and the PRODUCT IDENTITY CARD.

8.3 — Warranty extension & 1st free maintenance

Enable your customers to benefit from their 1st free maintenance and warranty extension!

— How?

Register the installation with eloy water within **6 months** of commissioning via the website (eloywater.com), provide the product identity card to your excavator, or return it to eloy water or your sales representative.

The identity card is located in the plastic pouch installed within the Station.

Complete this card with the customer's information and return it to your eloy water partner.



As a reminder, the serial number of your oxyfix® is located on the identification plate in the first compartment (settler) and is also inscribed on the Booster pump.

- ✓ For optimal, economical, and lasting use of your oxyfix® R-90, we strongly advise reading the user guide, which is also included in the pouch.
- ✓ We also advise regularly maintaining your oxyfix® R-90. eloy water has developed a network of Certified Operators ensuring professional maintenance of eloy water products. For more information, please contact your Certified Operator. Contact details can be found on our website eloywater.com or by calling the following number: **01 80 96 38 40**

