Greywater recovery system
Water a precious good

With REDI greywater recovery system it is possible to reduce drinking water consumption in a building up to 50%

Redi has developed a compact system that allows the reuse the water coming from showers and sinks (greywater). Thanks to this system, considering the typical uses in a residential building, a reduction in drinking water consumptions even over 50% is achieved.

From a research based on Istat data, it is possible to estimate that between 2007 and 2015 the average increase of drinking water rates exceeded 35%.

This trend will continue in the next years, taking us closer to the European average.

From one single-family house up to a big residential and commercial building complex, today it is necessary to take an attitude of responsibility on the water issue. Reducing drinking water consumption is an individual and collective concern, from which great benefits can be obtained. Water is a limited source of which we often forget the value, both in ethical and economical terms.

Today architecture must consider the sustainability of buildings, and this is the requirement that REDI is responding to through solutions for rainwater and greywater (coming from washbasin, bidet and shower) recovery and reuse.

Drinking water average consumption in a house

- Toilet flush 29%
- Food 13%
- Dishwasher 6%
- Car wash 3%
- Irrigation 7%
- Washing machine 12%
- Stall/tub 30%

Water used for personal hygiene, equal to 30% of the average consumption in a house, can be reused.
Reducing water consumption what to do?
Using alternative sources when drinking water is not needed

For what is drinking water not needed?

- Toilet flush
- Car wash
- Outdoor areas cleaning
- Irrigation
- Washing machine

For these applications filtered, sanitized, recovered from greywater and rainwater water can be used.

Wastewater used for personal hygiene (greywater) are taken back to a hygienically pure status through a multiple process, biological treatment, ultrafiltration and UV sterilization. Treated water responds to the EU Law requirements for bathing water and can be reused for:

- UV: Primary filter + oxidation + ultrafiltration
- S: Storage
- FM: Multi-stage filter + Activated carbon
- UV: UV rays disinfection

Depuration stages

Thanks to the compactness of the REDI system, which is pre-assembled in factory, installing it is easier and safer. The machine is designed for very low maintenance and operating costs, thanks to the automatic backwash system and the easily accessible construction for maintenance.
Why *choosing* REDI greywater recovery and reuse system?

REDI greywater treatment and recovery system is characterized by:

- **Small size**
- **Ideal for residential context**
- **Fast to install and easy to use**
- **Contributes to Energetic Classification**
- **Compliant with European directives**

Houses equipped with energy saving systems maintain more their value over time. In fact, the current trend in buildings is a price upturn of houses built on energy class with new technologies.

REDI systems comply with the European directives currently existing in this field.

**REDI makes easy the complex things:**

- **Just ready**
  The system is pre-assembled, ready to be connected, and reduces the time needed for installation in the construction site.

- **Safe**
  The system is completely automatic and can be controlled remotely.

- **Smart**
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- **Filtration system**
  The new-generation filters keep their performance high over time, making maintenance intervals longer.

- **Silent**
  The membrane air compressor strongly increases acoustic comfort.

- **Easy to choose**
  Packs are available, already sized based on the number of users.

- **Minimum operating energy consumption**
  Very low operating costs.

- **Self-cleaning**
  Il ciclo di contro-lavaggio automatico, mantiene le membrane pulite, i residui sono inviati direttamente allo scarico in fognatura.

- **Compact**
  Dimension optimization and integration of components strongly reduce its total size and it can be shipped in a single solution.

- **Minimal maintenance**
  Only a single chemical wash of the membrane every 12/18 months is expected.
REDI solution is innovative for all the business operators

**Designers**
easier to choose the most suitable solution, it simplifies the design process and contributes to energy certification.

**Installers**
pre-assembled system ready to be installed.

**Owner**
it increases the value of the building and reduces consumptions.

A **Turnkey** solution

Redi offers to its customers a **“Turnkey”** solution, dealing with the project, installation and assembly. Personalized solutions, preliminarily meeting the customer, reaching the place for on-the-spot investigations and collaborates with the technicians assigned for the definition of the most suitable choice.

- Preliminary on-the-spot investigations
- Tailored solutions for the project
- Complete realization
- Turnkey delivery

Each project and system are a unique need, since the context situations are different: the territory with its hydrogeological characteristics, regional legislations and local regulations. The needs and goals to achieve change accordingly with the customer’s needs, the approach to the problem and the level of satisfaction that is meant to be achieved.

REDI assists its own customer from the design phase of the system, to its installation and operation, offering to the professionals in the sector its own know-how, qualified personnel, advising and constant training.