

Advantages of Johkasou As Decentralized System

As small-scale Johkasou can be installed on a household level and treat and discharge wastewater locally, these have remarkable advantages compared to sewerage systems from the perspective of protecting the local aquatic environment and offering better cost-benefit performance.

Advantages of Johkasou systems are:

i. Low initial investment cost

As small-scale Johkasou are mass-produced, the price of Johkasou can be maintained at an acceptable level for individuals or households. A Johkasou can be installed in a small, unused space.

ii. Little topographic limitation, short installation time and early realization of the effects

As a small-scale Johkasou can be installed in a small, spare space equivalent of a parking spot and the inflow pipes are short, there are few topographic limitations when it comes to the installation of small-scale Johkasou. It takes only a week for a typical installation. Moreover, when the Johkasou begins functioning, its effect on wastewater treatment is evident immediately.

iii. Invaluable contribution to maintaining sufficient water amount in small rivers and aquatic environments near inhabited areas

As the effluent of Johkasou is discharged onsite to surrounding small rivers through drainpipes, it contributes to maintaining sufficient amounts of water in small rivers, enhancing water circulation in local areas, and does not damage the natural scenery.

iv. Treated water and sludge from Johkasou are easy to reuse

As Johkasou are basically designed to treat domestic wastewater from individual houses, there are few toxic substances in Johkasou-treated water and sludge. This makes possible to reuse these substances for various purposes.

v. Less vulnerable to earthquakes and other disasters

When earthquakes or other disasters strike, a Johkasou can start functioning again very soon, as it has neither a complicated piping system nor enormous mechanical apparatus.

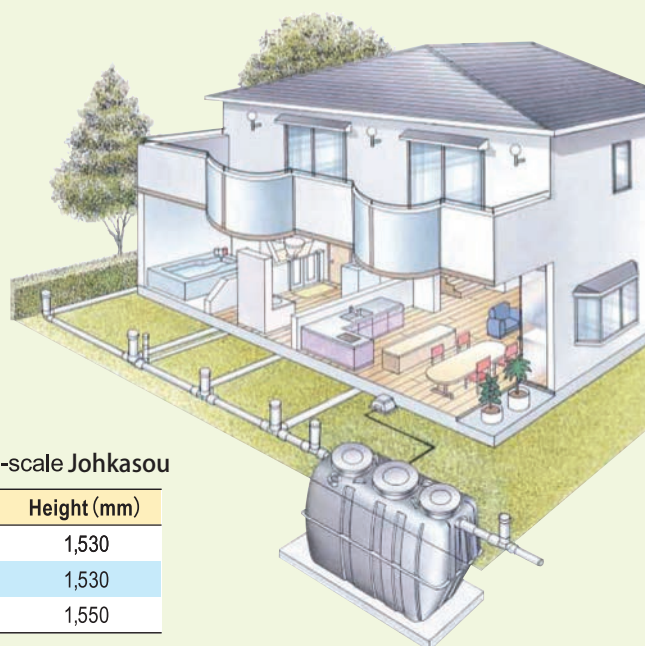
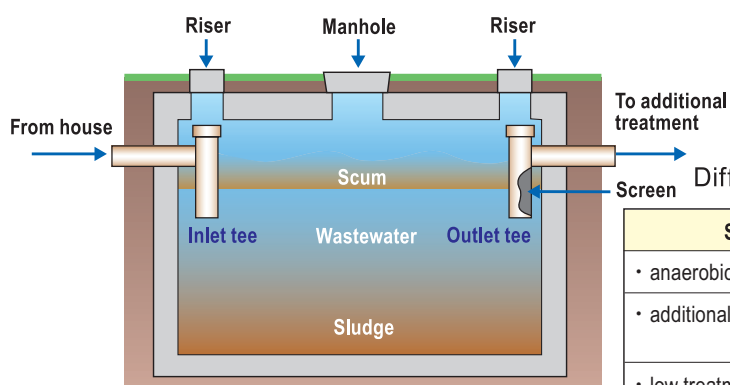


Table 3 An example of dimensions of small-scale Johkasou

	Width (mm)	Length (mm)	Height (mm)
5 PE	980	1,580	1,530
7 PE	980	2,120	1,530
10 PE	1,200	2,790	1,550

Column 5 Decentralized system overseas: Septic Tank



In other countries, septic tanks are installed for domestic wastewater treatment. In the United States, effluent from septic tanks are usually further treated through a drainfield.

Differences between septic tanks and Johkasou

Septic tank	Johkasou
• anaerobic treatment	• anaerobic / aerobic treatment
• additional treatment is necessary	• effluent can be discharged on-site to public water
• low treatment performance (low BOD removal ratio)	• high treatment performance (90% or more BOD removal ratio). • nitrogen and /or phosphorus removal types are available.