

Sewerage System: Comparison between Vacuum and Septic Tank Systems

| | Vacuum | Septic tanks |
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| 1 | Tight system – no risk of smell along houses and pipes | Open system - Odours may occur |
| 2 | No exfiltration possible - Protection groundwater | Indirect pollution of groundwater – risk of infection from water - Exfiltration from the concrete tanks into the ground possible and holey after few years only |
| 3 | Continuous aeration of the system – less gas is developed | Anaerobic processes – gases are produced and must be vented |
| 4 | System is not malfunctioning by certain composition of wastewater | Sensitive system – Food items, too much grease, cooking oil or fat may greatly reduce the efficiency of the system. |
| 5 | High flow capacity and velocity – No fresh water required for flushing | Excess load (when more people are in the house) could result in materials moving through the system too quickly to be decomposed → blocking may occur and cleanings become necessary |
| 6 | Few space required for the collection chamber | Some cubic meters of space required close to every house |
| 7 | Centralized maintenance at vacuum station only | Decentral maintenance at every house necessary. Risk that professional maintenance is not achieved |
| 8 | Full control of the flows and system | Full decentralized control almost impossible |
| 9 | No contact with effluents during maintenance | Tank has to be opened when maintained – contact with effluents for people |
| 10 | No maintenance needed for the collection chambers. Annual control only | Tanks have to be cleaned frequently by vacuum cleaners |
| 11 | No dependence on external circumstances | Purification effect varying – depending on many external circumstances |

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| 12 | No contamination of surface or groundwater. Even common laying of freshwater pipe and vacuum sewer possible to save costs | Direct contamination of surface and groundwater in case of overflow |
| 13 | More independence from gravity slope. Cheaper pipe laying. | Always slope between house outlet and septic tank required |