Sewerage System: Comparison between Vacuum and Pressure Systems

	Vacuum	Pressure
1	Absolute protection of the ground-water, no leakage of wastewater out of the pipelines no contamination of the ground-water	Defective/untight pipelines leakage contamination
2	Closed system, separation system: no entry of external water quantities	No separation system
3	Layout of vacuum lines and drinking water lines in the same trench	No possibility of layout together in one trench
4	The system checks itself on tightness and no special tightness check – as legally required - has to be done	No self-check, tightness test must be done in regular intervals
5	Spatial separation of wastewater collection chamber and evacuation valve. The service personnel has no contact with the wastewater (hygienic working conditions)	No spatial separation
6	Wastewater collection chamber is completely emptied at each evacuation process, no remnant water quantities, no fouling of the wastewater	The advantages on the left-side are not existing
7	Maintenance-free chamber	Chamber must be cleansed regularly (sedimentation!)
8	Permanent air inlet no fouling of wastewater	No air inlet fouling possible
9	The suctioned air avoids formation of sulphur hydrogen agent and prevents from sulphur acid corrosion in subsequent constructions	No suctioned air
10	No electrical current connection	Electrical current connection necessary
11	System is checked from one single operation point (vacuum station)	No central check
12	Simple mounting and maintenance of the valves; valve-exchange only needs a flick of the wrist!	Work-intensive mounting and maintenance efforts

13	All work processes can be done by the staff themselves	More work-intensive processes which cannot be settled any more by the personnel
14	Eventually incurring untightnesses can be exactly localised on the millimetre.	Exact leakage detection is not very easy
15	No electrical current in the surroundings, no starting problems inside the vacuum station	Starting problems in case of power failure
16	Low electrical current requirements in the vacuum station	Often insufficient power systems or overloaded electrical current nets
17	Due to air suction no fouling of the wastewater	Device for additional blowing required because of fouling wastewater
18	No power connection in case of house connections	Houses at the end of the trunk need more electrical power – problems in calculation
19	Low maintenance costs	Relatively high maintenance costs