

Decanters – Floating, Fixed, Supernatant or Effluent

Floating Effluent Decanter

The floating effluent decanter from Siemens Water Technologies is the only true effluent decanter in the industry that does not utilize electro-mechanical equipment in the basin. This state-of-the-art design utilizes multiple orifices to keep velocities at a minimum and pulls from below the water surface to eliminate the possibility of entraining floatables.

The floating effluent decanter floats up and down with the changing water levels allowing the solids excluding valves to keep suspended solids from entering the decanter. The effluent withdrawal is typically 18"- 24" beneath the water surface, therefore preventing the entrainment of surface scum, floating debris and foam. The opening of the effluent valve can be initiated manually or by the control feature. Opening the valve creates a hydraulic differential, causing the spring-loaded plugs to open, allowing the treated effluent to enter the decanter where it flows by gravity to its destination.

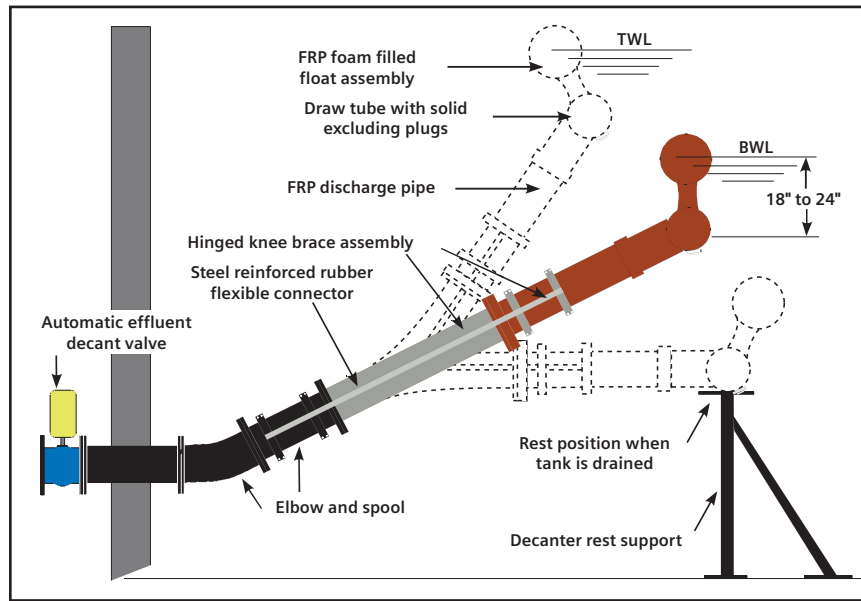
The decanter is comprised of a fiberglass reinforced plastic float and draw tube with stainless steel spring loaded solids excluding valves, a heavy duty wire reinforced flexible hose, steel knee brace, and elbow which connects the decanter to the wall sleeve in the basin. The decanter's horizontal movement is restricted by the hinged knee brace assembly, which is attached above and below the flexible hose. The decanter comes to rest on a support assembly when the liquid goes below the bottom liquid level or the basin is drained.



Advantages:

- No-electro-mechanical equipment in the basin
- Maintenance free
- Excludes floatables
- Constructed of high quality, corrosive resistant materials
- Years of reliable operating experience
- Simple safe operation
- Manual override
- Consistent performance

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Fixed Decanter

Although the floating decanter offers flexibility over a wide range of operating conditions, a fixed decanter is often suitable for applications which require little variation in operating depth. The fixed decanter operates similarly to the floating decanter, except it is attached to the basin wall at a fixed elevation, below the bottom water level. This eliminates the flexible hose connector, knee brace, and decanter rest support. In sequencing batch reactor (SBR) applications, the fixed decanter requires the availability of a longer settling time since the solids must settle below the bottom water level before decanting.

Supernatant Decanter

The supernatant decanter is constructed similarly to the effluent decanter, however it does not contain the spring loaded valves. This type of decanter is installed in applications when it is not important if some solids are left in the decanted effluent, such as supernatant from aerobic digesters, which is usually returned to the headworks of a treatment plant.

Materials of Construction

Siemens decanters are constructed of high quality, durable, corrosive resistant materials. Our design provides a simple safe operation with a manual override that is unique in the industry. With the elimination of electro-mechanical equipment in the basin the decanter requires no routine maintenance.

With years of reliable operating experience, contact us today to discuss your wastewater treatment application.



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