Western Water Products

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Above Ground Clarifiers





What is a Clarifier?

Multi-Compartment Clarifiers are essential in many water recovery systems and help as a first-step in a water treatment process for both water reuse or discharge applications. Functionally, clarifiers force the water to dwell for a period of time in the multiple chambers of the clarifier and to change direction of the flow path. This process forces sediment to drop out and allows free oils to separate from the water and rise to the surface. Solids and oils are thereby trapped in the compartments for later removal.

The traditional method for adapting a clarifier to an application is to locate a concrete vault, which is separated into a minimum of three compartments, in the ground and allow the water to enter, pass through and exit the clarifier by gravity flow. The water can then flow downstream and be discharged to sewer or be pulled from the cleanest chamber for further filtration for reuse.

Disadvantages associated with Below Ground Clarifier Systems:

- 1. Clarifiers require permitting for installations and permits to operate.
- 2. Clarifiers require frequent inspection by a responsible government agency.
- 3. Clarifiers are large, heavy and typically have to be installed by a contractor.
- 4. Clarifiers are not easy to clean. They often require a hazardous materials waste hauler to pump them out on a regular basis.
- 5. Pumping out clarifiers can be expensive and may require waste manifests be filled out making the source generator liable from "cradle to Grave"
- 6. In below ground systems, there is no simple way to remove the free floating oil and sludge build-up very easily and leave the water.
- 7. Clarifiers cannot be readily moved to another location. It's difficult to do, can be expensive and may require additional permits.
- 8. Abandoning a clarifier is not easy to do either. Permits are required, and governmental agency notification is mandatory, or it may not even be allowed.

How can you get around most of these issues?

Manufactured of ASTM certified materials, Above Ground Clarifier (AGC) Systems provide an alternative for many of the problems associated with operating a Below Ground Clarifier.

A simple Above Ground Clarifier consists of a minimum of three specially designed tanks located above ground and plumbed together in such a manner as to achieve the similar dwell time and directional flow changes experienced in a below ground system. However, unlike a below ground system, it does not require the extensive construction cost associated with installing a below ground system. AGC Systems can usually reach the sewer by gravity, or the water can be pumped to sewer or into holding tanks from a collection point.

Advantages of an Above Ground Clarifier System:

- 1. Installation and use permits are not normally required.
- 2. Operational permits are not usually required.
- 3. Above Ground Clarifiers are inexpensive to purchase and inexpensive to operate.
- 4. Above Ground Clarifiers are easy to install and can be relocated easily.
- 5. Above Ground Clarifiers are easy to maintain and clean.
- 6. Abandoning these systems is usually not a problem. They can usually be "retired from service" without obtaining permits or advising governmental agencies.
- 7. Pumping out Above Ground Clarifiers is not necessary.
 - 1. Conical shaped tanks allow sediment to be easily purged into an above ground sludge hopper for easy disposal. Purging can be Manual or Automatic.
 - 2. Free-floating oils can be easily accessed from the tops of the tanks and removed or drained out through a skimmer valve on the tank sides.
 - 3. Water can be used for longer periods of time, if part of a recycling system.
- 8. Options can easily be added to ENHANCE solids settling and oil water separation.

Common Models Available

MODEL NUMBER	TANK CAPACITY	TOTAL CAPACITY	LENGTH	DEPTH	HEIGHT
AGC-300	(3) 100 Gallon	300 Gallon	14'	42"	60"
AGC-600	(3) 200 Gallon	600 Gallon	18'	48"	80"
AGC-825	(3) 275 Gallon	875 Gallon	20'	48"	75"

Clarifiers are available in 1 to 6 stage tank designs

Clarifier Options:

- Oil Coalescers in one or more tanks
- Oil Bleed-off Valves in one or more tanks
- Stainless Steel Stands for all tanks (standard is painted steel stands)
- ALL POLY Tanks and Stands
- Ozonation/Aeration for odor and bacteria control for one or more tanks
- Auto Timed Sediment Dump Valves on each Cone Bottom Tank

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