WEMCO® Pre-rotation basin







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Simple and Economical

The WEMCO Pre-rotation Basin was designed to direct flow to the tangential entrance channel. The direction of flow through the channel creates a rotation of the fluid inside the prerotation basin, before it enters the pump. The rotation of the fluid inside the basin folds floatable solids off the surface and into the pump flow stream, allowing removal from the wet well. The rotation also breaks up surface vortices, allowing a much lower minimum operating level than with conventional submersible pump stations. This lower operating level scours the bottom of the wet well, re-suspending settled solids so they too, can be removed from the wet well. The combination of removing the floating and suspended solids results in a wet well that automatically cleans itself every time the prerotation pump runs through its operating cycle.



Benefits

- Eliminates expensive vacuum truck cleaning and labor costs
- Reduces odor, gas and corrosion •
- Floatables are folded into the suction of the pump
- Settled solids are carried to the pump •
- Lower overall energy use than variable speed installations .
- Less capital investment than other systems •
- Less maintenance than traditional wet well installations .
- Straightforward controls
- No manual, labor intensive, and time consuming wet-well wash-down .
- Easy retrofit to existing stations •
- Built-in shelf supports and anchors the base elbow of the submersible pump, properly aligning the pump to the basin .
- Lightweight fiberglass basins are filled with concrete during on-site construction, eliminating expensive transportation costs

Installation Benefits

- Maximum flexibility in site specific, individual applications •
- Operates with or without a VFD
- Permanent or temporary mounting options
- Slide rails allow pump removal without entering wet well
- Discharge elbow mounted at a level that provides maximum skimming capability





Step 1: Place fiberglass shell upside down on a prepared surface



Step 2: Surface should protect lifting eye (sand, soft earth or blocks of wood)



Step 4: Fill shell with concrete mix



Step 7: After concrete has cured, use hoist plate* / fastout device** and suitable rigging*** to turn basin right-side up



Step 5: Multiple shells may be filled simultaneously



Step 8: Place protective surface in appropriate location before turning*** concrete filled basin right-side up



- <<Step 10: If using hoist plate*, install fastout device on basin using existing hardware. Proceed to lower*** basin / fastout assembly into wet-well. When lowering basin / fastout assembly into pit, use lifting rigging*** with three hooks to maintain a level basin
- >>Step 11: Fill with concrete around basins per final approved general arrangement drawings



Step 3: Shim as needed to clear the lifting eyes



Step 6: Settle and level base of fiberglass shell, allow concrete to cure



Step 9: Once concrete filled basin is resting in a vertical position, switch lifting rigging from single hoist plate* / fastout device** to double lifting eyes. Do <u>NOT</u> lift basin! Slowly lower basin to rest upright on level ground***







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