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to industry, globally



5 reasons to use self-priming pumps instead of submersible pumps in pits



When it comes to selecting a pump for septic tank drainage, the most commonly chosen option is the submersible pump. However, these devices often require frequent interventions due to seal failures, abrasion, corrosion or blockages when pumping fluids with large suspended solids.

Here are five reasons to choose self-priming pumps over submersible pumps for septic tank applications:

1. External motor placement ensures reliability and lower investment costs. Keeping the motor separate from the fluid being pumped or handled ensures higher operational reliability. Direct exposure of the motor to the fluid could result in premature wear, corrosion or other issues negatively impacting performance and lifespan. Simultaneously, the motors of submersible pumps often entail higher costs compared to self-priming pumps, both in terms of acquisition and maintenance.
2. Chemical compatibility/corrosion resistance. Every part in contact with the fluid (pump head) of the self-priming pump can be coated with ETFE, stainless steel, or duplex. Submersible pumps are typically constructed of cast iron or, rarely, stainless steel. In these cases, being fully immersed in the fluid exposes both the pump and the motor to corrosion.
3. Maintenance costs. Self-priming pumps may experience seal breaks due to wear, but the cost and impact of replacing this part are much lower compared to replacing a mechanical seal and rewinding the motor of a submersible pump. When the seal breaks in a submersible pump, the fluid often enters the motor, burning it out entirely. This does not happen with a self-priming pump since the motor is separate from the pump.
4. Reliability in challenging applications (solid passage). Self-priming pumps allow for the passage of large solids. In the event of a blockage with rags or fibers, access to the impeller is quickly gained through the equipment's access cover, without dismantling or removing it from its position.
5. Ease of maintenance inspecting and maintaining a pump that is not submerged in the fluid is easier and faster. This provides significant time and budget savings.