

Wilo USA Blog

Harnessing Nature's Bounty: Rainwater Reclamation System Powers Sustainability at Wilo USA

In an era where environmental consciousness is paramount, businesses are increasingly adopting sustainable practices to reduce their ecological footprint. At Wilo North America's headquarters located in Cedarburg, WI we have taken a significant step towards eco-friendliness with the implementation of a cutting-edge Rainwater Reclamation System as part of our broader sustainability initiatives.

The Initiative

In 2020, we embarked on a journey to enhance the sustainability of our operations, and one notable project stands out — the Rainwater Reclamation System. This innovative system is strategically designed to provide makeup water for our water pump test lab (*Shown in Figure 1*), showcasing a commitment to efficiency, resource conservation, and environmental responsibility.



Figure 1: Wilo USA Test Pit

How it Works

The Rainwater Reclamation System (*Shown in Figure 2*) ingeniously collects rainwater through a roof drain, channeling it into a carefully engineered filtration process. Before entering the system, the rainwater undergoes a thorough debris removal process, ensuring that it meets the highest standards of purity. The filtered rainwater is then stored in a substantial 3900-gallon holding tank situated within the test area.



Figure 2: Wilo USA Rainwater Collection Tank & QuantumFlo Booster Pump

The core functionality of the system comes into play when a sensor in the test pit detects a drop in water levels to a predefined minimum. This triggers our state-of-the-art QuantumFlo rainwater harvesting system to kick into action, pumping the stored rainwater into the test pit. This process not only ensures a consistent water supply for our test lab but also showcases the seamless integration of technology with sustainability goals.

Advanced Filtration and Disinfection

Once in the test pit, the reclaimed rainwater undergoes an additional purification process to meet the stringent quality requirements of our operations. A combination of cartridge filters and UV light disinfecting units (*shown in Figure 2*) ensures that the rainwater is free from impurities and pathogens. This dual-filtration approach not only guarantees the safety of the water but also maximizes the lifespan of our equipment.



Figure 3: UV Filtration System



Smart Control System

The entire Rainwater Reclamation System is orchestrated by a cutting-edge control panel featuring a user-friendly touchscreen interface. This intelligent system allows for real-time monitoring and control, ensuring that the rainwater reclamation process operates seamlessly. The touch screen also provides insights into water levels, and system status, and facilitates easy adjustments to meet the dynamic needs of our test lab operations.

Environmental Impact

By implementing this Rainwater Reclamation System, we have significantly reduced our reliance on traditional water sources. This not only conserves water but also minimizes the environmental impact associated with water extraction and distribution. Additionally, the system aligns with our commitment to responsible water management, contributing to a more sustainable and eco-friendly manufacturing process.

Conclusion

At our Cedarburg, WI campus, the Rainwater Reclamation System stands as a testament to our dedication to sustainability and environmental stewardship. By harnessing the power of rainwater, we not only ensure the efficient operation of our test lab but also play a vital role in preserving precious natural resources. As we continue to evolve and innovate, this initiative serves as a shining example of how businesses can thrive while being responsible custodians of the planet.

About Wilo: Wilo USA is a dynamic force in the realm of municipal and agricultural water management, building services, and industrial services driven by a commitment to innovation and sustainability. As a key player in the pump industry, Wilo USA is known for its cutting-edge solutions that cater to diverse water-related challenges. The company's dedication to excellence is evident in its wide range of pumps and pumping systems designed to enhance efficiency and reduce environmental impact.

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