



Blue-White®

From Groundwater to Drinking Water

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The term “Groundwater Use” is broad and could include a number of possible applications ranging from public drinking water, to process water for food and beverage production.

In this article we’ll discuss the basics of groundwater use in rural areas as a source of public drinking water.

So what is Groundwater? Groundwater consists largely of surface water that has seeped into the ground and fills openings and fractures in underground materials such as sand, gravel, and other rock. It becomes a source of stored water in underground springs and aquifers that is replenished by rain and snow. Groundwater provides drinking water to about 50% of the U.S. population, however in rural areas it accounts for 99% of the water supply.

Even water from this seemingly pure source will need to be treated. Often Sodium Hypochlorite, commonly known as Chlorine, is the preferred chemical to sanitize drinking water. In the proper dosage, Chlorine will kill a broad range of pathogens while remaining safe for people and animals to consume. It is readily available, comparatively inexpensive, familiar to operators, and most importantly, it works.

So, what is the best method for delivering the correct amount of Chlorine into the drinking water to ensure proper sanitizing? We recommend you consider Blue-White’s FLEXFLO M1 peristaltic chemical metering pump. M1 excels in these smaller demand rural systems.

Larger communities with higher demand may use a chain of these pumps to inject additional chemicals such as fluoride, or 2% potassium permanganate to make the



water safe and chemically healthy for the towns’ drinking and bathing water.

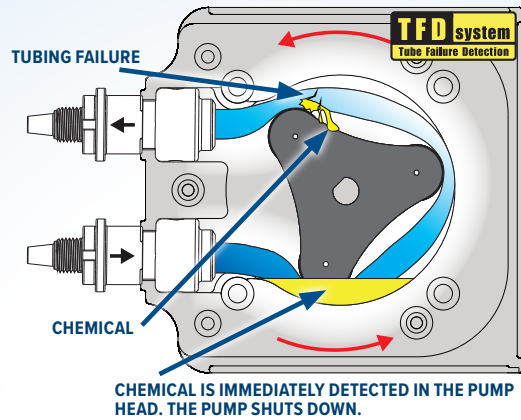
Because the M1 is a Peristaltic Metering pump, it will not experience vapor lock when metering off-gassing chemicals, such as Chlorine, and there are never any valves to clean or replace.

FLEXFLO M1 features simple-to-use controls, and with a feed range of .0001 - 5.6 GPH / .0004 - 21.2 LPH, this

pumping unit is particularly well-suited for low-flow applications.

This compact pumping unit delivers smooth, consistent chemical feed and safety features include built-in leak detection and a lockout to prevent tampering.

Like all Blue-White Peristaltic Chemical Metering Pumps, the FLEXFLO M1 is equipped with the exclusive, built in patented TFD system. The TFD System will detect a broad range of conductive chemicals with no false triggering, and if the TFD senses tube failure, the pump will automatically shut off and energize a relay or switch. This permits communication with external



equipment, such as a back-up pump or alarm. TFD is Simple, efficient and built-in to each unit.

Communication and Interface include Remote Start/Stop: Non-powered dry contact closure; Relay outputs include single 250V/3A and single solid-state, Compatible with Flow Verification Sensor (FVS) system; Scalable 4-20mA SCADA input; and 4-20 mA output.

In conclusion, maintaining safe, clean, and tasty drinking water is critical, but that doesn't mean it has to be difficult. Success begins with the right equipment for the job.