

Automatic Flushing System

HYDRO-GUARD®

Product Overview

The Hydro-Guard® product line revolutionised the water distribution industry in 1998. As a pioneer in automated programmable flushing, Hydro-Guard products allow public and private water distribution utilities to maintain more consistency in the level of chlorine residual, especially at dead ends. The Hydro-Guard® automatic flushing system utilises a time-based schedule to flush when water usage is traditionally lower or when the residual level is at its lowest.

Stop Water Quality Complaints



Why Flush Distribution Lines?

Most water distribution systems have areas with insufficient demands to keep the detention time short enough to maintain minimum disinfectant residuals. Failure to maintain a minimum disinfectant residual in water lines may contravene national regulations and contribute to conditions favouring biofilm growth.

Long-term exposure to low disinfectant residual conditions within a water pipeline not only favors the potential for biofilm growth, it increases the demand for

disinfectant and makes it more difficult for operators to maintain desired minimum disinfectant residual levels.

Maintain Water Quality and Consistency

A recognised solution for water age and water quality related problems is periodic flushing of the pipelines. This process allows for the turnover of water in the line.

Hydrant and unidirectional flushing are the conventional methods used for controlling biofilm. However, automated flushing systems have become a widely accepted method, and in many cases the preferred method, to unidirectional flushing.

By way of automatic and programmable flushing systems such as the Hydro-Guard®

line of products, the process of automatic flushing has proven to be a far more economical alternative to traditional flushing processes that have included the use of fire hydrants.

- Lower operational costs
- Conserve water
- Save time
- Reduce complaints
- Increase customer satisfaction
- Reduce costs associated with complaints
- Improve compliance
- Respond immediately to issues
- Improve consistency of water quality
- Monitor remotely and interface with SCADA

Manual vs. Automatic Flushing

MANUAL FLUSHING VS. AUTOMATIC FLUSHING

Requires planning
Labour intensive
Wastes water
Interrupts traffic

Programmable
Low operational expense
Conserves water
Less visible to public

Customer Testimonial



Hydro-Guard® System Improves Water Quality and Staff-Hours for Central Texas Vacation Community

The City of Horseshoe Bay, Texas installed ten (10) Hydro-Guard® HG-1 Signature automatic flushing units and seven (7) Safety Guard® sampling stations. According to Steve Hawley, Plant Operations Supervisor, ***“We’ve freed up staff-hours and seen improvement in trouble areas. In some areas, a single HG-1 is saving us four to five hours of labour every week.”*** To review the entire case study, please visit muellercompany.com.



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HYDRO-GUARD®



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HG-8 Cold Climate Flushing System

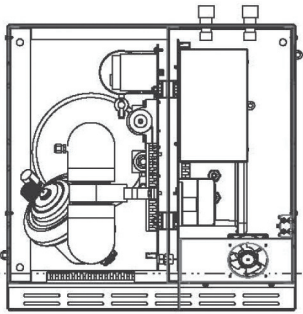
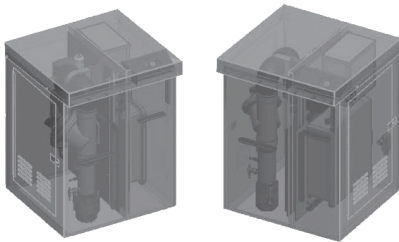


Reliable Operation

Multi-Climate Design

Hydro-Guard® permanent flushing systems fully automate the process for flushing water distribution lines. The units can be designed to operate reliably in warm, moderately cold, and cold climates. Designed for use with an integrated

multi-event programmer, Hydro-Guard systems can flush a water line multiple times per day, seven days per week, with flush durations ranging from one minute to four hours per program. Water can be discharged atmospherically or direct into a pond or storm sewer.



S.M.A.R.T. Flushing System

S.M.A.R.T. Flush Management

The Ultimate Automated System

The Hydro-Guard S.M.A.R.T. Flushing System is the ultimate automated flush management system. S.M.A.R.T. enabled flushing can be set to occur either by scheduled flush times or in response to real-time analysis of local water quality. What's more it allows two-way communication and remote flush and water quality management via either a secure web portal or a secure interface

with end-user's existing SCADA via MODBUS TCP protocol.

Receive near-time updates from each Hydro-Guard Unit in the distribution system equipped with the S.M.A.R.T. controller. It can be integrated with a residual analyser and a variety of other water quality management devices. Flush only when the disinfectant residual drops below the parameters established by the end-user.

Product Selection Guide

Installation Parameters	Temporary	Permanent				
	HG-6	HG-1	HG-2	HG-3	HG-4	HG-8
Climate	–	Warm	Warm	Cold	Cold	Cold
Discharge Type	On Ground	On Ground	Direct	On Ground	Direct	Direct
Backflow Prevention	Air Gap	Air Gap	Air Gap, Double Check, or RPZ	Air Gap	Air Gap	Double Check
Programming	Varies*	Built-In (NODE) Removable (T-2), or SMART Controller (upgrade)				
Inlet Size	2"	1" or 2"				
Pipe Material	No-Lead Brass	No-Lead Brass or Stainless Steel				
Bury Depth	Hydrant mount	0" – 18"	18"	18" – 108"		
Enclosure Type	Unpainted, Red, or Yellow	Low Profile Green; High Profile Other Colors		Low Profile Green; High Profile Other Colors; Unpainted		Below Grade

*Available with either Air Gap, Double Check, or RPZ.



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