CHECKtronic[®] Pump Control Valves help control surge at a Rhode Island pump station



CHECKtronic[®] Pump Control Valves at the Clinton Avenue Water Pump Station bring flow efficient and fail-safe check features to a facility upgrade.

Owner: Kent County Water Authority Engineering Consultants: C&E Engineering Contractor: Walsh Construction

General Background: The Kent County Water Authority supplies and distributes water services to residential, commercial, industrial, and other consumers in Kent County and parts of Cranston, Scituate, and North Kingstown, Rhode Island. The system contains approximately 404 miles of distribution and transmission mains, six active elevated storage tanks, two main transmission pumping facilities, four pressure booster (pump) stations, four wells, one 2.4 Product: Five 16" (400mm) and

Two 12" (300mm) Figure 1626-DCM CHECKtronic[®] Pump Control Valves, One 12" (300mm) Figure 6700-D Surge Relief Valve

million gallon a day groundwater treatment plant, 2,339 public fire hydrants, and 128 private fire hydrants.

Distribution: The distribution system is served by gravity as water flows from elevated storage tanks to customers. The system's tanks are replenished by transmission pumping. Tank storage continues to provide water during power outages.

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GA Industries On-site

Kent County Water Authority, Rhode Island, USA





The Kent County Water Authority serves several Naragansett Bay communities including Cranston, Scituate, and North Kingstown.

Project Overview: The rehabilitation of the Clinton Avenue Water Pump Station included extensive mechanical, electrical, structural, architectural, and various other site improvements. The project increased the station's pumping capacity from 12 MGD to 33.5 MGD (5,283 m³/hr) and added the capability to pump to a new higherpressure gradient. Why CHECKtronic®? The consulting engineers, C&E Engineering, chose the CHECKtronic® Pump Control Valve for its capability to control pressure surges associated with pumping operations at the higher gradient. The flow efficient design, tight seating and integral fail-safe check feature also had an impact on the decision.

A GA Surge Relief Valve was also specified for protection against excessive pressure surges resulting from unexpected pump shutdowns.



The Figure 6700-D Surge Relief Valve

GA Industries CHECKtronic[®] Pump Control Valves and Surge Relief Valve at the Clinton Avenue Pumping Station

Products:	Five 16" (400mm) and Two 12" (300mm) CHECKtronic® Pump Control Valves; One 12" (300mm) Surge Relief Valve
Materials:	CHECKtronic® Pump Control Valves: Each valve body is ASTM A126 cast iron, with high strength epoxy coating. Body seat and seat follower is Type 316 stainless steel, and disc seat ring is ultra high molecular weight polyethylene (UHMWPE). The spring assisted stop check is ASTM A229 steel.
	Surge Relief Valve: Body: ASTM A126 cast iron, with bronze piston, follower rings, rod, and gland bushings. Gaskets: Nitrile Rubber. Piston, Liner, and Pilot Cups: Buna "N".
	NOTE: See www.gaindustries.com for complete materials list and materials options.
Features:	GA CHECKtronic® Pump Control Valves provide a streamlined wye and long radius elbow body design to reduce headloss by 60% when compared to a typical globe or angle valve. This reduces pumping cost. The standard multi-term electric motor actuator incorporates a "pulse feature," providing open and close stroke times for ideal surge control. The integral, spring-assisted stop check operates independently of the actuator and automatically closes in the event of a power outage or pump failure.
	GA Surge Relief Valves have a full ported, differential piston design to provide positive closing power at any working pressure. The large, sensitive pilot opens the valve quickly in response to an over-pressure condition, and closes slowly at an adjustable speed once pressure subsides.



For more information about GA Industries' products, or to contact a sales representative, visit the GA website (gaindustries.com) or call 724-776-1020.