

GA Surge Relief Valves help protect sewer lines in a rapidly growing New Jersey community



Over the past few decades, the Two Bridges Sewerage Authority in Lincoln Park New Jersey has seen rapidly increasing population growth in its wastewater management catchment area, with new demands on the system.

Owner: Two Bridges Sewerage Authority

Agent: Dave Heiner Associates

Engineering Consultants: Hatch Mott
MacDonald

Contractor: Stone Hill Contracting

Product: Three 8" (DN200) GA Surge Relief
Valves (Figure 626-DS)

General Background: Two Bridges Sewerage Authority (TBSA) serves over 40,000 residents and businesses within its 56 square mile catchment area. The facility includes 14 miles of interceptor sewers, 7 miles of force mains, 5 remote pumping stations and a wastewater treatment facility with an effluent outfall discharging into the Pompton River just upstream of its confluence with the Passaic River.

Location: The wastewater treatment facility is located in Lincoln Park, New Jersey. The past few decades have seen increasing population growth, as the region transitions from a rural to suburban area.

Continued

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GA Industries On-site



The new GA Surge Relief Valves installed at the Two Bridges wastewater management facility in Lincoln Park, New Jersey.

Project Overview: GA Surge Relief Valves were installed to protect sewerage lines and systems against excessive overpressures, and were installed on a 30" force main. The valve's stream-lined body and responsive operation has minimized surges caused by the normal starting and stopping of pumps, pump malfunction, or power failure.

Why GA? The Engineer determined surge protection was necessary to protect the expanded system from excessive pressure surges. Dave Heiner Associates, Inc., GA Industries' sales representative in Northern NJ,

recommended GA Figure 626-DS surge relief valves to Hatch Mott McDonald. Two Bridges Sewerage Authority was on board with the recommendation since they have many GA valves that have been in continuous service since the facility was built in 1979. However, the new 30" piping presented a challenge due to the limited space available to install a large surge relief valve. The problem was solved by installing three 8" valves below the header piping with the combined capacity for sufficient protection.



Today, TBSA operates at its original design capacity of 7.5 million gallons per day (MGD). The potential plant capacity is rated for 10 MGD.

GA Surge Relief Valves (Figure 626-DS)

Size:	Three 8" (DN200) GA Surge Relief Valves (Figure 626-DS)
Materials:	Body and Disc, Cast Iron, ASTM A 126 Class B; Body Seat, Type 316 Stainless Steel; Seat Follower Ring, Type 316 Stainless Steel; Stem, Stainless Steel, Type 316; Stem Bushing, Lead-Free Bronze; Internal Fasteners, Stainless Steel, Type 304.
Coatings:	Internal and External NSF-61 Certified Epoxy per AWWA C550.
Features:	The simple, direct-acting design features a non-clogging, streamlined long radius elbow or wye body. Quick opening, and adjustable slow closing. Optional ANSI Class 250 flanged or EN1092 or AS4087 flanges. Optional electrical position switch.