CASE HISTORY
GODWIN PUMPS OF AMERICA, INC., ONE FLOODGATE ROAD, BRIDGEPORT, NJ 08014
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DPC300 Dri-Prime pumps work to divert 221 mgd in Phoenix.

GODWIN DRI-PRIME® PUMPS FOR SEWER BYPASS APPLICATIONS ASSURE CRITICAL PUMPING CAPACITY

Phoenix, Arizona Bypass
February 2002

This 221 mgd bypass completed in February 2002, consisted of 45 Godwin 12-inch DPC300 Dri-Prime diesel pumps to divert flows of two interceptors feeding a wastewater treatment plant in Phoenix, Arizona.

The bypass was part of an ongoing trenchless pipeline rehabilitation program to upgrade portions of a 25-mile interceptor sewer. As much as 50,000 feet of 18-inch HDPE pipe had been fused on site for the rehabilitation. The rehab program required a series of large-scale bypasses. This particular bypass at 221 mgd was double the size of the Godwin bypass setup earlier in this rehab program – 112 mgd – which was awarded the Trenchless Technology Project of the Year.

Fort Washington, Maryland Bypass
April 2003

Seven 16-inch Godwin CD400M Dri-Prime pumps were utilized in two bypass systems in Fort Washington, Maryland. The two independent systems operated during a trenchless relining project of a 54-inch gravity sewer.

The first system at the Indian Head Highway consisted of four pumps – two primary and two lag. All four pumps handled a flow of 33 mgd. Adequate venting needed to be addressed throughout the system because of a minus 90-foot differential between the suction and discharge manholes. The 14-day set up also was challenged by 70 mph traffic flow along the highway where the 18,000 feet of 18-inch HDPE pipe was installed.

Godwin CD400M Dri-Prime pumps at Indian Head Highway in Maryland.

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Boston's Bremen Street pump station housed three of 23 Godwin Critically Silenced Dri-Prime pumps. Pumps at six pump stations worked to handle 32 mgd of combined sewer overflow. The project marked the largest sound-attenuated pumping system installed in the United States.

The second pumping system was installed to handle possible elevated flows during remediation at nearby Piscataway Wastewater Treatment Plant, owned and operated by Washington Suburban Sanitary Commission (WSSC) of Lauren, Maryland. The system was designed to pump from the station wet well to a holding pond. Three 16-inch pumps were utilized, one primary and two lag. All three pumps handled a flow of 30 mgd at 26 feet of TDH. Duration of job was approximately two months. The system was dismantled in three days.

East Boston, Massachusetts Bypass
July 2003

Mandated by federal and state court orders to help reduce combined sewer overflows into Boston Harbor, the East Boston project called for rehabilitation of more than a mile of a deep century old sewer interceptor. Godwin Pumps worked with general contractor D'Allessandro Corp. to complete the bypass system.

"Working with Godwin made my job easier," said Jon D'Allessandro, president, D'Allessandro Corp., Avon, MA. "I never had to worry about the bypass pumps. The service and maintenance Godwin provided was second to none. The president of Godwin even visited the site several times to insure the quality of performance of the pumps."

The pumping system consisted of 23 Critically Silenced Dri-Prime pumps: sixteen 8-inch CD225M high volume pumps and seven 12-inch CD300M high volume, high head pumps which were specified for the job to handle greater flow with fewer pumps due to space restrictions in this densely populated area. Thirteen thousand feet of 18-inch and 3,300 feet of 30-inch HDPE pipe was fused on site by Godwin technicians. Noise and security concerns were taken care of by the use of sound attenuated enclosures for each pump. Designed by Godwin engineers, the steel enclosures have hinged, locked doors to deter vandals, and a lining of 2-inch acoustical foam that constrains sound to 63 decibels at 30 feet, which met the city of Boston's stringent noise limits.

The bypass system ran continuously through the harsh winter and quietly 24 hours a day, 7 days a week for more than a year.

Holland Bypass
November 2003

One of the first rental applications undertaken by Dutch distributor, Pompen Services Holland, comprised four CD225M/37kw Dri-Prime electric driven units on a sewer bypass application just outside of the country's capital of Amsterdam. A sewage pump station in the suburb of Zuidbroek was to be totally renewed.

The local municipality needed a reliable pump system and rental operating company to bypass a maximum flow of 1750 m3/hr (7700 gpm) of raw sewage, drainage and rain water from two adjacent areas, around the station and back into the gravity feed line to the main pump station in Beverwijk, five miles away. Each pump was selected to handle a flow of 450-500 m3/hr (1950 – 2200 gpm) at a total head of 10 metres (32 feet). The units are controlled with frequency converters to adjust the speed of the pumps, which start and stop by level probes on an alternating duty / assist / standby basis. The rental commenced in mid November 2003 and was to last four months.

Two Godwin CD225M electric drive Dri-Prime pumps on rent in Holland.

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