

Pumps for the Pleasure Pier



By Mike Bjorkman

Shredder pumps help keep popular tourist attraction thriving

The 1,130-ft-long Pleasure Pier on Galveston Island, Texas, was built in 1943 featuring rides, an arcade, an aquarium, the Marine Ballroom, and, of course, a fishing pier. It was meant to be an entertainment destination for troops and sailors stationed at nearby facilities. The pier was called the “Coney Island of the South” and drew multitudes of visitors who enjoyed the exciting attractions and top dance bands. It remained a regional draw for many years.

A Tumultuous History

In 1961, the pier was destroyed. Hurricane Carla, ranked as one of the most intense Category 5 hurricanes in Texas history, barreled through Galveston with wind gusts as high as 170 mph. The storm surge reached 10 ft, and precipitation totals topped 16.49 in. To make matters worse, a tornado moved across Galveston Island, severely damaging hundreds of structures and causing eight deaths.

In 1965, Pleasure Pier was rebuilt featuring the Flagship, an over-the-water hotel, anchoring the end of the pier. It would last for 40-plus years. Unfortunately, it, too, was destroyed. In 2008, Hurricane Ike damaged the hotel beyond repair. Ike’s rising storm surge spilled over the 17-ft Galveston Seawall, which faces the Gulf of Mexico. The landmark Flagship Hotel, which sat on deep concrete pylons, was seriously damaged. The hotel’s siding was peeled off by the storm, exposing top floor guest suites to the elements. The elevated ramp, which permitted vehicles to access the hotel’s lower level, fell into the Gulf. Although initially thought to be repairable, the hotel was finally demolished in 2011.

As they say, the third time is the charm. In May 2012, Pleasure Pier was reopened as an amusement park featuring a 100-ft-tall roller coaster; a 100-ft-tall Ferris wheel; and 14 other rides, carnival games, souvenir shops and restaurants.

Pleasure Pier has an approximate capacity of 7,000 people. When you have thousands of visitors on a pier jutting out into the Gulf of Mexico, you need to have adequate restrooms available and operating at peak performance.

BJM Pumps’ Houston-based wastewater distributor, Pumps of Houston, had a solution: Install six sanitary sewage lift stations on the pier equipped to pump the peak load of raw sewage back to shore to be treated by the city of Galveston’s wastewater treatment system. Three of the six lift stations have been outfitted with a pair of shredder pumps. Each

BJM Model SK22 pump can handle up to 240 gal per minute of wastewater at heads up to 59 ft.

On a busy, hot day, the last thing pier operators want to worry about is raw sewage clogging the system and overwhelming the delightful smells of grilled hot dogs and cotton candy. Having to clear the pier because of sanitary facility closures is unacceptable from both a customer relations standpoint and a lost revenue standpoint.

The SK22 pump can efficiently shred potential blockage-causing solids and move the raw sewage from the pier-based sewage lift station to the land-based treatment facility. These electric submersible pumps use a unique shredder action to pass large solids. A tungsten carbide-tipped cutting impeller rotates against a spiral-shaped impeller plate to shred any solids.

The 304 stainless steel motor housing helps protect the pumps from abrasion and premature wear caused by the sandy, saltwater environment. Pumps with aluminum motor housings might erode due to sand and corrode due to saltwater. The motor is protected by double mechanical seals and a lip seal that helps prevent abrasives, such as sand, from entering into the seal chamber. Unlike other pumps with soft resin or plastic components, the SK22 line, with its hardened cast iron rotating assemblies, stands up to rough handling and pumping abrasive sandy water.

Keeping Unpleasantness Away

The thousands of daily patrons excited about soaring over the Gulf of Mexico on the Iron Shark rollercoaster or touching the heavens on the 100-ft-tall Ferris wheel want the assurance that sanitary facilities are nearby and operating effectively. Pier operators also appreciate reliability when it comes to maintaining their wastewater systems.

“It is imperative that the Pleasure Pier sewage system perform reliably,” said Kelly McCullom, regional manager for BJM Pumps. “At the heart of the system are the lift stations and our submersible shredder pumps. This ‘invisible technology’ is undeniably an essential part of a positive visitor experience.” WWD

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The pumps shred potential blockage-causing solids and transport the raw sewage away from the pier.



ARTICLE SUMMARY

Challenge: After the beloved Pleasure Pier on Galveston Island, Texas, was reopened as an amusement park in 2012, it needed to accommodate a capacity of 7,000 people.

Solution: Six sanitary sewage lift stations were installed equipped to pump the peak load of raw sewage back to shore to be treated by the city of Galveston’s wastewater treatment system.

Conclusion: Pier operators do not have to worry about raw sewage clogging the system and causing odor problems.