



Headworks[®] MS[®] Bar Screen Survives Hurricane Katrina

Background

In August of 2005, Hurricane Katrina penetrated through the Southeast region of the United States causing unimaginable destruction in Louisiana, Mississippi, and Alabama. One of the most devastated areas was the City of New Orleans which is still recovering today from the hurricane's aftermath. The flooding that resulted from Hurricane Katrina left many sections of the city underwater, in addition to causing substantial structural devastation such as broken bridges, buckled roadways, damaged homes, buildings, and power lines. Consequently, one year later, the City of New Orleans was still living in a total reconstructive nightmare!

Problems with unclean wastewater and other sanitation issues have been an ongoing setback within New Orleans. Needless to say, it was critical that the city's wastewater treatment plants be up and running because they impact the health and livelihood of surrounding residents. Wastewater plants are the first lines of defense in protecting public from diseases caused by bacteria, pollution, toxins, etc. in untreated wastewater.

The East Bank Sewage Treatment Plant, also known as the Main Wastewater Treatment Plant, for the City of New Orleans was

Customer: East Bank Sewage Treatment Plant
Industry: Municipal

KEY FACTS

- **Number of Screens:** 6
- **Bar Spacing:** 3/8 in (9.5 mm)
- **Flow Capacity Per Screen:** 50.5 MGD (2.21 m³/s)
- **Installed:** 2001
- **Hurricane Katrina:** 2005
- **Equipment:** Screens incurred no damage, only motors that were submerged required replacement

affected by Hurricane Katrina. It was located in an area hardest hit by the hurricane, at one point lying underneath 20 feet of water. Even one year later, the plant still had operational challenges. All communications were by satellite telephone.

The Headworks MS Bar screens have been the vanguard of the plant during this crisis. Six Headworks MS Bar Screens began operation at East Bank WWTP in 2001. Remarkably, the Headworks MS Bar Screens sustained no damage from the hurricane other than a few motors which were submerged and had to be replaced. The endurance of the Headworks MS Bar Screens in the New Orleans East Bank Plant is a true testament of the strength and durability of the Headworks brand.

Why East Bank chose Headworks

Before using the Headworks MS Bar Screen, the City of New Orleans protected their wastewater treatment plant with “climber type” screens. The climber screens required excessive maintenance and had a history of equipment failure causing channel flooding. When the East Bank Plant was in need of replacements, an alternative screening method was sought to avoid these problems. The Headworks MS Bar Screen was presented. The City was particularly intrigued by the lower bearings which improved engagement of the rake bars and enhanced the effective cleaning of the screenfield.

The engineers, operators, and management of the New Orleans Water & Sewer Boards contacted Headworks’ references and learned of the long lasting design of the lower sprocket arrangement. They discovered that none of the Headworks MS Bar Screens sold anywhere in the world have ever required the lower bearing to be replaced. Now that they have seen the Headworks MS Bar Screen in operation under the most extreme conditions ever experienced, the City is completely convinced that they have found the long term solution to their screening problems. The Headworks MS Bar Screen has been operating at East Bank WWTP virtually maintenance free, both before and after Hurricane Katrina.

Solution

The six screens include four units each 10 ft (3.05 m) wide by 17 ft 3 in (5.26 m) high and two units 7ft (2.13 m) wide by 12 ft 6 in (3.81 m) high, all with 3/8 in (9.5 mm) bar spacing and handle 50.5 MGD (2.21 m³/s) each. The continuous high-frequency cleaning intervals eliminated the failures and blinding of the former “climber type” screens. The Headworks MS Bar Screens function to the full satisfaction of the client.

The robustness and endurance of the equipment during and after Hurricane Katrina perfectly demonstrates that the Headworks MS Bar Screen is the meanest, toughest screen in the world!

The City of New Orleans withstood massive flooding caused by a storm surge 20 ft (6 m) high



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