



Since installed in 1978, the Catenary Bar Screens have been
Problem-Free and Dependable

Time Tested and Low Maintenance

The Glenbard Screens were installed in 1978, and have been trouble-free through flow-event after flow-event. Control of the screen is automatic, and cleaning is fully mechanized.

Senior Plant Operator Erick Lanphier reports, "These screens have had absolutely no problems... They are dependable workhorses for us...." Lanphier adds, "The bars screens offer us increased protection against undesirable materials passing through the raw pumps and then into the treatment process. By removing materials before they get into the process, we lengthen the overall mechanical life of our equipment and improve our biological control. By not giving the biological material anything to attach itself to, we increase the effectiveness of the mixed liquor."

The Process

The first stage of treatment at the Glenbard plant is a physical process; the plant uses pumps and gravity feed to move raw wastewater through two E & I Corporation Catenary Bar Screens. The bar racks in the screens have 3/8" clear openings. The approach velocity to these screens is approximately 1.89 feet per second at 14.32 MGD and 2.51 feet per second at 41.0 MGD.

Working In Tandem

The Lombard CSO Facility is located down river from the Glenbard facility. Lombard is another successful E & I Corporation Screening Installation. The two neighboring authorities work in tandem with each other. Lombard's E & I Corp Screen is activated when the Glenbard Facility reaches 2.5 times it's average design flow. The Lombard Facility has a peak combined sewer design overflow of 50.0 MGD and also utilizes an 15.0 ft wide by 24.0 ft deep E & I Corp Catenary Bar Screen.



Project Overview

Client: City of Glen Ellyn, Illinois
Consultant: Clark Dietz
Products: 2 Catenary Bar Screens 6.0 ft wide by 30.0 ft deep
1 Catenary Bar Screen 15.0 ft wide by 24.0 ft deep

Benefits

- 25 years uninterrupted trouble free service
- Dependable and durable
- No underwater parts replacement
- Heavy duty
- Rugged
- Trouble free service



How Does it Work?

The Catenary Bar Screen is an extra heavy duty front cleaned, front returned bar screen. This screen utilizes two strands of steel chain that is heavier and has superior strength than any other screen chain. The Chain is suspended from sprockets located on the head shaft, the lower end of the chain forms a 'Catenary' loop. Connected between these chains are counter weighted rakes. On the return run, the chain is supported by structural members, allowing the chain and rakes to enter the channel, follow the path of the 'Catenary' loop, without the aid of guides or sprockets. As the rake enters the bar rack, the rake remove the debris, collected on the bar rack. The bar rack contains trapezoidal bars that are efficient and clog resistant. As the rake exits the bar rack, it enters the dead plate where the debris is dewatered, and elevated to the discharge point for deposit into a debris container or belt conveyor.

E & I Corp's Catenary Bar Screen: Often Copied Never Duplicated

Why did the U.S. Corps of Engineers select 20 E & I Corp Catenary Bar Screens to protect the city of San Antonio, Texas during high water conditions? Why are other major cities following this trend? The answer is simple – The E & I Corp Catenary Bar Screen's are engineered to perform and built to last.

Superior Engineering & Construction: For 25 years, E & I Corp has delivered on their promise; long screen life with reduced maintenance and downtime.

Weathering The Storm: The E & I Corp Catenary Screening Systems can handle continuous or intermittent highloading... critical during severe storm conditions.

A Thousand Success Stories: Computer design, jam-proof operation and low maintenance costs has made The E & I Corp Catenary Bar Screens the clear choice for thousands of cities around the world.

At Your Service: The E & I Corp Screening Systems are proudly made in the U.S.A. Installation and service are coordinated from the Columbus, Ohio headquarters.

Industry Leader for 25 Years

E & I Corp has been manufacturing the original Catenary Screen as it was meant to be. E & I Corporation, a Division of McNish Corporation, remains the industry leader in specialized screening equipment for the municipal and industrial, water and wastewater markets. For more information about our company and product line, please call (614) 899-2282 or visit us on the web, at www.eandicorp.com.



Common Applications

- Waste Water
- Industrial
- Chemical
- Pulp and Paper
- Flood Control
- CSO Stations

Benefits & Features Overview

- Non clogging bar rack
- Dependable and durable
- No underwater parts replacement
- Heavy duty
- Rugged
- Trouble free service
- No underwater shafts, sprockets or bearings requiring maintenance