



City of Cincinnati MSD Extols Headworks MS™ Bar Screens' Stellar 15-Year Performance

Introduction

This year marks the 15 Year Anniversary of one of Headworks® Inc.'s challenge defying installations for Metropolitan Sewer District of Greater Cincinnati (MSD). MSD operates many facilities throughout Hamilton County, OH, including seven major Wastewater Treatment Plants (WWTPs) and Wastewater Collection facilities. The success the MSD has had with our equipment led to Headworks MS Bar screens being purchased at five out of seven WWTP's operated by MSD and another screen currently in design at the sixth WWTP. We are delighted to have demonstrated a 15 year track record of stellar performance in high flow conditions at various MSD facilities.

The Mill Creek Wastewater Treatment Plant is on a combined sewer system. It typically encounters high flows and large solid loads during peak rain events. Before installing the Headworks MS Bar Screens, the plant faced problems with high maintenance and blinding that resulted in by-passing during high flow periods. These problems were a direct result of the old "climber type" screens that were used to protect the pumps. After tiring of the multiple problems their existing screens were creating, the plant authorities decided to search for a more efficient, low maintenance screen. Visits to various Headworks MS Bar Screen installations convinced consulting firm CH2M Hill and the Cincinnati MSD that installing Headworks Bar Screens would greatly benefit their Mill Creek facility.

Customer: Metropolitan Sewer District of Greater Cincinnati (MSD)
 Industry: Wastewater Treatment Plants
 Location: Cincinnati, Ohio
 Installed: 2004

WWTP Operated by MSD

WWTP	Year	Type	Qty
Sycamore	1999	HW MS Bar Screen	4
Muddy Creek	2000	HW MS Bar Screen	2
Mill Creek	2004	HW MS Bar Screen	2
Taylor Creek	2007	HW MS Bar Screen	2
Little Miami	2010	HW Perforator Screen	2
Polk Run		Design stage	
Indian Creek		Design stage	

Design

These screens are one of the deepest applications in the U.S at almost 70 feet in overall length. MSD had three main reasons for selecting the Headworks MS Bar Screen. First, installing heavy duty, corrosion-resistant, and more reliable bar screens would provide a higher degree of protection for their main pumps. Secondly, the Headworks MS Bar Screen with fine 3/8" openings obviates the need for separate fine screens thereby lowering both capital and O&M costs. Lastly, MSD wanted to eliminate by passing the headworks at high flows, a commonplace occurrence with their previous screens.

In CSO applications such as this, the Headworks MS Bar Screen is uniquely designed to not only handle both the fine and coarse screening in one step, but also to automatically increase the cleaning cycle down to every 5 seconds at high flows.

Recently, the Mill Creek WWTP Bar Screens had to endure a massive quantity of floating materials that swept into the intake of the plant as the result of flooding conditions in the Cincinnati area. One screen alone handled 200 MGD at the peak of a hurricane. The screens cleared out limbs, roots, tree stumps and more. Despite these extreme and unusual conditions, never once did the performance of the meanest, toughest screens on the market fail.

Mr. Henry Chapman, Plant Operator at Mill Creek who recently retired after 25 years of service with MSD Cincinnati:

“For the past 15 of my 25 year career at the Mill Creek wastewater treatment plant, I have been operating Headworks MS Bar Screens. The average flow in this large treatment plant is 104 MGD, with a peak flow (because of the combined collection system) of nearly 425 MGD. You can imagine this collection system and treatment plant have really put the Headworks MS Bar Screens to the test!

One of the key benefits of installing Headworks Screens has been a change from reactive maintenance to preventative maintenance. Screen blinding has been reduced and when it does occur, the operators, (not maintenance personnel) can free the blind on their own.

I strongly recommend Headworks MS Bar Screens to anyone looking for a good long term, low maintenance screening solution to the headwork’s areas of their plant.”

Additionally, Mr. Bob Kuhn of CH2M Hill stated in regards to the operation of the Mill Creek Bar Screens:

“The ability of the Headworks Screens to lift up material from the sewer system is excellent. The screens have operated very successfully and are able to flawlessly handle the very high flows.”

The durability of the screens seen at Mill Creek is one of the many installation proofs that the Headworks Bar Screen is the only technology on the market able to handle such severe screening conditions over the long term.

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- Mr. Henry Chapman

Plant Operator at Mill Creek

