

A High Capture Screen is the best investment a plant can make.

A city in the southeastern part of the United States was designing a screening upgrade to the headworks of one of its wastewater treatment plants. The plant had four (4) very old coarse bar screens with 1-1/2" openings that had reached the end of their service life.

A big part of the planned upgrade involved moving to finer screening in order to increase capture. The plant influent contained large amounts of fibrous material generated by local industry in the area. Most of this fibrous material along with periodic surges of grease and other influent debris were passing through the existing bars screens and causing significant maintenance and process problems downstream. These types of problems always equate to an increase in operational and performance costs.

Initially, the plant was focused on purchasing new bar screens with smaller openings. During a trip to another WWTP in a neighboring state, plant personnel were introduced to the FSM Filterscreens. These perforated plate belt screens have a verified 84% capture with 6 mm openings based on independent testing in the UK. Screen design and screen media play a big role in capture. The design of a bar screen makes it impossible for that style of screen to achieve more than a 30-35% capture.

After purchasing four FSM Filterscreens for their plant, plant personnel immediately saw the increased capture. The old coarse bar screens were removing 130 CY/year. Within a month, the plant was able to project that the new perf screens would capture 1820 CY/year. This was 14 times more debris or over 1,200 tons of debris that previously ended up downstream of the headworks.

This customer originally intended to purchase a dewatering press. However, after seeing the amount of debris being captured by the perforated plate screens, they decided on heavy-duty FSM washer compactors, one for every two screens, to help reduce the volume of debris going to landfill.

