Durable Screen Line Expanded To Meet Vertical And High-Flow Applications

Parkson's original flexible rake screen line, which was engineered for inclined in-channel screening applications, has been a valuable tool for municipal and industrial users for years. The Aqua Caiman®, for example, consists of multiple rakes attached to chain links with a unique geometry that creates an articulating belt assembly. This flexible assembly not only allows the rakes to handle large solids with ease but also reduces maintenance by eliminating the need for a bearing in the bottom of the treatment channel.

However, water and wastewater plant operators often encounter challenging screening situations that aren't well served by these types of conventional screens. This includes deep channel applications, where space is very limited, as well as high-flow applications.

To address these growing demands, Parkson recently expanded its Aqua Caiman line to include the Aqua Caiman® Vertical and Aqua Caiman® HD.

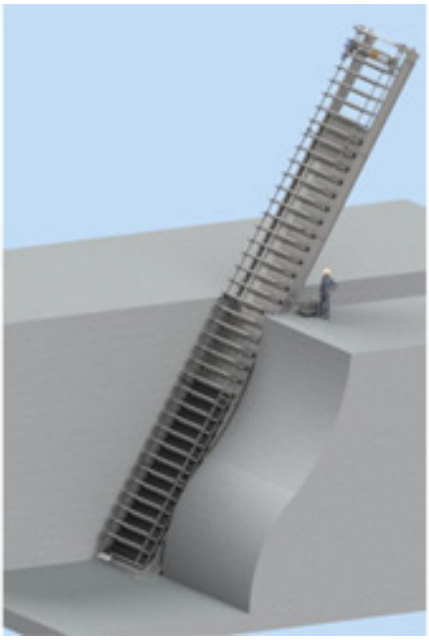
Vertical Mounting Applications

The new Aqua Caiman Vertical screen is a version of its inclined articulating rake unit that can be installed in locations requiring a very steep or vertical mounting. This option is ideal for tight channel requirements in new or existing installations — such as pump stations, which are typically deep because the wastewater is flowing below grade — where minimal footprint is available to accommodate inclined equipment.

Because it can't rely on gravity, like the standard model can, new features were added so the vertical screen could operate reliably and efficiently while also providing additional rake engagement force for removing solids from the bar rack. This solution is designed to remove most debris before raw water or wastewater hits a pump station, thereby protecting expensive pumps.

The Parkson wiper arm design and new Expulsionator™ solids removal system makes the Aqua Caiman Vertical screen an improvement over nearly every aspect of the industry-standard articulating rake screen. Parkson's True-Grip™ system provides chain retention and additional rake teeth engaging force.

The screen bars used in the Aqua Caiman Vertical screen are individually removable and replaceable by operators without the need for welding. Additionally, they are available in teardrop or rectangular configurations and include increased strength cross-support design components that reduce headloss across the screen.



The Aqua Caiman Vertical, like the original Aqua Caiman rake screen, requires no lower bearings or sprockets because the unique geometry of the flexible chain design eliminates the potential for any jamming or fouling with solids in the channel. As a result, the need for service in hard-to-reach areas is eliminated.

An Answer For Larger Applications

The Aqua Caiman HD incorporates the

features of the original Aqua Caiman articulating rake screen, but is designed for larger in-channel installations requiring the jam-free handling of high flows or heavy solids. It is well suited for storm flow screening, raw water intake structures, combined sewer overflow structures, and other heavy solids applications, such as storm flows and trash raking.

The screen consists of a series of rakes attached to chain links, which together form a flexible belt assembly to easily handle heavy solids in large flow applications. Just like other Aqua Caiman products, this is accomplished without the need for lower bearings or sprockets. The flexible chain links allow the rakes to engage the bars and lift solids up the screen for discharge. Bar spacings are available from 1 to 4 inches to minimize low headloss.

Standard Aqua Caiman HD screens are available in widths up to 10 feet, depths from invert to discharge up to 50 feet, and bar racks to 23 feet. Individually removable bars are typically a ½-inch by 4-inch rectangular profile and units can be mounted at 60- to 90-degree inclines.

Both new releases from Parkson are significant because they provide municipal water utilities with access to purpose-built equipment for applications that previously were difficult to address. The low-maintenance designs keep ongoing costs down while also promoting safety — as operators don't have to go down into the channel for upkeep. Each version is made of stainless steel, to perform well in corrosive environments, and typically operates with a 1-HP motor, so they are energy efficient. ■