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Hauling heavy, water-logged rafts from the base to the top of water park attractions can be troublesome and often times a safety concern. Once at the top, manipulating the one, two and multi-rider rafts to the correct slide position and location presents a second, equally frustrating and physically tiring task given the variations in weather and rider frequency.

THE CHALLENGE

A well known water park facility in the Northeast, with a large mult-rider water slide attraction required an update to their existing method of returning large water rafts to the top of the slide structure. The park management and engineers contacted Van Stone Conveyor, a leading water park and amusement facility conveyor company, to provide the convey and transfer solution for their rafts. While developing this multi-faceted solution, Van Stone Conveyor discovered they needed a method to quickly, simply, and ergonomically move the large single, double and family sized rafts from the water slide conveyor to the desired slide location while also allowing the water park attendant to easily sort the rafts by rider type and the number of riders next in line.

APPLICATION SCENARIO

Previously, each water slide customer, or group of customers, was required to carry the large, bulky, heavy rafts to the top of the water slide attraction manually. This method was cumbersome and posed several safety concerns. Once at the top, the water park associate would help the customer(s) position the raft onto the appropriate slide for use. This method forced the customers and water park attendant to overtly strain and stress.
THE ERGONOMIC SOLUTION

This convey and sort challenge at the top each water park attraction was solved through the implementation of the Roll Flex multi-directional conveyor roller. A roller suitable for both wet and potentially debris filled environments.

The initial solution developed was a simple mechanical belts and pulley conveyor method whereby the rafts would feed back to the top of the structure, yet at the top the issue of sorting the large, heavy rafts remained. Hence, water ride attendants would still be required to manually lift and push each raft in one of four directions based on which ride slide a customer waited. The issue of physical strain, struggle, and undue frustration remained.

Ultimately, the solution was to implement the Ergotronix multi-directional conveyor roller into the raft conveyance process. The Roll Flex model 80S was selected for its large size and ability to handle up to 90 pounds of load per roller. These polyurethane rollers with stainless steel axles are build to sustain rugged and wet environments, making it perfect to easily manipulate and sort the largest multi-person raft being conveyed through the raft conveyor system.

In the many years that have followed, Van Stone Conveyor found that usage of the Roll Flex 80S multi-directional rollers provided the exact required convey and transfer solution for any water park size and its simple installation process makes it a staple in both existing and future raft conveyor systems.