

Flume Cleaning with Rotary Screen

Flumes that are used to transport food from the trucks or storage facilities (tomato, potato, carrot processing) build up with settled solids as the product is conveyed along the flumes. Over time, these solids reduce the flow rate in the flumes and need to be cleaned out to maintain the same product conveyance to the processing plant in tons/hour. The silt and debris that builds up in the flumes can decrease flume water quality and increase the amount of water needed to wash the product off prior to processing. The grit and silt also cause a lot of abrasion and wear on the flume pumps and system. Flumes are typically drained to the wastewater system which adds a significant BOD and suspended solids load.

A new approach is to continuously remove 20% of the flume water and screen the solids out, return the clean water to the flume and remove the solids. The benefit is better control of the flume solids, product conveyance is stabilized, the flumes do not need to be shut down and cleaned as often, and the flume water quality is improved and controllable.

