The Model S3 Slurry Separation Station is designed to separate cement and fines from the reclaimer drain, by pumping slurry into a dewatering tank. Flocculants are added, mixed into the slurry stream using the Model AFD1 Automatic Flocculant Dispenser, which create heavier particles, allowing them to settle into the cone-bottom tank. Clean water cant up and out of the top valve into a Clean Water storage tank.

The Cement solids settle in the bottom of the cone. When the cone is full, an operator opens a ball valve, discharging the flocked cement, along with some water, into a dewatering bag hanging below. The dewatering bag captures the cement solids, while allowing the water to drain out.

When the dewatering bag is full of solids, the tote can be fork-lifted out from under the tank, and tipped over to clean-out the bag. Once clean, it can be reinserted beneath the tank and used again for collection of more cement solids.
HOW IT WORKS: Waste concrete is washed out into the Star Hopper, where it is fed into the Concrete reclaimer. The reclaimer delivers clean sand and clean rock to separate stockpiles, and cement slurry leaves the reclaimer via the drain, where it is collected in the slurry collection pit.

The slurry in the collection pit is continuously stirred and agitated via the centrifugal pump supplied with the Model AFD Automatic Flocculant Dispenser. The AFD also introduces a regular amount of flocculant into the slurry.

The Slurry Dewatering Stand includes a double diaphragm pump that pulls the flocked slurry from the pond, and delivers it into a 300-gallon cone bottom poly tank.

On the bottom of the cone, there is a 2” hand ball valve, which begins in the closed position. On the side of the cone tank is a second 2” hand ball valve, typically left open as a decanting port. As flocked slurry is pumped into the top of the cone tank, the heavy, flocked particles begin to fall out of the slurry stream and settle in the cone of the tank.

An operator will watch, and when the cone is full of flocked solid particles, the bottom valve will be opened allowing wet flocked slurry to discharge into a dewatering bag, which is suspended below the tank. The side valve is open, to allow clarified water (above the solids line in the tank) to discharge into the 2000 gallon clarified water tank situated nearby.

When the flocked slurry falls into the dewatering bag, the bag captures the flocked solids particles, while allowing the water to pass thru. The bag hangs inside of a poly tote (bin), which contains the water draining from the bag, and discharges it thru the sidewall of the tote back to the slurry collection pond.

The poly tote is equipped with a fork pocket. When the dewatering bag becomes full of solids, slightly lift the poly tote to take the weight off of the bag straps/hooks. Unhook the bag from the steel stand, and pull the poly tote containing the filled bag out from underneath the stand. The poly tote may be tipped over and dumped to remove the loaded bag from the bin. The dewatering bags can be cleaned out and reused multiple times. The system comes with 2 bags and 2 totes, so you can set one outside overnight to finish dewatering, and firm up a bit, while using the 2nd set back in the plant. You can then finish cleaning out the first set so that they are available when the 2nd set becomes full.

Clarified water is then pumped (pump supplied with reclaimer) back to the reclaimer to further wash incoming loads of waste concrete.

WARNING: Cancer and Reproductive Harm—www.P65Warnings.ca.gov.

TOLL FREE US 888-235-8235
OFFICE 920-894-1113
EMAIL sales@bfktech.com
WEBSITE www.BFKTECH.com