



## SD/SDS - SLUDGE DEWATERING PROCESS - OPERATION

### POLYBOX OPERATION

Initial set up

-Agitators already active and tanks already loaded with water and polyelectrolyte

-The mixed pump feeds diluted polyelectrolyte into the pipeline.

-Agitator motors on

### OPERATION

The lower rod with two-rod level probe activates the inlet solenoid valve which loads the first tank and also the doser motor.

When the water level reaches the highest rod of the level probe, the filling solenoid valve turns off and so also the doser motor.

### SLUDGE FLOW

The flow pump is activated through an external consent which detects the need to pump sludge into the system. This can be done through a sensor which detects the presence of sludge or a manual consent or for a pause/work. With the activation of the flow pump, the mixed pump (see Polybox operation) is also activated. Then it will turn off with the flow pump. If polybox is filling with water and polyelectrolyte when it is turning off, this ends once the water loading reaches the highest rod and then will turn off. Flocculation tank receives polymer and sludge that are continuously mixed by the stirrer.

The SDS sludge thickener or the SD Sludge screw press receives the flocculated sludge by gravity

### SCREW PRESS / SLUDGE SCREW THICKNER

The SD/SDS activates and switches off 5 minutes after the flow pump is turned off.

Washing works every 5 minutes (settable) with 2 forward / reverse cycles, these are counted through the 2 limit switches. When the screw press is turned off, the washing cycle takes 2 cycles.

### SCREW CONVEYOR

Turn on when the SD/SDS goes on and turns off 30 second after SD/SDS screw stops.