

A Case Study;



Southern Clay Products Gonzales, Texas

Background

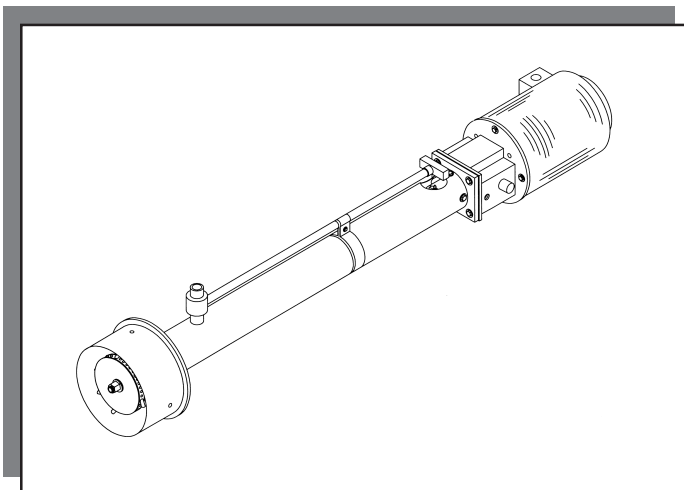
Southern Clay Products processes Kaolin and inorganic Quartz products. The heavy clay laden process water is filtered and reused in the processing plant. As an average, Southern Clay Products generates about 190 gpm of process water with 3000 mg/l clay. The high clay concentration in the process water plugs the screens and erodes the pump impellers causing expensive down times.

Problems

1. Processing plant shut down
2. Equipment breakdown
3. Clogging of the filters and pipes
4. Settling in the storage tanks

Solution

Physically remove the fine and heavy particles from the process water before pumping. Filters do not work very well in this situation due to high loading rates. So Southern Clay Products decided to install a 2 horsepower Zephyr Induced Air Flotation System in a tank with an overhead skimmer.



Results

1. According to Mr. Clyde Bates of Southern Clay Products, "Without the Zephyr operating, the filters clog. With the Zephyr, the filters do not clog and there is no more down time."
2. The processing plant is operating around the clock.

Benefits

1. The recovered clay product is added to the finished product, earning extra revenue.
2. The process water is reused without any waste.
3. The simple modular design is easy to operate and maintain.
4. No bulky and expensive equipment is required.
5. The equipment is highly reliable.