

Operation & Maintenance Manual

Clay Treatment System



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1.0 Product Photographs

1.1 Photograph Legend

#	Part Name
1	Mixing/holding tank
2	Isolation valve
3	Filter bag
4	Collection tank
5	Delta Mixer
6	Adaptor head
7	Drain pipe

1.2 Product Photographs



Photograph 1 – Clay Treatment package





2.0 Chemical Treatment System Operation

Caution: Material is extremely corrosive. Ensure all operators are equipped with proper safety clothes, including, but not limited to, glasses, goggle and gloves.

Note: Instructions are based on a 200 gallon batch.

1. Hang the pH adjustment system to the side and top of the tank. Refer to the operation manual for the pH system for full description of its operation.
2. Put filter bag (3) on adaptor head (6), if necessary.
3. Fill mixing/ holding tank (1) with 180 gallons of neutralized battery solution.
4. Ensure that collection tank (4) (supplied by others) is empty and in position to collect treated water or divert to discharge
5. Turn the mixer (5) on.
6. Adjust the speed of the mixer to create a very slow agitation. The speed should ensure sufficient mixing of acid while not breaking the floc that is being formed.
7. Add 1.1 Kilograms of caustic beads. Mix for 3 minutes.

Note: The pH should be at least 8.5 but must not exceed 9.5. If pH is less than 8.5, add a small amount of caustic beads while mixer is on. Mix for an additional 2 minutes if the pH is still below 8.5. Repeat until pH is between 8.5 and 9.5. Turn off mixer.

8. Add 150 grams of Norfloc SC4. Mix for 2-3 minutes.
9. Stop mixer. Take water sample and look at floc.
10. If the floc is too small, add more SC4 and turn mixer (5) back on for 2-3 minutes.
11. Adjust the dosage according to the size of floc desired. If floc is at desired size, open isolation valve (2) and drain water through filter bag. Allow to drain completely. When mixing (1) tank is empty, remove and discard filter bag. Replace with new bag. Drain collection tank (4).

Note: If filter bag plugs with dirt prior to mixing tank being empty, close isolation valve. Remove dirty filter bag, replace with new bag and open isolation valve. Repeat if necessary.

3.0 Chemical Treatment System Maintenance

3.1 Changing Filter Bags

Note: These instructions refer to an open filtration system.

The filtering system consists of:

- 1) An adaptor head (clecon or stainless steel)
- 2) A micron-rated filter bag.

The adaptor head is easily installed in gravity filtering setups and is designed to screw onto a standard 1 ½" NPT pipe thread. The filter bag has a built-in flexible ring at its top which slips over the adaptor for quick and secure bag attachment (see illustration below). In position, the snap-ring holds the filter bag completely open such that 100% of the felt area is used for filtration. There should be no gathering of the felt.

