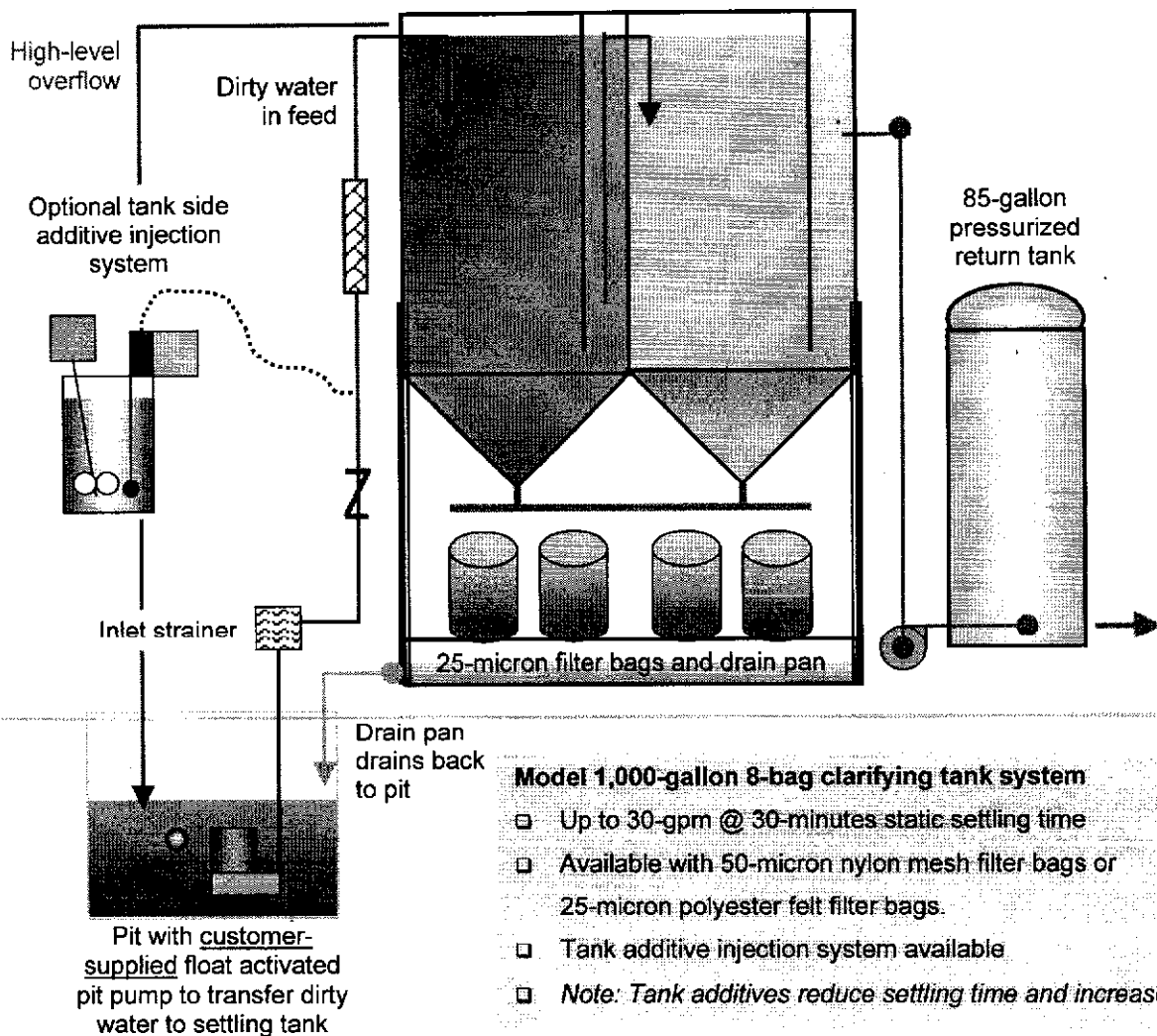
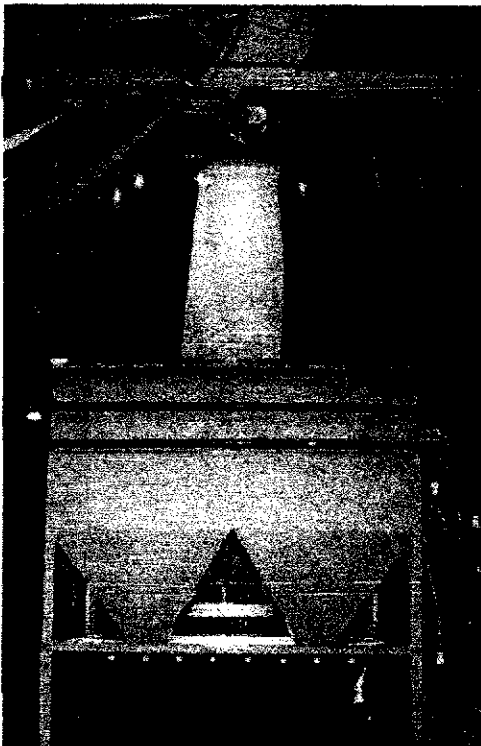


Process Diagram - BAG SYSTEM

A tank system gets your facility operational with a basic system that separates the solid material in suspension through gravitational settling. The thickened muddy water concentration that accumulates in the tank cones is continuously drained into the filter bag manifold at low flow as controlled by the gate valves above each filter bag. The sludge is extracted and dehydrated as the concentrate passes through the filter bags, which must be manually removed for disposal when full. The clean water opposite the dirty liquid end is pump backed to the stone working machinery via a pressurized return pumping system.



Bag system feed control: The bag system requires installation of the regulating valves and bag heads, which were not shipped pre-installed because of shipping restrictions on height. The valves and bag heads must be installed using the supplied fittings. Please make sure to use a thread sealant on the fittings. A manually regulated gate valves over each bag in the bag system feed manifold regulates the feed flow rate to each bag. The valves located under at the dirty end conical tank section should be opened more than the valves located under the clean end conical tank section. The liquid that drains from the bags should drain from the pan back to the pit. Proper adjustment would ensure the tank remains at a suitable liquid level to maintain the return pump prime.



The correct adjustments will only be determined by continued use, experimentation, and experience.

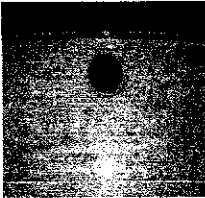
Warning: The tank system can overflow the pit if the bag regulating valves are adjusted such that too much liquid is draining from the bags.

1" drain plugs have been added to each end of the bag system feed manifold for periodic clean out access.

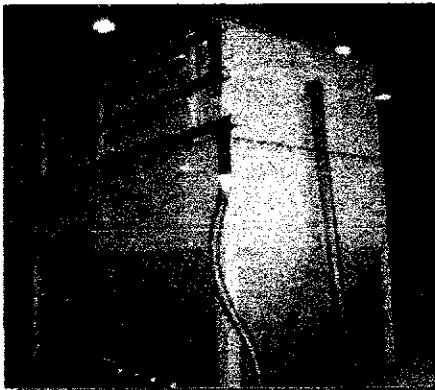
The chemical mix tank and inject pump are designed to pre-mix and add flocculants to the dirty water in-feed. The injected chemical additive is introduced above the check valve and will be thoroughly mixed with the incoming dirty water via the in-line mixer and chemical mixing header. The use



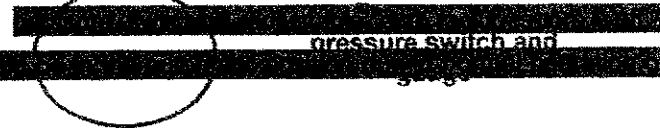
of proper chemistry will dramatically reduce settling time and water clarity in the system. The chemical supplier of choice should determine the appropriate injection rate.



2" NPT tank high level
overflow connection back
to collection pit



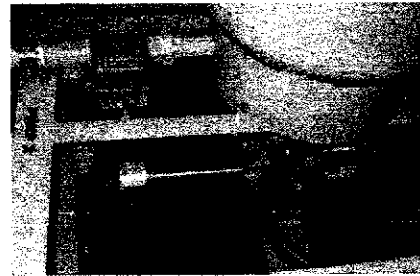
Return pumping system: The return supply pump draws liquid from a suction pipe / hose from the center of the final tank chamber. Please make sure the pump is primed and pump rotation is checked before operating the system. The pump fills the 85-gallon pressure reserve tank. The pump is controlled by a pressure switch set to start the pump @ 35-psi and stop @ 60-psi.



Clean liquid
connection



Return piping connection: The clean return line should be 1.25" diameter and constructed of hard



pipe or flexible hose that will not

collapse. The pressurized tank will deliver water to the stone fabricating machinery in an "instant-on" fashion. When the tank is depleted of water the pressure switch kicks on the pump adding water volume to the tank and down stream requirement until the maximum pressure cut-off is reached stopping the pump.

Locating the system: The system's location relative to the liquid source is relatively unimportant provided the specified piping and flow requirements are considered. The unit should be located in such a way that it permits easy access for removing the sludge bags.



System mounting requirements: The pump end of the system is supplied with forklift tubes for unloading and moving the system into location. The system should have a solid, level, secure foundation and / or concrete pad with minimum thickness of 4". The system requires a 3/8" anchor bolt type fastener in each corner to fix the system to the floor and should be leveled corner-to-corner

±1/32".

Connect the 1.5" NPT pipe containing an airlock, which will drain back into the collection pit.



Mounting the control panel: As previously mentioned, the pump motor starter should typically arrive pre-mounted and wired. The controllers, breakers, fuse, wire size, conduit and grounding should be installed per NFPA, NEC, LOCAL, and in-plant codes.

Power supply to the control panel: Standard supply power requirements for this equipment is 220-volt 3-phase 60-Hz unless otherwise specified. If you are supplying a different voltage specification than stated above, please double check the voltage and notify US Centrifuge if your voltage deviates by more than 10% from the specified voltage.

- **Wire size** Minimum wire size for 230 volt is No. 8 AWG.
- **Overloads** All adjustable motor starter overloads should be set to the maximum rated full load amperes noted on motor nameplate.



Feed piping connection: The dirty feed line should be 1.5" diameter and constructed of hard pipe or flexible hose that will not collapse. The tank includes a strainer with 1/2" mesh on the CF tank inlet. This helps minimize clogging and / or damage to the pumps, valves, and bag system due to large objects passing through the system.