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Redox Flocculation Technology
RPF Flocculator

The RFP flocculator is characterized by the plug flow principle. The retention time is almost uniform and mixing energy is constant in the pipe crossection. In this way all particles will be subject to the same amount of mixing energy and for the same period. This will result in a highly uniform floc with excellent separation characteristics. The mixing energy in the mixing units is the most critical part of the flocculator.
A coagulant is usually dosed to the waste water at the inlet side of the flocculator. Immediately after the dosing point a mixing unit is installed for the mixing of coagulant and waste water.
The coagulation takes place in the pipe after the mixing unit.

Coagulation is the destabilisation of the polluting matter in the influent. Fine particles are formed, which are not ideal for separation.
Mixing energy and reaction energy in the mixing unit and in the pipe are a result of turbulence (Reynolds number). For this reason a flocculant is dosed after the coagulation is completed. Mixing of water and the flocculant takes place in a second mixing unit.
Floc growth takes place in the pipe after the second mixing unit. In this way a uniform, ideal floc is formed for separation of floc and water in a separator.
The flocculator can be provided with optional fittings for dosing of chemicals for neutralization and pH measurement.