

Simulation of cleaning sequence

The flow sheet below represents a cleaning sequence with three stages. The process is designed to treat a pulp feed of 1000 T/d at consistency of 1.3% and Temperature of 120 F. To operate the system at optimal condition the pressure drop inside each cleaning stage is adjusted by the flow rate of white water (free variable) available at consistency of 0.01% and a temperature of 125 F.

For the simulation built with Cadsim Plus we have used the Bauer Centri-Cleaner 606H, but you can use any other type of cleaner providing the same separation.

Cleaners:	Number of cleaners	Pressure Drop (psig)	Vol. Flow Reject Rv (%)	Fibre Reject Rf (%)
Primary	155	30	9	16
Secondary	40	30	9	18
Tertiary	10	30	9	20

Feed: 1000 T/d at consistency of 1.3% and Temperature of 120 F.

White water: 0.01 % consistency, temperature = 125 F

Tasks:

- 1) Built a simulation of the cleaning system according the scheme below
- 2) Determine the required flow rate of white water.

