



Case Study

Cement Industry

PPC Cement – water reclamation plants 36 m³/hr and 50 m³/hr



Problem Statement

The project required the treatment of river water with turbidity levels as high as 400 NTU. The objective was to produce treated water that meets the required SANS/SABS or WHO drinking-water quality standards, while maintaining a reliable supply throughout the production cycle.

Solution

Watericon designed, manufactured and commissioned two packaged water reclamation plants, with treatment capacities of 50 m³/h and 36 m³/h respectively. Both plants were engineered to operate on a 20-hour production cycle, providing dedicated time for routine maintenance, settler desludging and filter backwashing without interrupting water availability.



Process

Raw river water is pumped into the pre-treatment stage, where a controlled chemical dosing system applies primary coagulant, pH correction, flocculant aid and disinfectant to optimise the treatment process. The conditioned water then passes through reaction columns, promoting effective coagulation and floc formation. It is subsequently directed to a settler, providing sufficient retention time for suspended solids and flocculated material to settle out. The clarified water then undergoes filtration, further reducing residual suspended solids and improving overall water quality. A final disinfection stage provides an additional barrier against microbiological contaminants before the treated water is transferred to the clean-water storage tank.