

AUTOMATED FLOCCULANT MIXING PLANT

The automated solid-grade flocculant mixing plant is designed to produce dilute flocculant solution from granular powder using either fresh water or recycled centrate from an adjacent centrifuge. The system efficiently combines a controlled volume of granular powder with water or centrate within the FLOCFEED unit, enabling solution concentrations of up to 0.2%. The prepared solution is transferred to the FLOCTANK below for continuous agitation and aging prior to use. FLOCTANK level is automatically monitored and maintained by the FLOCFEED unit. The dilute flocculant is typically dosed via a variable-speed positive displacement peristaltic pump, into a centrifuge feed line, to separate solids from liquid. The size of pump will depend upon the site requirements.



TECHNICAL DATA

Dilute flocculant production rate: 300L/min (18m³/hr)

Dilute flocculant concentrations: 0.05%, 0.1%, 0.15% and 0.2%

FLOCFEED powder discharge: Up to 700g/minute of free-flowing granular powder.

FLOCFEED water holding tank volume: Up to 6m³

Screwfeeder: WAM MBW 042 volumetric screwfeeder with 0.25kW motor

Screwfeeder hopper capacity: > 2 No. 25kg sacks of flocculant powder

Flowmeter: Siemens MAG5100 4" flowmeter – 230Vac

Proportional control valve: HQ005 230Vac c/w modulating control and feedback

Submersible pump: Calpeda GQN 50-17 400Vac

FLOCTANK volume: Up to 21m³.

FLOCTANK agitator: Renold WMV6 vertical shaft agitator with 3 No. stirring blades powered by 4kW 4 pole direct -on-line started motor.

Transport size: 2 No. units each 6058x2438x2591mm (1CC container size), complete with ISO corner castings.

Weight (dry): FLOCFEED module at 6 tonnes, FLOCTANK at 6 tonnes.

Operating size: 6058mm (L) x 3105mm (W) x 5200mm (H).

Access to FLOCFEED module: Via external staircase or adjoining centrifuge platform.

Power: 6kW installed power running at 380-415V, 50Hz, 3 phase and earth (no neutral required). Minimum of 12m 4mm² x 4 core H07 flex fitted with 400V 32A 4 pin plug.

Estimated running current: 10A per phase.

Estimated starting current: 57A per phase.

Estimated noise emission: 74 dB(A) at 5m. Actual noise levels will vary depending on installation and operating conditions.