

HAWK FINES RECOVERY PLANT

As part of EIW’s end-to-end washing equipment line, the Hawk Fines Recovery Plant captures fine particles down to 400 mesh (2.7 SG) from process water in aggregate waste streams. It produces drip-free, stackable solids that are easy to handle and reduces the volume of material sent to settling ponds.

The plant can operate as a standalone unit or serve as the first step in a larger tailings management system, integrating liquid-solid separation to improve fines recovery and reduce material loss.

The Hawk Fines Recovery Plant is built with a compact modular design consisting of a Sump, Pump Hydroclones and a Dewatering Screen. Instead of being sent directly to a settling pond, the waste stream enters the Sump, where it is pumped to the Hydrocyclones. The Hydrocyclones separate ultra-fine particles from the feed, and discharge them onto the Dewatering Screen, which removes excess moisture to produce a drip-free, conveyable product.

A majority of the water and some remaining fine particles exit through the Hydrocyclone overflow. A portion of this water is recirculated for sump level control while the rest is directed to a settling pond or additional downstream processing equipment.

By capturing fine solids before they reach the pond, the Hawk Fines Recovery Plant helps reduce pond maintenance frequency, lowers labor and equipment costs, and recovers material that can potentially be repurposed for applications such as pond lining or backfill material, creating an additional revenue source.



Design Features

Compact, modular design allows for quick setup and a small footprint	Access walkways can be installed on the left or right, with stair placement in six locations
Hydrocyclone features a range of vortex finders and configurable apexes	Dewatering Screen offers configurable media to suit various duty applications
Pump is designed with high wear resistance and adjustable speed settings	Sump has a configurable feed orientation for left or right placement

Model	Capacity	Dewatering Screen		Hydrocyclone	Sump Model	Pump	
		Dimensions	Motors			Dimensions	Motor
3000	3,000 GPM (680.4 m³/h)	5' x 14' (1.5 m x 4.3 m)	2 x 8.5 HP (6.3 kW)	3 x EIW 1810	EIW-3000	10" x 8" (25.4 cm x 20.3 cm)	125 HP (93.2 kW)
6000	6,000 GPM (1,362 m³/h)	7' x 14' (2.1 m x 4.3 m)	2 x 13 HP (9.7 kW)	5 x EIW 1810	EIW-6000	12" x 10" (30.5 cm x 25.4 cm)	250 HP (186.4 kW)

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Components

HYDROCYCLONES

- Fabricated from mild steel with rubber linings
- Rubber-lined steel feed distributor with five ports
- Separate ultra-fine particles from process water
- Configurable apexes
- Underflow access platform
- Direct fine solids onto the Dewatering Screen

DEWATERING SCREEN

- Two vibratory motors:
 - 8.5 HP (6.3 kW) for Hawk 3000
 - 13 HP (9.7 kW) for Hawk 6000
- Polyurethane screen media
- Heavy-duty construction featuring huck bolts to minimize welding as well as reinforced crossbeams and stringers
- Energy conscious with low HP vibratory motors (low power /high production)

PUMP & SUMP

- Flanged feed entry collection sump
- Rubber-lined suction hose
- EIW rubber-lined slurry pump:
 - 10" x 8" (25.4 cm x 20.3 cm) for Hawk 3000
 - 12" x 10" (30.5 cm x 25.4 cm) for Hawk 6000
- Rubber-lined discharge hose from pump discharge to Hydrocyclone feed manifold
- Electric on/off/modulating sump level control valve with pressure transmitter

