

CLASSIFYING TANKS

EIW Classifying Tanks are used for any of the following functions:

- Removing or scalping excess water from a dilute minus 3/8" (10 mm) and finer sand slurry feed
- Classifying a typical 2.6 to 2.7 SG sand by removal of excess of certain intermediate mesh sizes
- Retaining finer mesh sand sizes
- Making multiple products from a single feed material for most construction sand specifications

Classifying Tanks are effective, low maintenance units that can accept either a slurry or dry feed. They handle gradation swings in the average sand deposit or in a manufactured crushed sand while minimizing waste.

Sand classification is based on the different settling rates of various grain sizes. As water and material enter the feed end, coarser grains settle first, and finer grains settle in successive sizes along the length of the tank. At the top of the tank, a series of hydraulic control mechanisms operate the discharge valves at the bottom of the tank. Depending on the type of control system and product produced, one, two, three or four discharge valves are located at each station.

The Eagle Classifying Tank has a large settling area, which makes it easier to retain fine mesh particles and produce secondary and tertiary products such as masonry/mortar, asphalt, golf and other specialty sands.



Design Features

Extra-long weirs maximize product retention and improve separation efficiency

Flume assemblies are fitted with abrasion-resistant metal liners as standard

Adjustable weirs to accommodate out-of-level site conditions

Optional magnetically secured urethane liners are available for additional wear protection

A robust hydraulic power unit delivers reliable operation and extended service life

Heavy-duty, double-acting hydraulic cylinders provide accurate and controlled valve discharge

The collecting and blending flume is designed to minimize product contamination in high tonnage applications

Valves and paddle rods are manufactured from thick-diameter steel

10-Link plug and cable assemblies support reliable system connectivity

Hydraulic hose used to actuate hydraulic cylinders

Control System Options

Classifying Tanks can be supplied with EIW's Digital Dialsplit or Mark X control systems.

Information on these PLC driven systems can be supplied on request.

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Stationary Units & Capacities

	Tank Size (Length x Width)	Maximum Water Input Flow Rate with Low Silt Content for Fine Sand Retention		
		100 Mesh	150 Mesh	200 Mesh
Single Tank	20' x 8' (6.1 x 2.4 m)	2,300 GPM (522.4 m ³ /hour)	1,200 GPM (272.5 m ³ /hour)	700 GPM (158.9 m ³ /hour)
	24' x 8' (7.2 x 2.4 m)	2,800 GPM (635.9 m ³ /hour)	1,400 GPM (317.9 m ³ /hour)	800 GPM (181.7 m ³ /hour)
	28' x 8' (8.5 x 2.4 m)	3,200 GPM (726.7 m ³ /hour)	1,600 GPM (363.3 m ³ /hour)	900 GPM (204.4 m ³ /hour)
	32' x 8' (9.7 x 2.4 m)	3,500 GPM (794.9 m ³ /hour)	1,800 GPM (408.8 m ³ /hour)	950 GPM (215.7 m ³ /hour)
	24' x 10' (7.2 x 3.0 m)	3,500 GPM (794.9 m ³ /hour)	1,800 GPM (408.8 m ³ /hour)	950 GPM (215.7 m ³ /hour)
	28' x 10' (8.5 x 3.0 m)	4,100 GPM (931.2 m ³ /hour)	2,100 GPM (476.9 m ³ /hour)	1,100 GPM (249.8 m ³ /hour)
	32' x 10' (9.7 x 3.0 m)	4,700 GPM (1,067.4 m ³ /hour)	2,400 GPM (545.0 m ³ /hour)	1,250 GPM (283.9 m ³ /hour)
	36' x 10' (10.9 x 3.0 m)	5,300 GPM (1,203.7 m ³ /hour)	2,700 GPM (613.2 m ³ /hour)	1,400 GPM (317.9 m ³ /hour)
	40' x 10' (12.2 x 3.0 m)	5,900 GPM (1,340.0 m ³ /hour)	3,000 GPM (681.3 m ³ /hour)	1,550 GPM (352.0 m ³ /hour)
	48' x 12' (14.6 x 3.6 m)	8,100 GPM (1,839.7 m ³ /hour)	4,200 GPM (953.9 m ³ /hour)	2,150 GPM (488.3 m ³ /hour)
Dual Tank	32' x 10' (9.7 x 3.0 m)	9,400 GPM (2,134.9 m ³ /hour)	4,800 GPM (1,090.1 m ³ /hour)	2,500 GPM (567.8 m ³ /hour)
	36' x 10' (10.9 x 3.0 m)	10,600 GPM (2,407.5 m ³ /hour)	5,400 GPM (1,226.4 m ³ /hour)	2,800 GPM (635.9 m ³ /hour)
	40' x 10' (12.2 x 3.0 m)	11,800 GPM (2,680.0 m ³ /hour)	6,000 GPM (1,362.7 m ³ /hour)	3,100 GPM (704.0 m ³ /hour)
	48' x 12' (14.6 x 3.6 m)	16,200 GPM (3,679.4 m ³ /hour)	8,400 GPM (1,904.8 m ³ /hour)	4,300 GPM (976.6 m ³ /hour)

Generally, Single Classifying Tank capacities are: Max for 8 ft (2.44 m) wide units: 250 STPH (226 MTPH), for 10 ft (3.05 m) wide units: 350 STPH (317 MTPH), for 12 ft (3.66 m) wide units: 450 STPH (408 MTPH). Capacities may vary due to your sand feed gradation and product specifications. Double Classifying Tanks are available for higher capacities and dilute suction dredge-fed plants. Typically, classified sand products are dewatered by EIW Fine Material Washers or Dewatering Screen systems.

Classifying Tank Diagram

