



 **McLanahan**

SAND-MANAGER
CLASSIFYING TANK

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Sand-Manager® Classifying Tanks are widely used in sand, gravel, and crushed stone washing plants around the world. The classifying method is based upon the principle that slurried coarser sand settles near the feed end and finer sand is carried progressively further down the length of the tank. Valve stations located throughout the tank are equipped with hydraulically-operated valves and torque motor-driven paddles. As material accumulates at the base of a paddle, the motor stalls, signaling the appropriate product valve to open. As the correct percentage of material is allocated to its proper collecting flume, the sand is re-blended for most construction sand specification products.

Selection

Use the following water capacity charts to help guide the selection of your McLanahan Sand-Manager® Classifying Tank. For proper sand classification, we recommend 8 to 10 USGPM of water for every 1 TPH of sand feed. To remove every 1 TPH of -200 mesh material in the feed, 100 USGPM (629 m³/gallon) of water is required.

10' Wide Unit			
Length	USGPM (m ³ /gallon)		
	100 Mesh	150 Mesh	200 Mesh
24' (7.3 m)	2,770 (629)	1,812 (412)	1,019 (432)
28' (8.5 m)	3,458 (785)	2,262 (514)	1,272 (289)
32' (9.7 m)	4,152 (943)	2,716 (617)	1,527 (347)
40' (12.2 m)	5,001 (1136)	3,272 (743)	1,839 (418)

11' Wide Unit			
Length	USGPM (m ³ /gallon)		
	100 Mesh	150 Mesh	200 Mesh
32' (9.7 m)	4,657 (1,058)	3,047 (692)	1,712 (389)
40' (12.2 m)	6,233 (1,416)	4,077 (926)	2,292 (521)

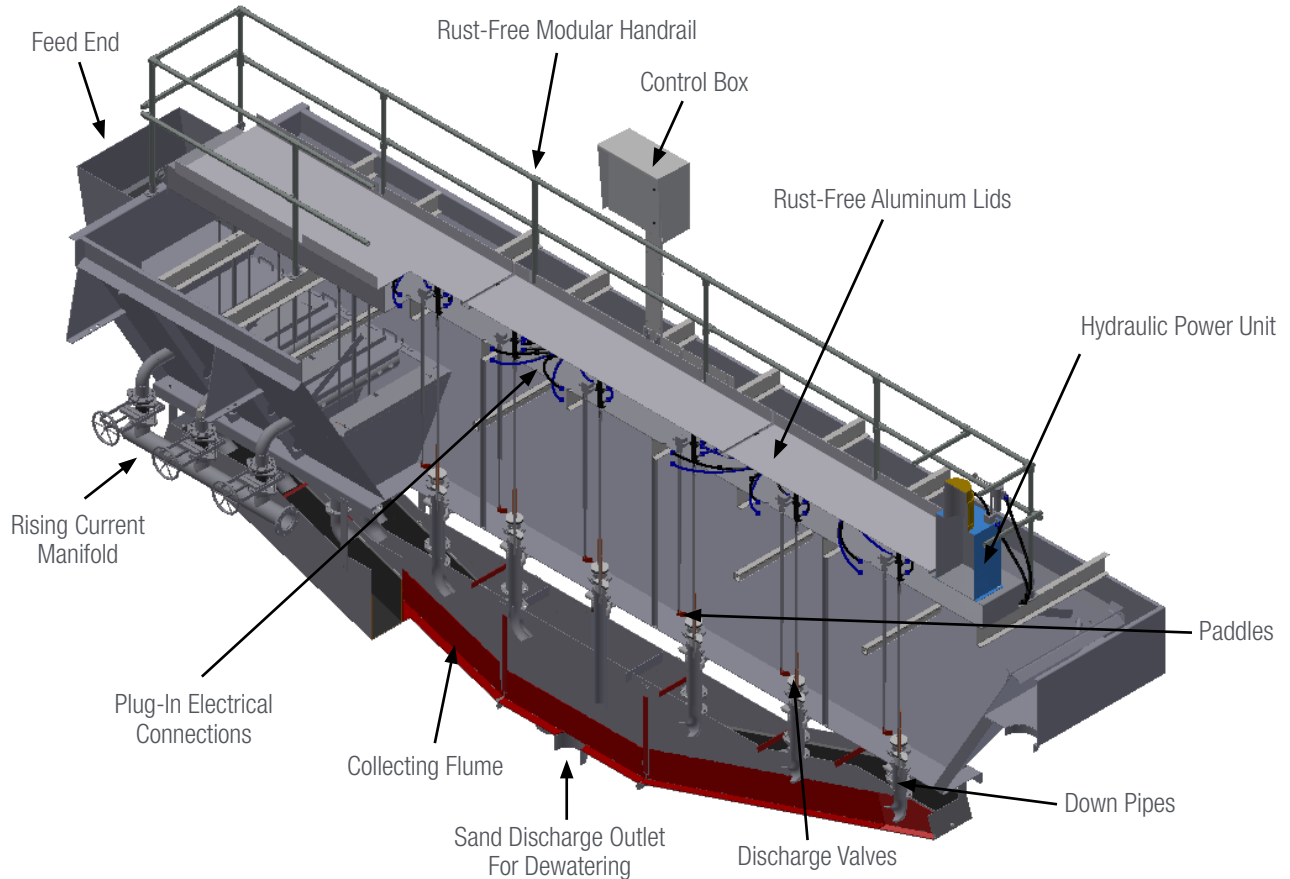
12' Wide Unit			
Length	USGPM (m ³ /gallon)		
	100 Mesh	150 Mesh	200 Mesh
40' (12.2 m)	7,044 (1,600)	4,608 (1,047)	2,590 (588)
48' (14.6 m)	8,789 (1,996)	5,749 (1,306)	3,232 (734)

Twin Tanks

For use in high water-volume applications such as suction dredging, parallel tanks double water capacity while a cross-collecting flume combines material to a single discharge point for final dewatering of each product. With twin classifying tanks, water capacity is doubled. Water volumes are maximum allowable when maintaining a 1.03 specific gravity.

STANDARD FEATURES

The Sand-Manager® Classifying Tank utilizes a percentage-based approach to control the classifying/reblending process. As material accumulates at a given valve station, your designated percentage is discharged to each product. You simply enter these percentage values into the Sand-Manager® controller to achieve the proper re-blending. Since each valve station operates independently, you can easily adjust the percentages to compensate for feed and/or specification changes.



OPTIONAL FEATURES

Rising Current

Tank performance is vastly improved by precisely controlling the settling process. A rising current is produced by metering fresh or re-circulated water through a manifold and pinch valve to the first three valve stations. The upsurge current of water forces the smaller, lighter grains of sand into a longer period of suspension, which allows them to be carried further down the tank. For recirculating water into the rising current manifold, an optional pump can be supplied. This recirculating pump comes complete with a motor, V-belt drive, drive guard and piping to return a portion of the Classifying Tank's water overflow to the rising current manifold.

Coarse Aggregate Metering Bins

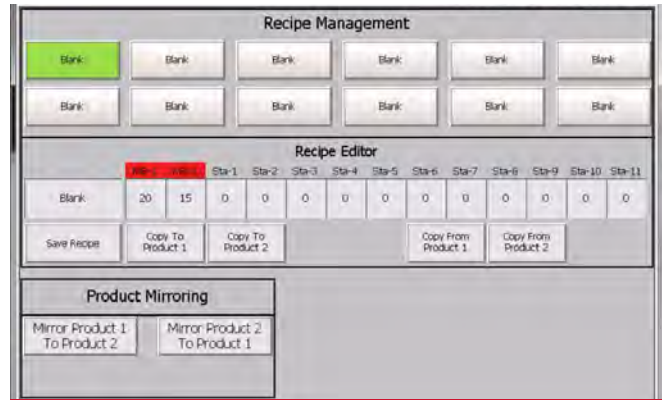
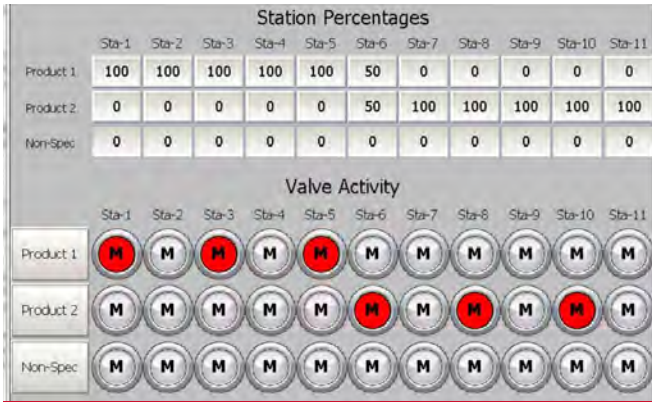
Coarse aggregate metering bins are designed to handle excess minus $\frac{3}{8}$ " x 8 mesh sand. Without having to deal with these coarse sizes, a Sand Tank can operate and classify more efficiently. Metering bins are monitored and controlled like the tank's valve stations to reblend the sand into products as required. Bins are available in either single or two product designs, and can be equipped with a hydraulic or pneumatic clamshell gate.



Rising Current Pinch Valves

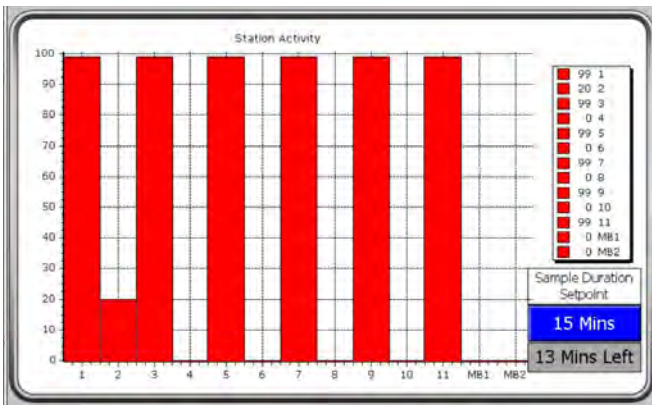
SAND-MANAGER® CONTROL SYSTEM

The Sand-Manager® controller is the heart of the Sand-Manager® Classifying Tank. Its state-of-the-art PLC contains the power necessary to control all aspects of the tank. The panel is located on top of the tank or remotely, depending on your requirements. Included is a touch-screen panel that provides a user-friendly interface that puts all operation functionality at your fingertips. You can effortlessly change station percentages, manually force any valves open or closed, monitor valve activity and alarm conditions, and manually override any or all discharge valves.

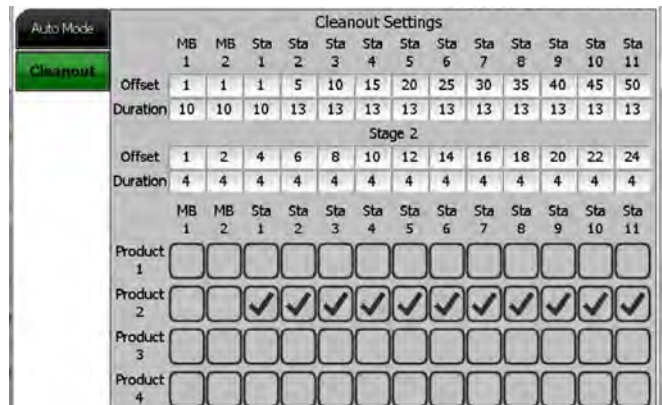


The Tank Overview Screen is the central location for the control system. Station percentages are located on the top of the screen to make changes easy. The lower portion of the screen provides valve activity feedback. Whenever a valve opens, the corresponding indicator will fill red to give the operator a visual indication of how the system is operating.

The Product Manager Screen houses the Recipe Management, Recipe Editor and Product Mirroring features. Up to 12 recipes can be saved on the screen. The recipes are saved sets of station percentages that the operator knows will produce a given a product.



The Station Activity Screen displays the percentage of time that the binder was stalled for each station during the previous time period. This can help diagnose tank issues by giving a visual representation of how the system is running.



The Cleanout Settings Screen is used to clean out the tank by opening and closing the valves in a certain order spelled out on the screen.

SEMI-PORTABLE AND PORTABLE PLANTS

Semi-Portable and Portable Sand Plants are low profile, wheeled units with a Sand-Manager® Classifying Tank and a Fine Material Double Screw Washer. The collecting flume divides the Screw Washer, enabling the operator to produce either the same specification product from both screw shafts or two products, one from each screw shaft. The tank is nestled inside the Screw Washer to minimize the overall height. The Semi-Portable Unit features structural steel legs for mounting on the foundation, while the Screw Washer rests directly on the foundation. Wiring is directed to a central control panel. The Portable Unit is mounted on a trailer, which is fabricated with support structure, air brakes and fixtures required to meet Interstate Commerce Commission regulations.