

# ULTRA SAND PLANTS



 **McLanahan**<sup>®</sup>

[mclanahan.com](http://mclanahan.com)



**McLanahan provides its customers with customized process solutions that not only meet but exceed today's rigorous application requirements.** With the most comprehensive wash equipment range in the industry, McLanahan can address your specific application whether it is with Screw Washers, Classifying Tanks, Slurry Pumps, Dewatering Screens, Cyclones or Separators™.

Continuing a long history of process innovation, McLanahan Corporation has pioneered the development of the Ultra Sand Plant. Consisting primarily of a slurry pump, a Separator™ and a Dewatering Screen, the Ultra Sand Plant is an alternative means of processing sand that offers higher yield, improved product consistency, and superior product dryness when compared to conventional wash equipment like fine material screw washers.

## **BENEFITS**

### **Higher Product Yields**

The Ultra Sand Plant provides a 3-5% higher product yield over fine material screw washers due to the greater separation efficiency of Separators™.

### **Drier Products**

The Ultra Sand Plant products contain approximately 50% less water than screw washer products. Lower moisture products allow for more immediate use of product, higher angle of repose for more stockpile capacity, reduced water loss, and better house keeping.

### **Blending Flexibility**

The Ultra Sand Plant can be set up to make both coarse and fine sand products simultaneously. Through the use of another McLanahan first, a gate can be utilized to blend the sands together – allowing for control of the final product's FM (Fineness Modulus).

## **DESIGN FEATURES**

Special Designed High Strength Urethane Screen Media – McLanahan Dewatering Screens have the highest production rates per foot of width in the industry. Our modular urethane screen media is specifically designed to survive the heavy loads generated by high production plants.

### **Heavy Duty Rubber Lined Slurry Pumps**

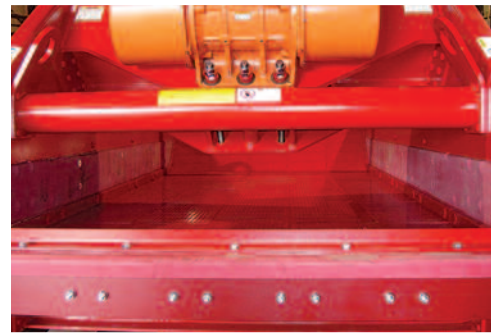
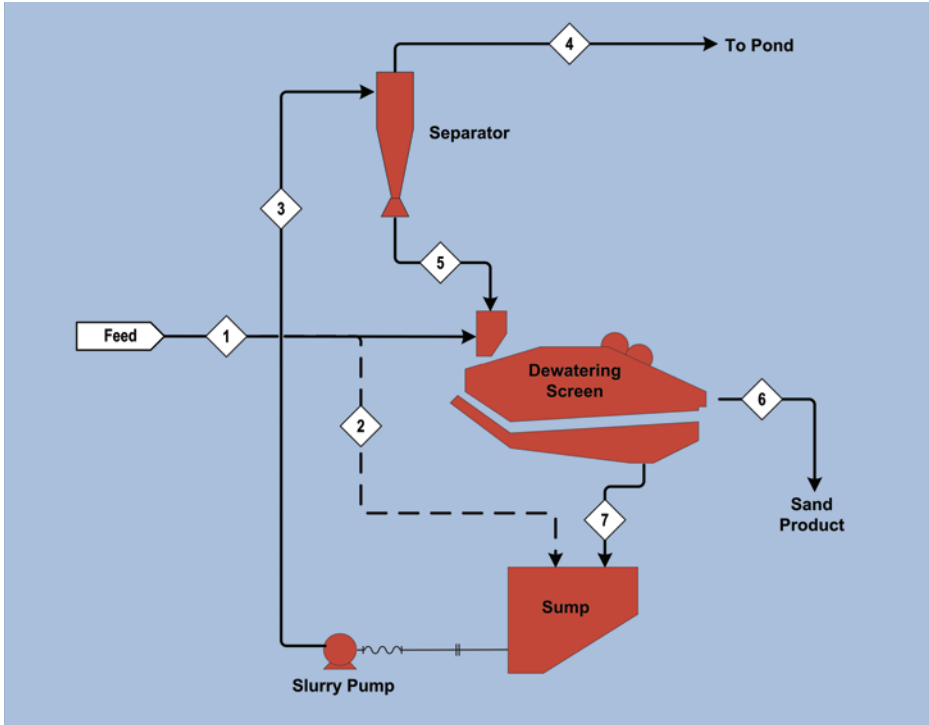
Designed for pumping sand slurries, the McLanahan Horizontal Centrifugal Slurry Pump is supplied with molded rubber impellers and casing liners.

### **Dewatering Screen**

The McLanahan Dewatering Screen combines the right G force and amplitude to provide the best product dewatering. McLanahan has designed its Dewatering Screen to withstand high loads and provide maximum wear life.

### **Separator™**

The McLanahan Separator™ is critical to the successful operation of the Ultra Sand Plant. This rubber lined vacuum assisted cyclone separates valuable solids from undesirable fine sand, silts, and clays.



## SAFER. SIMPLER. SMARTER.

### How Ultra Sand Plants Work

1. Feed to the system typically comes through the wash screen's bottom deck directly to the Dewatering Screen. The screen media effectively allows the water and fine sand to pass through the deck.
2. In certain cases where the feed is very dilute or contains a high concentration of -200 mesh solids it will be directed to the collection sump first.
3. Slurry in the sump is pumped to a Separator™ to remove the -200 mesh solids and water.
4. Water and fine silts and clays report to the slurry pond or other down stream processes such as an Ultra Fines Recovery System or Thickener.
5. Deslimed and partially dewatered solids are discharged onto the Dewatering Screen.
6. The Dewatering Screen removes excess moisture in the sand and discharges a "drip free" product.
7. Water and fines that pass through the Dewatering Screen report to the sump and are recirculated through the system, minimizing losses of sand size product.

**McLANAHAN OFFERS PARTS AND SERVICE  
24 HOURS A DAY, EVERY DAY!**

## Offering The Widest Range Of Processing Equipment Available From A Single Manufacturer

### Wet Processing

Aggregate Conditioners  
Attrition Scrubbers/Cells  
Coarse Material Screw Washers  
Dewatering Screens  
Flat Bottom Classifiers  
Filter Presses  
Fine Material Screw Washers  
Cyclones  
Hydrosizers  
Log Washers  
Pumps  
Road Based Mixers  
Rotary Scrubbers  
Rotary Trommel Screens  
Sand Manager Classifying Tanks  
Separators™  
Frac Sand Plants  
In-Line Blending Plants  
Recipe Sand Plants  
Fines Recovery Systems  
Sand Plants  
Thickeners

### Dry Processing

Cone Crushers  
Feeders  
Drag Chain Feeders  
& Feeder-Breakers  
Hammermill Crushers  
Impact Crushers  
Jaw Crushers  
Rocker Tooth Crushers  
Lab Mill Crushers  
Rotary Sample Dividers  
PugMill Mixers  
Roll Crushers  
Rotary Breakers  
Rotary Trommel Screens  
Screens  
Sizers  
Stage Loader Crushers  
Crushing Plants

### Sampling

Barge Auger Systems  
Cross Belt Sampling  
Cut Zone Systems  
Falling Stream Sampling  
Multiple Stage Sampling Systems  
Rail Auger Systems  
Single Stage Sampling  
Truck Auger Systems

### Wear Parts



<b>NORTH AMERICA</b>	CORPORATE HEADQUARTERS		
	Pennsylvania, USA	+1 (814) 695 9807	sales@mclanahan.com
	Florida, USA	+1 (863) 667 2090	polymers@mclanahan.com
	Iowa, USA	+1 (319) 365 0441	sales@mclanahan.com
<b>AUSTRALIA</b>	Tennessee, USA	+1 (615) 451 4440	sales@mclanahan.com
	New South Wales	+61 2 4924 8248	sales@mclanahan.com.au
	Queensland	+61 7 4952 3377	sales@mclanahan.com.au
<b>EUROPE</b>	England, UK	+44 (0) 1420 542489	infoUK@mclanahan.com
<b>ASIA</b>	Hyderabad, India	+91 (40) 2355 4071	info@mclanahan-nawa.com