

Semi-Open Trailer Mount Dewatering System



Trailer Mounted
2.2 Meter Belt Filter Press
With 12 X 8 Operator Office



CUSTOM DEWATERING SYSTEMS



BRIGHT TECH DUAL BELT FILTER PRESS

- ◆ Stainless Steel Frame & Roll Construction
- ◆ 8 Pressure Rolls
- ◆ 5 - 30 FPM Belt Speed
- ◆ Press Mounted Operators Controls
- ◆ High Efficiency Inclined Gravity Deck
- ◆ Patented High Efficiency Radius Wedge Zone
- ◆ Patented 50% Open Area Drainage Roll

AVAILABLE ANCILLARY EQUIPMENT

- ◆ Maintain in Place, Rotary Lobe Sludge Pumps
- ◆ Polymer Systems
- ◆ Automatic Level Control Filtrate System
- ◆ Sludge Flow Meter
- ◆ Belt Wash Booster Pump
- ◆ Industrial Air Compressor
- ◆ Hydraulic Folding Discharge Conveyor
- ◆ Sludge Macerator w/ Heavy Trap

OPTIONAL TRAILER FEATURES

- ◆ Insulated Operator Office / Control Room
- ◆ Lighting and 120VAC Receptacles
- ◆ Electric Heating and Air Conditioning
- ◆ Closed Circuit TV to Monitor BFP Operation
- ◆ Second Touch Screen for Converting Heated Office into a Control Room
- ◆ Sliding Curtains in Belt Press Area
- ◆ Dual Voltage 230/460 VAC Operation
- ◆ Insulated/Heated Under Deck Pump Area
- ◆ Locking Under Deck Tool or Hose Storage
- ◆ Stainless Steel Filtrate Tank
- ◆ Filtrate Tank Level Controls & Display
- ◆ Folding & Removable Catwalks w/ Handrails
- ◆ Hand Rail Storage
- ◆ Filtrate Heavy Trap
- ◆ Auto or Manual Trailer Leveling Systems

1.7 Meter BFP

Model P50-6700-D8XL

Twin Belt Filter Press, 50 PLI Rating, 304 Stainless Steel Construction, Eight (8) all stainless steel high pressure rolls, 5 hp VFD direct gear drive system, 5 - 30 FPM belt Drive Speed, High Performance Extended Length Gravity Deck, Patented Extended Length Radius Wedge Zone, Patented > 60% Open Area “Wing” Roll , Patented Pneumatic belt tension & tracking system, Heavy Duty Bearings with L-10 life rating > 500,000 hours, ABS bearing covers, individual stainless steel belt wash stations, safety controls. Bright Technologies BFP Mounted Operator Station, Folding Operators Gravity Deck Observation Platform.

Control System

230/460 Dual Voltage Operation vis a Step Up Transformer and Transfer Switch All BFP and Trailer functions are controlled through the 10 Inch color Touch Screen located in the operators console. Most dewatering operations can also be controlled thru the BFP mounted remote with 2 line display.

300 GPM ROTARY Lobe Sludge Pump

Vogelsang (TM) Rotary Lobe Sludge Pump with SEW Euro Drive (TM) 10HP direct coupled drive. This pump is High Efficiency, Compact, Rugged, Reliable and Easy to Maintain. Most common maintenance does not require removing the piping. A pressure transducer monitors sludge pump pressure and protects it against damage from over pressure operation. The operator can control the sludge pump speed (GPM) from the touch screen or BFP remote station.

Belt Wash Booster Pump

A single stage high pressure Monarch (TM) centrifugal pump was chosen for this application due to unknown water quality at each dewatering site. This rugged pump will deliver 60 GPM at 110 PSI with zero head pressure and can pass up to 3/16 inch solids without damage.

Sludge Dilution System

Thick sludge (> 8% solids) can be diluted by pumping BFP filtrate back into the sludge inlet line. The dilution flow is monitored and controlled from the touch screen and can be preset to any flow level from 50 to 150 GPM..

Filtrate Control System

The filtrate tank level is monitored and controlled from the touchscreen. The operator sets the level desired and the VFD controlled pump will automatically maintain the level. Even when filtrate flow is not constant. The filtrate pump is capable of 500 GPM flow and can pass up to 1/4 inch solids without damage.

Sludge Macerator

The incoming sludge may be pulled in through a Vogelsang (TM) sludge macerator. This macerator combines a heavy solids trap with a rotary grinding screen which assures that only solids of a suitable size are passed on to the sludge pump and belt press. The macerator can be used or isolated by means of pneumatic knife gates select from the touch screen.

Polymer System

This dewatering system is equipped with a Bright Technologies instant mix emulsion polymer system. The system uses a VFD controlled peristaltic polymer metering pump which injects the polymer into our system and where it flash mixes with dilution water to form a suitable polymer solution. The operator can control the polymer metering pump speed from the touch screen or BFP remote station.



Polymer Injection

This trailer is equipped with (2) 4 port polymer injection manifolds located before and after the sludge pump. The operator selects the injection point by rotating the appropriate ball valves on the system. The sludge and polymer

Sludge/Polymer Mixing Valve

The sludge and polymer mixing action can be controlled via a pneumatic variable orifice mixer. The mixing action is controlled electronically from the touch screen or BFP remote. In the event of higher than normal sludge pump pressure the valve will automatically cycle open and then return to its previous setting.

Sludge Retention Manifold

After the sludge and polymer have passed through the variable orifice mixer the sludge is piped through a series of pipe loops which create a gentle mixing action and are sized to allow time for the sludge to properly floc.

Stainless Steel Sludge Cake Conveyors

This trailer dewatering system is equipped with a Bright Technologies 12 inch horizontal conveyor and a hydraulic folding discharge conveyor. The folding conveyor is unfolded from its 24 inch storage space in a matter of minutes once on the job site and can reach a discharge height of XXXX

Folding Catwalks

Once on the job the catwalks are dropped down and the hand rails dropped in place. The catwalks are constructed of epoxy coated steel supports and aluminum diamond plate flooring.

Heated/Insulated Pump Compartment

An insulated under trailer compartment houses four of the system pumps. The compartment also contains two electric heaters and a temperature monitor that is tied into the touch screen. All Exposed piping under the trailer is heat taped and insulated to prevent freezing.

Hose Storage Compartment

Another under trailer compartment is used for hose transportation and storage. This compartment is 21 feet long and features four locking access doors.

HVAC System

A 3 ton air conditioner and 15 KW electric forced air system are part of the system to keep personnel comfortable and equipment operable. Register drops are located in all parts of the trailer as well as an outlet to under the upper deck (Nose) of the trailer

Nose Storage Area and Weather Guard

All utilities are connected under the upper deck or nose area. When the trailer is set up and the tractor is removed the nose of the trailer can be used for polymer storage. A vinyl weather guard can be attached with Velcro to the trailer to form a weather guard and to retain heat. The trailer HVAC system can provide heat in this area in inclement temperatures.

Utility Room

The front 14 feet of the trailer houses the HVAC System, step up transformer, master control panel, air compressor, sludge macerator, sludge pump, polymer system and a bathroom.

