



Bright Ancillary Equipment

Sludge Pump

The sludge pump offered is a Rotary Lobe pump that is very compact and easier to service than progressive cavity pumps. Rotary lobe pumps can operate dry for a longer period. Rotary Lobe Pumps can also operate equally well in either flow direction. Unlike many pumps they can also operate at 25 feet of suction lift. Repair is easily accomplished in most cases by removing a cover and retrieving over sized solids or replacing the lobes without disconnecting the piping.

Belt Wash

The Belt Wash Booster Pumps are designed to your needs. We design around a 130 Booster Pump PSI standard so that a minimum 110 PSI pressure can be maintained even after the pump "wears in". Cleaner belts mean more throughput. We give consideration to available water quality and pressure vs. pump design and water quality tolerance.

Air Compressor

Our systems use only 4 CFM Max. Our Cast Iron Air Compressors are cast iron construction. A quality industrial air compressor, with a 30 Gallon Receiver Tank.

Polymer System

Bright Technologies manufactures our own polymer feed and blend systems so that we have total control. The polymer systems feature dilution water flow control, dilution water low pressure shut off, built in water pressure regulator and four port injection of the polymer into the sludge line is standard. Post dilution water addition is available as an option.

Sludge Meter

The flow meters indicates the sludge flow in GPM at any time from our touch screen or Flow belt press mounted remote station. Total Gallons Processed is available on the Touch Screen in an odometer like non-reset and resettable form. Stainless Steel Bright Technologies offers a newly redesigned modular sludge cake conveyors offer a variety of conveyor lengths and the option to add length after delivery. The conveyors utilize a 2 foot drive with 10 foot and 6 foot interchangeable sections. These conveyor sections are constructed with 2" by 10" formed 7 Ga., (.135) 304 stainless steel channel to provide a very rugged frame. Other conveyor features include a Buna-N coated stainless steel drive roll for superior traction; stainless steel trough rollers and a crowned stainless steel take up roll. The typical 18" wide by 22 foot long can easily load a roll off box or small dump truck. To load a higher truck, a modular 6 or 10 foot section can be added to form a 28 or 32 foot conveyor. Other conveyor options include 304 stainless steel covers and catch pans.



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DEWATERING SYSTEM FEATURES



At Bright Technologies the difference isn't just one good improvement. It's dedication to combining innovative technology with proven components for a high performance, integrated dewatering system.

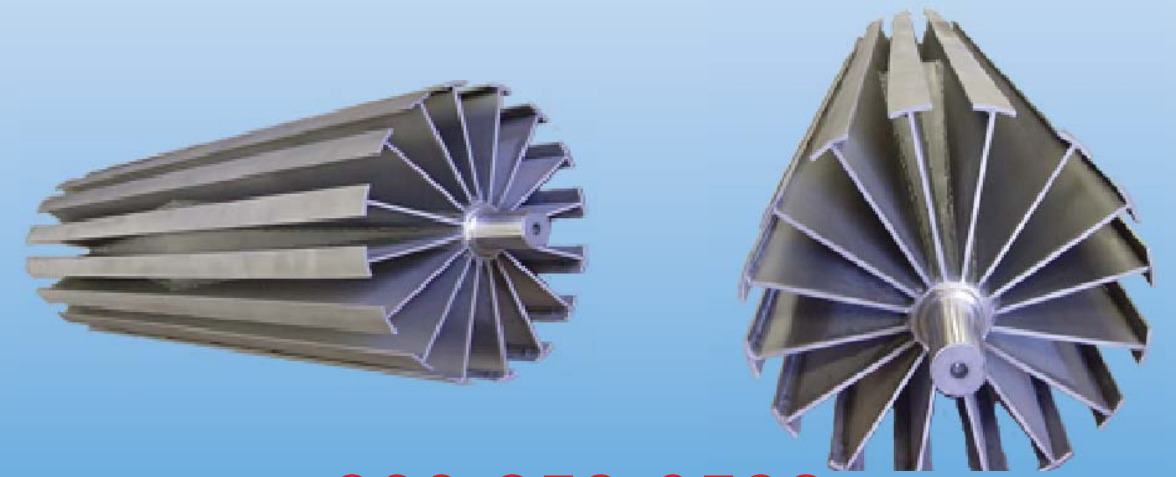
STAINLESS STEEL CONSTRUCTION

304 Stainless Steel Frame and Roll construction is standard on all Bright Technologies Belt Filter Presses.

DRAINAGE ROLLER

The patented first pressure roll is a large diameter fabricated roll that features 50% open area drainage for both the upper and lower belts. Unlike perforated rolls (30- 35% open area), our Drainage Roller channels water to the outside of the roll as the roll rotates upward. This action washes the majority of any solids present out of the roll so that they do not impede drainage in subsequent operation. The Wing Roll is also easy to clean at the end of the day's operation unlike perforated rolls which can stubbornly retain solids buildup inside the roll leading to diminished dewatering capacity and odors.

US Patent #6,543,623



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GRAVITY SECTION

The Inclined Gravity Deck features fully adjustable plow assemblies and 1/2" UHMW support bars on 2" centers designed to maximize drainage by breaking surface tension and maximizing capillary action. The moving belts in contact with the support bars break the water surface tension allowing it to flow through the pores in the belt. As the water travels through the belt it creates a vacuum effect on the top side of the belt, thereby pulling in more water. This principle is the same as the effect of touching the roof of a wet tent. The surface tension of the water keeps the water droplets from penetrating the tent until something touches the material and then it will leak at the contact point. Since the contact bars are spaced closer than many of those of our competitors our gravity decks are more effective for any given belt area.

PNEUMATIC BELLOWS

The belt tension and steering is accomplished by pneumatic bellows assemblies. These bellows are not subject to "freeze up" from corrosion as may happen with pneumatic cylinders. Further, with the bellows design there is no concern of a leaking hydraulic system.

HIGH PRESSURE ZONE

The Presses feature a minimum of eight pressure rolls. These rolls have a minimum of four decreases in roll diameter, which allow for greater pressure to be applied to the sludge cake.

BELT STEERING

US PATENT # 6,575,875

The belt steering is accomplished by a patented belt following assembly that utilizes solid state stainless steel proximity sensors that are easily adjustable and electrically connected to pneumatic valves which are protected inside a NEMA 4X cabinet. The sensors for Belt Steering, Belt Off Track, and Belt Breakage are identical and feature quick disconnect cables for quick replacement. These sensors can be easily and quickly be replaced.

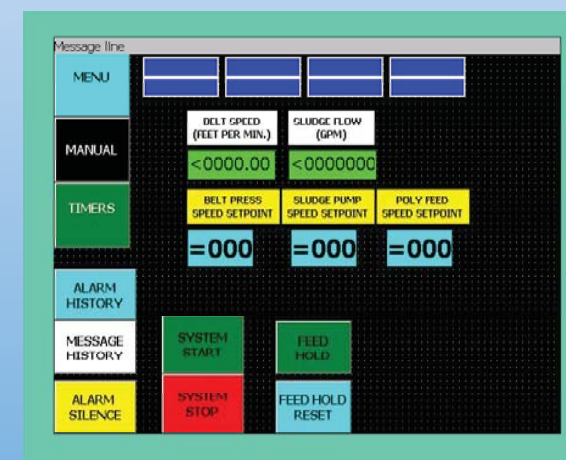
RADIUS WEDGE SECTION

US PATENT # 6,561,361

The patented radius wedge section brings the sludge into contact with both belts sooner than in a typical straight wedge section. This results in application of applying pressure to the sludge over a greater area than a straight wedge. The large radius of the wedge simulates a large diameter roll as well as promoting superior drainage by breaking lower belt surface tension on 2" centers. Unlike a straight wedge, this system does not require any user adjustments.



- **Easily Expandable Control System** The PLC and Touch Screen can be Programmed to control more ancillary equipment without adding pushbuttons and pilot lights.
- **On Press Operator Controls Station** The on press operator controls station allows the operator to view the gravity deck and make all necessary adjustments to the system. In fact, the touch screen could be removed and the system can still be operated at the on press operator controls station.
- **Modem Support by Factory Technicians**
- **NEMA 4X Control Enclosures Standard**
- **Auto / Manual Selection** of all ancillary equipment by operator (each piece can be started individually for maintenance)
- **24 VDC Controls for Operator Safety**
- **Siemens PLC w/Modem, Touch Screen, VFD's, BFP Remote and Motor Starters**
- **Belt Speed Display** in Feet Per Minute and Percent of Maximum
- **Alarm History**
The operator can review of past 128 alarms with time/date stamp via the touch screen.
- **Message History** (review of past 128 operator adjustments with time/date stamp via touch screen)
- **Help Instructions** are available for Alarms via the Touch Screen offering trouble-shooting instructions for System Faults
- **Alarm and System Timers** are Adjustable by the Operator via the Touch Screen and the On Press Operator Controls Station
- **Hour Meters** for all equipment built into controls for maintenance purposes
- **Sludge Flow Display** in G.P.M. and Gallons Processed and Reset able Gallons Processed with an Optional Flow Meter



TOUCH SCREEN



ON PRESS OPERATOR CONTROL STATION

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