SIEMENS

Simple and Compact Design

The BPC Compact Belt Press has been designed for dewatering both municipal and industrial sludges. The simple and compact design combines outstanding performance with low capital costs and minimal floor space.

Sludge dewatering is performed in three separate stages to effectively dewater even the most difficult sludges. In the first zone, the free water is drained by gravity. Initially the belt conveys the sludge up an inclined drainage deck and then transports the sludge through the second wedge zone.

The following high pressure "S" zone consists of a perforated roll followed by other rolls of decreasing diameter which provide a gradual yet effective pressure profile.

A pneumatic tensioning and tracking system automatically and accurately maintains the operating pressure and proportionally tracks the position of the belts.

Special features of the Compact belt press include:
• Sturdy hot dip galvanized frame (available also in stainless steel).
• Specially contoured plows in the gravity zone to improve sludge drainage.
• Inlet sludge leveling system.
• Doctor blades tensioned by gravity conterweights.

ADVANTAGES
• Gravity area adaptable to specific requirements.
• Small space requirement.
• Automated operation.

OPTIONAL FEATURES:
• High-efficiency mechanical mixing system.
• Extended gravity deck for dilute feed applications.
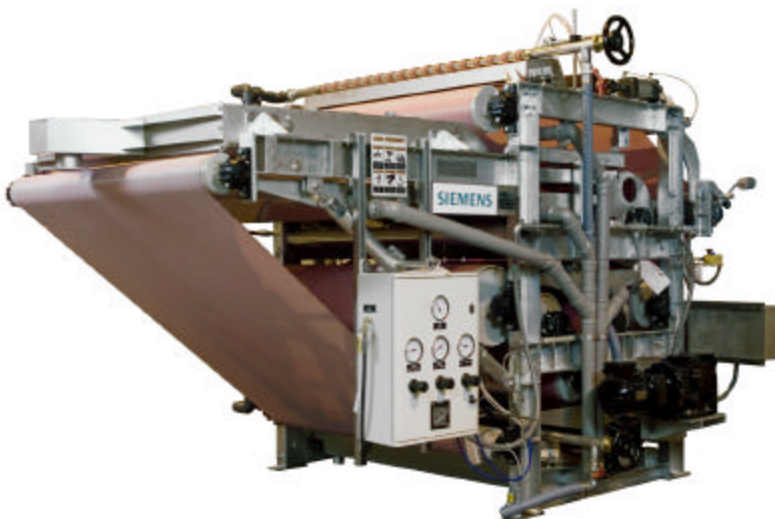
ISO 9001:2000 QMS
The quality management system governing the manufacture of the BPC Compact Belt Press is ISO 9001:2000 certified.

MODEL	BPC 1200-7C		BPC 1600-7C		BPC 2000-7C		BPC 2500-7C		BPC 3000-7C	
Effective Belt Width (mm)	1200		1600		2000		2500		3000	
Gravity Deck	Standard	Long	Standard	Long	Standard	Long	Standard	Long	Standard	Long
Overall Length (press only - in.)	165	214	169	218	169	218	216	245	212	246
Overall Width (in.)	93	93	108	108	124	124	151	151	170	171
Overall Height (in.)	98	95	101	101	101	101	106	106	106	106
Weight Dry (press only - estimated - lb.)	11,023	11,464	13,228	13,889	15,432	16,094	19,842	20,723	23,809	24,912
Weight Operating (press only - estimated - lb.)	12,125	12,566	14,330	14,991	17,196	17,857	21,605	22,487	25,794	26,896
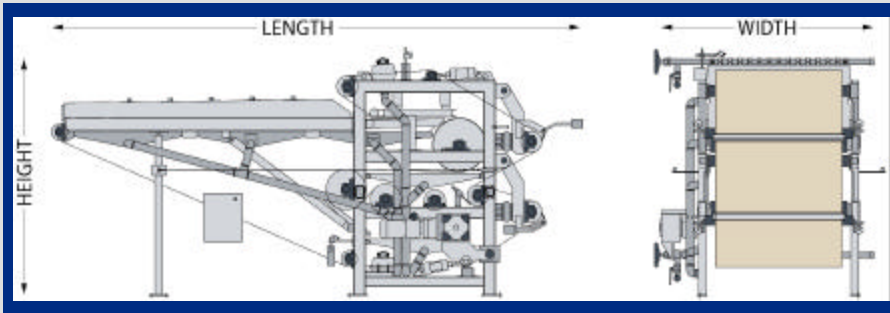
Variable Energy Mixing Solutions

Optimum dewatering begins with proper sludge conditioning: an efficient mixing of sludge and polymer along with sufficient time and energy to ensure proper flocculation before dewatering.
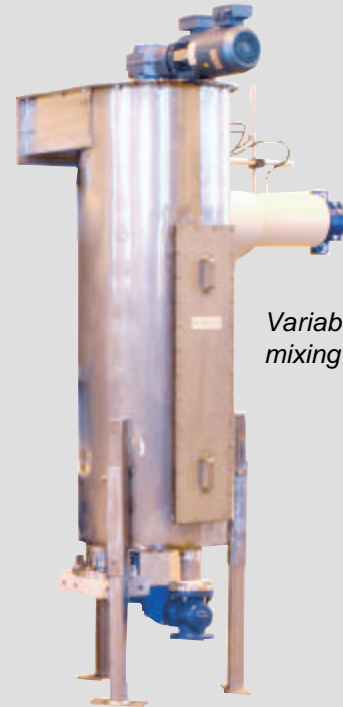
Venturi mixing devices are compact, economical solutions. Polymer is introduced into the feed stream through a series of ports arranged concentrically around the feed line. As the sludge and polymer are forced through the adjustable venturi opening, a turbulent flow is created, resulting in rapid mixing. Retention time is provided by downstream piping prior to the press.

Mechanical mix tanks offer more precise mixing and additional retention time that can provide improved performance on difficult applications. These vertical tanks have a variable speed, multi-impeller mixer that provides a rapid mix at the base followed by up to 60 seconds of retention time to allow complete floc formulation. Thorough mixing occurs independent of flow rates and can be precisely adjusted.

The **ideal system utilizes both** an inline venturi device and a mixing tank for robust, controllable mixing. Your Siemens Water Technologies engineering support staff can design a mixing system that factors in your sludge characteristics, throughput and system configuration.

High velocity Venturi mixer

Variable speed mixing tank