

PLB Series Shaftless Screw Press



The PLB is a mechanical device to wash and compact wet solids and sludges collected in waste treatment processes. It reduces the volume of solids to be handled or disposed of, and is ideally suited to treat solids from most screening devices.

Method of Operation

The PLB consists of a spiral, mechanical geardrive, U-trough housing, screen sections, cleaning shower, and a mechanical tensioning device.

The PLB utilizes a shaftless spiral to provide the driving force to transport and compact solids. The PLB is always aligned at a slope to provide a counter current movement with the solids being elevated while extracted fluids and wash water drain by gravity. The driving force is "push style" with a gearbox mounted on the lower end.

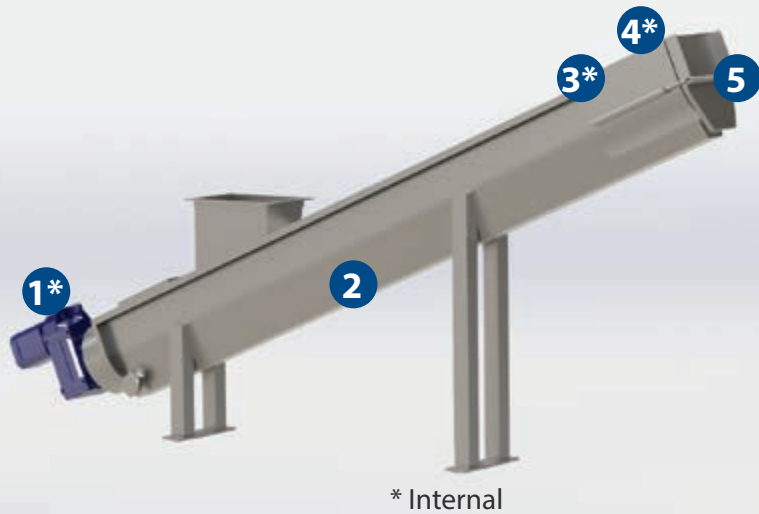
Solids are fed into a receiving hopper at the lower end. Free water is removed through a drainage zone screen. The spiral draws solids along a trough section and forces them into a screen cylinder for water extraction. A spring-tensioned gate on the end of the housing provides the back pressure that creates a plug of compacted solids. An active shower on the compaction zone screen with a special selection of nozzles washes the solids and aids in flushing away fine solids that are expelled through the screen.

The solids plug is driven through the screen cylinder and drops into a solids receiving bin or conveyor.

Application

The PLB is used in many food industry processes to extract liquid from solids wastes. It is ideally suited for municipal collections containing volatile, putrescent, and fecal compounds that need to be removed before the solids can be disposed of in an environmentally safe manner. In most applications the solids volume is reduced to a third. Standard units are available in 6, 9 and 12 inch (150, 225, and 300 mm) models to handle from .75 - 5 yd³/hr (0.6 - 3.8 m³/hr) of wet solids. Units may be lengthened to allow transport of solids.

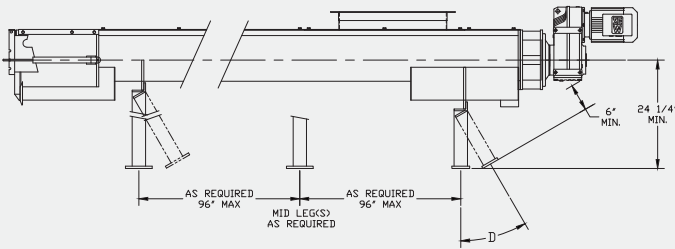
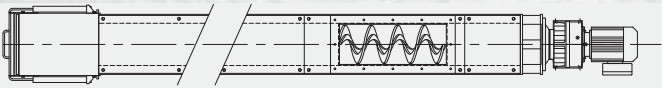




PLB Details

1. Spiral, mechanical gear drive
2. U-trough housing
3. Screen sections
4. Cleaning shower
5. Mechanical tensioning device

* Internal



Features

- 304 stainless steel construction
- Open solids discharge section
- Shaft-mounted, TEFC, gearedrive motor
- Spray bar

Options

- 316 stainless steel construction
- Control panel
- Extensions as required for conveying
- Compacted solids bagger, continuous plastic sleeve

PLB Series Press Capabilities

Model	Diameter - inches (mm)	yd ³ /hr (m ³ /hr)	Min Length - ft (m)	Max Length - ft (m)
PLB 6	6 (152)	0.75 (0.6)	2.5 (0.8)	8 (2.4)
PLB 9	9 (229)	2.5 (1.9)	4 (1.2)	24 (7.3)
PLB 12	12 (305)	5 (3.8)	5 (1.5)	40 (12.2)

This chart is only to be used as a guide. For specific sizing inquiries please contact JWC Environmental.



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