

# **SMART Systems**

## **Solids Management And Recovery Technology**

**Complete Food Waste Processing**

**Lowe Engineering**



### **SMART Systems**

The SMART System is designed to process wastewater from food processing and preparation facilities that contains both heavier and lighter than water solids. Wastewater enters the collection tank, sump, or pit where heavier solids settle out. A system pump moves the saturated solids to the SMART System which removes the solids from the wastewater. The result is a semi-dry solid waste that gets collected into a haul-away container. The lighter collected wastewater is pumped directly to a grease removal device like the Lowe Engineering GreaseStopper. The SMART System is custom designed to meet your specific needs.

SMART Model LE-1 pictured includes:

- Dewatering press with 2 HP drive motor
- 3-5 HP return pump
- Chemical additive pump
- Valve package
- Automatic rinse system
- SMART control panel with water level control and discharge chute limit switch

### **Benefits**

- Up to 80% volume reduction
- Reduced labor costs
- Better Sanitation
- Water conservation
- Improved operator morale
- Flexibility in design
- Processes a wide variety of waste

## System Operation

Foodservice waste enters the wastewater collection sump, pit and/or process tank where solids are allowed to separate and settle out. Transfer of collected solids is accomplished by lifting the material via a positive displacement pump, which limits shearing and emulsifying, to the Lowe Engineering SMART System. The transferred material consisting of 5% solids and 95% wastewater is separated with the resulting semi-dry solid waste collected in a haul away container and the extracted wastewater sent to an appropriate collection device.

## Technical Specifications

**Dewatering Press :** Rigid stainless steel weldment with stainless steel legs, head assembly with 2HP TEFC direct drive motor mounted to a 50:1 gear reducer (resultant 22 rpm), removable stainless steel access cover, 15" long stainless steel discharge chute with limit switch. Dewatering press consists of a 6" diameter stainless steel screw with nylon brush edge, matching 6" diameter stainless steel plug cutter.

**Valve Package:** All valves required for proper operation:

- Fresh water
- Tray flush
- Drain lines



## Options Available

- Extended Discharge Chute
- Hinged Chute
- Extended Stand
- VFD Drive
- Level Detector
- Special Electrical Characteristics

Electrical: 208/230/480 Volt, 3 Phase, 60 Hertz

Capacity: 1,000 pounds per hour of foodservice waste mix, consisting of food scraps, process waste, pulp waste etc, based on 10-20gpm flow @ 3-5% solids content.

Finish: All Exterior surfaces, except where polished stainless steel, are prime coated and finished with enamel paint.

Equipment only is supplied by Lowe Engineering, installation, piping and wiring is not included

**SMART Control (Electrical Control Panel):** Includes all necessary electrical components prewired to a terminal strip; water level control and push button station, pump speed control and automatic/manual control settings in a stainless steel NEMA 4 enclosure.



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