

The DrumDryer™ is an efficient, economical system that dries contaminated wet solids (e.g., sludges, resins, filter elements), liquid concentrates, and decon solutions to a solid cake.

The waste, dried in 55-gallon DOT 17C drums, can be safely stored, handled, and transported.

### Modular Design

Each DrumDryer™ has two main components: Control Unit and Drum Module(s). These components can be skid-mounted or permanently installed. Drum Modules can be placed in a shielded area away from the Control Skid.

### Flexible Capacity

Each Drum Module has a rated capacity of 2-3 gallons per hour, so system capacity can be increased in 2-3 gph increments by connecting more modules to the Control Skid.

Actual processing rate varies with the number of modules used and the level of already-dried solids in the drum.



**DrumDryer™ with 2 Drum Modules**

### DrumDryer™ Performance

- 85-95% waste volume reduction
- VR of 2:1 for bead/powder resin
- VR of 5:1 for sludges and 100:1 for liquids
- 100% water recovery
- 100% activity capture
- DF of 1,000 for processed liquids (except volatiles)
- Generally impervious to greases, organics, oils, and other fouling agents

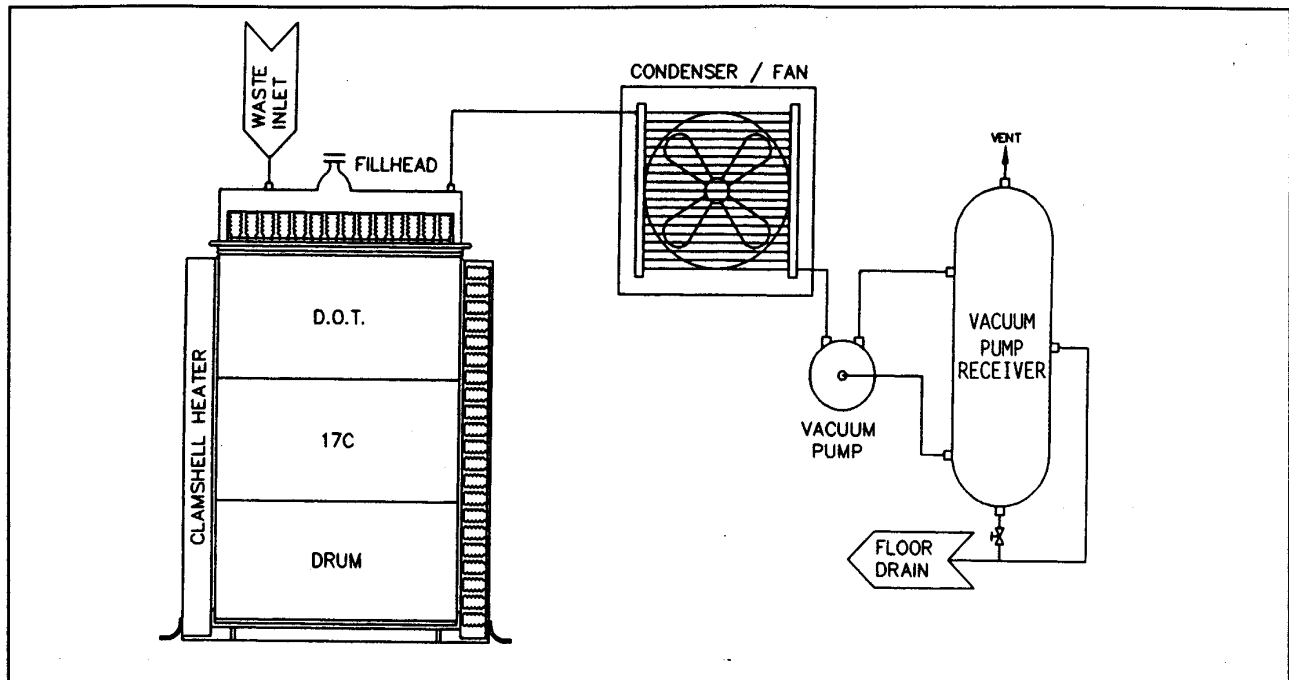
### Control Unit

Includes Control Panel, Vacuum Pump, Condenser/Cooler, and Vacuum Receiver Tank	
<b>BASIC UNIT</b>	<ul style="list-style-type: none"> <li>• Quality Components</li> <li>• Supports 1 or 2 Drum Modules</li> <li>• Capacity up to 150 gpd with 2 Drum Modules</li> </ul>
OR	
<b>HIGH-CAPACITY UNIT</b>	<ul style="list-style-type: none"> <li>• Components modified to provide higher capacity</li> <li>• Supports 1, 2, 3, or 4 Drum Modules</li> <li>• Capacity up to 300 gpd with 4 Drum Modules</li> </ul>

### Drum Module(s)

Includes Clamshell Heater and Fillhead
<b>OPTIONS</b>
<ul style="list-style-type: none"> <li>• <b>Pallet Skid with Jib Hoist</b> protects floors, and makes fillhead easy to lift and move</li> <li>• <b>Drum Underside Heater</b> increases drying efficiency by heating drum from the bottom</li> </ul>





## The DrumDryer™ Process

**Flow Path:** The DTS DrumDryer™ processes contaminated liquids directly from holding tanks or drums. Condensed distillate is returned to radwaste for reprocessing, or it is sampled and released.

**Fillhead:** Rests atop the 55-gallon drum. A level sensor controls the liquid level in the drum, for automatic filling. A thermocouple measures the temperature of the steam and air leaving the drum; a vacuum breaker valve controls the vacuum of the drum. An optional fixed-head drum is available for high-dose applications.

**Heat Source:** The DrumDryer™ operates on electric heat. The two hinged half-shells of the clamshell heater surround the drum, providing the heat for evaporation. The clamshell heater can be operated at any temperature between 250°F and 450°F.

**Product:** Once full of dried solids, the drum is “cooked” at full operating temperature to ensure that no liquids remain inside. As the temperature of the drum contents rises above the 160°F boiling point of water at 20” vacuum, liquids flash off as steam.

**Automatic Fill:** When the liquids in the drum are evaporated down to a pre-set level, the level sensor signals the fail-safe closed inlet valve to open. The vacuum in the drum draws concentrates from the inlet manifold into the drum until the high level sensor trips and the inlet valve closes. This process repeats automatically until the drum is full of dried solids.

**Drum Processing:** The lid is applied to the drum in preparation for transfer to a holding area to await shipment.

**Control System:** The DrumDryer™ is designed to run unattended, requiring an operator only during system start-up and shutdown. Auto-functions include drum filling, heat control, and system shutdown to a safe condition in the event of loss of power, or other abnormal circumstance.

These shutdown modes protect the Drum-Dryer™ as well as plant systems. Manual valves and local pressure gauges give the unit’s operator feedback to allow safe, efficient use without continuous monitoring.