

Features

Waste Disposal Cost Reduction

- Equipment payback is typically under two years
- Average annual savings of nearly 60%
- Waste volume reduction from 2:1 to 5:1
- Solids dried up to 75%*

*Typical results. Actual results may vary.

Easy to Use

- Fully automatic processing cycle
- User-friendly PLC with full-color touch screen and fault alarms
- Modulating extruder, conveyor and gas control system
- Electronic ignition
- Easy external service access to high-temperature bearings

High Quality, Safe and Cost-Effective

- Durable stainless steel construction of all wetted internal components
- Standard stainless steel cake hopper
- Powder coating of carbon steel components for resistance to corrosion
- Over-sized extruder gearbox with AC drive and inverter duty motor
- Energy efficient infrared heaters
- Utilizes natural gas or LP



Oversized Extruder Gearbox with AC Drive and Inverter Duty Motor



Standard Stainless Steel Cake Hopper



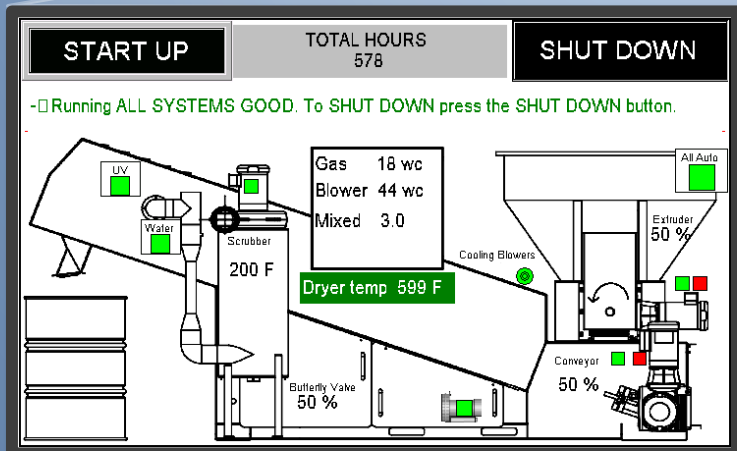
Easy External Access to High-Temperature Bearings



Designed for Volume and Weight Reduction of Metal Hydroxide Plating Waste



Stainless Steel Construction of All Wetted Components



User-Friendly PLC Touch Screen Controls with Fault Alarms



System Design

M.W. Watermark™ Continuous Sludge Dryers are typically used in conjunction with a filter press dewatering metal hydroxide slurries from metal plating operations. Liquid slurry is pumped into the filter press. When the filter press cycle is complete the press is opened up and the filter cake is discharged. The filter cake looks and feels like a solid, but may be only 30% solids. These cakes can be dried up to 75%* with the M.W. Watermark Continuous Sludge Dryer.

*Typical results. Actual results may vary.

Sludge Dryer Loading

The receiving hopper (A) is filled from the drums or dumpsters that are used to transport filter cake from the filter press to the dryer.

Filter Cake Extruding

The extruder system (B) processes filter cake which has been reduced in size in the receiver hopper. The wiper blades extrude the filter cake through perforations in the stainless steel screen (C). This produces noodle-shaped particles with increased surface area for drying. The extruded material falls onto a continuous stainless steel mesh conveyor for passage under a series of infrared heat drying elements (D).

Filter Cake Drying

All heating energy for M.W. Watermark dryers comes from infrared heating elements. Heating energy options include natural or LP gas. Ambient air is drawn through the heat chamber by the fans mounted on the inlet of the wet scrubber (E). Temperature is monitored by a probe located between the air discharge from the dryer and the scrubber.

Waste Disposal

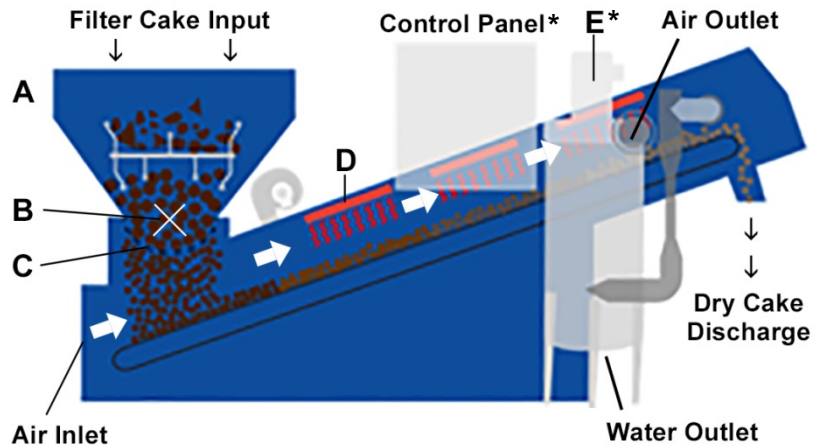
As the material reaches the desired reduction (dryness), the dry, granular material exits the unit into a bag, barrel, or dumpster for disposal.

Air-Handling

Every M.W. Watermark Continuous Sludge Dryer is supplied with a single speed, Venturi-style wet scrubber (E). All exhaust air from the unit enters the scrubber where an atomized stream of water removes any particulate matter. The 2-4 GPM blowdown stream is routed to the head of the waste treatment system. The blower, mounted on top of the scrubber, provides all of the process air movement through the entire system.

*Note: Both control panel and scrubber can be configured on either side of the dryer.

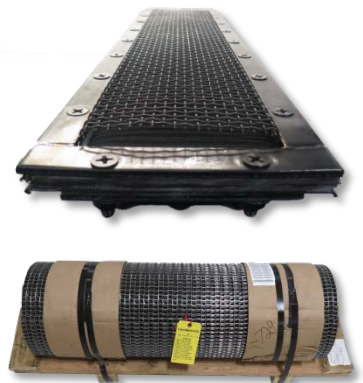
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SLUDGE DRYER SPECIFICATIONS	DM-200G	DM-380G
Heat Source	Gas	Gas
Working Capacity Water Removal Rate**	95# Water / Hour	190# Water / Hour
Power Requirements 480V 3Ø 60Hz	10A	15A
Burner Rating	200,000 BTU	400,000 BTU
Maximum Gas Consumption Natural LP	200 CFH 1.9 GPH	400 CFH 3.7 GPH
Scrubber Water Usage @50psi	2 GPM	4 GPM
Scrubber Drain	2" NPT Gravity Drain	
Length	160"	167"
Width	74"	87"
Height	78"	84"
Weight	4,000 lbs.	4,500 lbs.
Std. Hopper Capacity	14.16 ft ³	17.35 ft ³
Exhaust Air CFM	275	325
Materials of Construction	304SS & Carbon Steel	
**Based on 2,100 BTU to remove 1 pound of water. BTU requirements vary per application.		

Parts and Service

M.W. Watermark understands the importance of keeping downtime to a minimum. That's why we stock replacement parts and offer maintenance and repair services for not only our own line of sludge dryers, but also for models from other suppliers.



M.W. Watermark™

M.W. Watermark is a leading manufacturer and supplier of water and wastewater equipment, parts and service. We serve both industrial and municipal markets globally.