M.W. Watermark™ Continuous Sludge Dryer

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

User-Friendly PLC Touch Screen Controls with Fault Alarms

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

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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 SPECIFICATIONS**

<table>
<thead>
<tr>
<th></th>
<th>DM-200G</th>
<th>DM-380G</th>
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<tbody>
<tr>
<td>Heat Source</td>
<td>Gas</td>
<td>Gas</td>
</tr>
<tr>
<td>Working Capacity</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>Water Removal Rate**</td>
<td>95# Water / Hour</td>
<td>190# Water / Hour</td>
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<tr>
<td>Power Requirements</td>
<td>10A</td>
<td>15A</td>
</tr>
<tr>
<td>480V 3Ø 60Hz</td>
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<tr>
<td>Burner Rating</td>
<td>200,000 BTU</td>
<td>400,000 BTU</td>
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<tr>
<td>Maximum Gas Consumption</td>
<td>Natural 200 CFH</td>
<td>3.7 GPH</td>
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<tr>
<td>LP</td>
<td>1.9 GPH</td>
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<tr>
<td>Scrubber Water Usage @50psi</td>
<td>2 GPM</td>
<td>4 GPM</td>
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<tr>
<td>Scrubber Drain</td>
<td>2” NPT Gravity Drain</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>160”</td>
<td>167”</td>
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<tr>
<td>Width</td>
<td>74”</td>
<td>87”</td>
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<tr>
<td>Height</td>
<td>78”</td>
<td>84”</td>
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<tr>
<td>Weight</td>
<td>4,000 lbs.</td>
<td>4,500 lbs.</td>
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<tr>
<td>Std. Hopper Capacity</td>
<td>14.16 ft³</td>
<td>17.35 ft³</td>
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<tr>
<td>Exhaust Air CFM</td>
<td>275</td>
<td>325</td>
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<tr>
<td>Materials of Construction</td>
<td>304SS &amp; Carbon Steel</td>
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</table>

**Based on 2,100 BTU to remove 1 pound of water. BTU requirements vary per application.**

**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.

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

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