The ScrapEater
Light Weight Scrap Submergence System

Unleash the ScrapEater in your Plant!
Description

Are you dealing with high-volume, light-gauge scrap? Then you know the problems and understand the need for top-quality equipment for submerging scrap. That’s why Molten Metal Equipment Innovations designed The ScrapEater. It eats light-gauge scrap for breakfast. And then all day and all night long! It takes all you have to soothe its appetite for scrap!

The ScrapEater will improve your metal reclamation rates significantly! Rates of improvement vary with user, but many achieve improvements of between 0.5 to 4 percentage points in their metal reclamation. With this kind of improvement, The ScrapEater pays for itself in a short period of time and then keeps paying dividends to your bottom line, pound-after-pound of melted scrap!

The ScrapEater features our unique melter bottom, engineered to submerge more scrap faster at lower RPM’s. By spinning at lower RPM’s, less surface turbulence is produced which improves metal recovery. We also introduced to the market the threaded-nut design to provide a secure fit while enabling the shaft and melter bottom to be separated easily and re-used.

Quality craftsmanship and rugged construction are hallmarks of all MMEI equipment. Our equipment is designed to provide maximum service life to keep you operating longer. The ScrapEater is also easy to operate and maintain. It comes completely assembled and can be mounted on the floor or furnace sill.

Contact us today at (440) 632-9119 for more information on how The ScrapEater can quickly turn your pile of scrap into glimmering metal!

Product Highlights

♦ Submerges light gauge scrap metal faster and easier!
♦ Significantly increases your reclamation rates by submerging scrap faster!
♦ Achieves higher charge rates to increase your furnace’s productivity - get more out of your furnace in less time!
♦ Increase your furnace energy efficiency by reducing the amount of energy needed to melt.
♦ Quick-change, low maintenance shaft coupling for easy graphite replacement.
♦ User friendly controls make operation simple.
♦ Precise vertical movement ensures placement of melter for maximum submergence rates.
♦ Large diameter melter bottom is engineered to submerge scrap faster at lower RPM’s for less surface turbulence!
♦ Threaded-nut design allows shaft and melter bottom to be easily separated and reused.
♦ Quality craftsmanship and rugged construction ensure long service life for maximum uptime!

Improvement in Reclamation

The following demonstrates how much metal can be saved based on achieving different percentage point improvements in the metal reclamation. Savings is calculated per 1 million pounds of production.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Savings (lb.)</th>
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<tbody>
<tr>
<td>1%</td>
<td>10,000 lbs.</td>
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<tr>
<td>2%</td>
<td>20,000 lbs.</td>
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<tr>
<td>3%</td>
<td>30,000 lbs.</td>
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<tr>
<td>4%</td>
<td>40,000 lbs.</td>
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The ScrapEater controls are simple to operate. Rotational speed of the shaft and melter bottom are controlled by dial with an RPM readout. There are separate buttons for controlling up and down motion for precise placement of the melter bottom in the metal bath. Start, Stop and Emergency Stop buttons are also provided.
The ScrapEater Light-Weight Scrap Submergence System

Features and Benefits

- Premium, energy efficient, extra tuff, severe duty electric motor powers a gear reducer which spins shaft and melter bottom. Engineered to provide long service life even in harsh environments. All are protected by an enclosure.

- Dual chain drive provides smooth, reliable vertical movement.

- Rugged I-beam construction ensures stable support.

- External blower supplies cooling air to motor and coupling. Cools motor externally, thereby eliminating need for filtered air.

- Threaded nut connection provides secure fit while allowing easy separation of shaft and rotor when replacement is needed.

- Large diameter mixed flow melter bottom submerges scrap quickly.

- Can be mounted on furnace sill or on the floor next to melting well.

Covered under one or more of the following U.S. patent nos. 5,203,681; 5,330,328; 5,308,045; 5,662,725; 5,678,807; 5,944,496; 5,951,243; 6,027,685; 6,093,000; 6,123,523; 6,303,074; 6,345,964; 6,398,525; 6,689,310; 6,723,276; 7,402,276; 7,470,392; 7,507,367. Additional patents pending.
Typical Configuration of ScrapEater in Charge Well

Shown at right is a typical installation of a ScrapEater with an MMEI circulation Pump. The circulation pump pushes hot metal from the hearth directly into the charge well to increase the melt rate of the scrap being submerged by the ScrapEater.

Mounting on Furnace Sill

The ScrapEater can be mounted on your floor or furnace sill. The above mounting plate is used when attaching the ScrapEater to the furnace sill. The mounting plate is welded onto the furnace sill. The ScrapEater can then be placed into the bracket using a forklift and bolted down. Removal is just as easy - simply unbolt and remove the ScrapEater with a forklift.

Who to Contact for More Information

Molten Metal Equipment Innovations

15510 Old State Road
Middlefield, Ohio 44062 USA
Tel: +1 440.632.9119
Fax: +1 440.632.9187
e-mail: info@mmei-inc.com
www.mmei-inc.com