

MZR-1500

PYROTEK ZINC RECOVERY SYSTEM

Pyrotek's zinc recovery system makes in-house recovery a viable option for galvanizers and zinc processors. This system is a thermo-mechanical device that separates free zinc from material mixtures and top drosses. The system is able to recover nonferrous metal from industrial process wastes and top drosses, including: hot-dip skimmings and dust, continuous galvanizing top dross and primary and secondary zinc refining operations. The recovered zinc is both technically and commercially acceptable for direct reuse into the process, and any zinc oxide (ZnO) residues can be sold.

The MZR-1500 model of the system has a capacity for 1500 kilograms (3300 pounds) of skimmings, and a drum that is easier to load than the smaller MZR-750 model. The system's heating chamber walls are lined with 100 millimetres (4 inches) of thick low thermal mass insulation for greater efficiency, and its heating source is a system of high efficiency burners. The system has also processed lead dross from the lead battery and sheet industry, and recovered zinc from new continuous galvanizing zinc-magnesium-aluminium (ZnMgAl) coating alloys.

The European Commission Integrated Pollution Prevention and Control (IPPC) recognized Pyrotek MZR technology as the best available technique for dross waste management. The MZR-1500 recovery system reduces the total volume of waste for disposal, as well as up to 90 percent of the transportation required for virgin zinc and waste products.

PRODUCT ADDITION

Pyroflux MZR 280 is a stable blend of ammonium chloride powder and graphite that was specifically created by Pyrotek for use in the MZR-1500 system. It is used to improve the zinc recovery totals from zinc dross and skimmings.



PRODUCT SPECIFICATIONS

Drum Skimmings Capacity— kg (lbs)	1500 (3300)
Gas Operational Costs— m ³ (ft ³)	30 (1060)
Oil Operational Costs— L (gal) optional	30 (8)
Labour Operational Costs— minutes per burn	30
Barrel Operational Costs— number of burns (based on usage)	100–200
Zinc Recovery Averages (by weight)	General hot-dip: 60–80% Spin/tube: 80% Continuous: 75–90%

BENEFITS

- Approximate 6-month return on investment when calculating for 180 tonnes of dross per year
- Low operational cost; does not require dedicated staff
- No London Metal Exchange (LME) premium on recovered zinc
- Reduces the volume of residual skimmings for disposal
- Reduces the volume of virgin zinc purchased at LME rates
- Value in residual skimmings after zinc removal

