

PYROGENESIS

PARTNERING WITH ALUMINUM COMPANIES FOR INDUSTRY TRANSFORMATION

Sustainable Innovations for Furnace Fuel Switching and Production Optimization

- ✔ Electrify industry with zero or near-zero GHG emissions
- ✔ Reduce or valorize waste (dross, carbon, oxides)
- ✔ Lower carbon footprint and operating costs



PLASMA TORCHES

Replace fossil fuel burners with electric plasma in industrial applications (melting, recycling, baking, preheating, thermal treatment)



DROSRITE™

Salt-free, zero emission rotary furnaces



TOLLING SERVICE

Handling dross recovery operation onsite



WASTE VALORIZATION

Transforming waste (dross, carbon, oxides) into valuable products

WHY CHOOSE PYROGENESIS?

We are leaders in the high-temperature plasma processing of materials and waste. Our clients include primary aluminum producers, major aluminum casting companies, multinational mining companies, metallurgy companies, and the U.S. Navy.

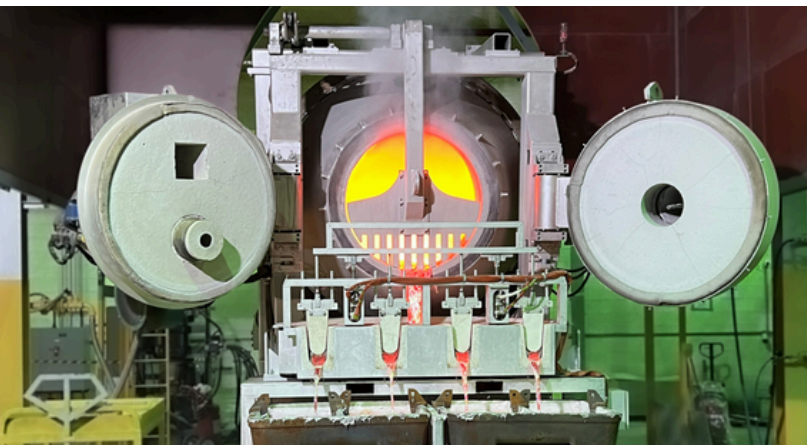
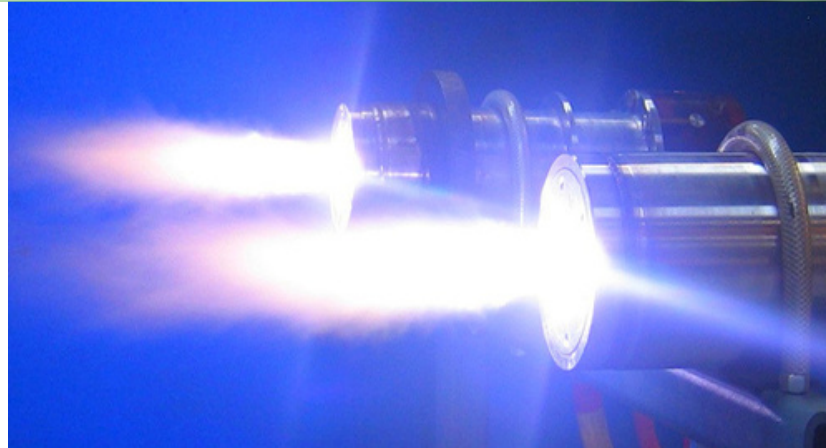
LEARN MORE ABOUT OUR PRODUCTS
pyrogenesis.com



PLASMA TORCHES

Replace gas or oil burners with electric plasma torches in any industrial furnace application

- Reduce carbon footprint by converting heating applications to electric power (cast house holding/melting, pre-heating, thermal treatment, baking)
- Enhance energy efficiency and operational flexibility
- Minimize maintenance requirements and improves furnace control



DROSRITE™ Salt-free recovery furnaces

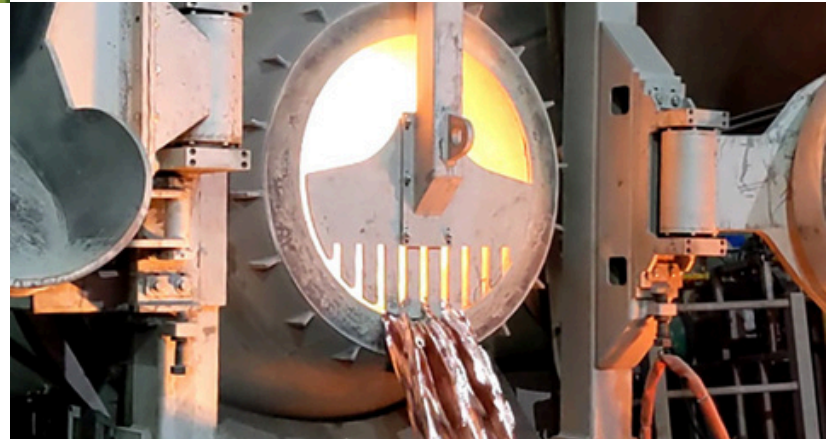
An innovative and sustainable solution to manage and recover valuable materials from dross

- Maximize the recovery of aluminum metal while minimize waste and environmental impact
- Eliminate the need for salt-based fluxes and reduce environmental impact
- Recover valuable aluminum for reuse, and optimize resource utilization

ALUMINUM DROSS AND RESIDUE VALORIZATION

Transform aluminum waste into valuable products

- Zero landfill dross residues and slags
- Convert dross residues and oxides into high-value products and sell to end users.
- Extract chemical products such as ammonium sulfate and aluminum sulfate
- Produce alumina products such as slag conditioners and pozzolanic additives



TOLLING SERVICE

Install and operate dross recovery plant within or near your facility

- Onsite operation to reduce raw material inventories: dross is quickly converted back into usable metal and can be returned to cast house in either molten or solid state
- Up to 20% increase in metal recovery vs. conventional dross processing technologies