

TENNESSEE GREEN STAR PARTNERSHIP MEMBER HIGHLIGHT



Mastermelt America, LLC – Sweetwater, TN



By: Caleb Powell

Mastermelt America, LLC is located in Sweetwater, TN, in the heart of Sweetwater's industrial park. The facility is one of the largest precious metal processors in the United States, and is part of the Mastermelt Group of Companies, a global consortium of companies that are focused on recovery and recycling of precious metals. Mastermelt America offers the industrial sector a fully licensed site with special expertise and skills to process a wide variety of precious metals, including those that can be recovered from different process residues and solutions. The company does not process virgin material; they are in the business of toll processing, which is using the byproduct of someone else's operation.

The Mastermelt Group of Companies was formed in London, England in 1985. Mark Degnan started Mastermelt America, LLC in June of 2006 with the dream of the facility being the leader in precious metals recovery in the United States. The Sweetwater facility has grown significantly in its 14 years of operation. Initial operations took place in a building that totaled 10,000 square feet of space. At that time a staff of eight people served two customers. By the end of 2011, the facility was processing more than 1.5 million pounds of precious metal containing materials annually and servicing 40 customers. In 2011 the operations area expanded to approximately 30,000 square feet and employed approximately 30 people. The business continued its rapid growth and expanded into two additional buildings by the start of 2015. Later in 2015, Mastermelt America purchased an adjacent property which included 35,000 square feet of processing space on 17 acres of land. The current processing complex now totals approximately 100,000 square feet on 23 acres.

Most people believe that precious metals are rare and seldomly used, but these types of materials and alloys are utilized in various items and processes. Some residues and solutions that contain precious metals include: filters from the chemical and plating industry, circuit boards and connectors, aerospace turbine blades, catalysts from pharmaceutical manufacturing, and hard disks from computers. Without a processor such as Mastermelt, these precious metals would end up in the landfill before the end of their useful lives.

FEATURED THIS MONTH:

- Established 2006
- Employs 70
- Member since 2019

INTERESTING FACTS

- All precious metals are weighed in Troy Ounces, which is equal to 31.1034768 grams.
- The Sweetwater facility recovered 5 million pounds of precious metals and super alloys in 2018.



Last year, Mastermelt America, LLC recovered over five million pounds of precious metals through their 15 thermal reduction units. On top of preventing special metals and super alloys from going into the landfill, they also produce capture cells for plating wastewater applications. These cells reclaim precious metals that would otherwise have been discharged to the local wastewater treatment plants. The plant is also a zero discharge facility for wastewater, which means that they process their water internally on site. The facility shows its commitment to sustainability and quality through maintaining its ISO 14001 and 9001 certifications as well as being CHWMEG certified and International Traffic in Arms Regulations (ITAR) certified. The CHWMEG Facility Review Program (FRP) conducts worldwide reviews of facilities that recycle, treat, store, and/or dispose of waste or spent materials. The mission of the program is to collect environmental management and risk data concerning waste management facilities of interest to member entities by pooling member and organizational resources.

As soon as you walk into the Sweetwater facility, it is evident that the employees enjoy what they do and that the management cares about their employees. It is easy to see that the employees believe in their job and that they are proud to work for a business that reduces landfill volume. During the welcome ceremony, Mayor Lowe from Sweetwater spoke very highly of the facility's involvement with the community. He praised Mastermelt America, LLC for their willingness to help out and fund service projects and events for the community.

The facility has worked closely with its customers to identify and implement new technologies and processes to recover their precious metals. This dedication and commitment to the customer is what has propelled the company to the top of the market.

The Tennessee Materials Marketplace is a collaboration between industries, facilitated by an interactive online materials exchange, to recycle, repurpose, and return material discards back to Tennessee's economy. Mastermelt America, LLC learned of the marketplace initiative through its membership in the Tennessee Green Star Partnership.







"Like most industries the need for ever stricter controls on emissions of air and water pollutants have necessitated heavy investment in abatement controls. Mastermelt America is proud of its record of investment in its plant and controls to meet and exceed current and future planned environmental legislation."

-Larry Blue, Plant Manager

The Tennessee Green Star Partnership is a voluntary environmental leadership program designed to recognize industries in the state that are committed to sustainable practices. If you are interested in joining Mastermelt America, LLC and other sustainable industries in Tennessee by becoming a member, please contact us.