



Precious Metal Recovery

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About us

Mastermelt is a leading global precious metal recycling company, with cutting-edge technology recycling facilities in the UK, Germany, the USA and Singapore. We recover precious metals from industrial waste streams, jewellery, manufacturing scrap and end of life products, thus playing a key role in the sustainable circular economy.



Committed to environmental
stewardship & responsible refining



Vastly experienced
& financially secure



Ability to treat a wide
range of materials



Mastermelt Ltd
London UK

**Mastermelt
Refining Services**
Buxton UK

**Mastermelt
America LLC**
Tennessee USA

**Eco-Mastermelt
Pte Ltd**
Tuas Singapore

Mastermelt GmbH
Aschaffenburg
Germany

**Mastermelt
Technical Centre**
Stevenage, UK.

Sustainability

Mastermelt is dedicated to continuing its leadership in environmental, social, and governance (ESG) practices, as well as sustainability. We consistently evaluate our environmental and social performance in order to develop and execute plans that drive sustainable advancements.



Mastermelt is EcoVadis Gold certified and is part of the CHWMEG Facility Review Program which promotes Responsible Waste Stewardship by supporting waste/recycling vendor management.





Our ESG strategy

To make a lasting, positive impact, the four pillars of our sustainability and ESG strategy are:

- Be a company of the sustainable circular economy.
- Reduce our greenhouse gas emissions and energy use.
- Source our materials from responsible, recycled sources only.
- Ensure excellent environmental health and safety (EHS) performance beyond compliances.



Pharmaceutical & Chemical

Mastermelt provides specialised tailored refining technologies that optimise the recovery of precious metals from both spent heterogeneous and homogeneous catalysts.

The use of homogeneous catalysts is increasing in the Pharmaceutical, Chemical and Agrochemical sectors. Mastermelt have developed multi-technologies to treat these complex waste streams:

Metal scavenging, Advanced Distillation & Advanced thermal treatment.





Optimisation



Production



Recovery



Settlement



Green energy

Mastermelt's vision for green hydrogen is to support our partners in realising their H2 journey by enabling efficient circular processing of valuable precious metals, driving down the cost per kW.

Rising demand for Platinum, Iridium, & Ruthenium in MEA production calls for sustainable recycling in PEM & Fuel Cell industries. To sustain scarce metal supply, reclaiming and recycle for reuse is imperative.

Mastermelt focuses on working with clients from start-up to full scale production of fuel.





Jewellery

Presman Bullion Ltd

Presman - Hatton Garden's oldest 'trade only' scrap buying counter. We cater to all your jewellery scrap needs, offering in-person services and insured FREEPOST envelopes. Our expert team uses both traditional and modern metal testing methods, ensuring accurate and efficient assessments.



Mastermelt

Providing a full 'in-house' precious metal reclamation service for the UK jewellery trade.

We process materials including scrap, lemel, and workshop waste, leaving jewellers free to focus on their craft and benefit from the additional income.

Au

Ag

Pt

Pd

Services and Jewellery materials we process:

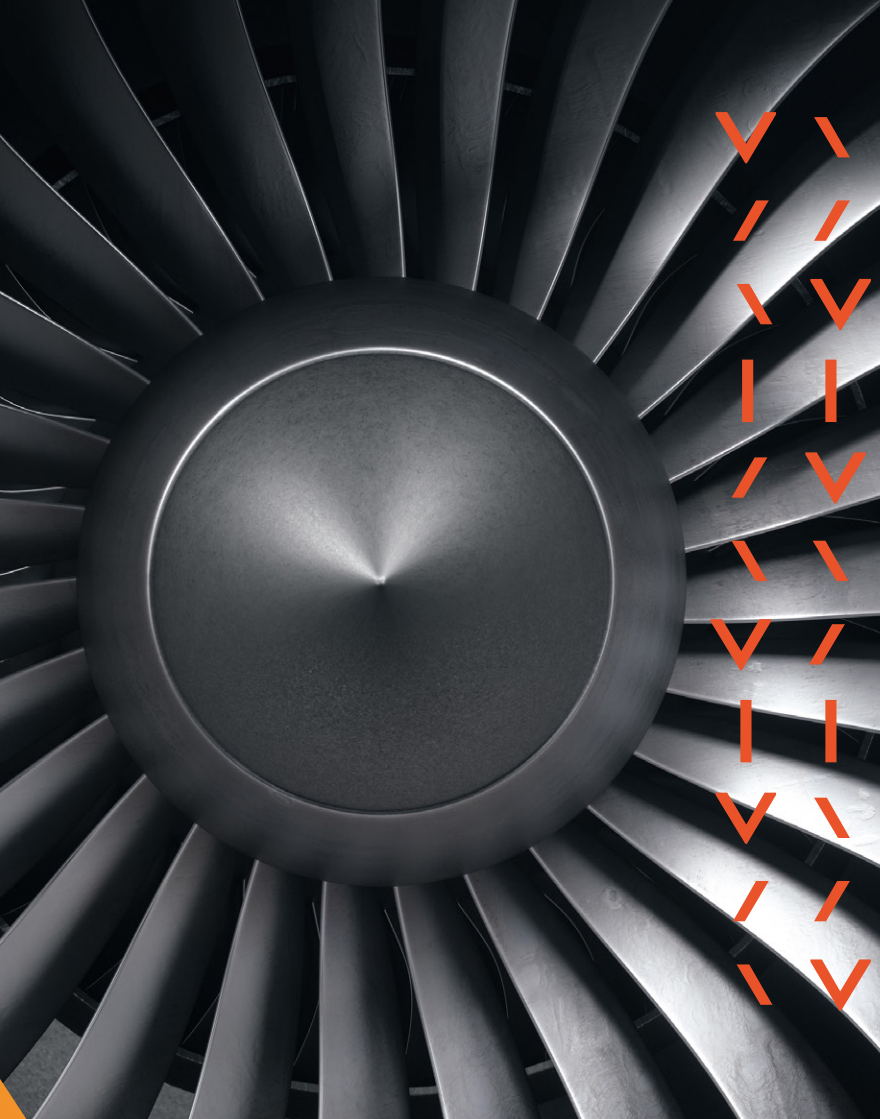
- Lemel, Sweeps, Polishings, Extraction, Filtration and most types of flooring.
- Supply, fit and process extraction bags.
- Supply, empty and process waste from settlement tanks.
- Workshop clean-up service.
- Plating solutions.
- Diamond reclamation.
- Dental.



Aerospace

Precious Metals in Aerospace 'Mastermelt offers innovative proprietary methods and technologies to efficiently reclaim platinum, palladium & gold from end-of-life jet engine components. Our non-destructive technologies enable us to preserve the substrate super alloy and capture industry leading levels of PGM's; by preserving the super alloy we able to return maximum the overall value to the customer and aerospace supply chain.





/ Super alloys

Super Alloy Mastermelt Alloy – a division of Mastermelt America LLC is a leading international super alloy processor.

Servicing OEM, MRO, Airline & Part Supply Companies all over the world. MA are the only company to offer complete jet engine & jet engine component recycling. MA have the in-house abilities to: Disassemble Complete Jet Engines, Process, Sort, Segregate & Size Super Alloy to Vacuum Grade Quality.

Electroplating, medical & glass

Efficient and sustainable metal recycling for electroplating processes. Mastermelt's innovative technologies improve metal recovery, maximize valuable metal recycling, and reduce lead times.

Typical electronic products that use precious metals include:

- Electronics
- Connectors
- Relays
- Lead Frames
- Smart Cards
- Hard Disc Drives
- Medical
- Diabetic test strips
- Additional Industries
- Jewellery
- Aerospace
- Fuel Cells
- Polymer Electrolyte Membrane

The electroplating industry generates precious metal waste from various scraps and residues, including:

- Gold & Silver cyanide solutions
- Platinum Group Metal (PGM) solutions and plating baths
- Ion exchange resins and scavengers
- Wipes, pots and filters
- Coated scrap components
- Jigging wires
- Plated scrap
- Spent anodes
- Sputtering targets



Medical

Recover valuable metals like platinum and gold from diabetic test strips, stents, catheter ablation, angioplasty, pacemakers, and defibrillators.

Significant metal values can be recovered from:

- Platinum Electrophysiology (EP) catheters tips
- Platinum Angioplasty guide wires
- PGM alloy; dental and production scraps
- Electrophoresis electrodes
- Silver Residues and reject products
- Pt lab wear: crucibles, forceps and stands



Glass

Mastermelt processes Platinum, Palladium and rhodium alloys and residues from the architectural and heat resistant glass industries.

Examples of materials Mastermelt can treat are:

- PGM residues and resins from architectural glass production
- PGM residues from heat resistant tableware borosilicate production lines
- Silver residues from mirroring applications.

Reclamation process including security/tracking

No matter which one of our processing sites handles your material, rest assured that our experienced staff will be doing their utmost to reclaim the most amount of precious metal for you.

Taking Care of Your Material



Secure Facility



Job Tracking



Care & Attention





Mastermelt Technical Centre (MMTC) - Research and Development (R&D)

 **State-of-the-art** instrumentation

 Experts in **PGM chemistry**

 Development of **innovative new recovery methods**

The Mastermelt Technical Centre in Stevenage, UK was created to accurately analyse the precious metal of materials and develop new recovery methods for customers' waste which contain PGMs. We use advanced instrumentation and have specialists in PGM chemistry and recovery. Our goal is to create innovative solutions for recycling customers' waste materials, particularly those that are challenging both because of their complexity of their chemistry and their environmental concerns.



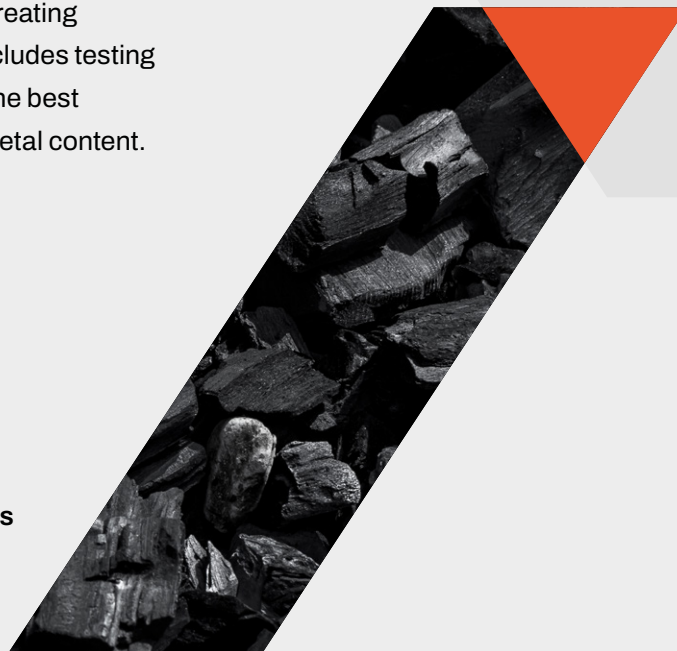


Difficult & Hazardous materials

We work with our customers to find solutions for treating difficult and hazardous materials. Our process includes testing the material, analysing its behaviour, identifying the best recycling method, and determining its precious metal content.

Examples of difficult material we can treat:

- ✓ **Homogeneous catalysts**
- ✓ **Insoluble precious metals**
- ✓ **Precious metal coating**
- ✓ **Low concentration precious metal heterogeneous or homogeneous catalysts**





Hazardous materials pose a threat to human health and the environment. Common examples of hazardous materials which we treat include:

- ▲ Contaminated Chemical Catalysts
- ▼ Chemical Solutions
- ▼ Filter Cakes
- | Sludges

Shipments of hazardous (hazmat) materials requires a Transfrontier Shipment Notification (TFF), which Mastermelts regulatory team will handle the TFS application, to make life easier for you.



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