



Executive Committee Visit to RS Bruce Metal Recovery Specialists, Sheffield

In this edition we welcome new Affiliate Member RS Bruce and give a background to what the company have to offer to members.

RS Bruce are a Precious Metal Recovery and Toll Processing company founded in 1974 in Sheffield England.

The company specialises in the recovery and processing of precious and valuable metals, priding themselves on playing a key role in the innovation of the techniques used today for the removal, recovery and recycling of precious metals, primarily the Platinum Group Metals (PGMs), Gold and Silver.

In the years since their inception in 1974, RS Bruce have developed innovative methods to achieve higher yields and recoveries from the most challenging opportunities.

Although RS Bruce also operates globally, recovering precious and valuable metal resources from chemical plant and equipment, parts, electronics, and both solid and liquid wastes the companies roots and indeed entire operation are UK based.

Using a wide range of technologies and equipment, developed to enable recovery of value in the form of metals, whether that be Platinum Group Metals or Metals such as Gold, Molybdenum, Cobalt, Titanium, Silver or Copper, the company is able to achieve optimum extraction levels increasing the payback to the customer.

RS Bruce recovers precious and valuable metal resources from solid and liquid wastes, chemical plant and

equipment, parts, electronics and a wide range of materials from many industries.

With the company welcoming visitors who wish to witness or audit the process the Executive Committee Members were able to witness the process as metals collected from an individual crematorium were processed.

The metals for recycling are stored at the crematorium in the boxes used for processing. At the time of collection, they are sealed and weighed before being removed from site and the receipt left with crematorium staff.

The sealed boxes are then taken to the RS Bruce works in Sheffield where they are processed in a dedicated crematorium metals sorting building set up for the process and stored on the ground floor pending processing. Most boxes are processed within a week, but the company allows for up to six weeks depending on the demand for the service.





After being reweighed, and the weight checked against the collection sheet weight the individual box is lifted to the top floor of the sorting building where, once the seal is removed, the contents are transferred to the sorting tray.

Once the ferrous metal has been extracted using a magnet-based system the ferrous weight is recorded on the collection sheet. The joints are separated out manually at the same time and the weight recorded on the collection sheet.

The remaining items are then processed to remove all impurities including any bone fragments displaced as joints are moved in the collection process or fragments trapped in intricate metal. The company offer a unique facility, due to the individual processing for these finely ground fragments to be returned to the crematorium for burial or strewing should the crematorium request this. The alternative is for these to be retained by R S Bruce for disposal.

Once the precious metals have been fully isolated from the bulk of material, the metals are then subjected to various chemical processes to remove impurities and increase precious metal concentrations. Once concentrated the material is then weighed and recorded again before going through the final smelting process to generate precious metal bullion.

The valuation of the bullion is carried out by a third party, which are one of the leading testing and assaying facilities and provides the majority of jewellery hallmarking in the UK. Whilst R S Bruce has its own testing and laboratory facilities using a third party for valuation ensures credibility and full transparency throughout the process.

For each metal collected the weight and value is recorded on the valuation sheet which is returned to the individual crematorium. The proceeds can then be allocated as the cremation authority wishes, whether a charitable donation of their choice or, for example, to fund a special feature or facility for the crematorium.

What was very surprising for most members of the Executive was the high value of the collected metals, with most of the value from fillings and dental work rather than the metal joints.

A full tour of the site followed, from battery processing to cleaning and retrieving precious metals from process equipment from a wide range of industries. All of the processes follow a similar pattern from checking collection and arrival weights to maintaining separate processing batches from different contracts.

The Executive Committee will review the findings of the visit at their meeting on 12 September 2022, the findings and any recommendations will then be published in the Winter edition of Resurgam.

