

William Rowland Metal Finishing Offering

WILLIAMROWLAND
METAL FINISHING

www.wrmetalfinishing.co.uk

William Rowland Metal Finishing (MF) have been surface treating stainless steel and non-ferrous metals since 1940.

They offer a wide range of services such as; chemical etching, passivation, phosphating, chemical machining, degreasing, caustic cleaning and crushing & washing of turnings.

This month we feature on services offered to the recycling industry, including degreasing, surface coating removal and crushing and washing of turnings.



Headquarters

Coatings removal

William Rowland Metal Finishing provide coatings removal on a range of materials including stainless steel, nickel alloys and titanium. Also including the removal of some thermal barrier coatings (TBC's), Zirconium, Brass (copper/zinc), Indium, ceramics, plastic and paints.

We offer a no-obligation lab scale trial before accepting some work free of charge for your peace of mind due to job to job variability.

William Rowland Metal Finishing hold accreditations with the following organisations so you can be assured of the highest quality standards: NADCAP, NQA (ISO 9001/AS9100) and Rolls-Royce.



Tungsten carbide following 'braze' removal

Degreasing

Degreasing is a process for cleaning products from water-insoluble substances such as grease, oils, waxes, carbon deposits, and tars. In most cases, the process is applied to metal products for the recycling industry who are looking to degrease high value non-ferrous scraps for recycling back into the melting supply chain.

For subsequent chemical treatments to be effective, they are dependent upon being applied to a clean metal surface. So correct degreasing is a pre-requisite if further chemical processes are to be effective. Our degreasing facility can handle various products from very heavy pieces, large and small, such as punchings, sheet, plate and strip.



One of several treatment lines at Metal Finishing

Crushing and Washing of Turnings

At our sister plant, William Rowland we offer a fully integrated process for crushing, washing and drying turnings with chemical analysis post process for complete piece of mind.

Turn over for more information on our crushing, cleaning and drying processes



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Upgrading the quality of superalloys and high integrity metal turnings & swarf

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Crushing process

On receipt each batch of turnings will be assigned a unique identification number to ensure lot traceability throughout all of our processes. Each batch of turnings will be crushed separately with thorough clean downs in between batches and/or campaigns to minimise contamination risk.

Turnings are subject to XRF inspection prior and then throughout crushing to give suppliers swift initial feedback. Turnings are then crushed with the use of a ring mill crusher, ensuring a uniform size of chip that is free flowing for consistent cleaning.

Each lot of turnings will be subject to a thorough sampling procedure to determine, major and trace elemental analysis. This is performed in our onsite laboratory for quick turnaround. Some customers may require accredited laboratory testing which we also offer.



Crusher



Laboratory

Cleaning and drying process

Working with the an equipment supplier, William Rowland have designed a bespoke turnings cleaning facility that allows us to upgrade superalloys to customer specifications, enabling recycling of the material back into a vacuum melting application. Each batch of turnings will be cleaned separately to ensure lot integrity and traceability is maintained. An aquarium wash system is used which is better for the environment and enables faster process times, for quicker material turnaround. Fines separation removes smaller fine material that can inhibit high oxygen and nitrogen. In the dryer material is dried at temperatures that minimise the pick-up of excess oxygen and nitrogen throughout.

Magnetic alloy separation and processing with the use of powerful overband magnets ensures separation and segregation of magnetic material from non-magnetic product. Our process also allows us to reverse the process and remove non-magnetics from magnetic alloys.

In-line process control allows us to monitor product quality throughout our process with the use of carbon and sulphur gas analysers. Flow sampling is then used from start to finish to ensure consistency and each batch is provided with full certificate of analysis.

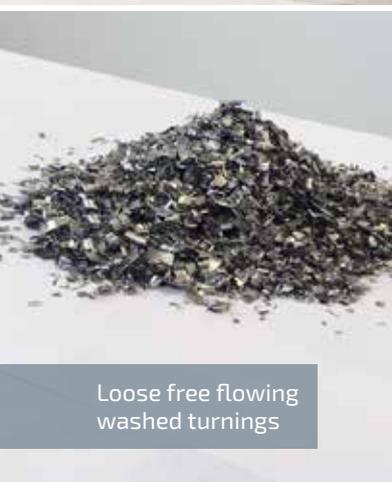
Improved density through briquetting of washed turnings

For material that is low in density we can compress material into 'pucks' of 70-90mm Dia and weighing 1-1.5 kgs, this process improves density and reduces the amount of packaging, which in turn can reduce transport costs. Again, each lot will be processed separately and in entirety to ensure lot traceability throughout.

All materials and prices offered are subject final confirmation



Wash plant



Loose free flowing washed turnings



Compressed briquettes 1-1.5kg