



metallix

SUPPORTING
THE NITRIC
ACID INDUSTRY

A PRECIOUS METALS
RECYCLING COMPANY

PRECIOUS METALS RECYCLING & REFINING

Metallix Refining provides downstream nitric acid plant cleaning, recovery and processing of precious metals catalyst.

NITRIC ACID PRODUCTION

During the course of the ammonia oxidation reaction, platinum group metal (PGMs) are lost from the catalyst. These losses travel downstream through the heat train, in the form of a PGM oxide. Over time, a build up of scale forms on exposed surfaces, reducing thermal efficiency.

As the vapor oxide cools, it becomes a particulate. This dense residue, rich in PGMs, settle throughout the heat train and acid storage tanks.

Recovery of PGM spent catalyst provides valuable revenue for a sustainable future, while respecting natural resources and the environment.

SITE SERVICES

Recovery of spent PGM catalyst

HYDROBLASTING

Hydroblasting provides plant operators with a non-aggressive, chemical free treatment for the removal and recovery of surface PGM oxide, both tube and shell side. Hydroblasting is proven to be a highly effective, non-invasive method, which can generate high PGM recoveries.

CHEMICAL CLEANING

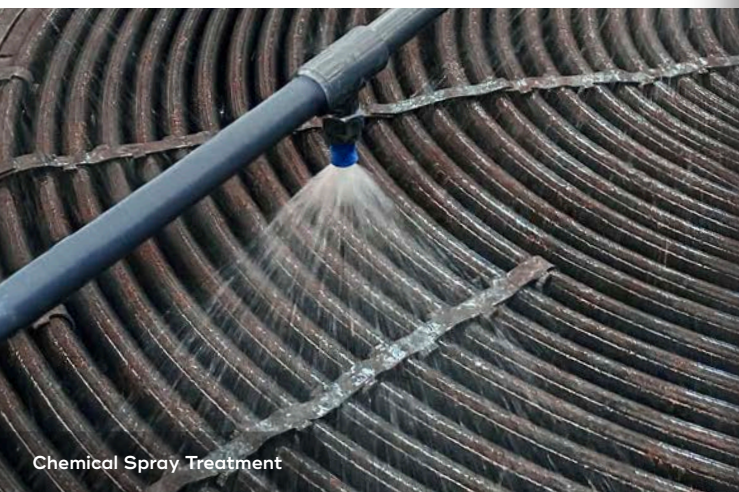
This mild chemical treatment is confirmed corrosion-safe by extensive lab and field tests. Furthermore, our solution contains additives specifically designed to halt hydrogen production, guaranteeing safe and efficient removal of surface PGM oxides. This innovative approach ensures excellent performance while maintaining the highest safety standards.

STORAGE TANKS

Significant quantities of PGM residues often accumulate in storage tanks. Incorporating these tanks into your next recovery project not only optimizes maintenance opportunities but is also financially beneficial. Consulting experts in PGM recovery is also essential in the event of leaks or other maintenance to prevent loss of valuable resource.

DESTRUCTIVE TREATMENTS

This aggressive treatment is performed on PGM bearing components once they reach the end of their service life. This ensures maximum PGM recovery is achieved and therefore the highest financial return for redundant equipment. Processing can be performed on-site, or at Metallix's purpose-built facility.



Chemical Spray Treatment

PRECIOUS METALS RECYCLING & REFINING

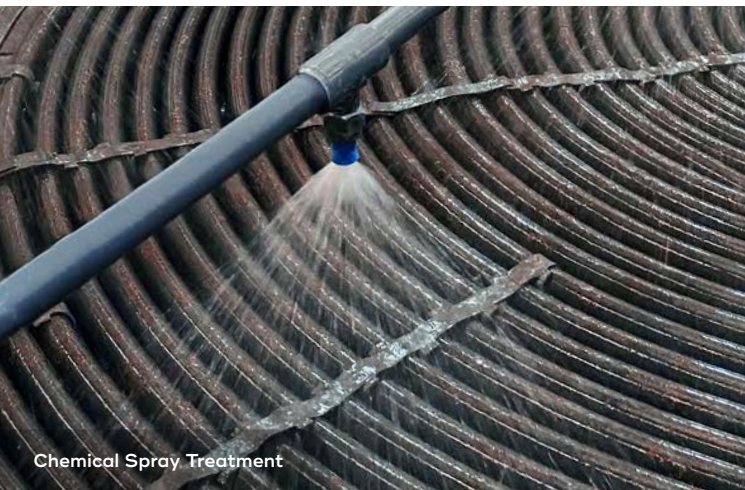
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Chemical Spray Treatment

Our teams can provide responsive technical support to site operators for project management, logistics and refining.

PROJECT MANAGEMENT

- Full technical site survey
- End-to-end project oversight
- Global logistics
- Regulatory compliance
- Expert refining and metal management
- Purchasing of redundant equipment

ON-SITE OPERATIONS

- Mobile equipment
- Minimal footprint
- Fast assembly, relocation and dismantle
- Tailored cleaning solutions
- Safe and sustainable

PGM ASSET RECOVERY

Many plants during the course of their day to day maintenance, accumulate a variety of precious metal-bearing material.

These small lots can be processed easily and expediently without the need to wait for a scheduled turnaround.

- Sweeps / Fines
- Residues collected from vessel opening / Inspection
- Accumulated raschig rings
- Gauze supports / Megapyr
- Reclaim Pt filter media



Certificate of Recycling issued.

PGM bearing Sweeps & Fines

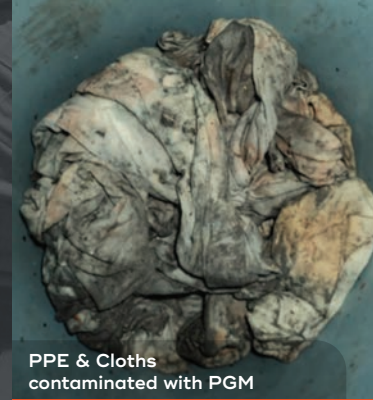


Basket with PGM Filter

Filter Cloths contaminated with PGM's



PGM Filter




PPE & Cloths contaminated with PGM



Cutting

To find out more information on the services Metallix can provide please contact us at sales@metallix.com

metallix.com



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