FEECO INTERNATIONAL

FEECO.com/mining-and-mineral-processing-equipment/

METAL PROCESSING

Transforming Ores into a **Refined Product**

Metals make up the world around us. From structures to electronics, much of the world around us would not be possible without metals. Various processing techniques are used to transform metal-bearing ores into a refined metal product, ready to be transformed into various components for application.

PRODUCTION METHODS

Two primary approaches:

PYROMETALLURGY

AKA: SMELTING

USED FOR: Sulphide ores

WORKS BY: Concentrating metal-bearing ores and then smelting them

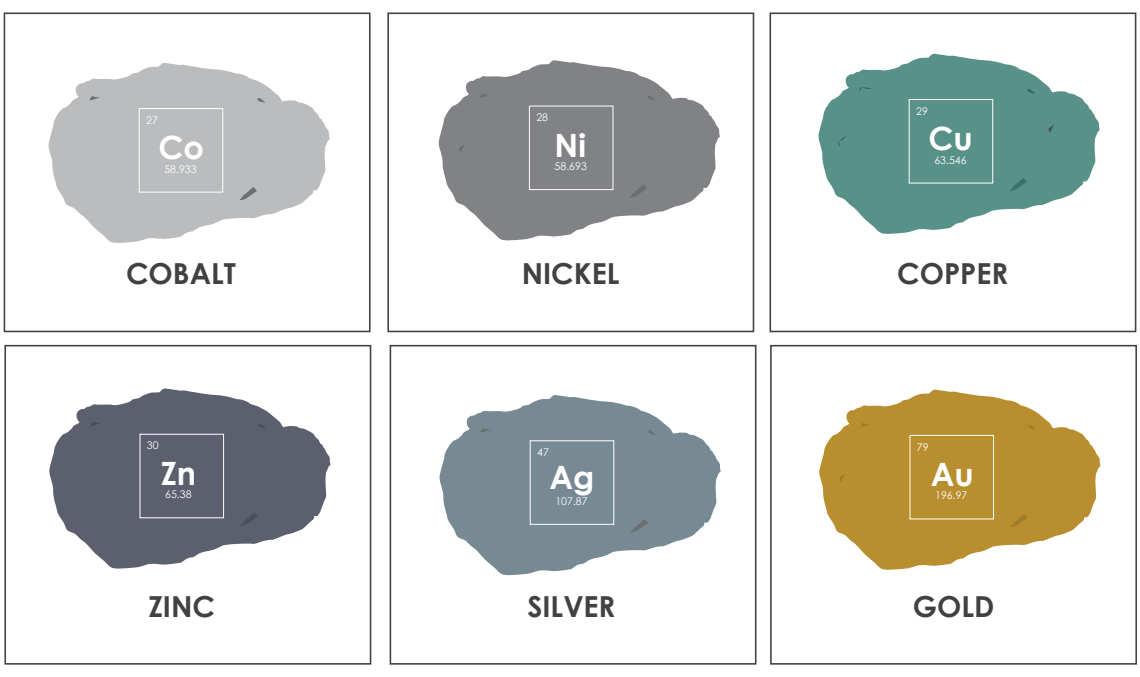
HYDROMETALLURGY

AKA: SOLVENT EXTRACTION ELECTRO-WINNING

USED FOR: Oxide ores and low-grade sulphide ores

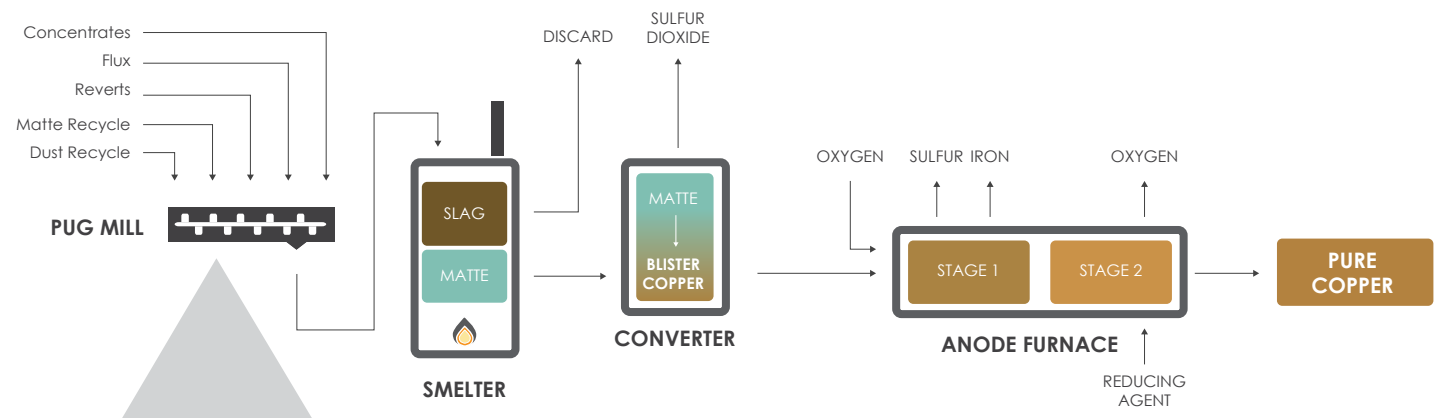
WORKS BY: Leaching metals from ore and then extracting metal from the impregnated solution

These approaches are often used to process:



PYROMETALLURGY

The pyrometallurgical approach for processing copper is illustrated below. Please note that the process may vary depending on the type of metal being processed.





FEECO Pug Mill

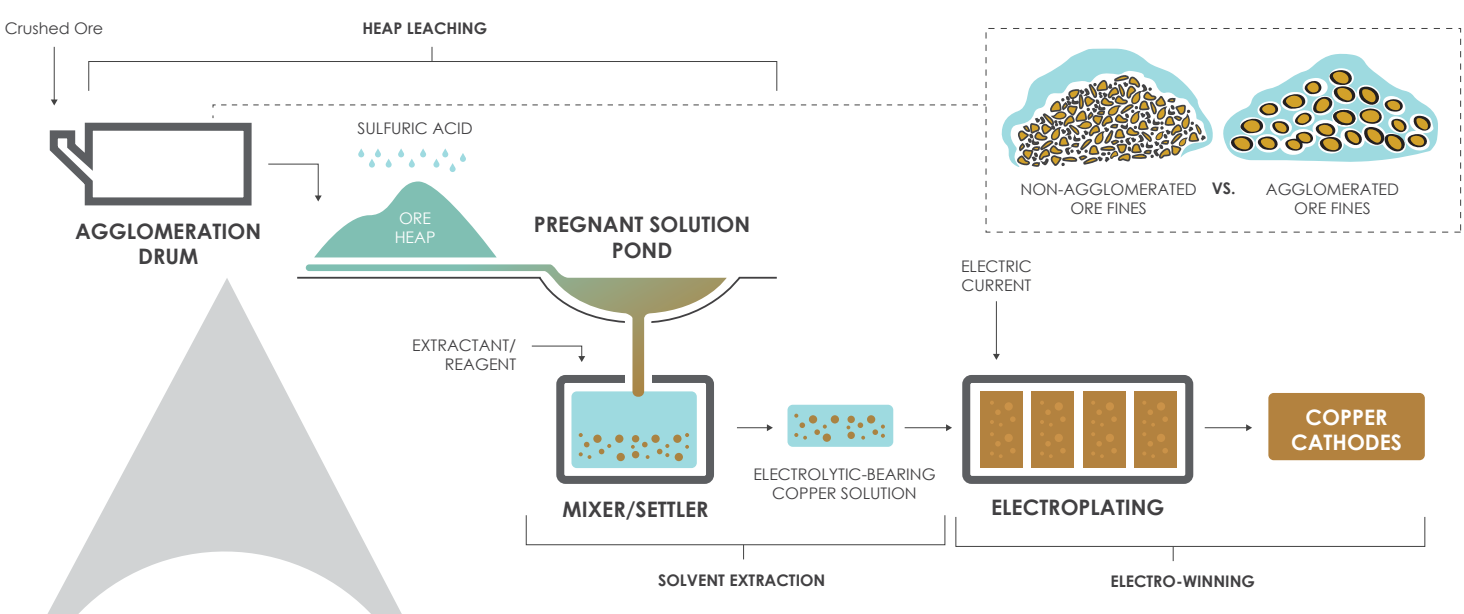
EQUIPMENT SPOTLIGHT: THE PUG MILL (PADDLE MIXER)

Pug mills serve to mix and condition feed components for the smelter. Mixing not only conditions the agglomerates and de-dusts the material, but it also ensures a uniform product.

Pug mills increase efficiency in the smelting process so much so, that companies often will purchase two mixers (one as a spare). Learn more at: **FEECO.com/copper-pug-mills/**

HYDROMETALLURGY

The hydrometallurgical approach for processing copper is illustrated below. Please note that the process may vary depending on the type of metal being processed.



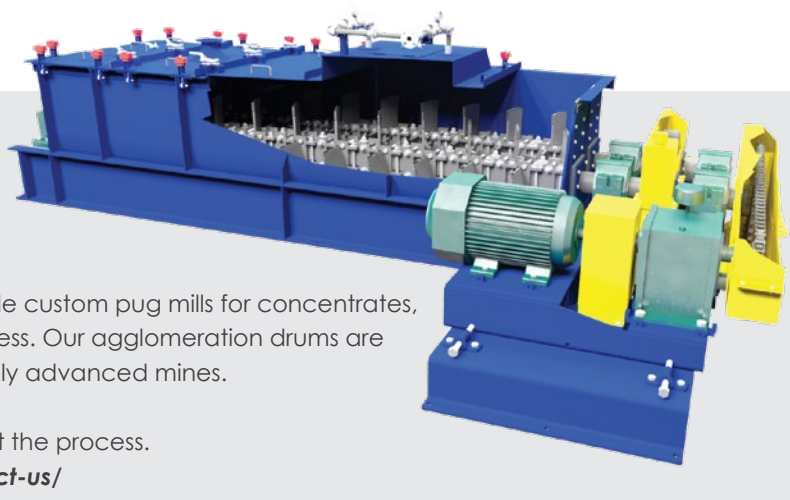


FEECO Agglomeration Drum

EQUIPMENT SPOTLIGHT: THE AGGLOMERATION DRUM

Agglomeration drums help to maximize recovery rates by making ore fines more uniform in shape and size, which allows the leachate to more effectively percolate through the heap (as seen in the illustration above). The agglomeration step also serves to begin the leaching process prior to the heap. This increases overall efficiency and ultimately, recovery rates. Learn more at: **FEECO.com/copper-ore-agglomeration/**





METAL PROCESSING SOLUTIONS

FEECO is a leader in metal and mineral processing. We provide custom pug mills for concentrates, and agglomeration drums for the heap leaching/SX-EW process. Our agglomeration drums are utilized in some of the world's largest and most environmentally advanced mines.

We can also provide all of the handling equipment to support the process.
For more information, contact us today at ***FEECO.com/contact-us/***