



### PROCESS

During the steel making process, large quantities of by-products are produced, mainly in the form of dust and scale. These by-products contain valuable iron and must be recycled to liberate the mineral. This is done through a complex process involving a number of pieces of equipment.

By-product in the form of sludge is first dried in a rotary dryer. This helps to convert the material to a fine powder so that it can be uniformly blended with other fine particle by-products.

Once dried, the various by-products are blended in a pug mill (also referred to as a paddle mixer), along with a binding agent to produce a uniform feedstock for briquetting. Because of the abrasive nature of the materials, paddles are faced with wear-resistant alloys.

After the feedstock has been prepared, the material can be briquetted and reintroduced into the steel making process for iron recovery. Throughout the process, bucket elevators and belt conveyors are employed to seamlessly move material from one step to the next.

FEECO continues to be the preferred choice for providing rotary dryers, pug mills, and material handling equipment to this recovery process, due to our extensive experience and robust equipment.

### PROJECT SPECS

**Customer:**  
Multiple, Proprietary

**Equipment Supplied:**

- Pug Mills (Paddle Mixers)
- Rotary Dryers
- Belt Conveyors
- Radial Stackers
- Bucket Elevators

**Project Location:**  
Multiple

**Industry:**  
Steel

**Material:**  
Steel By-Products

**Project Engineer:**  
FEECO International, Inc. &  
Mill Services Companies