



SECONDARY ALUMINUM BILLET FACILITY

GREENFIELD PLANT – MIDWEST USA

TOTAL INSTALLED COST \$35,000,000

This project, which demonstrates our overall capability, is a grass roots Secondary Aluminum Billet Facility. PENTA provided complete engineering, design, procurement, construction management and start-up assistance. PENTA was selected to partner with the Owner for the scope definition and cost estimation phases of the project based upon our in-house metals expertise and skilled discipline engineering staff. After successful completion of these important tasks, PENTA was awarded the full engineering services contract for the project.



This facility melts clean aluminum extrusion scrap and processes aluminum billets/logs for both internal and external use. As mentioned above, PENTA performed a “Main Study” to develop the necessary technical documentation for the major process equipment, utilities, and auxiliaries together with the investment cost estimates, authority requirements and schedules for project execution. The documents and scope definition developed in the early phases of the project served as a reliable framework for completing detailed engineering activities. The remelting facility has an annual capacity of 90,000 metric tons.

The process includes the following equipment:

- Scrap Charging Machine
- Tilting Melting Furnace – Gas fired batch process unit with a capacity of 40 MT. This unit includes a regenerative furnace for energy conservation.
- Tilting Holding (Casting) Furnace
- In-Line Filter
- Skimming Machine
- VDC Casting Machine
- Four Mold Sets
- Automatic Homogenizing Unit
- Automatic Log Handling System
- Sawing and Packing Plant

