INDUSTRY GUIDE

Furnaces & Ovens for Battery & Lead Oxide Plants

Red lead and Barton furnaces, lead melting, hot air generators and drying ovens for battery plants.

Lead-acid battery plants and oxide makers run several heat processes. Lead is melted for casting grids and feeding oxide plants, Barton pots oxidise molten lead into leady oxide for battery paste, red lead furnaces convert litharge into red lead, and plates and materials are dried. Temperature and airflow decide oxide quality, and lead dust must be kept inside a closed system and collected.

Heating processes in this industry

Lead melting	lead melts at 327.5°C; pots are held above this for casting and feeding
Barton pot oxidation	pot externally heated to about 370–480°C, after which the reaction largely keeps it hot
Barton oxide quality	degree of oxidation of about 70–80% is typical for battery oxide
Red lead conversion	AHS red lead furnace operating at about 400°C, heated by a hot air generator
Dust collection	oxide carried to fabric filters, which reach about 99% collection
Drying of plates and materials	hot-air ovens and tray dryers at controlled low temperature

Equipment AHS builds for this industry

- Barton Pot Furnace
- Red Lead Furnace
- Lead Melting Pot Furnace
- Hot Air Generator Oven
- Tray Dryer
- Chemical Dryer
- Hot Air Oven
- Industrial Gas Burner

Why AHS

- Red lead, Barton and lead melting furnaces supplied with separate control panels
- Hot air generators with LPG/PNG burners or electric heaters and 5 HP SS-304 blowers
- About 86 documents on hot air generators between 2003 and 2026
- Thermocouples, burner parts and heating spares supplied from Delhi
- Electric, LPG, PNG and CNG heating
- Building furnaces in Delhi since 1991