Eclipse Product: ThermJet Burners
Submitted by: Brian Shepard – Eclipse Combustion (South Carolina)
Application: Annealing Bell Furnace

Description:

Process: Annealing after draw. 9-20 gauge.
Load: 20,000 Lbs.
Cycle: 4 Hour heat and cool.
Temp: 1500º F

Mar-Mac had ten North American 4423-3 burners with block holders. Flame safeguards were Honeywell RA890F. Valve train was in poor condition. System was designed to shutdown with single burner failure.

System was problematic.
• Burner failures, block failures and flame impingement on inner container.
• Loss of production due to burner problems.
• Quality problems due to interrupted cycles.
• Difficult to set up and maintain burners.

We replaced the burners with ten TJ040, Medium Velocity ThermJet burners with Alloy Tubes. Main valve train was shipped prepiped and wired.
Veri-Flame controls were sold and installed by Mar-Mac. System was designed to allow burners to be shut down if not needed.

Equipment Supplied.
• 2) KDI MVD valves used at each burner.
• SMJ Blower with inlet filter.
• Piped and wired main gas valve train.
• 10) VeriFlame controls.
• 1) Eclipse 2300 High temperature limit.

See page 2 for additional before and after pictures.