

# BAR MILL MASTER REFERENCE SYSTEM UPGRADE



OLD



NEW



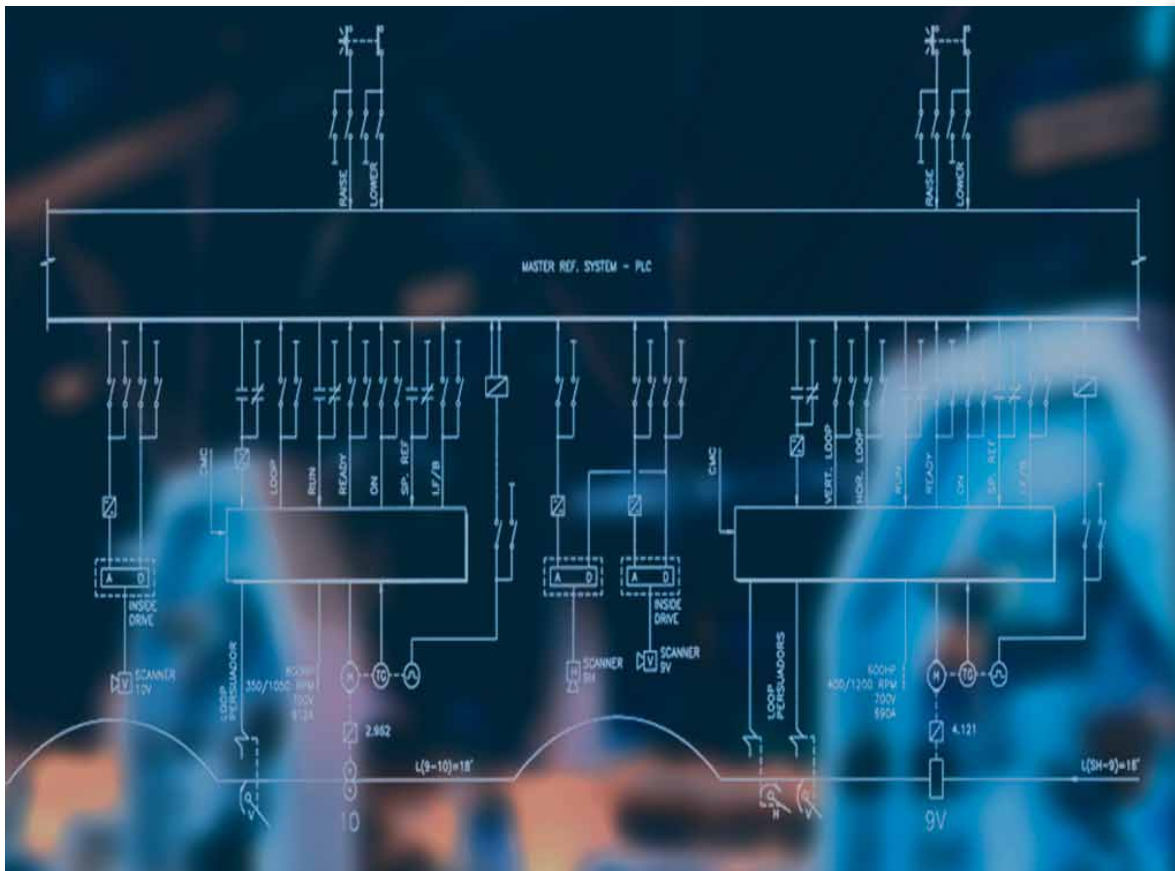
NEW

**Process:** Sixteen stand continuous bar mill with two shears

**Scope:** Design, supply and commission rolling mill speed control system including: Mill set-up server, dual HMI control and monitoring system, PLC based speed reference generation and control, cut to length, loop control and tension control systems.

**Approach:** Develop low cost solution to mill speed control. Apply switch-over control scheme. Connect new system inputs in parallel to existing (shadow existing operations). Control outputs by either system through an instant switch-over.

**Benefits:** Minimum interruption to production, improved mill set-up and operator interface, ease of maintenance, low cost implementation.



## Technical details

**PLC:** Schneider Quantum

**Qty:** 1

**Discrete I/O's:** 350

**Analog I/O's:** 40

**H.S. counters:** 20

**Networks:** Remote I/O, Modbus Plus, Ethernet

**Features:** Cascade/Individual speed control, Speed droop compensation, Tension control, Loop control, Head and Tail tracking, Shears cut to length control

**HMI:** Iconics with OPC server

**Qty:** 3

**Hardware:** PC based stations, one with two 15" flat screens and one with 21" monitor

**Network:** Modbus Plus, Ethernet

**Features:** Mill Configuration, Mill Set-up, Process Monitoring, Process Control, Alarms, Trending, Delay logging

**SET-UP SERVER:** Microsoft Access data base

**Qty:** 1

**Hardware:** PC based station, 21" monitor

**Network:** Ethernet

**Features:** Set up schedules for 700 products. Each schedule includes: stand configurations, reductions, groove factors, loop heights, tensions, roll gaps, shears lead speed, head crop, tail crop, divide length