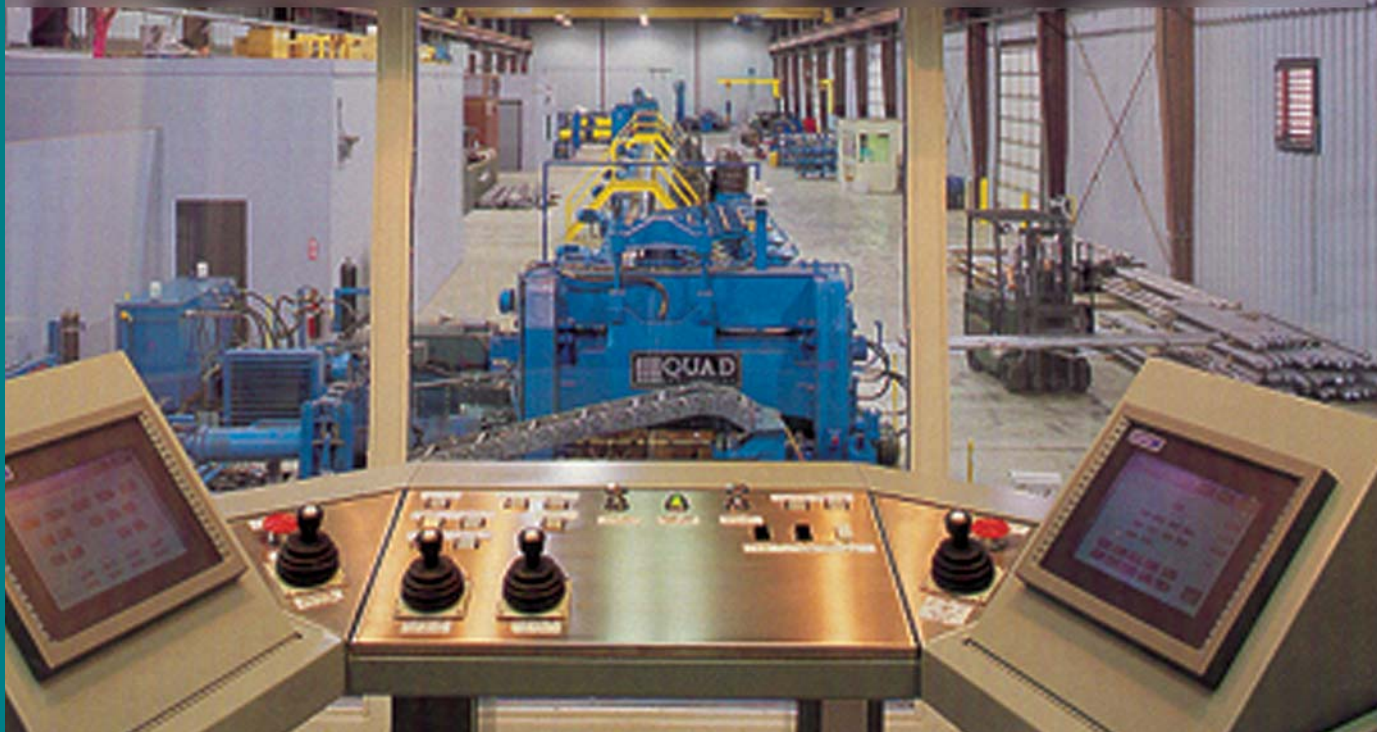
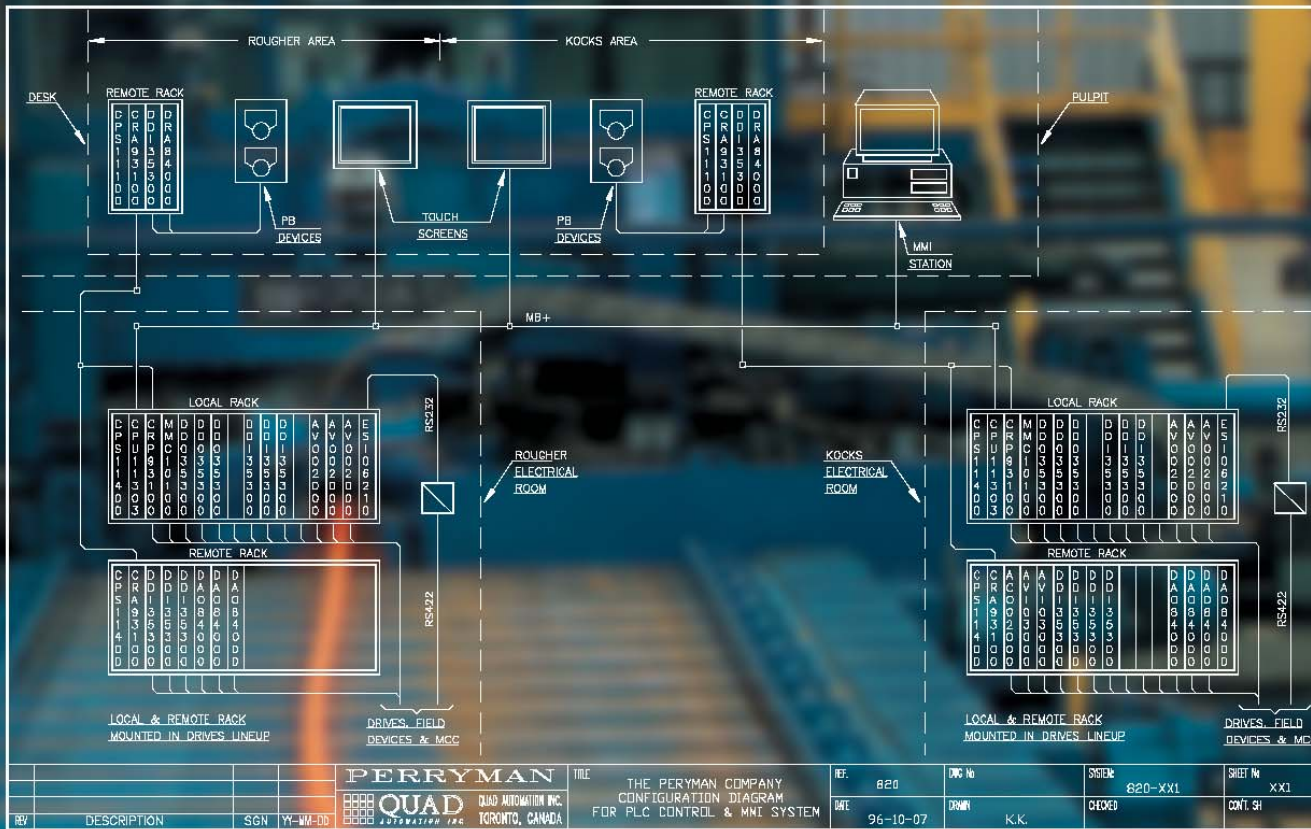


TITANIUM ROLLING MILL - ELECTRICAL



- Process:** Titanium rolling process consisting of 15 pass reversing mill, crop shear, continuous 10 stand Kocks block, shear, coiler, coil quenching and handling, and auxiliary equipment.
- Scope:** Design, supply and commission power distribution system, DC and AC motors and drives, control system, operator's pulpit and consoles. Set-up and control Interface with induction heat ing furnaces. Complete Installation engineering package including drawings and specifications.
- Approach:** Work closely with client to develop new process and control requirements. Reduce project cost by purchasing standard drive modules from reputable manufacturer, assemble and wire them in local shops. Apply new programming tools for efficient implementation.
- Benefits:** First in the world fully automated Titanium Rolling Mill. Remote real time access to the control systems from Quad offices for monitoring and on-line support.



PLC: Schneider Quantum
Qty: 2
Total I/O's: 500
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

DC Drives: Eurotherm
Qty: 11
Sizes: 7.5 to 1250hp
Application: Reversing mill, screwdown, continuous mill, shear, pinch roll, coiler
Controls: Speed, position and tension

AC Drives: Eurotherm
Qty: 9
Sizes: 7.5 to 80hp
Application: Entry and exit delivery work tables, Conveyors, Pinch Roll
Controls: Speed, position

HMI: FactoryLink
Qty: 1
Hardware: PC based stations
Network: Modbus Plus, Ethernet
Features: Mill Configuration, Mill Set-up, process Monitoring, process Control, Alarms, Trending, Delay logging, Reporting

SET-UP SERVER: Microsoft Access data base
Qty: 1
Hardware: 400Mhz, 6.3GB PC, 21" monitor
Network: Ethernet
Features: Set up schedules for all products rolled (700). Each schedule includes: stand configurations, reductions, groove factors, loop heights, tensions, roll gaps, shears lead speed, head crop, tail crop, divide length