

Rolling Mill Experience

With over 30 years of providing project expertise in the rolling mill industry, PCT has completed several large upgrades (listed with detail below) as well as hundreds of smaller projects in and around mills performing upgrades and improvements on support equipment, troubleshooting process issues and equipment, and advising customers. Our team offers both mechanical and electrical engineering services to deliver a comprehensive solution to our customers.

● **Cold Mill: 2 stand / 4 high ***

- Controls upgrade: responsible for installation, design support, and commissioning
- Designed, programmed, and commissioned mill gap position regulator (combinations of HGC and screwdowns)
- Designed, programmed, and commissioned roll bending regulator
- Installed 2 shape rolls and programmed control of digital spray system
- Integrated Level 2 system

● **Cold Mill: single stand / 4 high / 72" wide ***

- Mechanical and electrical (controls) turnkey upgrade
- Upgraded PLC, I/O, HMI, and drives (Parker/SSD)
- Upgraded flatness system, and installed and integrated ABB Shaperoll
- Modified HGC cylinders and installed Sony position transducers in cylinders
- Designed, built, installed, and commissioned bridle rolls
- Rebuilt high pressure hydraulic system
- See case study *Aluminum Cold Mill*

● **Cold Mill: 2 stand / 4 high ***

- Upgraded PLC, drives (Parker/SSD), HMI, integrated Level 2 system
- Designed, fabricated, installed, and commissioned operator pulpit
- Overall construction supervision and installation responsibility

● **Cold Mill: single stand / 4 high ***

- Rebuilt mill after fire destroyed mill and all auxiliary equipment
- PLC control, integrated drives, and Level 2 system.
- Project management of entire demo and rebuilt of entire mill and associated facilities
 - \$16M budget
 - Managed OEMs, contractors, and trade labor
 - Coordinated with insurance carrier

● **Cold Mill: 2 stand / 4 high ***

- PLC, HMI, I/O, and drives upgrades
- Integrated Level 2 AGC system

- **Cold Mill: single stand / 4 high ***

 - Support Level 2 integration into an existing control/drive system
- **Cold Mill: 2 stand / 4 high ***

 - Upgraded old GE PLC controls
 - Responsible for design, programming, and commissioning
- **Hot Mill: 3 stand / 4 high ***

 - Upgraded controls twice in a 12 year span
 - Upgraded PLC, HMI, drives, and I/O
 - Rewind and interstand tension controls were integrated on two different Level 2 systems
 - See case study *Aluminum Hot Mill*
- **Hot and Cold Mill Fire Rebuild ***

 - Rebuilt several mills and auxiliary equipment after an extensive fire
 - Project management of demo and rebuild of mills and associated facilities
 - Managed OEMs, contractors, and trade labor
 - Sized mill motors, unwinds/rewinds, and gear reducers
 - Engineered a 5 stand stainless steel mill into a 2 stand aluminum cold mill
- **Foil Mill: single stand / 4 high ***

 - Mill moved from US, installed and commissioned in China
 - Controls upgrade including PLC, drives, and HMI
 - Integrated Fata/Hunter mill gauge control
- **Temper Mill: single stand / 2 high / reversing ***

 - Upgraded drives and motors
 - Updated and programmed roll positioning controls
- **Temper Mill: single stand / 4 high ***

 - PLC, HMI, and I/O upgrade
- **Lead Mill: single stand / 4 high ***

 - Converted aluminum rolling mill to lead rolling mill
 - Upgraded PLC, HMI, drives, and AGC
 - Provided AGC system using existing screwdown motors
- **Lithium Mill: single stand / 4 high**

 - Designed, built, installed, and commissioned entire mill and control system, both Level 1 and Level 2 systems

* Designates a repeat customer