

Plate Mill Operations – Falk Professional Services

Falk Professional Services Library

- **Reheat Furnaces**
 - Walking Beam Furnaces
 - Hearth Furnaces
 - Extractor Surveys
 - Color Mapping of inside hearth refractory elevations
 - Ramp survey

- **Roughing and Finishing Mills Operation**
 - Mill Post Liners –Backups, Bed Liners, Mae West
 - Mill Window Opening, Skew, Lean, Twist, Wear, Machining
 - Mill Shoes
 - Passline Elevations and Mill Centerline calculations and verification
 - Stretch Monitoring
 - Screw Downs / Worm Drives
 - Interstand Looper Roll position and alignment
 - Side Guides centerline
 - Roll Chock Impact Loading
 - Roll coolant spray headers installation and as-built
 - Sizing Press Rolls
 - Edger Rolls
 - Crop Shears
 - Leveling Systems

- **Table Roll surveys**
 - Delay / Transfer Table Rolls
 - Hot Run Out Table Rolls
 - Furnace Rolls
 - Passline Elevations, Lean, Skew and Wear – Color Graphing

- **Conveyor Systems**
 - Chain Conveyors
 - Walking Beam Conveyors
 - Scale Weighing Equipment

- **Quality Assurance and Quality Control - Sheet Inspection Equipment**
 - X-ray – C Frame Equipment elevation and alignment
 - Quality Defect Detection System Camera Passline Rolls and Equipment alignment

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- Shape Roll – Alignment
- Roll Crown Calculations with Graphics

- **Roll Shop**
 - Work Roll and Back Up Roll Chocks
 - Work Roll And Back Up Rolls
 - Roll Crown Calculation and Color Mapping Graphics
 - Roll Grinder Dynamic Operation alignment check

- **Overhead Crane System**
 - Rail Alignment Survey
 - Crane Bridge Square Check
 - Crane Bridge Beam Camber Check
 - Gearbox and Shaft Alignment Check
 - Building Column Plumb Measurement
 - Building Girder Beam Check
 - Building Structure Defect Scans

- **Mill Stand Main Drives**
 - Gearing
 - Gearboxes
 - Pinion Stands

- **Rotating Equipment**
 - Motors Shaft Alignment
 - Motor Base Survey - Rotor / Stator location verification
 - Generators
 - Pumps
 - Gearboxes

- **Horizontal and Vertical Control Establishment**
 - Passline Calculations and field verification
 - Centerline Calculations and field verification
 - Benchmark and Monument Control installation

- **3-D Volumetric**
 - Piping/Conduit/Ductwork As-built and Design
 - Structural Steel System Components
 - As-built and Design
 - Scan of Existing Conditions
 - Identify Maintenance and Repair Issues

Plate Mill Operations – Falk Professional Services

- **Detailed Laser Scanner Work of Existing Conditions**
 - Equipment Removal
 - Equipment Installation
 - Equipment Clash Detection between component pieces
 - Large Crane Pick Placement and Movement
 - Operator Line of Sight Studies and Cube Maps Photos
 - Flume – New liner verification with clash detection

- **3rd Party Verification of Original Equipment Manufacturer and Rebuilt Equipment**