

Visi-Trak[®]

SENSE, MONITOR, CONTROL

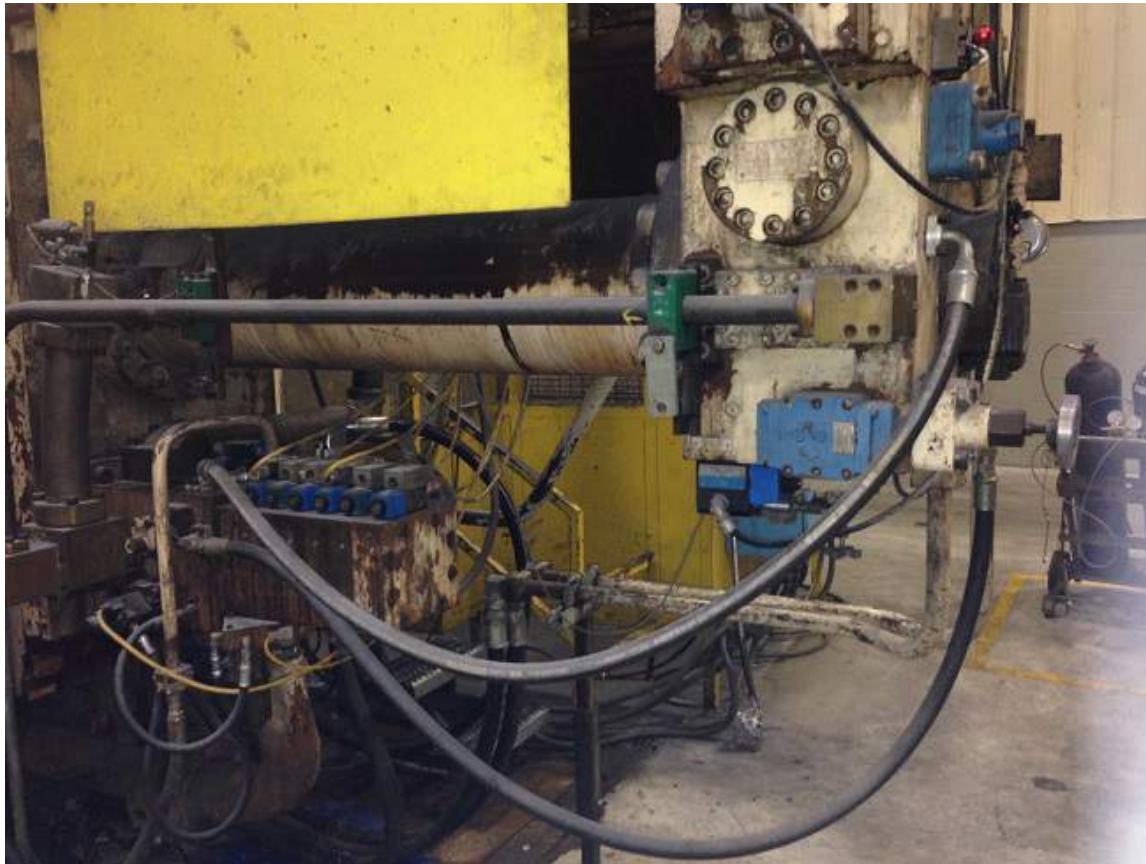
ЧУВСТВОВАТЬ, МОНИТОРИТЬ, КОНТРОЛИРОВАТЬ



Sure-Trak2 – Upgrade Shot Control System and Hydraulics

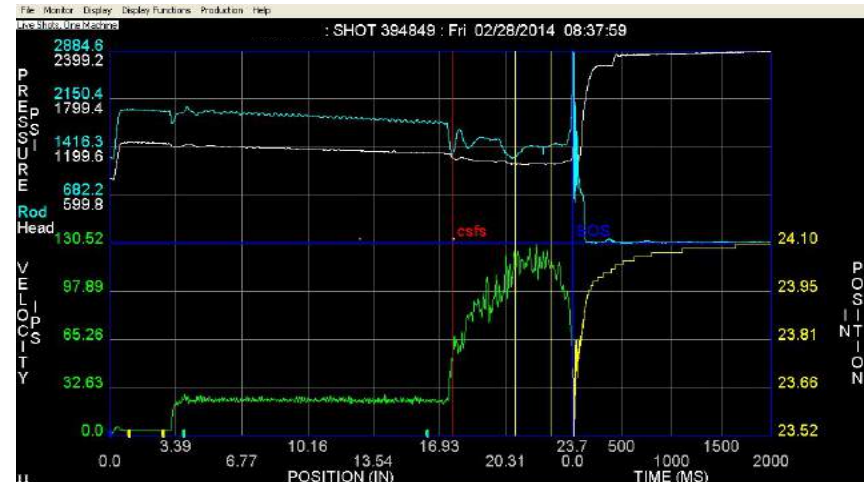
Upgrade of Prince 1200 Ton DCM in August of 2014

- Prince 1200 Ton DCM



2014 Objectives

- Improve Part Quality (Porosity, X-Ray, Leak Testing, etc...)
- Improve accuracy and repeatability on the following parameters
 - Intermediate Shot Velocity
 - Calculated Start of Fast Shot
 - Fast Shot Velocity
 - End of Shot Position
- Reduce occurrences of flash



Upgrade Objectives

- Capacity constraints to take the DCM out of service for an extended time
- Decrease Machine down-time and Maintenance department time on the machine
- Decrease Spare Part replacement buys
- Improve capability of the machine for market demands (Thin-Walled Castings, High Integrity, Large projected areas)
- Need Turnkey Solution

What we offered

- Sure-Trak2 Shot Control System
- 80mm Olmsted Valve with 40GPM Woodward Servo Valve
- Conversion Manifold
- Total-Trak2 HMI
- 1" Ø 20-Pitch Tail Rod and Sensor
- Pressure Control with Intensifier Control Valve



Design and Plan

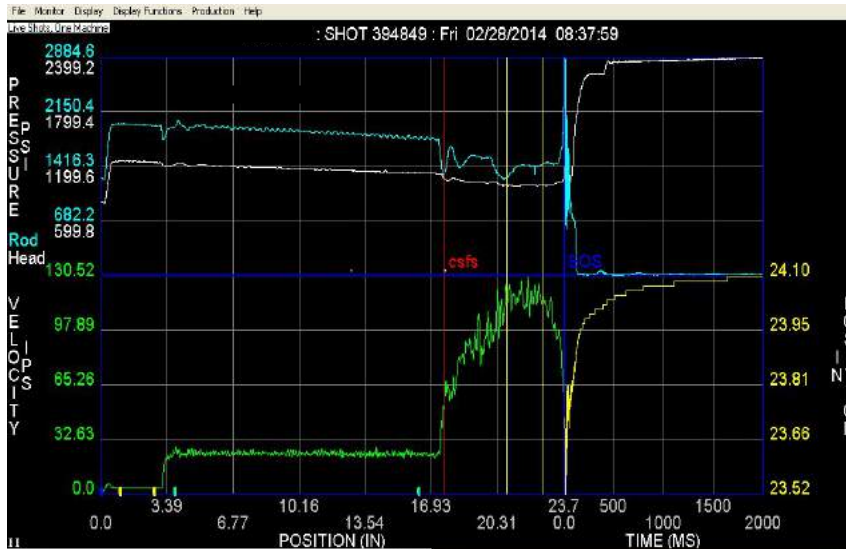
- Develop Project Plan Timeline
- Install Plan
 - 8 Step plan to disassemble current system and Install new components and systems
- Coordinate with Suppliers, Sub-Contractor, Engineering and Customer to review current status

Prince 1200 Ton Hydraulic Upgrade

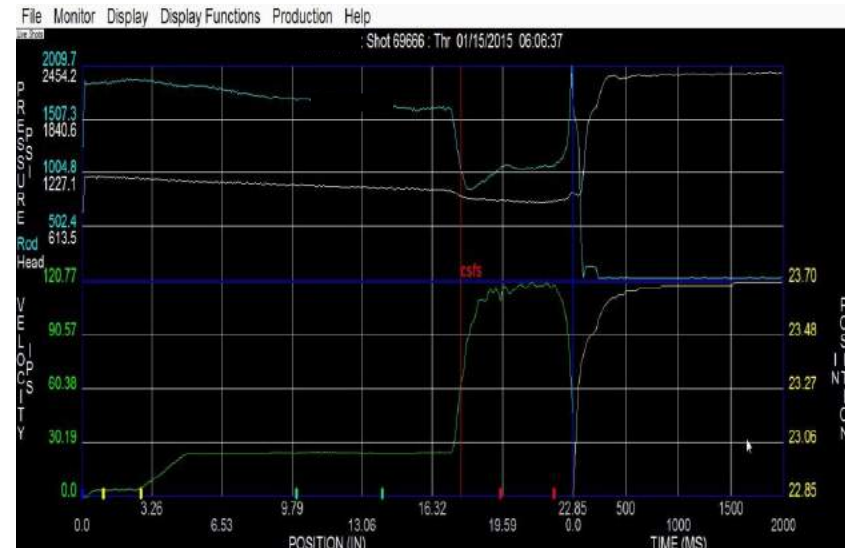


Shot Trace

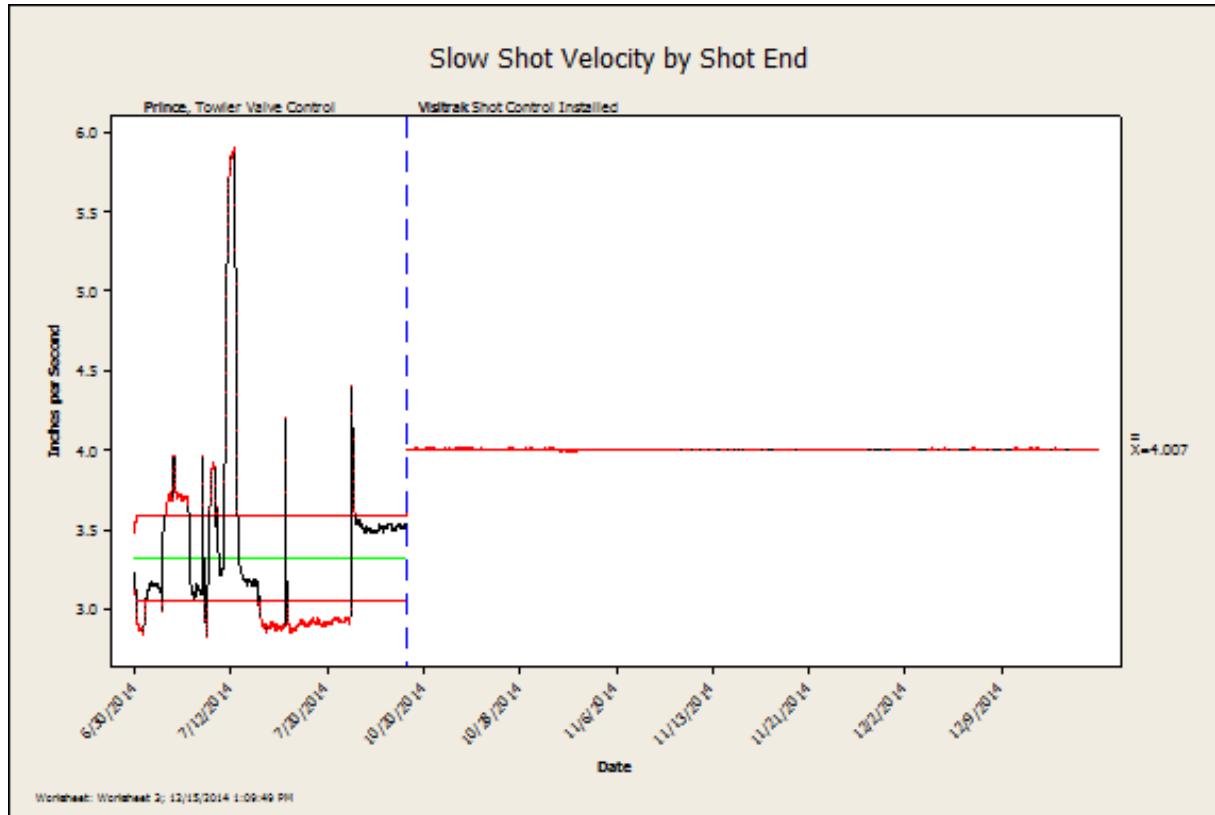
Shot Trace Before



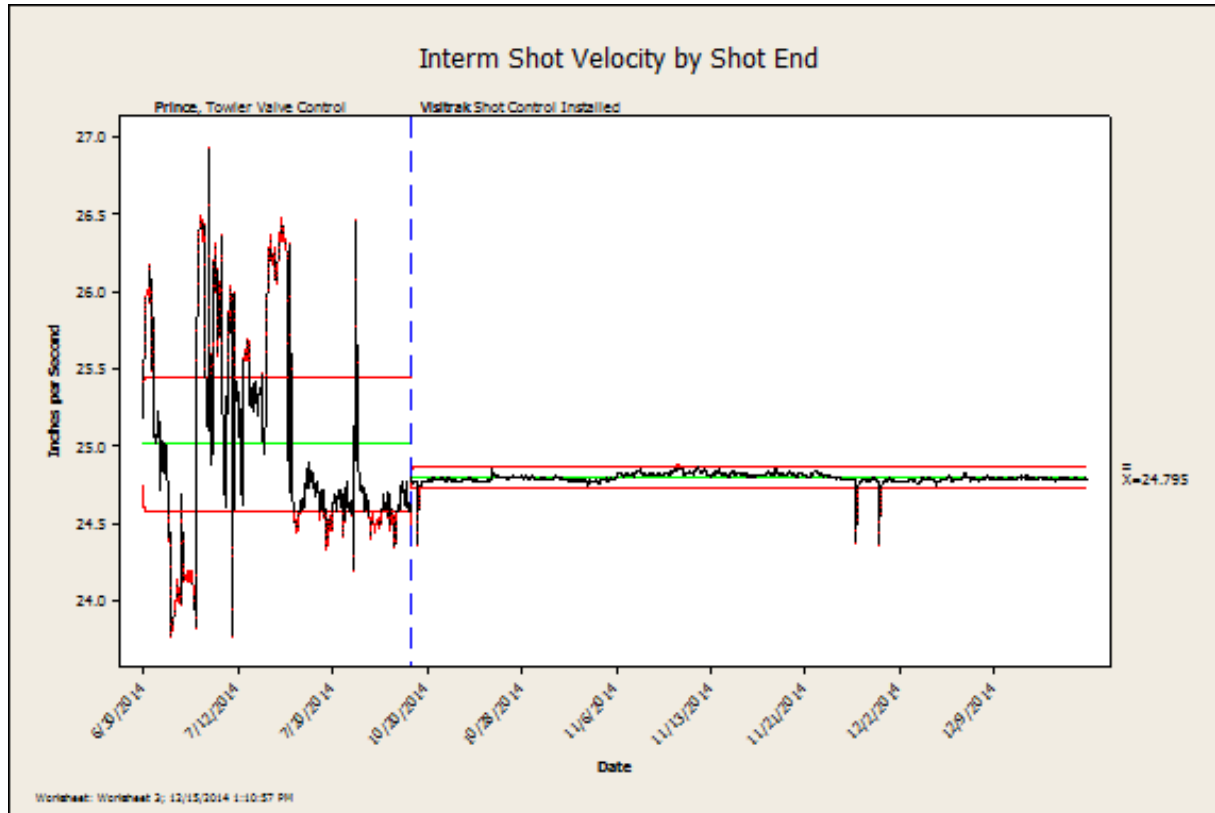
Shot Trace After



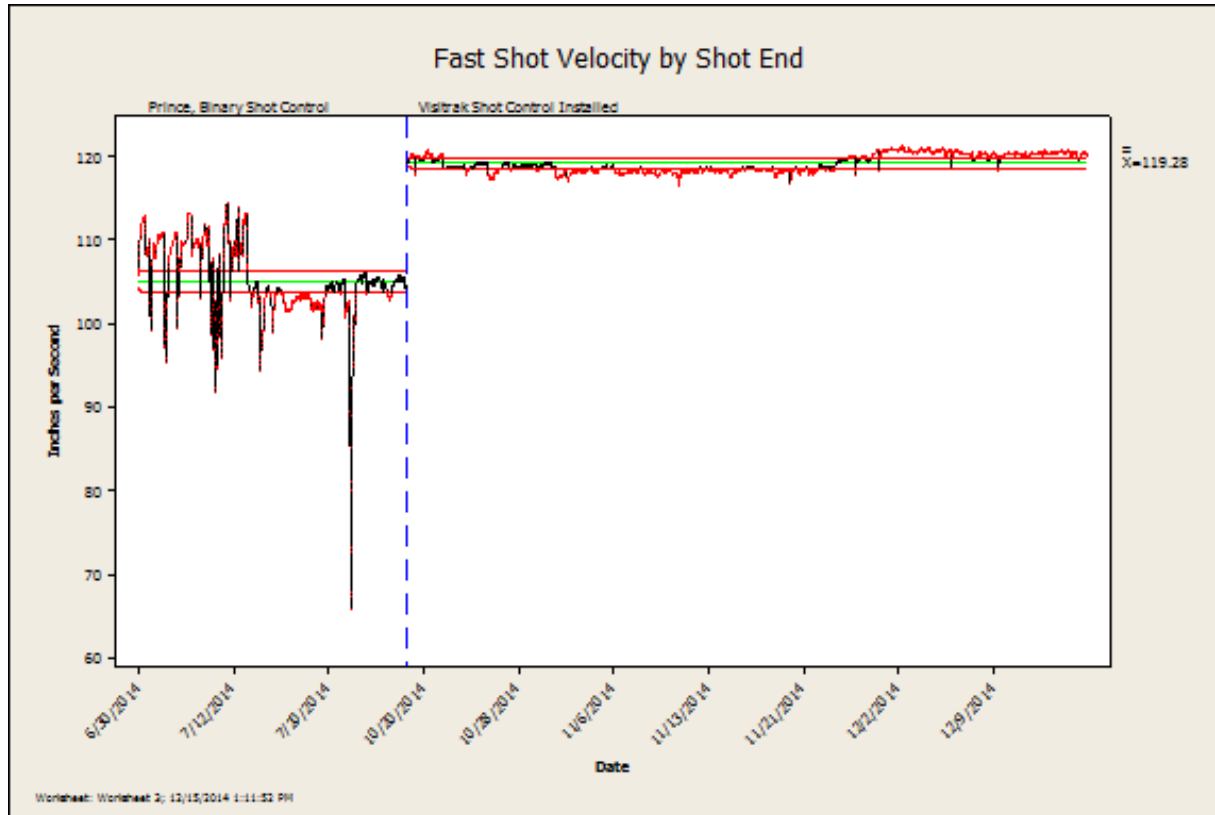
Statistical Analysis



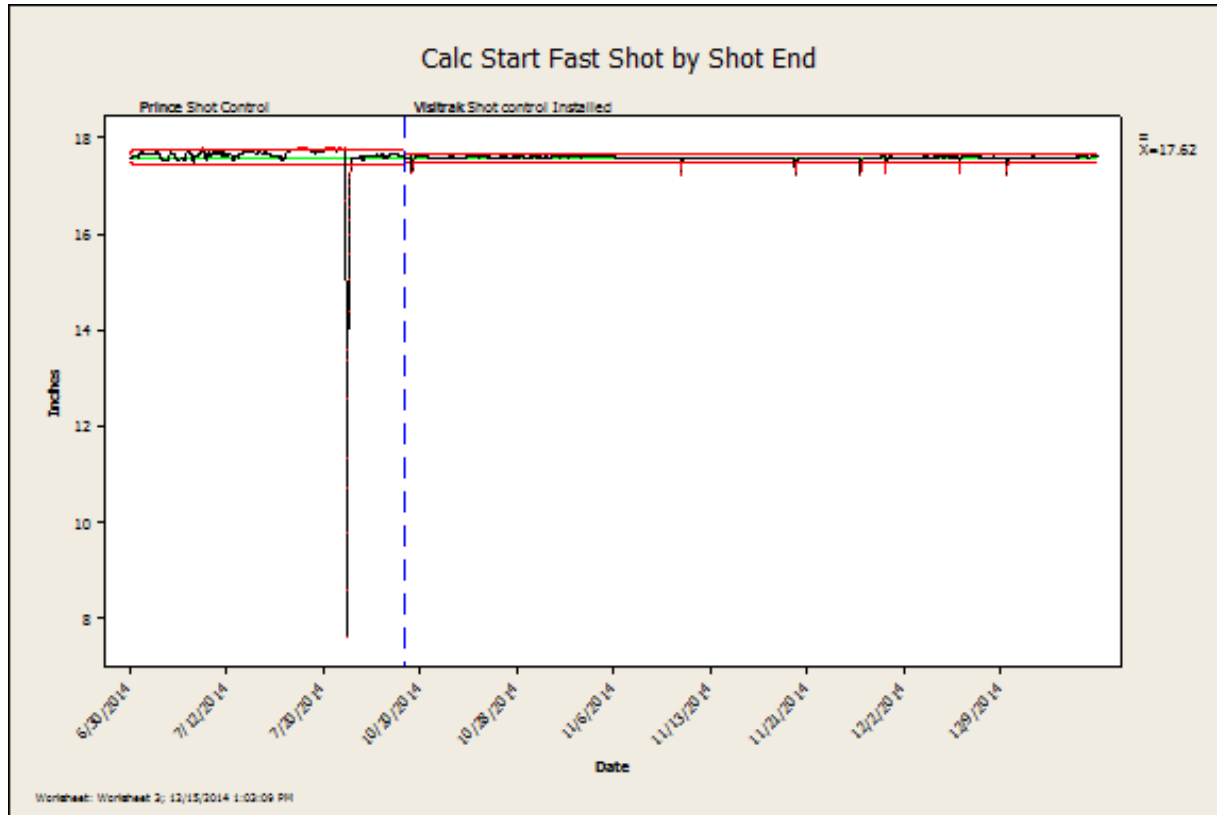
Statistical Analysis



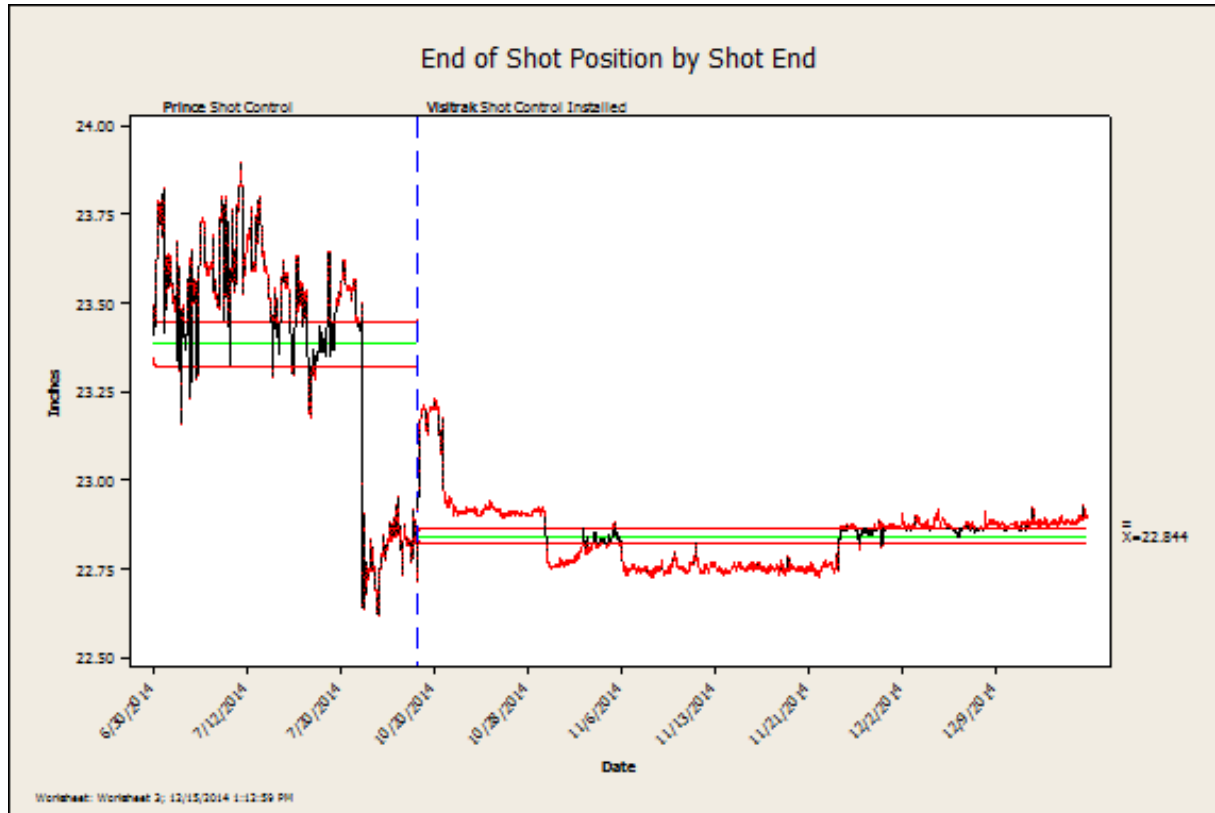
Statistical Analysis



Statistical Analysis



Statistical Analysis



Helper Side

Before

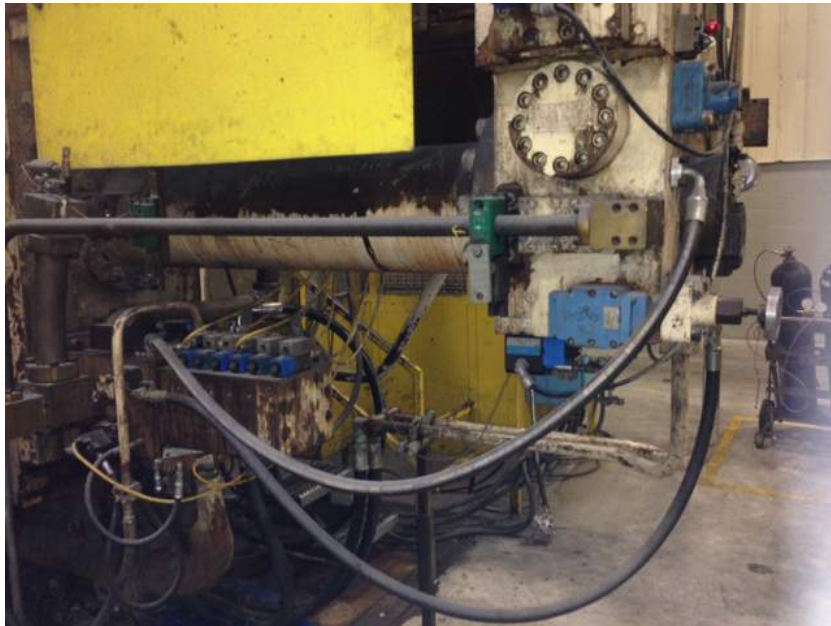


After



Operator Side

Before



After



Operator Side

Before



After



Results

- 20% Increase in Machine Utilization
- 8 Month ROI
 - Increased Machine Uptime
 - Improved Efficiency and Good Parts Produced per Hour
 - Less Maintenance Time on DCM
 - Improved Part Quality
- Consistent, Repeatable, Dependable Injection Performance

1 Year Later: No Hydraulic Leaks & No Components Replaced

