

# **Grow Great Jobs & Profits with More Automation**

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*Owner*

**Marlin Steel**

# Automation leads to Stronger Companies & Better Jobs



# Automation Success: Exporting a Container to Australia



# Automation opens up markets and gets us reorders



# Automation will let you sell to high end clients



# Sophisticated Clients Demand Quality



# Sophisticated Clients Demand Fast Shipments, On-Time



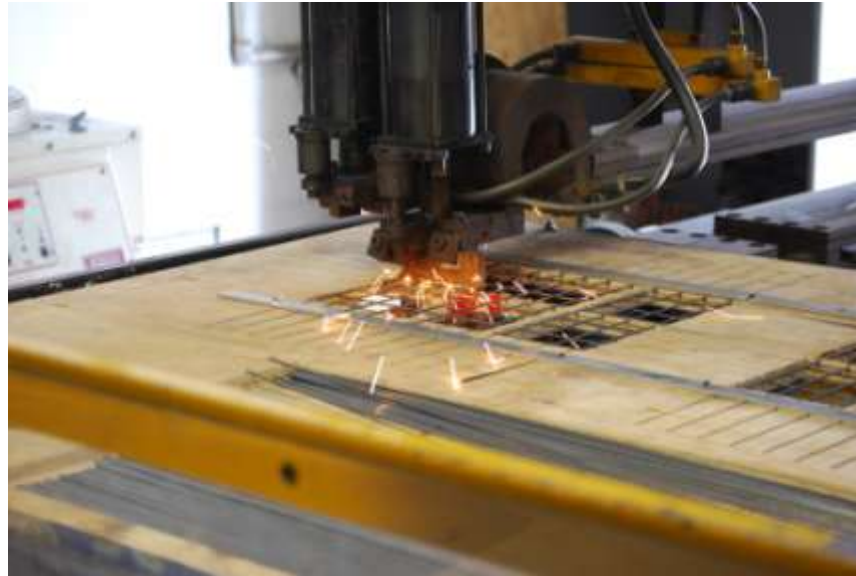
# Automation is critical to success

- Grows Great Jobs
- Grows Profit

# Automation Grows Great Jobs

- Increases \$\$ for Employees – Marlin Steel Case Study
- Strengthens Employer so job more secure
- Safer
- Interesting (less repetition)

# Welding on one side while loaded/unloaded on other side – employee 2x faster



# Productivity Boom = Great for Employees

- The company I bought in 1998
- Employees paid \$6/hour with no benefits
- Dutiful employee production = 300 hand bends in an hour
- Boring job
- Unsafe job
- Quality = +/-0.125" (he would not bend all the way or would bend too much)
- Clients – Bagel Shops, Sub Par quality worked since it just had to hold a bagel
- Marlin Cost = \$0.02/bend

# Big Investments super charge employees



# Improved Life of Employee & Stronger Company

- Marlin Now - 2011
- Employees paid \$25 to \$30/hour including bonuses, overtime & great benefits (blue cross Blue Shield, 401k, 100% education reimbursement)
- Dutiful employee oversees four robots that produce 20,000 CNC bends in an hour
- Interesting job
- Safe Job = No Accidents in 800+ days
- Quality = +/-0.03" (now our biggest problem is the quality of the wire we buy, not our team or their robots).....some of our robots have 0.004" tolerance
- Clients – Raytheon, Northrop, Pfizer, Baxter, Roche,
- Marlin Cost = \$0.0015/bend

# New Demanding Clients are attainable



# Case Study Summary

- Employee goes from \$6/hr to \$30/hour – 500% improvement
  - Blue Cross Blue Shield
  - College Paid for 100%
  - Safer – 800 days and counting
  - Marlin Parking Lot – we double or triple parked
  - 401k accounts are growing (we will have several millionaires at this rate)
  - Their employer is stronger
- Marlin is stronger
  - Better Clients: (Boeing, Baxter, Merck, Toyota, Raytheon vs. Bagel Shop)
  - Quality: 0.125” tolerance vs. 0.03”
  - Speed: 300 bends vs. 20,000 bends/hour
  - Productive Employees: \$0.02 vs. \$0.0015/bend

# Safety – How do you get to 800+ days?

- Embrace OSHA mentoring program
  - Embrace Insurance Company mentoring program
  - Keep Employees Away from Dangerous Zones – let robot deal with it
    - Bending
    - Grinding
    - Welding
    - Lifting
    - Repetitive – same activities stress joints/bones if done frequently
  - Keep Employees Engaged – when bored, employees may make mistake
    - Less Boredom/Fatigue so less likely to be unsafe
    - Employees like to work in safe environment
- 
- \*\* E. J. Ajax Stamping – 17+ years Minnesota \*\*
  - \*\* Acadia Windows – Baltimore, MD\*\*

# Automation makes safety easier



# Dispel Fable: Automation hurts USA job growth

- No Automation – Not competitive
- Global Competition is Ruthless
- Must Have Your “A” Game
  - Best People
  - Most Innovations
  - Best Tools
- Can not win \$6.00/hr USA hand benders vs. \$0.30/Chinese hand benders
- Choice is Automation (well paid workers) or extinction (no workers)
  - Direct Labor Costs are higher in USA
  - Material Costs are higher in USA
  - Regulation Costs are higher in USA
  - Environmental Costs are higher in USA
  - Taxes higher in Free Market USA vs. Communist China

# Automation Grows Profits

- Improves Lean Performance – so less waste (set up times, raw materials, etc)
- Reduces Accidents so Worker's Compensation Premiums plummet
- Opens New Markets so revenue climbs so profits climb
  - Ship faster
  - Ship better quality
- Improves Quality
  - Less rework so less back tracking and less remaking
  - Less upset clients

# Every bend used to be by hand....



# Automation Helps on Lean Journey

- Less scrap, fewer defects, less spoilage = **reduced environmental waste**
- Fewer defects, less overproduction, simpler products, right-sized equipment = **reduced use of raw materials**
- Less storage, inventory space needed = **reduced materials, land and energy consumed**
- Less overproduction, lighting/heating/cooling unneeded space, oversized equipment = **less energy use**
- Less overprocessing, more efficient transport and movement = **lower emissions**

# Case Study – How to Grow?

- Wire Business is strong – we are growing, however....
- Good Clients demand sheet metal from us
- Engineers force wire design, when we could deploy sheet metal
- Invest in Automation – Purchased State of the Art Precision Sheet Metal Fabrication and Forming Robot

# Making Parts in USA that used to be Made in China



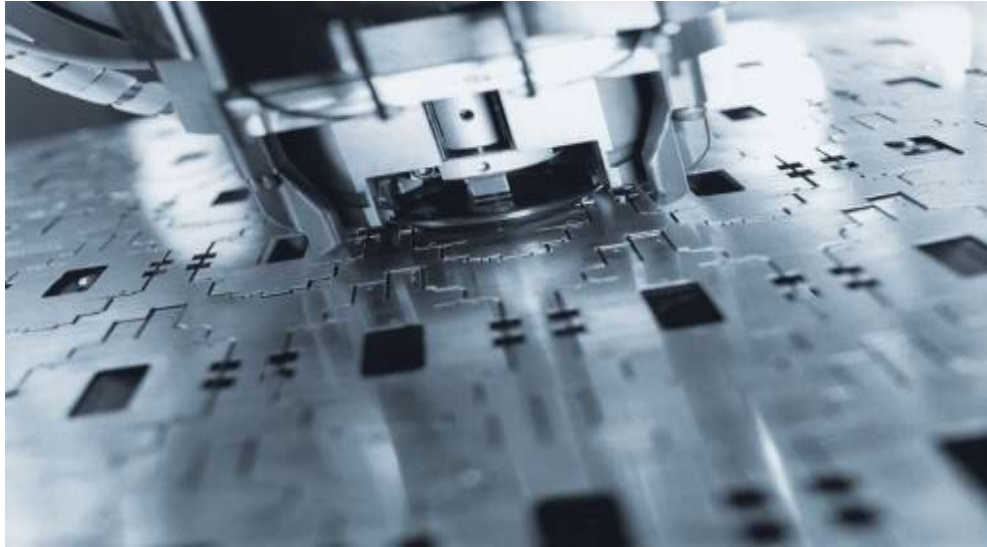
# Automatic Load & Auto Unload – means we do not stop



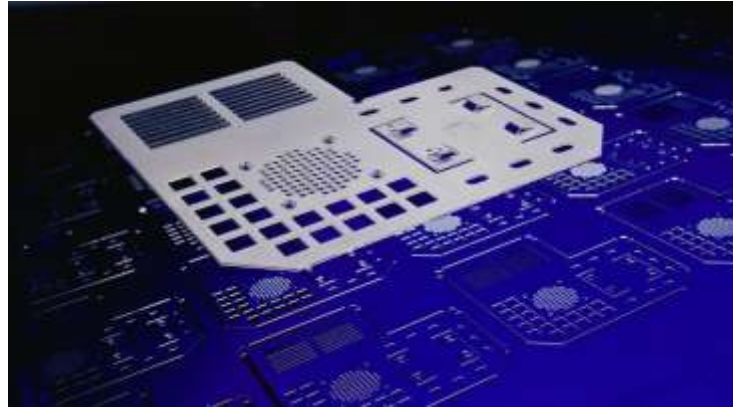
# Invest in Automation: Bend in the Z axis



# Invest in Automation: +/-0.1mm tolerance



# Invest in Automation: 900 strokes/minute



# QEQ<sup>sm</sup> = Quality Engineered Quick

## What is Marlin Steel's secret sauce?

- Ship Quality
- Great Engineering
- Ship Quick



# Automation helps QEQ

- Quality
  - Tolerances 100x and 10,000x times better
  - Less Rework
  - Less Inspections
- Engineering
  - Download prints into robots
  - Robots allow us to design differently –
    - Assume it will fit right
    - Push the limits of design
- Quick
  - Robots allow us to ship quicker
  - Robots allow us to inspect fewer parts so often made perfect



# Books to Read

- “The Goal” – Eli Goldratt
- “The Toyota Way” – Jeff Liker
- “From Good To Great” – Jim Collins
- “Going Lean Field book” – Stephen Ruffa



# People supercharged by automation will help grow Great Jobs and Profits



# Contact Information



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