Six Sigma on a Budget

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Six Sigma on a Budget

- Case Background & Goals
  - Manufacturing/ Assembly – Drum Brake
  - Relocation and Re-processing
  - Minimal elapsed time: 5 months for move, 8 months product life
  - Stringent quality demands
  - Yet minimal funds available due to reduction of product life

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- Drum Brake Assembly
- Used on small pickup trucks/ vans
- 28 individual components
- Primarily manual assembly

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- Origin: Automaker's Internal Parts Plant
- Destination: Tier I Supplier
- 5 month transition time; 8 month product life (Reduced from 24 months!)
- Safety component – zero tolerance for defects
- Historically a problem part– yet little resource for improvement provided

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- Project Goals
  - Defect reduction of 75% from prior performance
  - Flawless Launch
  - Meet capacity and cost targets
  - No product or supplier changes
  - New (parallel) equipment and people (no “inventory banks” for transition)

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- Project Approach
  - Focus on “Soft Quality” – process definition, planning, methods, people management
  - Leverage previous experience
    - Similar products at the new supplier
    - History of the specific job at the original site

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Define	Detailed process definition
Measure	PPM/ DPMO of the product prior to relocation; similar products at receiving plant; customer complaints/ rejections; first time quality rate; labor content & balance
Analyze	Process Flow (including Hidden Factory) Process FMEA with side effects considered

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Define : Meet customer product & process requirements 100% at defined cost & schedule.
Stretch goal: Flawless Launch

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Methods

- Detailed process definition (including “Hidden Factory”)
- Process FMEA, enhanced
- Staffing/Training Systems Improvements
- Fixtures, tools and equipment process design
- Product Audit Feedback Loop

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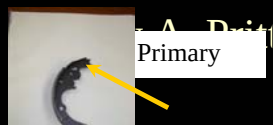
S Truck Assembly

Uni-Bond Brake, Inc.
A QS-9000 Registered Company

LEFT

Op 40 **E-Brake & Shoe Assembly**
Station Three



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Six Sigma on a Budget Conclusion

- Thank you for your attention!
- Questions?