Welcome to MASCO BuilderCabinet Group
Atkins, Virginia  (Door Plant)

- Plant Type: Component
- Primary Brand: Merillat
- Size: 278,320 Sq. Ft.
- Hourly: 260
- Salaried: 20
- Primary Operation:
  - Coped Veneer Panel Doors
- Secondary Ops:
  - Lumber Drying
  - Rough Mill
  - Drawer Fronts
  - Frame Stock
  - Finishing (Doors, Drawer Fronts)
  - Mitered Doors
Atkins, Virginia  (Panel Plant)

- Plant Type: Component
- Primary Brand: Merillat
- Size: 140,610 Sq. Ft.
- Hourly: 127
- Salaried: 6
- Primary Operation:
  - Veneered Door Panels
- Secondary Ops:
  - Veneered Accessories
  - Finishing (Frames, Doors, Drawer Fronts, Accessories)
Objective

To build a lasting system and culture that drives continuous improvement in the value stream of the organization, while developing leaders for the future.

*Culture is more important than the short term results – Continuous Improvement is part of the BCG DNA*
BCG Continuous Improvement Philosophy

resetting and sustaining

The setting of standards aimed at waste reduction with participation by all.

Adherence To Standard
Apply Tension & Tighten To Expose Waste
Evaluate Waste & Improvement Opportunities
Charter Projects
Manage & Coach Projects To Completion
Prioritize Projects
Set New Standard
Management System
BCG CI Strategy

1998
Define MPS House, Kaizen Process 5S, Accountability Meetings

2000
Poka-Yoke (Mistake Proofing)

2002
Six Sigma Green Belt (DMAIC), Team Leader Development

2004
Six Sigma Black Belt (DMAIC), Total Preventive Maintenance

2006
MPS Training Standards, BCG Six Sigma Training

2008
TPM Certification, 5S Certification / Standard, Shop Floor Problem Solving

2010
Job Relations, Job Methods, Job Safety, SPC training

2012
DMAIC teachers (Black Belts) in all locations

2013
Value Stream Mapping extended

2009
Design of Experiment events, Maintenance Excellence, Zero Defects

2011
Making materials flow, Maintenance Excellence Platinum Level

2013
Design of Experiment events, Maintenance Excellence Platinum Level

2007
MPS Tools Certification, Setup Reduction Certification

2005
Six Sigma Orange Belt (DMAIC)

2003
Design for Six Sigma (Green Belt); Shingo Prize

2001
Value Stream Mapping, 7 Principles of Warehousing, Heijunka scheduling

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Continue Establish CI Pace
### The Results of Lean Manufacturing

<table>
<thead>
<tr>
<th>Company</th>
<th>Quality</th>
<th>WIP Reduction</th>
<th>Ship On Time</th>
<th>Equipment Uptime</th>
<th>Quoted Lead Time Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merillat</td>
<td>72%</td>
<td>87%</td>
<td>99.7%</td>
<td>99%</td>
<td>5 days $\Rightarrow$ 8 hrs.</td>
</tr>
<tr>
<td>Atkins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Freed up 200,000 sq. feet of floor space
- Added 3 additional species of product: hard maple, soft maple and cherry
- Average lot size went from 200 down to 20 pieces
- Quadrupled the number of SKU’s to 18,000
- Plant capacity doubled with no capital
- Reduced CTS Veneer inventory by 950,000 ft.
Accomplishments

- Capacity
  - Core business
  - Nationally distributed product
- Inventory turns
  - Cut direct
  - No finished goods inventory
- Quality
  - Standard Work
  - Poka-Yoke
  - Six Sigma
- Glass House
  - Conduct standard work audits daily.
  - Graphical display of measurable.
  - Team problem solving.
- Standard Environment
  - A place for everything.
  - Beginning of shift audit system.
  - Parts delivery system (carts).
Masco Builder Cabinet Group
(Typical acceptance of the MPS)
The Pile-On Vision

“Program of the Month”
No Traction!!

Your initiatives

Your organization
STANDARDIZATION / IMPROVEMENT EVOLUTION

People - Equipment - Processes

PEOPLE & PROCESSES

STANDARD WORK
AUDITING

STANDARD WORK
FOR IMPROVEMENT

JOB INSTRUCTION
TRAINING TO STANDARD WORK

PEOPLE & EQUIPMENT

EQUIPMENT
STANDARDS

SET-UP REDUCTION
(SMED)

TOTAL PRODUCTIVE
MAINTENANCE

5S
WORKPLACE ORGANIZATION
Six Sigma @ Atkins

- Began in 2002
- 55 Juran Certified Orange Belts
- 10 Juran Certified Green Belts
- 1 Juran Certified Black Belt
- 20 Projects per year
Kaizen Event

- People System
- A Cause, Not a Job
- Three to Five Days
  - Training / Data Collection / Solution
  - Implementation
  - Monitor to Sustain
- Frequency - Quantity leads to Quality
Kaizen

- 293 Kaizen events from 1999 to YTD
- 492 Different Participants
- People System
- No one looses their job!!!!!!!
Where did we begin?

5S Is The Foundation

[Images of before and after scenarios]
Kaizen
Kaizen Example – Manufacturing
Kaizen Example – Branch Warehouse
7 Principles of Warehousing – Vertical Storage
One Pass Aisles / Vertical Pick
Heijunka
The Results of Lean Manufacturing

- WIP reduced by 80%
- Implemented the Atkins Cart System
Atkins Cart System (ACS)

Before

! Removed 2,360 ft. of conveyor

! Reduced WIP from 180,000 pcs. to 13,000 pcs. 93% improvement

After
Implement Vision

• Steering Team
• Value-Stream Mapping
• Future State - 3 month timing
• Kaizen Bursts
Top-Down Mandate

Examples

• “100 Poka-Yoke devices by the end of the year” per plant

• “30 Kaizen events this year” per plant

• “20 DMAIC projects this year” per plant
Next Steps

• Benchmark
• Revise Next Future State
• Mix in Top-Down Mandates
• Increase Kaizen Event Pace (Drive to the shop floor)
• Continuously Improve -- Do it again!
The key to our Success...is our People!!!
THANK YOU