

The Corporation for Manufacturing Excellence

Zone Works  
October 2009

**It long has been recognized that the manufacturing sector is the foundation for economic vitality in California and the United States.**

Since 1995, The Corporation for Manufacturing Excellence (Manex) has provided a broad array of proven solutions and resources *exclusively* to manufacturers, distributors and their supply chains, enabling them to compete on a global scale.

We use a holistic and proven approach – from strategy through implementation – to impact all facets of business performance.

The results: growth, profitability, and competitive advantage.

## About Us

- **Manex is a premier provider of high-value consulting and business advisory services exclusively to manufacturers, distributors and their supply chains, enabling them to improve global competitiveness by significantly increasing their growth, productivity, quality and profitability**
- **We are a 501(c)(3); NorCal's sole resource for improved business performance focused on small/midsized manufacturers/distributors, we create economic and workforce development**
- **Partner with economic development firms, federal and state agencies, other non-profits (DOC, NIST, DOL, EPA, EDD/ETP, SBDC, GSN); team on programs, leverage grants.**
- **Partner with private industry (accounting, banks, IBanks, PE, altL)**
- **Consultants average 20 years experience**
- **Proven ROI - 10:1 to 38:1 – US DOC/NIST**
- **Involved with TBAP since its inception (lead subcontractor for business assistance in TBAP1, prime contractor in TBAP2)**

## What We Do

→ **strategy > people > process > performance**

# Strategy

→ strategy > people > process > performance

- **Focused on growth/revenue/competitive advantage**
  - What is the market environment (macro, competitive, customer)
  - What do/can we do better?
  - What is better worth?
  - Who cares the most?
  - What do they need/want/desire/value?
  - How do we do it (plan)

# People

→ **strategy > people > process > performance**

- **Focused on workforce development**
  - What resources (human capital) are required?
  - Are they “bought in”?
  - How do we organize or coordinate?
  - What do they need to know (skills)?
  - What do they need to do?
  - How do they learn?
  - Are they empowered?

# Process

→ strategy > people > process > performance

- **Focused on the “how”**

- What processes support the strategy?
- What processes/steps add value?
- What processes/steps have no value?
  - Must do
  - Just do
- How do we eliminate WASTE?
  - Time (initial+rework), raw materials, scrap, landfills/etc
- How should processes and flow be optimized?
  - Time, Cost, Quality, Value
- How do we keep going?

# Performance

→ strategy > people > process > performance

- **Focused on measuring/managing/improving**
  - You can't improve what you don't measure
  - What are the appropriate KPIs?
  - How do we measure them?
  - Who needs to know what (cascading KPIs)
  - How do they find out (dashboards, andan)
  - What do we do with the information?
    - Fix/improve now, and then...
    - Pipe info/data to restart the whole process (flow back to strategy, continuously improve)



## Representative Results

- **Over the course of a recent 12-month period, our clients reported an annual aggregated:**
  - \$117 million in sales increased
  - \$37 million in cost savings
  - \$25 million in prevented expenditures
  - 912 jobs created or retained

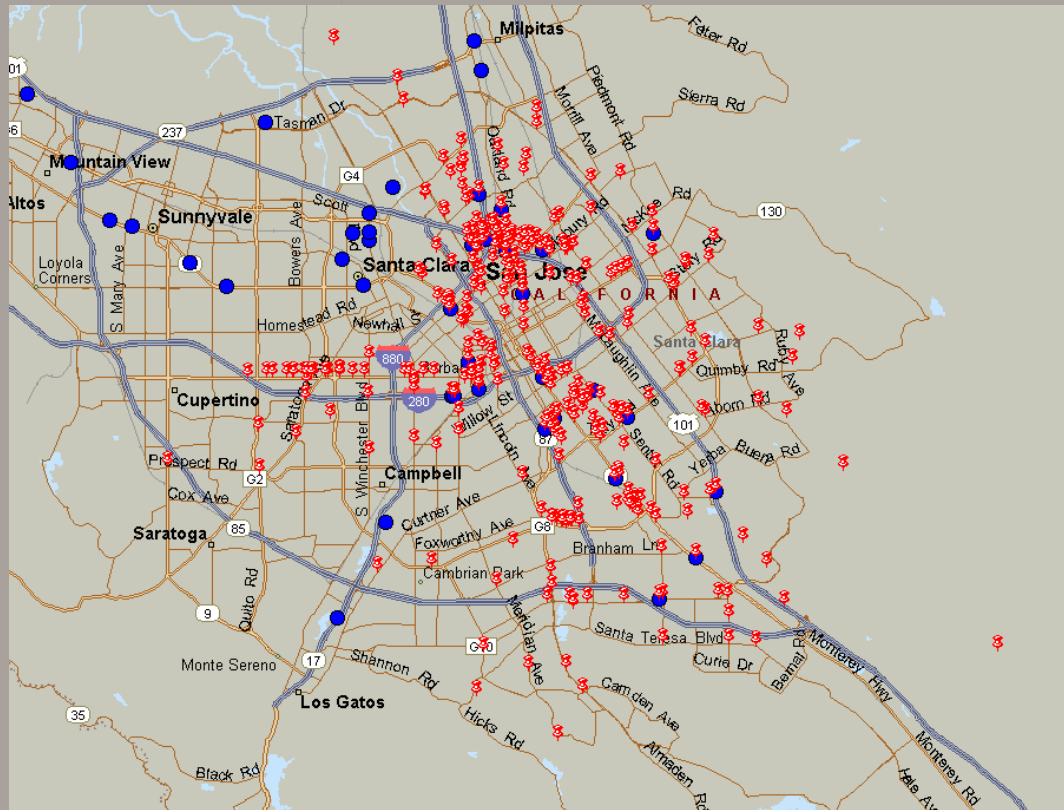
## TDP Manufacturer (rubber & coatings)

- **Manufacturing capabilities were stretched to meet increasing demand; company looking for a way to concentrate on operational excellence to help grow the business and increase revenue even more**
  - Benchmarking 12 key metrics to ID focus areas
  - Roadmap
  - Lean and Continuous Improvement
- **24% sales growth year-over-year**
- **45% reduction in raw material costs**
- **11% improvement in on-time shipments**
- **2 day reduction in lead time**

## TDP Processor and Manufacturer (pt 1)

- **Company did a “little bit of everything”. Tendency to manage by “gut feel” and change course frequently. Breakeven performance.**
  - Assessed facility layout and modified layout/flow
  - Conducted strategic planning sessions
  - Developed “business case/business decision-making” tool
  - Developed GIS for customer targeting and routing
  - Implemented lean manufacturing tools
- **Equipment and labor efficiency improved from mid-60’s to 80%++**
- **Significantly increased profitability**
- **Determined order-level profitability, and identified common bottlenecks based on actual customer demand, for rational future investments**

## TDP Processor and Manufacturer (pt 2)



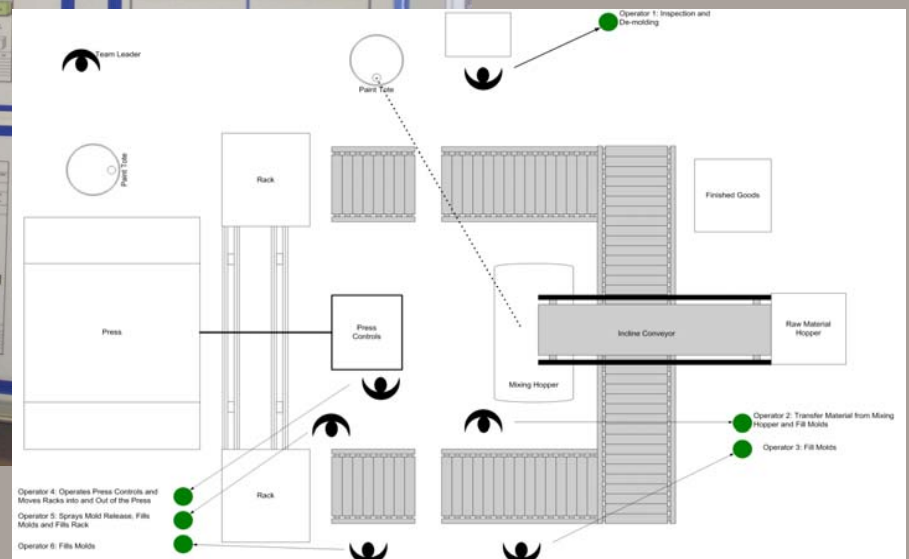
# TDP Processor and Manufacturer (pt 3)

	Please Select Order # 1 from the drop Down Menu	Please Select Order # 2 from the drop Down Menu
	PG # 4: 30 Mesh - Super Sack (ground rubber purchased)	PG # 1: Play Ground (3/4 Minus) - Wholesale - Colored
Long term, valued customer:	2	4
Strategic Customer with Marquis Value:	1	3
Order from a Customer/Market we want to enter:	3	5
Sizeable Order:	4	2
Please input Selling Price per unit:	\$15	\$695
Please input Order Volume (Pieces or Tons or 50 lb Bags):	40	20
Please input the total # of shifts available for production:	5	

Decision Summary	PG # 4: 30 Mesh - Super Sack (ground rubber purchased)	PG # 1: Play Ground (3/4 Minus) - Wholesale - Colored
Overall Strategic Importance:	10	14
Order Volume (Pieces or Tons or 50 lb Bags):	40	20
Selling Price per unit:	\$15	\$695
Production Cost per unit:	\$200	\$196
Profitability Per Order:	-\$7,514	\$11,172
Overall Plant Capacity per shift (in tons):	4.8	4.8
Overall Machine Capacity Required (in tons):	8	18
# of shifts Required to Complete the Order:	1.67	3.75
# of People Per shift:	3	8
Bottleneck Machine( or Potential Bottleneck):	NONE	
Order Feasibility - Simultaneous:	NO	

# TDP Processor and Manufacturer (pt 4)

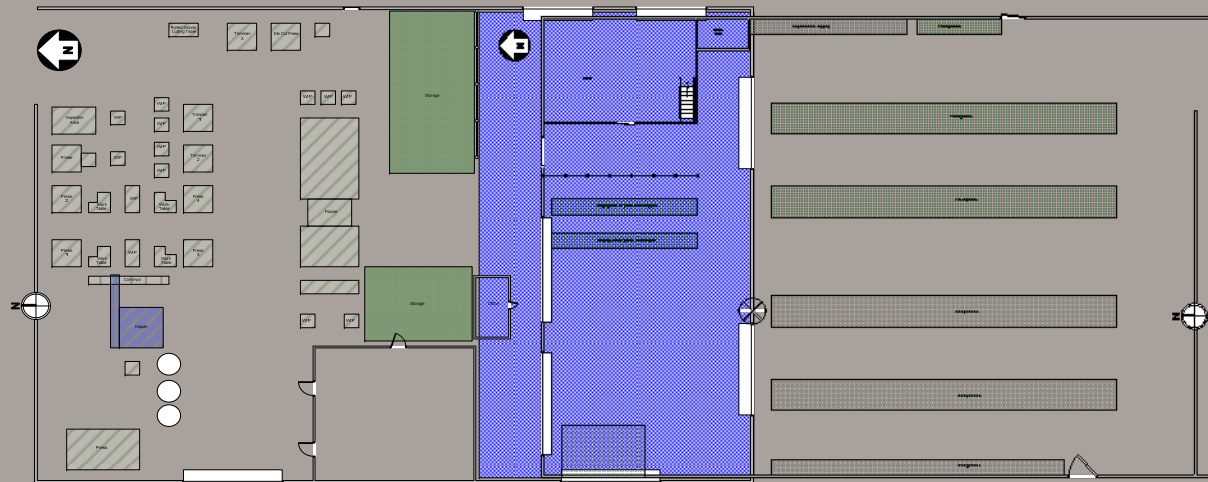


## Another TDP Processor/Manufacturer

- **Processor of scrap tires and molder of TDP**
  - Unprofitable
  - 3 shifts/day
  - Believe to be “at capacity”; wanted more equipment/space
- **Assessed and improved layout and flow**
- **Conducted process/time studies; modified work processes**

## Another TDP Processor/Manufacturer

- **Assessed and improved layout and flow**
- **Conducted process/time studies; modified work processes**
- **16%-46% labor productivity improvement**
- **21:1 ROI on new equipment**





## What You Might See and/or Hear (1)

- “Out of state (or lower cost) competitors are killing us”
- Flat or declining revenue or increased revenue with diminishing returns
- Flat or declining market share
- Margins pressure (gross, op, net)
- Writeoffs, writedowns, markdowns, obsolescence
- Increasing customer or product concentration
- “Onerous” customer requirements for time/cost/quality
- Raw materials inventory increasing/high
- Finished goods inventory increasing/high or low turns
- Suboptimal labor productivity
- Rework, scrap, quality issues
- Rush to build (CapX) for more capacity

## What You Might See and/or Hear (2)

- **In the Manufacturing Facility:**

- Excess staged raw materials
- Intermediate product not moving
- Excessive finished goods inventory
- Line stops
- Idle labor (hands in pockets, kicking rocks, scratching heads)
- General disorganization
- No signage, pictograms or performance metrics articulated or posted
- People doing the same thing, but not the same way
- Product on floor or in garbage bins
- People dodging forklifts, equipment, or other people
- Anyone > Supervisor walking briskly or faster

# Opportunities?

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