

# Layout 3P at Medical Device Manufacturer

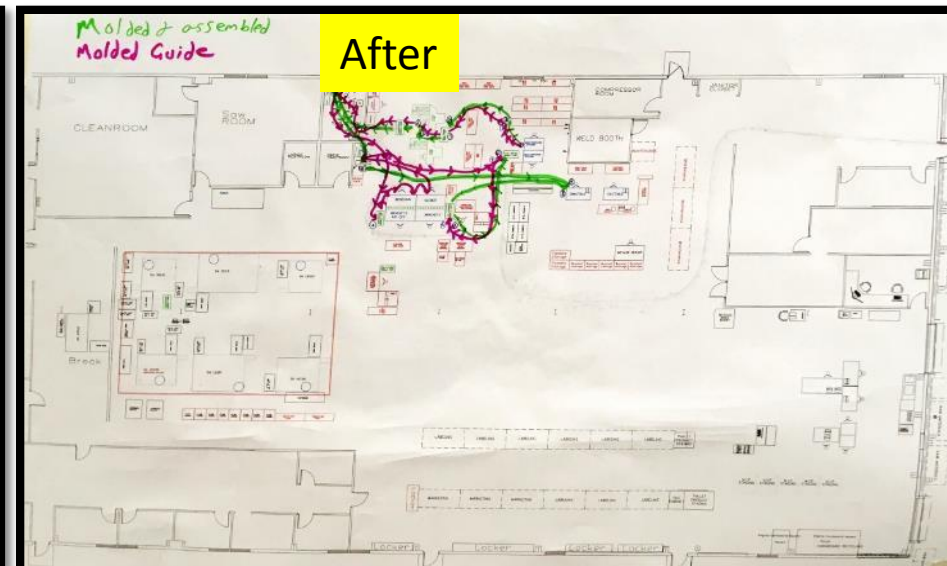
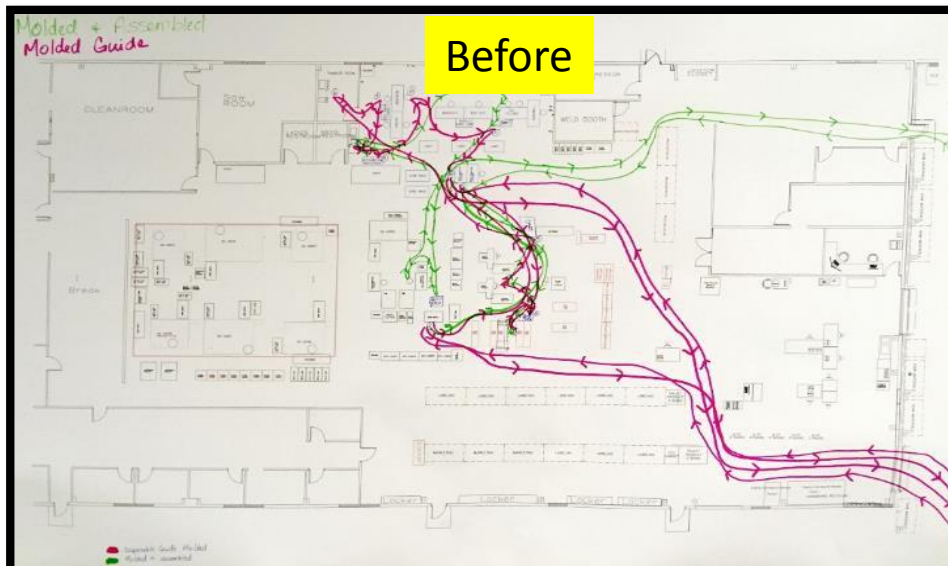
## BEFORE Kaizen

- Lack of Flow
- Excessive WIP on the shop floor
- No Connection between processes
- Excessive Transportation and staging
- Too much expediting
- No space available for additional business

Benefit Opportunities - Lean Implementation					
Category	Current	Future Target	Improvement Percent	Value	Comments
Leadtime	40	2.5	92%	TBD	How much additional order capture is possible??
Inventory	\$50K (controllable)	\$25K	50%	\$25,000	
Productivity (Output/lbr-hr)			10% - 15%	\$28 - \$40K	Improved throughput; reduced OT, etc
Quality (FPY)	98%	99%	50%	8500	Cutting Defects by 50% from 2% to 1%
Free Space	0	2000 SF	-	\$150 - \$200K	More if we can use for new production

## AFTER Kaizen

- Flow improved for all 5 Product families
- Layout Developed for more continuous flow
- Cells created to connect processes and significantly reduce transportation & staging
- Sequencing Plan developed to reduce expediting
- Created 2000 Square feet of free space (40% of area)



# Order to ship information flow for a 3D surgical imaging device company

## Before Kaizen

- Orders received without all the information
- Waiting for ship date from operations and constant back and forth for changes
- Systems not talking to one another
- Emails, several people doing the same thing
- Constant churn to achieve On Time Delivery
- Lack of trust in MRP causes constant manual interventions.

## After Kaizen

- Orders dated with little involvement from OPS
- Visual Scheduling where all can see current production demand in real-time
- OPS flattens build schedule-plan to build 10 units per day ; Predictable build schedule
- Build only what is real demand (no over building)
- Reduced overtime
- Spike in demand requires a group decision (Directors and execution teams)
- KanBan material to support Level Loading and milk runs

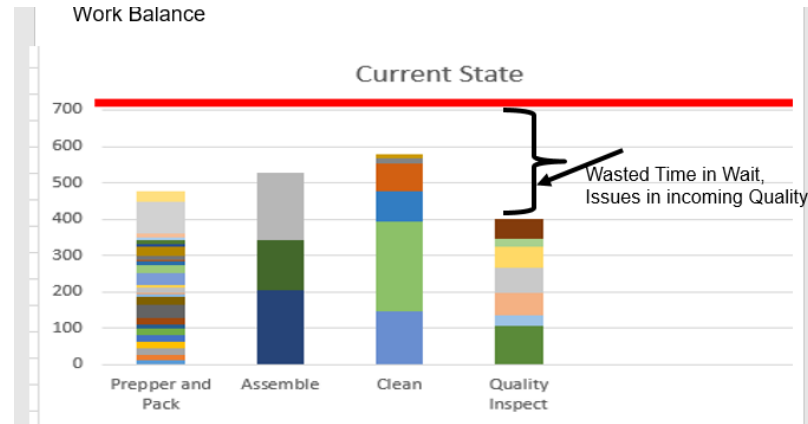


**Overhead labor reduction of 143K, 40K WIP and 40K Raw Inventory while achieving 98% On time Delivery.**

# Medical cart manufacturer facing Excess OT

## BEFORE Kaizen

- Unbalanced work
- Unable to respond to large swings in demand.
- Back injuries due to strain



## AFTER Kaizen

Balanced Work planned for both the max requested by sales as well as the historical demand

Redesigned work to reduce risk of back strain



Metric	Before	After	Change	% Diff	
Team members	6	4	-2	33%	
Carts Required	32	38	6	19%	
Carts per person	5.333333	9.5	4.1666667	78%	
Metric	Before	After	Change	% Diff	Removing C
Team members	6	3	-3	50%	
Carts Required	32	38	6	19%	
Carts per person	5.333333	12.66667	7.3333333	138%	

**Reduction of 2 FTES based on current production levels and productivity improvements of 50% (80K)**

# Process At A Glance

## Assemble to Order – 3D surgical imaging device company

### Before Kaizen

- Cell layout was very inefficient
- Material all stored in the CELL
- Scheduling 3 spots in the CELL
- Cluttered and unorganized work benches.

### Process At A Glance

- Used to understand flow and what is required of each process step – using photos



Method/Description – What/How process step is done  
Machine – Machine (if auto/semi auto)  
Fixtures – Necessary to Holds Parts  
Tools – Hand tools needed by the Operator  
Inspections/Gauging – How Inspection is done at that step, if applicable

### After Kaizen

- Cell Layout changed to enable material flow and Kanban pull system to control WIP and reduce Lead Time
- Each work bench was set up with necessary parts, hand tools, jigs, and fixtures to reduce walking and improve efficiency.



**Layout Changes and Kanban Pull System enables 938 hours labor reduction, 25% reduction in WIP and improved lead time from 13 days to 5 days.**