Panasonic

enterprise consulting
success story

When is the **Time** to **Upgrade?**

Executive Summary:

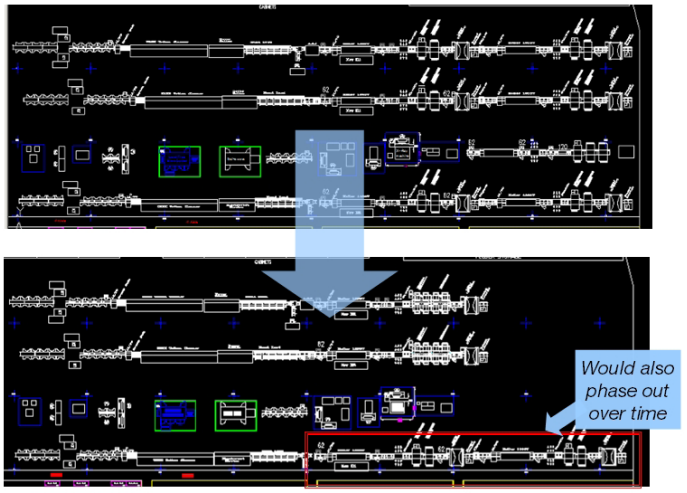
- Develop a **long-term strategy** for a low-mid volume/high-mix facility to **justify** updating legacy equipment and **competitively position** themselves.

Engagement Results:

- 49% ROI
- $5.5M savings over next three years
- 222% capacity increase
- 33% reduction in average product cycle time
- 53% reduction in floor space requirements
- 60% reduction in labor requirements
- 64% reduction in asset requirements
- Only two lines of two placement machines required, providing enough capacity to build all production on one line with prototyping and demand spikes on the second line

Customer's Initial State:

- 3 top & bottom side production lines with 1 prototype (half) line
- 1 shift/day, occasional 2nd shift or overtime
- Lot sizes ranging from 10 – 700 with an average around 170
- 18 unique products built/wk
- Kitting/staging/setup process time is creating unplanned line downtime due to material availability
- Changeover time: 2-3 hrs
- 100% unique parts/reaching feeder capacity
- Quality, accuracy, reliability issues
- Asset utilization rate < 40%



Customer's Initial Solution Strategy:

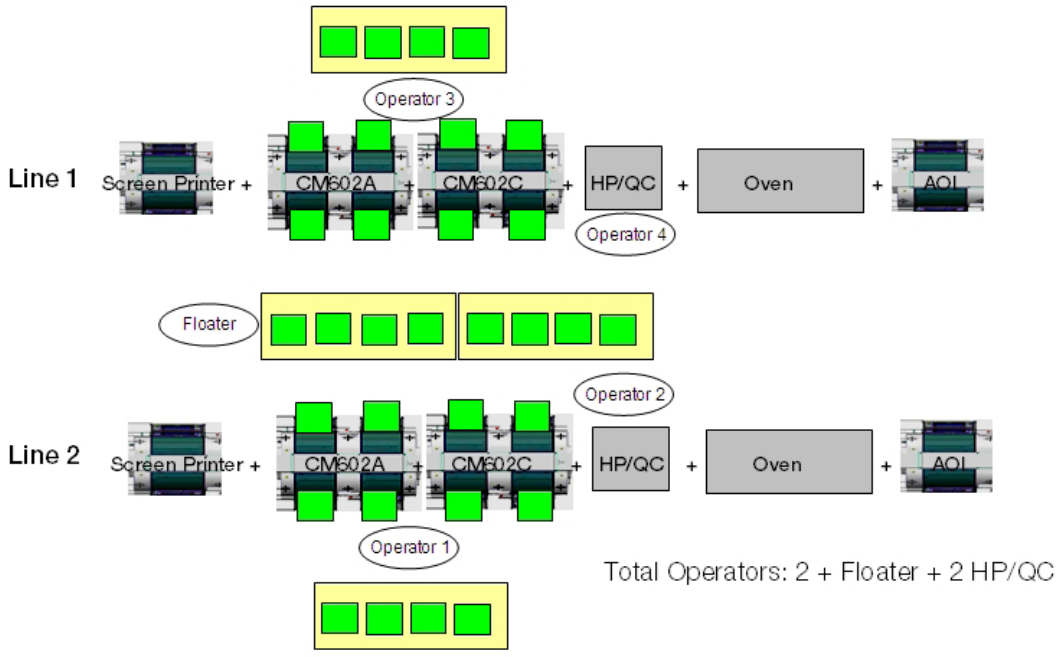
- Three new (half) lines to replace their current three double (top & bottom) lines
- Each line may need as many as three placement machines per line to handle feeder slot capacity needs

Panasonic Solution Details:

Please refer to the next page to further learn how this success story may be similar to your situation and how Panasonic Factory Solutions' team can help you today.

Panasonic's Solution Proposal Details:

- After an initial on-site factory analysis reviewing the customer's operations, work processes, and production schedules, a solution was developed to provide a common line configuration that would allow product portability, prototyping flexibility and capability, and minimize non-value added steps to maximize asset utilization.
- It was identified that a two machine line configuration would have enough feeder slot capacity to allow up to four jobs and no less than two jobs to be set up at one time.
- This configuration allowed for a reduction in the amount of major changeovers required per week —from 18 times down to only 6.
- The optimized improvement in cycle time allowed production of all 18 jobs within 20 hours of run-time, requiring only one production line.
- The second production line has the flexibility of several options:
    - Dedicated prototype line with flexibility to run product during peak periods
    - Assist in job balancing to meet customer order dates by dividing the work load of the production jobs across both lines
    - Act as a complete back-up line if the first line experiences unplanned downtime resulting in severe production time loss
- Two operators are capable of running the production line with a third operator who floats between the two lines to assist during changeovers, tape splicing, etc.
- Calculations of one line's production capabilities:
    - All 18 work orders require approx 20 runtime hours
    - 6 major changeovers (one 20 min & five 10 min stops (top/bottom))
    - 7 changeover hours required total
    - 3 unplanned downtime hours (18 work orders x 10 min unplanned downtime each)
    - 5 hrs for 85% productivity efficiency from 35 hours/week availability
    - Total Time = 35 hours



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