



# enterprise consulting success story

## Minimizing Capital Expenses with Alternative Solutions

### Executive Summary:

- Develop an **immediate solution** to **increase line capacity** to address **seasonal demand** with **minimal capital investment**.
- Maintain **product portability** across lines.
- **Maximize asset utilization**.

### Engagement Results:

- 22% - 30% reduction in overall average product cycle times
- 20% increase in floor space
- Increased product portability capability across all lines
- Reduced changeover time with dedicated nozzle changer setup and fixed feeder setup
- Reduced labor requirements in kitting preparation and changeover requirements
- Reduced labor requirements for 2 lines
- Extra assets gained from conversion:
  - 2 screen printers
  - 2 reflow ovens
  - 2 sets of board handling units



### Customer's Initial State:

- Dedicated production lines for each product family
- Average cycle time was 8.5 sec/part
- Less than 33% asset utilization rate per line
- Dedicated fixed feeders and nozzle setups
- Limited to high-speed functionality on 4 of the 5 lines
- Based on forecast, line capacity was going to require overtime and weekends:

Total Hrs Available/Mo	333.438	263.97175	263.97175	347.33125	277.865	277.865	277.865	319.54475	263.97175	277.865	291.75825	263.97175
Runtime % Ratio of Hrs Available	112%	122%	138%	96%	128%	116%	107%	90%	109%	104%	99%	109%

### Customer's Initial Solution Strategy:

- Optimizing program will achieve desired cycle time of 6 seconds
- Thought PFSA would propose adding or replacing existing assets with newer equipment

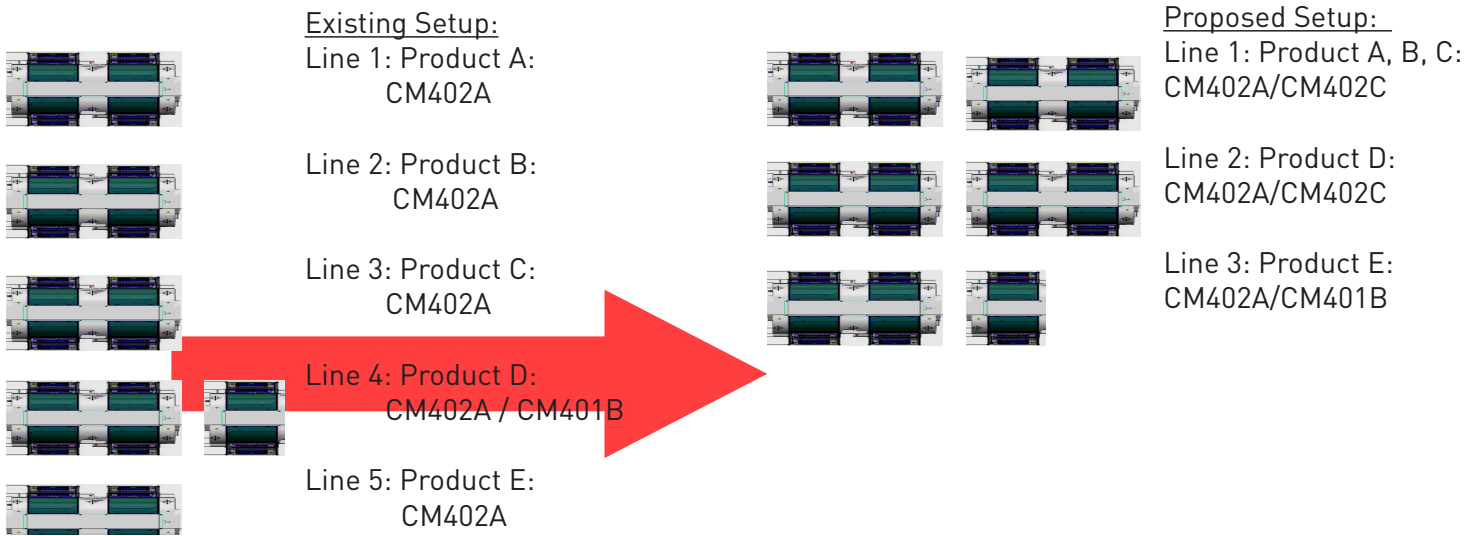
### Panasonic Solution Details:

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

## Panasonic's Solution Proposal Details:

- The customer originally dedicated a production line to each of their five product families.
- Each line consisted of a high-speed head placement machine with one line containing a multi-function placement machine.
- All the products were running at a 8.5 sec/part cycle time, however orders were requiring a 6 sec/part cycle time in order to meet customer orders.
- Many of the products experienced inefficiencies and quality issues due to high-speed head limitations and parts outside the specifications of a high-speed head's functions.
- By converting two of the high-speed placement machines from an all high-speed head configuration to a combination of high-speed and multi-functional heads, the new 3 lines of two machine configurations was able to more than meet demand and achieve the 6 sec/part requirement.
- The conversion also allowed the ability to maximize asset utilization to run product families A, B, and C together on one line with one fixed feeder setup and nozzle changer configuration.
- Product D and E now each had enough capacity to meet their own demand needs to remain dedicated lines for each family.
- Results of new runtime availability after converting and reconfiguring assets:

Total Hrs Available/Mo	333.438	263.972	263.972	347.331	277.865	277.865	277.865	319.545	263.972	277.865	291.758	263.972
Runtime % Ratio of Hrs Available	79%	86%	97%	68%	90%	82%	76%	64%	77%	73%	70%	77%



Panasonic Factory Solutions Company of America,  
 Unit of Panasonic Corporation of North America  
 847.637.9600 PFSAMarketing@us.panasonic.com  
 www.panasonicfa.com