

Kaizen Case Studies

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CASE STUDY: Custom Machine Builder: Engineering Transactional Process Kaizen

CLIENT: Custom packaging equipment company (noted as “equipment company” below)

Long lead-times, to the point where the equipment company was losing orders to the competition, were a continual challenge. The company owner knew that to remain competitive, a dramatic lead-time reduction in the engineering process was necessary.

Through Transactional Process kaizen, PDG helped the client create an improved engineering process for both mechanical and controls engineering. Initially, the engineering group struggled to let go of their current process which entailed custom designing every part of the machine. The group became more engaged once they realized how much more successful the company could be with the new process.

After simulating the new process, the group understood that the true value-add and differentiator is in the truly custom component design, combined with an efficient base machine release process. The new process for engineering release that was created based on one product line will be easily transferable to all of the equipment company’s product lines.

PDG also helped the client realize that even though the end machines package different products, there is some level of commonality among all machines that the process should be optimized around. The base-release process created by the team reduced lead time through engineering and purchasing by 92 percent (from 25 days to 2 days). The new process reduced the cycle time from 70 hours to 20 hours (a 71 percent improvement).

| | CURRENT PROCESS | NEW PROCESS (INCLUDING PD) | IMPROVEMENT (%) |
|-------------------|------------------------|---------------------------------------|------------------------|
| HAND-OFFS | 44 | 15 | 66% |
| TASKS | 157 | 55 | 65% |
| TASK TIME | 8.8 days 23.2 days | 8.5 days 17 days | 3% 27% |
| DELAYS | 50 | 9 | 82% |
| DECISIONS | 5 | 2 | 60% |
| DELAY TIME | 24 days 156 days | 2.78 days 27 days | 80% 83% |