



Lean redesign avoids costly facility expansion.

Sales forecasts indicated that business could almost double in five years. The current facility was already full, so the conventional solution was simply adding more capacity by building another facility. Instead, IET developed a solution based on lean principles that allowed the client to meet their operational and financial goals without adding brick and mortar.

The Customer

Sunrise Windows, an award-winning designer and manufacturer of custom vinyl replacement windows for residential markets.

The Challenge

The success of Sunrise Windows' products in the marketplace was straining the current operations. They needed more capacity to produce the wide range of custom windows in their portfolio. If they added another facility, as some people suggested, capacity would be adequate, but profitability goals would not be achieved. Additionally, Sunrise Windows had tight order-to-delivery lead times, and most of it was consumed by a key custom glass supplier. The four-day manufacturing cycle time at Sunrise left little room for mistakes. They needed a solution that absolutely maximized the potential of the current facility while simultaneously lowering unit production costs and improving First Time Through (FTT) quality.

The Solutions

IET worked with Sunrise Windows' top executives to assemble a project team with clear objectives. Double capacity. Reduce manufacturing lead time from days to hours. Raise FTT quality to 95%. Lower manufacturing labor cost by 20%. IET led the effort using its proven system redesign methodology. (1) Identify value. The vast array of Sunrise products could be grouped in several product families that required similar production processes. Projected volumes for each family were established. (2) Understand the current process. IET documented each step in the current production processes, measured cycle times and utilization for each operation, verified and updated the current layout, and assessed current material storage practices and space utilization. (3) Redesign the process. IET's engineers identified production constraints and major rework areas. Using continuous flow principles, the engineers targeted capital investment for selected operations only and proposed an order scheduling philosophy that required all components to be present and defect-free prior to release. New orders would be pulled into the production cells as delivery carts were emptied to minimize WIP. Shorter manufacturing cycle times provided more opportunity for leveling production schedules. IET created detailed layouts for each redesigned production cell and all support areas within the facility. These proposed changes were reviewed and accepted by the team. The client liked the plan so much, they implemented it with help from IET!

"IET's practical understanding of lean manufacturing and their engineers' excellent ability to work alongside our team were instrumental in the successful redesign of our manufacturing system and facility."

Tom Handel, CFO

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How can IET help you?

Any way you need us to.

Productivity

Current production standards

Current production performance

Detailed reasons for variances

Detailed plan for improvement

Goal-setting, accountability

Capacity planning

Key capital resources

Direct and indirect labor

Salaried personnel

Facilities

Support

New manufacturing

Detailed process map

Layout

Facilities

Labor

Support

Indirect labor design

Standards

Material handling

Supervision

Maintenance

Plan for improvement

Total value analysis

Make vs. buy

Site selection

Consolidation

Vertical integration

Horizontal integration