

EOSYS teams with material handling OEM to meet fast track requirements for new automotive manufacturing facility.

Objectives

Goals

- Meet the delivery requirements for the project.
- Provide a competitive pricing model with limited design information.
- Provide a high quality product.
- Identify continuous improvement opportunities during the project life cycle that would reduce cost.

When a new automotive manufacturing facility is constructed today, meeting delivery schedules for equipment OEM's can bring with it significant challenges.

A material handling OEM came to EOSYS facing this problem. A fixed price solution would have to be based on many assumptions, thus causing risk aversion pricing. The design would be based on completely new automation control components that included PLC's, VFD's and Safety PLC's. The control scheme would have to be designed around ease of installation and incorporate flexibility. Thus, it would have to be a quick disconnect cabled system.

In order to expedite the process, the OEM hired EOSYS engineers on a time and material basis to get the design process going. An existing design of a plant built in China would be the template.



Much of the equipment that was specified by the end user was not manufactured in the US, some was not even available. EOSYS worked hand-in-hand with the OEM's purchasing department to identify the best way to successfully procure parts at competitive prices. It was determined that a joint procurement effort would be required to successfully meet the delivery requirements. Based on this effort a budget was jointly developed and specific responsibilities were assigned with metrics.

The scope of work was determined to be approximately 334 doors, (84" H x 36" W x 18" D), of control and power distribution panels, 23 operator consoles and over 150 motor drive panels controlling up to six motors each.



EOSYS's hardware design team provided panel and cable drawings for manufacturing based on the utilization of Harting connectors

throughout.

The installation schedule of the 27 conveyor systems would dictate the manufacturing schedule of the control panels. This became a moving target as plant and equipment construction schedules changed based on decisions made by the facilities installation management team.

The schedule became severely compressed and efforts had to be significantly increased. EOSYS worked with the OEM to establish an estimated T&M based flat labor rate and an estimated cost for project completion based on the new schedule requirements.



During a four month period, EOSYS's sales, purchasing, manufacturing and engineering departments worked hand in hand with each other and the OEM's team to develop improved material delivery and staging efficiencies, manufacturing efficiencies and efficiencies achieved through automation. At project completion, the average labor required for completing construction per panel door had been decreased by approximately 45%.

EOSYS met the schedule requirements by teaming with this OEM's staff. A "Whatever it takes attitude" was the focus of both companies management and people. Thus, a difficult schedule was met, customer satisfaction was achieved and the overall cost for completing the project was approximately \$120,000.00 under budget.