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*ImpleMentors of Manufacturing Solutions*

# Automotive Industry Throughput and First Piece Yield Improvement

Project Start Date: April 2002

Project End Date: November 2002

## ***Company profile***

This client is a plating operation for OEM Automotive and motorcycle Manufacturer. They also provide automotive and industrial plating services as well as bumper coating for certain car models.

## ***Business situation***

The company had a 2 shift operation, with approximately 65 employees. The rate of product not making it through the process and passing quality inspections the first time through was at 18.5%. The annual cost of just 1% of the product not passing through the quality inspection the first time through the process was \$37,000. This cost included the labor, material, and overhead costs.

## ***Implementation Approach***

Strategy3 was hired to manage the process so that the First Piece Yield would improve beyond just 77.5%. Doing this would cure the productivity improvement, customer service and on-time delivery, lead time of orders, rework, and scheduling issues.

Strategy3 broke the process down to a very detailed level at each step within the value stream. Significant findings led Strategy3 to process manage the cleaning and maintenance of the tanks and solutions the parts ran through. Doing so would leverage a better First Piece Yield on all of the parts. Strategy3 not only studied each step within the process to create a preventive maintenance program, but also to better equip the employees at each work center with the tools to identify and troubleshoot issues that arose. Strategy3 lastly created tighter tolerances at

each work center to prevent the possibility of a part going too far through the process before finding out that the part was not salvageable.

### **Results**

- Labor efficiency improved from 60% to 85% which lead to a 29.4% reduction in labor cost (50 employees@ \$30,000/yr fully loaded X .294 for a savings of \$441,000)
- Rejects went from 18.5% to 6.3% = 12.2% X \$37,000 = \$451,400
- Floorspace reduction of 20.3%
- **Overall Savings, First Piece Yield + Labor Cost Reduction: \$441,000 + \$451,400 = \$892,400**