

## *Case History 1* *Process Improvement Project – Industrial Process*

### *Background*

Customer: Automotive manufacturer  
Product: Painted Plastic components  
Production Rate: 320 parts/hour on (2) shifts  
Facility: Prime Basecoat and Clearcoat spraybooths and ovens with five (5) spraybooth zones.

### *Study Objectives*

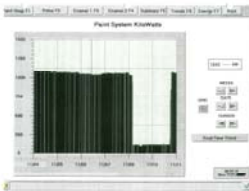


- Improve operating performance.
- Reduce energy usage.
- Improve spraybooth and oven environment.
- Improve equipment utilization.

### *Paint System Study Parameters*

- Spraybooth airflow.
- Energy usage.
- Identifying the system Key Operating Parameters.
- Maintenance procedures and equipment uptime.
- Humidifier system.
- First run capability.

### *Project Process*



- Feasibility Study.
- Identify system Key Operating Parameters.
- Cost save project preparation/approval.
- Installed facility changes.
- Provided customer training.
- Implementation of improved process control.
- Follow up in-plant engineering support.
- Documentation of results.



### *Results*

- Energy
  - \* Reduction in electric kw 75%
  - \* Reduction in natural gas 50%
- Process Improvements
  - \* Improved first run capability 6 pts
  - \* Improved paint transfer efficiency 30 pts
  - \* Improved equipment uptime 8 pts
- Annual Savings \$9,200,000
- Total Investment \$4,000,000
- Simple Payback 6 Months