

INTRODUCTION

FOR BOSCH CHARLESTON, MAU designed and implemented a program that was revolutionary...hiring, training and managing a workforce for a complex production line.

It was truly a win-win situation. MAU exceeded all objectives for the existing line. Bosch was able to focus its resources on a new line, and launch it successfully.

By creating a unique solution for Bosch, MAU established a proven model for outsourcing that Bosch can apply worldwide.

BACKGROUND

ROBERT BOSCH CORPORATION established its plant in Dorchester County, South Carolina, in 1974. Manufacturing fuel injection systems, antilock braking systems and diesel injection systems, the plant has achieved incredible growth and success. From 105 workers on opening day, Bosch Charleston today has over 2,000 associates. The skill of its associates and efficiency of its manufacturing lines have allowed Bosch to achieve record production quality in fuel injectors, antilock braking systems and other related products as they roll off its assembly lines every day.

BOSCH NORTH AMERICA 23,000 employees
\$6.6 billion in sales, 2003

Bosch Charleston



Photo courtesy of Bosch

TESTIMONIALS

"I've worked with the MAU team for almost ten years. MAU is in a position to bring in higher skilled labor to create a complete MAU workshop team capable of actually running a complex assembly line. They take ownership for staffing, output, and quality."

Danny Hyman, V.P., Manufacturing
Bosch Charleston

"...This project allowed Bosch to move our associates into the new products that were ramping up without having to worry about the quality or production levels. This has enabled us to use experienced personnel to bring on new products at a faster ramp up rate. As you know, the faster you ramp up, the more cost effective you are. These moves and results would not have been possible if it had not been for the success of the EV-1 project."

Billy Holmes, Production Supervisor - EV-1
Bosch Charleston

"...The outsourcing process in EV-1 is a very good example of value added service...excellent idea (contracting production work area) and then implementation..."

Greg Walls, Director, Human Resources
Bosch Charleston

"...Despite aging equipment and high personnel rates, the EV-1 crew was able to set records during the ramp down phase. We achieved the lowest 'zero' mileage and field PPM levels in our history and beat all cost targets set for the year..."

Guenter Weber, Production Manager, EV-1
Bosch Charleston



MAU, Inc. (Management, Analysis and Utilization) is a certified, minority owned full-service human resource, staffing and outsourcing company. MAU creates and implements unique outsource solutions for multi-national and regional companies in the manufacturing, office/administrative, professional and medical fields. Founded in 1973, MAU has steadily grown into a multi-faceted business with an international customer base and a presence in 40 States and 22 Countries.

Headquarters
501 Greene Street
Augusta, GA 30901
PH 866.304.MAU1
FX 706.823.2388
www.mau.com



MAU, INC. CASE STUDY

BOSCH CORPORATION EV-1 FUEL INJECTOR ASSEMBLY

Improving all facets of a manufacturing production line through outsourcing, allowing Bosch to focus key personnel and resources on a new product line.

Photo courtesy of Bosch



Situation

EV-1 Fuel Injection Systems

BOSCH CHARLESTON FOUND ITSELF in a unique situation in 2002. Plans were underway to ramp down a successful fuel injector, EV-1, with a future timetable for sending it to the aftermarket division in Spain. An important new line of fuel injectors, EV-14, was under development and Bosch wanted to commit key EV-1 associates to it.

Photo courtesy of Bosch

Problem

THE PROBLEM FOR BOSCH was simple, yet complex to solve. They needed to efficiently produce EV-1 fuel injectors to fulfill rising demand at a time when Bosch management, staff and other resources were required to start up a new fuel injector line, EV-14.

It was clear that the previous historical model for operating this production line, such as the use of temporaries to fill the gaps would not work for Bosch, who had high quality standards to be achieved.

STAFFING

Bosch Charleston did not have enough proficient skilled and semi-skilled associates to ramp down EV-1 and ramp up EV-14 at the same time. Temporary employees did not possess the skills, experience or workforce stability needed.

TIME FRAME

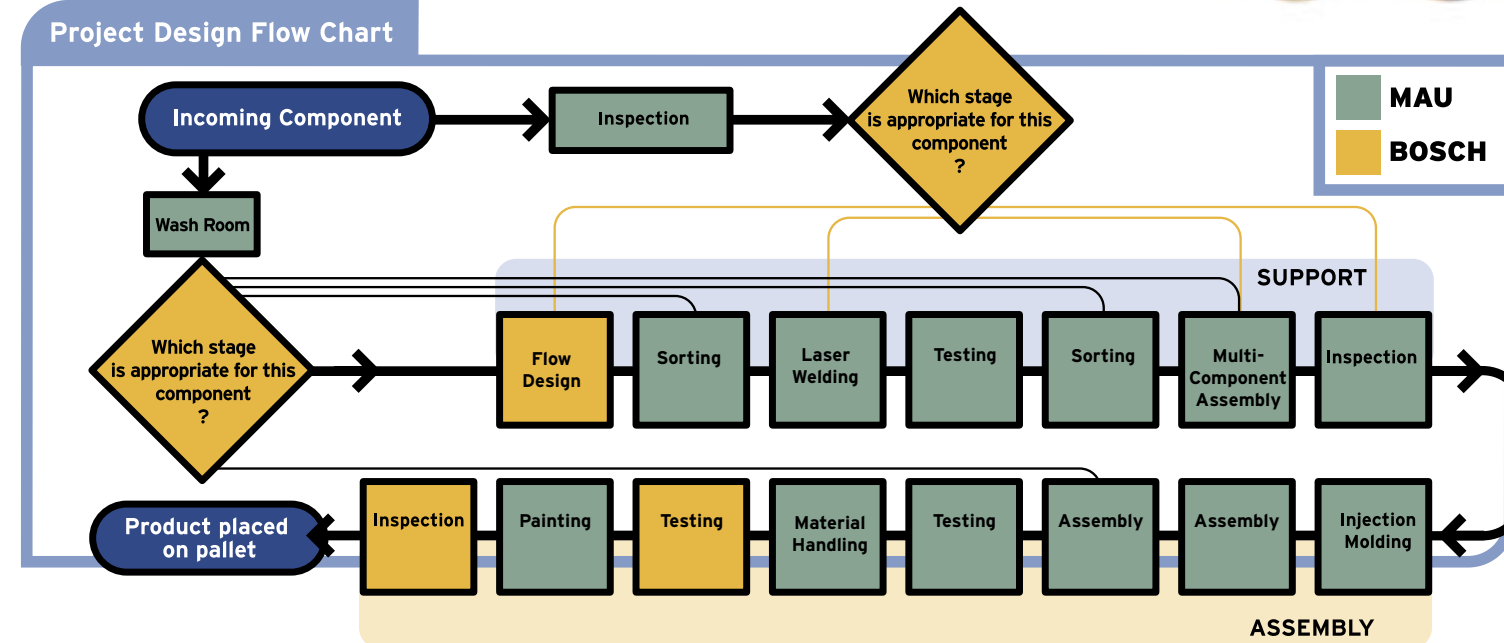
From November, 2002 through June, 2003, Bosch Charleston needed to fill increasing demand for EV-1. In June, 2003, production would move to the aftermarket division in Spain.

EXPERTISE

EV-14 was an important new line for Bosch, and their preference was to have the experience, knowledge and skill of full-time associates for the product launch.

SOLUTIONS

HISTORICALLY, BOSCH WOULD HAVE turned to a fixed and variable cost solution. The fixed solution would include hiring more full-time associates, while the variable solution would include increasing overtime and utilizing temporary associates. MAU partnered with Bosch to create a variable cost, result-based outsourcing plan unique to Bosch's situation. Every aspect of managing, staffing and training for the EV-1 assembly line was covered, the result being increased efficiency, flexibility and reduced costs.



1 MAU's Outsourcing Objectives	<ul style="list-style-type: none"> Stabilize and improve upon productivity, quality and delivery Move more quality pieces through the line at less cost Create business change flexibility model for Bosch Charleston
2 MAU's Outsourcing Solutions	<ul style="list-style-type: none"> MAU Staffing, Scheduling and Training of work force on outsourcing project MAU Management over day-to-day operations of the EV-1 assembly line MAU Contract Associates to work in key steps of the production process
3 MAU's Fulfillment of the Plan	<p>MAU established parameters for hiring and training of staff and fulfilled them in a very short time period. This flexibility allowed Bosch to adjust entire shifts to correspond with the ever-changing monthly production schedule (MPS).</p>

AT THE BEGINNING, MAU employed approximately 5% of the EV-1 workforce. That number quickly rose to 95% as MAU took control of the EV-1 assembly line. In partnership with Bosch, MAU monitored production, quality and delivery.

The **MAU outsourcing team** included:

- Project Manager
- Shift Coordinators
- Set-up Mechanics
- Production Associates

RESULTS

IN BOTH TANGIBLES and intangibles, the results for Bosch Charleston in the EV-1 ramp down exceeded all objectives and expectations. In fulfilling the plan on a day-to-day basis, MAU proved its worth as a valuable partner.

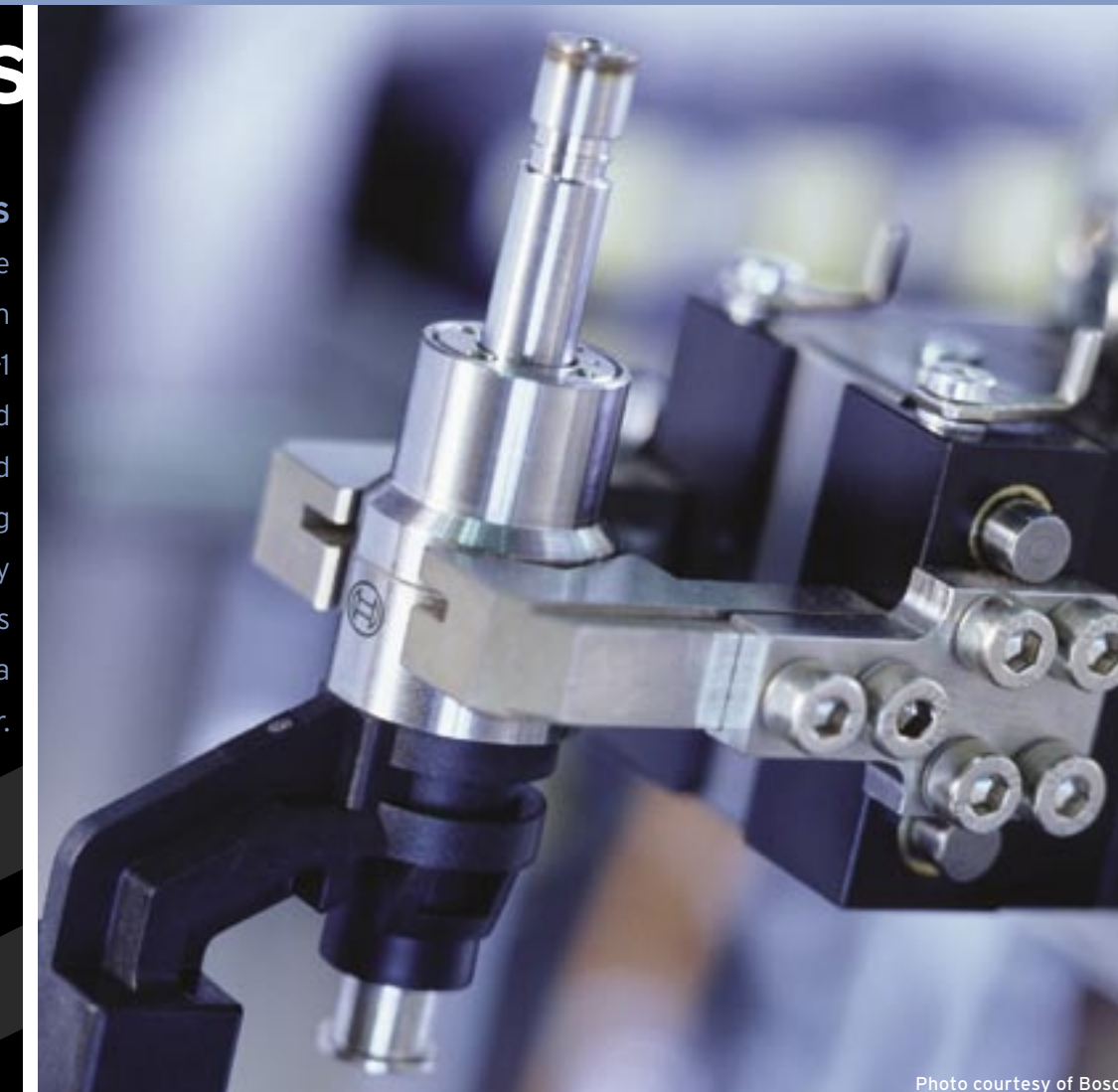


Photo courtesy of Bosch

Operating costs were reduced.

OVER THE 7-MONTH period of the ramp down, labor cost savings of 68.9% were realized.

Measurable objectives were exceeded.

- Productivity increased
- Quality, as measured by customer satisfaction, increased
- Delivery of EV-1 injectors increased

Added value was created.

BOSCH WAS ABLE TO move expert staff and key resources to EV-14, achieving high levels of production, quality and delivery for this complex assembly line. As a result, Bosch was able to effectively launch the new product into the marketplace.

New business model was established.

THE EFFECTIVENESS OF MAU's plan has created a proven model/strategy for Bosch to compete with high and low cost competitors. This plan is one of many strategies Bosch utilizes to remain a low cost supplier.