

## About The Client

**The Client**, with an emphasis on technological leadership and innovation in the commercial vehicle industry, designs and manufactures high quality truck, tractor and trailer suspensions, parts and accessories for international and domestic heavy-duty transportation markets.

## Project Scope

**The Client retained DB&A** for a project implementation that focused on installing a uniform management system across the entire facility and improving the throughput and productivity of the manufacturing plant. The implementation involved DB&A Staff Associates to be onsite in Mitchell, South Dakota, working one-on-one with managers and supervisors during a full shift, Monday through Friday, for the duration of the 22-week retention.

## Key Issues and Barriers

**Staffing imbalance** was one of the biggest barriers to efficiency. Some assembly line points failed to keep pace with production while others wallowed in idle time and inefficiency. With no metrics in place to measure adequate staffing and production, regular staff hours were wasted in some sectors while other departments depended on overtime and double-time overtime to survive.

**Supervisors and managers struggled** to balance their responsibilities and relate to their staff in an effective manner. In a typical eight-hour day, management spent only 10 percent of their time supervising and 10 percent of their time problem-solving in an effort to increase efficiency.

**Welders lacked a reasonable expectation** for output and were saddled with an inefficient setup process. Materials weren't preloaded at the beginning of shifts, the production area wasn't maintained at the end of shifts and welders often had to wait for parts throughout the day. As a result, welders were only cutting 52 percent of the available time.

**Bottlenecks moved throughout** the robotic production line each day, but coordinators did not anticipate the easily foreseeable problems and there was no plan in place to restore throughput to acceptable levels.

## Primary Results

**A more refined focus:** An increased emphasis on preventative maintenance, along with consistent trouble-shooting guidelines, reduced lost time by 63 percent. As a result, overtime decreased by 34.5 percent because of improved production and a decline in technical repair. With the demand for maintenance and repair decreasing, underutilized labor was reallocated from the Maintenance department to Production on an as-needed basis, leading to increased efficiency, better trained employees and more balanced staffing throughout the company.

**Increased production:** With an effective preventative maintenance schedule in place and a better grasp of scheduling, the plant's robotic lines were able to run for an average of 10 hours per day, leading to a 12 percent increase.

**A new avenue of improvement:** The process and flow by which boxes on the assembly line were weighed were re-conceptualized, resulting in an immediate boost in production. Before the change, the four-week production average was 115 units per day; after the improvements it was up to 182. By streamlining the process, 2.5 hours of daily time was freed up.

## What the Client Said

"We no longer "wing it." Now we use facts and live data. I like how the process helps you unfold and see your issues up front and allows you to address them; sometimes before anyone knows anything is happening. We have tasted success. We've proven we can do it ... it would be crazy to lose it." **Manager**

"In the past I would look at results weekly, at best, and not understand nearly as much about what impacted them as I do at any given moment today." **Supervisor**

## Financial Results

Prior to the start of the project, DB&A guaranteed the Client an **Annualized Savings Rate of \$3,573,334 and a 2.1:1 Rate of Return Investment**. Upon completion of the implementation, the actual **Annualized Savings Rate achieved for the project was \$4,230,100 -- a 2.48:1 Rate of Return on Investment**.