

1 MILLION DOLLAR PACIFIC MACHINE ROI IN JUST 12 WEEKS

Custom System reduced scrap rates, cycle times and manufacturing expenses.

How Did They Do It?

OBJECTIVES & BACKGROUND

A North American Tier 1 Automotive Supplier was looking for a faster, more efficient method of developing their rack and pinion gear set. The client was outsourcing a large portion of this job due to capacity constraints but was seeking to move this work back in-house with the completion of this project.

Pacific experts did a thorough analysis and discovered four addressable issues:

- 1) **3 set cycle process** - The existing process caused long cycle times (5 minutes), inconsistent results, and high manufacturing expenses.
- 2) **Long change-over time for different models** - The manufacturer was changing dies multiple times a day, spending up to an hour on each die change. Significant production time and profitability was lost to tooling changes.
- 3) **Material feed and handling system** - The facility relied on an operator to load and unload the parts manually. This led to excessive material handling, and a bottle neck within the production process.
- 4) **High scrap rates** - Multiple inefficiencies within the current process created a high scrap rate, driving up the cost per part.

PACIFIC'S SOLUTION

- Pacific designed a **high tonnage press** specifically for the customer's products, providing consistent, more accurate gear formation.
- **A robotic material delivery system** was developed to load and unload parts in the production process.
- **A custom die change system** was created, which reduced die change-over time from 1 hour to just 15 minutes.

VALUE TO THE CUSTOMER

- The new high tonnage press decreased scrap rates, **reduced cycle times to just 90 seconds per part**, and reduced overall manufacturing expenses.
- The material handling improvements seen in the robotic arm system **greatly reduced cycle times** (more accurate part positioning), scrap rates, and material handling costs.
- There was a **75% reduction in die change over time** with Pacific's new system, which reduced costs/part, increased output and made die changes quick and easy for staff.
- In total, the new system designed by Pacific was approximately a million dollars. Despite the expense, the efficiencies and improvements seen in the new system enabled the customer to see **a return on their investment in just 12 short weeks!**

Now that's **SOLUTIONS, DELIVERED!**