



## Automotive Market Case History

### Learn how GW Engineers helped a customer improve their Fuel System Delivery Module

#### Innovating the Product... From Design to Manufacture

With any new product idea comes the challenge of not only designing in performance advantages but also building the manufacturing platform to produce it, consistently and efficiently. That's exactly what happened when the product development team at GW Plastics partnered with a leading automotive supplier to bring an improved Fuel System Delivery System module into the marketplace.

Success hinged on the ability to redesign and mass produce a new and intricate insert molded fuel system component that was being manufactured in limited numbers at the customer's site. And because the component was configured in the external leak path of the device, tight tolerance and stable performance were critical to ensuring environmental compliance and operational reliability.

#### Out With the Old

The existing configuration incorporated a two-piece terminal feature. GW design engineers and the customer concluded that function and reliability could be greatly improved by utilizing a one-piece, over-molded insert design that would allow for greater durability at a lower cost. But a winning design is only half the battle.

#### Now Build It

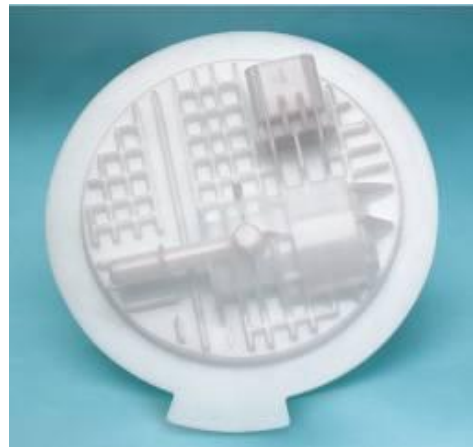
When it comes to Advanced Molding Technologies, few companies have the experience and capabilities of GW Plastics. Our engineers worked to develop an advanced automated production cell to manufacture the component using a cost-effective, optimized process.

The innovative manufacturing cell includes two dedicated 300-ton tie-barless presses and two sets of robotic arms that pick and place delicate inserts into the mold and remove the finished parts. They then go to a test center where they are measured for presence, location and continuity. After cooling, each part undergoes a pressure test to verify there are no leak paths through the terminals.



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The end result for the customer is a highly automated, highly efficient process that produces a complex component with zero defects. This is one of the most complex molds ever designed and built by GW, considering the number of actions and moving parts. And to produce a part that is so much improved and to do it cost-effectively is quite an accomplishment.



Put GW Plastics to work on your next challenge.

**Let's innovate together.**

**For More Information, contact:**

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