

## ADDITIVE MANUFACTURING BRINGS INNOVATIVE IDEA TO MARKET

**ABOUT NATIONAL CARWASH SOLUTIONS.** Ryko Solutions is the largest provider of managed car wash systems in North America. They offer an integrated, end to end, vehicle solution consisting of automatic rollover equipment and tunnel equipment through a subsidiary. Based in Grimes, IA, the company employs approximately 150 people.

**THE CHALLENGE.** In order to better capture the consumable part of the business, Ryko wanted to integrate and make it easier for the operator to use their consumable materials with their wash systems. Integrating the refill bottles with the wash system was a key to this success.

**MEP CENTER'S ROLE.** CIRAS, part of the MEP National Network™, helped by introducing and educating Ryko on how to design for additive manufacturing, and assisted in rapid prototyping ideas and variations for field testing. They helped Ryko look at alternative materials and manufacturing processes to aid them in getting the final solution to market faster.

"We were able to use 3-D printing to create several design iterations on the receiver unit at full scale to evaluate and field test. What this then allowed us to do was settle on a final design before making the investment in the injection mold tooling. Ryko had never done this before, and through our working relationship with CIRAS, we found out they could be a resource to make this happen."

-David Simpson, Engineering Manager

## RESULTS



**\$400,000** increase in sales due to innovations associated with ease of reloading consumables



**\$50,000** investments in software, molds, and other miscellaneous items associated with new nozzle



**\$1000** cost savings associated with the change in materials

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