

# Large EV Manufacturer Increases Flexibility in Production Process with Customized System

**Background:**

A large electric vehicle manufacturer needed a more versatile battery encapsulation system. They wanted to change their process to use variable ratio meter-mix dispense equipment.

**The Challenge:**

The manufacturer asked for our help designing the system that they needed, and they were on a very tight timetable. The development process was demanding, because there was a lack of clarity about some of the components they needed until late in the schedule. In fact, some of the key elements were designed after development began.

**Our Approach:**

The Graco engineering team partnered with our customer to create a system that met their needs. We proposed an EVR (Electric Variable Ratio) system that allows mixing, metering, and dispensing a variety of two-component materials with the same equipment. The result was a customized system that gives our customer's production process more flexibility, and shipped ahead of schedule.

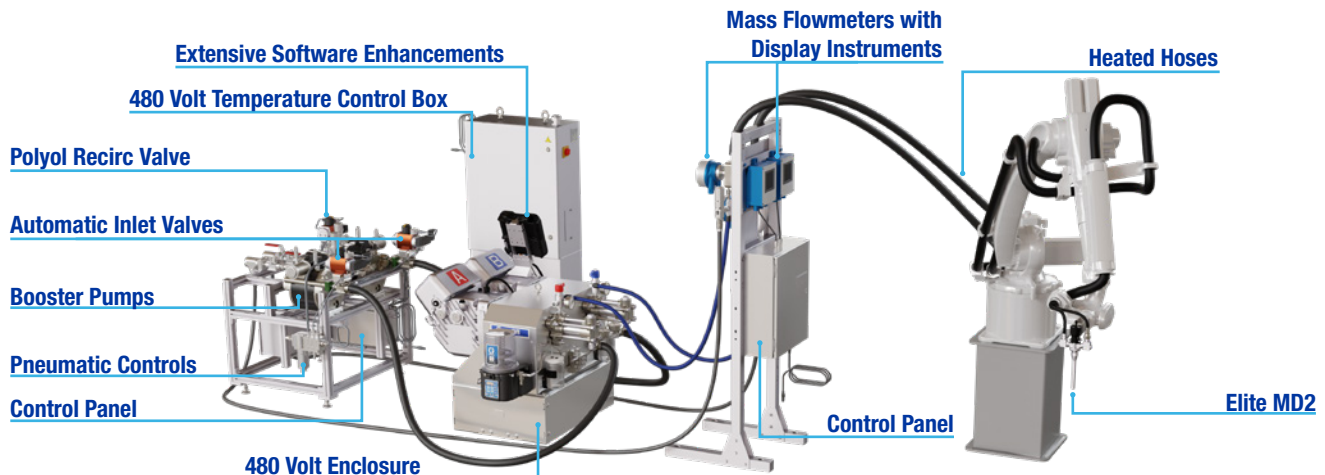


**“THIS CUSTOMER ASKED FOR A LOT OF SPECIALIZED COMPONENTS, DELIVERED QUICKLY. AND OUR ENGINEERING TEAM REALLY STEPPED UP, AND CREATED A SOLUTION. EVEN THOUGH DESIGN AND BUILD FOR SOME COMPONENTS HAPPENED AFTER WE TOOK THE ORDER, WE SHIPPED THE FIRST UNIT ONLY 18 WEEKS LATER!”**

-Mike Bozzelli

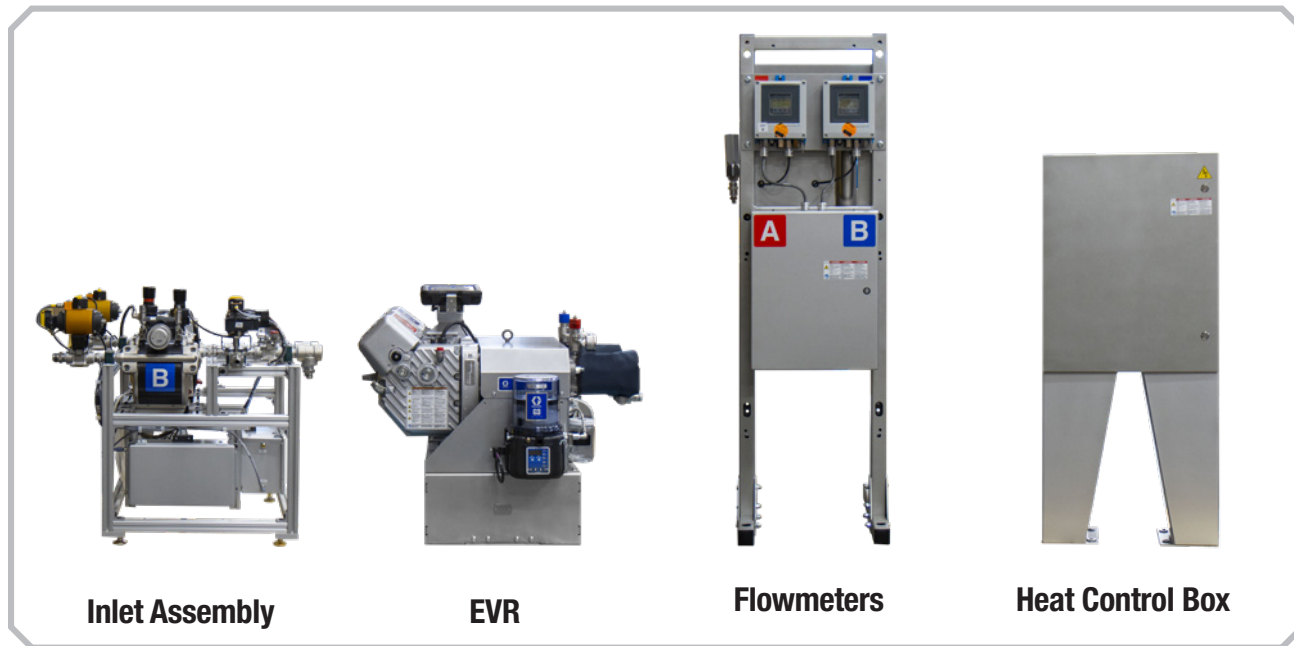
**EVR (Electric Variable Ratio) System**

- 480 volt 3 phase power supply
- Graco G3 Electric Grease Pump to Auto Grease Z-Pumps
- Heated Hoses with Integrated Heat Controller
- Mass Flowmeters for ratio monitoring
- Automatic Inlet Ball Valves for Material Inlets from customer bulk supply
- Recirculation for B Side Material
- Entire System Controlled By One ADM



## Custom-engineered major components to create a specialized solution:

- Inlet assembly – automated ball valves for A side, B side, and recirculation
- Coriolis mass flowmeters for ratio monitoring
- Heat control box
- 480-volt EVR with automated Z-pump greasing



## Outcome:

Our manufacturing client needed many specialized components, on a very tight timetable. Working together, we created an integrated system that solved our customer's issues, and shipped the first unit in only 18 weeks.

## Discover the Graco Difference:

Experience the collaboration of customer-centric engineering and state-of-the-art technology. Connect with Graco to explore this EVR system and other custom-made solutions designed to propel your production into the future.

Learn how Graco partners with our customers to solve their production issues  
**For product information or to request a demonstration,**  
call **877.84GRACO (1-877-844-7226)** or visit **[www.graco.com/automotive](http://www.graco.com/automotive)**