

## Case Study: Garlock ONE-UP® Pump Diaphragm



### INDUSTRY

Automotive

### CUSTOMER

Automotive Vehicle Manufacturer

### BACKGROUND

An automotive vehicle manufacturer utilized an Air Operated - Double Diaphragm (AODD) in their paint and coatings operations. They are considered “shear sensitive” pumps, and can move the media without over-agitating or separating it. AODD pumps can also move highly viscous and abrasive media.

### CHALLENGES FACED

Paint and coatings facilities encounter various pumping obstacles due to the aggressive nature of the service media being used. Highly viscous media can put strenuous forces on the diaphragms due to the suction lift created within the system. The resins, solvents, and additives can be chemically aggressive enough to where compatibility is a concern.

Due to these challenges, the vehicle manufacturer’s paint and coating facility experienced frequent downtime due to equipment failure.

### OPERATING CONDITIONS

Size: 1” - 2”

Temp: Ambient

Application: Pump Diaphragm - Pneumatic

Media: Paint, Cleaning Agents, Wastewater

Pressure: Variable

### SOLUTION AND BENEFITS

The Garlock ONE-UP® was placed in over 200 pumps throughout the facility and positively impacted performance and reduced downtime. Depending on where in the facility the pumps were being utilized, the previous stock two-piece PTFE diaphragms were lasting anywhere from one to three months. The average life of the Garlock ONE-UP® in the same pumps is approximately 18 months. The superior life cycle of the Garlock ONE-UP® is due to the high-quality PTFE and robust one-piece construction. No silicone is intentionally added or used during manufacturing to produce the ONE-UP®, and as a result, there is no risk of silicone contamination to the paint process.

To learn more about how Garlock’s innovative products deliver solutions that solve unique sealing challenges, visit <http://www.garlock.com>

#### GARLOCK

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