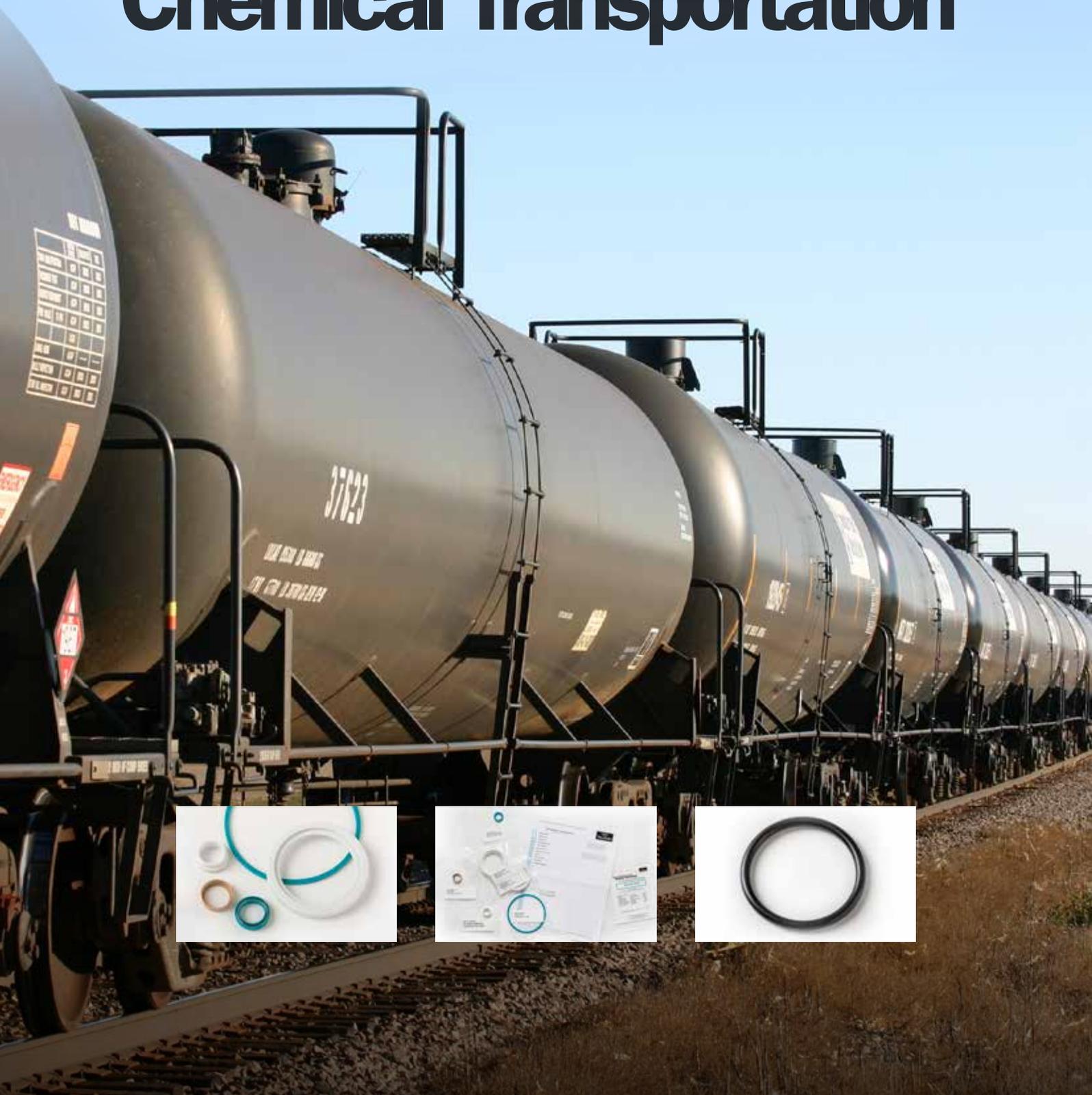


# Solutions for Chemical Transportation



# Maximizing Seal Performance

From product material selection to post-installation maintenance, we deliver products and services to maximize sealing product performance and minimize maintenance and repair time for seals.

## **Chemical Compatibility Analysis**

Assessing the compatibility of the seal or O-Ring product material against Safety Data Sheets ensures optimal seal composition and performance. This lowers the replacement and maintenance costs associated with incorrect seal or O-Ring products.

## **100% Quality Assurance Compliance, Documentation and Traceability**

In each repair kit shipped, we provide corresponding quality assurance compliance and material traceability forms for immediate reference regarding parts and expiration dates. In the event of a non-accidental release (NAR), these documents reduce time spent locating material information.

## **Reliable Incoming Batch Testing**

A sample from each incoming batch is tested to ensure product quality and consistent material integrity, eliminating down time resulting from poor quality seals or O-Rings.

## **Proven Track Record**

We have the experience and thorough understanding of chemical transportation and the challenges of providing the right product for the application at the right time. Our proven track record means you can count on us to save you the time and money associated with selecting the incorrect material or not maintaining seals in a timely fashion.

## **Best Practice Training, Resources and Tools**

We leverage our significant industry experience and product knowledge to provide product-specific training programs to our chemical transportation customers. Our goal is to save you valuable time and money by improving your efficiency and effectiveness in the installation and maintenance of your seals.

## **Same Day Shipments**

A significant inventory of individual and kitted products for specific chemical transportation applications means we can quickly respond to your needs and provide immediate availability of products should a situation arise requiring a quick turnaround.

## **Root Cause Failure Analysis Service and Reports**

In the event of a failed part produced by any manufacturer, we will create a detailed root cause failure analysis report upon your request and receipt of the failed part.

# Your Partner For Sealing Technology

## Trelleborg Group

Trelleborg Group is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Our innovative engineered solutions accelerate performance for our customers in a sustainable way.

- Operations in 50 countries
- Annual sales of 3.69 billion (USD)
- Over 20,000 employees worldwide

## Trelleborg Sealing Solutions

Trelleborg Sealing Solutions, a business area of Trelleborg Group, is a leading global supplier of polymer-based critical sealing solutions deployed in demanding general industry, light vehicle and aerospace environments. Our goal is to build long-term partnerships by providing leading technology and excellent service.

- Over 6,000 employees
- 9 research and development centers in Europe and America
- 28 manufacturing facilities worldwide
- ISO 9001:2008 and ISO/TS 16949:2009 quality certifications
- In-house elastomer, polytetrafluoroethylene (PTFE) and polyurethane (PU) development
- More than 2,000 proprietary materials engineered for specific industry requirements

# Chemical Transportation

Carolina Seal, Inc. is now a part of Trelleborg Sealing Solutions, allowing us to provide a range of solutions specifically focused on the demands of chemical transportation. Beyond supplying a component, our thorough understanding of the individual variables and challenges of fluid sealing management enable us to deliver bottom line results.



# Solutions

## PRODUCTS

### O-RINGS

- Standard
- Coated
- Encapsulated



### ENGINEERED MOLDED PARTS

- X-Rings
- Washers
- D-Rings



### PTFE

- V-Stack
- Valve Seats
- O-Rings



### SPRINGS

- Compression
- Constant-force
- Belleville Washers



## KITTING

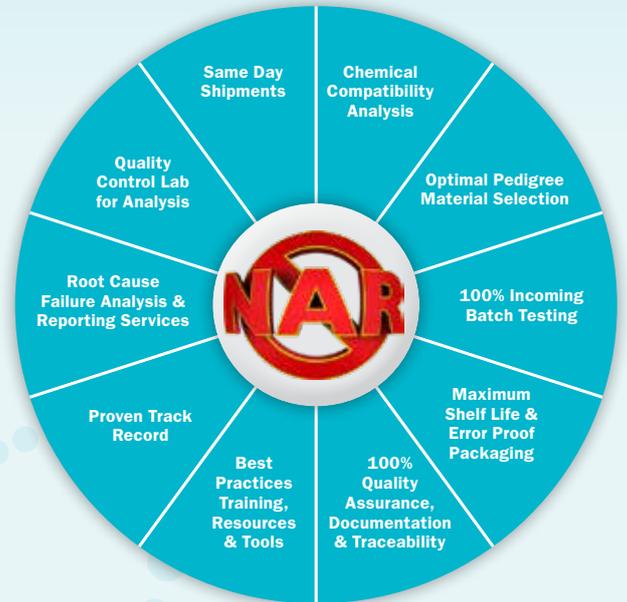
We specialize in custom aftermarket, repair and maintenance kits to meet the unique needs of our customers. Over the course of a decade, we have produced more than 300,000 kits without defects or quality complaints. That's why we confidently offer 100% quality assurance.

Furthermore, to deliver increased safety and compliance assurance, we supply full documentation for each kit, including detailed parts reference, expiration dates and material traceability forms.



# Reducing NARs

To better serve our chemical transportation customers, we have developed a comprehensive suite of services focused on reducing hazardous materials non-accident releases (NARs). These services support your sealing success with a breadth of research, engineering and materials expertise, industry-recognized training programs and core competencies in O-Rings and gaskets.



*The NAR logo is used with permission from the Association of American Railroads*



## **Maximum Shelf Life and Error Proof Packaging**

Through our climate-controlled kitting operations, we provide individual heat-sealed bag packaging to prevent potential material mix-ups and maximize shelf life, while preventing dirt, debris and contamination from being introduced.



## **In-house Testing and Quality Control**

To meet stringent requirements, our in-house quality control laboratory utilizes FTIR Spectroscopy to determine the exact makeup of an elastomer. This allows us to ensure the absolute consistency and repeatability of the materials we supply.



Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Its innovative engineered solutions accelerate performance for customers in a sustainable way. The Trelleborg Group has local presence in over 40 countries around the world.

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