



McKenzie Valve  
& Machining®  
A MARMON RAIL COMPANY

ENGINEERING EXCELLENCE

# Extending Valve Life in Harsh Chemical Environments

ENGINEERING RELIABILITY WITH THE  
USRAC DUAL THREADED ACID VALVE



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# The Challenge




# Minimizing Wear and Risk in Sulfuric Acid Service

Transporting sulfuric acid puts enormous stress on equipment. Standard valves often experience thread wear during transit and inconsistent sealing, leading to frequent replacements and increased risk of leaks. Maintenance crews struggle with unreliable connections, shortened valve lifespan, and torque-sensitive sealing components.







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# The Solution





# A Purpose-Built Valve for Sulfuric Acid Handling

The USRAC Dual Threaded Acid Valve is engineered to address these issues head-on. With a design optimized specifically for sulfuric acid service, this valve separates sealing and transit functions—protecting internal threads and delivering a secure, consistent seal every time. Patent-pending features further enhance performance and ease of installation.



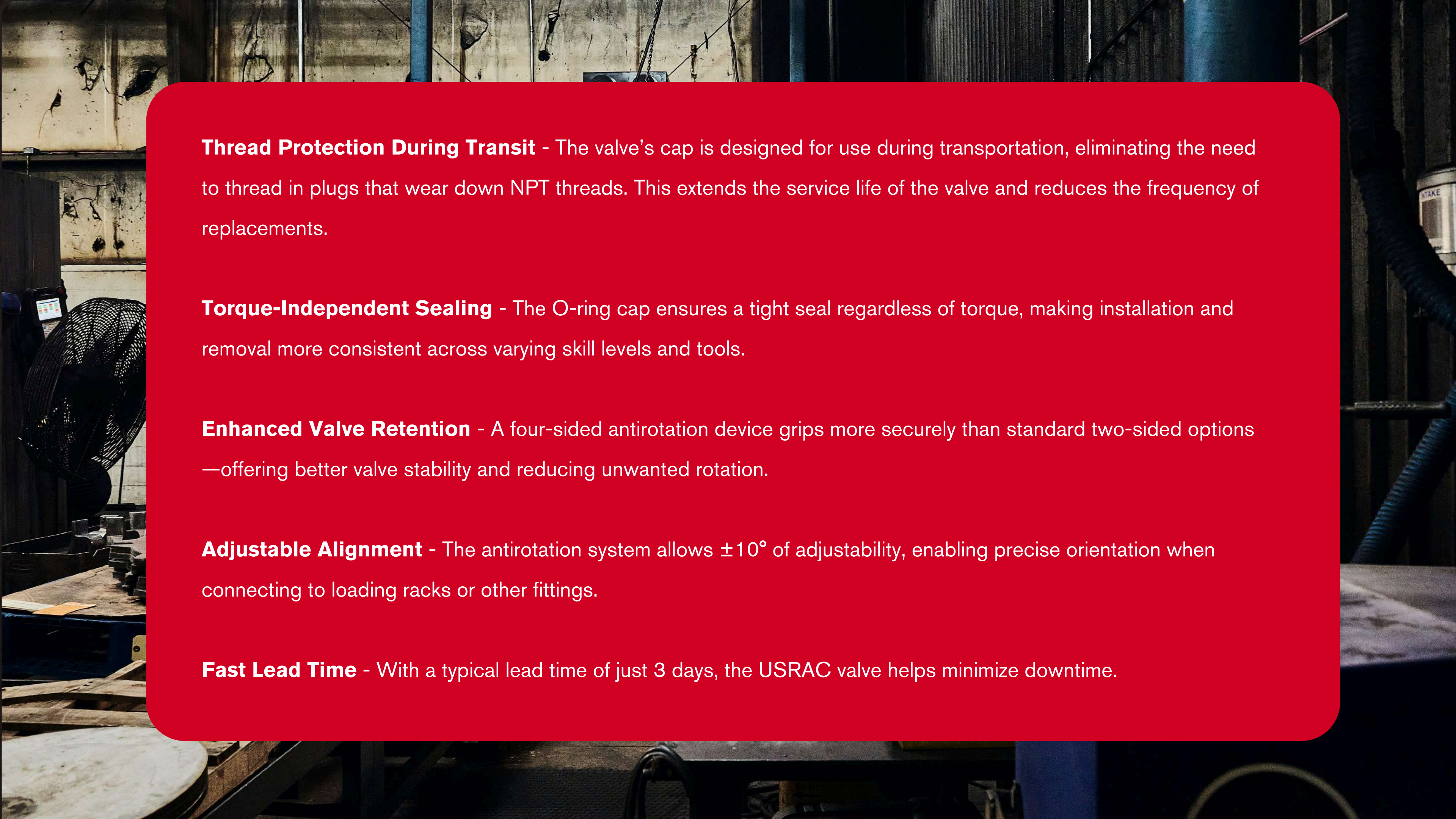




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# **Key Benefits**



The background of the slide is a photograph of an industrial setting. On the left, there is a large black industrial fan. In the center and right, there are various metal structures, pipes, and machinery, including what appears to be a loading rack or a similar industrial fixture. The lighting is somewhat dim, with highlights on the metal surfaces.

**Thread Protection During Transit** - The valve's cap is designed for use during transportation, eliminating the need to thread in plugs that wear down NPT threads. This extends the service life of the valve and reduces the frequency of replacements.


**Torque-Independent Sealing** - The O-ring cap ensures a tight seal regardless of torque, making installation and removal more consistent across varying skill levels and tools.

**Enhanced Valve Retention** - A four-sided antirotation device grips more securely than standard two-sided options—offering better valve stability and reducing unwanted rotation.

**Adjustable Alignment** - The antirotation system allows  $\pm 10^\circ$  of adjustability, enabling precise orientation when connecting to loading racks or other fittings.

**Fast Lead Time** - With a typical lead time of just 3 days, the USRAC valve helps minimize downtime.





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# Who It's Built For





## **Fleet Managers & Operators**

- Increase uptime and reduce replacement frequency with a valve designed for longevity in aggressive chemical environments.

## **Maintenance Teams**

- Simplify installation with torque-independent sealing and improved adjustability—saving time and reducing user error.

## **Tank Car Manufacturers & Repair Shops**

- Offer customers a patent-pending valve that adds real operational value and long-term savings.







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# **Core Advantages**





### **Patent-Pending Engineering**

- Designed with exclusive features that are currently patent pending.

### **Longer Valve Life**

- Reduced wear and more consistent performance over time.

### **Operational Precision**

- Easy fine-tuning of valve orientation helps ensure proper alignment with loading equipment.

### **Lower Long-Term Costs**

- Fewer replacements, faster maintenance, and minimized leak risks all contribute to long-term savings.







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# **Elevate Your Tank Car Performance**





The USRAC Dual Threaded Acid Valve is a smart upgrade for any operator transporting sulfuric acid. From chemical resistance and thread protection to sealing consistency and valve retention, it's designed to meet the demands of harsh service environments.

Explore the USRAC Valve:

[www.mckenzievalve.com/product/all/dual-threaded-acid-valve](http://www.mckenzievalve.com/product/all/dual-threaded-acid-valve)







# Continued Excellence

McKenzie Valve & Machining is dedicated to driving innovation and growth in the rail industry. We continuously invest in research and development to enhance our product offerings, ensuring they meet evolving industry standards and customer needs. Our focus on innovation allows us to develop cutting-edge solutions. As we look to the future, McKenzie Valve remains committed to pioneering advancements that set new benchmarks in the railcar industry, helping our customers navigate the challenges of tomorrow with confidence. Experience the future of railcar safety and efficiency with McKenzie Valve.

**CONTACT US**

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