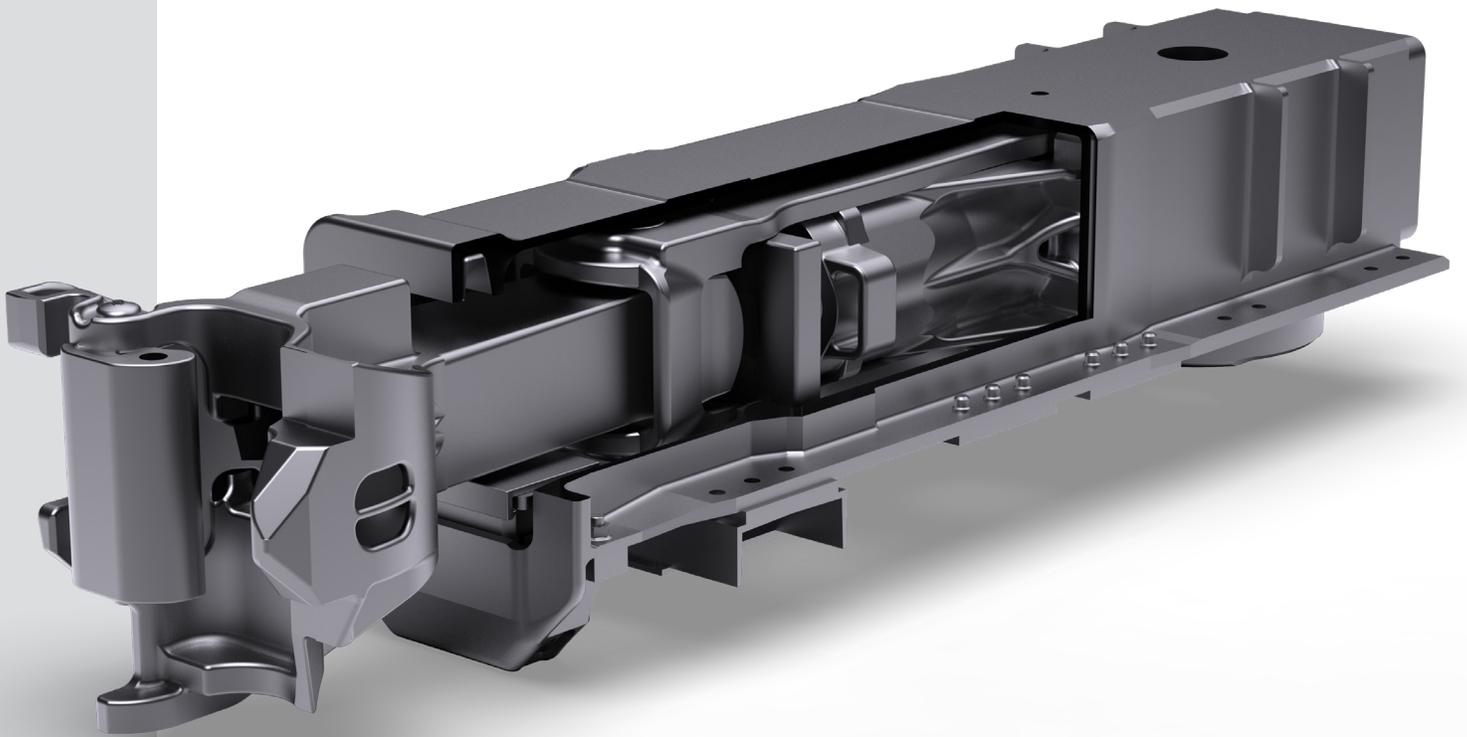




PRODUCT GUIDE

# END-OF-CAR SYSTEMS



# HEAVY HAUL IMPACTS CALL FOR HIGH-PERFORMANCE PROTECTION.



## STAND UP TO A WORLD OF HARD KNOCKS

The ends of your heavy haul railcars take a beating from high-impact contact. To withstand the relentless pounding – from railcar coupling to push and pull on the go – you need the toughest protection available. You need the kind of innovative energy management systems that have set the standard worldwide for performance and reliability that only Amsted Rail can provide.

## PERFORMANCE DRIVEN BY DESIGN

With our engineering expertise and advanced custom modeling system, Amsted Rail precisely analyzes the impact energy of in-train forces to assure you that our energy management solutions will stand up to the most extreme operating conditions. And for total assurance, we test all of our energy management systems on our impact test track with the most demanding railcars in service.

Backed by our unparalleled level of commitment, we engineer integrated end-of-car systems for effectively reducing impact stress. Our innovative solutions positively impact your bottom line by lowering maintenance costs, reducing unplanned downtime and increasing the service life of your cars.

## YOUR SINGLE-SOURCE SOLUTION

Our comprehensive product line enables you to customize and coordinate all your end-of-car system needs through a single supplier. From the market's toughest integral cast draft sills and draft gear, to a complete line of AAR-approved cushioning units, drawbars and couplers, Amsted Rail can deliver whatever you need, whenever you need it.

Our global manufacturing capacity assures you of responsiveness wherever your railcars run. When the entire cushioning system is designed by the industry leader, you can leave your car and cargo worries behind.

## CUSHIONING SOLUTIONS FOR ANY RAILCAR, ANY CARGO, ANYWHERE

There's no stopping the humps and hits your cars will take, but our end-of-car systems can protect your investment. Today, Amsted Rail has expanded its leadership well beyond couplers to include customized cast draft sill configurations complemented by a full range of advanced draft gear systems and cushioning devices.

### INTEGRAL CAST DRAFT SILLS

These precision-engineered, one-piece workhorses are ideal for protecting heavily used assets, such as coal hoppers. They feature flame-hardened center plates and front/rear draft gear lugs and strikers, all free of welds for maximum durability. The DuraSill™ Integral Cast Draft System exceeds AAR specifications for design loads, while also reducing car weight.



### TWIN PACK® DRAFT GEAR

Combining these short-stroke polymer shock absorbers with our cast draft sill provides the best possible protection for your railcars. Winning worldwide acclaim, the revolutionary Twin Pack® draft gear is AAR approved and available for all coupler types. Amsted Rail offers a broad range of the lightest, most durable draft gear to maximize the life of any type of railcar in any kind of environment.



### CUSHIONING UNITS

You can't find better protection for fragile cargo than combining our long travel shock absorbers with our cast draft sills. We offer a complete line of AAR-approved hydraulic cushioning units to meet your needs. And to reduce the push and pull stresses a car experiences whenever a train stops or starts, rely on our Active Draft Cushioning Units. They deliver full protection while maintaining compression.



### COUPLERS AND YOKES

Amsted Rail has long been recognized as the premier manufacturer of fatigue-resistant couplers. Our standard and specialty couplers are engineered to do more than meet AAR-approved standards but push beyond them. We also provide a broad array of high-performance coupler yokes, all rigorously tested to ensure forces applied to the coupler head are dampened by the gear.



### DRAWBARS

When conditions require the uncompromised separation of railcars, our flame-hardened drawbars provide up to 60% slack reduction in a 116-car train. Plus, you realize a weight savings of 486 pounds per connection compared to the standard Type E coupler.



# AMSTED RAIL, THE GLOBAL LEADER IN FULLY INTEGRATED FREIGHT CAR SYSTEMS FOR THE HEAVY HAUL RAIL MARKET.

Amsted Rail is the world's leading provider of undercarriage and end-of-car railcar components, with facilities spanning six continents. Through our state-of-the-art manufacturing processes, Amsted Rail has been redefining industry standards for innovation and technology since 1877, providing our customers worldwide with unmatched performance and reliability for the long haul.

To learn more, visit [www.amstedrail.com](http://www.amstedrail.com).

