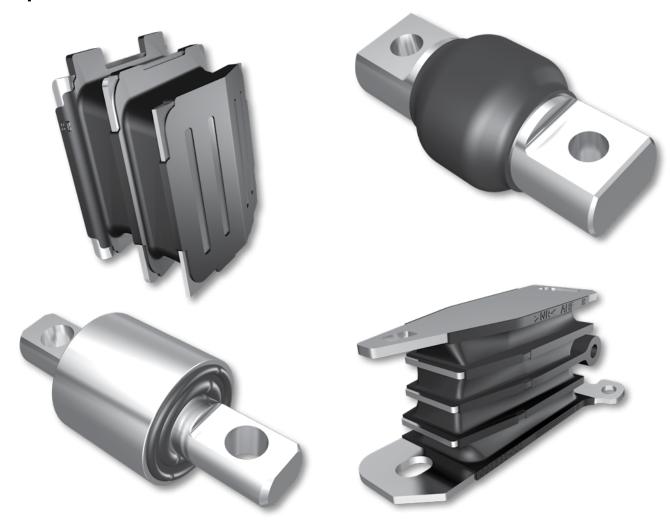
ELASTOMERS

Advanced Rubber Component Technology



- Increased fatigue performance
- Weight efficiency
- Reduced maintenance
- Improved isolation



Advancing suspension and component technology

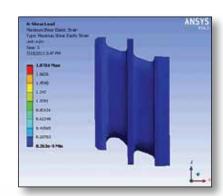
Hendrickson leads the advancement of suspension and component technology as a result of more than 60 years of elastomer development and over 35 years of elastomer manufacturing experience. These accomplishments allow us to fully integrate components, modules and systems that meet commercial vehicle owners' demands for durability, weight savings and low lifecycle costs.

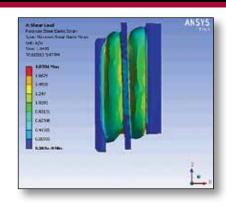


Durability Tested to Hendrickson's Rigorous Standards

Component development begins with state-of-the-art engineering software to identify areas of high stress and simulate suspension performance under various real-world road and load conditions.

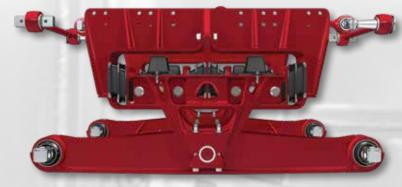
After simulations are complete, the initial designs are built and tested in our advanced research lab, then installed on vehicles for validation in the field.





Optimized System Performance and Weight to Meet Specific Applications

All components are designed with strict product requirements, just like our full spring assemblies and suspension systems. We understand the importance of designing each component for current and future application needs.



ULTIMAAX®

Integrated Component Development Alongside Suspensions and Springs

Our labs feature advanced validation equipment that can test a full range of products from specific components to full suspension systems.

These simultaneous testing and design capabilities help to reduce time to market and increase suspension system quality.



HAULMAAX® EX

ELASTOMER SOLUTIONS

Hendrickson's unique elastomer products, including bushings, are higher-performing, more durable and provide low-maintenance operation.

SPRING EYE BUSHINGS

Spring eye bushings are designed as part of a system that provides enhanced spring performance in roll stability, ride and durability.







RUBBER SPRINGS

Our advanced components have redefined how rubber spring suspension systems perform. Their innovative, high-grade rubber designs withstand heavy loads in rugged applications.





Shear Spring

(ULTIMAAX®)



(ULTIMAAX°)

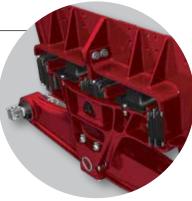




Progressive Spring (ULTIMAAX°)

Progressive Spring











Progressive Spring Bolster Spring (HAULMAAX° EX) (HAULMAAX® EX)



Unique bonded torque rod bushing designs reduce the friction and heat that often damage ordinary bushings for longer life and greater load capacity. A wide variety of bushing configurations are available to meet various application and attachment needs.











Split Ring

BEAM BUSHINGS

Premium elastomer beam end bushings provide enhanced flexibility between the beam and the axle to absorb braking and accelerating forces and provide designed articulation / compliance to help ensure high mobility. Equalizing beam center bushings are designed for specific Hendrickson walking beam suspension capacities and configurations to maximize system performance.







Spherical End Bushing



Voided Center Bushing



TRI-FUNCTIONAL® II Vocational Trailer Bushing



TRI-FUNCTIONAL® III On-Highway Trailer Bushing



OUADRA-FUNCTIONAL® I Severe-Duty On-Highway Trailer Bushing



OUADRA-FUNCTIONAL® II Road-Friendly Vocational





ZERO TORSION RUBBER BUSHINGS

Hendrickson's "Zero Torsion" (ZT) rubber bushings provide a tight, secured fit when installed in a suspension and deliver the right combination of high radial load and full rotational capabilities required for vehicle applications, including lift axles as well as bridge axle bushings in mixer applications. The ZT bushings' design range includes smaller diameter suspension link bushings up to large pivot bushings for numerous vocational applications.



Large-Diameter **Pivot Bushing**



Small-Diameter **Pivot Bushing**

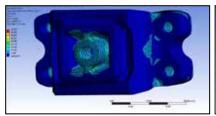


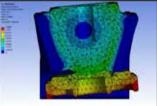
Bridge Axle Bushings

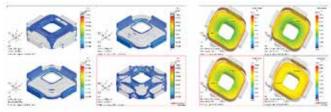
HYBRID / ELECTRIC VEHICLE ISOLATORS

Hendrickson leverages many years of isolator design experience to help vehicle manufacturers with their hybrid and electric vehicle component isolation needs. Systems that could benefit from these isolation systems include motors, pumps, batteries and other critical components associated with hybrid and electric vehicles.

Advanced analysis methods, including Finite Element Analysis and Mold Flow Analysis, ensure optimized product performance and reduced development time.



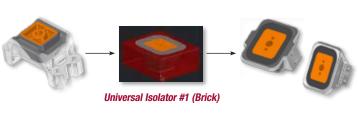




Finite Element Analysis

Mold Flow Analysis

Hendrickson has developed "Universal" isolator solutions to keep prototype costs low and help accelerate development timing.





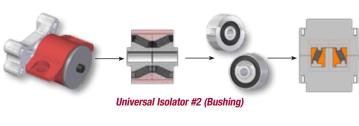
(Square)



Compression / Shear (Round)



Inclined Plane





Universal Isolator #2

Actual product performance may vary depending upon vehicle configuration, operation, service and other factors. All applications must comply with applicable Hendrickson specifications and must be approved by the respective vehicle manufacturer with the vehicle in its original, as-built configuration.

Contact Hendrickson for additional details regarding specifications, applications, capacities, operation, service and maintenance instructions.

Call Hendrickson at 630.910.2800 or 855.RIDERED (743.3733) for additional information.



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