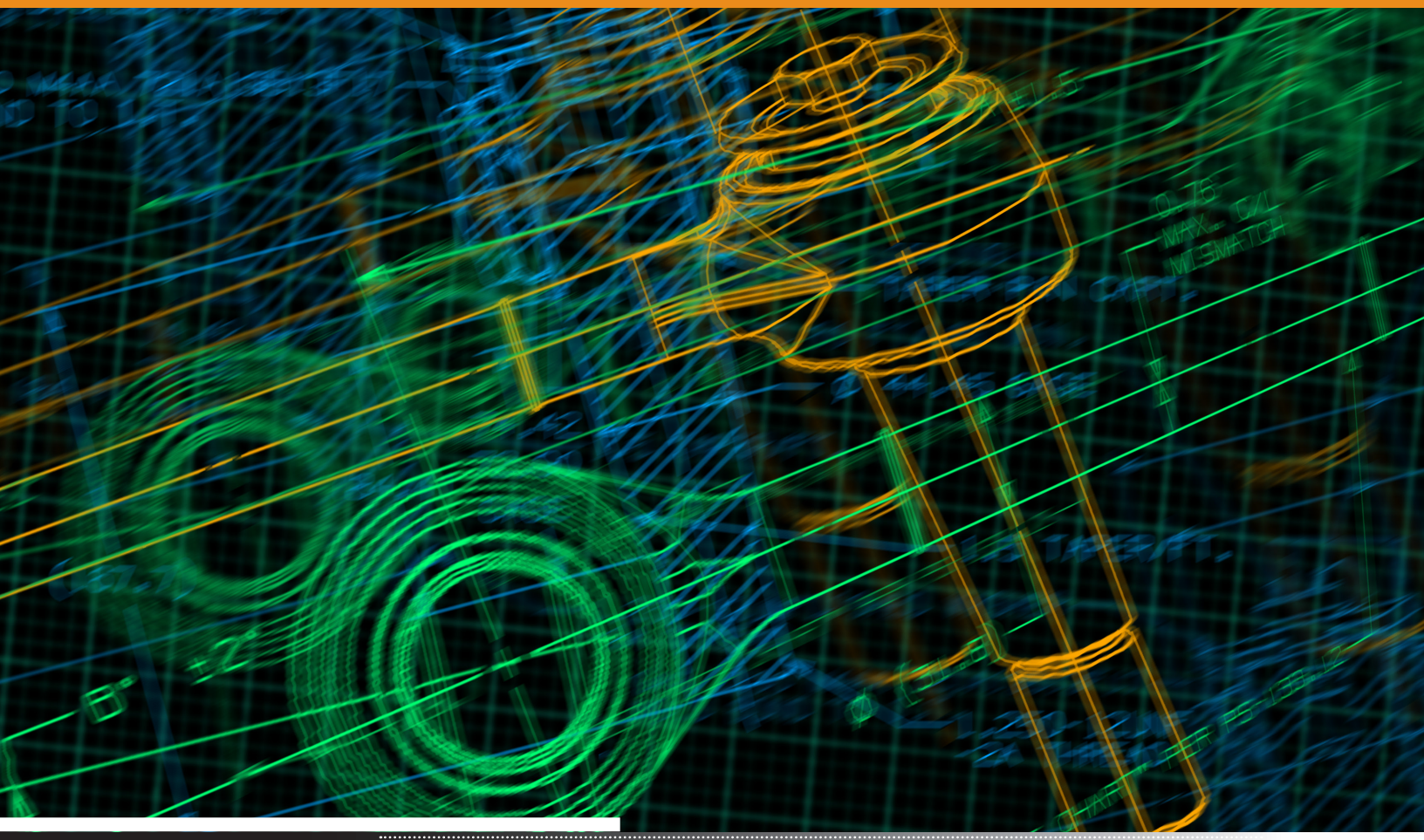
CLEVITE® ELASTOMERS

Commercial & Specialty Vehicle Applications



Commercial vehicle elastomer technology, accelerated℠

TENNECO

Forward thinking. Forward moving.

Where transportation goes for innovation

For more than 60 years, Clevite® brand Elastomers have been a leading industry resource for vibration control design, engineering and manufacturing. From light passenger cars and trucks to rail, heavy truck, off-road, agricultural, construction or specialty vehicles, OEMs around the world select Clevite Elastomer products for their outstanding quality, durability and reliability.

One of the Clevite brand's keys to success is the way its Noise, Vibration and Harshness (NVH) development experts have worked directly with chassis and powertrain engineers to provide elastomer products that are customized for the systems in which they function.

Whether it is isolators, mounts, bushings, torque rods or stabilizer bars, by tuning the characteristics in tandem with system requirements, distinct advantages in performance and packaging are obtained.

The engineering prototype laboratories for Clevite elastomers are outfitted with the latest in modeling, materials and assembly equipment. The state-of-the-art tools and advanced CAE/CAM, coupled with unparalleled experience in the area of vibration control, enable Tenneco to provide the highest design confidence and the shortest development cycle.

In addition, regular collaboration among Tenneco's engineers ensures that the experience gained from each application – whether it is a small isolator for a subcompact car or a giant torque arm for off-road construction equipment – can be applied to solve each new challenge.

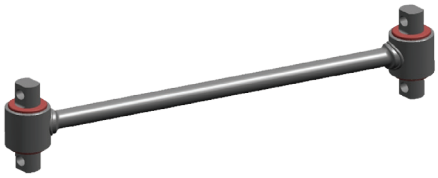
CLEVITE® *Elastomers*

CLEVITE® ELASTOMERS

Heavy Duty Suspension Links

Clevite® brand heavy truck suspension components have been sold for more than 60 years, producing a full range of products to cover virtually all applications, including commercial truck, agriculture, construction, bus and other specialty applications.

Tenneco currently sells its Clevite Elastomer products to all heavy duty OEMs including Daimler and Volvo.



Lightweight Rod

Lightweight Rod

- Offers a broad range of sizes and ratings
- Lighter than conventional construction methods – up to 25% lighter depending upon applications
- Significant cost advantage over crimped design
- Tenneco patented technology

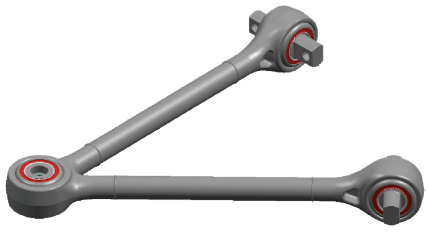
Severe Service Rods

Severe Service Rod

- Heavy duty component for severe applications
- Field-replaceable bushings
- Wide range of configurations and attachment methods
- Adjustable option also available with robust clamping method

V-Rod

- Various apex joint configurations
- Forged apex housing
- Optimized for both mass and stiffness



V-Rod

TENNECO

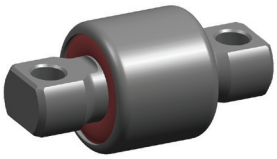
Suspension Bushings

A core competency for more than 60 years

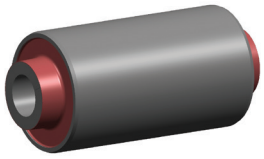
Whether it's a bushing that becomes part of an arm, bar, link, spring or shock absorber, Clevite® brand Elastomers offers the broadest range available. From simple to complex, bushings all are designed with the highest attention to detail, achieving the required vibration control essential to your specific application.

Bushings include:

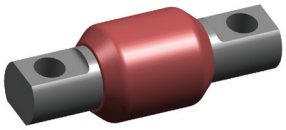
Curled Cartridge Bushing



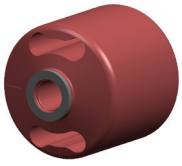
Double Bonded Bushing



Single Bonded Bushing



Single Bonded Trailer Pivot Bushing



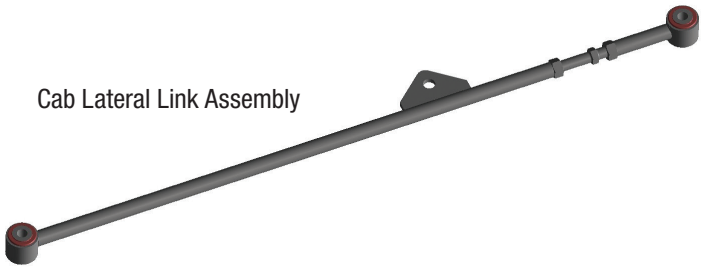
Control Arms, Bars, and Links

Optimized for mass, stiffness and NVH isolation

Full in-house assembly capabilities allow us to minimize our development time and respond more quickly to our customers' requests. These parts are produced utilizing advanced materials, forms, construction and fastening methods and can incorporate multiple bushing technologies and end configurations.

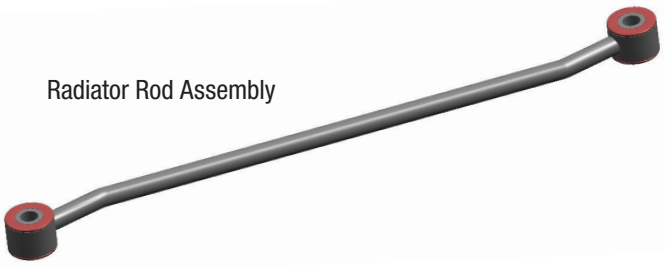
Assemblies include:

Cab Lateral Link Assembly



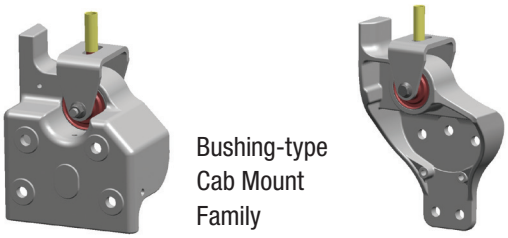
Exhaust Rod Assembly

Radiator Rod Assembly



Mounts

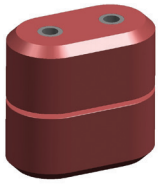
Clevite® brand mounts help to reduce warranty issues by isolating sensitive structures from damaging vibrations. Engineered to balance travel restriction, load and NVH isolation, the mounts work together as a system to provide the best protection and most comfortable ride.



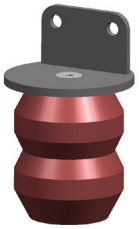
Bushing-type Cab Mount Family

Auxiliary Rubber Springs

The Clevite collection of premium motion control products combine the best choice of elastomer materials with engineered shapes to isolate vehicle occupants from unwanted noise and vibrations while providing additional load carrying capacity.



Convoluted Elastomer Spring



Convoluted Elastomer Spring with Bracket

Isolators

By controlling and leveraging the isolator as a fully engineered part, our innovative design proves its superiority in every aspect, from engineering to assembly.

Our exhaust isolators join the best-in-class technology of Clevite® Elastomer vibration control products with the industry-renowned tuning expertise of Walker® emission control.

Customer noise, vibration and harshness engineers experience reduced program complexity because the Clevite brand has efficiently harmonized the NVH characteristics in advance.

Using the CAE expertise of our elastomer engineers we are able to locate and move critical stress peaks to non-critical zones. Non-linear static and dynamic analysis allows us to reduce stress concentrations generated by loads and thermal growth.

Accomplished before prototype builds, our virtual development tools and ability to predict and adjust isolator spring stiffness drives overall process efficiency and system optimization.

Shear Hub

Compression-Type Severe Service

CLEVITE® *Elastomers*

Partnership Built on Performance

At Tenneco, we don't simply provide a product. We provide a partnership – taking into account customers' entire systems, their unique needs and applications, technology requirements, market challenges and goals. With Clevite® Elastomers and our complete line of products, we offer the partnership that drives the innovation that maximizes performance and durability.

PIONEERS IN RIDE PERFORMANCE

At Tenneco, innovation is a hallmark of everything we do. In our advanced elastomers technologies and solutions. In our unique, total-system integration expertise and approach. In our commitment to partnership and collaboration. We're always looking beyond the technology horizon to foresee and develop the next-generation elastomer solutions that accelerate our customers' success and keep them moving toward the future.

From development through delivery and beyond – we help our partners drive transportation innovation, full speed ahead.

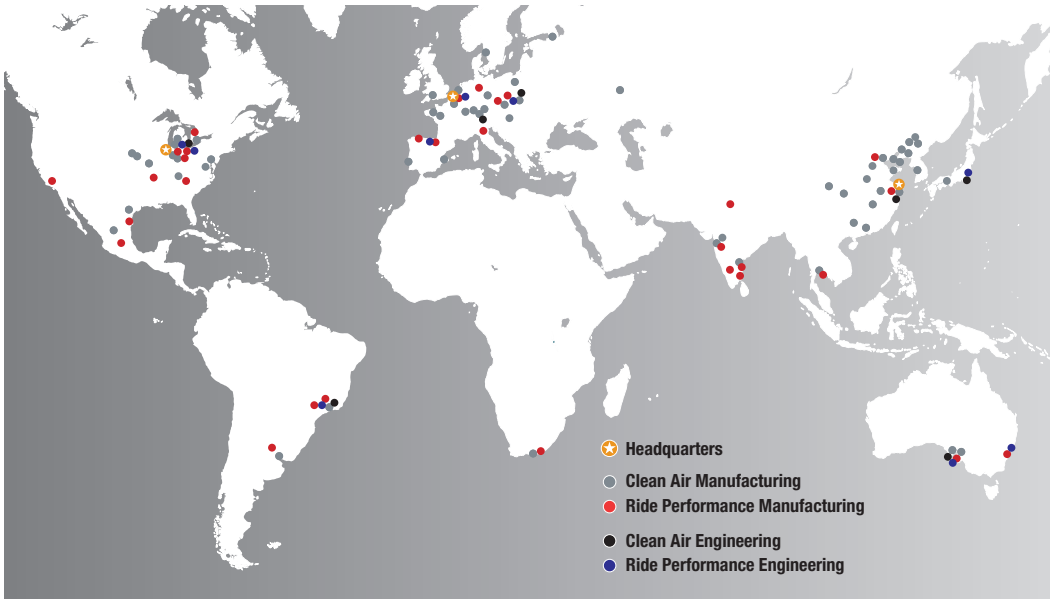
TENNECO IS EVERYWHERE OUR CUSTOMERS NEED US

Our reach is global, but our focus is local, helping customers in each region adapt our global capabilities and technologies for local applications.

- Nearly 25,000 employees worldwide
- 89 manufacturing facilities
- 14 state-of-the-art research and development centers
- Dedicated research and development centers for elastomers engineering

Markets served:

- Heavy duty truck
- Agriculture
- Construction
- Bus
- Specialty
- Military



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