

# Couplings Dodge® Raptor

## Elastomeric coupling innovation

### Natural rubber WingLock™ element

- Finite-Element optimized flexible design, featuring WingLock technology
- Higher bond strength, improved fatigue resistance, and documented longer life
- Industry leading misalignment capabilities
- Torque range up to 38,438 Nm

### Easier installation & reduced maintenance

- Slotted clamp ring holes offer 187% more hardware clearance
- Split element for easy replacement
- Drop-in interchange without any modifications or additional materials
- Maintenance free element



### Longer driven equipment life

- Rigorously tested to 10x DIN 741 coupling standards
- Significantly lower torsional and bending stiffness
- Up to 16.7x increase in connected  $L_{10}$  bearing life
- ISO class 10.9 hardware offers a 40% increase in proof strength

### Flexible mounting options

- Close-coupled and spacer designs for a wide range of shaft gaps
- Interchangeable hubs for reduced inventory
- Finished bore hubs with setscrew locking for easy installation
- Taper-Lock bushed hubs for clean, compact installation
- Bores up to 229 mm

### Engineered for longer life and improved reliability

The Dodge Raptor features patented WingLock technology, a finite-element optimized winged elastomeric design that provides longer driven equipment life and improved reliability. WingLock technology increases surface area in the most critical regions of the element, resulting in higher bond strength, improved fatigue resistance, and longer life versus competitive urethane designs. A non-lubricated natural rubber element results in lower stiffness, improved vibration damping, and industry leading misalignment capabilities.

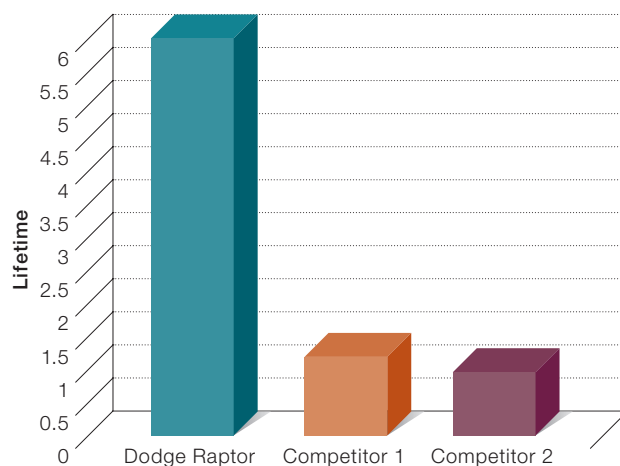
### Superior natural rubber element

The Raptor features a flexible natural rubber element that offers a number of performance benefits versus competitive urethane designs.

- Static conductive for grounding redundancy, allows current to safely pass through the element, preventing the possibility of arcing during operation
- Exceptional resistance to hydrolysis, for improved performance in humid conditions
- Superior thermal conductivity and ability to dissipate heat

### Documented performance

Comparative benchmark testing confirms the performance improvement associated with Raptor's WingLock element design. Even under worst-case misalignment and torque conditions, test results show that the Raptor lasts up to six times longer than the closest competitor.



Results based on accelerated life testing at 1.5x catalogued torque, while subject to 4° angular misalignment and 4.8 mm parallel misalignment.

### Longer driven equipment life

Leveraging over 50 years of expertise, the Raptor features a natural rubber element that is significantly more flexible than urethane designs.

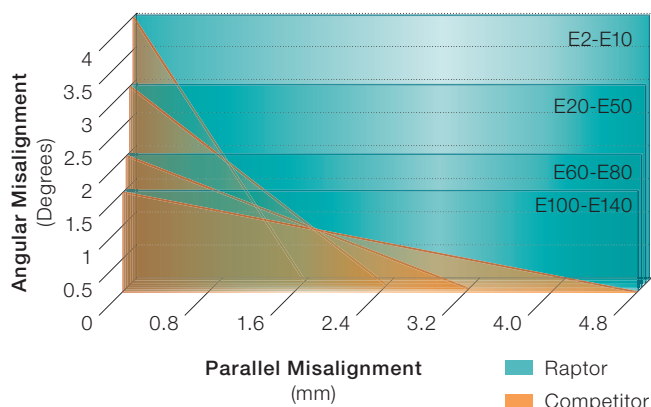
- Approximately 50% lower torsional and bending stiffness
- Longer life for all types of equipment – including motors, pumps, compressors, and gearboxes
- Reduced connected equipment bearing loads yield up to a 16.7x increase in  $L_{10}$  bearing life
- Better shock damping and less vibration

### Easier installation and reduced maintenance

The Dodge Raptor has everything needed for easier installation and reduced maintenance costs:

- Split element for easy replacement without moving and re-aligning connected equipment
- Slotted clamp ring holes offer 187% extra mounting clearance versus competitor's designs
- 50% lower torsional stiffness makes the element significantly easier to manipulate by hand during installation
- Maintenance free non-lubricated natural rubber element for trouble-free operation

### Industry leading misalignment capabilities



### Easy as 1-2-3

Installing Dodge Raptor couplings is quick and easy. The Raptor's horizontally split element doesn't require locking shafts during installation, meaning a faster installation that requires fewer tools and eliminates shaft damage. Simply fasten the shaft hubs, install the element, and tighten the hardware.



Step 1 - Install hubs



Step 2 - Set shaft spacing



Step 3 - Install element

### Third-party ATEX certified

When it comes to applications in hazardous environments, there's no reason for customers to assume any risk by using a product which is self-certified. That's why Raptor couplings are third-party ATEX certified for worry-free use in hazardous environments. All required product markings and documentation are included with each coupling at no additional charge.



The Raptor is backed by over 50 years of natural rubber expertise and offers an industry leading 5-year warranty, even when used with competitors components.

For more information:

[new.abb.com/mechanical-power-transmission](http://new.abb.com/mechanical-power-transmission)

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