

LORD® Telescopic Joint Packers

API 16F Certified, 2nd Edition



Telescopic Joint (TJ) Packers seal against the inner barrel of the slip joint. Our expertise in rubber-to-metal bonding, and process and quality controls, ensure each part is manufactured consistently, with a strong bond. This attention to detail, coupled with our elastomeric formulation capabilities, makes LORD TJ packers the reliable choice for rig contractors. More reliable seals allow longer drilling without interruption, eliminating the need to change out packers in the middle of a well.



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For a listing of our worldwide locations, visit LORD.com

Benefits:

- Field-proven: wear-resistant nitriles outlast the standard nitriles employed in most TJ packers today
- Low actuation pressure enables operating primary packer on rig air supply
- Compatible with water: retains 90% of tensile strength in swell testing, compared to only 10-15% for polyurethanes
- Improved quality via our manufacturing techniques, process control, and rigorous quality standards

In-house test fixture for certifying TJ packers to API 16F and for durability testing

- Stable, reliable elastomer-to-metal bonds, ensuring packers function properly even after an extended storage period
- Our hyperelastic FEA modeling optimizes design
- Inner and outer packers stocked for all OEM riser styles for quick turnaround
- In-house API 16F TJ packer test capabilities



ENGINEERING YOUR SUCCESS.

API 16F Certified:

LORD wear-resistant TJ packers have passed the rigorous requirements of the second edition of API 16F. During the abrasive 50,000 cycle wear test, LORD packers lost less than 0.75% elastomer mass, representing more than a 13x margin to the 10% pass/fail criteria in Standard 16F.

Head-to-Head Comparison

Laboratory and field tests confirm our wear-resistant TJ packers last longer than the standard nitrile packers used in many slip joints today. During the 50,000 cycle API 16F wear test, the competitor's part developed a leak at 22,000 cycles. By 45,000 cycles, the competitor's packer was leaking severely enough that testing could not be completed. The API 16F wear test chart (pictured right) shows the LORD split inner packer performing consistently through test completion (red line), while the competitor's part failed prior to test completion (blue line).

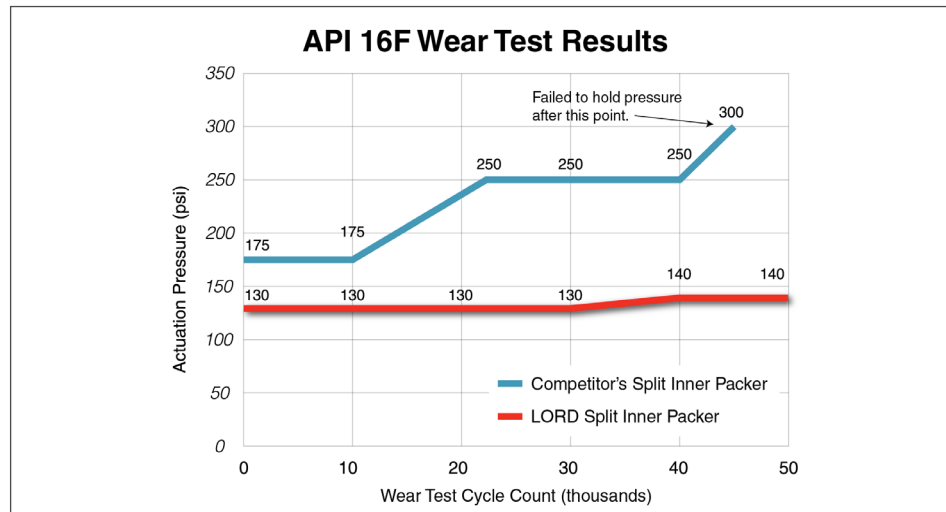
When testing LORD TJ packers vs. the competitor's parts, the LORD packer system required a much lower actuation pressure in order to seal, allowing operation of the upper packer on rig air supply at most bore pressures. For instance, to seal a 25 psi bore pressure, LORD parts only required an applied pressure of 70 psi, whereas the competitor's parts required 125 psi or more. In fact, the competitor's packers had to be 'shocked' with a higher pressure in order to initially seal.

Wear Test Results:

Table represents full API 16F 50,000 wear test cycles.

Packer Manufacturer	Riser/TJ Type	Elastomer Wear	Pass/Fail Criteria	Status
LORD	Vetco Gray/GE-style	0.72%	< 10%	PASS
LORD	Aker/MHWirth-style	0.72%	< 10%	PASS
LORD	NOV-style	0.35%	< 10%	PASS
LORD	Cameron-style	0.30%	< 10%	PASS
Competitor	Vetco Gray/GE-style	N/A*	< 10%	FAIL
Competitor	Aker/MHWirth-style	N/A*	< 10%	FAIL

*Competitor part leaked severely prior to completion of 50,000 cycles.



Note: Competitor's part failed to hold pressure after 45,000 cycles.

