



PXP FLUID END PACKING OIL

EXTREME PROTECTION AND SUPERIOR PERFORMANCE
FOR POSITIVE DISPLACEMENT HIGH PRESSURE PUMPS

Offered in Conventional and Synthetic Formulations in SAE 80W-90
& 85W-140 & Industrial Gear Oils in ISO 150/220/320/460/680

Permian Extreme Pressure (PXP) positive-charged (+) Fluid End Packing Oils have been engineered with the movement specific application of the plunger, liner, and packing assembly operation in mind. Permian Production Lubricants understands the unique demands, continuous operation, and harsh conditions under which today's pressure pumping fleets operate. PXP Packing Oil is attracted to the negatively charged (-) metal surfaces applying a powerful thin lubricant boundary film to all surfaces. This technology improves the ability to extend continuous operational time in between packing failures, minimize damage from friction and abrasives to liners and plungers, reduce operational temperatures at the plunger while offering superior protection from corrosion, rust, and pitting. Customers have reported 30% to 65% additional pumping hours before packing failures, 7-10 degrees cooler temperatures at the plunger, and a dramatic reduction in packing replacements at PM, along with reduced pitting, scaring and abrasions on liner and plunger surfaces.

Permian Extreme Pressure (PXP) positive-charged (+) EP additive creates an attraction and thin-film bond between the negative-charged (-) metal surfaces and PXP Lubricants positive charge. This lubricant boundary film resists damage from water, abrasives, heat, and extreme pressure, while conditioning fiber and elastomer seals.

FEATURES & BENEFITS

- Positive (+) Charge PXP Technology
- Extreme Pressure & Contact Friction Reduction Performance
- Attracted to negative (-) charged metal surfaces
- Superior Film Strength Through Cationic Additive Formulation
- Powerful Adhesive Lubricant Boundary Film Applied to Metal Surfaces
- Extreme Friction Reduction During Harsh Sliding Applications
- Resists Thermal Degradation
- PXP (+) Charge Repels & Displaces Water & Moisture
- Travels in Packing Effectively
- Extends Packing Life
- Reduces Operating Temps
Saturates & Conditions Seals
- Compatible with Kevlar, Fiber, Rubber, Elastomer, & Graphite Packing Materials
- Prevents Oxidation and Corrosion
- Lubricant Film Boundary Resists Sands
- Dramatic Reduction in NPT
- Reduced Plunger & Liner Damage from Abrasives
- Protection Against Wash Boarding
- Excellent Demulsibility, Anti-Foam
- Superior Reduction in Yellow Metals Wear
- Reduced Consumption Rates in Pressure



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TYPICAL PROPERTIES

TEST PARAMETERS	METHOD	80W-90	85W-140
Specific Gravity @ 15°C	ASTM D4052	0.859	0.863
API Gravity @ 15°C	ASTM D4052	33.3	32.5
Kinematic Visc. @ 40°C, cSt	ASTM D7042	105	105
Kinematic Visc. @ 100°C, cSt	ASTM D7042	16.8	16.8
Viscosity Index	ASTM D2270	173	173
Flash Point, °C (°F)	ASTM D93	174 (345)	174 (345)
Pour Point, °C (°F)	ASTM D97	-33 (-27)	-33 (-21)

MEETS OR EXCEEDS

- AGMA 9005-F16
- DIN 51517-3
- Flender GmbH Rev.15
- Chinese GB 5903 L-CKC/L-CKD
- US Steel 224
- Danieli 0.000.01 Rev 15 CKC
- David Brown S1.53.101 Type E
- Indian SYD IS 8406
- Schuler Pressen GmbH DT 55 005 Ed 1
- SMS Group SN 180-3
- GM LS2 EP
- Schaeffler FAG Step 1-4
- Renk ZAN 36011 (Augsburg)
- Sumitomo Drive BUI-TEC (Hansen)
- ZF TE ML 04H
- ZF Industrieantriebe Witten ZFN-W 17-145 Rev 2