



# Champion Quantum AW/R&O Hydraulic Oils

Champion Quantum AW/R&O series oils are long-life hydraulic oils formulated with severely hydrotreated and hydrofinished API Group II base oils for improved oxidation resistance, viscosity retention, and cold-flow properties. These oils demonstrate excellent protection against wear, corrosion, and the build-up of sludge and varnish in even the most demanding, high-pressure hydraulic systems including those with positive-displacement vane and piston pumps and high-precision servo valves.

- Extended fluid life for longer service intervals
- Excellent filterability and cleanliness
- High thermal and oxidation stability
- Top-tier anti-wear performance
- Improved cold start protection
- Excellent demulsibility and air release

Champion Quantum AW/R&O series oils meet or exceed the following specifications:

- Parker (Denison) HF-0, HF-1, HF-2
- MAG (CM) P-68 (ISO 32), P-69 (ISO 46), P-70 (ISO 68)
- GM LS-2
- Joy HO-T, HO-S, HO-T2
- AIST (US Steel) 126, 127
- DIN 51524-2, Type HLP
- ASTM D6158, Type HM
- ISO 6743/4, Type HM
- Eaton M-2950-S, I-286-S3
- Bosch Rexroth RE 90220
- SEB 181222
- AFNOR NF E 48-603 (HM)
- SAE MS 1004, Type HM
- ANSI/AGMA 9005-E02-RO
- ISO 11158, Type HM

<b>Typical Properties</b>					
ISO Grade	32	46	68	100	150
Product No	4318	4319	4320	4327	4329
Kinematic Viscosity @ 40°C, cSt	32	46	68	100	150
Kinematic Viscosity @ 100°C, cSt	5.6	7.1	9.0	11.4	14.8
Viscosity Index	107	106	104	103	100
Flash Point, °F (min)	400	400	400	400	400

These oils have a typical fluid life of 7,000 hours