

ADVANTAGE R&O OILS

OVERVIEW

ADVANTAGE R&O OILS are highly refined, rust and oxidation inhibited hydraulic oils developed to meet the requirements of hydraulic and circulating systems. The additive system in **ADVANTAGE R&O OILS** has been approved as meeting the requirements of most major pump manufacturers and machine tool builders.

FEATURES & BENEFITS

ADVANTAGE R&O OILS are designed for use in vane, rotary, gear pumps, and compressors, along with circulating systems and machine tools. Centrifugal air compressors, air tools and other pneumatic equipment lubricated through airline lubricators, lightly loaded enclosed industrial gear boxes that do not require a compounded or extreme-pressure (EP) gear oil, electric motor bearings, vacuum pumps, deep water well pumps, steam turbines and hydroelectric turbines, both direct drive and with gear drives, marine turbines all benefit from the use of **ADVANTAGE R&O OILS**.

APPLICATIONS

ADVANTAGE R&O OILS are characterized by outstanding performance in preventing rust, oxidation, foaming, air entrainment and many other factors that occur in typical hydraulic systems. They have outstanding thermal and oxidative stability, excellent demulsibility, good film strength and foam resistance, and protect against rust and corrosion.

SPECIFICATIONS

AGMA 9005-F16 R&O • ASTM D-4304 TYPE I, TYPE II, TYPE III • CINCINNATI P-38, P-45, P-54, P-55, P-57, P-62 • DIN 51515 PART 1 & 2 • GE GEK 27070, GEK 28143b Type I, GEK 46506E • ISO 11158 HH, HL • JIS K2213 TYPE 2

TYPICAL PROPERTIES

Product Code	451	432	436	459	458	460	470	472	479	4680
ISO Viscosity Grade	22	32	46	68	100	150	220	320	460	680
Viscosity, cSt @ 40 °C	21.3	32.5	46.0	66.7	101.7	154.9	223.3	319.9	457.1	675.9
Viscosity, cSt @ 100 °C	4.3	5.4	7.0	8.7	12.0	14.5	18.5	23.6	36.4	48.6
Viscosity Index	108	104	109	101	107	90	91	93	120	123
Flash Point, °F	420	430	435	475	502	540	560	565	590	595
Pour Point, °F	-40	-36	-26	-18	-10	-10	-10	-10	0	+5
Oxidation Stability	5000+	5000+	5000+	5000+	5000+	>3500	>3500	>3500	5000+	5000+
RPVOT, mins	>1000	>1000	>1000	>1000	>1000	>550	>550	>550	>1000	>1000
Rust Test	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS