

# SPX R&O

## MULTIPURPOSE RUST & OXIDATION INHIBITED ANTIWEAR CIRCULATING OIL

SPX R&O is a rust and oxidation (R&O) inhibited, antiwear circulating oil developed for use in circulation systems, centrifugal air compressors, geared turbines, lightly loaded gearboxes and other various industrial applications. This product has a low level of ashless (zinc-free) antiwear additive for mild wear protection. SPX R&O is a suitable replacement for a "non-detergent" type pump or air compressor oil.

### Advantages

- Good oxidation resistance to minimize sludge and varnish formation
- Mild wear protection
- Protects against rust and corrosion
- Excellent water-separating properties
- Good foam resistance

### Applications

- Air tools and pneumatic equipment
- Centrifugal air compressors
- Steam turbines and hydroelectric turbines, both with direct drive and with gear drives
- Lightly loaded enclosed industrial gearboxes where the OEM specifies a R&O type oil (typically >ISO 68)
- Lightly loaded plain and rolling element bearings
- Vacuum pumps, deep well water pumps and machine tools
- General purpose machinery
- Can be used as when a "non-detergent" oil is recommended for pumps and compressors

### Specifications

SPX R&O meets the following industry and OEM specifications:

- AGMA 9005-F16 (non EP)
- ASTM D4304 Types I, II, III
- British Standard 489
- DIN 51524 Part 1; DIN 51515 Parts 1 & 2, 51506 VDL
- Fives Cincinnati P-45 (ISO 22), P-38 (ISO 32), P-55 (ISO 46), P-54 (ISO 68), P-57 (ISO 150)
- General Electric GEK-28143B, GEK-32568J, GEK-101941A, GEK-46506E
- ISO 11158 HH, HL, ISO 8068 TSA, TGA, TGE, and TSE
- Solar Turbines ES 9-224



Industrial



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# SPX R&O

## TYPICAL PROPERTIES

ISO Grade	22	32	46	68	100
SAE Grade, approximate	10W	10W	20	20	30
AGMA Grade	-	0	1	2	3
Specific Gravity @ 60°F	0.856	0.862	0.868	0.873	0.877
Density, lbs/gal @ 60°F	7.13	7.18	7.23	7.27	7.30
Color, ASTM D1500	0.5	0.5	0.5	0.5	0.5
Flash Point (COC), °C (°F)	205(401)	210(410)	210(410)	215(419)	215(419)
Pour Point, °C (°F)	-25(-13)	-20(-4)	-20(-4)	-20(-4)	-15(5)
Viscosity					
cSt @ 40°C	20.6	30.1	44.3	65.9	97
cSt @ 100°C	4.1	5.2	6.6	8.6	11.2
Viscosity Index	100	100	100	100	100
Rust Test, ASTM D665 A&B	Pass	Pass	Pass	Pass	Pass
Demulsibility, ASTM D1401, minutes	20	20	20	20	20
Foam Seq. 1, ASTM D892, mL	0/0	20/0	20/0	20/0	20/0
Oxidation Stability, TOST, ASTM D943, hours	>5000	>5000	>5000	>5000	>5000



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## TYPICAL PROPERTIES

ISO Grade	150	220	320	460
SAE Grade, approximate	40	50	60	-
AGMA Grade	4	5	6	7
Specific Gravity @ 60°F	0.882	0.885	0.889	0.892
Density, lbs/gal @ 60°F	7.35	7.37	7.40	7.43
Color, ASTM D1500	2.5	3.5	4.5	5.0
Flash Point (COC), °C (°F)	215(419)	228(442)	234(453)	236(457)
Pour Point, °C (°F)	-10	-5	0	0
Viscosity				
cSt @ 40°C	142	209	316	446
cSt @ 100°C	14.5	18.8	24.8	31.0
Viscosity Index	100	100	100	100
Rust Test, ASTM D665 A&B	Pass	Pass	Pass	Pass
Demulsibility, ASTM D1401, minutes	20	25	25	30
Foam Seq. 1, ASTM D892, mL	30/0	30/0	30/0	30/0
Oxidation Stability, TOST, ASTM D943, hours	>5000	>5000	>5000	>5000

Minor variations in typical properties data are to be expected in normal manufacturing.

### Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet (SDS).



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