

United R&O Turbine Hydraulic Oil is designed for use in many applications that require protection against rust and oxidation but do not require anti-wear or extreme-pressure additives. It may be used for lightly loaded plain and anti-friction bearings, electric motors, machine tools, air compressors, and circulating systems that require rust- and oxidation-inhibited oil. United R&O Turbine Hydraulic Oil is formulated to meet lubrication requirements of steam and gas turbines and many hydraulic applications. It is also recommended for service in most axial piston pumps and in systems exhibiting high pressure and high output. United R&O Turbine Hydraulic Oil's low ash level permits its use in automated machine tools and mobile or stationary applications that have stringent filterability requirements.

United R&O Turbine Hydraulic Oil meets the application as gear oil where API GL-1 service is specified. It is widely used where non-detergent motor oil (API SA) is specified. It separates rapidly from water and is hydrolytically stable. It provides excellent foam, friction, filterability, rust, and corrosion protection. This formulation provides superior thermal and oxidative stability.

United R&O Turbine Hydraulic Oil is formulated with a premium-quality base oil and a proprietary ashless additive package. It is free of barium, chlorine, lead, and silicone-type additives. Consult the equipment operation manual for viscosity grade recommendations.

## **Features:**

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- Inhibited against rust, corrosion, sludge, and foaming tendencies
- High viscosity index to minimize oil viscosity change with temperature
- Resistant to oxidation
- Excellent water separation

## **Hydraulic Applications:**

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- Systems having axial piston pumps
- Recommended for micro-filtration systems
- General hydraulic oil in industrial plants
- Mobile equipment requiring a premium rust and oxidation oil
- Automated machine tools
- High-pressure systems
- High-output systems

# TYPICAL SPECIFICATION DATA

UNITED R&O TURBINE HYDRAULIC OIL					
ISO GRADE	32	46	68	100	150
Viscosity @ 100°C (cSt)	5.4	6.8	8.8	11.3	14.6
Viscosity @ 40°C (cSt)	32.0	46.0	68.0	100.0	150.0
Viscosity Index	100	100	100	99	96
Density (lb/gal)	7.27	7.34	7.29	7.33	7.39
Pour Point (°C)	-32	-30	-22	-20	-24
Pour Point (°F)	-26	-22	-9	-5	-11
Flash Point (°C)	207	212	221	260	>250
Flash Point (°F)	405	415	430	500	>482
ASTM Rust Test	Pass	Pass	Pass	Pass	Pass
Turbine Oil Stability Test, hrs.	5,000+	5,000+	5,000+	5,000+	5,000+

## Meets or Exceeds:

- AFNOR E 48-600 HL
- API Service GL-1
- Cincinnati Machine P-38 (ISO 32), P-54 (ISO 68), P-55 (ISO 46)
- Denison HF-1
- DIN 51524, Part 1
- U.S. Steel 126

## Product Availability: United R&O Turbine Hydraulic ISO 32

- |               |                 |
|---------------|-----------------|
| • 2 x 2.5 Gal | • Item # 195498 |
| • 55 Gal      | • Item # 191310 |
| • 265 Gal     | • Item # 210915 |
| • Bulk        | • Item # 191389 |

## Product Availability: United R&O Turbine Hydraulic ISO 46

- |           |                 |
|-----------|-----------------|
| • 55 Gal  | • Item # 193022 |
| • 265 Gal | • Item # 210916 |
| • Bulk    | • Item # 193091 |

**Product Availability: United R&O Turbine Hydraulic ISO 68**

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- 55 Gal
- 265 Gal
- Bulk
- Item # 193025
- Item # 210917
- Item # 193024

**Product Availability: United R&O Turbine Hydraulic ISO 100**

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- 55 Gal
- 265 Gal
- Bulk
- Item # 210092
- Item # 210918
- Item # 195500

**Product Availability: United R&O Turbine Hydraulic ISO 150**

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- 2 x 2.5 Gal
- 55 Gal
- 265 Gal
- Item # 328642\*
- Item # 268624
- Item # 267148

*\*Minimum order of 72.*

