

PERFORMANCE SHEET



QUINTOLUBRIC® 888 Fire Resistant Hydraulic Fluid for Power Generation

QUINTOLUBRIC® 888 polyol ester-based (HFDu type) fire resistant hydraulic fluids are used in power plant applications to replace mineral oils and phosphate ester (HFDr type) fluids, protecting people and assets in high fire risk environments.

Why Are Fire Resistant Hydraulic Fluids Recommended for Use in Power Plants?

Most power plants, including coal, natural gas, waste incineration and geothermal plants, involve high temperature operations. In these environments, traditional mineral oil-based hydraulic fluids pose a high fire risk. Fire resistant fluids offer better fire protection because of their higher auto ignition temperature.

Quaker Houghton HFDu fluids are Factory Mutual approved and significantly reduce the risk for fire and unplanned downtime to your operations.

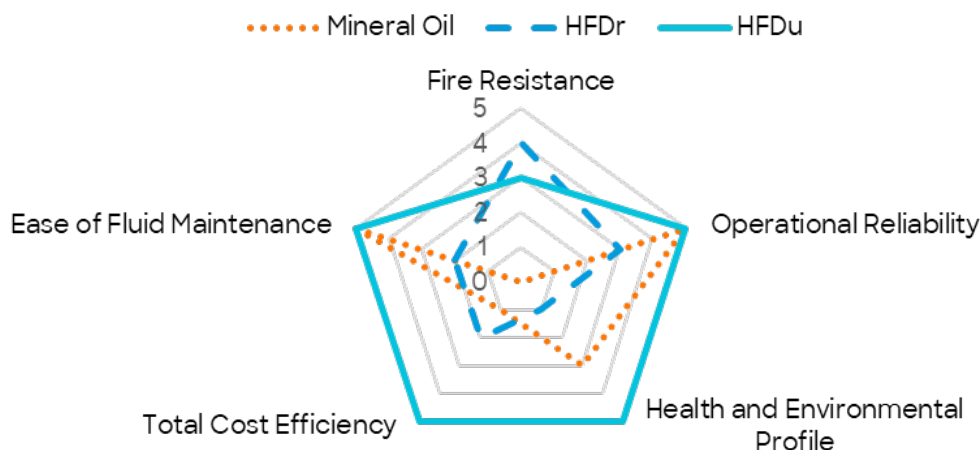


Watch QUINTOLUBRIC®
in action!

What Are the Advantages of HFDu Over HFDr Type Hydraulic Fluids?

Both HFDr and HFDu are water-free hydraulic fluids offering good fire resistance, but HFDr fluids are based on older, phosphate-ester technology that is suspected of being carcinogenic, mutagenic or reproductive toxic (CMR). HFDu fluids use synthetic or natural ester chemistry, which is not classified as hazardous under the Globally Harmonized System (GHS). HFDu products also have a lower purchase cost and generally cost less to operate and maintain.

Performance comparison in high fire risk operations:



QUINTOLUBRIC® 888 HFDu: The Safe Choice to Replace Your HFDr Fluids



The QUINTOLUBRIC® 888 series is used in over 150 power plants worldwide, in applications such as:

- Electro Hydraulic Control (EHC) systems
- Diverter systems
- Steam/gas turbines
- Boiler area: dampers and fans
- Furnaces: waste to energy

Benefits at a Glance

- Non-hazardous, operator-friendly formulation
- No varnishing: extends equipment life
- Robust chemistry resists aging: extends drain intervals
- Endorsed by major hydraulic equipment manufacturers and power plant OEMs
- Factory Mutual approved
- Can also be used as a turbine oil

Lower, Easier Maintenance Saves Money

Typical fluid maintenance for HFDr fluid:

Not a Problem for HFDu!

Source	Contaminant	Correction Method
Acid scavenger media and/or atmospheric	Soluble inorganic contaminant Insoluble inorganic contaminant	Ion exchange Electrostatic separation
Atmospheric	Water	Dry gas air purge and/or general water removal technology
Oxidation, hydrolysis and/or thermal degradation	Soluble organic contaminant Insoluble organic contaminant	Ion exchange Electrostatic separation

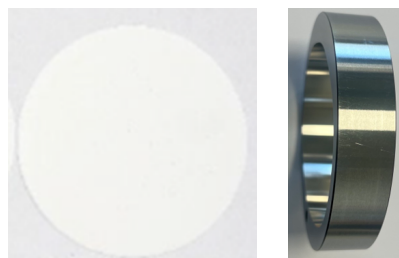
Not needed: synthetic esters form harmless, weak acids on aging.

Electrostatic filters can be used but are not required. Standard filtration saves money.

Varnish-Free Formulation Extends Equipment Life

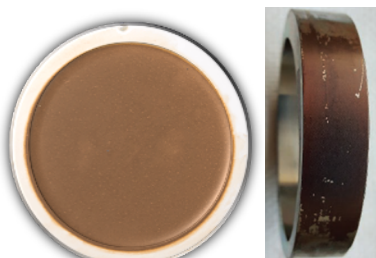
Typical varnish generating potential in a turbine application:

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Left: MPC $\Delta E < 5$
Right: Typical impact on component

Standard turbine oil



Left: MPC $\Delta E > 30$
Right: Typical impact on component

QUINTOLUBRIC® 888

keeps the system clean even after several years of service, improving the reliability and service life of critical components such as servo valves.

