



Multi-viscosity, anti-wear hydraulic fluid, designed for use in hydraulic systems subjected to wide variations in ambient and operating temperatures.

APPLICATIONS

- Industrial hydraulic equipment subject to wide variation in temperatures.
- Hydraulics of mobile, construction and agricultural equipment where a water separating oil is required.
- Hydraulic systems with vane, gear or piston pumps.
- Forklift trucks (in refrigerated areas).
- Plastic injection moulding machines.
- Marine deck equipment, steering gears, thrusters and automatic controls.
- Machine tools.
- Enclosed gear systems (dependent on load).

BENEFITS

- **Wide temperature application**
Multi-viscosity characteristics reduce the risk of breakdown in high pressure/high load hydraulic systems which operate over a wide temperature range.
- **Protects equipment**
Anti-wear additive package reduces wear by protecting surfaces when load causes breakdown of the lubricant film. Rust and corrosion inhibitors give good protection against corrosion of both steel and copper.
- **Smooth operation**
Good hydrolytic stability and water separation characteristics help provide filterability in the presence of water contamination. Good anti-foam and air release properties ensure smooth operation and system efficiency.
- **Good oil life**
Oxidation inhibitors help reduce oil thickening and deposit formation in service, minimising the need for unscheduled change of hydraulic fluid.



PERFORMANCE STANDARDS

Rando MV is suitable for use* where the following industry and OEM standards are requested:

Parker Hannifin (Denison)	HF-0 (ISO 32, 46, 68)
Eaton-Vickers	35VQ25A, I-286-S [industrial applications], M-2950-S [mobile applications] (ISO 32, 46, 68)
MAG Cincinnati, Cincinnati Machine	P 68 (ISO 32), P 69 (ISO 68), P 70 (ISO 46)
Bosch Rexroth	RE 07 075 (10.05)
ISO	6743 (1999) Part 4, Type HV
ISO	11158 (2009), HV
DIN	51502 (1990), Type HVLP
DIN	51524 (2006-04) Part 3

* Where oil holding Parker Hannifin (Denison), Eaton-Vickers or MAG Cincinnati Machine approvals is required, use Rando HDZ.

TYPICAL CHARACTERISTICS

Product Code	1328	1329	1330	1331	2706
ISO Grade	15	32	46	68	100
Flash Point, °C	154	210	214	220	228
FZG, Fail Load Stage	-	12	12	12	12
Pour Point, °C	-42	-36	-33	-33	-27
Viscosity cSt at 40°C cSt at 100°C	15.8 4.0	33.5 6.6	44.0 8.0	65.0 10.6	99.5 14.6
Viscosity Index	155	154	154	153	152
Zinc Content, m%	0.042	0.042	0.042	0.042	0.042

PACK SIZES

1000L, 205L, 20L.

ISO 15 and 100 not available in 1000L. ISO 100 not available in 20L.

ENVIRONMENT, HEALTH AND SAFETY



Users should consult the MSDS, follow the precautions outlined and comply with all laws and regulations concerning its use and disposal. Used packaging material should not be incinerated or exposed to flame. After use, protect your environment. Do not pollute drains, soil or water with used product.

OTHER INFORMATION

For further information on Caltex products and services call the Technical Solutions on 1300 364 169.

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