



# Rando® MV

## Wide Temperature Range Hydraulic Fluid

Product Data Sheet

### Customer 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 provide excellent 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 to reduce oil thickening and deposit formation in service, minimizing the need for unscheduled change of hydraulic fluid.

### 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
- Fork-lift trucks (in refrigerated areas)
- Plastic injection molding machines
- Marine deck equipment, steering gears, thrusters and automatic controls
- Machine tools
- Enclosed gear systems (dependent on load)

### Product features:

- **Rando® MV** is a multi-viscosity, anti-wear hydraulic fluid, designed for use in hydraulic systems subjected to wide variations in ambient and operating temperatures.

## Product specifications

RANDO® MV KEY PROPERTIES						
ISO Grade	15	22	32	46	68	100
Product Grade	520370	520371	520372	520373	520374	520375
Air Release @ 50°C, mins	2.0	2.9	3.6	7.5	8.5	11.5
Flash Point, °C	154	190	210	214	220	228
FZG, Fail Load Stage	-	-	12	12	12	12
Pour Point, °C	-42	-36	-36	-33	-33	-27
Viscosity,						
mm <sup>2</sup> /s @ 40°C	15.8	22.5	33.5	44.0	65.0	99.5
mm <sup>2</sup> /s @ 100°C	4.0	5.0	6.6	8.0	10.6	14.6
Viscosity Index	155	155	154	154	153	152
Zinc Content, mass %	0.042	0.042	0.042	0.042	0.042	0.042

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## 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, HVLP

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

## ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit: [www.chevronlubricants.com](http://www.chevronlubricants.com).

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by:  
**Chevron Lubricants**  
– Asia Pacific