



### SYNTHETIC BASED HYDRAULIC OILS

A range of premium quality **synthetic-based hydraulic** oils using **vorta'S** proven ashless **sulphur-phosphorus** additive technology.

This unique additive system has many benefits over traditional zinc containing products, especially when the oils operate in moist conditions.

These are premium quality antiwear, antileak, and antifoam hydraulic oils formulated for use in modern high and low pressure industrial and mobile hydraulic systems.

They have 100% SYNTHETIC paraffinic high VI base oils with low pour points, for wide temperature usage and additionally are treated with antioxidant stabilizers for long life and antirust protective additive.

A fully synthetic seal swell agent prevents and stops minor leaks and provides longer seal life.

They may also be used as (inhibited) non-detergent motor oils, and for API gear lubricant service's GL-1, where their viscosity is suitable.

**NOTE: HVI-32 and HVI-46 are have a dielectric strength of no less than 28 kV when**

*packaged. Dielectric strength is extremely sensitive to humidity and contamination. Once the containers are opened, the dielectric strength cannot be expected to remain at its original value. Containers should be kept tightly sealed and stored in a dry environment.*

- Highly recommended for:
  - vane, piston, and gear hydraulic pumps
  - bearings and gears which require an R&O or R&O/AW hydraulic oil.
  - hydraulic circuit components (valves, motors, servos, pumps, etc.)
  - applications where general non-detergent type oils are applicable

They have a variety of applications where general purpose non-detergent type oils or rust and oxidation (R&O) inhibited turbine oils are applicable.

The High Viscosity Index (HVI) products are for wide temperature application and have a typical dielectric strength of 35kV which makes them suitable for use as non conductive hydraulic fluids.

HVI-32 and HVI-46 meet FMC Corporation recommendations for a high viscosity index hydraulic fluid

**HYDO SYN HV** range of oils exceed the requirements of the German DIN 51524 part 2, CETOP RP 47H and American Vickers 1.286.S specifications for anti-wear hydraulic oils and are classified as ISO type HV.

The oils have been formulated to minimize oxidation and foaming and to ensure long machinery life by reducing wear to a minimum and preventing corrosion. The oils are compatible with the seal materials used in modern hydraulic systems.

- Unique ashless additive technology for premium performance.
- Very low rates of wear; therefore extended life for hydraulic components; Excellent filterability; no tendency to block fine filters when water contamination is present; therefore trouble free operation of hydraulic systems.
- High chemical stability, excellent corrosion inhibition, low foaming and seal compatibility chemical stability; resists breakdown of the oil, and there by preventing deposition of sludge and lacquers in both the system and the reservoir; so there are fewer shutdowns for maintenance and long life for the hydraulic oil it self

GRADE	Test Method	Units	HYDO SYN HV									
			10	15	22	32	46	68	100	150	220	320
Density @ 15°C	ASTM D1298	kg/l	0.86	0,865	0.87	0.87	0.87	0.88	0.89	0.89	0.89	0.9
Flash Point	ASTM D92	°C	248	249	252	255	258	260	262	267	270	270
Kin Viscosity @ 40°C	ASTM D445	cSt	9.5	15	21	32	46	68	105	160	220	320
Kin Viscosity @ 100°C	ASTM D445	cSt	2.5	3.32	4.19	5.4	6.9	10	13	16	21	28
Viscosity Index	ASTM D2270		126	132	134	134	136	140	140	135	125	127
Pour Point	ASTM D97	°C	-45	34	-33	-30	-30	28	-24	-24	-24	22
4-Ball Welding Load		Kg		180/200					200/220			
Neutralization Value	ASTM D664	mgKOH/g							0.1			
Dielectric Strength, kV								35	35			