

VARIUM ZF-HVI ASHLESS ANTI-WEAR HYDRAULIC OILS

VARIUM ZF-HVI (Zinc-free / High Viscosity Index) Ashless, Anti-Wear Hydraulic and circulating oils are designed to meet the all-season requirements of most major manufacturers and users of hydraulic equipment. These oils are choice in hydraulic and circulating oil applications where ashless (Zinc-Free), anti-wear oils are necessary or preferred. The incorporation of polymer viscosity improvers dramatically enhance thermal and shear stability. These high V.I. oils are characterized by lower pour points that help ensure pump start-up at low temperatures, while maintaining oil viscosity at higher operating temperatures.

VARIUM ZF-HVI oils are effective in reducing vane and gear pump wear in systems operating at high loads, speeds and temperatures. VARIUM ZF-HVI oils are recommended in moderate to severe service hydraulic systems employing axial and radial piston pumps. VARIUM ZF-HVI premium anti-wear oils offer extended oxidation protection.

VARIUM ZF-HVI oils are characterized by outstanding oxidation resistance and corrosion protection; excellent thermal and hydrolytic stability, very low pour points, foam resistance and the demulsibility required of fluids used in modern high-pressure hydraulic and circulating oil systems. Their ashless chemistry is non-corrosive to metal alloys and are compatible with common seal materials.

VARIUM ZF-HVI oils are offered in four ISO viscosity grades.

TYPICAL PROPERTIES

IDENTIFICATION	Varium ZF-HVI 32	Varium ZF-HVI 46	Varium ZF-HVI 68	Varium ZF-HVI 100
Item Number	01160	01162	01164	01166
Viscosity Grade (ISO)	32	46	68	100
Viscosity, cSt @ 40C (D-445)	35.25	47.5	70.0	109.0
CSt @ 100C (D-445)	6.8	8.5	11.5	17.48
Viscosity, SUS @ 100F (ref.D-2161)	165	220	325	505
SUS @ 210F (ref.D-2161)	48.5	54.1	64.5	87.9
Viscosity Index, minimum(ref.ASTM D-2270)	165	165	165	155
Pour Point, deg.F	-45	-45	-40	-40
Flash Point, deg.F minimum	430	430	430	435
Color, ASTM (D1500, max)	1.5	1.5	1.5	1.5
Oxidation(D 943) Hrs to 2.0	4000+	4000+	4000+	---

VARIUM ZF-HVI oils are formulated in suitable viscosity grades to meet or exceed the requirements for industrial and mobile hydraulic systems which call for:

- + Eaton-Vickers I-286-S, M 2950-S
 - + DIN 51524, Part I / II
 - + ISO 11158 Categories HH,HL,HM
 - + Bosch Rexworth
 - + Denison HF-0,1, 2/ T6HC
 - + Cincinnati Milacron P-68,P-69,P-70
 - + U.S. Steel 127,136,
 - + GM LS-2
- + Excellent compatibility with both ashless and zinc-containing hydraulic and circulating oils

PACKAGING: Available in 55 gallon steel drums, 275 gallon totes and bulk quantities.

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