

Document: MSG30-0004

Denison Vane Technology

The Parker Fluid rating list for vane and piston pumps

The HF Hydraulic Fluids Classification

Parker-Denison Vane Technology Classification		Corresponding ISO classification
HF0	Mineral base oils with stabilized anti wear additives. For piston and vane pumps in severe duty applications & presence of water (1%). HF0 includes the HF1 and HF2 cases	
HF1	Mineral base oils. For axial piston pumps in severe duty applications.	HL
HF2	Mineral base oils. For vane pumps in severe duty applications.	HM
HF3	Invert emulsion oils. Not suitable to use in vane pumps.	HFB
HF4	Water glycols.	HFC
HF5	Synthetic base oils. Phosphate esters.	HFD, HFD-R
HF6	Biodegradable fluids	
HF6a	HEES Saturated esters	HEES saturated
HF6b	HEES Partially saturated esters	HEES partially saturated
HF6c	HETG Triglycerides, natural esters based on glycerin	HETG
HF6d	HEPG	HEPG
HF6e	HEPR Polyalphaolefin	HEPR

To each of these HF* classifications, there is a corresponding HF*-Procedure.

The below listed hydraulic fluids have been successfully rated according to the Parker-Denison Vane Technology TP-30532 and TP-30533 procedures. They are listed for a period of 10 years.

Mineral base hydraulic fluids

Manufacturer	Commercial name	ISO VG 32	ISO VG 46	ISO VG 68	Ashless	Zn free	HM	HV	Classification	Validity until
Allube New Material Co., Ltd.	ALLUNE HYDRUN Hydraulic Oil L-HM	X	X	X			X		HFO	2027-10
Amer Technology Co., Ltd	Amer Super Anti-wear Hydraulic Oil S	X	X	X			X		HFO ¹	2026-08
Anhui Zhongtian Petrochemical Co., Ltd.	Hydraulic Fluids of L-HM	X	X	X			X		HFO	2026-05
Aramco Lubricants and Retail Company	OrizonPro L** Hydraulic	X	X	X			X		HFO ¹	2028-10
ARGEMA ENDUSTRIYEL KIMYA A.S.	GEMA OIL HYDRO HLP	X	X	X			X		HFO ¹	2028-10
Bahrain Petroleum Company	Canela AW	X	X	X			X		HFO ¹	2030-03
Bardahl de Mexico, S.A. de C.V.	Bardahl Hydraulic Oil	X	X	X			X		HFO	2028-03
BayWa AG	TECTROL TERRA HYD SYNTH		X		X			X	HFO	2028-01
Bharat Petroleum Corporation Ltd.	Mak Hydrovis Power	X	X					X	HFO ¹	2028-12
Belgin Madeni Yaglar	HIDROTEX BS	X	X	X			X		HFO ¹	2032-03
Belgin Madeni Yaglar	HIDROTEX BSX	X	X	X			X		HFO ¹	2027-10
Belgin Madeni Yaglar	HIDROTEX BSX HVI	X	X	X				X	HFO ¹	2029-12
Castrol	Hyspin AWS	X	X	X			X		HFO	2027-10
Castrol	Hyspin AWS [ISO VG] HX	X	X	X			X		HFO	2027-10
Castrol	Hyspin ZZ	X	X	X		X	X		HFO ¹	2030-07
Castrol	Hyspin ZZ [ISO VG] HX	X	X	X		X	X		HFO ¹	2030-07
Castrol	Dual Range HV	X	X	X				X	HFO ¹	2034-08
Castrol	Paradene AW	X	X	X			X		HFO ¹	2028-10
Castrol	Energol HLP-HM	X	X	X			X		HFO ¹	2027-10
Castrol	Hyspin AWH-M	X	X	X				X	HFO ¹	2034-08
Castrol	Hyspin HVI	X	X	X				X	HFO ¹	2029-10
Cepsa Comercial Petróleo S.A.U.	Cepsa Mistral	X	X	X			X		HFO	2028-10
Changzhou Changrun Petro Co. Ltd.	Hydraulic Fluids-Changrun L-HM	X	X	X			X		HFO	2030-09
Chevron (Caltex, Chevron, Texaco)	Clarity EliteSyn AW	X	X	X			X		HFO	2034-02
Chevron (Caltex, Chevron, Texaco)	Clarity AW	X	X	X			X		HFO	2033-03
Chevron (Caltex, Chevron, Texaco)	Rando DX		X					X	HFO	2028-01
Chevron (Caltex, Chevron, Texaco)	Rando HDZ	X	X	X				X	HFO	2026-09
Chevron (Caltex, Chevron, Texaco)	Rando HD	X	X	X			X		HFO	2032-03
Citgo Petroleum Corporation	Citgo AW Hydraulic Oil	X	X	X			X		HFO ¹	2027-10
CNOOC Oil & GAS (Taizhou) Petrochemical	Hai Jiang Hydraulic Oil L-HV	X	X	X				X	HFO	2030-06
CNOOC Oil and Petrochemical CO., LTD	HAIJIANG L-HM Hydraulic Oil	X	X	X			X		HFO ¹	2028-10
CPC Corporation, Taiwan	CPC Hydraulic Oil AWS	X	X	X			X		HFO ¹	2028-10
D-A Lubricant Company, Inc.	PresurFlo HIVI	X	X	X				X	HFO ¹	2026-09
Distribuidora de Aceites Mexicanos ACEIMEX S.A.	HYDROLUB	X	X	X			X		HFO ¹	2027-02
Distribuidora JP,S.A. de C.V.	HHV		X					X	HFO	2028-11
Dongguan Pacoil Lubricant Co., Ltd,	PACOIL AWH Hydraulic Oil	X	X	X			X		HFO ¹	2028-10
ELDON'S S.A.	TELMO	X	X	X			X		HFO	2027-02
ENI S.p.A.	ENI Arnica	X	X	X				X	HFO ¹	2029-02
ExxonMobil	Mobil DTE 10 Excel series	X	X	X		X		X	HFO	2031-01

¹ This hydraulic fluid has been positively rated by comparison with two similar favorably rated fluids according to the Parker-Denison Vane Technology TP-30532 procedure.

Manufacturer	Commercial name	ISO VG 32	ISO VG 46	ISO VG 68	Ashless	Zn free	HM	HV	Classification	Validity until
ExxonMobil	Mobil DTE 24, 25, 26	X	X	X			X		HFO	2028-09
ExxonMobil	Mobil DTE 20 Ultra series	X	X	X			X		HFO	2028-07
ExxonMobil	Mobil DTE 24 / 25 & 26 ZF	X	X	X		X	X		HFO	2029-10
ExxonMobil	Mobil DTE Hydraulic Zinc Free 32,46,68	X	X	X		X	X		HFO ¹	2030-07
ExxonMobil	Mobil SHC 500 series	X	X	X				X	HFO	2028-01
ExxonMobil	NUTO H	X	X	X			X		HFO ¹	2033-04
ExxonMobil	NUTO H 46,68		X	X			X		HFO ¹	2033-07
ExxonMobil	UNIVIS N	X	X	X				X	HFO	2029-12
ExxonMobil	UNIVIS NC	X	X	X				X	HFO ¹	2027-02
Flysak Lubrication Technology CO. Ltd	Nishimoto Hydraulic Oil	X	X	X			X		HFO	2033-04
Fuchs Petrolub	RENOFLUID TF1500	X	X	X			X		HFO	2027-10
Fuchs Petrolub	RENOLIN B	X	X	X			X		HFO	2027-10
Fuchs Petrolub	RENOLIN D	X	X	X			X		HFO	2027-10
Fuchs Petrolub	RENOLIN LIFT	X	X	X			X		HFO	2027-10
FUCHS	RENOLIN ZAF (grade) MC	X	X	X	X			X	HFO	2027-01
FUCHS Schmierstoffe GmbH	RENOLIN B Plus	X	X	X			X		HFO ¹	2030-03
FUCHS Schmierstoffe GmbH	RENOLIN B (grade) HVI	X	X	X				X	HFO	2028-10
FUCHS Schmierstoffe GmbH	RENOLIN B (grade) HVI Plus	X	X	X				X	HFO ¹	2028-10
FUCHS Schmierstoffe GmbH	RENOLIN Xtreme Temp	X	X	X				X	HFO	2027-02
GAND OIL Lubricants LTD	PENIO	X	X	X			X		HFO	2027-02
GAZPROMNEFT-Lubricants Ltd.	G-SPECIAL POWER HVLP	X	X	X				X	HFO ¹	2028-31
GAZPROMNEFT-Lubricants Ltd.	Gazpromneft Hydraulic HZF	X	X	X		X	X		HFO	2029-06
GAZPROMNEFT-Lubricants Ltd.	Gazpromneft Hydraulic HVZF	X	X	X		X		X	HFO	2029-09
GLOBAL LUBRICANT INDUSTRY L.L.C	BENZOL HYDRO FORCE ISO		X					X	HFO	2028-11
GonherMex	Lubral Hidraulico Alto Desempeño	X	X	X			X		HFO	2027-10
Grupa LOTOS S.A.	Hydromil L-HM BR	X	X	X			X		HFO ¹	2028-03
Guangxi Liugong Premium-Grade Lubricating Oil Ltd.	SEANON Lubricant Anti-wear Hydraulic Oil L-HM	X	X	X			X		HFO ¹	2028-10
Gulf Oil International	Gulf Harmony AW	X	X	X			X		HFO	2030-03
Gulf Oil International	Gulf Harmony AW Plus	X	X	X			X		HFO ¹	2027-02
Gulf Oil International	Gulf Harmony HVI Plus	X	X	X				X	HFO ¹	2027-02
Gulf Oil International	Gulf Harmony ZF Plus	X	X	X		X			HFO	2030-09
Gulf Oil International	Gulf Harmony ZF HVI Plus	X	X	X		X		X	HFO	2026-06
GÜZEL ENERJİ AKARYAKIT A.Ş	MOIL HIDROMOL M	X	X	X			X		HFO ¹	2028-10
GÜZEL ENERJİ AKARYAKIT A.Ş	MOIL HIDROMOL HVI	X	X	X				X	HFO	2034-04
Haferd Petroleum Energy Co. Ltd	Haferd HM Anti-Wear Hydraulic Oil	X	X	X			X		HFO	2032-03
Hermann Bantleon GmbH	AVILUB FLUID DYNA	X	X					X	HFO ¹	2026-02
INGENIERA BELHERR, S.A. de Mexico	BELHERR H-150, H-220, H-300	X	X	X			X		HFO	2035-12
Indian Oil Corporation Ltd,	Indian Oil Servo System XLP Gold	X	X	X			X		HFO ¹	2026-05
Indian Oil Corporation Ltd,	Servo Hyvis EE 46		X					X	HFO ¹	2028-12
J&J Lubricantes, S.A. de C.V.	Aceite Hidráulico AW	X	X	X			X		HFO	2028-12
Jiangsu Gaoke Petrochemical Company Limited	L-HM antiwear hydraulic oil	X	X	X			X		HFO	2026-05
JIANGSU LOPAL Tech Co., Ltd	Lopal HySmooth M1	X	X	X			X		HFO ¹	2029-01
Koçak Petrol Ürünleri San. ve Tic. Ltd. Şti.	SPEEDOL HYDRAULIC SYSTEM OIL HLP	X	X	X			X		HFO	2027-10
Koçak Petrol Ürünleri San. ve Tic. Ltd. Şti.	RAFINOL HYDRAULIC SYSTEM OIL HLP	X	X	X			X		HFO	2027-10

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Manufacturer	Commercial name	ISO VG 32	ISO VG 46	ISO VG 68	Ashless	Zn free	HM	HV	Classification	Validity until
Kuwait Petroleum Research and Technology BV	Q8 Haydn	X	X	X			X		HFO ¹	2028-10
Kuwait Petroleum B.V.	Q8 Hogarth Xtreme	X	X	X				X	HFO	2035-03
Lanzhou Broil Petroleum Additive Co., Ltd.	L-HV Hydraulic Oil	X	X	X				X	HFO	2028-11
LAUGFS Lubricants Limited	HYDREX HD	X	X	X			X		HFO ¹	2029-01
Libya Oil Tunisia	Oilibya Hydrol HTE	X	X	X			X		HFO	2027-10
LPC S.A.	CYCLON HYDRAULIC OIL	X	X	X			X		HFO ¹	2028-10
Lubricantes de America S.A. de C.V.	Lubral Hidraulico AW	X	X	X			X		HFO ¹	2028-12
Lubricantes de America S.A. de C.V.	Lubral Hidraulico Alto Desempeño	X	X	X			X		HFO ¹	2028-12
Lubricantes de America S.A. de C.V.	Lubral Hidraulico Ultra HVI	X	X	X			X		HFO ¹	2027-10
Lubricash De Mexico S.A.	UNHESO HP AW	X	X	X			X		HFO ¹	2026-05
LUBRITECH Limited	Anti-wear Hydraulic Oil GEP Hydrolube Super Clean	X	X	X			X		HFO ¹	2029-01
Lukoil Lubricants Company	Lukoil GEYSER ST	X	X	X			X		HFO ¹	2029-05
MAG Lube LLC	MAG Hyden AW (grade) (HM,HLP)	X	X	X			X		HFO ¹	2030-03
Mexicana de Lubricantes S.A. de C.V.	Akron Hidraulic	X	X	X			X		HFO	2027-10
Mexicana de Lubricantes S.A. de C.V.	Akron Hydraulic L	X	X	X			X		HFO	2028-12
Mexicana de Lubricantes S.A. de C.V.	Akron Hydraulic XLF	X	X	X			X		HFO ¹	2027-10
Mexicana de Lubricantes S.A. de C.V.	Akron Hydraulic HVI	X	X	X			X		HFO	2027-02
Mexicana de Lubricantes S.A. de C.V.	Hidraulico MH 150, 220, 300	X	X	X			X		HFO	2027-10
Mexicana de Lubricantes S.A. de C.V.	Mexicana de Lubricantes Hidráulico MH150, MH220 & MH300	X	X	X			X		HFO	2028-12
Mexicana de Lubricantes S.A. de C.V.	Mexicana de Lubricantes Hidráulico HVI	X	X	X				X	HFO	2027-02
Modrica Oil Refinery	Hidraulično ulje HD	X	X	X			X		HFO	2028-10
MOEVE COMMERCIAL S.A.U.	MOEVE HYDROSTAR HLP	X	X	X			X		HFO	2028-10
MOEVE COMMERCIAL S.A.U.	Hidrostar HVLP	X	X	X			X		HFO	2034-04
MOEVE COMMERCIAL S.A.U.	Mistral HX	X	X	X			X		HFO	2034-04
MOL-LUB Ltd.	MOL Hydro HM** AL ashless hydraulic oil	X	X	X	X		X		HFO	2031-07
MOL-LUB Ltd.	MOL Hydro Prime HV ZF	X	X	X		X		X	HFO	2029-11
MORRIS Lubricants	Liquimatic HV46		X					X	HFO	2028-12
MORRIS Lubricants	HVI 46 Hydraulic oil		X					X	HFO	2028-12
OPET Fuchs Madeni Yağ Sanayi ve Ticaret, A.S.	Opet Dura	X	X	X			X		HFO	2027-11
OLA Energy	Hydrol HTE	X	X	X			X		HFO	2027-11
OLA Energy	Hydrol M		X					X	HFO	2027-11
Orlen Oil sp. z o.o.	Hydrol Heavy L-HM/HLP	X	X	X			X		HFO ¹	2029-05
Orlen Oil sp. z o.o.	Hydrol L-HM/HLP	X	X	X				X	HFO ¹	2026-08
Peak Automotriz S. De R.L. De C.V.	Energy One Hydro Fluid AW	X	X	X			X		HFO	2028-12
Peak Automotriz S. De R.L. De C.V.	Peak Hidráulico AW	X	X	X			X		HFO	2028-12
Petro-Canada Lubricants Inc,	Hydrex AW	X	X	X			X		HFO ¹	2030-03
Petro-Canada Lubricants Inc,	Hydrex MV	X	X	X				X	HFO	2028-12
Petro-Canada Lubricants Inc,	Hydrex XV		X					X	HFO	2035-03
Petro-Canada Lubricants Inc,	Environ AW	X	X	X	X		X		HFO	2033-11
Petro-Canada Lubricants Inc,	Environ MV	X	X		X			X	HFO	2034-02
Petro-Canada Lubricants Inc,	Environ MV R	X	X		X			X	HFO ¹	2027-09
Petro-Canada Lubricants Inc,	Sinclair Dinolene AW	X	X	X			X		HFO ¹	2026-05
PetroChina Lubricant Company	KUNLUN HM	X	X	X			X		HFO ¹	2029-02
PetroChina Lubricant Company	KUNLUN HY OIL for construction Machinery	X	X	X			X		HFO	2029-02

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Manufacturer	Commercial name	ISO VG 32	ISO VG 46	ISO VG 68	Ashless	Zn free	HM	HV	Classification	Validity until
PetroChina Lubricant Company	KUNLUN SHF Top Full Synthetis Hydraulic Oil		X		X		X		HFO	2027-05
Petrogal S.A.	Hidrolep Plus	X	X	X			X		HFO ¹	2030-03
Petrol Ofisi A.S.	Hydro OIL TX	X	X	X		X	X		HFO	2030-07
Petrol Ofisi A.S.	Petrol Ofisi Hydro Oil HD	X	X	X			X		HFO ¹	2030-03
Petrol Ofisi A.S.	PO HYDRO TECH HVI	X	X	X				X	HFO	2027-02
Petrol Ofisi A.S.	PO HYDRO TECH HVI TX	X	X	X		X		X	HFO	2031-03
Petronas Lubricants International	ENGEN TQH 10/**	X	X	X				X	HFO	2026-12
Petronas Lubricants International	PETRONAS PROHYD	X	X	X			X		HFO	2032-03
Petronas Lubricants International	PETRONAS PROHYD PLUS	X	X	X			X		HFO	2032-03
Petronas Lubricants International	PETRONAS PROHYD HV	X	X	X				X	HFO	2026-12
Petronas Lubricants International	PETRONAS PROHYD HV PLUS	X	X	X				X	HFO	2026-12
Phillips 66	Kendall Four Seasons Hydraulic Fluid AW	X	X	X			X		HFO ¹	2030-03
Phillips 66	Megaflow AW	X	X	X			X		HFO	2030-03
Phillips 66	Powerflow AW	X	X	X			X		HFO ¹	2029-01
Prista Oil Holding EAD	Prista MH-M	X	X	X			X		HFO	2027-10
PT Pertamina Lubricants	TURALIK 43,48,52	X	X	X			X		HFO	2030-07
PT Pertamina Lubricants	TURALIK HE	X	X	X				X	HFO	2031-02
Puma Energy Singapore PTE, LTD.	Puma Hydraulic AW46,55AGT/208 Pieza EPTG410		X				X		HFO ¹	2030-03
Puma Energy Singapore PTE, LTD.	Puma Hydraulic AW68,55AGT/208 Pieza EPTG420			X			X		HFO ¹	2030-03
Qingdao Copton Lubrication Technology Co. Ltd.	Copton Wei Li Da L-HM antiwear hydraulic oil	X	X	X			X		HFO ¹	2026-05
Raloy Lubricantes, S.A. de C.V.	HIDRAFLUID (oil codes EPT-7001,7011, 7021)	X	X	X			X		HFO	2030-03
Repsol YPF Lubricantes e Especialidades Brasil Ltda	Petrobras Lubrax XP	X	X	X			X		HFO ¹	2029-03
Repsol YPF Lubricantes e Especialidades Brasil Ltda	TELEX E	X	X	X			X		HFO ¹	2029-03
Repsol Lubricantes y Especialidades S.A.	TELEX E	X	X	X			X		HFO ¹	2028-12
Repsol Lubricantes y Especialidades S.A.	MAKER TELEX E	X	X	X			X		HFO	2028-12
Repsol Lubricantes y Especialidades S.A.	MAKER TELEX HVLP	X	X	X				X	HFO	2027-02
Safety Kleen Systems Inc.	ProProtect	X	X	X			X		HFO ¹	2029-01
Safety Kleen Systems Inc.	EcoPower	X	X	X			X		HFO ¹	2029-01
Safety Kleen Systems Inc.	EcoPower Zinc-Free AW** Hydraulic Oils	X	X	X		X	X		HFO	2031-07
Safety Kleen Systems Inc.	Performance Plus	X	X	X			X		HFO ¹	2029-01
Safety Kleen Systems Inc.	Performance Plus Zinc-Free AW** Hydraulic Oils	X	X	X		X	X		HFO	2031-07
Safety Kleen Systems Inc.	ProProtect Zinc-Free AW** Hydraulic Oils	X	X	X		X	X		HFO	2031-07
Shandong Jinkairun Petroleum Co., Ltd	Fomsen Antiwear Hydraulic L-HM	X	X	X			X		HFO ¹	2028-10
Shandong Zero Mileage Lub Tech Co., Ltd	Zero Mileage HV	X	X	X				X	HFO ¹	2028-12
Shanxi Lu'an Taihang Lubricant Co., Ltd.	Taihang Anti-wear hydraulic oil L-HM	X	X	X			X		HFO ¹	2029-01
SHELL International Petroleum Company	Shell Tellus S4 VE	X	X	X				X	HFO	2029-06
SHELL International Petroleum Company	Shell Tellus S2 MX	X	X	X			X		HFO	2030-03
SHELL International Petroleum Company	Shell Tellus S2 VX	X	X	X				X	HFO	2030-03
SHELL International Petroleum Company	Shell Tellus S3 M	X	X	X		X	X		HFO	2029-03
SHELL International Petroleum Company	Shell Tellus Zinc Free S3 MX	X	X	X		X	X		HFO	2033-02
SHELL International Petroleum Company	Shell Tellus S3 Z	X	X	X			X		HFO ¹	2030-03
SHELL International Petroleum Company	Shell Tellus S4 VK	X	X					X	HFO	2031-02
Sinopec Lubricant Company	Great Wall	X	X	X			X		HFO ¹	2032-03

Manufacturer	Commercial name	ISO VG 32	ISO VG 46	ISO VG 68	Ashless	Zn free	HM	HV	Classification	Validity until
Sinopec Lubricant Company	Great Wall AE Hydraulic Oil	X	X	X			X		HFO	2031-04
Sinopec Lubricant Company	Great Wall AE-U 32/46/68 Hydraulic Oil	X	X	X	X	X	X		HFO ¹	2029-06
Sinopec Lubricant Company	Great Wall L-HM 32/46/68 Ashless	X	X	X	X	X	X		HFO ¹	2029-06
Sinopec Lubricant Company	Great Wall L-HV		X					X	HFO	2027-11
Sinopec Lubricant Company	Great Wall L-HV Low temperature Hydraulic Oil	X	X	X				X	HFO	2027-03
Sinopec Lubricant Company	Sinopec	X	X	X			X		HFO ¹	2032-03
Sinopec Lubricant Company	Sinopec AE Hydraulic Oil	X	X	X			X		HFO	2031-04
Sinopec Lubricant Company	Sinopec AE Long Life Hydraulic Oil	X	X	X			X		HFO	2026-06
Sinopec Lubricant Company	Sinopec AE-U 32/46/68 Hydraulic Oil	X	X	X	X	X	X		HFO ¹	2029-06
Sinopec Lubricant Company	Sinopec L-HM 32/46/68 Ashless	X	X	X	X	X	X		HFO ¹	2029-06
Sinopec Lubricant Company	Sinopec L-HV		X					X	HFO	2027-11
Sinopec Lubricant Company	Sinopec L-HV Low temperature Hydraulic Oil	X	X	X				X	HFO	2027-03
SUN SIAM Co. Ltd.	SUN'SOIL HYDRAULIC (AW)	X	X	X			X		HFO ¹	2031-06
TJNISSEKI NISSEKI LUBRICANTS & GREASE CO.,LTD.	TJNISSEKI Anti-wear Hydraulic Oil L-HM	X	X	X			X		HFO ¹	2028-10
Tianjin special lubricating grease Co., Ltd.	KunLian L-HM	X	X	X			X		HFO	2026-05
TIGER PETROLEUM (CHINA) CO. LTD	TIGER WEINENG® hydraulic oil HDM	X	X	X			X		HFO	2033-04
Tongyi Petroleum Chemical Co, Ltd.	Tongyi Cave HM-L	X	X	X			X		HFO	2029-06
Tongyi Petroleum Chemical Co, Ltd.	Tongyi Cave L-HV	X	X	X				X	HFO	2028-11
Tongyi Petroleum Chemical Co, Ltd.	Tongyi Tongli HM-L	X	X	X			X		HFO	2029-06
Tongyi Petroleum Chemical Co, Ltd.	Chuncui Anti-wear Hydraulic oil L-HM	X	X	X			X		HFO ¹	2028-10
Total Energies	AZOLLA ZS	X	X	X			X		HFO ¹	2032-03
Total Energies	Equivis ZXL	X	X	X				X	HFO	2028-12
TotalEnergies Lubrifiants	Equivis AFX	X	X	X				X	HFO	2029-10
Total Lubricants	AZOLLA AF	X	X	X		X	X		HFO ¹	2030-07
Total Lubrifiants S.A.	AZOLLA ZXL	X	X	X			X		HFO ¹	2030-03
TUPO LUBRICANT CO., LTD	Premium Enhanced Anti-wear Hydraulic Oil L-HM	X	X	X			X		HFO ¹	2028-10
Unil Opal	HFM	X	X	X			X		HF1-HF2	2026-08
Unil Opal	HFO	X	X	X			X		HFO ¹	2026-08
Valvoline	Ultramax Pro	X	X	X				X	HFO	2028-12
Valvoline AMERICA	Valvoline AW HVI	X	X	X				X	HFO ²	2030-02
Valvoline Inc.	Valvoline AW HVI	X	X	X				X	HFO	2030-02
Wuxi Qibite Lubricants Co.,Ltd	QIBITE L-HM	X	X	X			X		HFO	2026-05
Wuxi Runer Petrochemical Co.,Ltd.	Hydraulic Fluids Runer L-HM	X	X	X			X		HFO	2030-09

¹ This hydraulic fluid has been positively rated by comparison with two similar favorably rated fluids according to the Parker-Denison Vane Technology TP-30532 procedure.

² This hydraulic fluid has been positively rated by comparison with two similar favorably rated fluids according to the Parker-Denison Vane Technology TP-30532 procedure.

Bio-degradable environment friendly hydraulic fluids

Manufacturer	Commercial Name	ISO VG 32	ISO VG 46	ISO VG 68	Ashless	Zn free	HM	HV	Classification	Validity until
Chevron (Caltex, Chevron, Texaco)	Clarity Bio EliteSyn AW46		X					X	HF1-HF6	2033-06
ExxonMobil	Mobil SHC Aware H	X ²	X ³	X ³	X			X	HF1-HF2 HF6	2029-03
ExxonMobil	Mobil SHC Aware HS	X	X	X					HF1-HF2 HF6	2031-03
ExxonMobil	Mobil SHC Aware Hydraulic	X	X	X				X	HF1-HF2 HF6	2026-09
ExxonMobil	Mobil SHC Hydraulic EAL	X	X	X				X	HF1-HF2 HF6	2026-09
Petronas Lubricants International	Petronas Hydraulic Syn Bio	X	X	X				X	HF1-HF2 HF6	2026-09
ROWE MINERALÖLWERK GmbH	HIGHTEC SUNLUB® E46		X		X			X	HF0-HF6e	2028-01
ROWE MINERALÖLWERK GmbH	HIGHTEC SUNLUB® Longlife		X		X			X	HF0-HF6e	2028-01
RSC Bio Solutions	RSC Futerra HF		X						HF1-HF2 HF6	2026-09
Sinopec Lubricant Company	Great Wall EAL HF-E	X ²	X ³	X ³				X	HF1-HF2 HF6	2026-09
Sinopec Lubricant Company	Sinopec EAL HF-E	X ²	X ³	X ³				X	HF1-HF2 HF6	2026-09
SYNTECH SOLUTIONS S.A.C.	SYNBIO HYDRAULIC FLUID 46		X		X			X	HF0-HF6e	2028-01
Vickers Oils	ECOSURE EAF	X ²	X ³	X ³	X			X	HF1-HF2 HF6	2031-03
Vickers Oils	ECOSURE HSE	X ²	X ³	X ³	X			X	HF1-HF2 HF6	2029-03

¹ This hydraulic fluid has been positively rated by comparison with two similar favorably rated fluids according to the Parker-Denison Vane Technology TP-30532 procedure.

² Up to 120°C only.

³ Up to 70°C only.

Hydraulic fluid manufacturers may reference this positive rating by Parker in their documentation associated with any of the above listed fluids while noting that the testing was pursuant to the Parker-Denison Vane Technology TP-30532 and TP-30533 procedures and listing any other relevant qualifications, such as validity date and temperature limitations.

- The specific characteristics of the fluid and the hydraulic system must always be taken into account when planning a project.
- For all the rated fluids, Parker guarantees the compatibility between its products and the fluid, providing the respect of the working limits described in our Parker catalogs. The design of the equipment must comply with the state of the art of fluid power engineering.
- For all the unrated fluids, Parker makes no guarantees as to their compatibility with its products or their ability to withstand the environment and working parameters of the applications one would wish to use them for.
- Beware that this ratings list is regularly updated. The latest version is available at [Parker PMDE Webpage](#) .