



Gulf Way

Superior quality machine tool slideway lubricants

Product Description

Gulf Way series are superior quality lubricants specially developed to meet the requirements of modern high production machine tool slideways. These oils are formulated from high quality base stocks and select additives to provide excellent anti-wear and EP characteristics, low frictional properties, adhesiveness filterability and water separating capabilities. These oils offer superior protection against oil degradation and corrosion of machine tool surfaces even in presence of aqueous cutting fluids. They are specially developed to reduce the “stick-slip” problems with slow moving and heavily loaded machine tool slides and lead to improved surface finish and dimensional accuracy of workpieces. These oils exceed the performance requirements of the FIVES CINCINNATI (Former MAG IAS, LLC) specifications P-47 (ISO VG 68), P-50 (ISO VG 220), and P-53 (ISO VG 32).

Features & Benefits

- Low frictional properties reduce chatter and stick-slip of slides and ways and lead to improved surface finish and dimensional accuracy of workpieces
- Excellent demulsibility provides ready separation from soluble cutting fluids and leads to prolonged coolant life and reduced cost of replacement and disposal
- Superior metal wetting properties and adhesiveness resist wash-off from critical surfaces and protect from attack of high pH coolants
- Good filterability provides easy circulation through filters and reduces stick-slip, chatter and wear
- Excellent anti-wear performance provides high levels of protection for gears, bearings and slides
- Effective rust and corrosion inhibitors provide enhanced protection of machine tool slides even in presence of aqueous cutting fluids
- Good thermal and oxidative stability keeps sliding surfaces clean and resists oil degradation thereby increasing its service life

Applications

- Slides and ways of lathes, shapers, grinders and milling machines
- Gulf Way 32 and 68 are suitable for horizontal slides and ways on small to medium size machine tools
- Gulf Way 220 is recommended for large machines where way pressures are high and also for vertical and inclined slides and ways.

Properties mentioned above are typical only and minor variations, which do not affect the product performances, are to be expected in normal manufacturing. The above information is based on past history of the grade only and must not be construed as a guarantee of performance. Follow equipment manufacturer's recommendations for performance level and viscosity grade. The Material Safety Data Sheet for this product is available from your nearest Gulf Distributor.

Gulf Oil International

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Specifications, Approvals & Typical Properties

ISO Viscosity grades		32	68	220
Meets the following Specifications				
GM LS-2		X	X	X
FIVES CINCINNATI (Former MAG IAS, LLC)		P-53	P-47	P-50
Typical Properties				
Test Parameters	ASTM Method	Test Values		
Viscosity @ 40 °C, cSt	D 445	31.5	68.4	225.4
Viscosity Index	D 2270	100	99	96
Flash Point, °C	D 92	220	234	258
Pour Point, °C	D 97	-21	-15	-9
Density @ 15°C, Kg/l	D 1298	0.87	0.881	0.894
Rust Test	D 665A/B	Pass	Pass	Pass
Copper Corrosion	D 130	1b	1b	1b
Stick-Slip, Ratio	CM	0.79	0.75	0.72
Thermal Stability	CM – Procedure B	Pass	Pass	Pass
Acid Number, mg KOH/g	D 974	0.06	0.06	0.08
Emulsion Test 30 minutes max	@ 54 °C	D 1401	Pass	-
	@ 82 °C		-	Pass
Four Ball Wear, Scar 20 kg, 1800 rpm, 1 hr, 54°C, mm	D 4172	0.37	0.29	0.26
Timken EP OK load, lb	D 2782	40	45	60

June 2021

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