

Magna™ SW D Range

Slideway Oils

Description

Castrol Magna™ SW D (previously called Magnaglide D Range) is specially formulated for the lubrication of slideways on machine tools. These oils are fortified with selected oiliness, extreme pressure additives and a special material to impart tackiness and adhesiveness.

Magna SW D lubricants are noted for their usual ability to overcome the stick-slip motion ordinarily associated with slow moving tool parts. They reduce machine tool carriage chatter and possess the necessary adhesive characteristics to prevent squeezing out of the lubricant.

Application

- Magna SW D can be used on all horizontal and vertical slideways where a high quality demulsifying lubricant is required for slideway protection and to maximize coolant life; the outstanding frictional characteristics of the products prevents stick-slip, improving surface finish and tolerances of machined components and reducing rejection rates.
- Magna SW D meets the exacting demands in the following applications; planers, grinders, horizontal boring machines, shapers, jig borers, and milling machines.
- Magna SW D 32 can be used as a combined hydraulic and slideway oil.
- The Magna SW D range meets the requirements of:
 - Cincinnati Lamb (Milacron) P-47, P-50 and P-53 (depending on viscosity grade)
 - DIN 51502 – CGLP
 - DIN 51524 Part II (July 2004) – including ISO 13357-1/-2 filtration test
 - Suitable for Müller Weingarten equipment as hydraulic oil

Advantages

- Outstanding demulsifying properties
- Prevents soluble oil emulsions on plastic slideway surfaces.
- Avoids downtime and expensive slideway repair or replacement.
- Exceptional resistance to stick slip
- Ensures highly accurate and repeatable machining.
- High quality output is maintained.
- Protects metals against staining and corrosion.
- Oil-wetted surfaces remain in good condition.
- Highly filterable – filters in oil supply remain unblocked

Typical Characteristics

Name	Method	Units	SW D 32	SW D 68	SW D 100	SW D 150	SW D 220
ISO Viscosity Grade	-	-	32	68	100	150	220
Density @ 15°C / 59°F	ASTM D4052 / ISO 12185	kg/m ³	870	880	890	890	890
Kinematic Viscosity @ 40°C / 104°F	ASTM D445 / ISO 3104	mm ² /s	32	68	100	150	220
Kinematic Viscosity @ 100°C / 212°F	ASTM D445 / ISO 3104	mm ² /s	5.4	8.7	11.1	14.5	19.2
Viscosity Index	ASTM D2270 / ISO 2909	-	102	99	98	98	98
Pour Point	ASTM D97 / ISO 3016	°C/°F	-15/5	-12/10	-12/10	-12/10	-9/15
Flash Point - open cup method	ASTM D92 / ISO 2592	°C/°F	206 / 403	232 / 450	232 / 450	232 / 450	249 / 480
Rust test - distilled water (24 hrs)	ASTM D665A / ISO 7120	-	Pass				
Rust test - synthetic seawater (24 hrs)	ASTM D665B / ISO 7120	-	Pass				
Copper corrosion (3 hrs@100°C/ 212°F)	ASTM D130 / ISO 2160	Rating	1b				
Brugger test	DIN 51347	N/mm ²	-	44	-	-	-
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1200 rpm / 1 hr)	ASTM D2266	mm	0.3	0.3	0.3	0.3	0.32
Four Ball Weld Load test - Weld Point	ASTM D2783	kgf	170	180	180	190	200
Stick-slip ratio - Cincinatti Lamb test	Cincinatti Lamb test	Ratio	0.74				
Cincinatti Lamb Specification	-	-	P-53	P-47	-	-	P-50

Subject to usual manufacturing tolerances.

This product was previously called Magnaglide D Range. The name was changed in 2015.

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