



# Magnum

Chemical and Lubrication Solutions



**Perfection -**  
**It's our Lowest Standard**

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# Reliability Engineered Globally Trusted



## Company Introduction

At Magnum Chemical and Lubrication Solutions, we don't just manufacture lubricants—we engineer performance. Headquartered in Pune, India, with strategic hubs in Houston-USA, Aberdeen-Scotland, Dammam-Saudi Arabia, Dubai-UAE, and Jakarta-Indonesia, MCLS is a global provider of high-performance lubricants, valve sealants, and specialty greases, purpose-built for the world's most demanding industries.

Born from a team of global lubricant industry experts, MCLS leverages decades of engineering excellence, OEM expertise, and a relentless pursuit of innovation to deliver next-generation lubrication solutions.

Our products are trusted by leading oil & gas operators, geothermal energy producers, and industrial giants for their extreme durability, chemical resistance, and unmatched sealing capabilities.

With a state-of-the-art facility in Pune, India and a robust global network across key energy markets, we deliver cutting-edge lubrication solutions that extend equipment life, reduce downtime, and optimize operations in extreme environments.

At MCLS, we are committed to engineering precision, sustainability, and performance into every product we deliver.



# Redefining Lubrication in Extreme Environments

## Core Beliefs

### Innovation First

Our R&D-driven approach creates solutions that exceed industry standards for durability, temperature resistance, and chemical stability.

### Sustainability by Design

We craft lubricants and sealants that are inherently biodegradable, heavy-metal free, and environmentally responsible.

### Precision Engineering

Every formulation undergoes rigorous testing to ensure superior performance, safety, and reliability.

### Customer Focus

We partner with clients to deliver customized solutions for specialized needs, backed by technical expertise and responsive support.



# Global Presence





# Engineered at the Source Delivered Worldwide

## Facility Capabilities

### Our manufacturing and testing facility in Pune, India features

- Automated Blending Lines ensuring consistent, precision formulations.
- Advanced Research & Development Lab simulating high-temp, high-pressure, corrosive conditions for real-world testing.
- Comprehensive Quality Control with real-time monitoring systems.
- Global logistics support for just-in-time delivery anywhere in the world.
- Valve testing chamber for PR2-F testing -  
Pressure range up to 35,000 psi; Temperature range: -100°F to 600°F
- Facility available for custom toll blending

**Annual Capacity :** 2,500 MT (expandable)

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**Capabilities :** Valve Sealants, EP Greases, Anti-Seize Compounds, Flushes & Cleaners

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**Target Industries :** Oil & Gas, Marine, Mining, Steel, Energy, Pulp & Paper

# High-Performance Lubricants for Extreme Applications



## Premium Valve Lubricants / Grease

### ML-601

ML-601 is a dual-purpose valve lubricant/sealant that meets SAE AMSG6032 "Valve Grease, Gasoline & Oil Resistant". ML-601 has excellent dual resistance to water and petroleum products such as gasoline, jet fuel, lubricating oils, aliphatic hydrocarbons, LPG, natural gas and mixtures of these products. ML-601 can be used in a wide variety of applications from the wellhead to product pipelines.

#### Features

Meets SAE AMSG6032 "Valve Grease, Gasoline and Oil Resistant"

Water Insoluble and Washout Resistant

Fully Additive Treated

100 % Synthetic

High Metal Adhesion

Excellent Corrosion Resistance

Inhibited for H<sub>2</sub>S and CO<sub>2</sub>

Gate Valve Tested to 25,000 PSI

Less Solids Provides Excellent Low-Pressure Sealing

#### Physical Properties

Consistency, Cone Penetration (D-217) : 2

Dropping Point, °F (D-566) : None

Oil Separation, % wt. loss (D-1742) : 5 Max

Oxidation Stability, PSI Drop @ 100 our, (D-942) : 2 @ 100 hrs

Rust Preventive Test (D-1743) : Pass

Temperature Range : -20° to 450°F

Corrosive Inhibitor : Imidazoline Derivative

EP Additive : Diester Type

Oil Type : Synthetic

4-Ball Weld (ASTM-D 2595-2020) : 800 kgf

FTM 5414 Resistance to Fuel B,C,D : Pass

FTM 5414 Resistance Aqueous Solutions

Distilled Water : Pass

Ethanol : Water 50:50 : Pass

Adhesion to Metal % Spray-Off (ASTM D-4049) : 2.4

Evaporation Loss (150 C, 22H) ASTM D-972 : 6.7

## ML-701

ML-701 is a dual-purpose valve lubricant/sealant that meets SAE AMSG6032 “Valve Grease, Gasoline & Oil Resistant”. ML-701 has excellent dual resistance to water and petroleum products such as gasoline, jet fuel, lubricating oils, aliphatic hydrocarbons, LPG, natural gas and mixtures of these products. ML-701 can be used in a wide variety of applications from the wellhead to product pipelines.

### Features

Meets SAE AMSG6032 “Valve Grease, Gasoline and Oil Resistant”

Water Insoluble and Washout Resistant

Fully Additive Treated

100 % Synthetic

High Metal Adhesion

Excellent Corrosion Resistance

Inhibited for H<sub>2</sub>S and CO<sub>2</sub>

Gate Valve Tested to 25,000 PSI

Less Solids Provides Excellent Low-Pressure Sealing

### Physical Properties

Consistency, Cone Penetration (D-217) : 3

Dropping Point, °F (D-566) : None

Oil Separation, % wt. loss (D-1742) :

Oxidation Stability, PSI Drop @ 100 our, (D-942) : 2 @ 100 hrs

Rust Preventive Test (D-1743) : Pass

Temperature Range : -20° to 450°F

Corrosive Inhibitor : Imidazoline Derivative

EP Additive : Diester Type

Oil Type : Synthetic

4-Ball Weld (ASTM-D 2595-2020) : 800 kgf

FTM 5414 Resistance to Fuel B,C,D : Pass

FTM 5414 Resistance Aqueous Solutions

Distilled Water : Pass

Ethanol : Water 50:50 : Pass

Adhesion to Metal % Spray-Off (ASTM D-4049 : 2.2

Evaporation Loss (150 C, 22H) ASTM D-972 : 6.4

## ML-111HS

Magnum Chemical and Lubrication Solutions ML-111HS is a synthetic lubricant for valves, swivel joints, pumps and flanges in service where sour gases are present. MCLS ML-111HS has high metal adhesion, corrosion resistance and is water resistant.

### Recommended Uses

MCLS ML-111HS is used worldwide in applications where hydrogen sulphide and carbon dioxide are present. MCLS 111HS can be used in the presence of acid solution, aliphatic hydrocarbons, diesel fuel, hydrogen sulfide, sour crude, sour gas, sulfonated oil & water. Recommended for use in gate, ball and plug valves.

Features
High resistance to hydrogen sulfide (H <sub>2</sub> S) and carbon dioxide (CO <sub>2</sub> )
Excellent adhesion to metal surfaces
Corrosion protection package for harsh environments
Water-resistant and fuel-resistant formulation
Fortified with graphite solids for anti-wear and extreme pressure protection
Wide service temperature range: -20°F to 400°F (-29°C to 204°C)
Long-term reliability in critical oilfield and industrial operations

Typical Characteristics	
Appearance : Black, smooth, tacky	Flash Point : >500°F/260°C
NLGI : 2	Temperature Range : -20°F- 400°F
Penetration (ASTM D217) : 265-300	4-Ball Wear (ASTM D2266) : 0.776
Base Oil : Synthetic Ester	4-Ball Weld (ASTM D2596) : 250 kgf
Base Oil Viscosity : 1000 cSt. 40°C	Oil Separation (ASTM D1742) : <2%
Base Oil Pour Point : -12°C	Resistance to Water (FTM-5415) : Pass
Thickener : Inorganic	Resistance to Ethanol/Water 50% (FTM-5415) : Pass
Additives : H <sub>2</sub> S/Corrosion Package	Resistance to Fuel Type A (FTM-5414) : Pass
Solids : Graphite	Resistance to Fuel Type B (FTM-5414) : Pass
Specific Gravity : 1.0	Resistance to Fuel Type C (FTM-5414) : Pass
Density Lb/Gal : 8.4	Corrosion Prevention ASTM D-1743 : Pass
Dropping Point : >500°F/260°C	Adhesion To Metal (%Spray-Off) : 2.3

## GT-600

Magnum GT-600 geothermal valve lubricant is engineered for use in extreme high temperature environments such as super-heated steam or Geothermal applications. GT-600 is also extremely resistant to fresh or brine water as well as alkalis and acids. GT-600 may be used to properly lubricant gear boxes, oven hinges, conveyers and other applications where high temperatures are encountered. GT-600 contains graphite and other extreme pressure additives which insure excellent lubricity at ambient or elevated temperatures.

Features	Physical Properties
Excellent High Temperature Lubrication	NLGI Consistency Number : No. 2
Excellent Water Resistance	Base Oil : Synthetic
Resistant to Acids, Alkalis and Water	Colour/Texture : Black/Tacky
Non-Melting	Dropping Point : None
Fully Synthetic	Temperature Range : -10 to 2000 °F
High Metal Adhesion	Thickener : Inorganic
Excellent Anti-Seize properties	

## ML-890 & ML-890H2O

Magnum ML-890 is an extreme duty synthetic valve Lubricant / Sealant that is extremely resistant to hydrocarbons and other effluents commonly found in oilfield valve applications. Mangum ML-890 contains special extreme pressure, anti-wear and corrosion inhibiting additives which provide superior film strength and adhesion to internal valve components. ML-890 can be utilized to properly maintain gate, ball and plug valves.

ML-890 Features	ML-890 H <sub>2</sub> O Resistance
Highly Chemically Resistant	HCL 20%/Water@180F *(H2O)
Excellent Adhesion	Crude Oil, Natural Gas and Condensate
Superior Anti-wear Properties	Hydrocarbons
Excellent Sealing Properties	H2S and Co2
Currently Used by OEMs	Salt Water/Brines

Physical Properties
NLGI Consistency Number : 3
Base Oil : Water/Hydrocarbon Insoluble Synthetic
Colour/Texture : Black/Grey
Dropping Point : >500F
4-BALL WELD (ASTM-D 2596-2020) : 620 Kgf
4-Ball Wear Scar Diameter (ASTM-D 2666-2015).399
Temperature Range (PR2-F/0-350F) : Pass and sealed @15,000 PSI
Recommended Temperature Range : 0-450F
Retention : (PR2-F/0-350F) 98.4%

\*FOR IMPROVED WATER/STEAM/FAC FLUIDS RESISTANCE ML-890-H2O IS RECOMENDED.

## ML-891 & ML-891H2O

Magnum ML-891 / 891H2O is a heavy-duty synthetic valve Lubricant that is extremely resistant to hydrocarbons and other effluents commonly found in oilfield valve applications. ML-891 / 891H2O contains special extreme pressure, anti-wear and corrosion inhibiting additives which provide superior film strength and adhesion to internal valve components. ML-891 / 891H2O can be utilized to properly maintain gate, ball and plug valves.

ML-891 Features	ML-891 Resistance
Highly Chemically Resistant	HCL 20%/Water@180F *(H2O)
Excellent Adhesion	Crude Oil, Natural Gas and Condensate
Superior Anti-wear Properties	Hydrocarbons
Currently Used by OEMs	H2S and Co2
	Salt Water/Brines

Physical Properties
NLGI Consistency Number : 2
Base Oil : Water/Hydrocarbon Insoluble Synthetic
Colour/Texture : Black/Grey
Dropping Point : >500F
4-BALL WELD (ASTM-D 2596-2020) : 620 Kgf
4-Ball Wear Scar Diameter (ASTM-D 2666-2015).396
7"-15K Gate Valve X Endurance 20,000 Cycle Test : Pass
Temperature Range : (PR2-F/-20-350)* Pass and sealed @15,000 PSI
Recommended Temperature Range : 20-450
Retention : (PR2-F/-20-450) 97.7%

\*FOR IMPROVED WATER/STEAM/FAC FLUIDS RESISTANCE ML-891-H2O IS RECOMENDED.

# Extreme Duty Valve Sealant

## ML-RS1

Magnum ML-RS1 is an extreme duty synthetic valve Sealant which is insoluble in water and other effluents commonly found in oilfield valve applications. Magnum ML-RS1's unique rheopectic characteristics allow it to easily travel to the leak area and form an "elastomer-like" seal which will not harden or impede proper valve operation. Magnum ML-RS1 is recommended to properly seal ball, plug and gate valves while still in service.

Features
Highly Chemically Resistant
Excellent Adhesion
Unique Rheopectic Properties
Excellent Sealing Properties
Currently Used by OEMs

Resistance
HCL 20%/Water@180F *(H2O)
Salt Water/Brines
Light Hydrocarbons
H2S and Co2

Physical Properties
NLGI Consistency Number : 2 to 4.5
Base Oil : Synthetic
Colour/Texture : Grey/Tacky
Dropping Point : >500F
Temperature Range : 0-450F

## ML-RS2

Magnum ML-RS2 is an extreme duty synthetic valve Sealant which is insoluble in hydrocarbons, water and other effluents commonly found in oilfield valve applications. Magnum ML-RS2's unique rheopectic characteristics allow it to easily travel to the leak area and form an "elastomer-like" seal which will not harden or impede proper valve operation. Magnum ML-RS2 is recommended to properly seal ball, plug and gate valves while still in service.

Features
Hydrocarbon Insoluble
Excellent Adhesion
Unique Rheopectic Properties
Excellent Sealing Properties
Currently Used by OEMs

Resistance
HCL 20%/Water@180F *(H2O)
Salt Water/Brines

Physical Properties
NLGI Consistency Number : 2 to 4
Base Oil : Hydrocarbon Insoluble/Synthetic
Colour/Texture : Grey/Tacky
Dropping Point : >500F
Temperature Range : 0-450F

## ML-888 & ML-888H2O

Magnum ML-888 / 888H2O is a multipurpose synthetic valve Sealant/Lubricant that is resistant to heavy crude as well as other hydrocarbons. ML-888 / 888H2O is also resistant to water and contains a complete high performance additive package. ML-888 / 888H2O is formulated to provide excellent lubricity and protection from Hydrogen Sulphide. ML-888 / 888H2O is recommended for ball, plug and gate valves.

Features
Resistant to Hydrocarbons
Resistant to water
Non-Melting
Excellent Sealing Properties
Contains H2S Inhibitors

Physical Properties
NLGI Consistency Number : 3.5-4
Base Oil : Water / Hydrocarbon Insoluble Synthetic
Colour / Texture : Green/Thick-Tacky
Dropping Point : >500F
4-BALL WELD (ASTM-D 2596-2020) : 315 Kg
Temperature Range : -20-350F

\*\*\*FOR IMPROVED WATER RESISTANCE ML-888-H2O IS RECOMENDED.

# General Purpose Valve Lubricants / Grease

## ML-833 & ML-833H20

WOM ML-833 is a multipurpose synthetic valve lubricant that is resistant to heavy crude as well as other hydrocarbons. ML-833 is also resistant to water and contains a complete high performance additive package. ML-833 is formulated to provide excellent lubricity and protection from Hydrogen Sulphide. ML-833 is recommended for ball, plug and gate valves.

Features
Resistant to Hydrocarbons
Resistant to water
Non-Melting
Good Sealing Properties
Contains H2S Inhibitors

Physical Properties
NLGI Consistency Number : 3-3.5
Base Oil : Water/Hydrocarbon Insoluble Synthetic
Colour/Texture : Tan/Thick-Tacky
Dropping Point : >500F
4-BALL WELD (ASTM-D 2596-2020) : 315 Kg
Temperature Range : -20-350

\*\*\*FOR IMPROVED WATER RESISTANCE ML-833H20 IS RECOMENDED.

## FV-803

Magnum FV-803 is a high performance, non-melting frac valve lubricant. FV-803 provides excellent protection to internal valve components due to its insolubility to frac fluids containing hydrocarbons, water and acids. In addition, FV-803 provides protection to valve components which may be subjected to H2S service. FV-803 contains unique polymers which are insoluble in all frac fluids and will assist in maintaining proper valve operation and sealing.

Features
Hydrocarbon Resistant
Extremely Resistant to water
Non-Melting
Inherently Biodegradable
Contains polymers to assist in sealing

Physical Properties
NLGI Consistency Number : No. 2
Base Oil : Ester Synthetic
Colour/Texture : Black/Tacky
Dropping Point : >500F
Temperature Range : -20 to 350 F

## ML-PVLS-460

Magnum ML-PVLS-460 is a heavy-duty synthetic plug valve lubricant sealant that is extremely resistant to hydrocarbons and other effluents commonly found in oilfield valve applications. Mangum ML-PVLS-460 contains special extreme pressure, anti-wear and corrosion inhibiting additives which provide superior film strength and adhesion to internal valve components. Magnum ML-PVLS-460 meets SAE AMS-G-6032 specifications for plug valve lubricant resistant to gasoline and oil.

Features	Resistance
Highly Chemically Resistant	HCL 20%/Water@180F *(H2O)
Excellent Adhesion	Crude Oil, Natural Gas and Condensate
Superior Anti-wear Properties	Hydrocarbons
Excellent Sealing Properties	H2S and Co2
Currently Used by OEMs	Salt Water/Brines

Physical Properties
NLGI Consistency Number : 3
Base Oil : Water/Hydrocarbon Insoluble Synthetic
Colour/Texture : Grey/Thick Paste
Dropping Point : >500F
Temperature Range : -10-450F

## ML-50-350 / H2O

Magnum ML 50-350 / H2O is an arctic grade, extreme pressure, synthetic valve lubricant/sealant that is resistant to heavy crude as well as other hydrocarbons. ML 50-350 / H2O is also resistant to water and contains an extreme pressure performance additive package. ML 50-350 / H2O has been formulated to provide excellent lubricity and internal valve protection from pipeline and other common oilfield production effluents. ML 50-350 / H2O is recommended for ball, plug and gate valves.

Features
Resistant to Hydrocarbons
Resistant to water
Non-Melting / High-Temperature
Excellent Extreme Low Temperature Lubrication Properties
Excellent Extreme Pressure Properties

Physical Properties
NLGI Consistency : 2
Base Oil : Water / Hydrocarbon Insoluble Synthetic
Colour / Texture : Black / Smooth Tacky
Dropping Point : >500F
4-BALL WELD (ASTM-D 2596-2020) : 315 Kg

\*\*\*For improved water resistance ml-50-350h2o is recommended.

### Temperature Range and Extreme Lubrication Properties as Determined By

WOM Endurance Test Standard PR2-F-G (-50-350/25,000 PSI)

**VALVE TYPE** : Worldwide Oilfield Machine, MAGNUM 3-1/16-25,000 PSI EXTREME CLOSE TOLERANCE GATE VALVE WITH TEST STANDARD BALL SCREW ACTUATOR.

Results	ML 50-350	ML 50-350-H2O
AMBIENT/10 CYCLES	PASS/SEALED	PASS/SEALED
-50 DEGREES F/10 CYCLES	PASS/SEALED	ND*
350 DEGREES F/10CYCLES	PASS/SEALED	ND*
POST TEST LUBRICANT LOSS	Minimal	ND*
AMBIENT TORQUE AVERAGE	108.1	ND*
TORQUE AVERAGE @ 350 DEGREES F	220.5	ND*
TORQUE AVERAGE @-50 DEGREES F	425.5	ND*
CONSISTENCY POST TEST ASTM D217 NLGI	2	2

\*ND - Not Determined

### POST TEST LUBRICANT VISUAL INSPECTION COMMENTS:

Pass, slight separation, still smooth texture, and no hardening occurred.

Worldwide Oilfield Machine Lubricant Results	Evaluation Test	Solubility Test
Solubility % Mineral Spirits	4.3	4.8
Solubility % Hexane	33	29
Solubility % Water	6	1
Ethanol/Water 50/50	ND*	ND*

\*ND - Not Determined

## ML-80

Magnum ML-80 is a multipurpose amber/brown coloured valve lubricant that is resistant to mineral oil and light hydrocarbons. Magnum ML-80 is resistant to water and contains a complete additive package. Magnum ML-80 contains no heavy metals and provides good lubricity and hydrocarbon resistance.

Features
Good Hydrocarbon resistance
Base oil made from renewable resources.
Resistant to water
Non-Melting
Inherently Biodegradable

Physical Properties
NLGI Consistency Number : No. 2.5
Base Oil : Natural Synthetic
Colour / Texture : Brown / Thick-Tacky
Dropping Point : >500F
Temperature Range : -20 to 420 F

## ML-83

Magnum ML-83 is a multipurpose black coloured valve lubricant that is resistant to mineral oil and light hydrocarbons. Magnum ML-83 is resistant to water and contains a complete additive package. Magnum ML-83 contains no heavy metals and provides good lubricity and hydrocarbon resistance. Magnum ML-83 contains a blend of Graphite and Molybdenum Disulphide (MOLY) for added extreme pressure protection.

Features
Good Hydrocarbon resistance
Contains Moly and Graphite
Base oil made from renewable resources.
Resistant to water
Non-Melting
Inherently Biodegradable

Physical Properties
NLGI Consistency Number : No. 2.5
Base Oil : Natural Synthetic
Colour/Texture : Black/Thick-Tacky
Dropping Point : >500F
Temperature Range : -20 to 420 F

# Premium Valve Flushes / Penetrants

## Restoval G

Magnum Restoval-G is a semi-solid valve flush/cleaner, penetrant and lubricant. Restoval-G is engineered to effectively penetrate, Lubricate, and free inoperable or hard to operate ball, gate or plug valves. Restoval-G is also an excellent valve storage compound as it provides superior long term corrosion control as well as excellent lubrication properties. Restoval-G is water insoluble and H2S resistant. RestoVal-G will dissolve and cut residual gums, lacquer deposits, inert solids and corrosion deposits that make valves inoperable.

Features
Contains Non-Hazardous Solvents or Dispersants
High Flash Point
Contains no heavy metals
Excellent Lubrication Properties
Excellent corrosion inhibitor
High Melting Point
Elastomer Safe

Physical Properties
NLGI Consistency Number : 1.5-2
Base Oil : Synthetic Blend
Colour/Texture : Black/Semi-Solid
Dropping Point : >500F
4-BALL WELD (ASTM-D 2596-2020) : 400 Kg
Temperature Range : -30-400F

## Restoval L

Magnum Restoval-L is an inherently biodegradable liquid valve Lubricant/flush. Restoval-L is engineered to solubilize and remove debris and other hardened lubricants/sealants from internal valve sealing surfaces. Restoval-L is formulated with a blend of non-hazardous, non-toxic solvents, surfactants, penetrants, and dispersants. Restoval-L does not contain harmful solvents, caustics, solids, or acids. Restoval-L provides excellent lubricity proprieties to help maintain proper valve operation and sealing.

Features
Contains Non-Hazardous Solvents and Dispersants
Non-Toxic
Base oil made from renewable resources.
Resistant to water
High Flash Point
Inherently Biodegradable
Excellent Lubrication Properties

Physical Properties
NLGI Consistency Number : N/A Liquid
Base Oil : Natural Synthetic
Colour/Texture : Brown-Tan/ Liquid
Temperature Range : 0 to 350 F
Solubility H2O : Insoluble
Flash Point : 285 F
4-ball Weld : 315

# Premium Industrial Greases & Anti-Seize Compounds

## ML-CSC-2202

Magnum ML-CSC-2202 is a versatile unique over based calcium complex grease with inherent extreme pressure and corrosion inhibiting properties. ML-CSC-2202 exhibits excellent structural stability even in the presence of water and high loads. ML-CSC-2202 also provides excellent structural stability in high temperatures for prolonged periods without drying out. ML-CSC-2202 contains molybdenum disulphide to increase lubricity under high load or extreme pressure applications.

Features	Physical Properties
Contains Molybdenum Disulphide (Moly)	NLGI Consistency Number : No. 2
Excellent thermal stability	Base Oil : Synthetic Blend
Micro-rolling layer effectively reduces the effect of wear and high loads	Base Oil Viscosity @ 40C cST, D-445 : 220
Excellent performance in the presence of heavy water loading and high pressure	Colour/Texture : Black/Thick-Tacky
Excellent rust and corrosion resistance properties even in salty environments	Dropping Point : >310 C
Reduces energy consumption	Temperature Range : -20 to 420 F
Provides longer service life	Copper Corrosion 100 C, 24 hr. D4048 : 1B
Zero down bearing failure frequency	Oxidation Stability 100 hrs, PSI drop D-942 : 3
	Water Washout, % wt. @ 80C. D-1264 : 2.0
	Worked Penetration D-217, 60 strokes : 290
	Worked Penetration D-217, 100000 strokes : -17
	Four Ball Weld load, IP-239 : 620
	Four Ball Wear Scar Dia, 20 Kg. 1800Rpm 1hr. 55C D-2266 : 0.46
	Timken Ok Load, Lb. D-2509 : 65
	Rust Prevention IP-220 : 0,0

Applications
Centralized Lubricating system friendly
Salty or freshwater environments
Acid resistant
High load bearings
Hot rolling mill
Metallurgical industry
Continues casting equipment
Mining industry
Pulp and paper mills
Oilfield equipment
Frac and production valves

## ML-CSC-4602

Magnum ML-CSC-4602 is a versatile unique over based calcium complex grease with inherent extreme pressure and corrosion inhibiting properties. ML-CSC-4602 exhibits excellent structural stability even in the presence of water and high loads. ML-CSC-4602 also provides excellent structural stability in high temperatures for prolonged periods without drying out. ML-CSC-4602 contains molybdenum disulphide to increase lubricity under high load or extreme pressure applications.

Features
Contains Molybdenum Disulphide (Moly)
Excellent thermal stability
Micro-rolling layer effectively reduces the effect of wear and high loads
Excellent performance in the presence of heavy water loading and high pressure
Excellent rust and corrosion resistance properties even in salty environments
Reduces energy consumption
Provides longer service life
Zero down bearing failure frequency

Physical Properties
NLGI Consistency Number : No. 2
Base Oil : Synthetic Blend
Base Oil Viscosity @ 40C cST, D-445 : 460
Colour/Texture : Black/Thick-Tacky
Dropping Point : >310 C
Temperature Range : -20 to 420 F
Copper Corrosion 100 C, 24 hr. D4048 : 1B
Oxidation Stability 100 hrs, PSI drop D-942 : 3
Water Washout, % wt. @ 80C. D-1264 : 2.0
Worked Penetration D-217, 60 strokes : 290
Worked Penetration D-217, 100000 strokes : -17
Four Ball Weld load, IP-239 : 620
Four Ball Wear Scar Dia, 20 Kg. 1800Rpm 1hr. 55C D-2266 : 0.46
Timken Ok Load, Lb. D-2509 : 65
Rust Prevention IP-220 : 0,0

Applications
Centralized Lubricating system friendly
Salty or freshwater environments
Acid resistant
High load bearings
Hot rolling mill
Metallurgical industry
Continues casting equipment
Mining industry
Pulp and paper mills
Oilfield equipment
Frac and production valves

## Moly-Paste 50

Magnum Moly-Paste 50 is a non-melting lubricating paste that contains 50% pure low friction molybdenum disulfide (MoS<sub>2</sub>). Moly-Paste 50 may be applied by brush or spatula. Moly-Paste 50 is water resistant, withstands extreme weather elements, and helps prevent corrosion on parts exposed to water, steam and most mild acids/alkalis. Moly-Paste 50 provides excellent extreme pressure, anti-galling and anti-seize properties.

Features
Provides a tenacious protective coating
Resists corrosion
High temperature performance
Lead/Zinc free
Excellent pumpability/brush-ability
Prevents galling and seizing
Elastomer Safe
Non-Melting

Physical Properties
Base Oil : Synthetic
Colour / Texture : Black / Paste
Dropping Point : >500F
Flash Point : >400 F
Penetration : 310-330
Evaporation Loss, ASTM D-972@310 F : 02%
Oil Separation, ASTM D-1742 @ 77F : Nil
Service Rating : -300 to 750F
Film Strength : 300,000 Psi
Shelf Life : Four Years

## Copp-U-Coat

Magnum Copp-U-Coat is a lead free, zinc free, quality anti seize lubricating compound that handles high temperatures and provides excellent anti-seize performance required for breaking in new tool joints and drill collars. Copp-U-Coat can be utilized in all drilling and anti-seize applications in the petroleum industry including refineries, petrochemical plants as well as the water well industry. Copp-U-Coat provides protection against galling and seizing or damage to threads on drill collars, tool joints, studs and most threaded connections even under the most demanding conditions.

Features
Provides a tenacious protective coating
Resists corrosion
High temperature performance
Lead / Zinc free
Consistent makeups
Will not buildup on threads
Excellent pumpability / brush-ability
Prevents galling and seizing

Physical Properties
Base Oil : Semi-Synthetic
Colour / Texture : Copper / Paste
Dropping Point : >500F
Flash Point : >400 F
Penetration : 310-330
Evaporation Loss, ASTM D-972@310 F : 02%
Oil Separation, ASTM D-1742 @ 77F : Nil
Friction Factor, API RP 7A1 : 1.15
Salt Spray, ASTM B-117 : 500+ Hrs
Temperature Range : 0 to 450 F
Shelf Life : Four Years

# Equipment

## MAGFLOW 150 Forged for the Field. Tuned for Precision

### High Volume- Compact Lubrication Pump Engineered for Oilfield Valve Servicing

#### Engineered for Excellence

Purpose-built for high-efficiency sealing/lubrication and servicing of Gate, Ball, and Plug valves, the MAGFLOW 150 is the professional's choice for precision valve lubrication and a field-proven champion in performance, portability, and endurance.

- Flow Rate : Up to 5.5 lbs/min of valve lubricant
- Max Pressure: 15,000 PSI
- Pumps Sealants that disable other pumps
- Pressure Primer - no cavitation, reliable flow
- Major Time Saver - built for speed in critical shutdowns

#### Built to Withstand. Designed to Perform.

Crafted for the most demanding oilfield conditions - remote, offshore, or corrosive.

- Helicopter-Transportable - ultra-portable for hard-to-reach sites
- Pump Weight: 100 lbs (without discharge assembly)
- Lightweight, Rugged Frame
- Chrome-Coated Pump Tube - resists corrosion in saline, abrasive environments
- All-Coated Dolly Frame - easy cleanup
- No Flat Tires - never let terrain slow you down
- Removable Handle - reduce height for storage & transport
- Supports :
  - 5 Gallon / 20 Litre Pails
  - 5 Quart / 10 lb Pails



#### Fully Equipped. Field Ready.

MAGFLOW 150 arrives ready with all critical components for seamless field operation.

- 10 ft Discharge Hose with Quick Disconnects (20 ft option available)
- Whip Hose Assembly:
  - Live Swivel
  - 15,000 PSI Gauge
  - Bleed Valve
  - Giant Button Head Coupler
- Reinforced Lower Check Valve with highly polished sealing surfaces
- Permanently Lubricated Pneumatic Air Cylinders
- Includes :
  - Air Filter & Regulator with Moisture Trap
  - Air Motor Lubricator

#### Safety + Durability = Confidence

- Safety Pop-Off Air Inlet Valve
- Upgraded Air Manifold Assembly - enhanced endurance
- Enhanced Air Inlet Bracket - protects gauges and regulators in tough conditions

#### Optional Upgrades

- 20,000 PSI Big Bore Stainless Steel Discharge Ball Valve - for the toughest sealing jobs



# Key Advantages of Partnering with Magnum Chemical & Lubrication Solutions



## Engineered for Extreme Environments

Our lubricants and greases are specially formulated to perform under the harshest conditions-high pressure, extreme temperatures, heavy loads, and corrosive environments.



## Industry-Specific Solutions

From oil & gas to mining and heavy industry, MCLS delivers tailored lubrication solutions that meet the unique demands of each sector.



## Proven Field Performance

Our products are tested and trusted in critical applications across the globe, reducing downtime, extending equipment life, and improving operational efficiency.



## R&D Driven Innovation

We continuously invest in research and development to stay ahead of industry needs, offering cutting-edge lubricants that meet evolving environmental and technical standards.



## Global Reach, Local Support

With international capabilities and dedicated regional teams, we provide responsive support and fast turnaround times-wherever your operations are.



## Commitment to Compliance & Safety

All MCLS products are manufactured to meet global safety, regulatory, and quality standards, ensuring peace of mind for operators and OEMs alike.



## Backed by Global Industry Experts

Our solutions are developed in collaboration with seasoned professionals from across the lubrication, engineering, and energy sectors-bringing decades of domain expertise to every formulation.

# Certifications you can trust Compliance you can rely on



ISO 9001:2015  
Certified Quality  
Management



Compliant with  
ASTM Standards  
(D-2596, D-2666,  
D-217, IP-239)



Plug Valve  
Lubricants  
conform to SAE  
AMS-G-6032



REACH & RoHS  
Compliant  
for global  
environmental  
safety

## Field Proven Customer Approved



1. "ML-RS2 solved a persistent sealing challenge we faced with plug valves exposed to high condensate content. Its rheopectic behavior ensured it reached leak points during operation, formed a flexible seal, and didn't harden over time. It's become our go-to solution for in-service sealing in critical gas lines."

**Field Operations Supervisor,**  
Southeast Asia Gas Producer

4. "We rely on Restoval-G for both preventive maintenance and emergency valve recovery. It dissolves gum and corrosion build-up with ease and provides excellent corrosion inhibition during storage. Its high flash point and non-hazardous formulation make it a safe and reliable product."

**Asset Integrity Coordinator,**  
National Energy Corporation

2. "The torque reduction and sealing performance of ML-891 have directly contributed to improved operational efficiency. Its resistance to hydrocarbons, brine, and H<sub>2</sub>S made it ideal for our sour gas fields."

**Valve Integrity Manager,**  
Middle East Exploration Company

5. "In a high-pressure, high-condensate environment, ML-RS2 outperformed competing products by maintaining seal integrity over extended cycles. We particularly appreciate its easy application and long-term stability."

**Maintenance Lead,**  
Offshore Platform Operator

3. "Restoval-G proved essential during a recent shutdown. It effectively penetrated and flushed hardened deposits in stuck valves, restoring full functionality without component damage. The added lubrication extended the valves' service life, making it a versatile maintenance tool in our fleet."

**Maintenance Planner,**  
Oil Refinery, UAE

6. "ML-891 exceeded our expectations in both performance and longevity during our 15,000 PSI gate valve testing. It provided excellent sealing, minimal torque variance, and retained consistency even under fluctuating temperatures. We've standardized ML-891 across our onshore and offshore assets for all critical valve operations."

**Senior Maintenance Engineer,**  
Global Oilfield Services Company

# Perfection - It's our Lowest Standard



Pune, India



Aberdeen, Scotland



Saudi Arabia



Dubai, UAE



Jakarta, Indonesia



Houston, USA



## Magnum

Chemical and Lubrication Solutions



**World Headquarters / Main Blending Factory**

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