



Viper Maxi Mk II Wire Rope Lubricator

SUPERIOR PROTECTION for WIRE ROPES

FOR ROPE 50mm (2") TO 165mm (6-1/2") SMALLER SIZES ON REQUEST

FEATURES & BENEFITS

- o **Single Pass Wire Rope Lubrication**
Simplifies and speeds up the rope lubricating process
- o **Eliminates Manual Greasing**
Safer for staff, reduced lubricant usage, less leakage & mess
- o **High Pressure / High Flow Grease Pump**
Provides grease penetration, displaces moisture from rope core / total coverage, even for large ropes
- o **Fast & Efficient Rope Lubrication**
Reduced downtime associated with rope lubrication which improves equipment availability. Speeds up to 1,000mt/hour
- o **Able to lubricate all major rope sizes**
Viper Maxi Mk II can lubricate rope sizes 50mm (2") to 165mm (6-1/2").



APPLICATIONS

• ROV CABLES • VESSEL CRANE ROPES • UNDERWATER OFFSHORE WIRE ROPES • DRAG LINES



'Superior Protection for Wire Ropes'

www.le-bv.nl

phone: +31 (0)78 - 654 99 66

Viper Maxi MkII WRL Kit

The Viper Wire Rope Lubricator is supplied as a complete package, with all of the components required to get you started. Simply order the kit and then select and order the seals and scrapers to suit the rope size to be lubricated. (note: refer to the viper seal, scraper & WRC selection guide pages 4-5)

Kit Components

- Viper Maxi MkII High Strength Aluminium Alloy Collar
- Choice of Two Pumps 4.5kg/min Output & 13kg/min Output in 190kg Drum Size.
- Twin Lubricant Inlets to Ensure Complete and Effective Coverage.
- Air Regulator with Gauge & Isolation Valve.
- 10m High Pressure Supply Hose Fitted with Coupling Both Ends.
- Clear Lube Drain Hose.
- 1200kg Rated Ratchet Retaining Straps & Bow Shackles.
- Heavy Duty Fully Welded Aluminium Storage Case.



Viper Collar

The new Maxi MkII Collar is the heart of the ViperWRL System. Constructed from high strength Aluminium Alloy, precision machined to tight specifications. Collar is completed with stainless steel hardware to provide maximum durability and corrosion protection.



The new Maxi MKII can now lubricate ropes up to 165mm (6-1/2"). Unit is designed for ease of use having handles located on each half of the collar.

Viper Grease Pump



The new Viper Mk II kit includes an upgraded lubricant pump, built specifically for the Viper WRL. Two pump options are available the standard unit delivers 4.5kg/min. while the optional high volume unit delivers 13kg/min for fast lubrication of large diameter ropes, for further reduced down time. Both pumps are supplied in 190kg drum size. Viper recommends the use of the high flow pump for ropes larger than 85mm.

WRL Lubricants

Specifically formulated for use with the Viper WRL

VCG-1 Coating Grease Penetrates & Protects Wire Ropes



WRL Coating Grease VCG-1, is a technologically advanced lubricant designed to withstand water washout, protect against corrosion, penetrate and also provide extreme pressure protection for winch drums and sheaves. The red tacky NLGI#1 grease will provide superior service life in marine and mining applications with non drip or fling tendencies.

VPG-0 Penetrating Grease Resists Water, Penetrates Wire Ropes



WRL Penetrating Grease VPG-0, is a soft, semifluid formulation designed to coat wire rope with a thin lubricant film as well as penetrate to the core. Its tacky, water-resistant characteristics enable it to adhere strongly and to seal out damaging moisture. Viper WRL Penetrating Grease contains a wear-reducing additive that protects against premature wear and shields metal against corrosive attack.



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Seals Selection

Viper WRL Seals are made from a specially formulated polyurethane material that provides excellent durability, wear resistance and flexibility. It is this flexibility that allows the seal to provide a more positive interface and hence seal with the rope. Each seal set comes as a pair, sized to suit the nominated rope diameter. Viper seals are designed to have some interference with the rope, depending on its size and type, with an interference of up to 3mm allowable for standard 6 & 8 strand ropes.

For compact, non-rotating or wireline type ropes which do not have valleys, a maximum interference of 1mm is recommended as these ropes do not allow for the same amount of seal deflection within the collar.



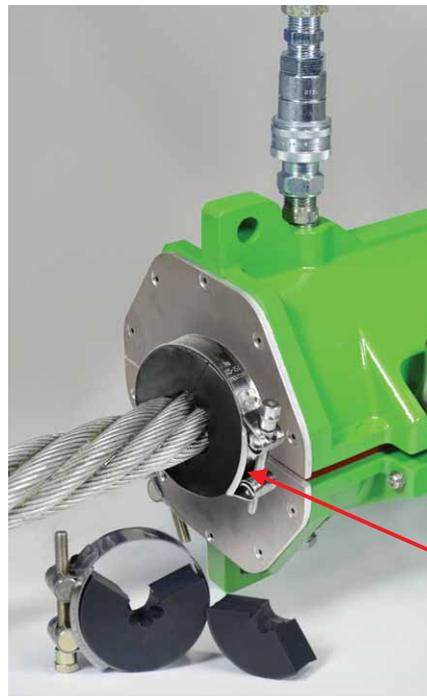
Scraper Selection

Aluminium Scrapers are attached to each end of the Viper collar to assist in pre-cleaning the rope and protect the seals from damage. Scrapers are supplied slightly larger than the actual wire rope size to allow for rope flexing.



Rope Cleaner (VRC) Selection

Viper Rope Cleaners enable the removal of contamination or built up old lubricant from the wire rope prior to lubrication, improving the effectiveness of the lubrication process via the Viper WRL. For certain types of wire ropes where the standard Viper Rope Cleaner is not suitable, the Viper 'Smooth Bore' rope cleaner is available. The Smooth Bore Rope Cleaner would typically be used on those ropes with a large number of outer strands, some non-rotational ropes, ROV cables, etc, where the valleys between the strands are minimal and do not readily facilitate a standard Viper Rope Cleaner.



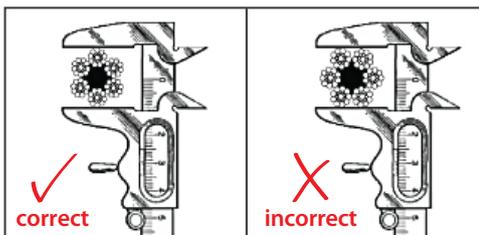
ABOVE: Smooth Bore Rope Cleaner

LEFT: The Viper Wire Rope Cleaner in place as the rope enters the Viper Maxi Mk II WRL.

Wire Rope Measurement Guide

It is recommended that wire ropes be physically measured prior to ordering seals and scrapers as ropes in service can stretch and sizes may vary.

Available for 6 and 8 strand ropes in a wide range of sizes, the table on the following pages allows for the quick and easy selection of the correct VRC to suit your specific requirements.



How to measure a wire rope correctly.



Right Lay - Clockwise Rotation



Left Lay - Counter Clockwise Rotation

Seals, Scrapers and Rope Cleaners should be selected using the Viper Seal - Scraper - VRC guide on pages 4-5

IMPORTANT
CHOOSE CORRECT
ROPE TYPE →
PRIOR TO ORDERING



These Columns
for **6 or 8 Strand**
Ropes Only



These Columns
for **Armoured**
or **Multi Strand**
Ropes Only

Rope Sizes 49mm to 102mm

Actual Rope Size	Viper Seals/Scrapers for "6 & 8" Strand Ropes Only		Viper Seals/Scraper for "Armoured & Multi Strand" Ropes Only		Viper Smooth Bore Rope Cleaner	Viper Rope Cleaner "6 Strand Ropes"		Viper Rope Cleaner "8 Strand Ropes"	
	Seal Part No.	Scraper No.	Seal Part No.	Scraper No.		Right Lay	Left Lay	Right Lay	Left Lay
49mm to 50mm 1-15/16" to 1-31/32"	VMMSEAL48	VMMSC50	VMMSEAL50	VMMSC50	VRC-SB50	VRC50-6R	VRC50-6L	VRC50-8R	VRC50-8L
51mm to 53mm 2" to 2-3/32"	VMMSEAL50	VMMSC53	VMMSEAL53	VMMSC53	VRC-SB52	VRC52-6R	VRC52-6L	VRC52-8R	VRC52-8L
54mm to 55mm 2-1/8" to 2-5/32"	VMMSEAL53	VMMSC55	VMMSEAL55	VMMSC55	VRC-SB54	VRC54-6R	VRC54-6L	VRC54-8R	VRC54-8L
56mm to 58mm 2-3/16" to 2-3/32"	VMMSEAL55	VMMSC58	VMMSEAL58	VMMSC58	VMRC-SB57	VMRC58-6R	VMRC58-6L	VMRC58-8R	VMRC58-8L
59mm to 60mm 2-5/16" to 2-3/8"	VMMSEAL58	VMMSC60	VMMSEAL60	VMMSC60	VMRC-SB59	VMRC60-6R	VMRC60-6L	VMRC60-8R	VMRC60-8L
61mm to 63mm 2-13/32" to 2-3/4"	VMMSEAL60	VMMSC63	VMMSEAL63	VMMSC63	VMRC-SB62	VMRC62-6R	VMRC62-6L	VMRC62-8R	VMRC62-8L
64mm to 65mm 2-3/4" to 2-9/16"	VMMSEAL63	VMMSC65	VMMSEAL65	VMMSC65	VMRC-SB64	VMRC64-6R	VMRC64-6L	VMRC64-8R	VMRC64-8L
66mm to 67mm 2-19/32" to 2-5/8"	VMMSEAL65	VMMSC67	VMMSEAL68	VMMSC67	VMRC-SB66	VMRC66-6R	VMRC66-6L	VMRC66-8R	VMRC66-8L
68mm to 70mm 2-21/32" to 2-3/4"	VMMSEAL68	VMMSC70	VMMSEAL70	VMMSC70	VMRC-SB69	VMRC70-6R	VMRC70-6L	VMRC70-8R	VMRC70-8L
71mm to 73mm 2-13/16" to 2-7/8"	VMMSEAL70	VMMSC73	VMMSEAL74	VMMSC73	VMRC-SB72	VMRC72-6R	VMRC72-6L	VMRC72-8R	VMRC72-8L
74mm to 75mm 2-27/32" to 2-15/16"	VMMSEAL74	VMMSC75	VMMSEAL76	VMMSC75	VMRC-SB74	VMRC74-6R	VMRC74-6L	VMRC74-8R	VMRC74-8L
76mm to 77mm 2-31/32" to 3"	VMMSEAL76	VMMSC77	VMMSEAL78	VMMSC77	VMRC-SB76	VMRC76-6R	VMRC76-6L	VMRC76-8R	VMRC76-8L
78mm to 79mm 3-3/64" to 3-5/64"	VMMSEAL78	VMMSC79	VMMSEAL80	VMMSC79	VMRC-SB78	VMRC78-6R	VMRC78-6L	VMRC78-8R	VMRC78-8L
80mm to 82mm 3-1/8" to 3-13/64"	VMMSEAL80	VMMSC82	VMMSEAL83	VMMSC82	VMRC-SB80	VMRC82-6R	VMRC82-6L	VMRC82-8R	VMRC82-8L
83mm to 85mm 3-15/64" to 3-5/16"	VMMSEAL83	VMMSC85	VMMSEAL86	VMMSC85	VMRC-SB84	VMRC84-6R	VMRC84-6L	VMRC84-8R	VMRC84-8L
86mm to 88mm 3-23/64" to 3-7/16"	VMMSEAL86	VMMSC88	VMMSEAL90	VMMSC88	VMRC-SB87	VMRC88-6R	VMRC88-6L	VMRC88-8R	VMRC88-8L
89mm to 91mm 3-15/32" to 3-3/4"	VMMSEAL90	VMMSC91	VMMSEAL92	VMMSC91	VMRC-SB90	VMRC90-6R	VMRC90-6L	VMRC90-8R	VMRC90-8L
92mm to 94mm 3-21/32" to 3-5/8"	VMMSEAL92	VMMSC94	VMMSEAL94	VMMSC94	VMRC-SB93	VMRC92-6R	VMRC92-6L	VMRC92-8R	VMRC92-8L
94mm to 95mm 3-11/16" to 3-11/16"	VMMSEAL94	VMMSC94	VMMSEAL96	VMMSC94	VMRC-SB94	VMRC94-6R	VMRC94-6L	VMRC94-8R	VMRC94-8L
96mm to 97mm 3-3/4" to 3-13/16"	VMMSEAL96	VMMSC97	VMMSEAL98	VMMSC97	VMRC-SB96	VMRC96-6R	VMRC96-6L	VMRC96-8R	VMRC96-8L
98mm to 99mm 3-7/32" to 3-7/8"	VMMSEAL98	VMMSC99	VMMSEAL100	VMMSC99	VMRC-SB98	VMRC98-6R	VMRC98-6L	VMRC98-8R	VMRC98-8L
100mm to 102mm 3-29/32" to 3-15/16"	VMMSEAL100	VMMSC102	VMMSEAL103	VMMSC102	VMRC-SB101	VMRC102-6R	VMRC102-6L	VMRC102-8R	VMRC102-8L

Multi-Strand Rope Cleaners

For ropes over 65mm are available on request, eg: 18/21 Strand Ropes
minimum order quantities may be applicable



IMPORTANT
CHOOSE CORRECT
ROPE TYPE
PRIOR TO ORDERING



These Columns
for **6 or 8 Strand**
Ropes Only



These Columns
for **Armoured**
or **Multi Strand**
Ropes Only

Rope Sizes 103mm to 165mm

Actual Rope Size	Viper Seals/Scrapers for "6 & 8" Strand Ropes Only		Viper Seals/Scraper for "Armoured & Multi Strand" Ropes Only		Viper Smooth Bore Rope Cleaner	Viper Rope Cleaner "6 Strand Ropes"		Viper Rope Cleaner "8 Strand Ropes"	
	Seal Part No.	Scraper No.	Seal Part No.	Scraper No.		Right Lay	Left Lay	Right Lay	Left Lay
103mm to 105mm 4" to 4-3/32"	VMMSEAL103	VMMSC105	VMMSEAL106	VMMSC105	VMMRC-SB104	VMMRC104-6R	VMMRC104-6L	VMMRC104-8R	VMMRC104-8L
106mm to 108mm 4-1/8" to 4-7/32"	VMMSEAL106	VMMSC108	VMMSEAL109	VMMSC108	VMMRC-SB107	VMMRC108-6R	VMMRC108-6L	VMMRC108-8R	VMMRC108-8L
109mm to 111mm 4-3/4" to 4-9/32"	VMMSEAL109	VMMSC111	VMMSEAL112	VMMSC111	VMMRC-SB110	VMMRC110-6R	VMMRC110-6L	VMMRC110-8L	VMMRC110-8L
112mm to 114mm 4 3/8" to 4 7/16"	VMMSEAL112	VMMSC114	VMMSEAL115	VMMSC114	VMMRC-SB113	VMMRC112-6R	VMMRC112-6L	VMMRC112-8L	VMMRC112-8L
115mm to 116mm 4-3/4" to 4-17/32"	VMMSEAL115	VMMSC116	VMMSEAL117	VMMSC116	VMMRC-SB115	VMMRC116-6R	VMMRC116-6L	VMMRC116-8R	VMMRC116-8L
117mm to 119mm 4-9/16" to 4-5/8"	VMMSEAL117	VMMSC119	VMMSEAL120	VMMSC119	VMMRC-SB118	VMMRC118-6R	VMMRC118-6L	VMMRC118-8R	VMMRC118-8L
120mm to 122mm 4-11/16" to 4-3/4"	VMMSEAL120	VMMSC122	VMMSEAL123	VMMSC122	VMMRC-SB121	VMMRC122-6R	VMMRC122-6L	VMMRC122-8R	VMMRC122-8L
123mm to 125mm 4-13/16" to 4-7/8"	VMMSEAL123	VMMSC125	VMMSEAL126	VMMSC125	VMMRC-SB124	VMMRC124-6R	VMMRC124-6L	VMMRC124-8R	VMMRC124-8L
126mm to 128mm 4-5/16" to 5"	VMMSEAL126	VMMSC128	VMMSEAL129	VMMSC128	VMMRC-SB127	VMMRC128-6R	VMMRC128-6L	VMMRC128-8R	VMMRC128-8L
129mm to 131mm 5-1/32" to 5-7/64"	VMMSEAL129	VMMSC131	VMMSEAL132	VMMSC131	VMMRC-SB130	VMMRC130-6R	VMMRC130-6L	VMMRC130-8R	VMMRC130-8L
132mm to 134mm 5-1/8" to 5-3/4"	VMMSEAL132	VMMSC134	VMMSEAL135	VMMSC134	VMMRC-SB133	VMMRC134-6R	VMMRC134-6L	VMMRC134-8R	VMMRC134-8L
135mm to 137mm 5-9/32" to 5-5/16"	VMMSEAL135	VMMSC137	VMMSEAL138	VMMSC137	VMMRC-SB136	VMMRC136-6R	VMMRC136-6L	VMMRC136-8R	VMMRC136-8L
138mm to 140mm 5-3/8" to 5-7/16"	VMMSEAL138	VMMSC140	VMMSEAL141	VMMSC140	VMMRC-SB139	VMMRC140-6R	VMMRC140-6L	VMMRC140-8R	VMMRC140-8L
141mm to 143mm 5-3/4" to 5-9/16"	VMMSEAL141	VMMSC143	VMMSEAL144	VMMSC143	VMMRC-SB142	VMMRC142-6R	VMMRC142-6L	VMMRC142-8R	VMMRC142-8L
144mm to 146mm 5-5/8" to 5-11/16"	VMMSEAL144	VMMSC146	VMMSEAL147	VMMSC146	VMMRC-SB145	VMMRC146-6R	VMMRC146-6L	VMMRC146-8R	VMMRC146-8L
147mm to 149mm 5-3/4" to 5-13/16"	VMMSEAL147	VMMSC149	VMMSEAL150	VMMSC149	VMMRC-SB148	VMMRC148-6R	VMMRC148-6L	VMMRC148-8R	VMMRC148-8L
150mm to 152mm 5-7/8" to 5-15/16"	VMMSEAL150	VMMSC152	VMMSEAL153	VMMSC152	VMMRC-SB151	VMMRC152-6R	VMMRC152-6L	VMMRC152-8R	VMMRC152-8L
153mm to 155mm 6" to 6-1/16"	VMMSEAL153	VMMSC155	VMMSEAL156	VMMSC155	VMMRC-SB154	VMMRC154-6R	VMMRC154-6L	VMMRC154-8R	VMMRC154-8L
156mm to 158mm 6-3/32" to 6-3/16"	VMMSEAL156	VMMSC158	VMMSEAL159	VMMSC158	VMMRC-SB157	VMMRC158-6R	VMMRC158-6L	VMMRC158-8R	VMMRC158-8L
159mm to 161mm 6-1/4" to 6-5/16"	VMMSEAL159	VMMSC161	VMMSEAL162	VMMSC161	VMMRC-SB160	VMMRC160-6R	VMMRC160-6L	VMMRC160-8R	VMMRC160-8L
162mm to 165mm 6-3/8" to 6-1/2"	VMMSEAL162	VMMSC165	VMMSEAL165	VMMSC165	VMMRC-SB163	VMMRC164-6R	VMMRC164-6L	VMMRC164-8R	VMMRC164-8L

Multi-Strand Rope Cleaners

For ropes over 65mm are available on request, eg: 18/21 Strand Ropes
minimum order quantities may be applicable

