

### SUPERIOR PROTECTION for WIRE ROPES

#### 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 2,000mt/hour*
- o **Able to lubricate all major rope sizes**  
*Viper Mid Mk II can lubricate rope sizes 8mm (5/16") to 67mm (2-5/8")  
Custom units also available*



#### APPLICATIONS

- WHARF CRANES
- SHIP CRANES
- ROV CABLES
- MINE WINDERS
- MOBILE CRANES
- OIL & GAS PLATFORMS
- ANCHOR ROPES
- DECK WINCHES
- OVERHEAD CRANES
- SHIP LOADERS



## VIPER Mid MkII WRL Kit

The Viper Mid MkII Kit 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 seal and scraper selection guide page 4)*

## Kit Components

- Viper Mid Mk II High Strength Collar
- Viper High Volume Grease Pump
- Air Regulator With Gauge & Isolation Valve
- 4m High Pressure 1/2" Lube Delivery Hose
- High Pressure Lubricant Metering Valve
- Clear Lube Drain Hose
- Retaining Ratchet Straps & Shackles
- Robust Aluminium Storage Case
- Convenient Carry Strap for Collar



## Viper Collar

The Mid Mk II Collar is the heart of the Viper Wire Rope Lubricating system. Constructed from high grade, cast aluminium with a robust protective coating. The collar is completed with stainless steel hardware to provide maximum corrosion protection.



The MKII collar is 32% lighter than the original Viper collar plus comes complete with inbuilt handles making it easily carried in one hand and fitted to the rope by one person.

## Viper Grease Pump



The new Viper Mk II kit includes an upgraded lubricant pump, built specifically for the Viper WRL.

Flow rates of  $\approx 5\text{kg}$  (11lb) / minute using an NLGI #0 grease at pressures of up to 385 bar (5,500 PSI) are achieved from the standard 20kg (35lb) pump with a 55kg (120lb) and 180kg (400lb) option also available.

## 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.



'Superior Protection for Wire Ropes'

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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.



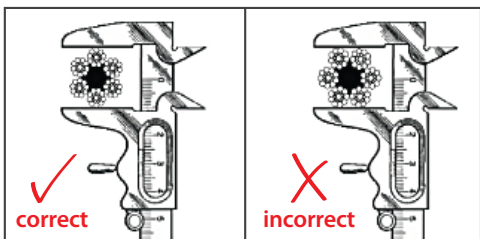
ABOVE: Smooth Bore Rope Cleaner

LEFT: The Viper Wire Rope Cleaner in place as the rope enters the Viper Mid 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 page 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



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**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

Actual Rope Size	Viper Seals/Scrapers for "6 & 8" Strand Ropes Only		Viper Seals/Scrapers 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
8mm to 10mm 5/16" to 3/8"	VSEAL8	VSC10	VSEAL10	VSC10	VRC-SB9	n/a	n/a	n/a	n/a
11mm to 12mm 7/16" to 15/32"	VSEAL10	VSC12	VSEAL13	VSC12	VRC-SB11	n/a	n/a	n/a	n/a
13mm to 14mm ½" to 9/16"	VSEAL13	VSC14	VSEAL14	VSC14	VRC-SB13	n/a	n/a	n/a	n/a
15mm to 16mm 19/32" to 5/8"	VSEAL14	VSC16	VSEAL16	VSC16	VRC-SB15	VRC16-6R	VRC16-6L	n/a	n/a
17mm to 18mm 21/32" to 11/16"	VSEAL16	VSC18	VSEAL18	VSC18	VRC-SB17	VRC18-6R	VRC18-6L	n/a	n/a
19mm to 20mm ¾" to 25/32"	VSEAL18	VSC20	VSEAL20	VSC20	VRC-SB19	VRC20-6R	VRC20-6L	n/a	n/a
21mm to 22mm 13/16" to 7/8"	VSEAL20	VSC22	VSEAL22	VSC22	VRC-SB21	VRC22-6R	VRC22-6L	n/a	n/a
23mm to 24mm 29/32" to 15/16"	VSEAL22	VSC24	VSEAL24	VSC24	VRC-SB23	VRC24-6R	VRC24-6L	VRC24-8R	VRC24-8L
25mm to 26mm 1" to 1-1/32"	VSEAL24	VSC26	VSEAL26	VSC26	VRC-SB25	VRC26-6R	VRC26-6L	VRC26-8R	VRC26-8L
27mm to 28mm 1-1/16" to 1-1/8"	VSEAL26	VSC28	VSEAL28	VSC28	VRC-SB27	VRC28-6R	VRC28-6L	VRC28-8R	VRC28-8L
29mm to 30mm 1 5/32" to 1 3/16"	VSEAL28	VSC30	VSEAL30	VSC30	VRC-SB29	VRC30-6R	VRC30-6L	VRC30-8R	VRC30-8L
31mm to 33mm 1-¼" to 1-5/16"	VSEAL30	VSC34	VSEAL33	VSC34	VRC-SB32	VRC32-6R	VRC32-6L	VRC32-8R	VRC32-8L
34mm to 35mm 1-11/32" to 1-3/8"	VSEAL33	VSC36	VSEAL35	VSC36	VRC-SB34	VRC34-6R	VRC34-6L	VRC34-8R	VRC34-8L
36mm to 38mm 1-13/32" to 1-½"	VSEAL35	VSC38	VSEAL38	VSC38	VRC-SB37	VRC38-6R	VRC38-6L	VRC38-8R	VRC38-8L
39mm to 41mm 1-17/32" to 1-19/32"	VSEAL38	VSC41	VSEAL41	VSC41	VRC-SB39	VRC40-6R	VRC40-6L	VRC40-8R	VRC40-8L
42mm to 44mm 1-5/8" to 1-¾"	VSEAL41	VSC44	VSEAL44	VSC44	VRC-SB43	VRC44-6R	VRC44-6L	VRC44-8R	VRC44-8L
45mm to 46mm 1-25/32" to 1-13/16"	VSEAL44	VSC46	VSEAL46	VSC46	VRC-SB45	VRC46-6R	VRC46-6L	VRC46-8R	VRC46-8L
47mm to 48mm 1-27/32" to 1-7/8"	VSEAL46	VSC48	VSEAL48	VSC48	VRC-SB47	VRC48-6R	VRC48-6L	VRC48-8R	VRC48-8L
49mm to 50mm 1-15/16" to 1-31/32"	VSEAL48	VSC50	VSEAL50	VSC50	VRC-SB49	VRC50-6R	VRC50-6L	VRC50-8R	VRC50-8L
51mm to 53mm 2" 2-3/32"	VSEAL50	VSC53	VSEAL53	VSC53	VRC-SB52	VRC52-6R	VRC52-6L	VRC52-8R	VRC52-8L
54mm to 55mm 2-1/8" to 2-5/32"	VSEAL53	VSC55	VSEAL55	VSC55	VRC-SB54	VRC54-6R	VRC54-6L	VRC54-8R	VRC54-8L
56mm 58mm 2-3/16" to 2-9/32"	VSEAL55	VSC58	VSEAL58	VSC58	VMRC-SB57	VMRC58-6R	VMRC58-6L	VMRC58-8R	VMRC58-8L
59mm to 60mm 2-5/16" to 2-3/8"	VSEAL58	VSC60	VSEAL60	VSC60	VMRC-SB59	VMRC60-6R	VMRC60-6L	VMRC60-8R	VMRC60-8L
61mm to 63mm 2-13/32" to 2-½"	VSEAL60	VSC63	VSEAL63	VSC63	VMRC-SB62	VMRC62-6R	VMRC62-6L	VMRC62-8R	VMRC62-8L
64mm to 65mm 2-¼" to 2-9/16"	VSEAL63	VSC65	VSEAL65	VSC65	VMRC-SB64	VMRC64-6R	VMRC64-6L	VMRC64-8R	VMRC64-8L
66mm to 67mm 2-19/32" to 2-5/8"	VSEAL65	VSC67	n/a	n/a	VMRC-SB66	VMRC66-6R	VMRC66-6L	VMRC66-8R	VMRC66-8L

