

# How to Choose the Correct Viper Wire Rope Lubrication System

## Step 1:

Select a Viper kit based on the size of the ropes – check with your customer what the largest size rope they will be using, any rope size from 6mm up to 67mm then the Mid kit is the correct selection.

## What's Included in the Viper WRL Kits:

### VIPER WRL MINI MK 3

- Viper Mini MK 3 collar
- Viper Mini MK 3 lube pump, air control & lube supply hose
- Retaining ratchet straps & shackles
- Robust aluminium storage case

### VIPER WRL MID MK 2

- Viper Mid MK 2 high strength cast aluminium collar
- High volume grease pump
- Air regulator/moisture trap with gauge and 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 WRL MAXI MK 2

- Viper Maxi MK 2 high strength cast aluminium collar
- Choice of two pumps 4.5Kg/min output & 13Kg/min output in 190Kg drum
- Twin lubricant inlets
- Air Regulator/Moisture Trap with gauge and isolation valve
- 10m High pressure supply hose fitted with couplings both ends
- Clear lube drain hose
- 1200Kg rated retaining ratchet straps & bow shackles
- Heavy duty fully welded aluminium storage case



## Step 2

Select the correct seals, scrapers and rope cleaners. This is done by using the *Viper Seal, Scraper and Cleaner Selection Guide* (see excerpts below). The mini version does not use scrapers.

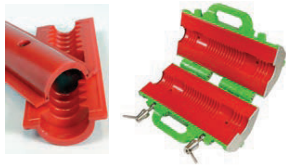
**\*\* Remember these are not included in the kit price as the Viper system works with seal, scraper and cleaners for specific sizes ropes. The Mini version does not use scrapers.**

# VIPER WRL MINI MK 3 - MID MK 2 - MAXI MK 2 SEAL - SCRAPER - VRC - SELECTION GUIDE



### SEAL SELECTION

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

Viper recommend that wire ropes be physically measured prior to ordering seals and scrapers as ropes in service may vary in size. 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.

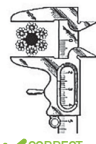
\*VRC available as a single unit or pack of 5



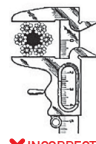
### IMPORTANT - BEFORE YOU ORDER

#### 1. PHYSICALLY MEASURE ROPES

It is critical that all ropes be physically measured prior to selecting and ordering the VRC, as ropes size may vary in service.



✓ CORRECT



✗ INCORRECT

#### 2. DETERMINE LAY OF ROPES



Right Lay  
Clockwise Rotation



Left Lay  
Counter Clockwise  
Rotation

#### 3. DETERMINE THE STRAND TYPE



6 Strand



8 Strand



Armoured or  
Multi Strand

## Step 2 cont.

Once you have the rope size and construction, the selection chart is an all in one guide to selecting the correct seals, scrapers and cleaners for that specific rope size and construction (6 or 8 strand or multistrand)

**The mini version does not use scrapers.**

Column	1	2	3	4	5	6	7	8	9	10
		6 & 8 Strand columns		Multi-strand columns			6 & 8 Strand columns for rope cleaners			
Rope sizes										
<b>IMPORTANT</b> 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/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	
36mm to 37mm	VSEAL35	VSC38	VSEAL38	VSC38	VRC-SB37	VRC36-6R	VRC36-6L	VRC36-8R	VRC36-8L	
1-13/32" to 1-29/64"	VSEAL38	VSC41	VSEAL41	VSC41	VRC-SB37	VRC36-6R	VRC36-6L	VRC36-8R	VRC36-8L	
38mm to 39mm	VSEAL38	VSC41	VSEAL41	VSC41	VRC-SB39	VRC40-6R	VRC40-6L	VRC40-8R	VRC40-8L	
1-1/8" to 1-17/32"	VSEAL38	VSC41	VSEAL41	VSC41	VRC-SB39	VRC40-6R	VRC40-6L	VRC40-8R	VRC40-8L	
40mm to 41mm	VSEAL38	VSC41	VSEAL41	VSC41	VRC-SB39	VRC40-6R	VRC40-6L	VRC40-8R	VRC40-8L	
1-37/64" to 1-19/32"	VSEAL41	VSC44	VSEAL44	VSC44	VRC-SB43	VRC44-6R	VRC44-6L	VRC44-8R	VRC44-8L	
42mm to 44mm	VSEAL41	VSC44	VSEAL44	VSC44	VRC-SB43	VRC44-6R	VRC44-6L	VRC44-8R	VRC44-8L	
1-5/8" to 1-3/4"	VSEAL41	VSC44	VSEAL44	VSC44	VRC-SB43	VRC44-6R	VRC44-6L	VRC44-8R	VRC44-8L	

Column 1 – Rope Sizes

Column 2 – Seals match rope sizes for 6/8 strand

Column 3 – Scrapers match rope size for 6/8 strand

Column 4 – Seals match rope size for multi-strand rope strand

Column 5 – Scrapers match rope size for multi-strand rope strand

Column 6 – Rope Cleaner for multi-strand rope strand

Column 7 – Rope Cleaner for 6 strand Right Hand Lay

Column 8 – Rope Cleaner for 6 strand Left Hand Lay

Column 9 – Rope Cleaner for 8 strand Right Hand Lay

Column 10 – Rope Cleaner for 8 strand Left Hand Lay