

Seals 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.



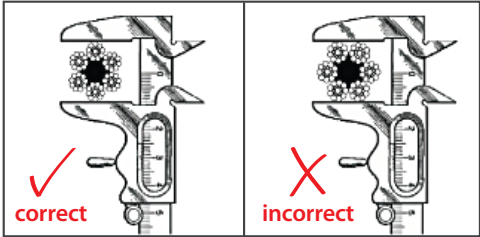
Scraper Selection

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.



Wire Rope Measurement Guide

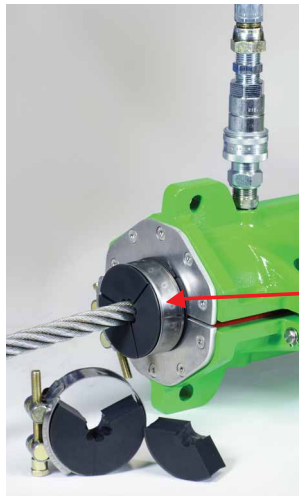
It is recommended that wire ropes be physically measured prior to ordering seals and scrapers as ropes in service can stretch and sizes may vary.



The illustrations show how to measure a wire rope correctly.

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.

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



RIGHT: Smooth Bore Rope Cleaner

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



Right Lay - Clockwise Rotation



Left Lay - Counter Clockwise Rotation



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



Viper Mini Mk II



Actual Rope Size	Seals for 6 & 8 Strand Ropes	Seals for Armoured & Multi Strand Ropes	Viper Smooth Bore Rope Cleaner	Viper Rope Cleaner 6 Strand Ropes		Viper Rope Cleaner 8 Strand Ropes	
	Seal Part No.	Seal Part No.		Right Lay	Left Lay	Right Lay	Left Lay
6mm to 7mm 15/64" to 9/32"	VMISEAL6	VMISEAL8	N/A	N/A	N/A	N/A	NA
8mm to 10mm 5/16" to 3/8"	VMISEAL8	VMISEAL10	VRC-SB9	N/A	N/A	N/A	NA
11mm to 12mm 7/16" to 15/32"	VMISEAL10	VMISEAL13	VRC-SB11	N/A	N/A	N/A	NA
13mm to 14mm ½" to 9/16"	VMISEAL13	VMISEAL14	VRC-SB13	N/A	N/A	N/A	NA
15mm to 16mm 19/32" to 5/8"	VMISEAL14	VMISEAL16	VRC-SB15	VRC16-6R	VRC16-6L	N/A	NA
17mm to 18mm 21/32" to 11/16"	VMISEAL16	VMISEAL18	VRC-SB17	VRC18-6R	VRC18-6L	N/A	NA
19mm to 20mm ¾" to 25/32"	VMISEAL18	VMISEAL20	VRC-SB19	VRC20-6R	VRC20-6L	N/A	NA
21mm to 22mm 13/16" to 7/8"	VMISEAL20	VMISEAL22	VRC-SB21	VRC-22-6R	VRC22-6L	N/A	NA
23mm to 24mm 29/32" to 15/16"	VMISEAL22	VMISEAL24	VRC-SB23	VRC24-6R	VRC24-6L	VRC24-8R	VRC24-8L
25mm to 26mm 1" to 1 1/32"	VMISEAL24	VMISEAL26	VRC-SB25	VRC26-6R	VRC26-6L	VRC26-8R	VRC26-8L
27mm to 28mm 1 1/16" to 1 1/8"	VMISEAL26	VMISEAL28	VRC-SB27	VRC28-6R	VRC28-6L	VRC28-8R	VRC28-8L
29mm to 30mm 1 5/32" to 1 3/16"	VMISEAL28	VMISEAL30	VRC-SB29	VRC30-6R	VRC30-6L	VRC30-8R	VRC30-8L
31mm to 33mm 1 ¼" to 1 5/16"	VMISEAL30	VMISEAL33	VRC-SB32	VRC32-6R	VRC32-6L	VRC32-8R	VRC32-8L
34mm to 36mm 1 11/32" to 1 13/32"	VMISEAL33	VMISEAL35	VRC-SB34	VRC34-6R	VRC34-6L	VRC34-8R	VRC34-8L

Viper Mid Mk II

Actual Rope Size	 These Columns for 6 or 8 Strand Ropes Only		 These Columns for Armoured or 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
	6mm to 7mm 15/64" to 9/32"	VSEAL6	VSC8	VSEAL8		VSC8	n/a	n/a	n/a
8mm to 10mm 5/16" to 3/8"	VSEAL8	VSC10	VSEAL10	VSC10	VRC-SB9	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	
13mm to 14mm ½" to 9/16"	VSEAL13	VSC14	VSEAL14	VSC14	VRC-SB13	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	
17mm to 18mm 21/32" to 11/16"	VSEAL16	VSC18	VSEAL18	VSC18	VRC-SB17	VRC18-6R	VRC18-6L	n/a	
19mm to 20mm ¾" to 25/32"	VSEAL18	VSC20	VSEAL20	VSC20	VRC-SB19	VRC20-6R	VRC20-6L	n/a	
21mm to 22mm 13/16" to 7/8"	VSEAL20	VSC22	VSEAL22	VSC22	VRC-SB21	VRC22-6R	VRC22-6L	n/a	
23mm to 24mm 29/32" to 15/16"	VSEAL22	VSC24	VSEAL24	VSC24	VRC-SB23	VRC24-6R	VRC24-6L	VRC24-8R	
25mm to 26mm 1" to 1-1/32"	VSEAL24	VSC26	VSEAL26	VSC26	VRC-SB25	VRC26-6R	VRC26-6L	VRC26-8R	
27mm to 28mm 1-1/16" to 1-1/8"	VSEAL26	VSC28	VSEAL28	VSC28	VRC-SB27	VRC28-6R	VRC28-6L	VRC28-R8	
29mm to 30mm 1 5/32" to 1 3/16"	VSEAL28	VSC30	VSEAL30	VSC30	VRC-SB29	VRC30-6R	VRC30-6L	VRC30-8R	
31mm to 33mm 1-¼" to 1-5/16"	VSEAL30	VSC34	VSEAL33	VSC34	VRC-SB32	VRC32-6R	VRC32-6L	VRC32-8R	
34mm to 35mm 1-11/32" to 1-3/8"	VSEAL33	VSC36	VSEAL35	VSC36	VRC-SB34	VRC34-6R	VRC34-6L	VRC34-8R	





Viper Mid Mk II

Actual Rope Size	 These Columns for 6 or 8 Strand Ropes Only		 These Columns for Armoured or 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 38mm 1-13/32" to 1-1/2"	VSEAL35	VSC38	VSEAL38		VSC38	VRC-SB37	VRC38-6R	VRC38-6L
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 1-3/4"	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"n 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 2-1/2"	VSEAL60	VSC63	VSEAL63	VSC63	VMRC-SB62	VMRC62-6R	VMRC62-6L	VMRC62-8R	VMRC62-8L
64mm to 65mm 2-1/2" 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





Viper Maxi Mk II

Actual Rope Size	 These Columns for 6 or 8 Strand Ropes Only		 These Columns for Armoured or Multi Strand Ropes Only		Multi-Strand Rope Cleaners for ropes over 65mm are available on request, eg: 18/21 Strand Ropes minimum order quantities may be applicable				
	Viper Seals/Scrapers for 6 & 8 Strand Ropes Only		Viper Seals/Scraper for Amoured & 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-SB49	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	n/a	n/a	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





Viper Maxi Mk II

Actual Rope Size	 These Columns for 6 or 8 Strand Ropes Only		 These Columns for Armoured or Multi Strand Ropes Only		Multi-Strand Rope Cleaners for ropes over 65mm are available on request, eg: 18/21 Strand Ropes minimum order quantities may be applicable				
	Viper Seals/Scrapers for 6 & 8 Strand Ropes Only		Viper Seals/Scraper for Amoured & 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
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 3-1/2"	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
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 4-1/4" 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	VMMSC111	VMMSEAL115	VMMSC111	VMMRC-SB113	VMMRC112-6R	VMMRC112-6L	VMMRC112-8L	VMMRC112-8L
115mm to 116mm 4-1/2" 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



Viper Maxi Mk II

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	Seal Part No.	Scraper No.	Seal Part No.	Scraper No.		Right Lay	Left Lay	Right Lay	Left Lay
120mm to 122mm 4-11/16" to 4-3/4"	VMMSEAL120	VMMSC122	VMMSEAL123	VMMSC122	VMMRC-SB121	VMMRC122-R6	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 4-15/16" 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 5-3/2" 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

