

The SaemaH logo is located in the top right corner. It consists of the word "SaemaH" in a white, sans-serif font, followed by a stylized white graphic element resembling a ship's hull or a wing.

SaemaH

# *SaemaH*

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<http://www.saemah.com>



# Synthetic Mooring Line

## SIGMA UHMWPE Rope

The term High Modulus fiber Mooring Lines generally refers to ropes made from high modulus fibers such as High Modulus Polyethylene(HMPE) and Aramid.

### •• The benefits of mooring lines made with Sigma UHMWPE are proven instead of steel wire rope ••

Steel Wire Rope	Sigma UHMWPE Rope
Heavy weight makes length limited Sinks in water Reduces lifting capacity of winches Heavier deck loads Increases power requirements Difficult handling for crews and ROVs	Light weight makes length limitless Neutrally buoyant Increase lifting capacity of winches and cranes Lighter deck loads Reduces power requirements Easy handling for crews and ROVs

### •• Key Advantage ••

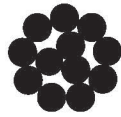
- Strength equivalent steel wire rope
- Kink / Torque Free
- Light weight for easy service and repair on board
- Good resistance and Long life span
- Lower snap-back for crew's safety
- Environment protection & Cost savings by unusing lubricant
- Good chemical resistance
- Floating type to avoid propeller accident

### •• Application ••

- Tug Assist, Face & Wing Line
- Towing, Winch and Pulling line
- Specialty Rigging Line
- Wire Rope replacement



## SIGMA UHMWPE

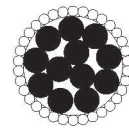


12-STRAND CONSTRUCTION

### •• Technical Specification ••

- UHMWPE Yarn with Special Coating
- 12 strand braided
- Specific Gravity : 0.98
- Elongation at break : 4-5%
- Melting point : 150 °C

## SIGMA UHMWPE PLUS

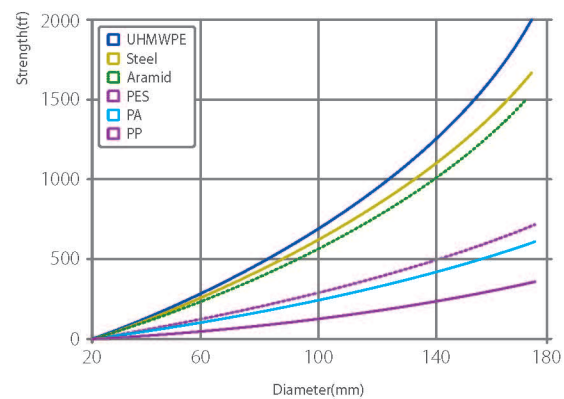
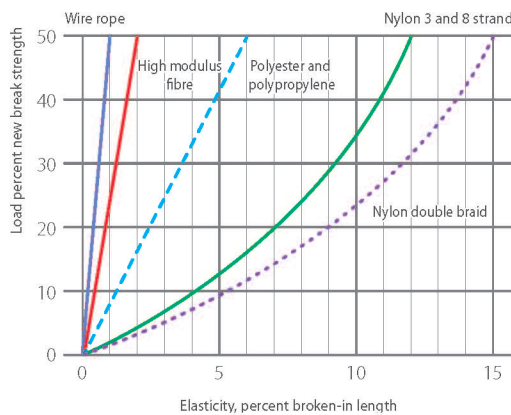


32-STRAND JACKET OUTSIDE  
& 12-STRAND UHMWPE INSIDE

### •• Technical Specification ••

- UHMWPE Core, Polyester Cover
- Elongation at break : 5%
- Melting point : 150 °C (Core) / 265 °C (Cover)

### •• Typical wire and synthetic fiber rope load-elasticity curves and strength-diameter curves ••



## SIGMA Rope Protector

Sigma Dura Protector(UHMWPE)/Sigma Protector(Polyester) is for anti-abrasion and UV resistance, so it is recommended for chafe protection to increase service life more by decreasing rope's external and internal abrasion when it's contacted on tough and sharp deck hardware.

For Eye			For Line		
Size	Rope Size		Size	Rope Size	
	Dia(mm)	Cir(inch)		Dia(mm)	Cir(inch)
Small	Under 50	Under 6"	Small	Under 50	Under 6"
Medium	50 - 70	6" - 9"	Medium	50 - 70	6" - 9"
Large	70 - 80	9" - 10"	Large	70 - 80	9" - 10"
Free	50 - 80	6" - 10"	Free	50 - 80	6" - 10"

- Free size can be applied after eye-splicing.





# Synthetic Mooring Line

It's made of High Tenacity PP , Polyester and Nylon and has been general type for most of the ships.  
Our rope's quality is evaluated by ship-owners & management company in worldwide and has been supplied continually due to below advantages :

Product	Material	Specific Gravity	Melting Point	Elongation	Features	Application	Appearance
SIGMA PP 8	Polypropylene	0.91	165 °C	20 - 25%	High Tenacity Floating UV Resistance	Mooring Lines Tow Lines	
SIGMA DURAPP 8	High Tenacity Polyolefin Fiber	0.96	165 °C	20 - 25%	High Strength Floating Higher Abrasion resistance	Mooring Lines Tow Lines Fishing	
SIGMAFLEX 8	Mixed PP & Polyester 8strand	0.99	260 °C / 165 °C	18 - 22%	High Strength Low Elongation	Mooring Lines Tow Lines Tug Assist Lines	
SIGMAFLEX 12	Mixed PP & Polyester 12strand	0.99	260 °C / 150 °C	16 - 20%	Excellent Wear Life Non-Rotating	Mooring Lines Tug Assist Lines Pendant & Barge Tie-up lines	

- Manufactured and  $\pm 5\%$  tolerance according to ISO2307






(GUIDE) Polypropylene is lighter than water and can be used for floating messenger lines.  
The use of mooring manufactured from 100% polypropylene is not recommended.  
However, suitable composites or melt mixes with other fibers such as polyethylene or polyester are available and acceptable for use as moorings.

And the eight-strand and twelve-strand braided ropes are constructed of left and right-hand laid strands to give a torque-free rope.  
They are easily spliceable and provide a good rope structure for mooring lines.(OCIMF 3rd Edition)

We issue a certificate for Quality Assurance.



It's commonly used for heavy marine applications such as mooring, docking and anchor systems. The mooring ropes retain superior strength under shock have excellent resistance to abrasion with less kinks and internal rotations.





Product	Material	Specific Gravity	Melting Point	Elongation	Features	Application	Appearance
SIGMA NY12	Nylon	1.14	220 °C	30%	Shock Mitigation Good Construction	Mooring Lines Shock & Tow Lines	
SIGMALON6	Nylon-Mono + Nylon-Multi	1.14	230 °C	25%	Lighter than wire Abrasion Resistance	Winch Anchor Lines Heavy Industry	
SIGMA Double Braid	PP Multi & Polyester Multi Double Braided	0.99	260°C / 165°C	25-30%	Excellent Strength Wear Resistance Low Elongation Easy to handle and very Flexible Non-rotating, Anti-Kink and High Shock Absorb	Mooring Lines Anchoring	

## Mooring Tail

Mooring tails provide additional elasticity for the wire and high modulus mooring lines of some large ships are fitted at the shore.

Material	Construction	Type	Dia(mm)	Length (mtr)	Application Factor
SIGMA NY	8 Strand	Eye to Eye or Endless	55 UP	Standard length 11mtr	137% against MBL of mooring line
	12 Strand			22mtr or longer to be considered as an exposed berth standard	
	Double Braided				
SIGMA FLEX	8 Strand	Eye to Eye or Endless	55 UP	Standard length 11mtr	125% against MBL of mooring line
	12 Strand			22mtr or longer to be adequate for the combined with a lower limit on wave height	
	Double Braided				

### •• Methods of Connecting Tails ••

Wire		HMPE	
Tonsberg	Mandal	Shackle Type	Cow-Hitch Type
			

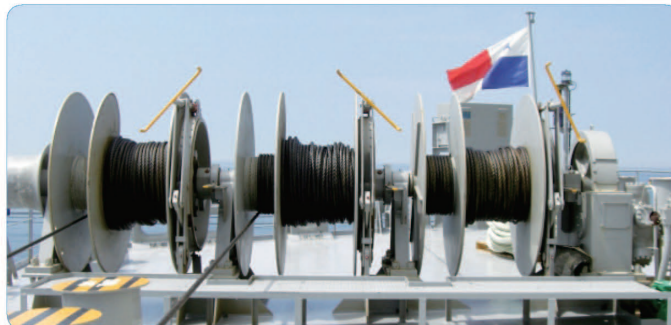
**Guide To Use Tail**

- Tails replacement period : every 18months after using.
- Tails should be connected to a wire mooring line by using proper shackles and the S.W.L of the joining shackle should be equal to or greater than the S.W.L of the mooring line to winch it is attached. (Quoted : OCIMF 3rd Edition)

# Mooring Line & Crane Wire Rope

## Wire Mooring

We recommend construction 6 X 36 or 6 X 41 (6 X 36 Class) with the wires in each strand of equal lay and the strands of regular right hand lay according to OCIMF 3rd Edition.



## Crane wire for Hoisting / Luffing

Recommended Construction is ;

4 X SES(39)+FC or 3 X SES(39)+FC for Hoisting

6 X Fi(29)+IWRC or 6 X WS(36)+IWRC for Luffing



## Features

Saemah Wire Rope

is satisfied JIS (Japanese Industrial Standards), and

is supplied with Class Certificate(NK, Lloyd and ETC.)



### CERTIFICATE OF TEST AND INSPECTION

Date of Issue : 22nd Sep, 2015 Certificate No. : SA150922-001  
Client : MV INFINITY RIVER Class Certificate : Class NK (No. RP15PS00941-2)

We issue this certificate to CERTIFY that the Wire Rope,

Standard : JIS Standard  
Surface : Galvanized  
Construction : 4 X SES(39) + FC (Actual M.B.L. : 825.5 kN)  
Specified M.B.L. : 770 kN  
Lubrication : A3  
Diameter : 33.5 mm  
Length : 220 m per Reel  
Weight : 1,055.70 kg per Reel  
Quantity : 1 Reel

Manufacturer : KISWIRE LTD.

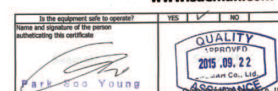
End Terminations : One End - Dead Eye Thimble - No.36(PH)  
Other End - Sealing



Identification Label :

CERT No. RP15PS00941-2

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In the equipment with its serial?  
Name and signature of the person authorizing this certificate  
SAEMAH CO., LTD.  
Tel: +82-51-555-4279 Fax: +82-51-555-4282 E-mail: saemah@saemah.com  
894885, Carbon St Tower, 43, Carbon-Builders, Haeundae-Gu, Busan, Korea

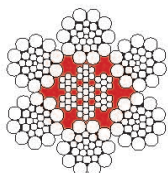




# Special Wire Rope

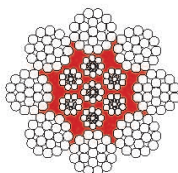
## Plastic Filled Rope

•• Flextec 6 ••



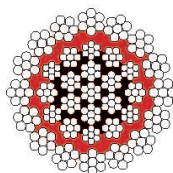
Available Size  
Dia22~76.2mm

•• Flextec 8 ••



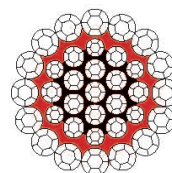
Available Size  
Dia22~48mm

•• Flextec 35 ••



Available Size  
Dia14~38mm

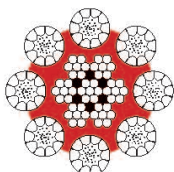
•• Powertec 35 ••



Available Size  
Dia14~38mm

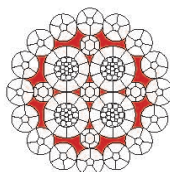
## Compacted Non-rotating Rope

•• Powertec 8 ••



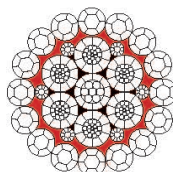
Available Size  
Dia22~48mm

•• Poweract 25D/DP ••



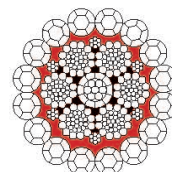
Available Size  
Dia14~25mm

•• Poweract 28D/DP ••



Available Size  
Dia14~28mm

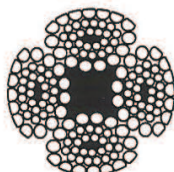
•• Poweract 29P ••



Available Size  
Dia14~28mm

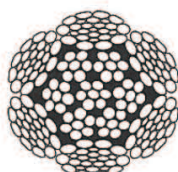
## Swaged Compact Rope

•• SAS 4 ••



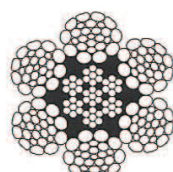
Available Size  
Dia11.2~38mm

•• SR 6 ••



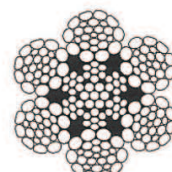
Available Size  
Dia11.2~32mm

•• PSR 6FI ••



Available Size  
Dia12.7~25.4mm

•• PSR 6WS ••



Available Size  
Dia 12.7~25.4mm

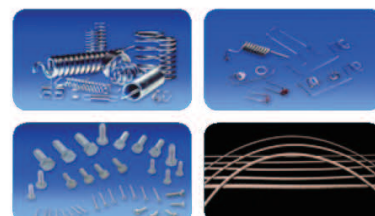
# Stainless Steel Wire & Wire Rope

## Stainless Steel Wire Rope

- 7 X 7, 7 X 19, 6XS(24)+7FC, 6XWS(36)IWRC are used in main and other construction is available as well.

## Stainless Steel Wire

- Spring Wire for High-Tech / Environment requirements
- Cold Heading Wire with Superior cold-head ability and continous productivity
- Roping Wire with exact dia, consistant tensile strength and elegant shiny surface
- Weaving Wire with superior corrosion and heat resistance
- General Purpose Wire with good brightness and various purpose use



# Round & Web Sling

## Round & Web Sling

To meet the increasing demand for safety, we offer high quality products in European Standards to International markets with a specialty in design and manufacture of polyester lifting and lashing system with reflected customer's intentions.

All kinds of webbings have Red Core Warning yarns inside of load bearing part.

The exposure of these Red Core Warning yarns provides the use with a signal to remove and change the sling.

Webbing is available in several different colors and sizes according to use.

### •• Characteristics Comparison of Sling Materials ••

Material	Density (g/cm <sup>3</sup> )	Specific Gravity	Melting Point( °C)	Elongation(%)	Acid-tolerance	Alkali-tolerance
Nylon	9.5-10	1.14	180-200	34	X	Δ
Polyester	9.0-9.2	1.38	240	16-18	Δ	X
Polypropylene	5.5-6	0.92	140-160	14-15	O	O
Aramid	28	1.38-1.40	450-500	4.4-4.5	O	O
UHMWPE	33	0.98	150	4.0	O	O



- All kinds of webbings have Red Core Warning yarns inside of load bearing part.

### •• Web Sling ••

- Flat Websling (Single Type / Double Type)
- Safety Factor 6 to 1, 7 to 1
- Endless Type Websling

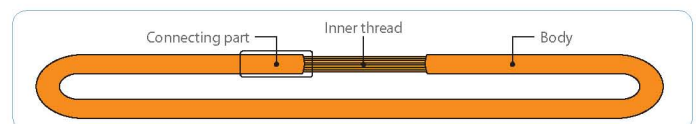
- Manufactured by European Community CEN and JIS standard.

### •• Round Sling ••

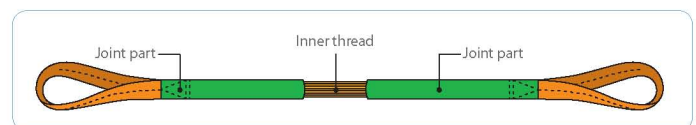
- Endless Type , Eye to Eye Type
- Safety Factor 6 to 1, 7 to 1
- Materials : Special Fiber , Polyester

- Manufactured by European Community CEN and JIS standard.

### •• Endless Type ••



### •• Eye to Eye Type ••





## Lashing Material

## Car Carrier

In maritime transport, Lashing belts should be tight, but not highly prestressed. The vehicles are generally secured with two lashing belts in the front and rear.

• SIGMA Lashing Belt •

- Easy and convenient wide handle
- Double gear for safety
- Epoxy coating for anti-corrosion
- Chromating
- CE approved

## • Product Specification •

- B/S: 2 / 5 / 10 Ton
- Width: 25mm / 50mm / 75mm
- Length: 2m / 4m / 5m



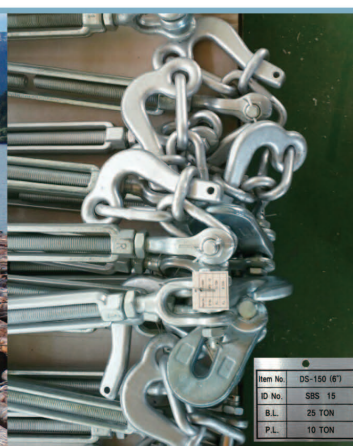
## Cargo Vessel

- Lashing Chain
- Ratchet
- Sling
- Turnbuckle



## Log Carrier

- Lashing Wire 6 X 24+FC
- Lashing Chain
- Snatch Block
- Lashing Turnbuckle
- Lashing Shackle



SAMPLE

Date: 03/04/2018  
 Customer No.: C0201801

## CERTIFICATE OF TEST AS PER CANADIAN FUMIGATION AND TACKLE REGULATIONS

CERTIFICATE OF TEST AND EXAMINATION OF THREE TIER CARBON LADDER MATERIAL  
FOR THE DEVELOPMENT OF THE CANADIAN FUMIGATION AND TACKLE REGULATIONS

Designation No. for each Sample to be tested	Description of fumigation material	Number of Tackle	Batch of Tackle	Fumigant Load (kg)	Fumigant concentration (mg/l)	Exposure Time (hrs)
1. CARBON LADDER TYPE 1, Standard specification, as per CANADIAN REG 1 - 1000	1000 (1000)g	36	24 Dec 15	15	137	1000000
2. CARBON LADDER TYPE 1, Standard specification, as per CANADIAN REG 1 - 1000	1000 (1000)g	36	24 Dec 15	24.527	137	1000000
3. CARBON LADDER TYPE 1, Standard specification, as per CANADIAN REG 1 - 1000	1.027 (1000)g	36	24 Dec 15	24.527	137	1000000
4. CARBON LADDER TYPE 1, Standard specification, as per CANADIAN REG 1 - 1000	1000 (1000)g	52	24 Dec 15	15	137	1000000
5. CARBON LADDER TYPE 1, Standard specification, as per CANADIAN REG 1 - 1000	1000 (1000)g	52	24 Dec 15	24.527	137	1000000
6. CARBON LADDER TYPE 1, Standard specification, as per CANADIAN REG 1 - 1000	1.027 (1000)g	52	24 Dec 15	24.527	137	1000000
7. CARBON LADDER TYPE 1, Standard specification, as per CANADIAN REG 1 - 1000	1.027 (1000)g	52	24 Dec 15	24.527	137	1000000

This is to certify that the fumigation or testing, fumigation and examination activities of the above fumigation, the fumigating fumigant as listed in compliance with the "Tackle 151" of "Tackle Regulations" of Tackle Regulations.

Signature of an eligible person

NAME: MAMMOON, LTD.

Address: 69, Centrium Ind. Estate,  
Kallang, Singapore 340069

Signature: MAMMOON, LTD.

(Print the full name of the signatory)

Signature

69, Centrium Ind. Estate,  
Kallang, Singapore 340069

69, Centrium Ind. Estate,  
Kallang, Singapore 340069

(Print the full name of the signatory)





# Product Specification

## Synthetic Fiber Rope

Product	SIGMA UHMWPE		SIGMA UHMWPE PLUS		SIGMA FLEX 12		SIGMA FLEX 8		SIGMA NY 12	
Material	UHMWPE		UHMWPE(CORE) +POLYESTER(JACKET)		PP & Polyester (Ratio: 7:3)		PP & Polyester (Ratio: 7:3)		Nylon-Multifilament	
Dia (mm)	Weight kg/100mtr	B/S (kN)	Weight kg/100mtr	B/S (kN)	Weight kg/100mtr	B/S (kN)	Weight kg/100mtr	B/S (kN)	Weight kg/100mtr	B/S (kN)
22	30.5	490.5	31.1	378.7	27.5	100.9	27.5	94.9	29.9	109.7
24	35.8	569.0	37.0	451.3	32.8	120.0	32.8	113.0	35.6	130.6
26	41.0	647.5	43.5	529.7	38.4	140.9	38.4	132.6	41.8	153.3
28	46.5	725.9	50.0	618.0	44.6	163.4	44.6	153.8	48.5	177.8
30	52.0	799.5	54.2	667.1	51.2	187.5	51.2	176.5	55.7	204.1
36	68.0	1,020.2	78.9	912.3	73.7	270.1	73.7	254.2	80.2	293.9
40	87.0	1,245.9	94.8	1,118.3	91.0	333.4	91.0	313.8	99.0	362.8
45	106.3	1,543.4	132.5	1,422.7	116.0	405.1	114.3	379.2	124.8	430.9
48	121.0	1,756.0	150.7	1,618.7	132.0	460.9	130.0	431.5	142.0	490.3
50	130.4	1,868.4	162.7	1,768.7	138.7	489.6	137.8	471.4	153.5	534.9
55	157.2	2,233.3	194.2	2,176.4	172.7	605.4	171.7	558.1	192.9	671.7
60	195.0	2,472.1	225.5	2,580.0	200.5	706.1	200.0	657.0	222.5	774.7
65	226.6	2,832.5	265.3	3,092.5	233.1	819.3	231.1	768.8	259.9	910.4
70	256.2	3,226.9	306.7	3,523.6	268.4	945.5	268.4	880.6	311.9	1,066.0
75	292.2	3,697.2	354.6	4,098.5	305.9	1,068.8	305.9	991.2	351.6	1,189.4
80	345.0	4,139.8	394.9	4,493.0	348.0	1,216.0	348.0	1,127.8	400.0	1,353.3
85	389.5	4,673.4	445.8	5,072.2	391.9	1,354.1	390.0	1,280.9	445.0	1,463.9
Specific Gravity	0.98		1.01-1.09 (Floating type available)		0.99		0.99		1.14	
Melting Point	150 °C		150 °C(Inside), 265 °C(Cover)		260 °C / 150 °C		260 °C / 165 °C		220 °C	
Elongation	4-5%		5%		16-20%		18-22%		45%	
Features	12 Strand Braided Floating Kink / Torque free		UHMWPE(JACKET) Available Kink / Torque Free		Excellent Wear Life Non-Rotating		Highest Strength Low Elongation		Shock Mitigation	
Application	Mooring Lines & Wire Rope Replacement				Mooring Lines Tug Assist Lines		Mooring Lines Tie-Up - Tug Assist Lines		Mooring Lines Shock & Tow Lines	

Product	SIGMA NY 8		SIGMA PP 8		SIGMA DURA PP 8		SIGMA Double Braid		SIGMALON 6	
Material	Nylon-Multifilament		Polypropylene		Polyolefin Fiber		PP & Polyester Double Braid Rope		NY-Mono + NY-Multi	
Dia (mm)	Weight kg/100mtr	B/S (kN)	Weight kg/100mtr	B/S (kN)	Weight kg/100mtr	B/S (kN)	Weight kg/100mtr	B/S (kN)	Weight kg/100mtr	B/S (kN)
32	61.5	225.6	50.5	191.4	51.2	221.0	63.4	213.0	67.2	232.5
36	77.5	284.4	64.0	245.4	64.8	279.7	80.2	269.6	85.1	294.3
40	95.5	343.2	79.0	294.2	80.0	345.3	99.1	332.8	105.0	363.3
45	121.7	418.0	100.6	370.6	101.5	425.0	125.4	421.2	129.6	457.4
48	138.5	475.6	114.5	421.7	115.5	483.6	142.7	479.2	147.5	520.4
50	152.1	490.3	124.7	442.6	125.0	517.8	154.8	520.0	151.6	544.7
55	184.0	593.3	150.5	525.0	151.4	626.4	186.8	622.0	192.9	658.2
60	219.0	706.1	179.5	637.4	180.0	745.6	222.3	732.0	216.0	746.2
65	256.5	834.6	209.5	727.3	212.0	926.0	260.9	852.0	255.8	888.2
70	298.7	945.5	242.9	843.5	245.8	1,014.4	299.0	967.0	310.0	1,060.5
75	341.5	1,077.4	280.4	956.7	281.4	1,164.5	349.4	1,123.0	336.5	1,143.9
80	388.5	1,225.8	319.0	1,088.5	320.5	1,325.3	397.8	1,273.0	385.5	1,309.2
85	437.6	1,354.1	360.1	1,228.8	362.0	1,495.6	448.8	1,413.0	450.0	1,515.2
90	490.6	1,518.1	403.7	1,384.8	405.8	1,676.7	504.8	1,584.0	504.5	1,698.7
95	540.6	1,661.3	449.8	1,517.4	451.4	1,868.5	563.8	1,764.0	572.9	1,923.1
100	600.0	1,858.7	495.6	1,677.3	500.8	2,069.0	625.3	1,944.0	634.8	2,130.9
Specific Gravity	1.14		0.91		0.96		0.99		1.14	
Melting Point	220 °C		165 °C		165 °C		160 °C(Inside), 238 °C(Cover)		220 °C	
Elongation	45%		20-25%		20-25%		20%		25%	
Features	Shock Mitigation		High Tenacity		Excellent Breaking Strength Remarkable Abrasion Resistance		Excellent Strength Wear Resistance Low Elongation		100% High Performance Nylon-Mono and Nylon-Multi filament Lighter than Wire Abrasion Resistance	
Application	Mooring/Tow Lines				Mooring / Floating Tow Lines		Mooring Lines		Winch/Anchor Lines	

-Guidance - ± 5% tolerance according to ISO2307



## General Wire Rope

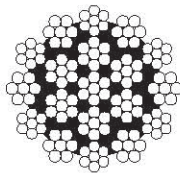
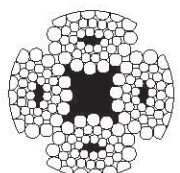
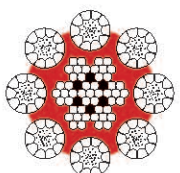
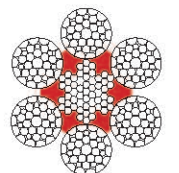
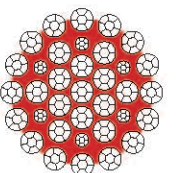
•• Application : Mooring, Crane, Winch, Anchor, Offshore ••

6 X 19 GROUP								
6 X S(19), 6 X W(19), 6 X FI(21), 6 X FI(25), 6 X WS(26)								
Dia (mm)	Min. Breaking Load In Metric Tons						Approx. weight (kg/mtr)	
	165kg/mm <sup>2</sup> (1620N/mm <sup>2</sup> )		180kg/mm <sup>2</sup> (1770N/mm <sup>2</sup> )		195kg/mm <sup>2</sup> (1910N/mm <sup>2</sup> )			
	FC	IWRC	FC	IWRC	FC	IWRC	FC	IWRC
26	37.5	42.8	39.9	45.5	43.2	49.3	2.61	2.91
28	43.5	49.7	46.4	52.9	50.1	57.2	3.02	3.37
30	50.0	57.1	53.3	60.7	57.6	65.6	3.47	3.87
32	56.8	64.8	60.5	68.9	65.5	74.7	3.95	4.40
34	64.1	73.2	68.3	77.8	73.9	84.3	4.46	4.97
36	71.9	82.1	76.5	87.2	82.9	94.5	5.00	5.57
38	80.1	91.4	85.3	97.2	92.4	105.3	5.57	6.21
42	97.9	111.7	104.1	118.7	112.8	128.6	6.81	7.59
44	107.4	122.6	114.3	130.3	123.8	141.2	7.47	8.32
46	117.4	134.0	124.9	142.4	135.3	154.3	8.16	9.10
48	127.8	145.9	136.0	155.1	147.4	168.0	8.89	9.91
50	139.0	158.0	148.0	169.0	159.9	182.3	9.65	10.80

6 X 36 GROUP								
6 X FI(29), 6 X WS(31), 6 X SeS(37), 6 X WS(36), 6 X WS(41)								
Dia (mm)	Min. Breaking Load In Metric Tons						Approx. weight (kg/mtr)	
	165kg/mm <sup>2</sup> (1620N/mm <sup>2</sup> )		180kg/mm <sup>2</sup> (1770N/mm <sup>2</sup> )		195kg/mm <sup>2</sup> (1910N/mm <sup>2</sup> )			
	FC	IWRC	FC	IWRC	FC	IWRC	FC	IWRC
26	38.3	43.8	40.7	46.5	44.1	50.4	2.68	2.98
28	44.4	50.9	47.4	54.1	51.2	58.5	3.10	3.45
30	51.0	58.4	54.4	62.1	58.7	67.1	3.56	3.96
32	58.0	66.4	61.7	70.5	66.8	76.4	4.05	4.51
34	65.5	74.9	69.6	79.6	75.4	86.2	4.58	5.09
36	73.4	84.0	78.1	89.2	84.6	96.7	5.13	5.70
38	81.8	93.6	87.0	99.4	94.2	107.7	5.72	6.36
42	99.9	114.3	106.2	121.5	115.1	131.6	6.98	7.76
44	109.6	125.4	116.6	133.3	126.3	144.4	7.66	8.52
46	119.8	137.1	127.5	145.7	138.1	157.8	8.38	9.31
48	130.5	149.3	138.8	158.6	150.3	171.8	9.12	10.14
50	142.0	162.0	151.0	173.0	163.1	186.5	9.90	11.00

## Special Wire Rope

•• Application : Crane, General, Engineering ••

Cons.	19 X 7			4 X SeS(39)+FC			8 X WS(26) + IWRC			6 X WS(36) + IWRC			35 X 7		
Dia (mm)															
	Min. Breaking Load		Approx. Weight (kg/mtr)	Min. Breaking Load		Approx. Weight (kg/mtr)	Min. Breaking Load		Approx. Weight (kg/mtr)	Min. Breaking Load		Approx. Weight (kg/mtr)	Min. Breaking Load		Approx. Weight (kg/mtr)
	195kg/mm <sup>2</sup> (1910N/mm <sup>2</sup> )			200kg/mm <sup>2</sup> (1960N/mm <sup>2</sup> )			220kg/mm <sup>2</sup> (2160N/mm <sup>2</sup> )			220kg/mm <sup>2</sup> (2160N/mm <sup>2</sup> )			220kg/mm <sup>2</sup> (2160N/mm <sup>2</sup> )		
	kN	Ton		kN	Ton		kN	Ton		kN	Ton		kN	Ton	
22	336.1	34.3	2.06	335.2	34.2	1.95	454.7	46.4	2.21	430.2	43.9	2.29	471.6	48.1	2.52
24	399.8	40.8	2.45	398.9	40.7	2.32	541.0	55.2	2.63	511.9	52.2	2.72	561.3	57.2	2.99
26	469.4	47.9	2.87	467.5	47.7	2.72	635.0	64.8	3.09	600.8	61.3	3.19	658.7	67.2	3.51
28	543.9	55.5	3.33	542.9	55.4	3.15	737.0	75.2	3.58	696.8	71.0	3.70	764.0	77.9	4.07
30	624.3	63.7	3.83	622.3	63.5	3.62	843.8	86.1	4.11	799.9	81.6	4.25	876.1	89.3	4.68
32	710.5	72.5	4.35	708.5	72.3	4.12	959.4	97.9	4.68	910.1	92.8	4.84	996.8	101.6	5.32
33.5	778.2	79.4	4.78	777.0	79.2	4.51	1,051.3	107.3	5.10	997.4	101.7	5.30	1091.2	111.4	5.80
34	801.6	81.8	4.92	800.0	81.6	4.65	1,082.9	110.5	5.28	1,027.4	104.8	5.46	1,125.3	114.7	6.01
35	849.5	86.7	5.21	847.4	86.5	4.93	1,147.6	117.1	5.59	1,088.7	111.0	5.79	1,192.5	121.6	6.37
35.5	873.9	89.2	5.36	872.2	89.0	5.07	1,180.7	120.5	5.76	1,120.0	114.2	6.00	1,225.5	125.1	6.60
36	898.7	91.7	5.51	896.7	91.5	5.21	1,214.2	123.9	5.92	1,151.8	117.4	6.12	1,261.6	128.6	6.74
38	1,001.6	102.2	6.14	999.6	102.0	5.80	1,353.4	138.1	6.59	1,283.4	130.9	6.82	1,405.7	143.3	7.50
40	1,110.3	113.3	6.80	1,078.0	110.0	6.43	1,499.4	153.0	7.31	1,422.0	145.0	7.56	1,557.6	158.8	8.32
42	1,224.0	124.9	7.50	1,195.6	122.0	7.09				1,567.8	159.9	8.33	1,715.8	175.1	9.17
44	1,342.6	137.0	8.23	1,313.2	134.0	7.78				1,720.6	175.4	9.14	1,883.1	192.1	10.07
46	1,468.0	149.8	9.00	1,435.3	146.5	8.50							2,058.1	210.0	11.00

# Product Specification

## Webbing

Color	Sling(Webbing)						Tie Down Webbing	
	SF 6:1		SF 7:1		SF 7:1		Width	M.B.L
	Width	M.B.L	Width	M.B.L	Width	M.B.L		
Violet	25mm	3,500kgs	25mm	4,500kgs	30mm	4,500kgs	25mm	1,200kgs
Green	50mm	7,000kgs	50mm	9,000kgs	60mm	9,000kgs	38mm	3,500kgs
Yellow	75mm	10,500kgs	75mm	13,500kgs	90mm	13,500kgs	50mm	4,500kgs
Grey	100mm	14,000kgs	100mm	18,000kgs	120mm	18,000kgs	50mm	5,400kgs
Red	125mm	17,500kgs	125mm	22,500kgs	150mm	22,500kgs	75mm	7,500kgs
Brown	150mm	21,000kgs	150mm	27,000kgs	180mm	27,000kgs	100mm	10,000kgs
Blue	200mm	28,000kgs	200mm	36,000kgs	240mm	36,000kgs		
Orange	250mm	35,000kgs	250mm	45,000kgs	300mm	45,000kgs		
	300mm	42,000kgs	300mm	54,000kgs	300mm	54,000kgs		

## Web Sling

Width (mm)	Color	Eye to Eye Double Ply Sling					Endless Double Ply Sling				
		S.W.L (Kg)	Straight Pull	Chocked Hitch	Basket Pull	Basket Lift 90 °C	S.W.L (Kg)	Straight Pull	Chocked Hitch	Basket Pull	Basket Lift 90 °C
			 1 time	 0.8 time	 2 times	 1.4 times		 1 time	 0.8 time	 2 times	 1.4 times
25(6:1) 30(7:1)	Violet	1,000	1,000	800	2,000	1,400	2,000	2,000	1,600	4,000	2,800
50(6:1) 60(7:1)	Green	2,000	2,000	1,600	4,000	2,800	4,000	4,000	3,200	8,000	5,600
75(6:1) 90(7:1)	Yellow	3,000	3,000	2,400	6,000	4,200	6,000	6,000	4,800	12,000	8,400
100(6:1) 120(7:1)	Grey	4,000	4,000	3,200	8,000	5,600	8,000	8,000	6,400	16,000	11,200
125(6:1) 150(7:1)	Red	5,000	5,000	4,000	10,000	7,000	10,000	10,000	8,000	20,000	14,000
150(6:1) 180(7:1)	Brown	6,000	6,000	4,800	12,000	8,400	12,000	12,000	9,600	24,000	16,800
200(6:1) 240(7:1)	Blue	8,000	8,000	6,400	16,000	11,200	16,000	16,000	12,800	32,000	22,400
250(6:1) 300(7:1)	Orange	10,000	10,000	8,000	20,000	14,000	20,000	20,000	16,000	40,000	28,000

### Web Sling

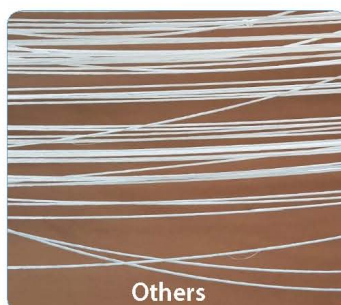
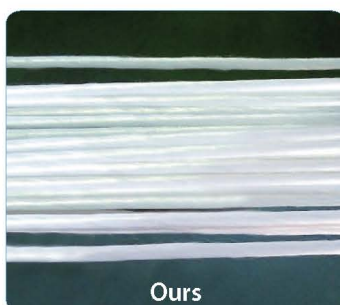
[Flat Websling (Single Type / Double Type), Endless Type Websling]  
- Manufactured by European Community CEN and JIS standard.

### Round Sling

- Manufactured by European Community CEN and JIS standard.  
- Please refer to above table for strength.

## Round Sling Comparison

### •• In coiling under tension ••



### •• View of cross-sectional cut ••

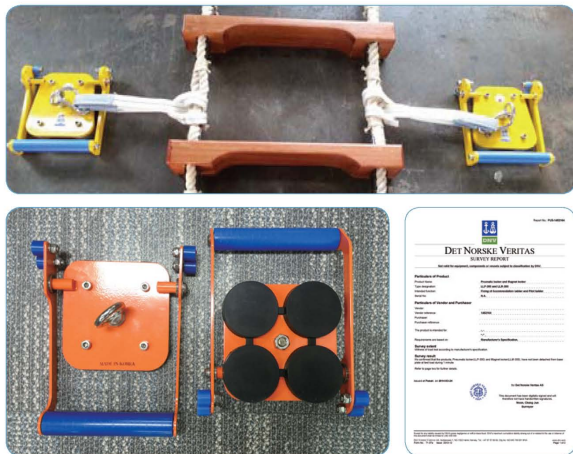


- SaemaH Round Sling is made of the same length of yarn in whole, so pressure force will be applied equally to whole round sling for better working load.



# Other Marine Equipment

## •• Ladder Locker ••



## •• Pilot Ladder ••



Satisfied with : • JIS F 2615-2006 • SOLAS reg. V/23

## •• High Pressure Cleaner ••



## •• Deck Scaler ••



• Over 700 PC Supplied

## •• Anode ••

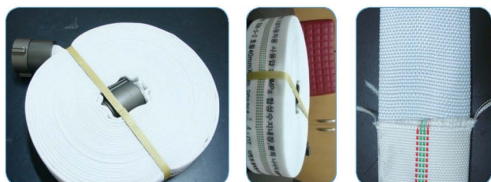


• Over 6,000 PC Supplied

## •• Marine Tape ••



## •• Canvas Hose & Water Tobey ••



## •• Wilden Pump ••



## •• Oil Fence and Fender ••



# SaemaH's Own Product

## Garbage Compactor

- Supplied for over 250 Vessels
- Acquired 3 patents(10-1347279, 10-1352862, 10-1498885)

Technical Specification		
Dimension (mm)	L (470) X W (500) X H (1,470)	
Press force (ton)	6 ton	
Weight (kgs)	190 kgs	
Container size (mm)	L (300) X W (300) X H (500)	
Use hydraulic oil	# 46	
Hydraulic oil capacity	12 ℓ	
Electricity	SM-V6S-220	1 X 220V , 1.5kW , 60Hz , 8.7A
	SM-V6S-110	1 X 110V , 1.5kW , 60Hz , 15A
IMPA Code	175585(220V)	175584(110V)



[ V3 ]



[ V6 ]



[ V10 ]



[ P4 ]



## FPD (Fall Prevent Device)

- Supplied for over 600 Vessels
- Acquired Class Certificates(ABS, Lloyd)

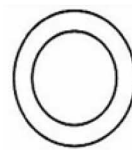


[ Redesigned in accordance with IMO MSC.1/Circ.1466 ]

## Rope Stopper



**CORE :**  
UHMWPE  
(12Strand)



**COVER :**  
POLYESTER  
(Double Braid)



Saemah's Sigma Plus UHMWPE optimized combination offers the property of higher strength, elasticity and lower elongation and the most advanced rope stopper.



# ROPES

## Delivered worldwide

★ Point is available    ● Point we need to check availability



### ● Head Office

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