

# TOWING SOLUTIONS



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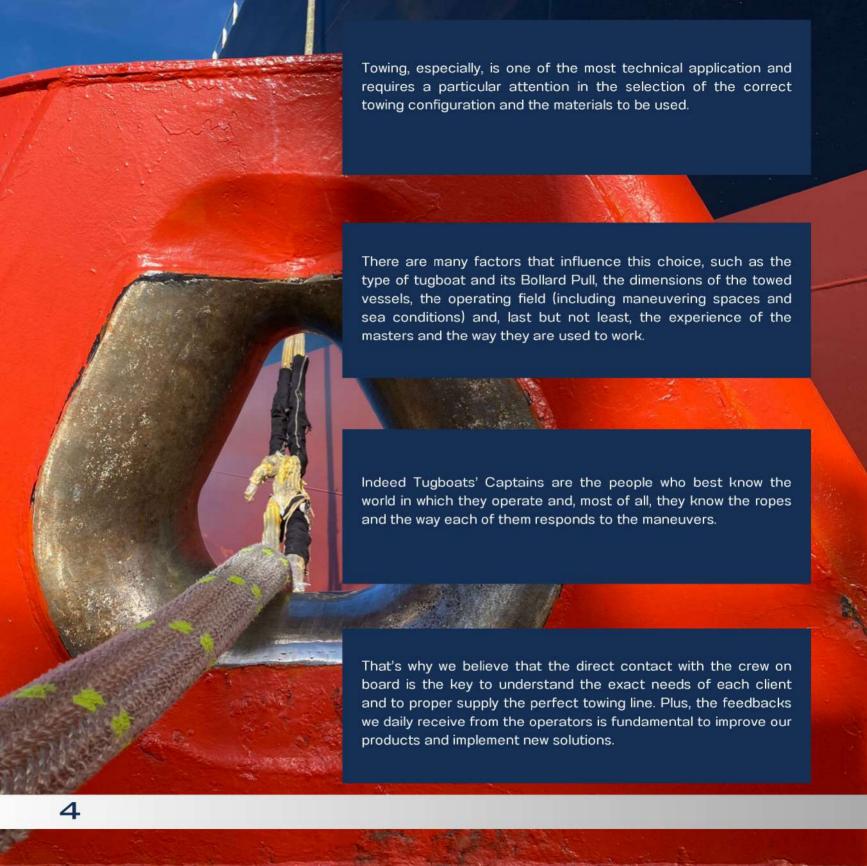
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#### ZENADYN

**ZenaDyn** is an ultra-high strength solution made from Trosar® yarns, an HMPE fibre produced by DSM.

**ZenaDyn** ropes are produced in a 12 strands construction and are stronger than steel ropes in the same diameter. It is specifically developed for the maritime industry in order to meet the need for light but strong ropes in a cost driven environment.

Our **ZenaDyn** is particularly indicated for the use as Main Line and Pennant in the Towing field. Its low elongation gives a confident feeling to the operator, with an immediate answer to the maneuver. Thanks to its floating structure and its high breaking load **ZenaDyn** allows to reduce the diameter and the total weight of the line, this means you need less operators for the handling operations.

On request the cable can be supplied with HMPE or PES cover for a further protection against chafing and accidental damages.

DIAM	CIRC.	WEI	GHT	ME	3L	LD	BF
мм	INCHES	KTEX	КG/100М	кп	TONS	KN	TONS
36	41/2	720	72,00	1.104	112,7	994	101,4
40	5	880	88,00	1.340	136,6	1.206	123,0
42	51/4	979	97,90	1.472	150,1	1.325	135,1
44	51/2	1.078	107,80	1.604	163,5	1.443	147,2
46	5 3/4	1.171	117,10	1.713	174,7	1.542	157,2
48	6	1.264	126,40	1.823	185,9	1.641	167,3
50	6 1/4	1.388	138,80	1.988	202,7	1.789	182,4
52	6 1/2	1.512	151,20	2.153	219,5	1.937	197,6
54	6 3/4	1.636	163,60	2.318	236,3	2.086	212,7
56	7	1.760	176,00	2.482	253,1	2.234	227,8
58	7 1/4	1.885	188,50	2.647	269.9	2.382	242,9
60	71/2	2.010	201,00	2.779	283,4	2.501	255,1
62	7 3/4	2.135	213,50	2.937	299,5	2.643	269,6
64	8	2.260	226,00	3.094	315,5	2.785	284,0
66	8 1/4	2.423	242,30	3.328	339,4	2.995	305,4
68	8 1/2	2.585	258,5	3.498	356,7	3.148	321,0
70	8 3/4	2.748	274,80	3.734	380,8	3.361	342,7
72	9	2.910	291,0	3.900	397,7	3.510	357,9
74	9 1/4	3.065	306,50	4.083	416,3	3.674	374,7
76	9 1/2	3.220	322,00	4.306	439,0	3.875	395,1
78	9 3/4	3.375	337,50	4.447	453,5	4.003	408,2
80	10	3.530	353,00	4.668	476,0	4.201	428,4





#### ZENADYN + HMPE JACKET

18		=		м	D.		BF
DIAM	CIRC.	WEI	GHT •		) 		
ММ	INCHES	KTEX	KG/100M	KN	TONS	KN	TONS
40	5	940	94,00	1.141	116,3	1.026	104,7
44	5 1/2	1.150	115,00	1.381	140,8	1.243	126,7
48	6	1.360	136,00	1.611	164,3	1.450	147,9
52	6 1/2	1.600	160,00	1.921	195,9	1.729	176,3
56	7	1.850	185,00	2.192	223,5	1.973	201,2
60	7 1/2	2.120	212,00	2.521	257,1	2.269	231,4
64	8	2.400	240,00	2.882	293,9	2.594	264,5
68	8 1/2	2.720	272,00	3.263	332,7	2.936	299,4
72	9	3.070	307,00	3.623	370,4	3.269	333,4
76	9 1/2	3.400	340,00	4.023	410,2	3.620	369,2
80	10	3.750	375,00	4.513	460,2	4.062	414,2
84	10 1/2	4.125	412,50	4.934	503,1	4.440	452,8
88	11	4.500	450,00	5.353	545,9	4.818	491,3
92	11 1/2	4.900	490,00	5.819	593,4	5.237	534,1
96	12	5.300	530,00	6.284	640,8	5.656	576,7

Specific gravity Melting point

Elongation at Water absorption

Our ZenaDyn 12 strands is also available with a complete HMPE protection that is braided all over the full length of the cable.

The particular construction of the jacket ensures a maximum protection against chafing and high abrasion caused by the poor conditions of bollards and panama eyes of the towed vessels. The protective effect is enhanced by the PU coating applied on the jacket, that significantly reduces the operating temperatures.

This combination is particularly indicated when the rope is intended as a pennant and is subjected to very high stress; our HMPE protective jacket is the perfect solution to elongate the lifespan of the cable and reduce the total cost per tow, keeping the floatability of the line.





#### ZENADYN + PES JACKET

DIAM	CIRC.	WEI	GHT	MI	3 <i>L</i>	LD	BF
ММ	INCHES	KTEX	ка/100М	KN	TONS	KN	TONS
40	5	1.058	105,80	1.141	116,3	1.026	104,7
44	5 1/2	1.290	129,00	1.381	140,8	1.243	126,7
48	6	1.562	156,20	1.611	164,3	1.450	147,9
52	6 1/2	1.854	185,40	1.921	195,9	1.729	176,3
56	7	2.181	218,10	2.192	223,5	1.973	201,2
60	71/2	2.546	254,60	2.521	257,1	2.269	231,4
64	8	2.834	283,40	2.882	293,9	2.594	264,5
68	8 1/2	3.206	320,60	3.263	332,7	2.936	299,4
72	9	3.621	362,10	3.623	370,4	3.269	333,4
76	9 1/2	4.085	408,50	4.023	410,2	3.620	369,2
80	10	4.541	454,10	4.513	460,2	4.062	414,2
84	10 1/2	5.007	500,70	4.934	503,1	4.440	452,8
88	11	5.495	549,50	5.353	545,9	4.818	491,3
92	11 1/2	6.020	602,00	5.819	593,4	5.237	534,1
96	12	6.557	655,70	6.284	640,8	5.656	576,7
							·

Where the floatability of the line is not requested our ZenaDyn 12 strands with PES jacket is the solution.

The jacket can be braided all over the full length of the cable, and the higher melting point of Polyester ensures a great resistance against chafing and abrasion caused by rusted fittings and sharp edges.

Furthermore, thanks to its protective jacket, our Zenayn always keep its rounded shape even when used on winch drums.

We always suggest to protect the line to ensure a longer life cycle of the cables and reduce the yearly cost for towing ropes.



#### ZENADYN DOUBLE TWISTED

DIAM	CIRC.	WEI	GHT	м	BL	LDBF		
ММ	INCHES	KTEX	кв/100М	KN	TONS	KN	TONS	
36	41/2	720	72,00	840	85,7	756	77,1	
40	5	880	88,00	1.028	104,8	925	94,3	
42	5 1/4	979	97,90	1.142	116,5	1.028	104,9	
44	5 1/2	1.078	107,80	1.258	128,3	1.132	115,5	
46	5 3/4	1.171	117,10	1.367	139,4	1.230	125,5	
48	6	1.264	126,40	1.476	150,5	1.328	135,5	
50	6 1/4	1.388	138,80	1.620	165,2	1.458	148,7	
52	6 1/2	1.512	151,20	1.765	180,0	1.589	162,0	
54	6 3/4	1.636	163,60	1.910	194,8	1.719	175,3	
56	7	1.760	176,00	2.055	209,5	1.849	188,6	
58	7 1/4	1.885	188,50	2.201	224.4	1.981	202,0	
60	71/2	2.010	201,00	2.347	239,3	2.112	215,4	
62	73/4	2.135	213,50	2.493	254,2	2.244	228,8	
64	8	2.260	226,00	2.638	269,0	2.374	242,1	
66	8 1/4	2.423	242,30	2.829	288,5	2.546	259,7	
68	8 1/2	2.585	258,5	3.018	307,7	2.716	276,9	
70	8 3/4	2.748	274,80	3.208	327,1	2.887	294,4	
72	9	2.910	291,0	3.397	346,4	3.057	311,8	
74	9 1/4	3.065	306,50	3.578	364,9	3.221	328,4	
76	9 1/2	3.220	322,00	3.759	383,3	3.383	345,0	
78	9 3/4	3.375	337,50	3.940	401,8	3.546	361,6	
80	10	3.530	353,00	4.121	420,2	3.709	378,2	
							5	



Our ZenaDyn Double Twisted has been specifically studied for towing applications to offer an unjacketed rope with superior efficiency.

Its twisted construction at a yarn level ensures a better performance of the rope against both external chafing and inner abrasion (yarn to yarn). The higher number of twists allow for a slightly higher elongation (if compared to a standard construction), reduces the stiffness of the cable and increases its longevity. In addition, the PU coating applied on the full length reduces the operating temperatures due to heavy stress conditions.

Last but not least the unjacketed construction make the cable always easy to inspect and to be repaired in case of accidental breakage.

#### ZENAPOWER TROSAR

ZenaPower rope is made in a totally new and most advanced contruction in which each strand of the rope is made by straight fibres on the inside that are than covered by a high tech braided jacket.

That means excellent abrasion resistance and maximum fibre strength utilization.

This special costruction make ZenaPower the perfect solution as Main Line or Pennant for the tug field and basing on the application and on the necessity of the crew, the rope can be provided in HMPE fibres (both core

and jacket) or Polyester HT (core and jacket).

MM         INCLES         KTEX         KG/100M         KN         TONS         KN         TONS           38         4 3/4         835         83,50         1.020         104,0         918         93,6           40         5         925         92,50         1.138         116,0         1.024         104,4           45         5 5/8         1.140         114,00         1.412         144,0         1.271         129,6           50         6 1/4         1.380         138,00         1.706         174,0         1.536         156,6           55         6 7/8         1.625         162,50         2.010         205,0         1.809         184,5           60         7 1/2         1.910         191,00         2.363         241,0         2.127         216,9           65         8 1/8         2.270         227,00         2.785         284,0         2.507         255,6           70         8 3/4         2.625         262,50         3.138         320,0         2.824         288,0           75         9 3/8         3.005         300,50         3.599         367,0         3.239         330,3         Specific gravity         Melting point	DIAM	/ CIRC WEIGHT		WEIGHT MBL LDBF			BF	A	100			
40 5 925 92,50 1.138 116,0 1.024 104,4 45 55/8 1.140 114,00 1.412 144,0 1.271 129,6 50 61/4 1.380 138,00 1.706 174,0 1.536 156,6 55 67/8 1.625 162,50 2.010 205,0 1.809 184,5 60 71/2 1.910 191,00 2.363 241,0 2.127 216,9 65 81/8 2.270 227,00 2.785 284,0 2.507 255,6 70 83/4 2.625 262,50 3.138 320,0 2.824 288,0 75 93/8 3.005 300,50 3.599 367,0 3.239 330,3 Specific gravity Melting point 50% of BL	ММ	INCLES	KTEX	КG/100М	KN	TONS	KN	TONS		100		
45 5 5/8 1.140 114,00 1.412 144,0 1.271 129,6 50 6 1/4 1.380 138,00 1.706 174,0 1.536 156,6 55 6 7/8 1.625 162,50 2.010 205,0 1.809 184,5 60 7 1/2 1.910 191,00 2.363 241,0 2.127 216,9 65 8 1/8 2.270 227,00 2.785 284,0 2.507 255,6 70 8 3/4 2.625 262,50 3.138 320,0 2.824 288,0 75 9 3/8 3.005 300,50 3.599 367,0 3.239 330,3 Specific gravity Melting point 50% of BL	38	4 3/4	835	83,50	1.020	104,0	918	93,6		WHITE.		3464
50 6 1/4 1.380 138,00 1.706 174,0 1.536 156,6 55 6 7/8 1.625 162,50 2.010 205,0 1.809 184,5 60 7 1/2 1.910 191,00 2.363 241,0 2.127 216,9 65 8 1/8 2.270 227,00 2.785 284,0 2.507 255,6 70 8 3/4 2.625 262,50 3.138 320,0 2.824 288,0 75 9 3/8 3.005 300,50 3.599 367,0 3.239 330,3 Specific gravity Melting point Elongation at 50% of BL	40	5	925	92,50	1.138	116,0	1.024	104,4	900			
55 6 7/8 1.625 162,50 2.010 205,0 1.809 184,5 60 7 1/2 1.910 191,00 2.363 241,0 2.127 216,9 65 8 1/8 2.270 227,00 2.785 284,0 2.507 255,6 70 8 3/4 2.625 262,50 3.138 320,0 2.824 288,0 75 9 3/8 3.005 300,50 3.599 367,0 3.239 330,3 Specific gravity Melting point 50% of BL	45	5 5/8	1.140	114,00	1.412	144,0	1.271	129,6		1111		
60 7 1/2 1.910 191,00 2.363 241,0 2.127 216,9 65 8 1/8 2.270 227,00 2.785 284,0 2.507 255,6 70 8 3/4 2.625 262,50 3.138 320,0 2.824 288,0 75 9 3/8 3.005 300,50 3.599 367,0 3.239 330,3 Specific gravity Melting point 50% of BL	50	6 1/4	1.380	138,00	1.706	174,0	1.536	156,6				
65 8 1/8 2.270 227,00 2.785 284,0 2.507 255,6 70 8 3/4 2.625 262,50 3.138 320,0 2.824 288,0 75 9 3/8 3.005 300,50 3.599 367,0 3.239 330,3 Specific gravity Melting point Elongation at 50% of BL	55	6 7/8	1.625	162,50	2.010	205,0	1.809	184,5	ALC: SEM	114.75	1	No. 2550
70 8 3/4 2.625 262,50 3.138 320,0 2.824 288,0 75 9 3/8 3.005 300,50 3.599 367,0 3.239 330,3 Specific gravity Melting point Elongation at 50% of BL	60	7 1/2	1.910	191,00	2.363	241,0	2.127	216,9				
70 8 3/4 2.625 262,50 3.138 320,0 2.824 288,0 75 9 3/8 3.005 300,50 3.599 367,0 3.239 330,3 Specific gravity Melting point Elongation at 50% of BL	65	8 1/8	2.270	227,00	2.785	284,0	2.507	255,6		( ht )	auquin )	
300010	70	8 3/4	2.625	262,50	3.138	320,0	2.824	288,0				
	75	9 3/8	3.005	300,50	3.599	367,0	3.239	330,3	Specific gravity	Melting point	Elongation at 50% of BL	Water absorption
80 10 3.580 358,00 4.305 439,0 3.875 395,1 0.97 144°C/152°C 2% NO	80	10	3.580	358,00	4.305	439,0	3.875	395,1	0.97	144°C/152°C	2%	NO

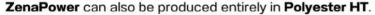
The Trosar® version of our ZenaPower is entirely made by the same HMPE fibre produced by DSM.

The parallel fibres and the special cover are then fully covered with PU resin in order to reduce operating temperatures and to enhance the resistance of the cable against abrasion and chafing. This also means a longer life span of the cable and a significant reduction of the annual costs.

This, together with the high Breaking Load and the low elongation (2% at 50% of MBL) make our **ZenaPower** one of the best solutions you can find on the market, representing an excellent alternative to standard covered ropes.

Indeed its 12 strand (covered) structure make the rope easier to be spliced (also by the crew in case of necessity on board), easy to be inspected in any moment, and it assures that the line is extremely handy even after a long life cycle under rough conditions of use.

#### ZENAPOWER PES



This innovative structure is composed by 12 strands, each of which has a parallel core that is than overbraided with a special jacket made in the same material (PES HT).

With a higher elongation than Trevo, this solution is perfect for the tug world when you need an extra strong cable that can also assure you more stretch on the line.

The jacket protecting each strand is than coated with PU resin, giving extra protection against chafing, lowering the external temperature and helping keep the round shape of the cable, even when coiled on the drums.

**ZenaPower PES** is the perfect alternative to common PES HT cables. It combines the advantages of a parallel core construction (high MBL with limited dimensions) with those of a 12 strands cable (easy to splice, to inspect and to repair), all of this ensuring an unprecedent protection against chafing and abrasion thanks to its high tech jacket.

DIAM	CIRC.	WEI	WEIGHT		BL	LDBF		
ММ	INCHES	KTEX	KG/100M	KN	TONS	KN	TONS	
40	5	1.236	123.60	451	46,0	406	41,4	
45	5 5/8	1.566	156.60	603	61,5	543	55,4	
50	6 1/4	1.930	193,00	745	76,0	671	68,4	
55	6 7/8	2.336	233,60	902	92,0	812	82,8	
60	71/2	2.782	278,20	1.069	109,0	962	98,1	
65	8 1/8	3.259	325,90	1.255	128,0	1.130	115,2	
70	8 3/4	3.786	378,60	1.451	148,0	1.306	133,2	
75	9 3/8	4.346	434,60	1.677	171,0	1.509	153,9	
80	10	4.941	494,10	1.912	195,0	1.721	175,5	
85	10 1/2	5.534	553,39	2.170	221,3	1.953	199,2	
90	11 1/8	6.087	608,73	2.453	250,1	2.207	225,1	
95	11 3/4	6.635	663,50	2.746	280,0	2.471	252,0	
100	12 1/2	7.165	716,50	3.040	310,0	2.736	279,0	



#### SUPERTOW



**SUPERTOW** is a special cable that has been delevoped in cooperation with our partner **COTESI**, and is specially designed for towing applications.

Made entirely from **HT Polyester,** its construction of multi parallel cores maximizes rope breaking strength whilst the compact braided protective cover, comprise of several double twisted yarns, enhances life span by adding to the rope excellent abrasion resistance properties.

Thanks to its perfectly balanced construction, even under stress conditions the core of **SUPERTOW** always works evenly with the jacket.

This avoid the fibres to suffer from rubbing, meaning a longer life of the cable and a higher number of tows.

**SUPERTOW** is spliced with the new **CS3 splice** that maximizes rope **LDBF** (Line Design Breaking Force). Eyes are costomized to customer needs and are always protected with coated **Pro-tech polyester** and cordura cover. **D-web** protection cover, made from **HMPE** fibres, can be added on the eyes and on the cable, increasing protection against chafing especially in particularly stressed areas.

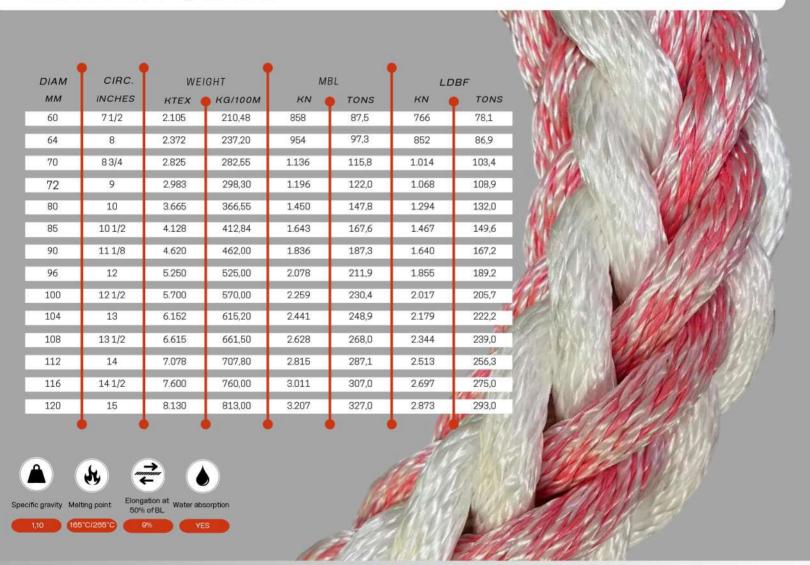
#### ZENAMIX SINKING

**ZenaMix** is a special composite rope that mixes yarns from high tenacity polyester with high tenacity polyolefin.

The combination assures equal strength in both wet and dry conditions. This, together with the rope construction, assure flexibility and good handling, always guaranteeing that the rope maintains its rounded shape even under heavy stress.

The high percentage of **PES HT** used in the mix make the cable non-floating (1,1 gravity weight) and always provide a very good resistance to abrasion and UV.

**ZenaMix** is a very good and cheap solution for all those towing applications where you need more stretch on the line and where there is no need for high tech cables.



#### SOFT SHACKLES

**Soft Shackles** are born to replace the normal steel hardware and connections. They are used to connect two different lines and their lightness, together with their strength, allow to have huge advantages in terms of cost saving, weight and maneuverability, reducing the risk of injury for the operator.

Small sizes and low weight will result in a faster and easier connection, without sacrificing the reliability and the durability. With the Soft Shackle the operator can also set a calculated breaking force for the tow line configuration, setting it as the strongest part or as the calculated weak link.

All our **Soft Shackles** are made starting from **Tosar®**, an HMPE fibre produced by DSM, and are available in 1/2/3/4 laps with increasing breaking loads.

Standard version of the shackle is always protected with **PES cover**, but **HMPE protection cover** is also available on request.

All the info regarding the **MBL** and the number of laps are sprayed on the surface of the cover to help the crew easily recognize the configuration, this for an easier and faster installation on board and to reduce the risk of mistakes. Our Soft Shackles are always equipped with a tag including **NFC technology**, in which all the relevant info about the product are stored and can be checked in any moment by the operator by a simple scan with a phone.



#### SOFT SHACKLES

		12 ST	RAND	S HMF	PE SOFT SH	ACKLES		
	BASE	ROPE			SOFT SHACK	(LES	•	
NUMBE R OF LAPS	DIAM (MM)	MBL (TONS)	MBL (TONS)	TOTAL WEIGHT (KG)	DIAM. OF THE FINISHED SOFT SHACKLE (MM)	MIN. INTERNAL LENGTH WHEN IN USE (MM)	ITEM CODE	
	20	39,5	40	1,5	37	600	STSSH01L020	ı
	22	45,9	46	2,0	41	600	STSSH01L022	ı
	24	54,9	55	2,5	44	600	STSSH01L024	ı
1 L	26	62,2	62	3,0	48	600	STSSH01L026	ı
	28	72,8	73	4,0	52	800	STSSH01L028	ı
	30	81,8	82	4,5	56	800	STSSH01L030	ı
	32	94,1	94	5,0	59	800	STSSH01L032	ı
	20	39,5	79	2,0	37	600	STSSH02L020	ı
	22	45,9	92	2,5	41	600	STSSH02L022	ı
0.0	24	54,9	110	3,0	44	600	STSSH02L024	ı
2 L	26	62,2	124	3,5	48	600	STSSH02L026	ı
	28	72,8	146	5	52	800	STSSH02L028	ı
	30	81,8	164	5,5	56	800	STSSH02L030	ı
	32	94,1	188	6	59	800	STSSH02L032	ı
	20	39,5	119	2,5	37	600	STSSH03L020	ı
	22	45,9	138	3,0	41	600	STSSH03L022	ì
	24	54,9	165	4,0	44	600	STSSH03L024	ı
3 L	26	62,2	186	4,5	48	600	STSSH03L026	Į
	28	72,8	218	6,5	52	800	STSSH03L028	Ì
	30	81,8	245	7,5	56	800	STSSH03L030	ľ
	32	94,1	282	8,5	59	800	STSSH03L032	Ì
	20	39,5	158	3,5	37	600	STSSH04L020	Ý
	22	45,9	184	4,0	41	600	STSSH04L022	l
	24	54,9	220	5,0	44	600	STSSH04L024	ĺ
4 L	26	62,2	249	6,0	48	600	STSSH04L026	١
	28	72,8	291	8,0	52	800	STSSH04L028	
	30	81,8	327	10,0	56	800	STSSH04L030	
	32	94,1	376	11,5	59	800	STSSH04L032	
	-	1000	CHINADA		2000	and the same of th	and a second second second second	П



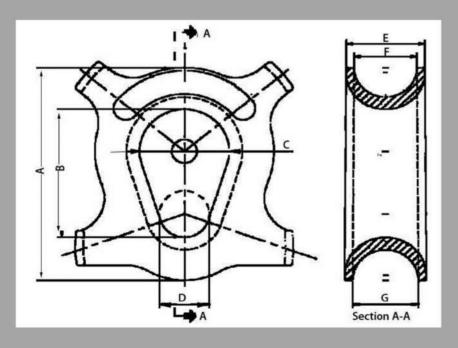
- Indicated weights of final product are approximated and subject to variations
- Standard version is supplied with PES jacket HMPE cover is also available on request.
- . Minimum internal length of the finished Soft Shackle (when closed) can be customized on Client's request.



#### ACCESSORIES

#### SQUARE THIMBLES

ROPE DIA	А мм	В мм	C MM	D MM	E MM	F MM	G MM	KG/EA
32/40	196	127	85	42	57	46	50	2.25
44	205	140	86	42	64	52	54	3.4
48/56	247	149	92	44	85	70	76	5.3
64	274.5	159	102	54	95	76	79	7.9
72	316	194	120	68	102	83	89	12.25
80	349	217.5	127	70	108	89	98	14.45
88/96	403.5	241	156	86	114	114	117	26.4
112	477.5	280	184	104	170	145	145	30
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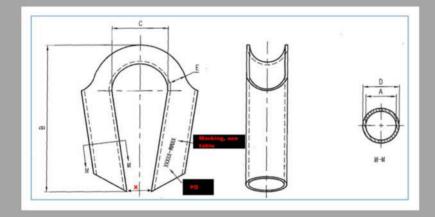




#### ACCESSORIES

#### TUBULAR THIMBLES

MARKING	SPEC	Α	В	С	D	Ε	X	KG
48MM	G265	65	312	88	79	31	22	5,81
56MM	G275	75	350	94	90	32	22	8,28
64MM	G285	88	450	130	108	45	25	17,19
72MM	G295	94	500	150	114	50	25	20,51
80MM	G2105	107	550	190	127	55	25	26,00





#### LASH BOBBINS



### CONFIGURATIONS

PENNANT MAIN LINE PES (ZENAPOWER PES, SUPERTOW) HMPE (ZENADYN, ZENAPOWER TREVO) HMPE (ZENADYN, ZENAPOWER TREVO) HMPE (ZENADYN, ZENAPOWER TREVO) PES (ZENAPOWER PES, SUPERTOW) PES (ZENAPOWER PES, SUPERTOW) HMPE (ZENADYN, ZENAPOWER TREVO) PES (ZENAPOWER PES, SUPERTOW) HMPE (ZENADYN, ZENAPOWER TREVO) MIXED (ZENAMIX SINKING) HMPE (ZENADYN, ZENAPOWER TREVO)

## PROTECTIONS

#### **D-WEB**



Exclusively developed for SuperTow cables when an extra protection is required against chafing and abrasion.

Entirely made in coated HMPE, it can be placed on the eyes and on leg, covering the mores stressed areas of the cable.

#### MIXED JACKET



This particular protection is represented by a jacket in mixed material (HMPE/PP) in which the twisted construction enhances its protective effect against chafing and abrasion.

It can be provided coated or uncoated and with different pitches basing on the final application.

#### **HMPE BRAIDED JACKET**



A special jacket fully made in HMPE with a braided construction to offer the most efective protection against chafing and abrasion. Its strands flatten after the first uses and completely wrap the cable ensuring a longer service life.

Material is always coated with PU resin to improve its resistence and reduce operating temperatures.

#### **VELCRO SLEEVE**





A tubular protection that can be made in two different version: 100% HMPE (PU coated) or 100% PES.

Thanks to the velcro closure they can be easily placed in any moment on the cable for an extra protection.

## FINISHING AND SPLICING

When the ropes are subjected to heavy stress condictions, in particular when it comes to pennants, we always suggest to place extra protections on the eyes and on the leg to guarantee a longer service life and a better performance.



Cover in the eyes: a basic protection can be placed only on the eyes to protect them against chafing on bollards and bitts.

In the picture an example of our Mixed jacket spliced in the cable, this ensure that the jacket always in place.



**Full covered:** our ropes can be supplied with the jacket on the full length. Protection can be provided in HMPE or PES, basing on the final application and the client's needs.



Cover in the eyes and on the leg: in addition to the jacket on the eyes a further protection can be placed on the initial part of the leg. This ensures that the most stressed areas are always protected.

Our HMPE braided jacket is the perfect solution for this type of applications. In the picture you see the "tongue" finishing that allows to have a smoother surface and remove all the whipping/lashing, reducing the chances that the jacket get stuck during operations.

Thanks to our experienced guys we can make all the necessary works internally, including designing, splicing, tuning and finishing operations on all types of ropes, materials and constructions.









# CERTIFICATIONS AND PARTNERS

SOLUZIONI TESSILI ROPE is committed to the highest level of quality.

We work with some of the largest ropes manufacturers from both Europe and Asia, and all our partners are certified company that have been approved by the most famous classification societies.

Safety regulation in the maritime market are becoming more and more restrictive and we want to guarantee the customer the best possible offer from a documentary point of view.

In this direction, all our towing ropes (including our Soft Shackles that we produce internally) always come with a IACS certification that can be issued on the specific production batch by one of the main registers (RINA, DNV, LR, BV, etc).



## HAMPIÐJAN ADVANT



## ROPE TRACEABILITY

Identifying and keep track of your ropes is essential for their safe use, especially in those technical markets such as towing.

All our cables come with a plastic label reporting the ID-NR of the coil and all the main info, and with a tag including NFC technology. With a simple scan by means of any IOS or Android phone you can check at any time all the relevant info related to your rope.

On our website the client can access to his private area where he can consult the list of all the cables we supplied, identified by ID-NR. Here you can check all the rope details, download the certificates and edit additional fields such as the date of installation on board, the Tug name, and any other info that can help you with your Line Management Plan.



