DYNICE LIFTING



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COMPANY PROFILE

In the spring of 1934, midst in the Great Depression, 13 individuals gathered a small fortune to start up an industrial company to manufacture fishing nets, ropes and fishing long lines for the Icelandic fishing fleet.

Hampidjan has since evolved to become one of the largest fishing gear and high tech ropes manufacturer of the world, having 35 entities in 12 countries with over 900 employees.

We have made relentless product development the essence of our being. We do that so our customers know that if they are with Hampidjan, using advanced Dynlce and Dynlce Dux ultra high performance ropes for towing or tugging – they are using products that are at the cutting edge of known technology.



The Hampidjan Group headquarters are located at the waterfront of the main harbor of Reykjavik Iceland in a new 6.500 m2 building.



The main production facility is Hampidjan Baltic in Lithuania. The production range is from filaments to the most advanced tailor made fishing gear available as well as high performance ropes. The production equipment is state of the art and on floor area of 21.500 m2



Hampidjan is ISO 9001 certified for quality assurance, ISO 14001 certified for environment issues and OSHAS ISO 18001 certified for health and safety of the employees. Certification is from DNV – Det Norske Veritas.





Large diameter Dynlce Deep Sea ropes for heavy lifts and extreme deep sea lowering and lifting.

The need for large diameter ropes in very long lengths is increasing as drilling and installation is today feasible at depths down to 3000 meters in certain areas. At such depth it becomes practically impossible to work with steel wire ropes due to their own weight.

Synthetic ropes from high performance materials like Dyneema® are then a good alternative as they are lighter than water and floating.

For the production of Dynlce Deep Sea ropes the largest 12 strand braider built in the world is used for that purpose.

The rope is available as a 12 strand braid with durable impregnation and with either cover of polyester or Dyneema, or a blend of those materials.

Diameters range up to 200 mm and with overall diameter with cover up to 220 mm and breaking strength of 2.500 tons.



Dyneema[®] fiber from DSM is a high-strength, high-modulus polyethelyne fiber that combines excellent mechanical properties with low density, resulting in high performance-on-weight basis and stronger than steel ropes in the same diameter.

Diameter	Breaking	Weight	Weight
under	strength	in air	in sea
5% load	unspliced		
mm	ton	kg/m	kg/m
40	139	0.95	-0.07
42	150	1.02	-0.08
44	161	1.09	-0.09
46	171	1.17	-0.10
48	182	1.24	-0.10
50	193	1.32	-0.11
52	214	1.46	-0.12
54	236	1.61	-0.13
56	257	1.76	-0.14
58	278	1.90	-0.15
60	299	2.05	-0.16
62	320	2.19	-0.18
64	341	2.34	-0.19
66	362	2.49	-0.20
68	382	2.63	-0.21
70	403	2.78	-0.22
80	516	3.58	-0.29
90	648	4.54	-0.36
100	798	5.63	-0.45
110	957	6.80	-0.55
120	1,124	8.05	-0.65
130	1,318	9.51	-0.76
140	1,508	10.97	-0.88
150	1,706	12.51	-1.01
160	1,940	14.34	-1.15
170	2,151	16.17	-1.30
180	2,277	18.00	-1.44
190	2,421	20.12	-1.61
200	2,554	22.31	-1.79

Dynice Deep Sea



	Dynice Endless round sling							
		WLL						
MBL	3.71:1	5:1	7:1	Minimum pin diameter [mm]	Minimum length [m]	Maximum length [m]	Unit weight [kg/m]	
220	73	44	31	120	1,5	27	2,3	
440	147	88	63	161	1,5	27	4,5	
660	220	132	94	188	2	27	6,7	
880	293	176	126	220	2	27	8,9	
1100	367	220	157	231	3	27	11,2	
1320	440	264	189	258	3	27	13,4	
1540	513	308	220	263	3	27	15,8	
1760	587	352	251	284	4	27	18,0	
1980	660	396	283	284	4	27	20,3	
2200	733	440	314	303	4	27	22,6	
2420	807	484	346	302	4	27	25,0	
2640	880	528	377	318	5	27	27,2	
2860	953	572	409	315	5	27	29,4	
3080	1027	616	440	330	5	27	31,9	
3300	1100	660	471	325	6	27	34,2	
3520	1173	704	503	339	6	27	36,5	
3740	1247	748	534	334	6	27	38,8	
3960	1320	792	566	347	6	27	41,2	
4180	1393	836	597	342	6	27	43,7	
4400	1467	880	629	353	6	27	45,8	
4620	1540	924	660	349	6	27	48,5	
4840	1613	968	691	359	6	27	50,1	
5060	1687	1012	723	354	6	27	52,7	

Lightweight and accurate fiber slings for extreme lift.

Hampidjan offers Dynlce endless fiber slings made from various materials to suit different requirements.

They are lightweight, easy to handle and can be offered in a wide range of constructions, end terminations and colours.

The construction of the slings guarantees precise length and intersling tolerances.

The slings have been used for heavy-lifting in a wide range of industries.

The strength member is protected by proprietary layers of different materials.

The covers and adjacent pads can be adjust on a project basis.

Higher breaking strength (MBL) can be offered on short lengths compared to regular rope slings and grommets.





DYNICE ENDLESS ROUND SLINGS

Lightweight and accurate fiber slings for extreme lift.

SHL has chosen the Hampidjan for the delivery of several slings for the pile installation scope for the Beatrice offshore windfarm, being performed by the HLV Stanislav Yudin.

Slings from Hampidjan are used for the installation of the Pile Installation Frame, hydraulic hammers and upending and installation of piles.

Per location 4 piles are installed and in total the Beatrice Offshore Windfarm will consist of 84 off WTG foundation and 2 off OTM locations, bringing it to a total of 344piles.

SHL has selected fibre slings because of repetitive character of the project.

The main advantage of the use of the fibre slings is the ease of handling, it highly assists the riggers with (un) hooking.

The amount of load-cycles was a concern during the bid-phase, but Hampidjan has provided proper chafe protection, to protect the parts of the slings that interfere with the crane hook and other rigging.

Hampidjan has been challenged by SHL to produce and deliver their slings in a tight time frame, and they have been able to meet SHL strict demands. Also the support during the project has been good, e.g. advice and assistance in inspections and resplicing slings to adjust the lengths.



DynIce is Hampidjan's trademark for ropes made from Dyneema® fibers, from DSM Dyneema.

Dynlce ropes are impregnated 12 strand ropes, with or without cover and core.

There are several grades of Dyneema[®] raw material, and different impregnations, each intended for specific uses.



Custom made DynIce Heavy Lifting Slings with minimum intersling tolerance.

Engineered lifts require often special made lifting slings which are designed and manufactured to meet the exact requirements in order to secure safe operation.

For each project a special drawing is made showing all details and markings and load rates.

Colour coding of eyes and legs in different color to ensure right selection of slings for the task is made according to customers' requirements.

Assistance with sling configuration and lifting points design is provided as well as calculation of safety factors according to DNV for each project.

The slings are made with heavy duty protection normally with polyester cover on the legs and then DynIce eye protection in the eyes. The eye protection can be in many layers if needed for extra protection. Eye cover and main leg cover is fixed together by coversplicing so they will stay in place.

Lightweight protection like canvas is also available either in polyester or Dyneema® woven cloth.





When lifting with multiple slings at the same time the intersling tolerance becomes very important especially for low elongation materials like Dyneema® or other HMPE materials.

A intersling tolerance of 0,25% is easily achievable and commonly the tolerance is within 0,15%.

In single leg slings breaking strength can be up to 2.500 mT and in grommet configuration it is possible to make up to 4.300 mT.

All slings are proof loaded prior to delivery with exact length measurements at SWL under our own supervision either in-house or at external testing facilities.



DYNICE HEAVY LIFTING SLINGS





Comprehensive certification package is made for each sling including description, calculations, drawings and all certificates.

Preferably we work with DNV for certification and initial setup of rope sling properties.



DYNICE ADJUSTABLE SLING

Adjustable lifting slings for maximum accuracy and minimal preparation time for complex lifting operations.

Some lifts are more complicated than others and the object lifted is sometimes very delicate. With steel slings, chains and shackles this can be time consuming but there is another alternative - DynIce Adjustable Slings.

Lifting and lowering of jumper oil well connections is a good example of delicate lifting operation of fragile object. Multiple slings are attached to number of lifting points and the sling length have to be accurate so to avoid strain or bending of the jumper. The length can be adjusted without any tools and it takes only few minutes to adjust each sling.

The Dynlce Adjustable Slings are pre-spliced and set to the calculated length. Eyes can be steel thimbles according to specifications or soft eyes with protective sleeve. The Dynlce rope is soft, light and easy to work with.





The splices are made such that they can be moved easily in order to make the sling longer or shorter.

Multiple jumper sling lengths can be adjusted within an hour or two for the total lift instead of one day or two if steel wire and chain are used.



DYNICE TAPERED PULL ROPE

Combined messenger rope and winch rope with no visible connection.

Tapered rope for pick-up of riser pipe flow line with traction or drum winch.

The Dynlce Taper is one continuous and seamless rope where the inner end is small diameter messenger line and the outer main rope is thick for winch pulling.

This combination makes use of winches easier as there are no thick connections, eyes or splices in the rope. The production method of the rope is patent pending.

The tapered rope is available as 12 strand braided rope with or without cover.





The rope can be made in bright color for better visibility during the pick-up operation in low light circumstances.

The diameter difference between the messenger and the main winch rope is also custom designed to suit the winch and equipment used.



Dynlce Hawsers are used where consistent quality, extensive guarantees and quality workmanship is of importance. The Hawsers are made with Dynlce as a strength member, with covers made from Dynlce covers. They can be adjusted according to needs. They are available with or without covers.

The lightweight messenger is easy to handle and due to its low density the rope is floating.

As the messenger line is the inner layer on the drum the transition of towing in and then to lifting with the main rope is smooth and no spliced eyes or spliced connections to be concerned about during the operation.



DYNICE WEBBING

High strength flat webbing for specialized strapping.

Dynlce Webbing is woven from Dyneema® filaments where about 95% of the filaments are arranged lengthwise and thus giving the strap low elongation.

The Dynlce webbing is suitable for high tension strapping and dynamic load.

For use in high temperature envirvoment or where constant high tension is needed over many years the Vectex strap from Vectran® is more suitable choice.



DynIce Webbing

Width		mm	15	20	25	30	40	50	60	80	100	120	220
	_												
Weight	g/m	2.0	19.5	26.0	32.5	39.0	52.0	65.0	78.0	104.0	130.0	156.0	286.0
Breaking strength	ton	2.0	1.7	2.3	2.8	3.4	4.5	5.5	6.6	8.7	10.8	12.9	23.6
Weight	g/m	4.0	39.0	52.0	65.0	78.0	104.0	130.0	156.0	208.0	260.0	312.0	572.0
Breaking strength	ton	4.0	3.2	4.3	5.3	6.4	8.4	10.5	12.5	16.4	20.4	24.3	44.6
Weight	g/m		58.5	78.0	97.5	117.0	156.0	195.0	234.0	312.0	390.0	468.0	858.0
Breaking strength	ton	6.0	4.5	6.0	7.5	9.0	11.9	14.7	17.6	23.2	28.8	34.3	62.8

Vectex Webbing

Width		mm	15	20	25	30	40	50	60	80	100	120	220
Weight	g/m	2.0	28.4	37.9	47.4	56.9	75.8	94.8	113.8	151.7	189.6	227.5	417.0
Breaking strength	ton	2.0	1.5	2.0	2.5	3.0	3.9	4.9	5.8	7.7	9.6	11.4	20.9
Weight	g/m	4.0	56.9	75.8	94.8	113.8	151.7	189.6	227.5	303.3	379.2	455.0	834.2
Breaking strength	ton	4.0	2.8	3.8	4.7	5.6	7.4	9.3	11.0	14.5	18.1	21.5	39.4
		-									-		
Weight	g/m	6.0	85.3	113.8	142.2	170.6	227.5	284.4	341.3	455.0	568.8	682.5	1251.0
Breaking strength	ton	6.0	4.0	5.3	6.6	7.9	10.5	13.0	15.6	20.5	25.5	30.4	55.7

The Dynlce ratchet lock was developed to strap inductive cable on one of the pipelines in Tyrihans oil field in Norway so the oil inside could be heated up and made liquid after maintenance stops. The tension on the strap is constant at 700 kg and is designed to hold for 25 years. For that purpose Vectran fiber was used as it dosen't have any creep under load and at high temaperature.



DYNICE HELIX TAGLINES

High strength anti-tangle taglines with firm grip.

DynIce Helix Taglines are tangle resistant as it is designed with a rigid core and stiff coverbrading to prevent any turning on itself and wrapping around objects.

The patented Helix spiral effect will dramatically increase grip in wet and slippery conditions. The taglines are designed not to catch on pinch points, as there are no knots or areas to snag.

Inside the Helix cover is Dynlce 75 giving them exceptional strength and they are also lightweight for operator handling.

Each tagline has a braided cover to help prevent abrasion.

There are four current lengths 5, 8, 10 and 15 m each coming with a relevant colour coded eye for easy length identification. Other lengths are available on request.







The Helix spiral enhances the holding properties and is made to fit for comfortable hand gripping.

The basic line colour is yellow for high visibility.

The cover is dirt repellent and the lines can be washed with oil cleaning materials if needed.



DYNICE ROPES

High performance ropes for various applications with high strength and durability.



Dynice 75

Reliable and proven 12 strand braided rope from Dyneema SK75 fibres impregnated with Duracoat for improved abrasion resistance.

The ropes are soft and flexible and easy to splice.



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Dynice Dux

Dynlce Dux is very firm, heatset and stretched 12 strand Dyneema SK75 rope with smooth Durapur impregnation for abrasion resistance.

The constructional elongation has been removed in the production process and stretch is extremely low.



Diameter	Breaking strength unspliced	Breaking strength with eye	Weight in air	Weight in sea (floating)	Density
mm	ton	ton	kg/100 m	kg/100 m	kg/dm3
6	4.2	3.8	2.30	-0.18	0.96
8	6.7	6.0	3.80	-0.30	0.96
10	10.7	9.6	6.10	-0.49	0.96
12	16.4	14.8	9.30	-0.75	0.96
14	21.8	19.6	12.50	-1.00	0.96
16	27.4	24.7	16.00	-1.28	0.96
18	35.0	31.5	20.70	-1.66	0.96
20	41.9	37.7	25.20	-2.02	0.96
22	50.0	45.0	30.50	-2.45	0.96
24	57.8	52.0	35.60	-2.86	0.96
26	65.7	59.1	41.00	-3.29	0.96
28	73.8	66.4	46.50	-3.73	0.96
30	80.9	72.8	51.50	-4.13	0.96
32	88.3	79.5	56.70	-4.55	0.96
34	95.7	86.1	62.00	-4.97	0.96
36	102.9	92.6	67.20	-5.39	0.96
38	110.9	99.8	73.00	-5.86	0.96
40	119.8	107.8	79.30	-6.36	0.96
42	130.8	117.7	87.20	-6.99	0.96
44	140.7	126.6	94.30	-7.56	0.96
46	151.7	136.5	102.20	-8.20	0.96
48	165.0	148.5	111.90	-8.98	0.96
50	178.7	160.8	121.90	-9.78	0.96
52	192.7	173.4	132.20	-10.60	0.96
54	206.9	186.2	142.70	-11.45	0.96

Diameter	Breaking strength	Breaking strength	Weight in air	Weight in sea	Density
	unspliced	with eye		(floating)	
mm	ton	ton	kg/100 m	kg/100 m	kg/dm3
6	6.8	6.1	3.28	-0.26	0.96
8	9.9	8.9	4.92	-0.39	0.96
10	13.5	12.2	6.80	-0.55	0.96
12	18.8	16.9	9.70	-0.78	0.96
14	27.3	24.6	13.60	-1.09	0.96
16	37.2	33.5	18.60	-1.49	0.96
18	45.1	40.6	22.60	-1.81	0.96
20	54.7	49.2	27.40	-2.20	0.96
21	64.2	57.8	32.10	-2.57	0.96
23	73.6	66.2	37.00	-2.97	0.96
25	82.7	74.4	42.10	-3.38	0.96
27	90.6	81.5	46.80	-3.75	0.96
29	98.9	89.0	51.70	-4.15	0.96
31	107.1	96.4	56.70	-4.55	0.96
32	115.3	103.8	61.70	-4.95	0.96
33	124.2	111.8	67.20	-5.39	0.96
35	134.2	120.8	73.30	-5.88	0.96
37	146.1	131.5	80.80	-6.48	0.96
39	156.7	141.0	87.70	-7.03	0.96
41	168.5	151.7	95.40	-7.65	0.96
43	182.9	164.6	104.70	-8.40	0.96
45	197.5	177.8	114.40	-9.18	0.96
47	212.3	191.1	124.50	-9.99	0.96
49	227.4	204.7	134.90	-10.82	0.96
51	242.6	218.3	145.60	-11.68	0.96

DynIce Webbing Protection

The webbing can be wrapped around splices, eyes and without any splice work needed. The Dynlce Webbing attach to itself by the means of overlapping Velcro and the layers can be one, two or three. Finally the wrapping end in each side is seized with nylon twine to secure them.

Same kind of Dynlce Webbing can be wrapped around a rope to make a sleeve to protect from abrasive areas which the rope can touch during use.

Dynice Webbing Protection							
Width of webbing	Thickness of webbing	Weight in air	Weight in sea (floating)	Density			
mm	mm	kg/100 m	kg/100 m	kg/dm3			
20	2.0	2.60	-0.21	0.96			
40	2.0	5.20	-0.42	0.96			
60	2.0	7.80	-0.63	0.96			
80	2.0	10.40	-0.83	0.96			

Dynice Eye Protection

The eye protection sleeves are tight braided tubes where the strands are made of pre-braided twines of Dyneema®. Where special extra protection is needed the sleeve layers can be two or even three on top of each other. Still the eye is soft but with enough stiffness to keep it suitably open for bollards and hooks.

The eye protection is also useful as a sliding sleeve to position where high abrasion is expected like in a fairlead.

Dynice Eye Protection							
Diameter of inside rope	Weight in air	Weight in sea (floating)	Density				
mm	kg/100 m	kg/100 m	kg/dm3				
6 - 12	6.60	-0.53	0.96				
12 - 18	13.70	-1.10	0.96				
20 - 26	27.40	-2.20	0.96				
28 - 40	43.70	-3.51	0.96				
42 - 52	82.00	-6.58	0.96				
52 - 60	83.00	-6.66	0.96				





DynIce Splice Protection

The splice protection is made from twisted Dynlce strands in very loosely braided tube to cover splices for extra protection. The splice protection is available in a pre-packed kit with 50 meter stretched length of tube, shrinking mending twine and twine glue to secure the seizing.

Diameter	Weight	Weight	Density
of inside	in air	in sea	
splice		(floating)	
mm	kg/100 m	kg/100 m	kg/dm3
30 - 60	27.50	-2.21	0.96
40 - 80	26.60	-2.13	0.96



DYNICE HELICOPTER LONGLINES

Strong and lightweight longlines for aerial lifting.

The longlines are protected by removable cover and easily inspected and with optional control cable for hook releasing.

The cover is made of canvas in strong yellow and red colours and it can be opened up lengthwise to inspect the rope inside. A control cable is laid parallel to the rope but in separate lining for extra protection and replacement if needed.

DynIce Heliline gives higher payload and more security for those working with the lines on the ground during continuous lifting and transport operations.

	Dynice Heliline							
Overall diameter	Breaking strength unspliced	Working Load Limit at 7:1	Weight of rope without cover /thimbles					
mm	ton	ton	kg/m					
10	10.7	1.4	0.06					
11	13.3	1.7	0.08					
12	16.4	2.1	0.09					
14	21.8	2.8	0.13					
16	27.4	3.5	0.16					
18	35.0	4.5	0.21					
20	41.9	5.4	0.25					
22	50.0	6.4	0.31					
24	57.8	7.4	0.36					
26	65.7	8.4	0.41					
28	73.8	9.5	0.47					

The cover is easily removed for inspection of the rope or to add control cables inside.

The eyes are spliced with stainless steel thimbles inside and the length is according to requirements. A light weight transport bag is optional for the chosen size.





CERTIFICATIONS







Hampidjan is ISO 9001 certified for quality assurance, ISO 14001 certified for environment issues and OSHAS ISO 18001 certified for health and safety of the employees. Certification is from DNV – Det Norske Veritas.





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