

UHMPE PROLINE12® - Considerations

A WARNING If you identify any of the following types of damage, IMMEDIATELY REMOVE UHMPE ROPE SLINGS FROM SERVICE, even if the damage you see is not as extensive as shown in the following pictures.

These are extreme examples provided only for illustration purposes. Any damage detected in the sling protection may also indicate potential damage to the sling. Remember, any doubt, DON'T!

Any hazardous condition detected in slings, rigging hardware, sling protection, and/or sleeves during inspection must lead to further investigation, possible replacement and/or corrective action by a qualified person and/or properly informed and trained consumer.











Internal abrasion may be determined by pulling one strand away from other strands to inspect for powder, broken filaments or volume reduction.

Like New External

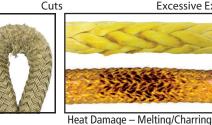
Like New Internal





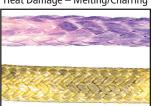


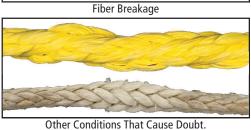




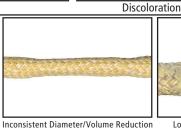


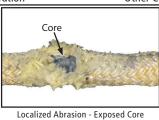


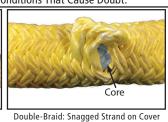




Excessive Dirt/Grit DOUBLE BRAID & CORE DEPENDENT Cover Cuts - Exposed Core







Lock Stitching & Whipping

Damaged Fittings / Attached Rigging Hardware Damage











hroat opening of 5% not to exceed 1/4".

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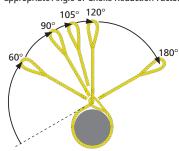
Choker Hitch Considerations for Lift-It® UHMPE Rope Slings

A single sling should never be used to handle unbalanced loads.

When using Lift-It® UHMPE Rope Slings to handle unbalanced, loose loads, and/or long loads, multiple slings must be used and the load secured to prevent shifting during use. NEVER allow slings to slip or slide.

Whenever a sling is used in a choker hitch that results in an Angle of Choke that is less than 120°, the choker WLL decreases.

To determine the actual reduced choker WLL multiply the sling's choker WLL by the appropriate Angle of Choke Reduction Factor listed in Table 2.



UHMPE Choker Hitch WLL Reductions								
Angle of Choke (Degrees)	Reduction Factor							
120 - 180	1.00							
105 - 119	.82							
90 - 104	.71							
60 - 89	.58							
0 - 59	.50							

WARNING

Choke point protection for UHMPE Rope Slings is MANDATORY! When UHMPE Rope Slings are used in a choker hitch, protection MUST be properly placed at the choke point to reduce friction and prevent rope-on-rope damage. Endless Slings will require additional or larger protection devices to cover all rope components at the choke point. The protection must always be of sufficient strength, thickness and construction, such as but not limited to CornerMax® Sleeve (depicted). A qualified person and/or properly informed and trained consumer must determine protection adequacy.



Rigging Practices and Considerations

WARNING

Never use Slings and/or Rigging for pulling against stuck, snagged or restrained objects IF LOADING CANNOT BE DETERMINED. Load measuring devices and/or methods must be used to ensure that OVERLOADING DOES NOT OCCUR.

Personnel must be alert to the potential for the Sling and/or load to become snagged or hung up during load handling activities. When these conditions occur, the Rigging may be overloaded.

WARNING Overloaded Rigging may fail and the unplanned release of tension and deadly recoil and/or impact force may result in SEVERE INJURY or DEATH.

WARNING Work Load Limits are based on a moderate rate of movement. Lifting and/or load handling equipment and load movement should be SLOW and STEADY. NEVER shock load Rigging. Unplanned, instantaneous changes (rapid acceleration or sudden stops) constitute hazardous shock loading which may overload Slings, Rigging Hardware and/or Sling Protection, leading to Rigging failure. Rigging failure and the unplanned release of tension, deadly recoil and/or impact force and/or loss of load control, and may result in SEVERE INJURY or DEATH. As an example, shock loading affects Slings with less elongation much more profoundly than Slings with a greater rate of elongation. Likewise, a shorter Sling is affected to a greater degree by shock loading, than a longer Sling.

- When Slings are used in a choker hitch, the choke action should occur on the body of the Sling, NOT on the Sling eyes, Fittings, splices, Sling tag and/or Tuck & Bury Region. Sling Protection must ALWAYS be used at CHOKE POINTS.
- Slings shall be shortened, lengthened or adjusted only by methods approved by the Sling manufacturer or a qualified person and/or properly informed and trained consumer.
- NEVER use ADJUSTABLE UHMPE Rope Slings in a choker hitch.
- During use in basket hitches, ANY CONTACT with Adjustable UHMPE Rope Slings must be on the ROPE BODY between splices.
- During use, NEVER allow the Tuck & Bury Region to contact the load and/or connection/suspension points.
- During use, the Handle must NEVER contact the Exit Point of the Tuck & Bury Region.
- During use, the Free Rope must extend a MINIMUM of 6 inches from the Exit Point.
- Slings shall not be shortened or lengthened by knotting or twisting and/or be joined by knotting.
- Twisting and kinking MUST be avoided. Twists MUST be removed before applying tension.
- Equipment should not be driven over Slings and loads should not be rested on Slings.
- Slings should not be pulled from under a load when the load is resting on the Sling. When possible, place supports (cribbing) under the load to allow for the removal of Slings.
- Slings should not be dragged on the floor and/or over abrasive surfaces. Dirt and foreign material may work into the Sling and may cause damage which may seriously affect Sling strength and performance.
- If synthetic rope Slings incorporate thimbles, they must be installed and maintained so they cannot rotate or fall out.
- Do not drop Slings equipped with metal Fittings.
- Slings should not be bunched or pinched between the ears of a Shackle or by the load, Hook or Fitting.

Endless UHMPE Rope Sling Considerations The Sling If possible, center the Sling **Adjustable** Splice is larger Splice over the lift and/or **UHMPE** Rope connection point to allow for in diameter Sling Anatomy. and elongates equalized elongation in the differently than **UHMPE Endless Rope Sling** the Sling Body. body members. Splice Sling Splice Body Rope Body 6 inch MINIMUM Free Rope Exit Tuck & Bur Region Sling **Splice** Adjustable



UHMPE PROLINE12® Endless Rope Slings



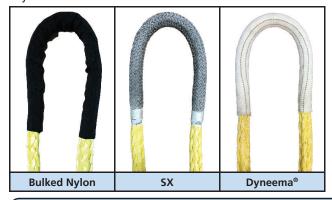
Super strong, ultra-light Lift-It® PROLINE12® UHMPE Rope Slings have similar elongation properties but are 1/7 the weight of heavy, cumbersome Wire Rope Slings. UHMPE Rope Slings also offer the advantages of flexibility as well as the absence of lubricants and corrosion when compared to Wire Rope Slings. Unlike Wire Rope Slings, UHMPE Rope Slings are neutrally buoyant for ease of handling in diving, salvage, maintenance and marine construction activities for oil, gas and alternative energy companies.

- Lift-It® UHMPE Rope Slings do not absorb water and sling capacity is not reduced while wet.
- UHMPE Rope Slings are easy to inspect when compared to rigid Wire Rope Slings and Roundslings.
- External and internal wear is more readily identifiable with 12 x 12 braided strand UHMPE Rope Slings.
- UHMPE Rope Slings have recommended usage diameters that have been validated through destruction testing.

CONNECTION POINT SLEEVES

Bulked Nylon (Cordura®) Connection Point Sleeves are automatically supplied on Lift-It® UHMPE Rope Slings. SX and Dyneema® Sleeves are available on request for an additional charge.

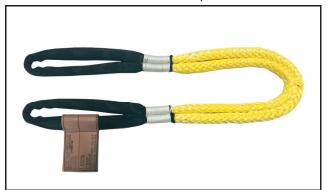
Dyneema® Connection Point Sleeves utilizing YKK® No. 10c Heavy Duty Marine Grade Zipper closure are also available enabling the user to add Connection Point Sleeves at any time.



UHMPE ENDLESS ROPE SLINGS – FIXED EYE

Lift-It® UHMPE Endless Rope Slings can be fabricated into a Fixed Eye configuration where the two endless body members are set and secured beside each other. In this configuration, sling users have the convenience of a unitized sling body but are unable to rotate the sling connection points.

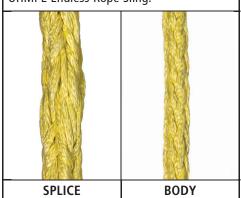
Unless otherwise specified, Endless Slings will be supplied. To order the Fixed Eye configuration, "FE" must be added after "EN" to the stock number. Example: EN-FE-UHMPE-2.



UHMPE ENDLESS ROPE SPLICE PLACEMENT

Depending upon the length of Lift-It® UHMPE Endless Rope Sling, you may have a choice where to place the splice.

The splice is larger in diameter and elongates differently than the body of the UHMPE Endless Rope Sling.





If possible, place the splice over the lift or connection point to allow for equalized elongation in the UHMPE Endless Rope Sling body members.



WARNING See the appropriate section of ASME B30, the Lift-It® and/or manufacturer's website and/or supplied bulletins/user guides for Important Safety, Use and Inspection Information.



		Working Load Limits (Lbs.)			(Lbs.)	Ī		
			Choker*	Vertical	Basket @ 90			
Rope Diameter D (Inches)	Rope Diameter (mm)	Stock Number	*		U	Minimum Length Weight (Lbs.)	Adder / Ft. Weight (Lbs.)	Bearing (Feet-Inches)
1/4"	6 mm	EN-UHMPE-1/4	1,120	2,376	4,752	0.1	0.04	1′-4″
5/16"	8 mm	EN-UHMPE-5/16	1,630	3,415	6,830	0.18	0.06	1′-8″
3/8"	9 mm	EN-UHMPE-3/8	2,450	5,197	10,394	0.28	0.08	2′
7/16"	11 mm	EN-UHMPE-7/16	2,940	6,237	12,474	0.36	0.08	2'-4"
1/2"	12 mm	EN-UHMPE-1/2	4,380	9,207	18,414	0.6	0.12	2′-8″
9/16"	14 mm	EN-UHMPE-9/16	5,300	11,137	22,274	0.88	0.16	3′
5/8"	16 mm	EN-UHMPE-5/8	7,190	15,147	30,294	1.32	0.22	3'-4"
3/4"	18 mm	EN-UHMPE-3/4	9,590	20,344	40,688	1.82	0.26	4′
13/16"	20 mm	EN-UHMPE-13/16	10,300	21,978	43,956	2.56	0.32	4'-5"
7/8"	22 mm	EN-UHMPE-7/8	12,900	27,472	54,944	3.6	0.4	4′-8″
1"	24 mm	EN-UHMPE-1	15,400	32,670	65,340	4.37	0.46	5′-5″
1-1/16"	26 mm	EN-UHMPE-1-1/16	18,000	38,313	76,626	5.6	0.56	5′-8″
1-1/8"	28 mm	EN-UHMPE-1-1/8	20,500	43,659	87,318	6.72	0.64	6′
1-1/4"	30 mm	EN-UHMPE-1-1/4	23,100	49,005	98,010	9	0.72	6′-8″
1-5/16"	32 mm	EN-UHMPE-1-5/16	27,400	58,212	116,424	10.92	0.84	7′
1-1/2"	36 mm	EN-UHMPE-1-1/2	30,900	65,637	131,274	14.56	1.04	8′
1-5/8"	40 mm	EN-UHMPE-1-5/8	40,700	86,130	172,260	19.8	1.32	8'-8"
1-3/4"	44 mm	EN-UHMPE-1-3/4	43,900	92,070	184,140	25.74	1.56	9'-5"
2"	48 mm	EN-UHMPE-2	49,700	105,435	210,870	32.76	1.82	10′-8″
2-1/8"	52 mm	EN-UHMPE-2-1/8	59,900	126,225	252,450	42.51	2.18	11'-5"
2-1/4"	56 mm	EN-UHMPE-2-1/4	67,300	142,560	285,120	50.02	2.44	12′
2-1/2"	60 mm	EN-UHMPE-2-1/2	74,200	157,410	314,820	69.56	2.96	13′-5″
2-5/8"	64 mm	EN-UHMPE-2-5/8	83,400	176,715	353,430	93.52	3.34	14'-1"
2-3/4"	68 mm	EN-UHMPE-2-3/4	92,400	196,020	392,040	123.42	3.74	14'-8"
3″	72 mm	EN-UHMPE-3	109,200	231,660	463,320	162.64	4.28	16′-1″
3-1/8"	76 mm	EN-UHMPE-3-1/8	119,000	252,450	504,900			16′-8″
3-1/4"	80 mm	EN-UHMPE-3-1/4	131,600	279,180	558,360			17′-5″
3-1/2"	84 mm	EN-UHMPE-3-1/2	155,100	328,185	656,370			18′-8″
3-5/8"	88 mm	EN-UHMPE-3-5/8	175,000	371,250	742,500			19'-5"
3-3/4"	92 mm	EN-UHMPE-3-3/4	184,300	390,555	781,110			20′-1″
4"	96 mm	EN-UHMPE-4	212,800	451,440	902,880			21′-5″
4-1/8"	100 mm	EN-UHMPE-4-1/8	227,000	481,140	962,280			22'-1"
4-1/4"	104 mm	EN-UHMPE-4-1/4	237,500	503,415	1,006,830			22'-10"
4-1/2"	108 mm	EN-UHMPE-4-1/2	255,700	542,025	1,084,050	ļ		24'-1"
4-5/8"	112 mm	EN-UHMPE-4-5/8	263,200	558,360	1,116,720			24'-10"
4-3/4"	116 mm	EN-UHMPE-4-3/4	269,700	571,725	1,143,450	ļ		25′-5″
5″	120 mm	EN-UHMPE-5	289,700	613,305	1,226,610			26′-10″
5-1/8"	124 mm	EN-UHMPE-5-1/8	309,600	656,370	1,312,740			27′-5″
5-1/4"	128 mm	EN-UHMPE-5-1/4	329,700	699,435	1,398,870			28'-1"
5-1/2"	132 mm	EN-UHMPE-5-1/2	349,600	741,015	1,482,030			29'-5"
5-5/8"	136 mm	EN-UHMPE-5-5/8	369,600	784,080	1,568,160			30′-1″
5-3/4"	140 mm	EN-UHMPE-5-3/4	389,500	825,660	1,651,320			30′-10″
6"	144 mm	EN-UHMPE-6	409,000	868,725	1,737,450			32'-1"
6-1/8"	148 mm	EN-UHMPE-6-1/8	429,000	910,305	1,820,610			32′-10″
6-1/4"	152 mm	EN-UHMPE-6-1/4	449,000	950,400	1,900,800			33'-6"
6-1/2"	156 mm	EN-UHMPE-6-1/2	469,000	994,950	1,989,900			34'-10"
6-5/8"	160 mm	EN-UHMPE-6-5/8	489,000	1,024,650	2,049,300			35′-6″
6-3/4"	164 mm	EN-UHMPE-6-3/4	509,000	1,069,200	2,138,400			36'-1"
7"	168 mm	EN-UHMPE-7	529,000	1,113,750	2,227,500			37'-6"
7-1/8"	172 mm	EN-UHMPE-7-1/8	554,000	1,173,150	2,346,300			38'-1"
7-1/4"	176 mm	EN-UHMPE-7-1/4	569,000	1,202,850	2,405,700			38'-10"
7-1/2"	180 mm	EN-UHMPE-7-1/2	589,000	1,247,400	2,494,800			40′-2″
7-5/8"	184 mm	EN-UHMPE-7-5/8	609,000	1,291,950	2,583,900			40′-10″
7-3/4"	188 mm	EN-UHMPE-7-3/4	629,000	1,321,650	2,643,300			41′-6″
8"	192 mm	EN-UHMPE-8	649,000	1,366,200	2,732,400			42'-10"
8-1/8"	196 mm	EN-UHMPE-8-1/8	669,000	1,410,750	2,821,500			43'-6"
8-1/4"	200 mm	EN-UHMPE-8-1/4	689,000	1,455,300	2,910,600			44'-2"

WARNING *See Important Safety and Use Information regarding proper choker hitch use for Lift-It® UHMPE Rope Slings.