Below the Hook ● Behind the Product ● Above the Standard

FIRST®

Full Inspection Round Sling Technology

Product Catalog

Table of Contents

Vol. 2

303 North Villa Avenue
Oklahoma City, Oklahoma 73107

405.324.1777
sales@firstsling.com
www.firstsling.com

FIRST Sling Technology

FIRST Sling's dedication to quality and service is the foundation and future of their success. Since the first generation arrived in Oklahoma, they have been engineering state-of-the-art rigging gear for the oil & gas, crane & construction, manufacturing, and power generation industries.

FIRST Sling Technology LLC was founded in 1997. Their team of second and third generation industry professionals share a common vision that their company is an integral source of quality American lifting products, aiming to become the region's preferred supplier of premium rigging gear. The same ethics and values their predecessors instilled in them are hard at work today as they continue to supply some of the most prominent names in the industry. The success of the company may be evident by their lifelong dedication, their loyal customer base or their new ever-expanding facility; yet, it is best defined by the lasting relationships with their customers sustained through an exceptional level of commitment and the extraordinary pride they have in the products and services they provide to them.

Products & Services

- Certified Rigging Inspections
- Training Seminars
- Non-destructive Testing
- RFID Traceability
- Wire Rope
- Wire Rope Slings
- Overhead Crane Inspections
- Overhead Crane Repair
- Pendant Lines
- Chain
- Chain Slings
- Synthetic Slings
- Hand Splicing
- Hooks
- Raising Lines
- Winch Lines
- Casing Slings
- Pumping Unit Bridles
- Drillines
- Socketing
- Snublines
- Loadbinders
- Shackles
- Turnbuckles
- Tailchains
- Blocks

405.324.1777

Synthetic Ropes

In conjunction with the inauguration of our highly anticipated Web Center, FIRST Sling has staffed synthetics specialists dedicated to synthetic ropes and the design, fabrication and testing of their assemblies. Some of our stock rope specifications are listed below and include 3-Strand Nylon, POLYDAC, Stable Braid, Polypropylene, Sisal, Manila and Sash Cord. Contact us for your custom synthetic rope assembly needs or inquire about our specialized manufacturing of synthetic:

- Tag Lines
- Winch Lines
- Bridle Lines

You may also view our rigging hardware for a variety of hooks, master links and other fittings and attachments. Our most popular synthetic rope attachments are the Double Locking Ladder Hooks, Double Locking Lanyard Hooks, 1.5 Ton Alloy Hooks, and Snap Hooks. These are also available in a Swivel.

Stable Braid

FEATURES:
- High wear and heat resistance
- Excellent flex-fatigue service life
- Firm flexibility
- Low working elongation
- Sizes above 5/8" have a Pro-Gard marine finish and conform to U.S. Military specification #MIL-KTL-24677

APPLICATIONS:
- Traction winch tow lines
- Constant tension winch mooring lines
- Secondary mooring lines
- Deep water anchoring or lifting lines

SPECIFICATIONS:
Specific Gravity: 1.38
Elastic Elongation Percentage:
A % of break strength
10% 1.1%
20% 1.7%
30% 2.7%

Size Diameter	Size Circum.	Weight Per 100 Ft.	SRT MBS*	Size Diameter	Weight Per 100 M	SRT MBS*	ISO/BS EN919 MBS
IN	IN	LBS	LBS	MM	KG	MT	MT
1/4	3/4	2.1	2,000	6	3.1	0.89	0.99
5/16	1	3.2	3,100	8	4.8	1.4	1.5
3/8	1-1/8	4.5	4,800	9	6.7	2.2	2.4
7/16	1-1/4	6.1	6,500	11	9.1	3.0	3.3
1/2	1-1/2	8.2	8,800	12	12.2	4.0	4.5
9/16	1-3/4	11	11,300	14	16.4	5.1	5.7
5/8	2	14	13,900	16	20.8	6.3	7.0
3/4	2-1/4	18.0	17,300	18	26.8	7.9	8.7
7/8	2-3/4	27.1	25,400	22	40.3	11.5	12.8
1	3	34.0	33,300	24	50.6	15.1	16.8
1-1/8	3-1/2	45.3	41,000	28	67.4	18.6	20.6
1-1/4	3-3/4	53.9	48,700	30	80.2	22.1	24.5
1-5/16	4	60.8	55,000	32	90.5	24.9	27.7
1-1/2	4-1/2	73.3	63,800	36	109.0	29.0	32.2
1-5/8	5	85.9	74,100	40	128.0	33.	37.4
1-3/4	5-1/2	104.0	88,400	44	155.0	40.1	44.6
2	6	124.0	105,000	48	185.0	47.8	53.1
2-1/8	6-1/2	147.0	123,000	52	219.0	55.9	62.1
2-1/4	7	173.0	141,000	56	257.0	64.0	71.1
2-1/2	7-1/2	196.0	162,000	60	292.0	73.3	81.4
2-5/8	8	225.0	180,000	64	335.0	81.7	90.8
2-3/4	8-1/2	246.0	199,000	68	366.0	90.2	100.0
3	9	300.0	236,000	72	446.0	107.0	119.0
3-1/4	10	375.0	292,000	80	558.0	132.0	147.0
3-5/8	11	450.0	346,000	88	670.0	157.0	174.0
4	12	525.0	400,000	96	781.0	181.0	201.0
4-1/4	13	589.0	453,000	104	876.0	206.0	228.0
4-5/8	14	689.0	524,000	112	1,025.0	238.0	264.0
5	15	788.0	593,000	120	1,173.0	269.0	299.0

Rope Dia.	Rope Circum.	Min. Tensile Strength	Linear Density
IN	IN	LBS	LB/100 FT
1/4	3/4	1,650	1.5
5/16	1	2,295	2.4
3/8	1-1/8	3,240	3.5
1/2	1-1/2	5,670	6.3
5/8	2	8,910	9.9
3/4	2-1/4	12,780	14.3
1	3	22,230	25.3
1-1/8	3-1/2	28,260	32.2
1-1/4	3-3/4	34,830	39.7
1-1/2	4-1/2	48,600	47.0
1-3/4	5-1/2	66,150	78.0
2	6	84,600	100.0

3-Strand Nylon

Strongest rope available, over twice as strong as manila. Plied yarn construction. Highest grade of nylon yarns used in the cordage industry. Regular lay (medium) construction means ease in splicing nylon rope. Heat set yarns minimize shrink and helps nylon rope maintain its lay. High elasticity for energy absorption, but caution must be exercised due to high recoil and breakpoint of nylon rope. Flexible high abrasion resistance, can be stored wet. Is not affected by mildew, oil, grease, gasoline, marine growth or most chemicals.

Rope Dia.	Rope Circum.	Min. Tensile Strength	Linear Density
IN	IN	LBS	LB/100 FT
3/8	1-1/8	2,919	3.3
1/2	1-1/2	4,682	5.6
5/8	2	7,996	8.7
3/4	2-1/4	10,761	12.3
7/8	2-3/4	14,710	16.4
1	3	16,490	20.2
1-1/4	3-3/4	24,899	30.9
1-1/2	4-1/2	25,677	43.5
1-5/8	5	45,276	50.9
1-3/4	5-1/2	50,714	58.3
2	6	56,152	76.1
2-1/4	7	69,145	94.9
2-5/8	8	92,728	129.9
3	9	120,890	-

POLYDAC

The best properties of two comparable fibers, polypropylene and polyester, create a very high-strength, light-weight and competitively priced rope. Polypropylene provides a high-strength, light weight core while the polyester covered yarns provide excellent resistance to abrasion and UV degradation, which extends the service life of the rope. POLYDAC ropes are not subject to deterioration by petroleum products and most chemicals. It will not rot or mildew and 2" (51mm) diameter and larger ropes will float.

Rope Dia.	Rope Circum.	Min. Tensile Strength	WLL
IN	IN	LBS	LB/100 FT
1/4	3/4	540	54
5/16	1	900	90
3/8	1-1/8	1,220	122
7/16	1-1/4	1,580	176
1/2	1-1/2	2,380	264
5/8	2	3,960	496
3/4	2-1/4	4,860	695
13/16	2-1/2	5,850	835
7/8	2-3/4	5,950	995
1	3	8,100	1,160
1-1/8	3-1/2	10,800	1,540
1-1/4	3-3/4	12,200	1,740
1-1/2	4-1/2	16,700	2,380
2	6	28,000	4,000

Manila

Manila rope is the traditional three-strand rope. Made from natural fiber, which means that it is environmentally friendly. No stretch, holds knots well, and will absorb water. Manila is subject to rot and is not recommended for use where personal safety is at risk; however, Manila rope is great for general industrial applications.

General Cordage Rope Specifications

		POLYPROPYLENE (17%*)			NYLON (11%*)		
Size Dia.	Size Circ.	Weight Per 100 Ft.	Feet Per lb.	Tensile Strength	Weight Per 100 M	Feet Per lb.	Tensile Strength
IN	IN	LBS	FT		LBS	FT	
3/16	5/8	0.7	143	720	1	100	900
1/4	3/4	1.2	83.4	1130	1.5	66.7	1,490
5/16	1	1.8	55.6	1710	2.5	40	2,300
3/8	1-1/8	2.8	35.7	2430	3.5	28.5	3,350
7/16	1-1/4	3.8	26.3	3150	5	20	4,500
1/2	1-1/2	4.7	21.3	3780	6.5	15.4	5,750
9/16	1-3/4	6.1	16.4	4590	8.3	12.3	7,200
5/8	2	7.5	13.3	5580	10.5	9.5	9,350
3/4	2-1/4	10/7	9.3	7650	14.5	6.9	12,800
13/16	2-1/2	12.7	7.9	8910	17	5.9	15,300
7/8	2-3/4	15	6.7	10400	20	5	18,000
1	3	18	5.5	12600	26	3.8	22,500
1-1/16	3-1/4	20.4	4.9	14400	29	3.4	25,900
1-1/8	3-1/2	23.7	4.2	16500	34	2.9	29,700
1-1/4	3-3/4	27	3.7	18900	40	2.5	33,750
1-5/16	4	30.5	3.3	21200	45	2.2	38,750
1-1/2	4-1/2	38.5	2.6	26700	55	1.8	47,700
1-5/8	5	47.5	2.1	32400	68	1.5	58,500
1-3/4	5-1/2	57	1.7	38700	83	1.2	70,200
2	6	69	1.4	46800	95	1.05	83,800
2-1/8	6-1/2	80	1.2	54900	109	0.92	95,500
2-1/4	7	92	1.1	62100	129	0.77	113,000
2-1/2	7-1/2	107	0.93	72000	149	0.67	126,000
2-5/8	8	120	0.83	81000	168	0.59	146,000
2-7/8	8-1/2	137	0.73	90900	189	0.53	162,000
3	9	153	0.65	103000	210	0.47	180,000
3-1/4	10	190	0.53	123000	263	0.38	225,000
3-1/2	11	232	0.43	146000	315	0.32	270,000
4	12	275	0.36	171000	379	0.26	324,000

*Recommended Working Load

General Cordage Rope Specifications

		POLYPROPYLENE (17%*)			NYLON (11%*)		
Size Dia.	Size Circ.	Weight Per 100 Ft.	Feet Per lb.	Tensile Strength	Weight Per 100 M	Feet Per lb.	Tensile Strength
IN	IN	LBS	FT		LBS	FT	
3/16	5/8	1.5	66.6	405	1.2	83.4	900
1/4	3/4	2	50	540	2	50	1,490
5/16	1	2.9	34.5	900	3.1	32.2	2,300
3/8	1-1/8	4.1	24.4	1215	4.5	22.2	3,350
7/16	1-1/4	5.3	19	1575	6.2	16.1	4,500
1/2	1-1/2	7.5	13.33	2385	8	12.5	5,750
9/16	1-3/4	10.4	9.61	3105	10.2	9.8	7,200
5/8	2	13.3	7.5	3960	13	7.7	9,000
3/4	2-1/4	16.7	6	4860	17.5	5.7	11,300
13/16	2-1/2	19.5	5.13	5850	21	4.8	14,000
7/8	2-3/4	22.5	4.45	6930	25	4	16,200
1	3	27	3.71	8100	30.5	3.3	19,800
1-1/16	3-1/4	31.3	3.2	9450	34.5	2.9	23,000
1-1/8	3-1/2	36	2.78	10800	40	2.5	26,600
1-1/4	3-3/4	41.8	2.4	12150	46.3	2.2	29,900
1-5/16	4	48	2.09	13500	52.5	1.9	33,800
1-1/2	4-1/2	60	1.67	16650	66.8	1.5	42,100
1-5/8	5	74.4	1.34	20250	82	1.2	51,300
1-3/4	5-1/2	89.5	1.12	23850	98	1.02	61,000
2	6	108	1.93	27900	118	0.85	72,000
2-1/8	6-1/2	125	0.79	32400	135	0.74	82,800
2-1/4	7	146	0.685	36900	157	0.64	96,300
2-1/2	7-1/2	167	0.59	41850	181	0.55	110,000
2-5/8	8	191	0.52	46800	205	0.49	123,000
2-7/8	8-1/2	215	0.47	52200	230	0.43	139,000
3	9	242	0.42	57600	258	0.39	157,000
3-1/4	10	299	0.33	69300	318	0.31	189,000
3-1/2	11	367	0.27	81900	384	0.26	229,000
4	12	436	0.23	94500	460	0.22	270,000

CAUTION: Working loads are tabulated for rope in good condition in non-official applications and under normal service conditions. Working loads are not applicable where the rope is subjected to dynamic loading or other excessive use. Should the rope fail, it may recoil with consederable force. Persons should be warned against standing in line with the rope.

Sling Inspection & Removal Criteria Quick-Guide PER ASME B30.9

Wire Rope Slings (PER B30.9)

Wire Rope Slings shall be removed from service if any of the following conditions are present:

1. **Missing or illegible sling identification.**
2. **Broken Wires:**
   - **For strand-laid and single-part slings, 10 randomly distributed broken wires in one rope lay, or 5 broken wires in one strand in one rope lay.**
   - **For cable-laid slings, 20 broken wires per lay.**
   - **For less than eight-part braided slings, 20 broken wires per braid.**
   - **For eight-part or more than eight braided slings, 40 broken wires per braid.**
3. **Severe localized abrasion or scraping.**
4. **Kinking, crushing, bird caging, or any other damage resulting in damage to the rope structure.**
5. **Evidence of heat damage.**
6. **End attachments that are cracked, deformed, or worn to the extent that the strength of the sling is substantially affected.**
7. **Severe corrosion of the rope, end attachments, or fittings.**
8. **For hooks, removal criteria as stated in ASME B30.10.**
9. **For rigging hardware, removal criteria as stated in ASME B30.26**
10. **Other conditions, including visible damage, that cause doubt as to the continued use of the sling.**

Synthetic Flat Web Slings (PER B30.9)

Synthetic Web Slings shall be removed from service if any of the following conditions exist:

1. **Missing or illegible sling identification.**
2. **Acid or caustic burns.**
3. **Melting or charring of any part of the sling.**
4. **Holes, tears, cuts, or snags.**
5. **Broken or worn stitching in load bearing splices.**
6. **Excessive abrasive wear.**
7. **Knots in any part of the sling.**
8. **Discoloration & brittle or stiff areas on any part of the sling, may mean chemical or ultraviolet/sunlight damage.**
9. **Fittings that are pitted, corroded, cracked, bent, twisted, gouged, or broken.**
10. **For hooks, removal criteria as stated in ASME B30.10.**
11. **For rigging hardware, removal criteria as stated in ASME B30.26**
12. **Other conditions, including visible damage, that cause doubt as to the continued use of the sling.**

Alloy Steel Chain Slings (PER B30.9)

Alloy Steel Chain Slings shall be removed from service if any of the following conditions are present:

1. **Missing or illegible sling identification.**
2. **Cracks or breaks**
3. **Excessive wear, nicks, or gouges.**
4. **Stretched chain links or components**
5. **Bent, twisted, or deformed chain links or components.**
6. **Evidence of heat damage.**
7. **Excessive pitting or corrosion.**
8. **Lack of ability of chain or components to hinge (articulate) freely.**
9. **Weld splatter.**
10. **For hooks, removal criteria as stated in ASME B30.10**
11. **For rigging hardware, removal criteria as stated in ASME B30.26**
12. **Other conditions, including visible damage, that cause doubt as to the continued use of the sling.**

Polyester Roundslings (PER B30.9)

Roundslings shall be removed from service if any of the following conditions exist:

1. **Missing or illegible sling identification.**
2. **Acid or caustic burns.**
3. **Evidence of heat damage.**
4. **Holes, tears, cuts, abrasive wear, or snags that expose the core yarns.**
5. **Broken or damaged core yarns.**
6. **Weld splatter that exposes core yarns.**
7. **Knots in the roundslings, except for termination points of core yarns inside the cover.**
8. **Fittings that are pitted, corroded, cracked, bent, twisted, gouged, or broken.**
9. **For hooks, removal criteria as stated in ASME B30.10.**
10. **For rigging hardware, removal criteria as stated in ASME B30.26.**
11. **Any other condition that may cause doubt as to the continued use of the sling.**

Rigging Hardware Inspection & Removal Criteria Quick-Guide

Hooks (PER B30.10)

Hooks having damage or wear described as follows shall be repaired or replaced:

1. **Cracks, nicks, and gouges that compromise the integrity of the hook. Repair of cracks, nicks, and gouges shall be carried out by a designated person by grinding longitudinally, following the contour of the hook, provided no dimension is reduced more than 10% (or as recommended by the manufacturer) of its original value.**
2. **Wear exceeding 10% (or as recommended by the manufacturer) of the original sectional dimension.**
3. **Any visibly apparent bend or twist from the plane of the unbent hook.**
4. **Any distortion causing an increase in throat opening of 5%, not to exceed 1/4 in. (or as recommended by the manufacturer)**
5. **Inability of self-locking hooks to lock.**
6. **A hook latch that is inoperative shall be repaired, replaced, or removed if not required.**
7. **If a required latch is inoperable and cannot be immediately repaired or replaced, the hook shall be sufficiently moused to retain loose items as defined in para. 10-1.3(c) until the latch is repaired or replaced.**
8. **When reassembling shank hooks, original securing methods or manufacturer's recommendations shall be followed.**
9. **All replacement parts shall be at least equal to the original manufacturer's specifications.**
10. **Hooks without provision for latches may be moused to retain loose items as defined in para. 10-1.3(c).**
11. **For special lifting applications where the throat opening is required to be closed, mousing may be used in place of the latch to retain loose items as defined in para. 10-1.3(c), when approved by a qualified person.**

Shackles (PER B30.26)

Shackles shall be removed from service if damage such as the following is visible and shall only be returned to service when approved by a qualified person:

1. **Missing or illegible manufacturer's name or trademark and/or rated load identification.**
2. **Indications of heat damage including weld spatter or arc strikes.**
3. **Excessive pitting or corrosion.**
4. **Bent, twisted, distorted, stretched, elongated, cracked, or broken load-bearing components.**
5. **Excessive nicks or gouges.**
6. **A 10% reduction of the original or catalog dimension at any point around the body or pin.**
7. **Incomplete pin engagement.**
8. **Excessive thread damage.**
9. **Evidence of unauthorized welding.**
10. **Other conditions, including visible damage, that cause doubt as to the continued use of the shackle.**

Eyebolts, Eye Nuts, Swivel Hoist Rings, Turnbuckles (PER B30.26)

Adjustable hardware shall be removed from service if damage such as the following is present and shall only be returned to service when approved by a qualified person:

1. **Missing or illegible identification.**
2. **Indications of heat damage including weld spatter or arc strikes.**
3. **Excessive pitting or corrosion.**
4. **Bent, twisted, distorted, stretched, elongated, cracked, or broken load-bearing components.**
5. **Excessive nicks or gouges.**
6. **A 10% reduction of the original or catalog dimension at any point.**
7. **Excessive thread damage or wear.**
8. **Evidence of unauthorized welding or modification.**
9. **For swivel hoist rings, lack of the ability to freely rotate or pivot.**
10. **Other conditions, including visible damage, that cause doubt as to continued use.**

Links & Rings (PER B30.26)

Links, rings, and swivels shall be removed from service if conditions such as the following are present and shall only be returned to service when approved by a qualified person:

1. **Missing or illegible identification.**
2. **Indications of heat damage, including weld spatter or arc strikes.**
3. **Excessive pitting or corrosion.**
4. **Bent, twisted, distorted, stretched, elongated, cracked, or broken load bearing components.**
5. **Excessive nicks or gouges.**
6. **A 10% reduction of the original or catalog dimension at any point.**
7. **Evidence of unauthorized welding or modification.**
8. **For swivels, lack of the ability to freely rotate when not loaded.**
9. **For swivels, loose or missing nuts, bolts, cotter pins, snap rings, or other fasteners and retaining devices.**
10. **Other conditions, including visible damage that cause doubt as to continued use.**

Below the Hook ● Behind the Product ● Above the Standard

Product Catalog