

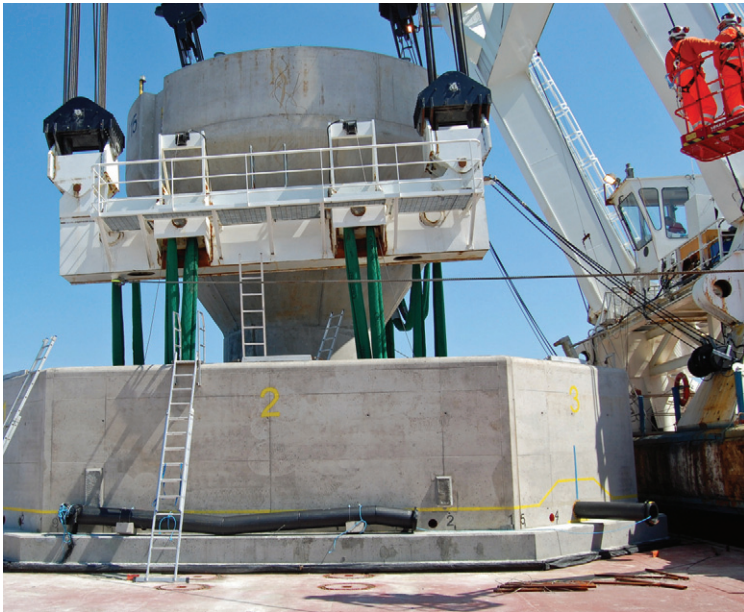
- QUALITY
- INNOVATION
- SERVICE
- TRAINING



#0613



Twin-Path® Extra Slings



Offshore Windmill Foundation



New York City World Trade Center



Shipbuilding



Steam Generator Installation

! WARNING

Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Do not exceed rated capacity. Protect sling from contact with edges. Avoid exposure to acid, alkali, sunlight and temperature over 180° F. DEATH or INJURY can occur from improper use or maintenance.



Table of Contents

Solutions.....	2	Equalizer Block.....	15
Slingmax® Website	3	Synthetic Boom-Pendant.....	15
Twin-Path® Products.....	4-15	Inspection & Testing	19
Twin-Path® Extra Covermax® Slings.....	5	Mechanical Considerations	20
Check-Fast® Inspection System.....	6	Environmental Considerations	21
Fiber Optic Inspection.....	6	Wire Rope Products	24-32
Covermax® Covers.....	7	Gator-Laid® Slings	26
Covermax® Rifled Cover™ Technology ..	7	Gator-Max® Slings	27
CornerMax® Pads	8	Gator-Flex® Slings	28
CornerMax® Sleeves	9	Gator-Flex® Grommets	29
Shackle Pin Pads.....	10	Tri-Flex® Slings.....	30
Synthetic Armor™ Pads	10	T & D Ultra-Flex™ Slings	31
Twin-Path® Taper	10	Pad Eye Tester	33
Adjustable Bridles	12-13	G-Link™ Synthetic Sling Connector	34
Single-Path Check-Fast® Roundsling ..	14	Chain Saddle Ring	34
Sparkeater® Slings.....	14	Definitions of Terms.....	35
Rigging Institute	16-17	International Distribution	36

CAUTIONS or WARNINGS

All ratings shown in this literature are based upon the items being new or in “as new” condition. These ratings may not be applicable if the sling or fitting is exposed to misuse, overloading, corrosion, wear, deformation, intentional alteration and other usage factors. Catalog ratings are to be the greatest load that shall be applied to the sling or fitting at the identified hitch confirmation and induced angle. Shock loading must be avoided.

Follow OSHA and ASME B30.9 guidelines. Review and follow all Manufacturers guidelines including all Mechanical and Environmental Considerations, Inspection Instructions, Warning Literature and Warning Tag Instructions.

When in doubt, always consult the manufacturer directly.

We are Slingmax® – we provide rigging solutions



We believe we can solve your rigging problem with our synthetic solutions, like our Twin-Path® slings and Check-Fast® slings, plus sling protection like CornerMax® pads and sleeves or Synthetic Armor™ pads. But we know there is a large demand for other rigging, whether it be steel or another synthetic. Slingmax® of course has products for all types of rigging. Our wire rope sling designs are the highest efficiency multipart wire rope slings available. They include Gator-Max®, Gator-Laid®, Gator-Flex®, T&D Ultra-Flex™ and Tri-Flex® slings. Our G-Link™ connectors work with all synthetic slings as do our sling protections. For a versatile and adjustable chain sling, we recommend our Chain Sling Saddle Ring. Our Pad Eye tester can accommodate a variety of lifting points. And our Rigging Institute training courses cover all types of rigging.



More importantly to you the customer is that Slingmax® has a worldwide network of dealers: 42 rigging fabrication locations and over 120 sales branches. These dealers manufacture and distribute the best rigging products in a location near you.



Our Slingmax® rigging products, plus our Slingmax® full-service rigging network, equal SLINGMAX® RIGGING SOLUTIONS for you. Look for our dealers when you need a rigging solution or just the best in rigging.

http: //www.slingmax.com

The slingmax.com website is the most current version of any information about Slingmax Inc. and its products and services. Printed material can go out of date and yet remain in your library, but we update the slingmax.com website as soon as new information becomes available.



Home | About Us | Contact

Home

Synthetic Slings

Accessories

Wire-Rope Slings

Associated Products

FAQ

Technical Bulletins

Articles

Photo Gallery

Quick-Quote

Dealers Only

Twin-Path® slings used to hoist the Space Shuttle Enterprise onto the deck of the retired USS Intrepid Aircraft carrier in New York City.

The SLINGMAX® Organization is a worldwide team of 42 full-service locations which fabricate the most advanced rigging products on the market today. Our Rigging "Solutions" include Twin-Path® Extra Slings with K-SPEC® Core Yarn, capable of lifting up to 600 tons each. K-SPEC® Core Yarn is so abrasion resistant that it exceeds catalog breaking strength after 50,000 cycles! Besides ergonomically superior High Performance Synthetic Slings and Multi-part Wire Rope Slings, we also provide training and rigging accessories, including protection for slings and loads. For safety, quality, durability and the lowest *true* "cost of use" in innovative rigging equipment -- **SLINGMAX® is your SOLUTION!**

[Twin-Path® Extra Slings vs. Not "Equal to" Slings: See the Difference!](#)

CELEBRATING 25 Years

Home | Synthetic Slings | Accessories | Wire Rope Slings | Associated Products
 FAQ | Technical Bulletins | Articles | Photo Gallery | Quick-Quote | About Us | Contact
 © Copyright 2012 by Slingmax®, Inc.

In addition to being an online catalog for Slingmax® Rigging Solutions, our website gives you access to Technical Bulletins, instructional videos, use and care information, and technical articles. All of our print catalogs and brochures are downloadable from the website.

So check the website regularly and use it as a technical resource for your rigging plans.



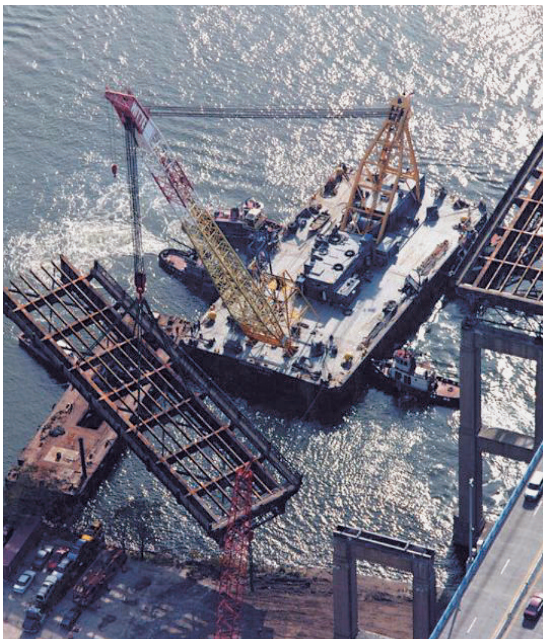
TWIN-PATH[®] SLINGS



500 ton Steam Generator Replacement



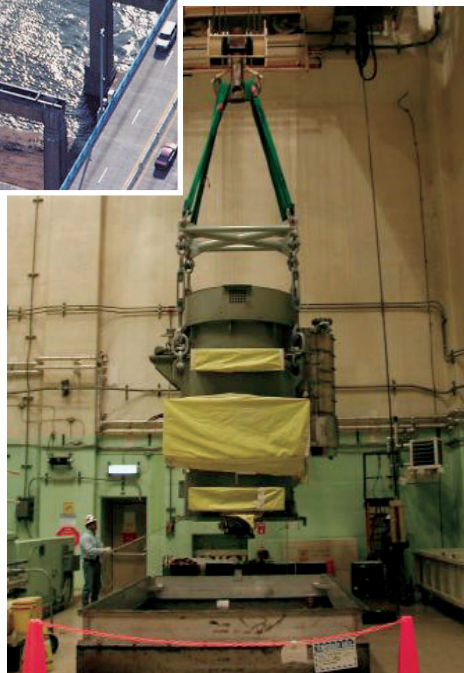
88 ton Refinery Compressor with CornerMax[®] Pads



Removal of 500 ton Bridge Decking



Mark V Navy Assault Boat



Reactor Coolant Pump Motor



Automobile Stamping Die

Twin-Path® Extra Check-Fast® Sling

US Patent #7,926,859, #7,661,737, #7,568,333 CA #2,547,632
 EP #1,899,255 Japan #4,864,965 China #ZL200680017605.5



TPXCF These slings have overload indicators, Covermax® covers for superior abrasion resistance and inner red covers. They are used worldwide in place of steel rigging for heavy lifts. They are approximately 10% of the weight of a steel sling and products are repairable. The Twin-Path® patented design provides the rigger with two independent connections between the hook and the load for protection assurance. These slings have less than 1% elongation at rated capacity. If ergonomics, productivity and safety are important, then these slings are your best choice. Independent testing shows that K-Spec® is the longest lasting load bearing core yarn in any sling.

NOTE: Capacities shown include both paths and are for one complete sling. Sling ratings based on commercial fittings of equal or greater capacity. Conforms to ANSI/ASME B30.9 chapter 6, NAVFAC P-307 section 14.7.4.3, and the Cordage Institute Roundsling Standard. This chart is based on a 5:1 Design Factor (DF); but any other DF can be fabricated. Higher capacity slings are available. **CAPACITIES ARE IN POUNDS (LBS.).**

Twin-Path® Sling Stock No.	Vertical	Choker	Vertical Basket	Basket Hitches		Approximate Weight (Lbs. per Ft.) (Bearing-Bearing)	Nominal Body Width (Inches)*
			90°	60°	45°		
TPXCF/TPXC 1000	10,000	8,000	20,000	17,320	14,140	.40	1.5 - 3"
TPXCF/TPXC 1500	15,000	12,000	30,000	25,980	21,210	.45	1.5 - 3"
TPXCF/TPXC 2000	20,000	16,000	40,000	34,640	28,280	.51	1.5 - 3"
TPXCF/TPXC 2500	25,000	20,000	50,000	43,300	35,350	.57	2.0 - 4"
TPXCF/TPXC 3000	30,000	24,000	60,000	51,960	42,420	.71	2.0 - 4"
TPXCF/TPXC 4000	40,000	32,000	80,000	69,280	56,560	.83	2.0 - 4"
TPXCF/TPXC 5000	50,000	40,000	100,000	86,600	70,700	1.14	2.5 - 5"
TPXCF/TPXC 6000	60,000	48,000	120,000	103,920	84,840	1.27	2.5 - 5"
TPXCF/TPXC 7000	70,000	56,000	140,000	121,240	98,980	1.39	2.5 - 5"
TPXCF/TPXC 8500	85,000	68,000	170,000	147,220	120,190	1.65	3.0 - 6"
TPXCF/TPXC 10000	100,000	80,000	200,000	173,200	141,400	1.84	3.0 - 6"
TPXCF/TPXC 12500	125,000	100,000	250,000	216,500	176,750	2.35	4.0 - 8"
TPXCF/TPXC 15000	150,000	120,000	300,000	259,800	212,100	2.66	4.0 - 8"
TPXCF/TPXC 17500	175,000	140,000	350,000	303,100	247,450	3.14	4.0 - 8"
TPXCF/TPXC 20000	200,000	160,000	400,000	346,400	282,800	3.45	5.0 - 10"
TPXCF/TPXC 25000	250,000	200,000	500,000	433,000	353,500	4.07	5.0 - 10"
TPXCF/TPXC 27500	275,000	220,000	550,000	476,300	388,850	4.61	6.0 - 12"
TPXCF/TPXC 30000	300,000	240,000	600,000	519,600	424,200	4.92	6.0 - 12"
TPXCF/TPXC 40000	400,000	320,000	800,000	692,800	565,600	6.54	7.0 - 14"
TPXCF/TPXC 50000	500,000	400,000	1,000,000	866,000	707,000	8.15	7.0 - 14"
TPXCF/TPXC 60000	600,000	480,000	1,200,000	1,039,000	848,000	10.20	11.0 - 22"

*Dimensions can vary according to the hardware or bearing points the slings are used with. Minimum is "tapered" width; Maximum is the flat tubing width.

METRIC SLINGS AVAILABLE

WARNING

Sling can fail if damaged, misused or overloaded. Inspect before use. Damaged sling shall not be used. Use only if trained. Do not exceed rated capacity. Protect sling from being cut by load edges, corners, protrusions and abrasive surfaces. Avoid exposure to acid, alkali and temperature over 180°F. DEATH or INJURY can occur from improper use or maintenance.

TWIN-PATH® SLINGS



Check-Fast® Inspection System (also known as the ✓Fast System)

US Patent #7,661,737 CA #2,547,632 EP #1,899,255

The Check-Fast® System is designed to improve job-site safety. The ✓Fast® Tag and External Warning Indicator (EWI) on a roundsling product provides for a pass/fail inspection of the internal load bearing core yarn. Damage to the core yarn from ultraviolet (UV) light degradation, fiber on fiber abrasion, fatigue, and severe overload can be detected. If the sling is mistakenly overloaded beyond rated capacity, the EWI is designed to disappear before the sling fails. The sling inspector now has a GO/NO-GO inspection device rather than relying on a subjective hand-over-hand inspection to make an educated guess if the load bearing core yarns are in good condition. This safety system is available for High Performance K-Spec® Fiber Roundslings or polyester roundslings fabricated by authorized SLINGMAX® Dealers.

Fiber Optic Inspection for Twin-Path® Slings

US Patent #5,651,572 CA #2,195,393 EP #0785163 Japan #2929431 Australia #707924

Twin-Path® slings have the Fiber Optic inspection system. The condition of the internal core yarn can be inspected just by checking the continuity of the fiber optic cable. If crushing or cutting, heat or chemical damage, has occurred then the damage to the fiber optic cable will destroy its ability to transmit light from one end to the other giving the inspector a reason to remove the sling from service and send it in for repair evaluation. The fiber optic cable will conduct light using natural, overhead or flashlight sources. The inspector simply covers and removes his finger from one end and watches the other end for blinking which indicates that the sling is OK to use for another lift.



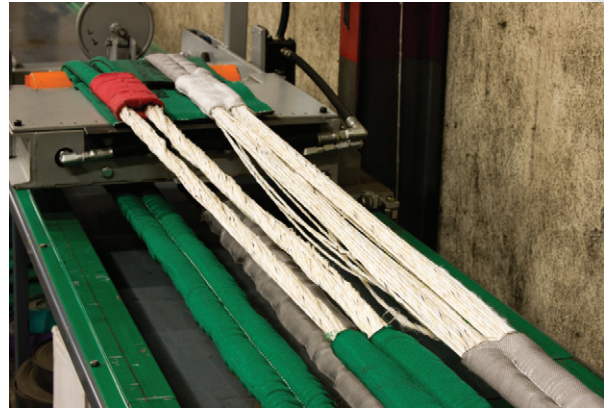
⚠ WARNING

Sling can fail if damaged, misused or overloaded. Inspect before use. Damaged sling shall not be used. Use only if trained. Do not exceed rated capacity. Protect sling from being cut by load edges, corners, protrusions and abrasive surfaces. Avoid exposure to acid, alkali and temperature over 180°F. DEATH or INJURY can occur from improper use or maintenance.

Covermax® Rifled Cover™ Technology

US Patent #7,926,859

Rifled Cover™ Technology is a major breakthrough for roundslings and is only available on Slingmax® High Performance Twin-Path® and Single Path roundslings. The Rifled Cover works like the inside of a rifle barrel where the bullet spins as it leaves the muzzle of the gun. This spinning or helical winding of the core yarn significantly improves the resistance, adding to the slings longevity. A significant feature of the patented Slingmax® roundsling machines is the non-rotating tail stock which also improves the helical winding process of the core and rifled cover. All three features, the K-Spec® core yarn, rifled cover and Slingmax® roundsling machine work together to make the strongest and lightest roundsling available today.



Twin-Path® High Performance Roundslings with patented Rifled Cover™ Technology yield three major advantages:

1. Increased strength to weight ratio. 18% higher breaking strength with the same amount of core yarn.
2. More consistent predictable breaking strength.
3. Repeatability in manufacturing no matter how large the capacity.

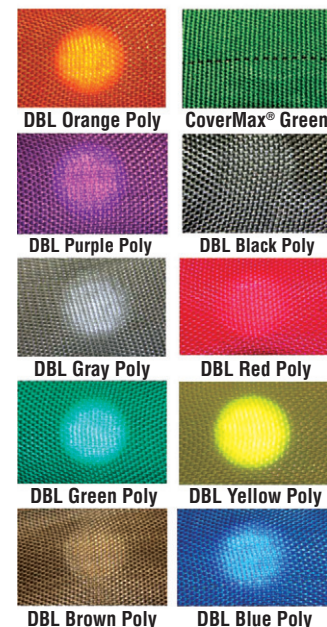
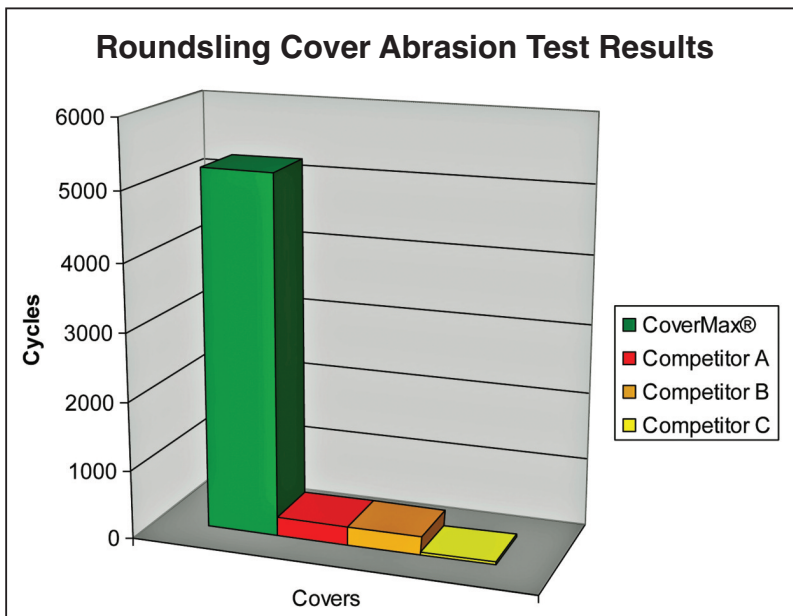


Scan code for Rifled Cover Technology video

TWIN-PATH® SLINGS

Covermax® Cover – Abrasion/UV

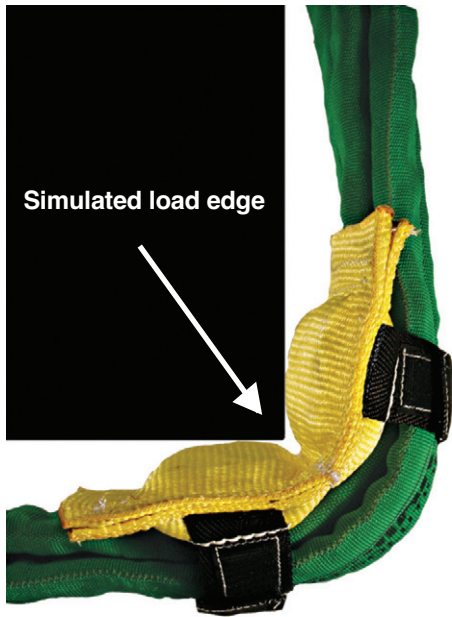
Any Twin-Path® sling can be made with a Covermax® cover. This is made of a heavy-duty, double-layer industrial nylon material. The outside cover is green and the inside cover is red. If you see any red showing through the green cover, stop using the sling and get a repair evaluation. This cover has been tested to provide the best ultraviolet (UV) protection and the best abrasion protection of any commercially available synthetic lifting sling. Below are summary charts of the cover tests.



CornerMax® Pads: Engineered Cut Protection

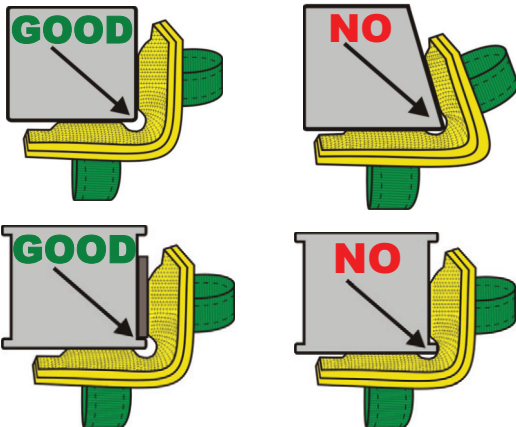
US Patent #7,744,138

CornerMax® pads create a “tunnel” of cut protection – a no-touch zone. Therefore, the edge does not come in contact with the pad or sling thus protecting the sling. Note that the sides of the load must completely support the pads in order to create and maintain the “tunnel”.



CornerMax® Part No.	Sling Width (inches)	CornerMax® Approx. Width (inches)	CornerMax® Approx. Wt. (lbs)
CRNMX02	1 & 2	4	1.00
CRNMX03	3	5	1.25
CRNMX04	4	6	1.50
CRNMX05	5	8	2.00
CRNMX06	6	8	2.00
CRNMX08	8	10	2.50
CRNMX10	10	12	3.00
CRNMX12	12	16	5.50
CRNMX14	14	18	6.50

NOTE: All CornerMax® pads are approximately 9 inches in length unless otherwise specified.



! WARNING

CORNERMAX® PAD CUT PROTECTION

Damaged or misused protection can result in damage or sling failure. Inspect before each use. Inspect for cuts, tears or damage that may prevent protection of the sling. Ensure protection is the correct size and type to protect the sling. Prevent pads and sling from slipping or sliding across load edge. DEATH or INJURY can occur from improper use, maintenance and/or inspection.

MAXIMUM LOADING: Do NOT exceed 25,000 lbs. per inch of sling width.

CornerMax® Sleeves: Engineered Cut Protection

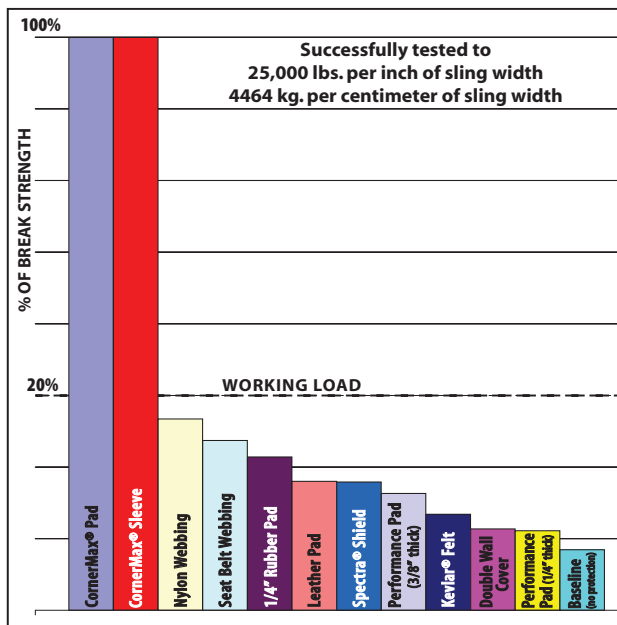
The CornerMax® sleeve is the latest in rigging protection from SLINGMAX® Rigging Solutions. The CornerMax® sleeve is the ideal solution to protect synthetic slings from cutting when it is not practical to use a CornerMax® pad, whether due to curvature of the load edge or repetitive uses such as unloading steel coils. Independent field and laboratory testing has shown the CornerMax® sleeve to be extremely cut resistant. The CornerMax® sleeve is made with high tech fiber and is proven tough. In some applications the CornerMax® sleeve may be attached to the sling to prevent slippage. The true benefits of this revolutionary material far outweigh the costs and now provide for the use of synthetic slings in applications previously dominated by heavy chain, mesh and wire rope slings.

CornerMax® Sleeve Part No.	External Sleeve Width	Fastened over both legs of Twin-Path® Sling
CRNMXS03	5 in.	Up to TPXCF/TPXC 3,000
CRNMXS04	6 in.	Up to TPXCF/TPXC 5,000
CRNMXS08	8 in.	Up to TPXCF/TPXC 10,000
CRNMXS10	10 in.	Up to TPXCF/TPXC 20,000

NOTE: Wider sleeves are available.

Twin-Path® Coil Sling

- 10 times lighter than conventional steel coil gripper slings.
- The Twin-Path® Coil Sling is so light that it is easy to grab and pull the sling.
- Will not damage the load.
- Repairable as manufacturer can remove a damaged CornerMax® sleeve and sew a new one to the sling.



WARNING

CORNERMAX® SLEEVE CUT PROTECTION

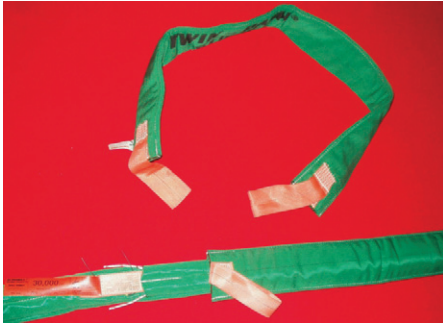
Damaged or misused protection can result in damage or sling failure. Inspect before each use. Inspect for cuts, tears or damage that may prevent protection of the sling. Ensure protection is the correct size and type to protect the sling. **Prevent sleeve and sling from slipping or sliding across load edge. DEATH or INJURY** can occur from improper use, maintenance and/or inspection.

MAXIMUM LOADING: Do NOT exceed 25,000 lbs. per inch of sling width.

TWIN-PATH® SLINGS

Synthetic Armor™ Pads: Abrasion Protection

Synthetic Armor™ pads protect slings from abrasion damage which can be caused by contact with rough surfaces such as concrete beams and structures. They are also used to protect finished or painted loads from marring. These pads can be made to fit any length or width sling.



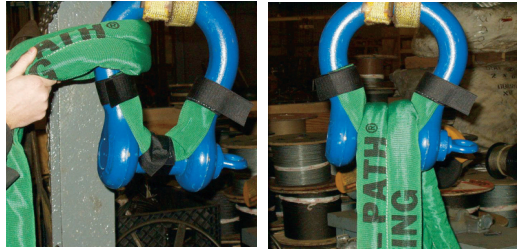
SYNARM-SL "Sliding"



SYNARM-RM "Removable"



SYNARM-EE "Eye and Eye"



Shackle Pin Pads

The pin area of a shackle can cause synthetic slings to cut or tear. Placing synthetic slings on the pin should be avoided. Any shackle can have a sharp edge where the threaded pin goes through the shackle ear. If the sling is exposed to this area, it can cut and fail. If you must rig on the pin, protect your sling with a Shackle Pin pad. The Shackle Pin Pad is sized for the model of shackle and protects the sling along the entire pin including ear seams.



Twin-Path® Taper (option for seatbelt wrap and glue)

The Twin-Path® Field Taper offers a wrap which reduces the width of TPXC slings on site. This is a tool that can be used in the field to fit a sling into smaller openings without sacrificing sling capacity.

! WARNING

Can cause damage or failure of sling if misused or damaged. Inspect before each use. Inspect for cuts, tears or damage that may prevent protection of the sling. Be sure wear protection is the correct size and type to protect the sling. DEATH or INJURY can occur from improper use or maintenance.



100 ton Bridge Section



Nuclear Reactor Containment Sections



Shipbuilding Module



200 ton Experimental Reactor



200 ton Electric Transformer



220 ton Cement Kiln

TWIN-PATH[®] SLINGS

Twin-Path® Adjustable Bridle

US Patent #5,651,572, #7,926,859 CA #2,195,393 EP #0785163 Japan #2929431 Australia #707924

TPXA (with K-Spec® fiber), TPA (with polyester)

This sling is a two-leg bridle with one leg having twice the capacity of the other. Apply tension to the Twin-Path® Adjustable bridle until it self-adjusts over the center of gravity. Then make your level lift.

SPECIALTY SLINGS



Construction Equipment



Military Aircraft

TWIN-PATH® ADJUSTABLE BRIDLE SPECIFICATIONS

TPA Code	Bridle Capacity (Lbs.)	Sling Eye Nominal Width*	ADJUSTABLE RING DIMENSIONS			SHACKLE REQUIREMENTS		SLING WEIGHT (LBS.)	
			Ring Stock Diameter	Main Hook Area (Width)	Ring Area (Length)	Nominal Shackle Size	Tonnage (W.L.L.)	Approx. 3 Foot Base	Approx. Adder Per Foot
TPA 6	6,000	2-1/2"	1-3/16"	3-1/8"	2-5/8"	5/8"	3-1/4T	4.40	1.35
TPXA 12	12,000	3"	1-1/8"	4-1/8"	4"	7/8"	6-1/2T	6.80	1.95
TPXA 20	20,000	3"	1-1/8"	4-1/8"	4"	1-1/4"	12T	13.60	2.70
TPXA 40	40,000	4"	1-5/8"	5 1/4"	5-1/2"	1-3/4"	25T	31.10	4.20
TPXA 60	60,000	4"	2"	7"	7-1/2"	2"	35T	60.00	5.70
TPXA 90	90,000	5"	2-1/4"	8"	8-1/2"	2-1/4"	55T	86.00	8.10

PLEASE NOTE: CAPACITIES SHOWN ARE FOR ENTIRE BRIDLE ASSEMBLY WITH THE DOUBLE LEG AT A 45° HORIZONTAL ANGLE.

*Body width is 1" wider

METRIC CAPACITIES AVAILABLE

DO NOT EXCEED RATED CAPACITY

! WARNING

Sling can fail if damaged, misused or overloaded. Inspect before use. Damaged sling shall not be used. Use only if trained. Do not exceed rated capacity. Protect sling from being cut by load edges, corners, protrusions and abrasive surfaces. Avoid exposure to acid, alkali and temperature over 180°F. DEATH or INJURY can occur from improper use or maintenance.

Twin-Path® Adjustable Bridle

The Twin-Path® Adjustable Bridle has a double leg for the heavy side of the load and a single leg on the lighter side. See the Adjustable Bridle Product Manual for more information.



If the lifting points are an equal distance from the center of gravity then the Twin-Path® Adjustable can be hooked-up with the double or single leg on either lifting point.



If the lifting points are an equal distance on either side of the center of gravity but one is higher, then the double leg should be attached to the higher lifting point.



If one of the lifting points is closer to the center of gravity, then attach the double leg to this lifting point. It will have the highest weight concentration. If the Twin-Path® Adjustable is attached so that the single leg is nearest the center of gravity, the lift cannot be made.



The Twin-Path® Adjustable Bridle should be used in applications where the double leg horizontal angle is greater than 45°. Always connect above the center of gravity. If connections are made below the center of gravity, then the load may turn when lifted.



⚠ WARNING

Sling can fail if damaged, misused or overloaded. Inspect before use. Damaged sling shall not be used. Use only if trained. Do not exceed rated capacity. Protect sling from being cut by load edges, corners, protrusions and abrasive surfaces. Avoid exposure to acid, alkali and temperature over 180°F. DEATH or INJURY can occur from improper use or maintenance.

Check-Fast® High Performance Roundslings

US Patent #7,661,737, #7,926,859 CA #2,547,632 EP #1899255

This is the only single-path, high performance fiber roundsling with an overload indicator. The Covermax® cover is the most durable available for a synthetic sling. Also available in polyester.



SINGLE-PATH EXTRA COVERMAX® WITH CHECK-FAST® INSPECTION

Single-Path K-Spec® Slings Stock No.	Rated Capacities (Lbs.)					Approximate Weight (Lbs. per Ft.) (Bearing-Bearing)	Nominal Body Width (Inches)
	Vertical	Choker	Vertical Basket	Basket Hitches			
			90°	60°	45°		
SPXCF 500	5,000	4,000	10,000	8,660	7,070	.34	2.5"
SPXCF 1000	10,000	8,000	20,000	17,320	14,140	.38	2.5"
SPXCF 1500	15,000	12,000	30,000	25,980	21,210	.44	2.5"
SPXCF 2000	20,000	16,000	40,000	34,640	28,280	.52	2.5"
SPXCF 2500	25,000	20,000	50,000	43,300	35,350	.59	3"
SPXCF 3000	30,000	24,000	60,000	51,960	42,420	.65	3"
SPXCF 4000	40,000	32,000	80,000	69,280	56,560	.85	3"
SPXCF 5000	50,000	40,000	100,000	86,600	70,700	.98	4"
SPXCF 6000	60,000	48,000	120,000	103,920	84,840	1.11	4"
SPXCF 7000	70,000	56,000	140,000	121,240	98,980	1.24	4"
SPXCF 8500	85,000	68,000	170,000	147,220	120,190	1.63	5"
SPXCF 10000	100,000	80,000	200,000	173,200	141,400	1.81	5"

DO NOT EXCEED RATED CAPACITY

DO NOT EXCEED RATED CAPACITY

SPECIALTY SLINGS



Sparkeater®

SE When you have a hot environment up to 300°F (149°C), use a Sparkeater® to lift the load without marring the surface of the lifted piece. Also, when doing stage rigging, order this product with a black cover for the protection it gives from exposure to fire, heat, sparks and pyrotechnics. These slings are made from aramid high performance core yarns and an aramid cover. The Offshore Certification Bureau identified these slings as being as good as wire rope or chain for use in offshore applications in the oil industry. As with all Twin-Path® slings, an inner red cover provides an early warning safety alert.

Twin-Path® Stock No.	Rated Capacities (Lbs.)					Approximate Weight (Lbs. per Ft.) (Bearing-Bearing)	Nominal Body Width (Inches)
	Vertical	Choker	Vertical Basket	Basket Hitches			
			90°	60°	45°		
TPSE 1000	10,000	8,000	20,000	17,320	14,140	.40	1.5 - 3"
TPSE 1500	15,000	12,000	30,000	25,980	21,210	.45	1.5 - 3"
TPSE 2000	20,000	16,000	40,000	34,640	28,280	.51	1.5 - 3"
TPSE 2500	25,000	20,000	50,000	43,300	35,350	.57	1.5 - 3"
TPSE 3000	30,000	24,000	60,000	51,960	42,420	.71	2.0 - 4"
TPSE 4000	40,000	32,000	80,000	69,280	56,560	.83	2.0 - 4"
TPSE 5000	50,000	40,000	100,000	86,600	70,700	1.14	2.0 - 4"
TPSE 6000	60,000	48,000	120,000	103,920	84,840	1.27	2.0 - 4"
TPSE 7000	70,000	56,000	140,000	121,240	98,980	1.39	3.5 - 7"
TPSE 8500	85,000	68,000	170,000	147,220	120,190	1.65	3.5 - 7"
TPSE 10000	100,000	80,000	200,000	173,200	141,400	1.84	3.5 - 7"

METRIC CAPACITIES AVAILABLE

DO NOT EXCEED RATED CAPACITY

PLEASE NOTE: CAPACITIES SHOWN INCLUDE BOTH PATHS AND ARE FOR ONE COMPLETE SLING. SMALLER AND LARGER CAPACITIES AVAILABLE UPON REQUEST.

! WARNING

Sling can fail if damaged, misused or overloaded. Inspect before use. Damaged sling shall not be used. Use only if trained. Do not exceed rated capacity. Protect sling from being cut by load edges, corners, protrusions and abrasive surfaces. Avoid exposure to acid, alkali and temperature over 300°F. DEATH or INJURY can occur from improper use or maintenance.

Equalizer Block

The Equalizer Block is used to evenly distribute weight when performing lifts. Rather than adjusting slings and hooks prior to completing a lift, the Equalizer Block will automatically adjust itself when pressure is put on the device from the sling. This was designed specifically for Twin-Path® Extra Slings.

Capacities (5:1 DF)	Inside Width (inches)	Maximum Capacity Sling	Block Weight (lbs.)
50 short ton/46 metric ton	6	TPXC10000	220
75 short ton/69 metric ton	6	TPXC10000	230

Available soon: 25 and 125 short ton models

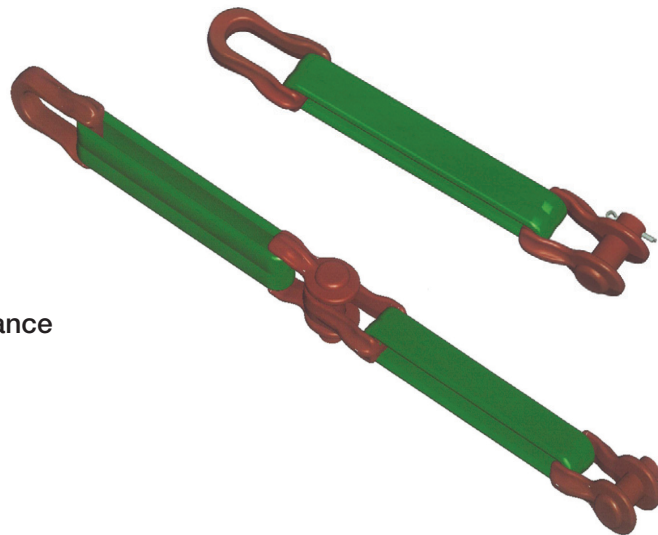


SPECIALTY SLINGS

Synthetic Boom Pendant

The new Synthetic Boom Pendant from Slingmax® uses Twin-Path® slings for a lighter, maintenance free, reliable alternative to wire rope on lattice boom cranes and conveyors.

- Less weight (4 times lighter)
- Store in job box/cab
- Save money on over the road costs
- Exact length tolerance
- Won't emit static charge
- Service life 3-5 times longer
- No maintenance (no lube)
- Won't rust, excellent chemical resistance
- Repairable – all proof tested
- Shock absorber (dampening effect)
- Working load limit 15 short tons



WARNING

Sling can fail if damaged, misused or overloaded. Inspect before use. Damaged sling shall not be used. Use only if trained. Do not exceed rated capacity. Protect sling from being cut by load edges, corners, protrusions and abrasive surfaces. Avoid exposure to acid, alkali and temperature over 180°F. DEATH or INJURY can occur from improper use or maintenance.



www.rigginginstitute.com/about.htm

Rigging Institute LLC is the authorized training company for Slingmax® Rigging Solutions. We believe the most effective trainers draw from a multitude of backgrounds, including the manufacturing and testing of the equipment itself to individual trainers who have worked in various positions throughout the rigging industry. The Rigging Institute draws from these diverse backgrounds and aims to continuously improve the effectiveness of our end user training to coincide with revised standards and the most current product innovations in the hoisting and rigging industry. The Rigging Institute combines decades of experience in designing, fabricating and testing rigging equipment with certified instructors possessing extensive field experience in various industries.



ABOUT RIGGING INSTITUTE LLC

TRAINING THAT WORKS

Rigging Institute, LLC provides quality rigging application and inspection programs that are uniquely suited to individuals involved in all aspects of the modern hoisting and rigging industry. Our trainees develop rigging competence through innovative programs that utilize a straightforward, practical approach to rigging. The techniques used by our instructors focus on the needs of the “blue collar” learner by using well-illustrated, real world examples presented in a supportive environment. Integrity and quality guides Rigging Institute, LLC as we utilize the latest rigging applications, innovative products and techniques to ensure that our students meet the challenges of today’s new demands for rigging qualification and certifications.



RIGGING & SIGNALPERSON TRAINING

Rigging Institute’s rigging courses are design to meet the training needs of riggers at all stages of their careers. Whether rigging awareness training is needed or advanced courses to confirm or develop competency. Rigging Institute courses prepare the rigger for the day-to-day tasks with innovative training techniques that prepare the rigger to be a safe, thinking and skilled rigging professional.

Rigging Institute has teamed up with the NCCCO, a non-profit organization who has developed effective written and performance examinations to verify rigger and signaler skill and knowledge. Rigging Institute’s instructors are NCCCO certified riggers/signal persons. We are authorized to perform practical examinations for Signaller and Rigger level 1 & 2 certifications. Our certification prep-training prepares the participant to meet the knowledge and skill level to pass the demanding NCCCO certification standards.



SLING & RIGGING HARDWARE INSPECTION TRAINING

Rigging Institute offers three inspection courses for slings and rigging hardware ranging from 4 to 16 hours. Level 1 is a 4 hour course, designed to prepare the student to perform initial and frequent inspections. Level 2 is an 8 hour text book course reviewing documented periodic inspection. Designed for supervisors, Level 3 Qualified Inspector training is a 16 hour course preparing the student to perform periodic inspections with the confidence to make the correct decision to remove or leave in service. Approximately 8 hours of Qualified Inspector is devoted to the inspection and review of field damaged rigging gear.

Contact your SLINGMAX® Rigging Solutions dealer for more information or to set up a course at their facility or yours. Please inform your dealer of the type of course desired, number of participants, training level of participants and a range of possible dates.

TRAINING

FLIP OVER TWIN-PATH[®] SLINGS



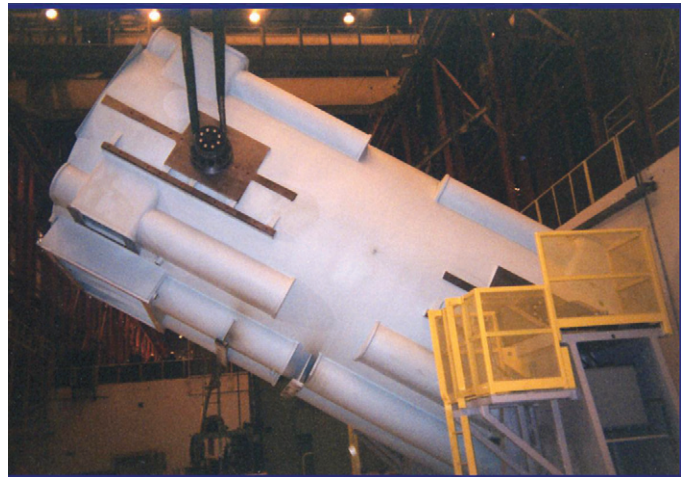
Ship Module



Electric Generator Recovery



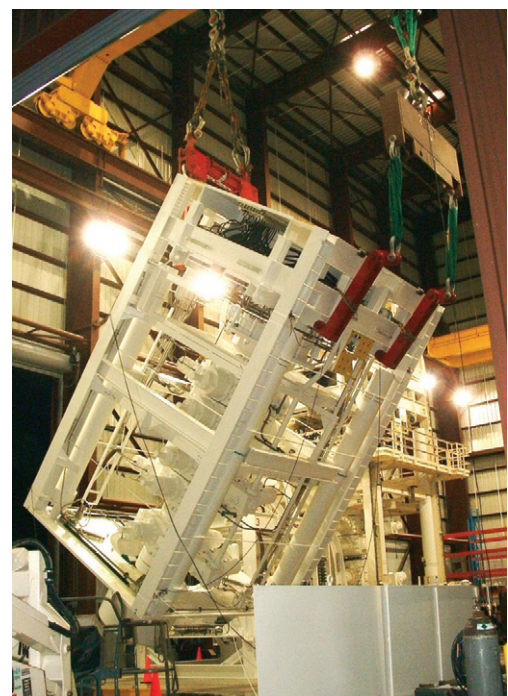
Nuclear Reactor Head Turning



Electric Generator/Stator



Test Reactor Removal



Subsea Stack/Tree Laydown

Inspections of Twin-Path[®] Products

1. Check-Fast[®] External Early Warning Indicator (EWI) and Tell-Tail indicators shall extend past the tag area of each sling. If your sling is equipped with Check-Fast[®] and the EWI is not visible or both Tell-Tails are not visible, remove the sling from service. Send to manufacturer for repair evaluation.
2. If Fiber-Optic inspection is installed in the sling, inspect by allowing light to enter the fiber optics. If the fiber optics do not transmit light from end to end, remove the sling from service and contact the manufacturer for repair evaluation.
3. Slings shall be inspected for evidence of cutting or tearing of the outer cover. Slings with cuts shall be removed from service and sent back to the manufacturer for repair evaluation. Damage to the cover may indicate core damage.
4. Inspect slings for evidence of heat damage. Sparkeater[®] slings shall not be exposed to temperatures over 149°C/300°F. K-Spec[®] and polyester slings shall not be exposed to temperatures above 82°C/180°F. Cold temperature exposure down to minus 40°C/minus 40°F do not affect the strength of the products.
5. If any part of the sling shows evidence of chemical degradation or damage, remove the sling from service. Return the sling to the manufacturer for repair evaluation.
6. Slings using aluminum fittings shall not be used where fumes, vapors, sprays or mists of alkalis or acids are present.
7. Twin-Path[®] lifting slings and any fittings attached shall be the subject of frequent and regular inspections. In addition to the initial inspection by a competent person and frequent written inspections, the slings shall be visually inspected before each use.
8. Written inspections shall be performed as required and documents of such inspection by a competent person shall be kept on file in the safety department of the plant or site where used. Inspections may be done more often based on frequency of use, severity of conditions, experience of past service life.
9. Slings shall be examined throughout their length for abrasion, cuts, heat damage, fitting distortion or damage, tag legibility, and if any doubts are held by the inspector, the sling shall be removed from service. If deterioration is found, the sling must be removed from service.
10. Slings removed from service that are not repairable shall be destroyed and rendered completely unfit for future use.
11. Abrasion, heat damage or cuts to the cover may indicate a loss of strength to the core yarns, and these slings shall not be used until evaluated by the manufacturer.

Test Procedures for Twin-Path[®] Sling Products

1. Proof tests shall consist of pulling the slings to twice their rated capacity.
2. Testing of Twin-Path[®] sling products and core yarn shall be on a testing machine which meets or exceeds the standards as described in ASME E-4.
3. Break testing of slings shall be as above with results documented. Pin size for break testing should be a diameter equal to half the nominal sling width, or larger.
4. Repaired fittings or slings shall be proof-tested before they are returned to service. Certifications may be provided to the fitting or sling owner.

Mechanical Considerations

1. Load both paths of Twin-Path[®] slings equally. Do not side load. Do not load the edge of the sling.
2. Determine the weight of the load. The weight of the load shall be within the rated capacity of the sling.
3. Select a sling having suitable characteristics for the type of load, hitch and environment.
4. Slings shall not be loaded in excess of the rated capacity. Consideration shall be given to angle of lift which may affect the lifting capacity. Diameters of pins and edges also may affect the capacity of the lifting sling.
5. Slings used in a choker shall not be forced to tighten around the load by pounding with hammers or other objects. Choker hitches are the least effective way to use a sling based on capacity. Two chokers should be used to balance the load. One choker in the center of the load may create an unbalanced situation which could lead to an accident.
6. Slings used in a basket hitch must have the load balanced to prevent slippage and accidents.
7. Slings used with fittings shall be compatible with the fittings used. The lifting capacity shall be rated at the lower of the fitting or sling. Fitting openings shall be of the proper shape and size to assure that the sling will seat properly.
8. Slings in contact with edges, corners, protrusions, or abrasive surfaces shall be protected with a material of sufficient strength, thickness, and construction to prevent damage. The pin area of a shackle can cause synthetic slings to cut or tear.
9. Slings shall not be dragged on the floor or drawn across other surfaces which may damage the sling.
10. Slings shall not be twisted or tied in knots to shorten.
11. Slings can be damaged by resting loads on them or by pulling slings from under a load.
12. Do not drop objects on slings or run over them with vehicles.
13. Slings which are damaged shall not be used.
14. Sling hitches must provide control of the load.
15. Portions of the human body shall be kept from between the sling and the load and from between the sling and any attachment to lifting devices such as hooks.
16. Personnel shall stand clear of suspended loads.
17. Personnel shall not ride on the sling or suspended loads.
18. Avoid shock loading.
19. Twisting and kinking the legs of the sling shall be avoided.
20. Load applied to the hook should be centered in the bowl of the hooks. Do not point-load the hook.
21. During lifting with or without the load all personnel shall be alert for possible snagging.
22. The slings shall contain or support the load from the sides above the center of gravity so the load will not tilt when the load is lifted.

Mechanical Considerations, continued

23. Synthetic roundsling users shall be trained in the selection, inspection, cautions to personnel, effects of environment, and rigging practices.
24. Only legibly marked or labeled slings must be used. If the tag is not legible, or missing, the sling must not be used.
25. Keep labels or tags away from the load, the hook and the angle of choke.
26. Synthetic slings should be inspected before each lift.

Environmental Considerations

K-Spec® core yarn strength retention is based on test results of components at 65°C/150°F (or less) for 6 months. K-Spec® has a 100% strength retention when exposed to: age, 10% detergent solution, rot and mildew, sunlight and toluene; 99% strength retention when exposed to: acetic acid, gasoline, hydrochloric acid 1m, hydraulic fluid, kerosene, and sea water; 98% retention when exposed to: 25% ammonium hydroxide, 10% hypophosphite solution, and 40% phosphoric acid; 97% retention when exposed to 5m sodium hydroxide; 95% retention when exposed to Portland cement and sulfuric acid; and 88% retention when exposed to Clorox® bleach, and nitric acid.

Fiber Properties

	Nylon	Polyester	Aramid	Poly-Arylate (Liquid Crystal)	UHMwPE	K-Spec®
Fiber Properties						
Tenacity – dry g/d	7.5 - 10.5	7.0 - 10.0	28	26 - 29	35 - 40	35
Elongation at break %	15 - 28	12 - 18	4.6	3.8	3.5 - 3.8	3.8
Moisture regain %	4.0 - 6.0	1	2	<0.10	0	0
Specific Gravity	1.14	1.38	1.38	1.41	.97	1.11
Chemical Resistance						
Solvents	Good	Good	Excel	Excel	Excel	Excel
Acids						
Dilute:	Good	Good	Good	Excel	Excel	Excel
Conc:	Fair	Fair	Good	<90%	Excel	Excel
Alkalis						
Dilute:	Excel	Good	Good	Excel	Excel	Excel
Conc:	Excel	Fair	Good	<30%	Excel	Excel
Temperature Tolerance						
Melt Point	425°F 218°C	490°F 254°C	900°F 482°C	625°F 330°C	300°F 149°C	320°F 160°C In use, follow sling tag warning



Twin-Path[®] Slings performing....



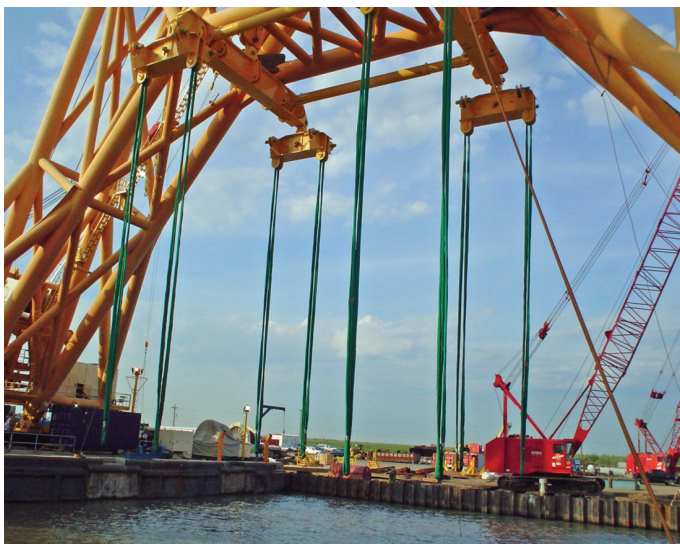
Cement Kiln



Aircraft Towing



Wind Farm Construction



Damaged Offshore Platform Recovery from Sea Bed





Refinery Vessel Tailing



Turbine Maintenance



Aircraft "Belly Bands"

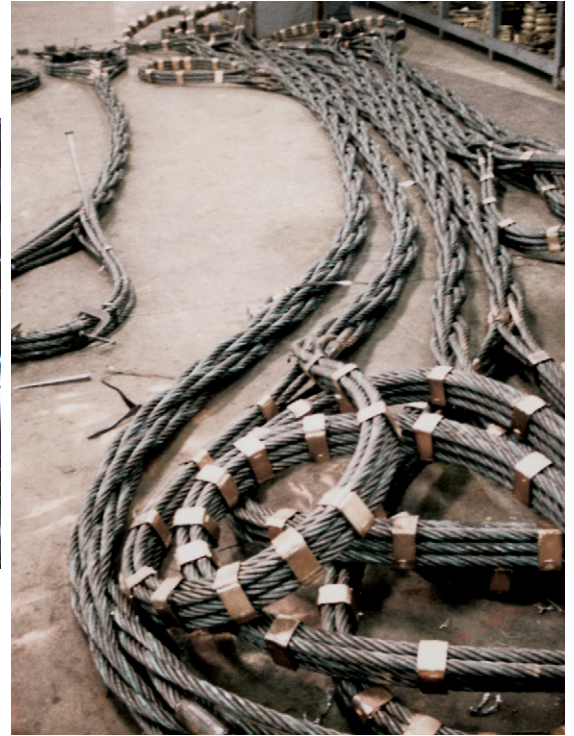


Bridge Removal



Wind Turbine Installation

Slingmax[®] Wire Rope Slings



WIRE ROPE SLINGS

Quick Reference Chart of the Most Popular SLINGMAX® Heavy-lift Wire Rope Slings

	Parts of wire rope in body	D/d Body*	D/d Eye*	Termination of each Eye	Minimum Length	Features
Tri-Flex® sling	3	5/1	1.5/1	1 Ferrule	6' for 7/8" component wire*	Good replacement for single-strand wire rope slings
Gator-Laid® sling	9	5/1	1/1	3 Ferrules	6' for 3/4" component wire*	80% efficiency; parallel-laid eyes
Gator-Max® sling	9	5/1	1/1	Hand tuck	20' for 1/2" component wire*	80% efficiency; parallel-laid eyes
Gator-Flex® sling	9	5/1	1/1	Hand tuck	20' for 1/2" component wire*	Unwrapped eyes easy to inspect
Gator-Flex® grommet	9	5/1	N/A	Hand tuck	5' for 1/4" component wire*	Endless

*Ratio based on finished body diameter

*Minimum length increases as component wire size increases

Inspection of Slingmax® Wire Rope Slings

1. Follow general criteria in ASME/ANSI B30.9 Chapter 9-2 "Wire Rope Slings – Selection, Use, and Maintenance"
2. Retirement criteria: For Gator-family™ and Tri-Flex® slings of less than 9 parts, 20 broken wires per lay length means that the sling should be removed from service. For slings of 9 parts or more, 40 broken wires per lay length means that the sling should be removed from service.



Advantages: flexibility, low D/d ratios, fabrication to tight tolerance
Meets conditions specified by the Wire Rope Technical Board Sling Manual



Gator-Laid® Wire Rope Slings with Parallel Eyes

For heavy lifting work this is the most efficient wire rope sling that meets all industrial and regulatory standards. This sling and the Gator-Max® sling are identical except the Gator-Laid® sling has metal sleeves for the splice connection. This is the product when a big lift but shorter sling is required. It has twelve parts of wire rope in the loop. The Gator-Laid® products were developed in conjunction with the offshore oil industry to provide the world's best heavy lift wire rope slings. This sling has great flexibility.



GATOR-LAID® SLINGS TECHNICAL CHART

Finished Diameter	Component Parts	Standard Eye Size	Vertical Rated Capacity (tons)	Choker Rated Capacity (tons)	Basket Rated Capacity (tons)	Weight Per Foot (lbs.)
1-3/4"	7/16"	22"	14.6	10.9	29.2	3.15
2"	1/2"	24"	19.1	14.3	38.2	4.14
2-1/4"	9/16"	26"	24.1	18.0	48.2	5.31
2-1/2"	5/8"	28"	29.6	22.2	59.2	6.48
3"	3/4"	30"	42.3	31.7	84.6	9.36
3-1/2"	7/8"	35"	57.3	42.9	114.6	12.78
4"	1"	40"	74.4	55.8	148.4	16.65
4-1/2"	1-1/8"	45"	93.6	60.2	187.2	21.06
5"	1-1/4"	50"	115.0	86.2	230.0	26.01
5-1/2"	1-3/8"	55"	138.2	103.6	276.4	31.50
6"	1-1/2"	60"	164.1	123.0	328.2	37.44
7"	1-3/4"	70"	220.3	165.2	440.6	51.03
8"	2"	80"	285.1	213.8	570.2	66.51
9"	2-1/4"	90"	355.6	266.7	711.2	84.24
10"	2-1/2"	100"	434.8	326.1	869.6	104.00

NOTE: Rated capacity is based on 5:1 Design Factor.

! WARNING

Inspect before use. Follow OSHA, ANSI B30.9 and Manufacturer's Guidelines. Use by untrained persons is hazardous. Improper use will result in serious injury or death. Do not exceed rate capacity. This product will fail if damaged, abused, misused, overused or improperly maintained.

Gator-Max® Wire Rope Slings with Parallel Eyes

For heavy lifting work this is the most efficient wire rope sling that meets all industrial and regulatory standards. In this sling, eyes have the wires (6 ropes = 12 parts) laid in parallel. The eyes are terminated in a hand-tuck-type of construction, and then they are wrapped with heavy duty material to keep them in position. This sling was developed to meet conditions specified by the US Navy and the Wire Rope Technical Board Sling Manual. Testing has proven it to be the strongest multi-part wire rope sling when attached to small pins.



GATOR-MAX® SLINGS TECHNICAL CHART

Finished Diameter	Component Parts	Standard Eye Size	Vertical Rated Capacity (tons)	Choker Rated Capacity (tons)	Basket Rated Capacity (tons)	Weight Per Foot (lbs.)
1-3/4"	7/16"	22"	14.6	10.9	29.2	3.15
2"	1/2"	24"	19.1	14.3	38.2	4.14
2-1/4"	9/16"	26"	24.1	18.0	48.2	5.31
2-1/2"	5/8"	28"	29.6	22.2	59.2	6.48
3"	3/4"	30"	42.3	31.7	84.6	9.36
3-1/2"	7/8"	35"	57.3	42.9	114.6	12.78
4"	1"	40"	74.4	55.8	148.4	16.65
4-1/2"	1-1/8"	45"	93.6	60.2	187.2	21.06
5"	1-1/4"	50"	115.0	86.2	230.0	26.01
5-1/2"	1-3/8"	55"	138.2	103.6	276.4	31.50
6"	1-1/2"	60"	164.1	123.0	328.2	37.44
7"	1-3/4"	70"	220.3	165.2	440.6	51.03
8"	2"	80"	285.1	213.8	570.2	66.51
9"	2-1/4"	90"	355.6	266.7	711.2	84.24
10"	2-1/2"	100"	434.8	326.1	869.6	104.00

NOTE: Rated capacity is based on 5:1 Design Factor.

WARNING

Inspect before use. Follow OSHA, ANSI B30.9 and Manufacturer's Guidelines. Use by untrained persons is hazardous. Improper use will result in serious injury or death. Do not exceed rate capacity. This product will fail if damaged, abused, misused, overused or improperly maintained.



Gator-Flex® Wire Rope Slings

US Patent #5,561,973

This sling has a nine-part body style with wires in the eyes that are crossed or interwoven so no wrapping is necessary. The sling was developed in conjunction with offshore oil company riggers who preferred a sling for heavy lifts that could be visually inspected and have the highest flexibility possible in a multi-part wire rope sling. The eyes are terminated in a hand-tuck-type of construction.



GATOR-FLEX® SLINGS TECHNICAL CHART

Component Wire Rope	Standard Eye Size	Finished Diameter	Vertical Rated Capacity (Tons)	Choker Rated Capacity (Tons)	Basket Rated Capacity (Tons)	Weight Per Ft. (Lbs.)	Minimum Length Gator-Flex®
7/16"	22"	1 3/4"	13.8	10.3	27.6	3.15	20'
1/2"	24"	2"	18.0	13.5	36.0	4.14	20'
9/16"	26"	2 1/4"	22.7	18.1	45.4	5.31	25'
5/8"	28"	2 1/2"	27.8	20.8	55.6	6.48	25'
3/4"	30"	3"	39.7	29.8	79.4	9.36	25'
7/8"	35"	3 1/2"	53.7	40.3	107.4	12.78	30'
1"	40"	4"	69.8	52.3	139.6	16.65	33'
1-1/8"	45"	4 1/2"	87.7	65.8	175.4	21.06	38'
1-1/4"	50"	5"	108.8	81.0	216.0	26.01	43'
1-3/8"	55"	5 1/2"	130.0	97.5	260.0	31.50	45'
1-1/2"	60"	6"	154.0	115.5	308.0	37.44	50'
1-3/4"	70"	7"	206.0	154.5	412.0	51.03	56'
2"	80"	8"	267.0	200.2	534.0	66.51	63'
2-1/4"	90"	9"	333.0	249.7	666.0	84.24	70'
2-1/2"	100"	10"	408.0	306.0	816.0	104.00	77'

NOTE: Vertical rated capacity is based on 5:1 Design Factor, EIP, IWRC or GAC.
 Bending radius of the sling body is 5:1 where D is the Pin or Load and d is the sling body.
 D/d of loops: 1:1 where D is the pin and d is the sling body diameter.

! WARNING

Follow OSHA, ANSI B30.9 and Manufacturer's Guidelines. Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Do not exceed rated capacity. Protect sling from contact with edges. DEATH or INJURY can occur from improper use or maintenance.

WIRE ROPE SLINGS



Gator-Flex® Grommets

US Patent #5,561,973



These slings are endless for that short heavy lift connection. These slings can be made shorter than standard multi-part slings, but maintain all of the advantages. They are the most flexible grommets in the world.

GATOR-FLEX® GROMMETS (D/d = 5:1) Rated Capacity at 5:1 DF

Pin Size 5 x FD Finished Dia.	9 Pts. Wire Rope Size	Tons (2000 lbs.)			Weight Per Ft./Lbs.
		Vertical	Choker	Basket Vertical	
1"	1/4"	10	7	20	2
1-1/4"	5/16"	15	11	30	3
1-1/2"	3/8"	22	15	44	5
1-3/4"	7/16"	29	21	58	6
2"	1/2"	38	27	76	8
2 1/4"	9/16"	48	34	96	11
2-1/2"	5/8"	59	42	118	13
3"	3/4"	85	59	170	19
3-1/2"	7/8"	115	81	230	25
4"	1"	148	104	296	33
4-1/2"	1-1/8"	187	131	374	42
5"	1-1/4"	230	161	460	52
5-1/2"	1-3/8"	276	194	552	63
6"	1-1/2"	328	230	656	75
7"	1-3/4"	441	308	882	102
8"	2"	570	399	1140	133
9"	2-1/4"	711	498	1422	168
10"	2-1/2"	870	609	1740	209
11"	2-3/4"	1040	728	2080	250
12"	3"	1224	857	2448	300

! WARNING

Follow OSHA, ANSI B30.9 and Manufacturer's Guidelines. Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Do not exceed rated capacity. Protect sling from contact with edges. DEATH or INJURY can occur from improper use or maintenance.



WIRE ROPE SLINGS

Tri-Flex® Wire Rope Slings

These slings provide the best combination of strength and flexibility. Because of the patented TRI-FLEX® SLING construction, there is a large savings in material and machine costs in the larger sizes; this, combined with ease of use make TRI-FLEX® SLINGS the slings for smart buyers.



PIN SIZE EQUALS
D/d OF 1.5:1
IN THE EYE
USING FINISHED DIAMETER

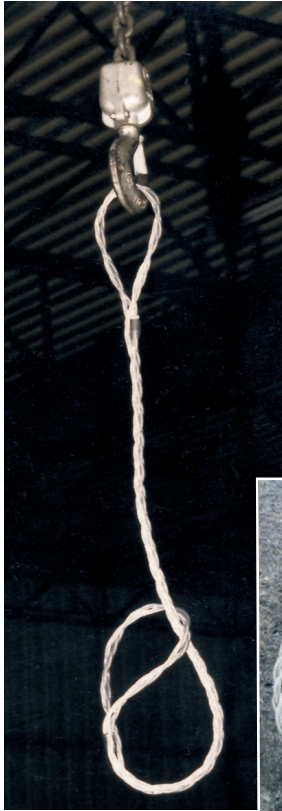
BASKET HITCH EQUALS
D/d OF 5:1 USING
FINISHED DIAMETER

Composed 3 Parts of EIP Rope	Design Factor 5:1 Rated Loads in Tons			Finished Diameter	Weight Per Ft. Lbs.
	Vertical	Choker	Vertical Basket		
1/4"	1.7	1.3	3.4	1/2"	.44
5/16"	2.6	1.9	5.2	5/8"	.68
3/8"	3.6	2.7	7.2	3/4"	.99
7/16"	4.9	3.7	9.8	7/8"	1.33
1/2"	6.4	4.8	12.8	1"	1.75
9/16"	8.0	6.0	16.0	1-1/8"	2.24
5/8"	9.9	7.4	19.8	1-1/4"	2.73
3/4"	14.0	10.5	28.0	1-1/2"	3.9
7/8"	19.0	14.3	38.0	1-3/4"	5.4
1"	24.8	18.6	49.6	2"	7.0
1-1/8"	31.2	23.4	62.4	2-1/4"	8.9
1-1/4"	38.4	28.8	76.8	2-1/2"	10.0
1-3/8"	46.0	34.5	92.0	2-3/4"	13.3
1-1/2"	55.0	41.2	110.0	3"	15.8
1-3/4"	73.0	54.8	146.0	3-1/2"	21.5
2"	95.0	71.2	190.0	4"	28.0
2-1/4"	118.0	88.5	236.0	4-1/2"	35.6
2-1/2"	145.0	109.0	290.0	5"	44.0

WIRE ROPE SLINGS

WARNING

Follow OSHA, ANSI B30.9 and Manufacturer's Guidelines. Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Do not exceed rated capacity. Protect sling from contact with edges. DEATH or INJURY can occur from improper use or maintenance.



T & D Ultra-Flex™ Wire Rope Slings

This wire rope sling is an extremely flexible product with great applications for general rigging purposes in the transportation and distribution industry. It makes a fantastic choker sling especially when setting or removing utility poles. Development was through a committee composed of utility company workers and members of the SLINGMAX® design team. Actual field testing was used to determine merits of the final product.



T&D ULTRA-FLEX™ SLINGS TECHNICAL CHART

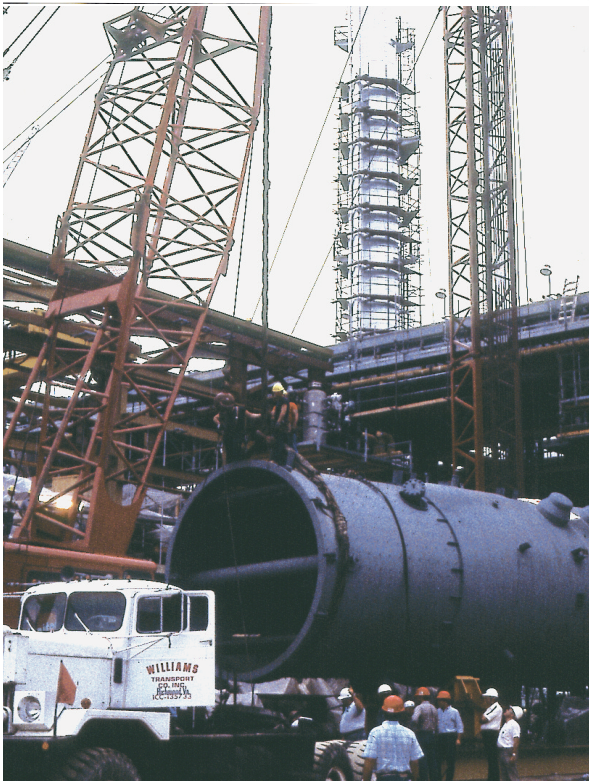
Component Wire Rope	Standard Eye Size	Finished Diameter	Vertical Rated Capacity (Tons)	Choker Rated Capacity (Tons)	Basket Rated Capacity (Tons)	Weight Per Ft. (Lbs.)
5/32"	10"	5/8"	1.7	1.3	3.4	.40
3/16"	12"	3/4"	2.6	1.9	5.2	.59
7/32"	14"	7/8"	3.5	2.6	7.0	.77
1/4"	16"	1"	4.6	3.4	9.2	.99
5/16"	18"	1 1/4"	7.0	5.2	14.0	1.56
3/8"	20"	1 1/2"	10.0	7.5	20.0	2.19

NOTE: Vertical rated capacity is based on 5:1 Design Factor, EIP, IWRC or GAC.
 Bending radius of the sling body is 5:1 where D is the Pin or Load and d is the sling body.
 D/d of loops: 1:1 where D is the pin and d is the sling body diameter.

WARNING

Follow OSHA, ANSI B30.9 and Manufacturer's Guidelines. Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Do not exceed rated capacity. Protect sling from contact with edges. DEATH or INJURY can occur from improper use or maintenance.





GATOR-SLINGS® IN ACTION

! WARNING

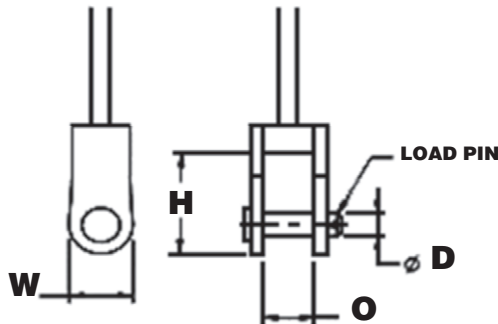
Follow OSHA, ANSI B30.9 and Manufacturer's Guidelines. Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Do not exceed rated capacity. Protect sling from contact with edges. DEATH or INJURY can occur from improper use or maintenance.

Pad Eye Tester

Testing hardware, slings and hoists are common before making a lift. However, testing the connection from which the hoist is hanging is rarely part of the pre-lift testing. The Pad Eye Tester from Slingmax® allows you to test lift points in upright, inverted and horizontal applications. With a variety of features, this Pad Eye Tester is the most versatile pad eye tester on the market today.

Features/Options:

- Dial capacity read out
- Light weight
- Adjustable clevis
- Aluminum housing
- Assist handles on two sides
- Hose lengths up to 30'
- Optional digital read out
- Optional carrying case



10 Ton Pad Eye Tester Model



10 Ton Pad Eye Tester Clevis

Part No.	Cap. (tons)	Clevis Dimensions			Pin Diameter (D)	Weight (lbs.)
		Inside Width (O)	Inside Height (H)	Outside Width (W)		
PET-010-PC	10	2"	4 3/8"	2 1/2"	1"	61
PET-020-PC	20	2 1/4"	6 1/16"	4 1/2"	2"	93
PET-030-PC	30	2 7/8"	6 5/8"	6 3/16"	2"	115
PET-050-PC	50	6 1/2"	9 1/2"	9"	2 13/16"	600
PET-100-PC	100	6 1/2"	10 7/8"	9"	3 1/4"	744

G-Link™ Synthetic Sling Connector

PRODUCT FEATURES:

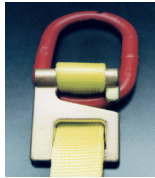
- ✓ Couples web, round or Twin-Path® slings with hardware (oblongs or hooks).
- ✓ Splices two slings into longer length.
- ✓ Connects two slings with oblong and two hooks into bridle sling.
- ✓ Allows sling to be used as sliding choker sling.
- ✓ Two G-Link™ connectors used together will double the rated capacity of one G-Link™ connector.
- ✓ Conforms with ASME B30.9 web and round sling specifications.
- ✓ Shortens sling reach.
- ✓ Design factor is 5:1.



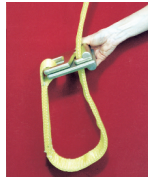
US Patent #5,651,573
 CN #2,198,821
 Italy #97302680.0
 Japan #Hei9-94730
 Australia #710067

SPECIFICATIONS:

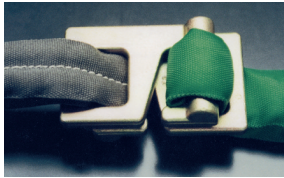
Model Number	Vertical	Choker	Sling Size (Inches)	Weight (Lbs.)
	Rated Capacity Tons	Rated Capacity Tons		
SC200L	2-1/2	2	2	2
SC300L	5	3	3	5.6
SC400L	7-1/2	4	4	9.4
SC500L	15	8	5	23
SC600L	25	12	6	34.6



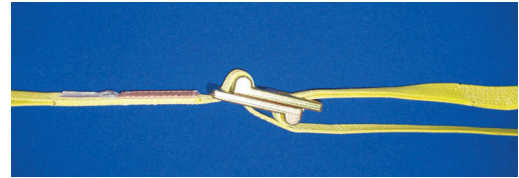
Connect Hook or Oblong to Sling



Choker Sling



Connect Two Slings



Shorten Slings

Chain Saddle Ring

US Patent #4,241,575 Canadian Patent #1,086,510 British Patent #2,029,370

ALLOWS ADJUSTMENT OF CHAIN REACH

NO MORE BENT LINK BECAUSE THEY ARE SUPPORTED WITH THE SADDLE.
 MORE VERSATILE THAN A TWO-LEG OR QUAD ADJUSTABLE CHAIN SLING.



System	Chain Size Inches	Single Branch Sling 90 degree Loading	Double Sling			Triple and Quadruple Sling			
			60 degree	45 degree	30 degree	Chain Size Inches	60 degree	45 degree	30 degree
10	9/32	4,300	7,400	6,100	4,300	9/32	11,200	9,100	6,450
10	3/8	8,800	15,200	12,400	8,800	3/8	22,800	18,600	13,200
10	1/2	15,000	26,000	21,200	15,000	1/2	39,000	31,800	22,500
10	5/8	22,600	39,100	32,000	22,600	5/8	58,700	47,900	33,900
10	3/4	35,300	61,100	49,900	35,300	3/4	91,700	74,900	53,000
10	7/8	42,700	74,000	60,400	42,700	7/8	110,900	90,600	64,000

Design Factor is 4:1. Rated loads are in pounds.

! WARNING

Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained.
 Observe rated capacity. DEATH or INJURY can occur from improper use or maintenance.

Definitions of Terms

Abrasion: The mechanical wearing of surface resulting from frictional contact with materials or objects.

Bunching: Squeezing of a synthetic sling in narrow hardware or in a narrow lifting point.

Break Strength: That total force (lb or kg) at which the sling fails. The total weight (strain) which can be applied before failure. Break strength divided by the design factor equals the working load limit.

Design Factor (DF): A multiple of working load limit which varies from country to country. In North America 5:1 DF is the standard, in Europe and Australia 7:1, in Japan 6:1.

Double Basket Hitch: This is a basket hitch with the middle pull up over the lifting hook between each eye (end) of the sling to form two basket hitches. It has the same rating as two basket hitches (with the same angle). This hitch should not be used at angles less than 60° to the horizontal.

Double Choker Hitch: This hitch has double the single choker hitch capacity when the body of the sling passes through the eyes and back to the hook.

Double Wrap Basket Hitch: A basket hitch with one additional wrap around the load providing 360° contact around the load, in order to have more control of the load during a lift. This hitch is great for bundled loads and high center of gravity. Rating is same as a single basket.

Double Wrap Choker Hitch: This hitch has the same rating as a single choker hitch except it has an extra wrap around the load for greater stability providing 360° contact around the load.

Early Warning Indicator (EWI): The type of overload indicator installed on Check-Fast® slings.

Length: The distance between bearing points of the sling. Also known as working length.

Proof Load Test: A non-destructive load test usually to twice the rated capacity of the sling.

Qualified Person: A person who, by possession of a recognized degree or certificate of a professional standing in an applicable field, or who, by extensive knowledge, training and experience, has successfully demonstrated the ability to solve or resolve problem relating to the subject matter and work.

Safe Working Load (SWL): See Working Load Limit (WLL).

Safety Factor: A measurement no longer used in the USA to describe the design factor of a sling.

Side Loading: Refers to a load applied at an angle to the vertical plane of a crane boom or the lifting axis of rigging hardware.

Sling Loading: The total tension load applied to a sling during a lifting application.

Synthetic Fiber: Man-made material used for the cover, the core and the stitching thread of Twin-Path® sling products, and CornerMax® protections.

Tell-Tails: Extensions of the load core yarns. When the sling is stretched beyond its elastic limit, they retract and may disappear under the tag. Take out of service if tell-tails are not visible.

Twin-Path® Sling: A patented and trademarked product which is composed of two separate load cores and two contrasting color covers.

Ultimate Strength: Same as break strength – that total force (lb or kg) at which the sling fails. The total weight strain which can be applied before failure.

Vertical Rated Capacity (VRC): The Vertical Rated Capacity (VRC) is the maximum rated capacity for a sling in a straight hitch or vertical configuration.

Working Load Limit (WLL): The maximum weight that a piece of rigging equipment should carry. Rated capacity, load rating, Safe Working Load (SWL) and Working Load Limit are frequently used interchangeably. Break strength divided by design factor equals WLL.



SLINGMAX[®]

RIGGING PRODUCTS: In Use and Available Worldwide

We can provide slings to exact metric capacities and lengths at design factors (DF) of 5:1 for North America, 6:1 for Japan, 7:1 for Europe or Australia. Fabricators are located in Canada, Mexico, Australia, Japan, China, Singapore, India, UAE, and Italy. Engineered lifts use slings with lower DFs.



Australia



Singapore



India



Japan



Steel Forging Plant Maintenance



Yacht Construction



Nuclear Reactor Removal



U.S. Army Helicopter Maintenance



Power Transformer Installation

⚠ WARNING

Slings can fail if damaged, misused or overloaded. Inspect before use. Damaged slings shall not be used. Use only if trained. Do not exceed rated capacity. Protect slings from being cut by load edges, corners, protrusions and abrasive surfaces. Avoid exposure to acid, alkali and temperature over 180°F. DEATH or INJURY can occur from improper use or maintenance.

TWIN-PATH® The Most Inspectable Slings Ever!



Check-Fast® system provides a pass/fail inspection. If overloaded, the External Warning Indicator disappears before the sling fails (TPXCF).



The separate inner cover shows red for warning that the sling is damaged and should be taken out of service for repair.



Twin-Path® slings are repaired with patches like this. Each sling is proof tested after a repair.



Older slings may have two kinds of indicators. Tell-tails warn of overload and a fiber optic warns of core yarn damage (TPXC).

Also Available to help you rig SAFER.... BETTER.... FASTER....



RIGGING TRAINING
www.rigginginstitute.com



A full line of engineered softeners featuring CornerMax® cut protection



Riggers Handbook available on website upon request.

SLINGMAX® INC.

P.O. BOX 2423 ASTON, PA 19014-2423 USA
 TEL: 800-874-3539 FAX: 610-494-5835
 TEL: 610-485-8500 WWW : <http://www.slingmax.com>

PRODUCTS ARE SOLD BY:



SLINGMAX®, CornerMax®, Twin-Path®, Check-Fast® System, ✓Fast System®, Covermax®, G-Link™, Gator-Laid®, Gator-Flex®, Gator-Max®, Tri-Flex®, Sparkeater®, and Rifled Cover™ are trademarks of and the property of their respective owners.