

SpanSet®

Twintex®
Stage Sling®
Steel-Tex™
Rigger's Choice®
Joker™ Sling Hooks



ISO 9001:2000 Registered

TWINTEX® lifting solutions

The TWINTEX® Roundsling, developed by SpanSet, Inc. is manufactured from a continuous loop of high-tenacity polyester yarn encased in a smooth, double-wall tightly woven cover without any edge seam. Because the load-bearing core yarns are encased by the cover, they are protected from cuts, abrasion, and the harmful effects of ultra-violet rays. Removal from service can be determined if the red-striped white core yarns can be seen through any holes or cuts in the cover. Most TWINTEX® Roundslings feature a cover made from the same type of yarn as the core, permitting a quick external examination to reveal any possible chemical damage that may have also affected the load-bearing core yarn which might require the slings' removal from service. The SpanSet TWINTEX® E1000 roundsling features a texturized Nylon cover to provide greater abrasion resistance.



Fig. 1



TWINTEX® Polyester Roundsling

SpanSet Twintex® Roundslings have a core of endless, high tenacity, polyester yarn encased in a tough, double-wall cover.

Two-ply Construction—Twintex® roundslings have a two-ply cover which protects the load bearing core yarns. (See Fig. 1) The covers are color-coded to make load capacity easily identifiable, even from a distance.

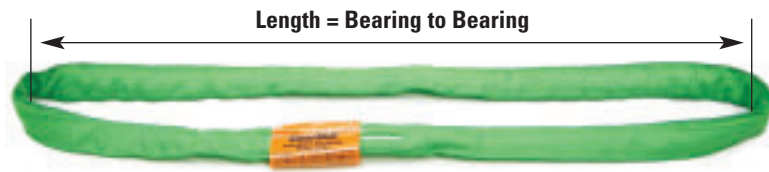
TWINTEX® Features:

- Color-coded for positive sling capacity identification
- Double-wall, woven seamless cover for longer sling life
- Durable capacity tag provides serial number traceability
- Red-striped white core warning yarns provide positive indication for sling replacement
- Low elongation (approx. 3% at rated capacity)
- Consistently matched lengths
- Soft and light weight for easy rigging, handling and storage
- No loss of strength from abrasion on cover
- Easily conforms to the shape of the load
- Sling life can be extended by rotating bearing points

TWINTEX® Endless Roundslings

Features:

- The most flexible style of sling
- Less rigging weight
- Easy handling
- Wear points can be shifted to extend life
- Color-coded capacity indication
- RED core warning fibers
- Models up to and including the E800 (size 12) feature polyester covers and core yarns
- Roundsling Model E1000 (size 13) features a texturized nylon cover for increased abrasion resistance**



Endless Roundslings									
Size	Part #	Color	Rated Capacity (lbs.)*			Minimum Length (ft.)	Approx. Weight (lbs./ft.)	Approx. Body Dia. Relaxed (in.)	Approx. Width at Load (in.)
			Vertical	Choker	Vertical Basket				
1	E30	Purple	2,600	2,100	5,200	1.5	0.3	0.50	1.375
2	E60	Green	5,300	4,200	10,600	1.5	0.4	0.62	1.68
3	E90	Yellow	8,400	6,700	16,800	2.0	0.5	0.87	1.75
4	E120	Tan	10,600	8,500	21,200	3.0	0.7	1.12	2.00
5	E150	Red	13,200	10,600	26,400	3.0	0.8	1.25	2.50
6	E180	White	16,800	13,400	33,600	3.0	1.0	1.50	2.75
7	E240	Blue	21,200	17,000	42,400	3.0	1.2	1.75	3.25
8	E300	Orange	25,000	20,000	50,000	3.0	1.7	2.25	3.75
9	E360	Grey	31,000	24,800	62,000	3.0	2.1	2.32	4.00
10	E480	Maroon	40,000	32,000	80,000	8.0	2.5	2.50	4.25
11	E600	Brown	53,000	42,400	106,000	8.0	3.4	2.75	4.62
12	E800	Olive	66,000	52,800	132,000	8.0	3.7	3.00	5.25
13	E1000	Black	90,000	72,000	180,000	8.0	4.2	3.62	6.00



*Do not exceed rated capacities. Ratings must be reduced when slings are used at angles of less than 90° from horizontal. See Sling angle Chart on Page 10.

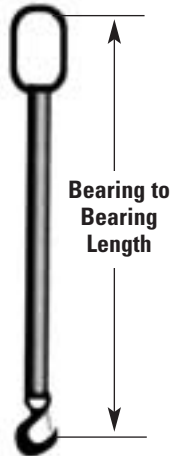
**The use of ANY roundsling with a nylon cover and polyester load-bearing core yarn makes the detection of chemical damage to the core yarn extremely difficult. Use of such roundslings in chemically active environments, ESPECIALLY THOSE WHICH INCLUDE STRONG ALKALIS, is not recommended. Alkalis can damage the polyester core yarn without damaging the nylon cover, making inspection for this type of damage almost impossible. In such chemically active environments, roundslings using covers made from the same fiber as the core yarn is recommended, because the environment will damage the cover either before or at the same time as the core yarn, making inspection and detection much more reliable. If in doubt, return the roundsling to SpanSet for inspection and proof testing.

TWINTEX® Bridle Slings

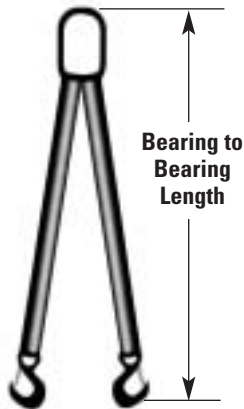
Available in single, double, triple, and quadruple leg configurations. TWINTEX® multi-leg bridle slings are easy to use and provide better load control and balance.

Features:

- Include all the basic features of the TWINTEX® roundsling
- Easier to handle than chain or wire rope
- Sling hooks quickly connect to loads having hoist rings or eye bolts
- Hardware avoids abrasion and cutting of the sling at bearing points
- Hoist Hooks available with or without safety latch



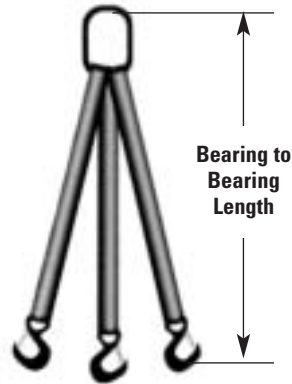
Single Leg Bridles						
Endless Leg Part #	Eye & Eye Leg Part #	Leg Color	Vertical Capacity (lbs.)*	Minimum Leg Length (ft.)	Oblong Master Link (in.)	Hook Size (tons)
E30	EY30	Purple	2,600	4	0.50	1.5
E60	EY60	Green	5,300	4	0.75	3.0
E90	EY90	Yellow	8,400	4	0.75	7.0
E120	EY120	Tan	10,600	4	1.00	7.0
E150	EY150	Red	13,200	4	1.00	11.0
E180	EY180	White	16,800	8	1.00	11.0
E240	EY240	Blue	21,200	8	1.00	15.0



Double Leg Bridles								
Endless Leg Part #	Eye & Eye Leg Part #	Leg Color	Capacity at Horizontal Angle (lbs.)*			Minimum Leg Length (ft.)	Oblong Master Link (in.)	Hook Size (tons)
			60	45	30			
E30	EY30	Purple	4,500	3,700	2,600	4	0.75	1.5
E60	EY60	Green	9,200	7,500	5,300	4	1.00	3.0
E90	EY90	Yellow	14,500	11,800	8,400	4	1.00	7.0
E120	EY120	Tan	18,300	14,900	10,600	4	1.00	7.0
E150	EY150	Red	22,800	18,600	13,200	4	1.25	11.0
E180	EY180	White	29,000	23,700	16,800	8	1.25	11.0
E240	EY240	Blue	36,700	29,900	21,200	8	1.50	15.0

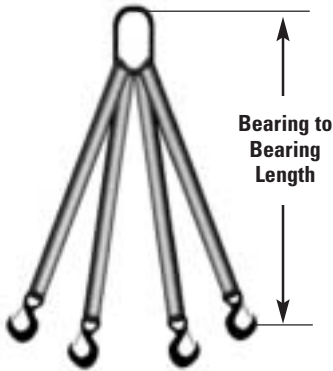


*Do not exceed rated capacities. Ratings must be reduced when slings are used at angles of less than 90° from horizontal. See Sling Angle Chart on page 10.



Triple (3) Leg Bridles

Endless Legs Part #	Eye & Eye Legs Part #	Leg Color	Capacity at Horizontal Angle (lbs.)*			Minimum Leg Length (ft.)	Oblong Master Link (in.)	Hook Size (tons)
			60	45	30			
E30	EY30	Purple	6,750	5,520	3,900	4	0.75	1.5
E60	EY60	Green	13,800	11,250	7,950	4	1.00	3.0
E90	EY90	Yellow	21,750	17,700	12,600	4	1.25	7.0
E120	EY120	Tan	27,450	22,350	15,900	4	1.25	7.0
E150	EY150	Red	34,200	27,900	19,800	4	1.50	11.0



Quad (4) Leg Bridles

Endless Legs Part #	Eye & Eye Legs Part #	Leg Color	Capacity at Horizontal Angle (lbs.)*			Minimum Leg Length (ft.)	Oblong Master Link (in.)	Hook Size (tons)
			60	45	30			
E30	EY30	Purple	9,000	7,360	5,200	4	1.00	1.5
E60	EY60	Green	18,400	15,000	10,600	4	1.00	3.0
E90	EY90	Yellow	29,000	23,600	16,800	4	1.25	7.0
E120	EY120	Tan	36,600	29,800	21,200	4	1.50	7.0



*Do not exceed rated capacities. Ratings must be reduced when slings are used at angles of less than 90° from horizontal. See Sling Angle Chart on page 10.

How to order Bridle Slings:

Example: DOS – E90 x 6' is a double leg bridle, oblong master link, with sling hooks attached to endless TWINTEX® Roundslings. Assembly length is 6 ft.

(Sling Configuration)

(Leg Type Code)

(Sling Length B to B)

DOS

–

E90

x

06

Sling configuration codes:

1st Letter = Number of legs

S = Single (1) leg

D = Double (2) legs

T = Triple (3) legs

Q = Quad (4) legs

2nd Letter = Master link type

O = Oblong (standard)

3rd Letter = End Fitting or Loop

S = Sling Hook

O = Oblong

L = Loop Eye (w/eye & eye type leg)

E = Endless (E-type leg)

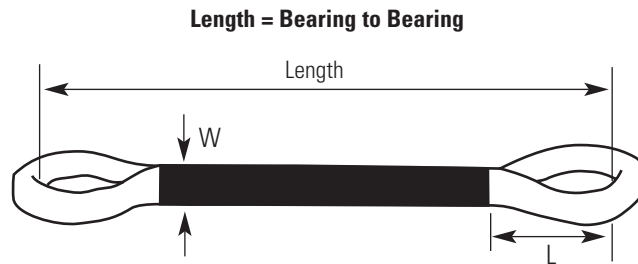


TWINTEX® Eye & Eye Roundslings

The TWINTEX® Eye & Eye Roundslings can be used where abrasion to the sling body is a problem. An additional cover of abrasion-resistant webbing is sewn to the body of the TWINTEX® Roundsling forming a color-coded lifting eye at each end. They may be used in a vertical, choker or basket hitch.

Features:

- Eye & Eye Roundslings have the same basic features as the TWINTEX® Roundsling
- Saves money by extending the life of the body of the sling
- Double-wall cover under the body cover to protect load bearing yarn



Eye & Eye Roundslings								
Part #	Eye Color	Rated Capacity (lbs.)*			Minimum Length (ft.)	Approx. Weight (lbs./ft.)	Approx. Body Width at Load (W) (in.)	Approx. Standard Eye Length (L) (in.)
		Vertical	Choker	Vertical Basket				
EY30	Purple	2,600	2,100	5,200	3	0.4	1.7	10
EY60	Green	5,300	4,200	10,600	3	0.5	2.2	10
EY90	Yellow	8,400	6,700	16,800	3	0.6	2.5	12
EY120	Tan	10,600	8,500	21,200	3	0.8	2.5	12
EY150	Red	13,200	10,600	26,400	4	0.9	3.2	14
EY180	White	16,800	13,400	33,600	4	1.1	3.3	16
EY240	Blue	21,200	17,000	42,400	4	1.3	3.7	16

Higher capacities available by special order.

WARNING
Failure to comply with this warning may result in personal injury or death.

*Do not exceed rated capacities. Ratings must be reduced when slings are used at angles of less than 90° from horizontal. See Sling Angle Chart on page 10.

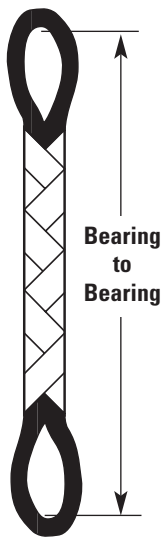
TWINTEX® Braided Roundslings




Constructed of three (6 parts) or four (8 parts) individual roundslings, the Braided TWINTEX® offers greater security and higher capacities than standard roundslings. If used for a special one-time lift, they can be returned to SpanSet, disassembled, inspected, proof tested, and tagged for individual general lifting applications.

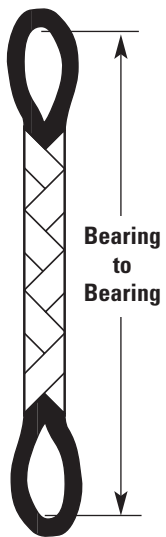





Features:

- Back-up safety
- Superior strength-to-weight ratio
- Repairable (by SpanSet) by replacing damaged component(s)



6-Part Braided Roundslings								
Part #	Color	Rated Capacity (lbs.)*			Minimum Length (ft.)	Standard Eye Length (in.)	Approx. Weight (lbs./ft.)	Approx. Width Under Load (in.)
		Vertical 	Choker 	Vertical Basket 				
6BR30	Purple	6,700	5,300	13,400	5	14	0.9	3.25
6BR60	Green	13,500	10,800	27,000	5	15	1.2	3.75
6BR90	Yellow	21,400	17,100	42,800	6	18	1.5	4.25
6BR120	Tan	27,000	21,600	54,000	6	18	2.1	4.50
6BR150	Red	33,600	26,800	67,200	7	25	2.4	5.25
6BR180	White	42,800	34,200	85,600	7	25	3.0	5.50
6BR240	Blue	54,000	43,200	108,000	9	30	3.6	6.75
6BR360	Grey	80,800	64,600	161,600	10	30	6.3	8.25
6BR600	Brown	134,900	107,900	269,800	11	30	10.2	11.00



8-Part Braided Roundslings								
Part #	Color	Rated Capacity (lbs.)*			Minimum Length (ft.)	Standard Eye Length (in.)	Approx. Weight (lbs./ft.)	Approx. Width Under Load (in.)
		Vertical 	Choker 	Vertical Basket 				
8BR30	Purple	9,000	7,200	18,000	5	14	1.2	3.50
8BR60	Green	18,000	14,400	36,000	5	15	1.6	4.00
8BR90	Yellow	28,500	22,800	57,000	6	18	2.0	4.75
8BR120	Tan	36,000	28,800	72,000	6	18	2.8	5.00
8BR150	Red	44,900	35,900	89,800	7	25	3.2	6.00
8BR180	White	57,100	45,600	114,200	7	25	4.0	6.25
8BR240	Blue	72,000	57,600	144,000	9	30	4.8	7.50
8BR360	Grey	107,800	86,200	215,600	10	30	8.4	10.00
8BR600	Brown	179,800	143,800	359,600	11	30	13.6	13.00



*Do not exceed rated capacities. Ratings must be reduced when slings are used at angles of less than 90° from horizontal. See Sling Angle Chart on page 10.

TWINTEX® Polyester Stage Slings®—when bright colors won't do.

Features:

- Black double-wall cover
- Consistently matched lengths
- Lightweight, soft, and pliable
- Same features as the basic TWINTEX® roundsling (except color)
- A standard in the concert and theatrical industries
- Ideal for inconspicuous suspension of sound and lighting equipment
- Dark color capacity tag
- "SpanSet" the first name in Roundslings



TWINTEX Stage Slings								
Part #	Color	Rated Capacity (lbs.)*			Minimum Length (ft.)	Approx. Weight (lbs./ft.)	Approx. Body Dia. Relaxed (in.)	Approx. Width at Load (in.)
		Vertical	Choker	Vertical Basket				
SS30	Black	2,600	2,100	5,200	1.5	0.3	0.50	1.375
SS60	Black	5,300	4,200	10,600	1.5	0.4	0.62	1.68
SS90	Black	8,400	6,700	16,800	1.5	0.5	0.87	1.75
ST60 STEEL-TEX Stage Sling								
ST60	Black	5,300	4,200	10,600	2.0**	0.7	0.50	1.25



ST60 STEEL-TEX™ Stage Sling®

The load bearing member of our Steel-Tex™ Round Sling is made of galvanized steel aircraft cable wound in an endless configuration. This wire core is encased in a heavy black polyester cover.

A convenient inspection window—with Velcro closure—is located beside the capacity tag. This wide window allows for easy inspection of the core for broken wires or corrosion.

Features:

- 400° F temperature rating
- Velcro window allows complete core inspection
- No backup rigging required
- Superior flexibility makes rigging easy
- Capacity tag confirms wire core
- Black color tag is inconspicuous for stage settings
- Maximum length for ST60 Steel-Tex™ is 9 ft**



**Do not exceed rated capacities. Ratings must be reduced when slings are used at angles of less than 90° from horizontal. See Sling Angle Chart on page 10.

Rigger's Choice® Roundslings

The Rigger's Choice Roundsling delivers an even greater level of performance for your overhead lifting needs.

The advantages start with patented nylon wear bars on the exterior polyester sleeve, proven to slow the deterioration of cover fabrics up to 300% in hex bar abrasion tests. Wear bars also offer the user a visible indication when harmful chemicals contact the roundsling.

Maintaining safe lifting is simplified with patented inspection pockets every two inches on the sling. These pockets trap and let the user quickly locate any dangerous metal shards or fragments that have penetrated the outer ply of the cover sleeve. SpanSet uses only the highest quality core yarns for strength, reliability and **reduced risk**.

HEX BAR ABRASION TEST

The evidence is unmistakable. Patented nylon wear bars on the exterior polyester sleeve help the Rigger's Choice roundsling cover perform up to 300% better after 5,000 cycles of the Hex Bar abrasion test than a standard roundsling.

Rigger's Choice **Competitor**



Patented Nylon Wear Bars extend the slings' sleeve life by increasing resistance to abrasion up to 300%. (patent no. 5,238,278)



Tightly Woven Two-Ply Sleeves protect weight bearing core yarns from damage.

Patented Inspection Pockets capture intruding particles and speed inspection. (patent no. 5,402,832)

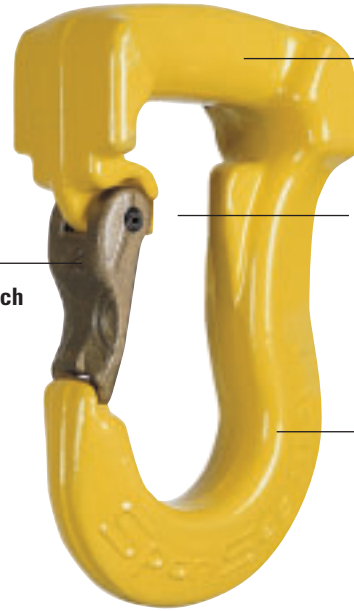
Rigger's Choice® Roundslings					
Part #	Size	Color	Rated Capacity (lbs.)*		
			Vertical	Choker	Vertical Basket
RCE 30	1	Purple	2,600	2,100	5,200
RCE 60	2	Green	5,300	4,200	10,600
RCE 90	3	Yellow	8,400	6,700	16,800
RCE 120	4	Tan	10,600	8,500	21,200
RCE 150	5	Red	13,200	10,600	26,400
RCE 180	6	White	16,800	13,400	33,600
RCE 240	7	Blue	21,200	17,000	42,400

Joker™ sling hitches. Simple and safe.

Get connected in seconds with the Joker sling hitch. It's simple, safe and extremely versatile.

Simply thread the roundsling to the Joker without the need for tools. Then attach the Joker to the lifting point of the load. Now place the TWINTEX® or Rigger's Choice Roundsling over the crane hook and you're ready to lift.

The Joker gives you the flexibility you need and the rugged performance you expect from SpanSet.

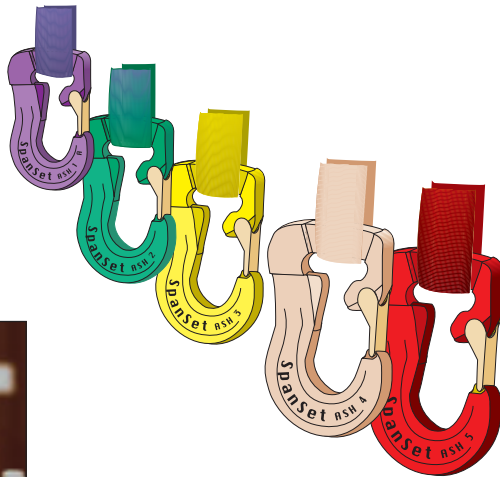


Enlarged Shoulder Areas to protect slings from chafing

Throat Opening to accept roundslings

Forged Hook and Safety Catch

Precision Forged to grade 8 plus



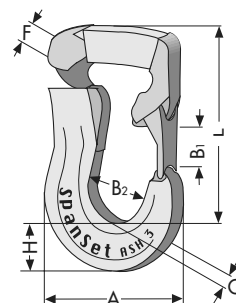
COLOR CODED LOAD CAPACITY

To clearly indicate the load capacity, the Joker is finished in the Roundsling color codes. Match a yellow hook to a yellow sling, green to green, etc. A foolproof solution for safe and efficient operation.



Attach roundslings to lifting points directly using the Joker hook.

Joker Sling Hooks										
Part #	Color	Load Limit (WLL)	A	B ₁	B ₂	F	G	H	L	Weight (lbs)
ASH 1	Purple	2,600 lbs	2.85	1.13	1.25	1.17	0.59	0.78	4.29	1.32
ASH 2	Green	5,300 lbs	3.63	1.33	1.64	1.48	0.82	1.01	5.58	3.52
ASH 3	Yellow	8,400 lbs	4.33	1.33	1.95	1.79	1.01	1.25	5.89	4.84
ASH 4	Tan	10,600 lbs	5.07	1.91	2.34	2.15	1.21	1.37	7.02	7.04
ASH 5	Red	13,200 lbs	5.07	1.91	2.34	2.15	1.21	1.37	7.02	7.26





WARNING



The capacity of a sling to lift weight **DECREASES** as the angle of the sling moves away from being vertical. If the angle of the sling is not taken into consideration before selecting a sling to lift a load, **SERIOUS INJURY OR DEATH COULD RESULT** from the load being dropped.

Sling Angle Capacities

If you know the lifting angle of the sling being used, you can apply the Capacity Reduction Factor (A) or the Load Multiplier (B) in the Sling Angle Chart. If you don't know the angle:

- Attach the sling(s)
- Apply lift until the slings are taut and the load is **ALMOST** ready to leave the ground (BUT DO NOT LIFT THE LOAD OFF THE GROUND!!)
- Measure the length of the sling between the lift point and the load
- Measure the height between the lift point and the load (See Fig. 1)

Situation 1: Capacity Reduction Factor

When you know the appropriate rated capacity of the sling, and you need to calculate its actual capacity (based on the sling angle), follow the instructions below: (The Example uses a measured length of 12 feet and a measured height of 8 feet.)

Measured Length (L): 12 feet

Measured Height (H): 8 feet

Reduction Factor (RF) = $H \div L = 8 \div 12 = 0.667$

Rated Capacity* of sling = 1,000 lbs.

Actual Capacity of sling = Rated Capacity x RF = 1,000 X 0.667 = 667 lbs.

Situation 2: Load Multiplier

When you know the actual weight of the load, and you need to calculate the appropriate rated capacity (based on the sling angle) of the sling to lift the load, follow the instructions below:

(The Example uses a measured length of 12 feet and a measured height of 8 feet.)

Measured Length (L): 12 feet

Measured Height (H): 8 feet

Load Multiplier (LM) = $L \div H = 12 \div 8 = 1.5$

Load weight: 1,000 lbs.

Necessary Rated Capacity* of sling = Load Weight x LM = 1,000 X 1.5 = 1,500 lbs.

*** Make sure the "capacity" is appropriate for the hitch you are going to use.**

Sling Angle Chart		
Angle from Horizontal	(A) Capacity Reduction Factor	(B) Load Multiplier
90°	1.000	1.000
85°	0.996	1.005
80°	0.985	1.016
75°	0.966	1.036
70°	0.940	1.064
65°	0.906	1.104
60°	0.866	1.155
55°	0.819	1.222
50°	0.766	1.306
45°	0.707	1.415
40°	0.643	1.556
35°	0.574	1.743
30°	0.500	2.000

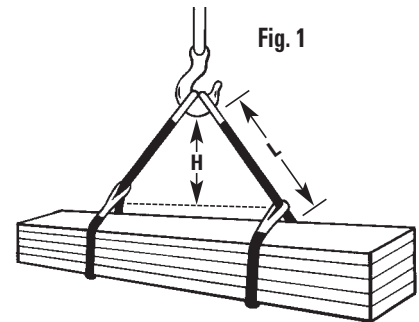


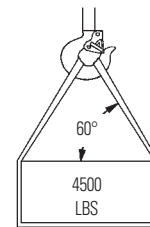
Fig. 1

Chemical Resistance Chart		
Chemical	Polyester	Nylon
Acid	*	NO
Alcohols	OK	OK
Aldehydes	NO	OK
Strong Alkalis	**	OK
Bleaching Agents	OK	NO
Dry Cleaning Solvents	OK	OK
Ethers	NO	OK
Halogenated Hydrocarbons	OK	OK
Hydrocarbons	OK	OK
Ketones	OK	OK
Oils, Crude	OK	OK
Oils, Lubricating	OK	OK
Soap and Detergents	OK	OK
Water and Seawater	OK	OK
Weak Alkalis	OK	OK

THIS IS A GENERAL GUIDELINE ONLY

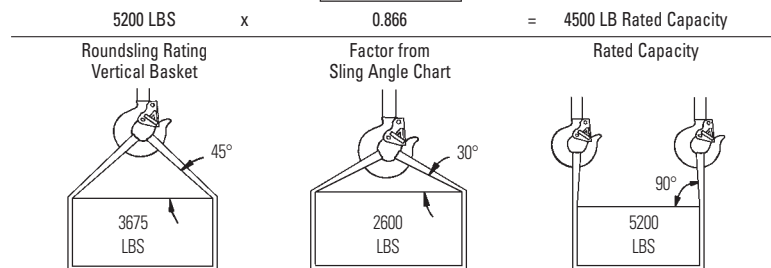
* Disintegrated by concentrated sulphuric acid.

** Degraded by strong alkalis at elevated temperatures



Example:

Polyester roundsling size no. 1 (purple) without fittings, 5,200 lb. vertical basket hitch rating used in a basket hitch at a 60° angle.



Inspection Criteria for Twintex® Roundslings:

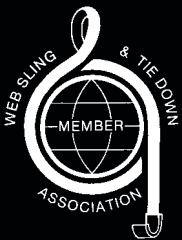
Remove from service when:

- Cuts to sling cover expose red-striped white core yarns
- Holes, tears, snags or abrasions expose red-striped white core yarns
- End fittings are pitted or corroded, cracked, distorted or broken
- The sling shows signs of melting, charring, or chemical damage
- Capacity tag is illegible or missing
- Other visible damage which causes doubt as to the strength of the sling

Note: Do not expose roundslings to temperatures exceeding 194°F

SpanSet®

3125 Industrial Drive
Sanford, North Carolina 27332
PO Box 2828
919-774-6316
Fax: 919-774-7589
National Toll Free Line: 800-334-7505
info@spanset-usa.com
www.spanset-usa.com



Warranty

SpanSet, Inc. agrees (at its option) to repair, replace or credit the cost of any product which it has manufactured and which is found to be defective in materials or workmanship provided that written notice of such defect is received by SpanSet, Inc. within 90 days from the date of shipment. SpanSet will accept return of its products only upon its prior written authorization after receiving such notice. No authorization or allowance for repairs or alterations of any product will be given by SpanSet except by its written acknowledgment. Items not manufactured by SpanSet, Inc. will carry their manufacturer's warranties and none other.

The foregoing is in lieu of all warranties, expressed or implied, and all other obligations or liabilities on the part of SpanSet, including the warranties of merchantability and fitness. In no event shall SpanSet, Inc. be liable for consequential or special damages or for transportation, installation, adjustment or other expenses which may arise in connection with such products.