

Web Slings



WHY LIFT-ALL WEB SLINGS?

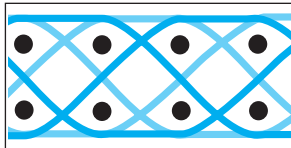
Lift-All web slings meet or exceed OSHA, ASME B30.9 and WSTDA standards and regulations.

All of the sling webbing contained in this catalog is recommended for general purpose lifting. Military webbing, sometimes designated as "Mil-Spec", has not been designed for, nor do we recommend it, for general lifting applications.

What is the Difference?

Refer to Mil-Spec Webbing Diagram

- Mil-Spec webbing does not have red core yarn warning system.
- Mil-Spec webbing supports the entire load with exposed surface yarns. *Lift-All* sling webbing uses a combination of internal, protected yarns and surface yarns.
- Damage to the surface of Mil-Spec webbing causes greater strength reduction of the webbing.

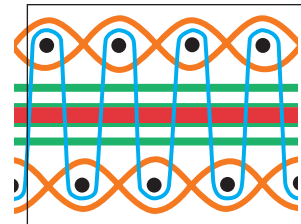


Mil-Spec Webbing

- Combination binder/surface yarns cover each side and carry virtually all of the load.
- Transverse pick yarns inter-relate with binder/surface yarns.

Refer to *Lift-All* Sling Webbing Diagram

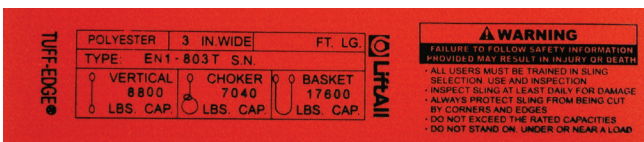
- Sling webbing, as shown, has its surface yarns connected from side to side, which not only protects the core yarns, but positions all surface and tensile yarns to work together to support the load.
- Wear or damage to Sling Webbing face yarns cause an immediate strength loss. This is why Sling Webbing has red core yarns to visually reveal damage and act as a basis for sling rejection.



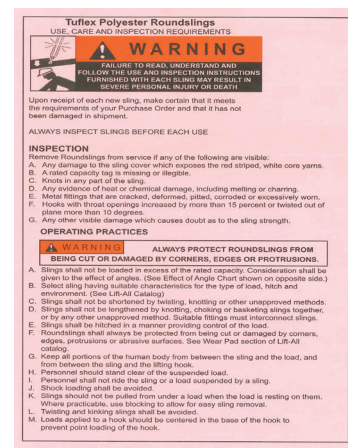
Lift-All Sling Webbing

- Transverse pick yarns inter-relate with binder/surface yarns.
- Woven surface yarns cover each side and carry a portion of the load.
- Strip of longitudinal core yarns bears majority of load.
- Binder yarns secure the surface yarns to web core yarns.
- Red core warning yarns.

Tuff-Tag and Safety Bulletin

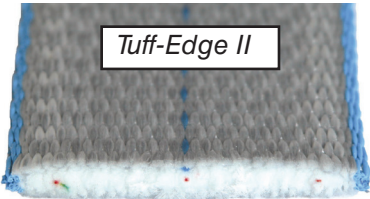
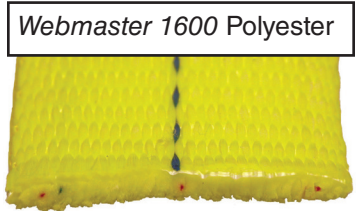
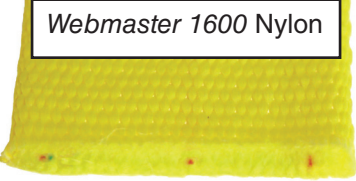
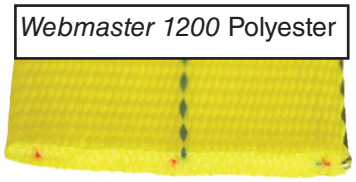
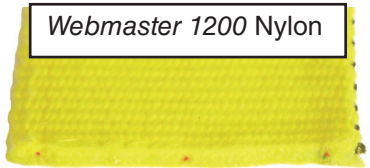
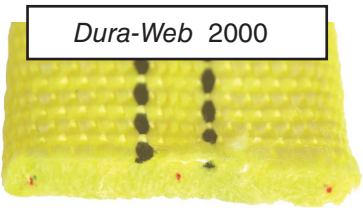
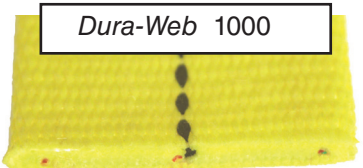


OSHA requires all web slings to show rated capacities and type of material. The *Lift-All Tuff-Tag* is made from an abrasion resistant polymer that will remain legible far longer than any leather or vinyl tags. In fact, *Tuff-Tags* will consistently outlast the useful life of slings.



A Safety Bulletin is included with every web sling order from *Lift-All*. The bulletin lists inspection information and operating practices applying to synthetic web slings.

LIFT-ALL WEB SELECTOR - QUICK COMPARISONS

	Approx. Thickness	Single Ply Rated Capacity Per In. of Width	Available Material	Identify by:	Choose from:
 Tuff-Edge II	3/16"	1600 Lbs.	Polyester	Blue edge Blue center stripe Silver surface	Daily use under good to rugged lifting conditions. 2x edge cut resistance. Our best seller.*
 Webmaster 1600 Polyester	3/16"	1600 Lbs.	Polyester	Blue center stripe	Daily use under good to moderate lifting conditions. Polyester stretches less for better load control, reduced abrasion.*
 Webmaster 1600 Nylon	3/16"	1600 Lbs.	Nylon	No center stripe	Daily use under good to moderate lifting conditions. Nylon stretches more to help avoid shock loading.*
 Webmaster 1200 Polyester	1/8"	1200 Lbs.	Polyester	Blue center stripe Black yarn one edge	Less frequent use under good lifting conditions. Polyester stretches less for better load control, reduced abrasion.*
 Webmaster 1200 Nylon	1/8"	1200 Lbs.	Nylon	No center stripe- Black yarn one edge	Less frequent use under good lifting conditions. Nylon stretches more to help avoid shock loading.*
 Dura-Web 2000	5/16"	2000 Lbs.	Nylon	Two black center stripes	Heavy use under moderate to rugged lifting conditions. Abrasion resistant yarns cover entire surface.*
 Dura-Web 1000	3/16"	1000 Lbs.	Nylon	One black center stripe	Daily use under moderate lifting conditions. Abrasion resistant yarns cover entire surface.*

Web Slings

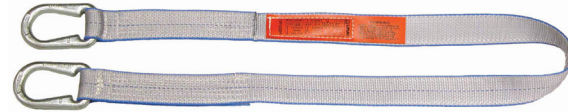
⚠ WARNING Always protect synthetic slings from being cut by corners and edges. (See Page 14 for Sling Protection information)

STANDARD WEB SLING TYPES

Hardware Slings

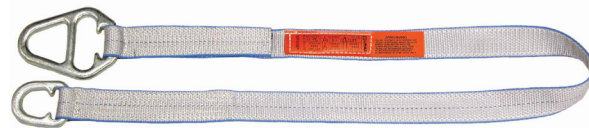
Unilink and *Web-Trap* hardware can help to extend sling life by protecting the webbing from abrasion on rough crane hooks. Hardware can often be reused, lowering sling replacement costs.

Type U (UU) - Has the preferred and economical *Unilink* fitting on each end for use in a vertical, choker or basket hitch. *Unilinks* allow choking from either end to save time and vary wear points. See page 34.



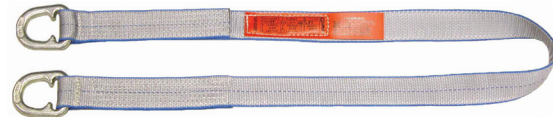
Type U

Type 1 (TC) - Has a *Web-Trap* triangle and choker fitting on either end. Typical use is in a choker hitch. Can also be used in vertical and basket hitches.



Type 1

Type 2 (TT) - Has a *Web-Trap* triangle on each end. Normally used in a basket hitch, but can also be used in a vertical hitch. They cannot be used as a choker.



Type 2

Eye Type

Type 3 (EE) - Flat Eye slings are very popular and can be used in all three types of hitches. They are easier to remove from beneath the load than sling Types 1, 2 and 4. Unless Type 4 is requested, Type 3 will be supplied as the standard EE sling.



Type 3

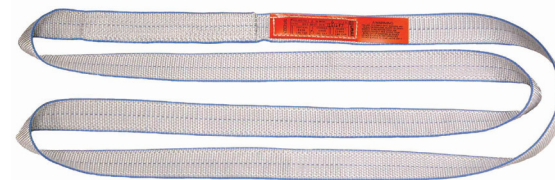
Type 4 (EE) - Twisted Eye slings are similar to Type 3 except the eyes are turned 90° to form a better choker hitch. The eyes of a Type 4 nest better on the crane hook.



Type 4

Endless Type

Type 5 (EN) - Endless slings are versatile and the most economically priced. They can be used in all three types of hitches. The sling can be rotated to minimize wear. The sling legs can be spread for improved load balance.



Type 5

Reverse Eye Type

Type 6 (RE) - An endless sling with butted edges sewn together to double the sling width. They have reinforced eyes and wear pads on both sides of body and eyes for premium wear resistance.



Type 6

WEB SLING EYE TREATMENTS

Eye Wear Pads - The eyes of web slings are often subjected to the harsh treatment of rough crane hooks. Specialty eye treatments are available to help reduce the wear in that area, thereby extending sling life. The following photos illustrate the more common eye treatments using wear resistant webbing in various forms. Should you want non-standard eye treatment on your eye & eye web slings, please specify using the terminology below.

Type 3 - Flat Eyes



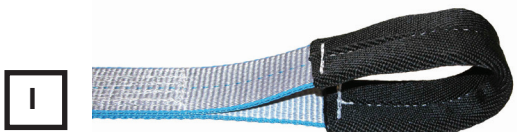
Standard Style



Lined Bearing Point



Fully Lined Eye

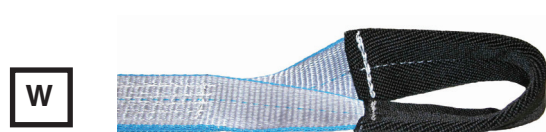


Wrapped Bearing Point



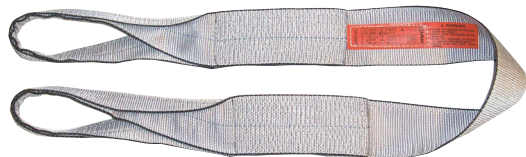
Fully Wrapped Eye

Type 4 - Twisted Eyes

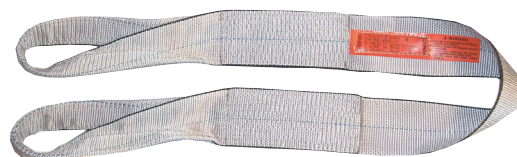


Textured nylon wear resistant webbing is standard for these eye treatments. Other pad materials are available (see page 14).

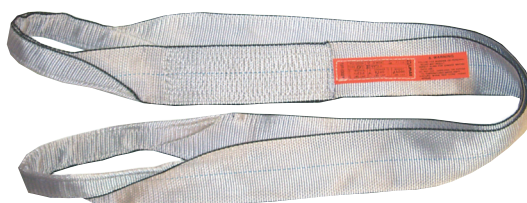
Tapering Eyes - As a standard practice, the eyes, or bearing points of sling Types 3 and 4 are tapered to accommodate a crane hook on slings that are 3" and wider. Untapered eyes are available upon request. Type 5 (Endless) slings are NOT tapered unless specified on order. Dura-Web 2000 slings are not tapered in any width.



Type 3 - Flat Eyes



Type 4 - Twisted Eyes



Type 5 - Endless (Showing Taper)

Web Slings

ENVIRONMENTAL CONSIDERATIONS & OUTDOOR USE

Web Slings

Exposure to sunlight, and other environmental factors such as dirt or gritty matter and cyclical changes in temperature and humidity, can result in an accelerated deterioration of web slings. The rate of this deterioration varies with the level of exposure and with the thickness of the sling material.

Visible indication of such environmental deterioration can include the following:

- Fading of webbing color
- Uneven or disoriented surface yarn of the webbing
- Shortening of the sling length
- Reduction in elasticity of the sling due to exposure to sunlight, often evident by accelerated abrasive damage to the surface yarns of the sling
- Breakage or damage to yarn fibers, often evident by a fuzzy appearance of the web
- Stiffening of the web, evident when web slings are exposed to outdoor conditions

Anti-Abrasion Treatment

As a standard, *Lift-All* webbing is treated for abrasion. Natural, untreated webbing is available upon request.

Note: Heavy duty treatments are available as a supplemental process for greater protection.

Elasticity - The stretch characteristics of web slings depends on the type of yarn and the web finish. Approximate stretch at RATED SLING CAPACITY is:

NYLON		POLYESTER	
Treated	10%	Treated	7%
Untreated	6%	Untreated	3%

Prior to sling selection and use, review and understand the "Help" section.

Sling Length Tolerance for Web Slings

Sling Type	Tolerance *
1 Ply	± (1.5" + 1.5% of sling length)
2 Ply	± (2.0" + 2% of sling length)
3 & 4 Ply	± (3.0" + 3% of sling length)

* For web sling widths wider than 6", add 1/2" to these values. For tighter tolerance or matched set length requirements, please consult with Customer Service.

⚠ WARNING

Read Definition on page 3

Sunlight / UV Exposure Service Life

Nylon and polyester web slings possess a limited useful outdoor service life due to the degradation caused by exposure to sunlight, or other measurable sources of UV radiation.

Lift-All web slings that are regularly exposed to outdoor conditions should be identified with the date they are placed into service, and should be proof tested to twice their rated capacity every six months.

Lift-All nylon and polyester web slings shall be permanently removed from service when the cumulative outdoor exposure has reached these limits:

- 2 years for 1 ply and 2 ply web slings
- 3 years for 3 ply and 4 ply web slings

Temperature

Nylon and polyester are seriously degraded at temperatures above 200°F.

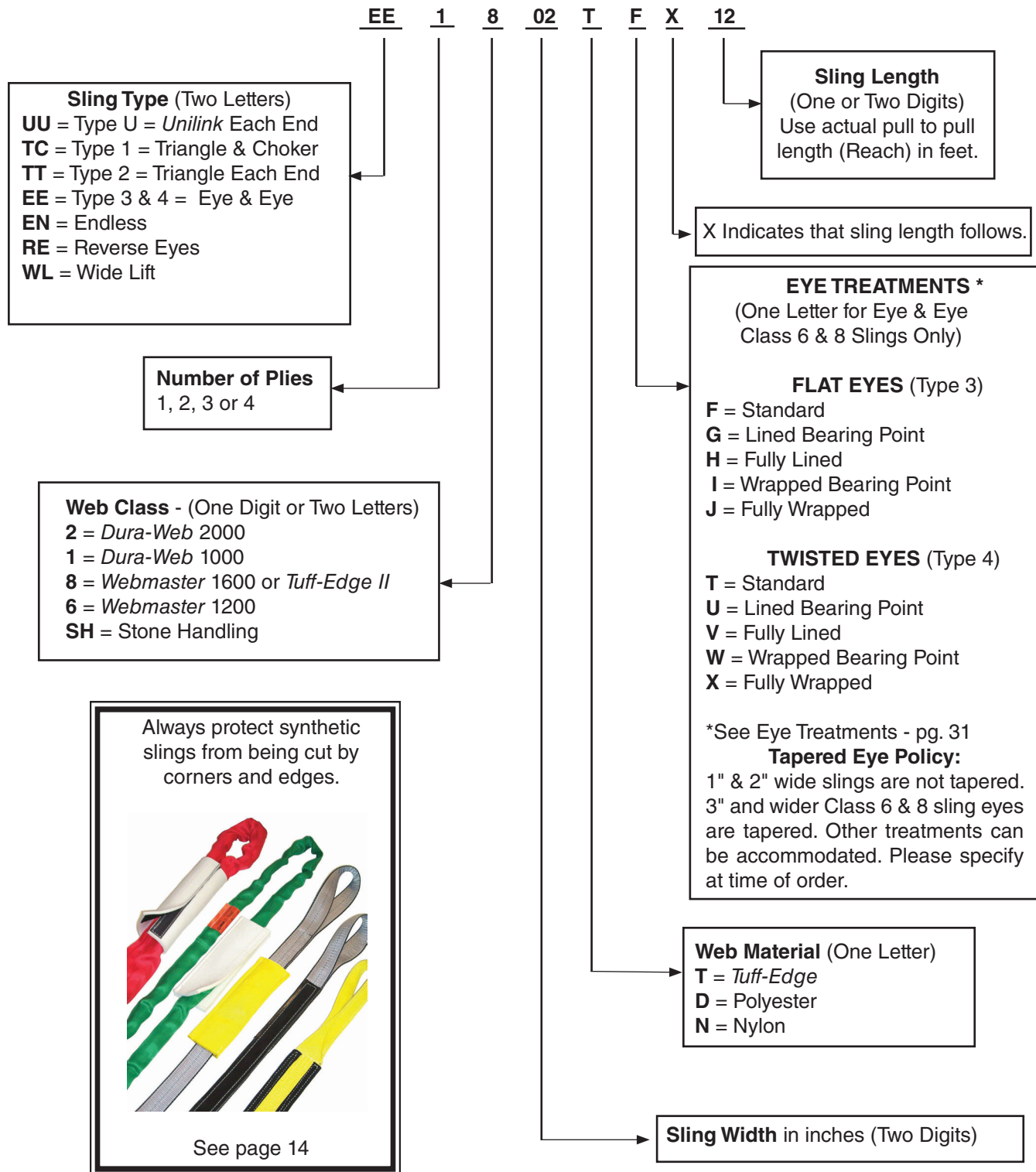
Chemical Environment Data

Many chemicals have an adverse effect on nylon and polyester. The Chemical chart below is a general guide only. For specific temperature, concentration and time factors, please consult *Lift-All* prior to purchasing or use.

CHEMICAL	OK / NO	
	NYLON	POLYESTER
Acids		*
Alcohols		
Aldehydes		
Alkalis		
Bleaching Agents		
Dry Cleaning Solvents		
Ethers		
Halogenated Hydro-Carbons		
Hydro-Carbons		
Ketones		
Oils Crude		
Oils Lubricating		
Soap & Detergents		
Water & Seawater		
Weak Alkalis		

* Disintegrated by concentrated sulfuric acid.

HOW TO ORDER



Web Slings

WEB SLING HARDWARE

**Steel Unilink Web Sling Hardware
Combination Triangle and Choker Fitting**

This forged, high carbon steel fitting, functions as both a triangle and choker.

Features, Advantages and Benefits

Promotes Safety

- Forged steel for strength and reliability
- Smooth rounded profile helps protect sling, worker and load

Saves Money

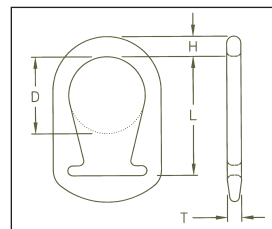
- May be rewedded to reduce cost
- Powder coated finish for longer life
- *Unilinks* cost less than triangle/choker combinations

Saves Time

- Large Crane hook opening - speeds rigging
- Positive *Web-Trap* capture - no need to stop and reposition web
- Functions both as a triangle and a choker - choke with either end



Web Slings



**Unilink Codes
And Specifications**

Web Width (in.)	Part No.	Dimensions (in.)				Weight (lbs.)
		L	D	H	Thick	
2	SU2	3 11/16	2	11/16	9/16	1.1
3	SU3	5 1/16	3	7/8	5/8	2.4
4	SU4	6 3/16	4	1	3/4	4.0

Avoid contact of hardware with load edges.
Unilink has the same rated capacities as TT or TC slings.

Forged Aluminum Triangles and Chokers

⚠ WARNING Read Definition on page 3

Aluminum is severely degraded by alkali, caustic environments, acids and salt water.

Aluminum Triangles and Chokers are available but may only be used with single ply web slings within the rated capacities shown in the table. They should not be used with *Dura-Web 2000* webbing.

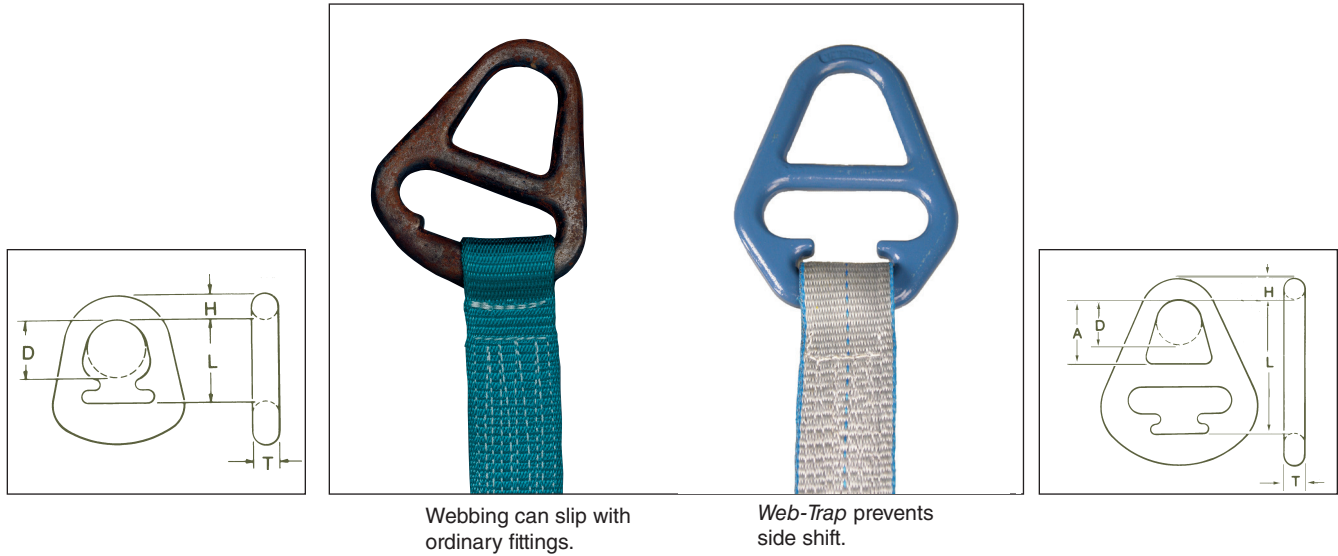
Forged from aircraft aluminum, this tough alloy is stronger than mild steel. Aluminum has the advantages of being lightweight, non-sparking and does not rust.

Note: Aluminum triangles and chokers DO NOT offer the advantages of the *Web-Trap* feature. Aluminum fittings are not as durable and cost more than steel.

WEB SLING HARDWARE

Web-Trap Steel Sling Hardware - Triangles and Chokers

A significant improvement in triangle and choker design - featuring positive web capture. Webbing can slip to the side of ordinary fittings, not with *Web-Trap*. These fittings feature alloy steel for lighter sling weight and a powder coated finish to inhibit rust.



Webbing can slip with ordinary fittings.

Web-Trap prevents side shift.

Web Slings

Alloy Steel - For One Or Two Ply Slings

Web-Trap Triangles							Web-Trap Chokers						
Web Width	Part No.	Dimensions (in.)				Weight (lbs.)	Part No.	Dimensions (in.)				Weight (lbs.)	
		L	D	T	H			L	A	D	T		H
*2"	ST-2	2 3/8	1 3/4	9/16	5/8	1.0	SC-2	5	2 7/16	1 3/4	9/16	11/16	1.9
*3"	ST-3	3 7/16	2	1/2	3/4	1.9	SC-3	6 1/4	3 3/8	2	1/2	3/4	3.6
*4"	ST-4	4 1/8	2 3/8	1/2	13/16	2.8	SC-4	7	4	2 3/8	1/2	13/16	5.1
6"	ST-6	5 9/16	3 1/8	3/4	1 1/16	6.3	SC-6	8 7/8	4 3/4	3 1/8	3/4	1 1/16	12

Alloy Steel - For One Ply Slings

Web-Trap Triangles							Web-Trap Chokers						
Web Width	Part No.	Dimensions (in.)				Weight (lbs.)	Part No.	Dimensions (in.)				Weight (lbs.)	
		L	D	T	H			L	A	D	T		H
8"	ST1-8	6 1/2	4	1/2	1 1/4	8	SC1-8	11 1/4	7 1/2	4	1/2	1 7/16	16
10"	ST1-10	8 1/4	5	3/4	1 7/16	16	SC1-10	12 7/8	8 1/4	5	3/4	1 1/2	28
12"	ST1-12	8 3/4	5 1/2	3/4	1 3/4	20	SC1-12	14 1/2	10	5 1/2	3/4	1 3/4	40

Alloy Steel - For Two Ply Slings

Web-Trap Triangles							Web-Trap Chokers						
Web Width	Part No.	Dimensions (in.)				Weight (lbs.)	Part No.	Dimensions (in.)				Weight (lbs.)	
		L	D	T	H			L	A	D	T		H
8"	ST2-8	6 1/2	4	3/4	1 1/4	12	SC2-8	11 1/4	7 1/2	4	3/4	1 7/16	25
10"	ST2-10	8 1/4	5	1	1 7/16	21	SC2-10	12 7/8	8 1/4	5	1	1 1/2	38
12"	ST2-12	8 3/4	5 1/2	1	1 3/4	27	SC2-12	14 1/2	10	5 1/2	1	1 3/4	54

* Unlink is standard fitting - Triangle and chokers available on special order only.

TUFF-EDGE[®] II

2X Stronger After Abrasion
2X Better Edge Cut Resistance

Tuff-Edge II Polyester Web Slings

You can expect longer sling life and lower overall costs when you switch to **Tuff-Edge II** slings. Resistance to the two properties that can rapidly degrade webbing, abrasion and edge cutting, is greatly improved with the use of our **Tuff-Edge II** webbing.

Using Federal Test Method 191A, **Tuff-Edge II** webbing was tested against standard yellow polyester webbing. After being subjected to the same number of hex bar abrasion cycles, the **Tuff-Edge II** webbing, with its' special silver treatment, achieved average break strengths that were twice that of the standard yellow webbing!

In a test developed specifically to measure edge cutting properties, the cut depth on the **Tuff-Edge II** webbing with special polymer edge yarns cut less than half the depth of the standard yellow polyester without the special edge yarns.

Although you should **always** pad and protect synthetic slings from load edges, normal wear and tear should be greatly reduced when using **Tuff-Edge II**, giving you greater sling life and reduced sling costs.



Tuff-Edge II Features, Advantages and Benefits

Promotes Safety

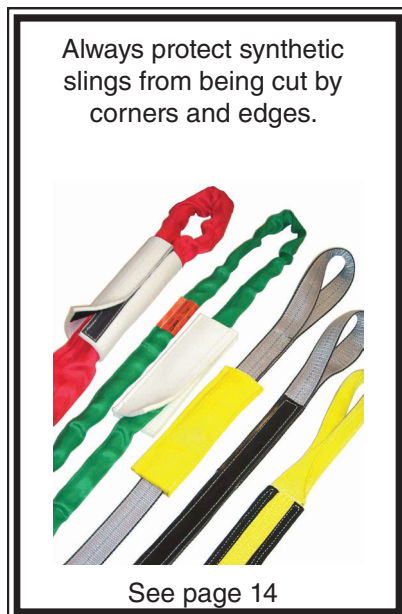
- Red Core yarn warning system aids in the inspection process
- *Tuff-Tag* provides serial numbered identification for traceability
- Proven sling web construction

Saves Money

- Special polymer coated edge yarns improve edge cutting and abrasion to extend sling life
- Silver colored web treatment fights abrasion for additional sling life
- *Tuff-Tag* provides required OSHA information for the life of the sling, not just the life of the tag

Saves Time

- Easy identification - silver body, blue edges, blue center stripe



TUFF-EDGE WORKS!

WIRE ROPE & RIGGING CONSULTANTS

Ship/Mail • 9428 036 Pacific Hwy
Woodland, WA 98674

CRANE & EQUIPMENT TRAINING

Voice • (800) 727-4355 • (360) 225-1100
Fax • (360) 225-1122
www.wrrc.com • E-Mail • right@wrrc.com

January 4, 2001

We have about 400 slings in use at our Crane & Rigging Training Center in Woodland, WA, along with a major assortment of rigging hardware from almost every major manufacturer in the U.S. In the training center, our participants rig and move loads which are 1 to 6 ton. Most of the loads are rigged with synthetic web slings and some roundslings. We have about 80 LiftAll slings on the property, which are used with our gantry and mobile cranes.

Our rigging takes a beating like everyone else's, even using wear pads on most lifts. Mr. Dave Pelkey, one of our Woodland based trainers helps instruct our students to inspect their slings on a use-by-use basis. As a result of the lift-by-lift, daily, monthly and annual inspections he discovered something that really surprised all of us.

Your Tuff-Edge web slings have an amazing ability to endure heavy usage where other web slings do not. Every training program we watch our students use the Tuff-Edge slings right along with other sling types in reasonably equal amounts. They seem to do a much better job resisting the common types of abrasion, crushing and surface nicking. We seem to be rejecting only 1 Tuff-Edge type sling for every 10 regular synthetic web slings.

Even though we instruct our students to use wear pads, it is not always feasible for every lift. Often slight damage occurs against a semi-smooth surface as a result of high p.s.i. and tightening during the lift. The Tuff-Edge slings seem to survive extremely well, when other slings made of standard nylon or polyester begin to show physical evidence of wear and tear.

Due to our independent place in the crane and rigging industry, we rarely make comments about the products manufactured for general use. In this case, I thought we should at least extend a compliment to the developers and designers of the Tuff-Edge sling. We intend on replacing our inventory with Tuff-Edge slings as the other brands wear out. It will be an excellent investment for us, with a great return. Keep up the good work!

Mike Farnell
President

Charter Member

WRRRC & CET are divisions of Industrial Training International, Inc.

ISO 9001 Certified

THE OHIO BROACH & MACHINE COMPANY

35204 TUPPS INDUSTRIAL PARKWAY • WILLOUGHBY, OHIO 44094 • U.S.A.
PHONE: 440/946-1000 • FAX: 440/946-1275 • e-mail: sales@ohiobroach.com • http: www.ohiobroach.com

February 12, 2001

While looking over our current inspection report, it occurred to me that we really haven't been disposing of as many slings as we have in the past. Upon closer review, it appears that most of the slings that Ohio Broach has in service are your silver Tuff-Edge type.

A couple of years back when Ohio Broach started to replace the bad slings with your Tuff-Edge slings, the rejection rate during inspections of our nylon slings was at least in the +50% range. Since then the rejection rate has dropped dramatically. This past year it was as low as 18%.

Having our slings last longer has saved the company money and more importantly, it provides Ohio Broach with a safer work environment.

I would definitely recommend your Tuff-Edge product to anyone who uses nylon slings.

Thank you for your time and efforts that keep our work place safe.

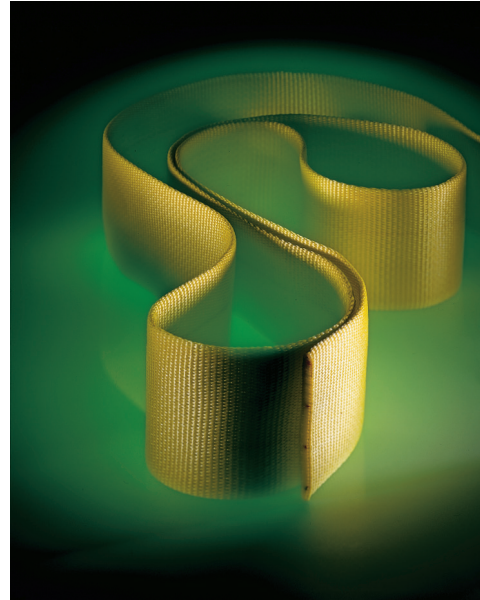
Sincerely,

Neil Van De Motter
Production Control Manager

BROACHES • OHIO BROACHING MACHINES • BROACH SHARPENING • PRODUCTION BROACHING

Webmaster 1600 Nylon and Polyester* Slings The Traditional Standard for Heavy Duty Slings

This grade of synthetic web sling is popular because most users consider its' strength and service life to be a good buy.



Web Slings

Features, Advantages and Benefits

Promotes Safety

- Red core yarn warning system aids in the inspection process
- *Tuff-Tag* provides serial numbered identification for traceability
- Proven sling web construction

Saves Money

- Yellow treatment for abrasion resistance and extended sling life
- *Tuff-Tag* provides required OSHA information for the life of the sling, not just the life of the tag.

* Note: Polyester web is identified by single blue surface stripe.

TUFF-EDGE AND WEBMASTER 1600 POLYESTER SLINGS

Type U Unilink Hardware Slings

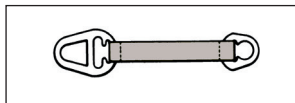


(Also available as Types 1 & 2 at same Rated Capacities)

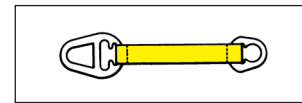


	Tuff-Edge II Part No.	Web Width (in.)	Rated Capacity (lbs.)*			Webmaster Part No. ***
			Vertical	Choker	V. Basket	
One Ply	UU1802T	2	3,200	2,500	6,400	UU1802D
	UU1803T	3	4,800	3,800	9,600	UU1803D
	UU1804T	4	6,400	5,000	12,800	UU1804D
Two Ply	UU2802T	2	6,400	5,000	12,800	UU2802D
	UU2803T	3	8,800	7,040	17,600	UU2803D
	UU2804T	4	11,500	9,200	23,000	UU2804D

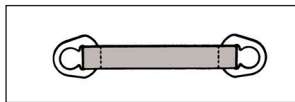
Type 1 (TC) and Type 2 (TT) Web-Trap Hardware Slings



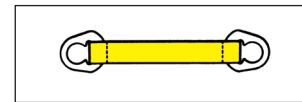
Type 1 (TC)



Type 1 (TC)



Type 2 (TT)



Type 2 (TT)

	Tuff-Edge II Part No.		Web Width (in.)	Rated Capacity (lbs.)*			Webmaster Part No. ***	
	Type 1	Type 2**		Vertical	Choker	V. Basket	Type 1	Type 2**
One Ply	TC1806T	TT1806T	6	9,600	7,700	19,200	TC1806D	TT1806D
	TC1808T	TT1808T	8	12,800	10,200	25,600	TC1808D	TT1808D
	TC1810T	TT1810T	10	16,000	12,800	32,000	TC1810D	TT1810D
	TC1812T	TT1812T	12	19,200	15,400	38,400	TC1812D	TT1812D
	TC1816T	TT1816T	16	25,500	20,400	51,000	TC1816D	TT1816D
	TC1816T	TT1816T	16	25,500	20,400	51,000	TC1816D	TT1816D
Two Ply	TC2806T	TT2806T	6	16,800	13,400	33,600	TC2806D	TT2806D
	TC2808T	TT2808T	8	22,400	17,900	44,800	TC2808D	TT2808D
	TC2810T	TT2810T	10	28,000	22,400	56,000	TC2810D	TT2810D
	TC2812T	TT2812T	12	33,600	26,800	67,200	TC2812D	TT2812D
	TC2816T	TT2816T	16	44,800	35,800	89,600	TC2816D	TT2816D
	TC2816T	TT2816T	16	44,800	35,800	89,600	TC2816D	TT2816D

Note:

2", 3" and 4" Hardware Slings feature *Unilink* fittings.

(See dimensions page 34.)

Web-Trap Triangles and Chokers are also available.

(See dimensions page 35.)

Three and four ply hardware slings and wider width hardware slings are available upon request.

** Type 2 (TT) can not be used in a choker hitch.

*** Replace the "D" with an "N" to order nylon. (See "How to Order" on page 33.)

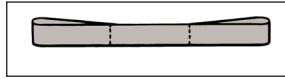


WARNING

Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart page 12.

TUFF-EDGE AND WEBMASTER 1600 POLYESTER SLINGS

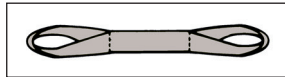
Eye and Eye Slings (Flat or Twisted)



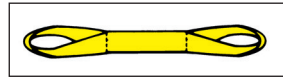
Type 3 (Flat Eye-F)



Type 3 (Flat Eye-F)



Type 4 (Twisted Eye-T)



Type 4 (Twisted Eye-T)

	Tuff-Edge II Part No.	Web Width (in.)	Rated Capacity * (lbs.)			Webmaster Part No. ***
			Vertical	Choker	V. Basket	
One Ply	EE1801TF	1	1,600	1,280	3,200	EE1801DF
	EE1802TF	2	3,200	2,500	6,400	EE1802DF
	EE1803TF	3	4,800	3,800	9,600	EE1803DF
	EE1804TF	4	6,400	5,000	12,800	EE1804DF
	EE1806TF	6	9,600	7,700	19,200	EE1806DF
	EE1808TF	8	12,800	10,200	25,600	EE1808DF
	EE1810TF	10	16,000	12,800	32,000	EE1810DF
	EE1812TF	12	19,200	15,400	38,400	EE1812DF
Two Ply	EE2801TF	1	3,200	2,500	6,400	EE2801DF
	EE2802TF	2	6,400	5,000	12,800	EE2802DF
	EE2803TF	3	8,800	7,040	17,600	EE2803DF
	EE2804TF	4	11,500	9,200	23,000	EE2804DF
	EE2806TF	6	16,500	13,200	33,000	EE2806DF
	EE2808TF	8	19,200	15,400	38,400	EE2808DF
	EE2810TF	10	22,400	17,900	44,800	EE2810DF
	EE2812TF	12	26,900	21,500	53,800	EE2812DF
Three Ply	EE3801TF	1	4,100	3,300	8,200	EE3801DF
	EE3802TF	2	8,300	6,600	16,600	EE3802DF
	EE3803TF	3	12,500	10,000	25,000	EE3803DF
	EE3804TF	4	16,000	12,800	32,000	EE3804DF
	EE3806TF	6	23,000	18,400	46,000	EE3806DF
	EE3808TF	8	30,700	24,500	61,400	EE3808DF
	EE3810TF	10	36,800	29,400	73,600	EE3810DF
	EE3812TF	12	44,000	35,200	88,000	EE3812DF
Four Ply	EE4801TF	1	5,000	4,000	10,000	EE4801DF
	EE4802TF	2	10,000	8,000	20,000	EE4802DF
	EE4803TF	3	14,900	11,900	29,800	EE4803DF
	EE4804TF	4	19,800	15,800	39,600	EE4804DF
	EE4806TF	6	29,800	23,800	59,600	EE4806DF
	EE4808TF	8	39,700	31,700	79,400	EE4808DF
	EE4810TF	10	49,600	39,600	99,200	EE4810DF
	EE4812TF	12	59,500	47,600	119,000	EE4812DF



Note:
Tapering - Types 3 and 4 slings are tapered at 3" and wider unless otherwise specified.
*** Replace the "D" with an "N" to order nylon.
(See "How to Order" on page 33.)

WARNING

Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart page 12.

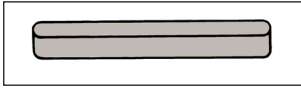
Web Slings

Eye Length (Applies to all Web Slings)

Plies of Web	Sling Width (in.)							
	1	2	3	4	6	8	10	12
1	8 1/2	10	11	12	16	20	24	24
2	8 1/2	10	11	12	16	20	24	24
3	10	12	14	16	18	24	24	24
4	10	12	14	16	18	24	24	24

TUFF-EDGE AND WEBMASTER 1600 POLYESTER SLINGS

Endless Slings



Type 5



Type 5

Web Slings

	Tuff-Edge II Part No.	Web Width (in.)	Rated Capacity * (lbs.)			Webmaster Part No. ***
			Vertical	Choker	V. Basket	
One Ply	EN1801T	1	3,200	2,500	6,400	EN1801D
	EN1802T	2	6,400	5,000	12,800	EN1802D
	EN1803T	3	8,800	7,040	17,600	EN1803D
	EN1804T	4	11,500	9,200	23,000	EN1804D
	EN1806T	6	16,500	13,200	33,000	EN1806D
	EN1808T	8	19,200	15,400	38,400	EN1808D
	EN1810T	10	22,400	17,900	44,800	EN1810D
	EN1812T	12	26,900	21,500	53,800	EN1812D
Two Ply	EN2801T	1	6,200	4,900	12,400	EN2801D
	EN2802T	2	12,400	9,900	24,800	EN2802D
	EN2803T	3	16,300	13,000	32,600	EN2803D
	EN2804T	4	20,700	16,500	41,400	EN2804D
	EN2806T	6	28,600	23,000	57,200	EN2806D
	EN2808T	8	30,700	24,500	61,400	EN2808D
	EN2810T	10	33,600	26,800	67,200	EN2810D
	EN2812T	12	37,600	30,000	75,200	EN2812D
Three Ply	EN3801T	1	8,000	6,400	16,000	EN3801D
	EN3802T	2	16,000	12,800	32,000	EN3802D
	EN3803T	3	21,500	17,200	43,000	EN3803D
	EN3804T	4	28,700	23,000	57,400	EN3804D
	EN3806T	6	40,700	32,500	81,400	EN3806D
	EN3808T	8	46,000	36,800	92,000	EN3808D
	EN3810T	10	51,500	41,200	103,000	EN3810D
	EN3812T	12	59,200	47,300	118,400	EN3812D
Four Ply	EN4801T	1	10,000	8,000	20,000	EN4801D
	EN4802T	2	19,800	15,800	39,600	EN4802D
	EN4803T	3	26,700	21,300	53,400	EN4803D
	EN4804T	4	35,600	28,400	71,200	EN4804D
	EN4806T	6	50,500	40,400	101,000	EN4806D
	EN4808T	8	57,600	46,000	115,200	EN4808D
	EN4810T	10	67,200	53,700	134,400	EN4810D
	EN4812T	12	80,700	64,500	161,400	EN4812D



Note: Type 5 (Endless) slings are Not tapered unless specified.

***Replace the "D" with an "N" to order nylon.
(See "How to Order" page 33)

WARNING

Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart page 12.

Tuflex is an Alternative ...

For three and four ply slings wider than 6", *Tuflex* Roundslings should be seriously considered. *Tuflex* offers increased flexibility, ease of use and lower cost. (See page 62.)

DURA-WEB NYLON SLINGS

Best in Abrasion Resistance

Available in two strength classes, all *Dura-Web* slings feature premium abrasive resistant yarns covering all surfaces, for extended sling life and long term value.

Dura-Web Features, Advantages and Benefits

Promotes Safety

- Red core yarn warning system aids in the inspection process
- Striped webbing helps identify proper capacity

- *Tuff-Tag* provides serial numbered identification for traceability

Saves Money

- Abrasion resistant fibers cover both faces and edges for greater sling life

- *Tuff-Tag* provides required OSHA information for the life of the sling, not just the life of the tag.

Saves Time

- Striped capacity for quick identification

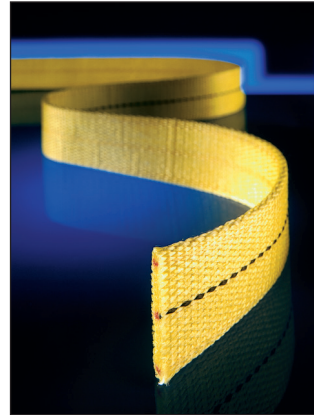
Web Slings

Dura-Web 2000 Capacity

Two Black stripes = 2,000 lbs. per inch of width (one ply only). 25% stronger than other webbing. The strongest abrasion resistant sling available.

Eyes of *Dura-Web* 2000 slings for Types 3-4-5 are not tapered in any width.


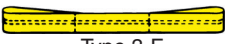


Dura-Web slings meet or exceed OSHA and ASME B30.9 requirements.








Dura-Web 1000 Capacity

One Black Stripe = 1,000 lbs. per inch of width (one ply only). The only light duty web sling with an abrasive resistant surface. Wider bearing surface, per capacity, helps protect load surface.

Dura-Web slings meet or exceed OSHA and ASME B30.9 requirements.

	Part No.	Web Width (in.)	Rated Capacity (lbs.)*		
			Vertical	Choker	V. Basket
 Type U					
One Ply	UU1202N	2	4,000	3,200	8,000
	UU1203N	3	6,000	4,800	12,000
	UU1204N	4	8,000	6,400	16,000
Two Ply	UU2202N	2	8,000	6,400	16,000
	UU2203N	3	10,800	8,600	21,600
	UU2204N	4	14,400	11,500	28,800
 Type 3-F  Type 4-T					
One Ply	EE1201NF	1	2,000	1,600	4,000
	EE1202NF	2	4,000	3,200	8,000
	EE1203NF	3	6,000	4,800	12,000
	EE1204NF	4	8,000	6,400	16,000
Two Ply	EE2201NF	1	4,000	3,200	8,000
	EE2202NF	2	8,000	6,400	16,000
	EE2203NF	3	10,800	8,600	21,600
	EE2204NF	4	14,400	11,500	28,800
 Type 5					
One Ply	EN1201N	1	4,000	3,200	8,000
	EN1202N	2	8,000	6,400	16,000
	EN1203N	3	12,000	9,600	24,000
	EN1204N	4	16,000	12,800	32,000
Two Ply	EN2201N	1	7,800	6,200	15,600
	EN2202N	2	15,200	12,200	30,400
	EN2203N	3	20,400	16,300	40,800
	EN2204N	4	25,800	20,600	51,600

	Part No.	Web Width (in.)	Rated Capacity (lbs.)*		
			Vertical	Choker	V. Basket
 Type U					
One Ply	UU1102N	2	2,000	1,600	4,000
Two Ply	UU2102N	2	4,000	3,200	8,000
 Type 3-F  Type 4-T					
One Ply	EE1101NF	1	1,000	800	2,000
	EE1102NF	2	2,000	1,600	4,000
Two Ply	EE2101NF	1	2,000	1,600	4,000
	EE2102NF	2	4,000	3,200	8,000
 Type 5					
One Ply	EN1101N	1	2,000	1,600	4,000
	EN1102N	2	4,000	3,200	8,000
Two Ply	EN2101N	1	3,900	3,100	7,800
	EN2102N	2	7,600	6,100	15,200

*  **WARNING** Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°.

WEBMASTER 1200 SLINGS

Webmaster 1200 Polyester Slings

Standard duty *Webmaster 1200* is designed as an economical sling for less frequent use.

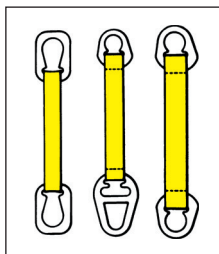
Webmaster Features, Advantages and Benefits

Promotes Safety

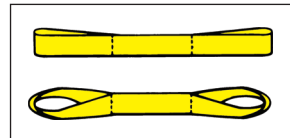
- Red core yarn warning system aids in the inspection process
- Proven sling web construction
- *Tuff-Tag* provides serial numbered identification for traceability

Saves Money

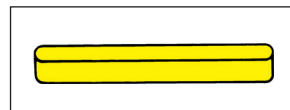
- Wider bearing surface per capacity helps protect load surface
- Yellow treatment for abrasion resistance and extended sling life
- *Tuff-Tag* provides required OSHA information for the life of the sling, not just the life of the tag



Types U, 1 and 2



Types 3(F) and 4(T)



Type 5

Note:

Tapering - Types 3 and 4 slings are tapered at 3" and wider unless otherwise specified.

Type 5 (Endless) slings are NOT tapered unless specified.

* **WARNING**

Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart page 12.

Hardware Slings (TYPES U, 1 AND 2)

	Part No.	Rated Capacity (lbs.)*		
		Vertical	Choker	V. Basket
One Ply	UU1602D	2,400	1,900	4,800
	UU1603D	3,600	2,900	7,200
	UU1604D	4,800	3,800	9,600
	TC1606D	7,200	5,800	14,400
	TT1606D	7,200	NA	14,400
Two Ply	UU2602D	4,800	3,800	9,600
	UU2603D	6,600	5,280	13,200
	UU2604D	8,600	6,900	17,200
	TC2606D	12,600	10,100	25,200
	TT2606D	12,600	NA	25,200

Eye and Eye Slings (TYPES 3 AND 4)

One Ply	EE1601DF	1,200	950	2,400
	EE1602DF	2,400	1,900	4,800
	EE1603DF	3,600	2,900	7,200
	EE1604DF	4,800	3,800	9,600
	EE1606DF	7,200	5,800	14,400
Two Ply	EE2601DF	2,400	1,900	4,800
	EE2602DF	4,800	3,800	9,600
	EE2603DF	6,600	5,280	13,200
	EE2604DF	8,600	6,900	17,200
	EE2606DF	12,300	9,840	24,600
Three Ply	EE3601DF	3,500	2,800	7,000
	EE3602DF	7,000	5,600	14,000
	EE3603DF	9,400	7,500	18,800
	EE3604DF	12,000	9,600	24,000
	EE3606DF	18,000	14,400	36,000
Four Ply	EE4601DF	4,200	3,400	8,400
	EE4602DF	8,000	6,400	16,000
	EE4603DF	12,000	9,600	24,000
	EE4604DF	16,000	12,800	32,000
	EE4606DF	23,500	18,800	47,000

Endless Slings (TYPE 5)

One Ply	EN1601D	2,400	1,900	4,800
	EN1602D	4,800	3,800	9,600
	EN1603D	6,500	5,200	13,000
	EN1604D	8,600	6,900	17,200
	EN1606D	12,200	9,800	24,400
Two Ply	EN2601D	4,800	3,800	9,600
	EN2602D	9,600	7,700	19,200
	EN2603D	11,700	9,400	23,400
	EN2604D	15,500	12,400	31,000
	EN2606D	22,500	18,000	45,000
Three Ply	EN3601D	6,200	4,900	12,400
	EN3602D	12,500	10,000	25,000
	EN3603D	16,300	13,000	32,600
	EN3604D	20,600	16,400	41,200
	EN3606D	29,300	23,400	58,600
Four Ply	EN4601D	7,700	6,200	15,400
	EN4602D	15,500	12,400	31,000
	EN4603D	20,800	16,600	41,600
	EN4604D	26,600	21,200	53,200
	EN4606D	37,800	30,200	75,600

REVERSE EYE SLINGS

Reverse Eye (RE) Slings

The Best General Purpose Web Sling Available

The Reverse Eye Sling is a modified endless sling, reinforced and protected on all sides. The most rugged and versatile of all web slings. The *Lift-All* enhanced version incorporates premium wear resistant webbing for protection on ALL surfaces.

Reverse Eye Features, Advantages and Benefits

Promotes Safety

- Superior choke hitch performance grips load securely
- Reinforced eyes augment strength
- Red core yarn warning system aids in the inspection process
- *Tuff-Tag* provides serial numbered identification for traceability

Saves Money

- Wear resistant web cover offers superior abrasion resistance and sling life
- Reversible eyes reduce wear and increase sling life
- Top grade slings using *Tuff-Edge* webbing are armored on all four sides resulting in the toughest web sling available

Saves Time

- Eyes nest well on crane hook for easy rigging
- Flat eye construction is available to facilitate removal from under loads

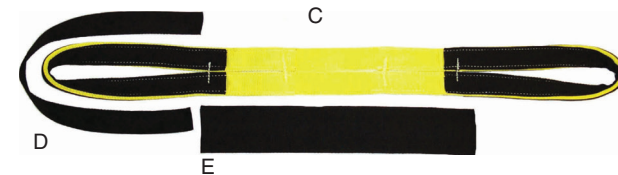
There are two grades of *Lift-All* Reverse Eye Slings: *Tuff-Edge* and *Webmaster 1200*.

The Reverse Eye Sling is Not Just an Endless Sling with Wear Pads.



Single Ply Endless with Reinforced Eyes

- A. Extended web length makes 2 Ply eyes.
- B. Reinforcing web piece sewn on to make 2 Ply eye.



Added Wear Pads to Both Sides of Body and Eyes.

- C. Single Ply Endless Sling with butted sides.
- D. Texturized Wear Pads on both sides of eyes.
- E. Texturized Wear Pads sewn on both sides of body.



Completed RE sling may be 1-2 or 3 ply endless sling with reinforcing webbing for each loop, and texturized wear pad on each side of eyes and sling body.

Heavy Duty RE Slings - *Tuff-Edge*

Standard Duty RE Slings - *Webmaster 1200*

	Part No.	Rated Capacity (lbs.)*			Sling Thickness (in.)	Sling Width (in.)	Eye Length (in.)	Part No.	Rated Capacity (lbs.)*			Sling Thickness (in.)
		Vertical	Choker	V. Basket					Vertical	Choker	V. Basket	
One Ply	RE1802T	4,500	3,600	9,000	5/16	2	9	RE1602N	3,600	2,900	7,200	1/4
	RE1804T	7,700	6,200	15,400	5/16	4	12	RE1604N	6,800	5,400	13,600	1/4
	RE1806T	11,000	8,800	22,000	5/16	6	15	RE1606N	8,000	6,400	16,000	1/4
Two Ply	RE2802T	6,500	5,200	13,000	1/2	2	9	RE2602N	5,200	4,200	10,400	3/8
	RE2804T	13,000	10,400	26,000	1/2	4	12	RE2604N	10,500	8,400	21,000	3/8
	RE2806T	20,000	16,000	40,000	1/2	6	15	RE2606N	14,400	11,500	28,800	3/8
Three Ply	RE3804T	16,400	13,100	32,800	11/16	4	14	RE3604N	14,000	11,200	28,000	1/2
	RE3806T	25,500	20,400	51,000	11/16	6	18	RE3606N	20,000	16,000	40,000	1/2

Reverse eye slings using *Webmaster 1600* webbing are available on special order.

*



WARNING

Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart page 12.

TUFF-EDGE II HARDWARE / BRIDLE SLINGS

Hardware/Bridle Slings

Useful when fixed lifting points are available.

Features, Advantages and Benefits

Web Slings

Promotes Safety

- *Tuff-Edge II* web material is standard - helps prevent sling damage
- Better load control and balance by using fixed fitting points and multiple legs
- Standard oblong links and hooks are forged from alloy steel for strength and reliability
- Red core yarn warning system aids in the inspection process
- Hardware avoids cutting and abrasion of sling at bearing points
- *Tuff-Tag* provides serial numbered identification for traceability
- Proven sling web construction

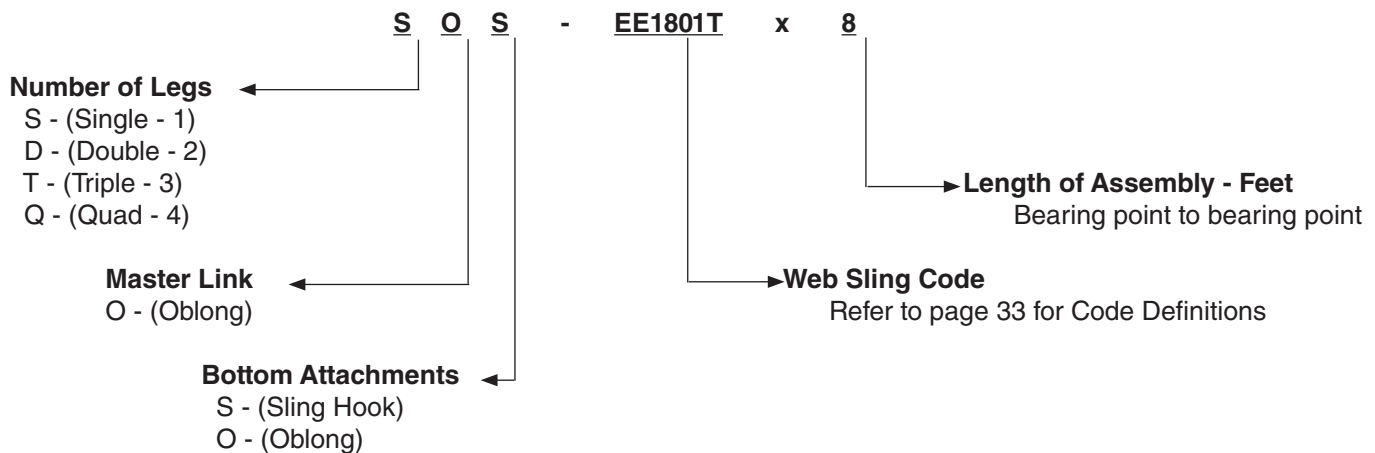
Saves Money

- Soft web sling legs protect load
- Endless type allows shifting of wear points
- *Tuff-Edge II* material extends sling life
- Sling hooks and links can be rewebbed
- *Tuff-Tag* provides required OSHA information for the life of the sling, not just the life of the tag

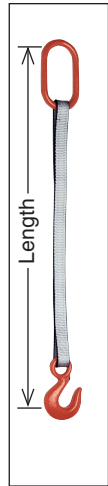
Saves Time

- Lighter weight and easier to use than chain or wire rope
- Sling hooks quickly connect to loads having hoist rings or eye bolts

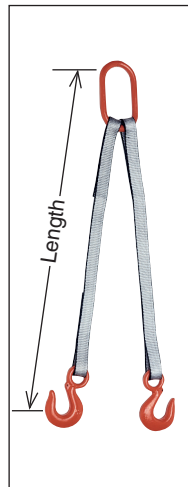
How to Order



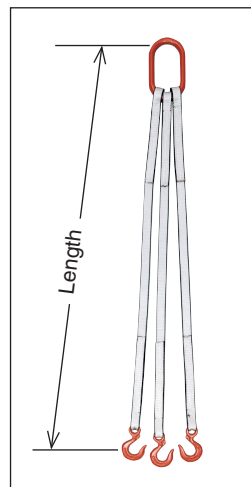
TUFF-EDGE II HARDWARE / BRIDLE SLINGS



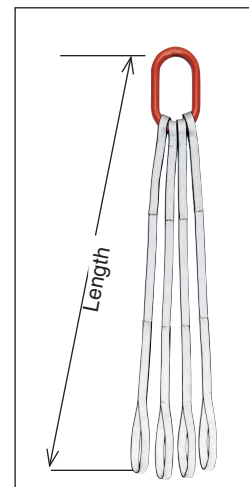
SOS
Single Leg
Oblong Link
Sling Hook
(EE1801T)



DOS
Double Leg
Oblong Link
Sling Hook
(EE1801T)



TOS
Triple Leg
Oblong Link
Sling Hook
(EE1801T)



QOE
Quad Leg
Oblong Link
(EE1801T)

Web
Slings



Hardware/Bridle Slings

Part No. For Web Sling Legs	Web Width (in.)	Web Plies	Number of Legs	Rated Capacity (lbs.)*				Alloy Sling Hook Size	Oblong Link Dia. (in.)
				Vertical	@ 60°	@ 45°	@ 30°		
EE1801T	1	1	Single	1,600				1TA	1/2
	1	1	Double		2,700	2,200	1,600	1TA	1/2
	1	1	Triple		4,100	3,300	2,400	1TA	3/4
	1	1	Quad		5,500	4,500	3,200	1TA	1
EE2801T	1	2	Single	3,000				1 1/2TA	1/2
	1	2	Double		5,100	4,200	3,000	1 1/2TA	3/4
	1	2	Triple		7,700	6,300	4,500	1 1/2TA	3/4
	1	2	Quad		10,300	8,400	6,000	1 1/2TA	1
EE1802T	2	1	Single	3,000				1 1/2TA	1/2
	2	1	Double		5,100	4,200	3,000	1 1/2TA	3/4
	2	1	Triple		7,700	6,300	4,500	1 1/2TA	3/4
	2	1	Quad		10,300	8,400	6,000	1 1/2TA	1
EE2802T	2	2	Single	6,000				3TA	3/4
	2	2	Double		10,300	8,400	6,000	3TA	1
	2	2	Triple		15,500	12,700	9,000	3TA	1
	2	2	Quad		20,700	16,900	12,000	3TA	1 1/4

NOTE: Hardware capacities correspond to the appropriate sling capacities. See hardware dimension charts starting on page 91

* **WARNING** Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart page 12.

WIDE-LIFT SLINGS

Wide-Lift (WL) Slings

Wide Load Support and Balance

Lift-All Wide-Lift slings support the load over a wide area to offer better balance for large loads - whether heavy or light. Wide bearing area reduces marring of soft load surfaces. Stiffeners are used at the base of the eyes to deter the body webbing from folding down the middle. Wide-Lift slings are for use in basket hitch only. Standard web material is *Webmaster* 1600 nylon. Polyester is available upon request.

All Wide-Lift Slings offer these benefits:

Promotes Safety

- Red Core Yarn warning system aids in the inspection process
- *Tuff-Tag* provides serial numbered identification for traceability
- Proven sling web construction

Saves Money

- Wide bearing area reduces marring of soft load surfaces
- Yellow treatment for abrasion resistance and extended sling life
- *Tuff-Tag* provides required OSHA information for the life of the sling, not just the life of the tag

Web Slings



Attached Eye Wide-Lift



Continuous Eye Wide-Lift

For Light, Bulky Loads - Lifting eyes are attached to a single ply sling body. Available with One Ply eyes (WLA1) or Two Ply eyes (WLA2).

For Heavy Loads - Constructed from one endless sling with the two body lengths butted and joined side by side.

	Body Width (in.)	Part No.	Rated Capacity* (lbs.) Vertical Basket	Eye Length (in.)	Minimum Sling Length (in.)
One Ply Eye	6	WLA1806N	5,000	6	50
	8	WLA1808N	5,000	8	50
	10	WLA1810N	5,000	10	54
	12	WLA1812N	5,000	12	56
	16	WLA1816N	10,000	14	56
	20	WLA1820N	10,000	16	68
Two Ply Eye	24	WLA1824N	10,000	20	72
	6	WLA2806N	10,000	10	50
	8	WLA2808N	10,000	10	50
	10	WLA2810N	10,000	12	54
	12	WLA2812N	10,000	12	56
	16	WLA2816N	18,000	12	56
	20	WLA2820N	18,000	18	68
	24	WLA2824N	18,000	18	72
30	WLA2830N	18,000	22	74	
36	WLA2836N	18,000	27	84	
48	WLA2848N	18,000	36	102	

	Body Width (in.)	Part No.	Rated Capacity* (lbs.) Vertical Basket	Eye Length (in.)	Minimum Sling Length (in.)
One Ply	6	WL1806N	15,400	9	40
	8	WL1808N	20,400	12	45
	12	WL1812N	30,800	18	60
	16	WL1816N	38,000	24	72
	20	WL1820N	45,000	30	88
	24	WL1824N	52,000	36	100
Two Ply	30	WL1830N	45,000	45	120
	36	WL1836N	45,000	54	144
	6	WL2806N	28,600	9	40
	8	WL2808N	38,000	12	45
	12	WL2812N	57,200	18	60
	16	WL2816N	75,000	24	72
	20	WL2820N	90,000	30	88
	24	WL2824N	110,000	36	100
30	WL2830N	90,000	45	120	
36	WL2836N	90,000	54	144	

Note: Not recommended for use in a choker hitch. *Tuff-Edge II* may be used for the attached eyes. Custom slings with higher capacities are available. *Tufflex* slings are also available as Wide-Lift Slings. See page 69.

* **WARNING**

Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart page 12.

STONE HANDLING SLINGS

Stone Handling (SH) Slings

Special abrasion resistant 4-inch nylon webbing for handling stone, concrete and building panels.

Lift-All Stone Handling Slings feature a soft abrasion resistant wear pad woven onto the load side of the webbing, providing outstanding protection for both the sling and the polished stone surfaces.

Note: EE Sling - flat eye only - untapered 12" eye length.

Features, Advantages and Benefits

Promotes Safety

- Red core yarn warning system aids in the inspection process
- *Tuff-Tag* provides serial numbered identification for traceability
- Proven sling web construction

Saves Money

- Heavy, soft yarns on load side to help protect the sling from abrasion
- White pile yarns prevent color transfer to load
- Two ply version results in an abrasion resistant face on both sides
- *Tuff-Tag* provides required OSHA information for the life of the sling, not just the life of the tag

Saves Time

- Two ply version with abrasion resistance on both sides, does not need orientation by rigger



Web Slings

	Part No.	Rated Capacity * (lbs.)		
		Vertical	Choker	V. Basket
One Ply	UU1SH4N	5,400	4,000	10,800
	EE1SH4N	5,400	4,000	10,800
	EN1SH4N	10,800	8,600	21,600
Two Ply	UU2SH4N	9,400	7,000	18,800
	EE2SH4N	9,400	7,000	18,800
	EN2SH4N	10,800	8,600	21,600

* **WARNING**

Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart page 12.

INSPECTION CRITERIA FOR WEB SLINGS

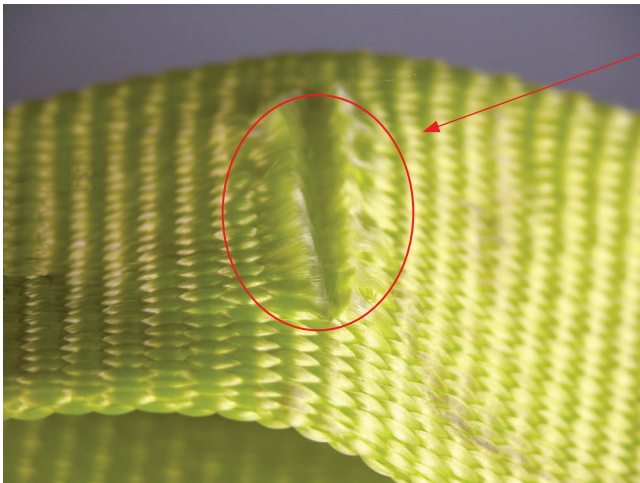
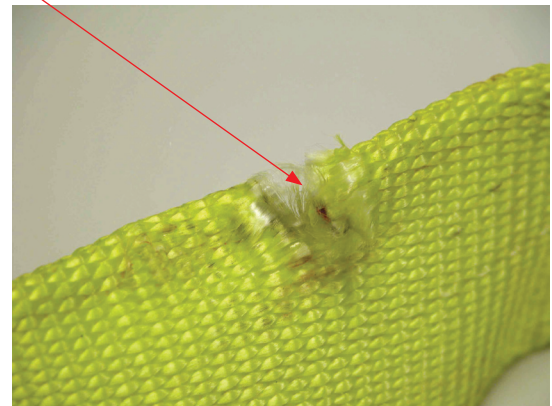
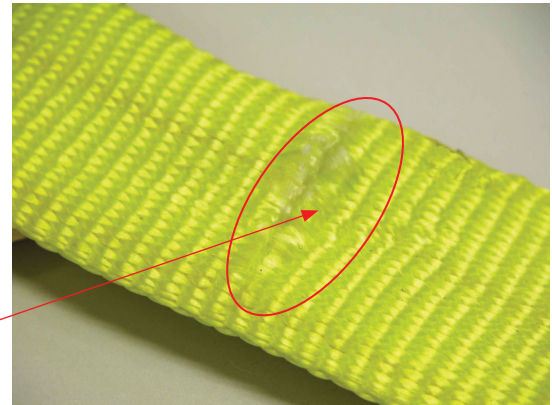
The following photos illustrate some of the common damage that occurs to web slings, indicating that the sling should be taken out of service.

Web Slings

THE DAMAGE: Surface and Edge Cuts - It is important to realize that all of the fibers in web slings contribute to the strength of that sling. When there have been a significant number of fibers broken in a web sling, as shown here, that sling should be taken out of service.

WHAT TO LOOK FOR: Broken fibers of equal length indicate that the sling has been cut by an edge. **Red core warning yarns may or may not be visible with cuts and are not required to show before removing slings from service.**

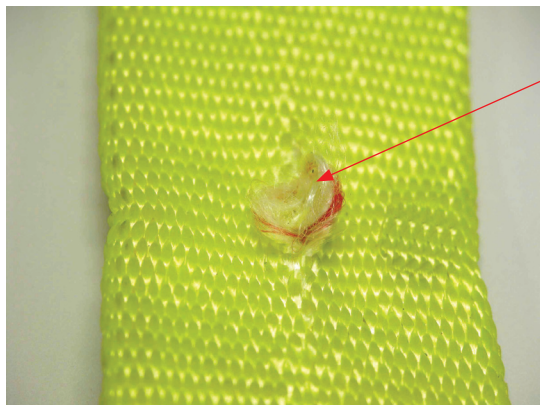
TO PREVENT: Always protect synthetic slings from being cut by corners and edges by using wear pads or other devices.



THE DAMAGE: Holes/Snags/Pulls

WHAT TO LOOK FOR: Punctures or areas where fibers stand out from the rest of the sling surface.

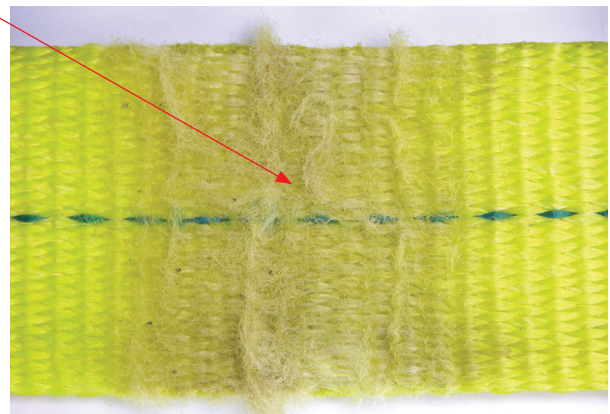
TO PREVENT: Avoid sling contact with protrusions, both during lifts and while transporting or storing.



THE DAMAGE: Abrasion

WHAT TO LOOK FOR: Areas of the sling that look and feel **fuzzy** indicate that the fibers have been broken by being subject to contact and movement against a rough surface. Affected areas are usually stained.

TO PREVENT: Never drag slings along the ground. Never pull slings from under loads that are resting on the sling. Use wear pads between slings and rough surface loads.

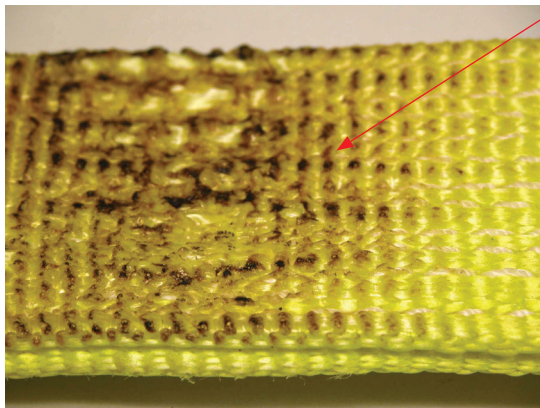


INSPECTION CRITERIA FOR WEB SLINGS

THE DAMAGE: Heat/Chemical

WHAT TO LOOK FOR: **Melted or charred fibers** anywhere along the sling. Heat and chemical damage can look similar and they both have the effect of damaging sling fibers and compromising the sling's strength. Look for discoloration and/or fibers that have been fused together and often feel hard or crunchy.

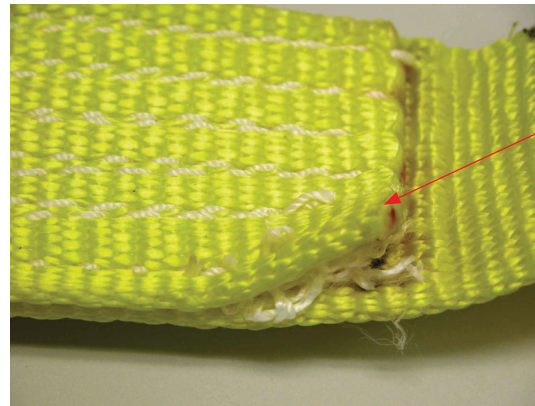
TO PREVENT: Never use nylon or polyester slings where they can be exposed to temperatures in excess of 200° F. Never use nylon or polyester slings in or around chemicals without confirming that the sling material is compatible with the chemicals being used.



THE DAMAGE: **Broken/Worn Stitching** in the main stitch patterns of web slings has a direct adverse effect on the strength of a sling. The stitch patterns in web slings have been engineered to produce the most strength out of the webbing. If the stitching is not fully intact, the strength of the sling may be affected.

WHAT TO LOOK FOR: **Loose or broken threads** in the main stitch patterns.

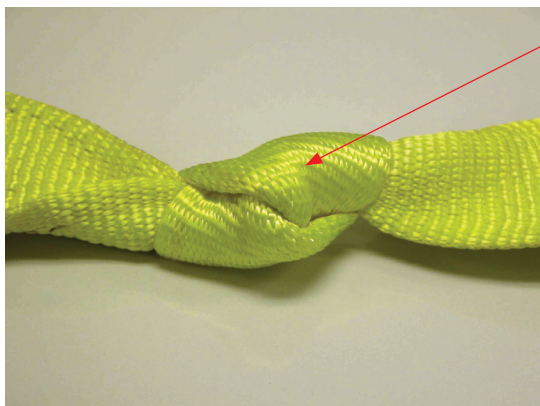
TO PREVENT: Never pull slings from beneath loads where stitch patterns can get hung up or snagged. Never overload the slings or allow the load edge to directly contact the stitch pattern while lifting. Never place a sling eye over a hook or other attachment whose width/diameter exceeds 1/3 the eye length.



THE DAMAGE: **Knots** compromise the strength of all slings by not allowing all fibers to contribute to the lift as designed. Knots may reduce sling strength by up to 50%.

WHAT TO LOOK FOR: **Knots** are rather obvious problems as shown below.

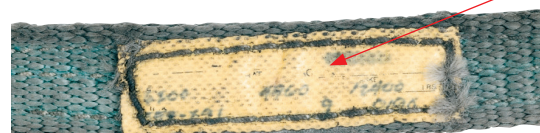
TO PREVENT: Never tie knots in slings and never use slings that are knotted.



THE DAMAGE: **Illegible or Missing Tags**- The information provided by the sling tag is important for knowing what sling to use and how it will function.

WHAT TO LOOK FOR: If you cannot find or read all of the information on a sling tag, OSHA requires that the sling shall be taken out of service.

TO PREVENT: Never set loads down on top of slings or pull sling from beneath loads if there is any resistance. Load edges should never contact sling tags during the lift. Avoid paint or chemical contact with tags.

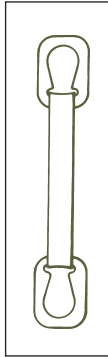


Red Core Yarns - are an **additional** aid to warn of dangerous sling damage. All standard *Lift-All* Web Slings have this warning feature. The red core yarns become exposed when the sling surface is cut or worn through the woven face yarns. When red yarns are visible, the sling should be removed from service immediately. For other inspection criteria see OSHA/Manufacturer regulations on pages 7 through 10.

WEB SLING WEIGHTS (Approx.)*



Web Slings



Type U (UU)

Part No.	Minimum Standard Length		Add'l. Ft.
	Ft.	Wt.** (lbs.)	Wt. (lbs.)

Unilink Style

UU1802	3	2.7	0.12
UU1803	3	5.6	0.18
UU1804	4	9.2	0.24
UU2802	3	2.9	0.25
UU2803	3	5.8	0.38
UU2804	3	9.2	0.50

Triangle & Choker Style



TC1802	3	3.5	0.12
TC1803	3	6.3	0.18
TC1804	4	9.0	0.24
TC1806	4	21	0.36
TC1808	5	27	0.48
TC1810	5	48	0.60
TC1812	6	65	0.72
TC2802	3	3.6	0.25
TC2803	3	6.5	0.38
TC2804	3	9.1	0.50
TC2806	4	21	0.76
TC2808	4	39	1.0
TC2810	5	63	1.3
TC2812	5	86	1.5

Triangle & Triangle Style



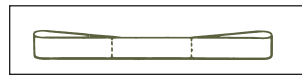
TT1802	3	2.6	0.12
TT1803	3	4.6	0.18
TT1804	3	6.7	0.24
TT1806	4	15	0.36
TT1808	5	19	0.48
TT1810	5	36	0.60
TT1812	5	44	0.72
TT2802	3	2.7	0.25
TT2803	3	4.8	0.38
TT2804	3	7.0	0.50
TT2806	3	15	0.76
TT2808	4	28	1.0
TT2810	4	46	1.3
TT2812	5	60	1.5

* Weights will vary. Published weights are average weights for Webmaster 1600 slings.

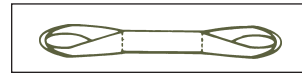
** Approximate weight for the minimum standard length as shown.



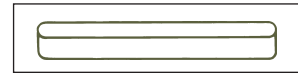
WEB SLING WEIGHTS (Approx.)*



Type 3 (Flat Eye)



Type 4 (Twisted Eye)



Type 5

Eye & Eye Style

	Minimum Standard Length		Add'l. Ft. Wt. (lbs.)
	Ft.	Wt. ** (lbs.)	
EE1801	3	0.4	0.06
EE1802	4	0.9	0.12
EE1803	4	1.4	0.18
EE1804	4	1.9	0.24
EE1806	5	3.4	0.36
EE1808	6	5.3	0.48
EE1810	8	8.0	0.60
EE1812	8	9.8	0.72
EE2801	3	0.4	0.13
EE2802	3	0.9	0.25
EE2803	4	1.7	0.38
EE2804	4	2.3	0.50
EE2806	6	4.9	0.76
EE2808	6	6.5	1.0
EE2810	7	9.4	1.3
EE2812	8	13	1.5
EE3801	4	1.0	0.20
EE3802	4	2.1	0.40
EE3803	5	3.7	0.59
EE3804	5	5.0	0.79
EE3806	5	7.6	1.2
EE3808	7	13	1.6
EE3810	7	16	2.0
EE3812	7	20	2.4
EE4801	4	1.1	0.26
EE4802	4	2.2	0.53
EE4803	5	4.1	0.79
EE4804	5	5.5	1.1
EE4806	5	8.3	1.6
EE4808	7	15	2.1
EE4810	7	19	2.6
EE4812	7	23	3.2

Endless Style

	Minimum Standard Length		Add'l. Ft. Wt. (lbs.)
	Ft.	Wt. ** (lbs.)	
EN1801	3	0.4	0.12
EN1802	3	0.8	0.24
EN1803	3	1.3	0.36
EN1804	3	1.7	0.48
EN1806	3	2.5	0.72
EN1808	3	3.4	0.96
EN1810	3	4.2	1.2
EN1812	3	5.0	1.4
EN2801	3	0.8	0.25
EN2802	3	1.6	0.50
EN2803	3	2.5	0.76
EN2804	3	3.3	1.0
EN2806	3	4.9	1.5
EN2808	3	6.6	2.0
EN2810	3	8.2	2.5
EN2812	3	9.9	3.0
EN3801	3	1.2	0.38
EN3802	3	2.4	0.76
EN3803	3	3.6	1.1
EN3804	3	4.8	1.5
EN3806	3	7.2	2.3
EN3808	3	9.6	3.0
EN3810	3	12	3.8
EN3812	3	14	4.5
EN4801	3	1.6	0.52
EN4802	3	3.2	1.0
EN4803	3	4.9	1.6
EN4804	3	6.5	2.1
EN4806	3	9.7	3.1
EN4808	3	13	4.2
EN4810	3	16	5.2
EN4812	3	19	6.2

Web Slings

* Weights will vary. Published weights are average weights for Webmaster 1600 slings.

** Approximate weight for the minimum standard length as shown.



WEB SLING WEIGHTS (Approx.)*

Attached Eye Wide-Lift

Part No.	10 Ft. Sling Wt. (lbs.)	Add'l. Ft. Wt. (lbs.)
WLA1806	3.8	0.36
WLA1808	4.9	0.48
WLA1810	5.6	0.60
WLA1812	6.2	0.72
WLA1816	9.5	1.1
WLA1820	12	1.3
WLA1824	14	1.6
WLA2806	4.2	0.36
WLA2808	5.4	0.48
WLA2812	7.4	0.72
WLA2816	12	1.1
WLA2820	15	1.3
WLA2824	16	1.6
WLA2830	17	2.0
WLA2836	17	2.4
WLA2848	20	3.2

Continuous Eye Wide-Lift

Part No.	10 Ft. Sling Wt. (lbs.)	Add'l. Ft. Wt. (lbs.)
WL1806	5.8	0.54
WL1808	7.1	0.66
WL1810	8.4	0.78
WL1812	9.7	0.90
WL1816	12	1.1
WL1820	15	1.4
WL1824	17	1.6
WL1830	23	2.2
WL1836	27	2.5
WL2806	9.4	0.9
WL2808	12	1.1
WL2812	17	1.6
WL2816	22	2.1
WL2820	27	2.6
WL2824	31	3.0
WL2830	41	4.0
WL2836	48	4.6

Web Slings

* Weights will vary.
 Published weights are average weights using Webmaster 1600 webbing.