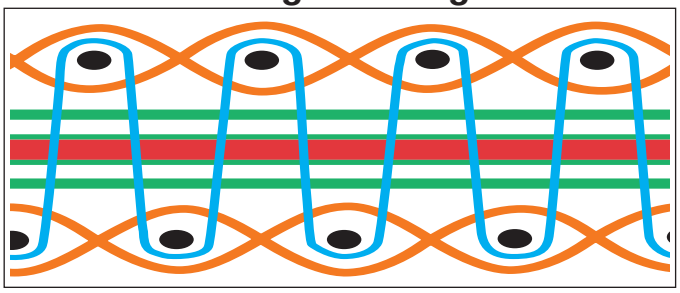
WHY *LIFT-ALL* WEB SLINGS?

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

All sling webbing contained in this catalog is recommended for general purpose lifting. Sling webbing has surface yarns connected from side to side, which not only protect the core yarns, but position surface and tensile yarns to work together to support the load. Wear or damage to sling webbing face yarns cause an immediate strength loss. Sling webbing has red core yarns to visually reveal damage which is one indicator for sling rejection. Please read warning sheet provided with each sling for additional details.

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.

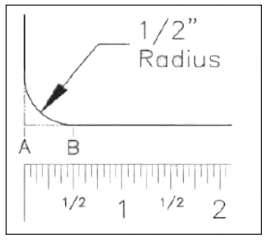
TUFF-TAG™

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 tag. In fact, *Tuff-Tags* will consistently outlast the useful life of slings.

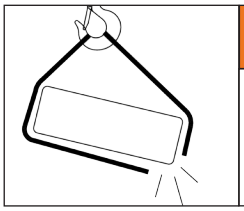
SAFETY BULLETIN

A safety bulletin is packaged with every web sling from *Lift-All.* The bulletin includes:

- Inspection and removal from service criteria.
- Environmental considerations.
- Inspection frequency.
- Effect of angles.
- Rigging configuration.
- Sling protection.
- Exposure of slings to edges.



Measure the edge radius. The radius is equal to the distance between points A and B.



WARNING

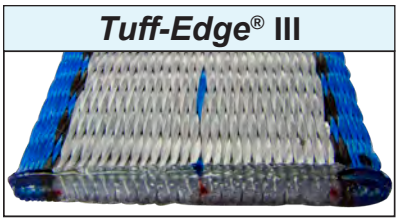
Exposure of web slings to edges with a radius that is too small can cause sling failure and loss of load

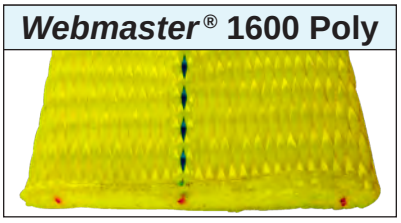
Edges do not need to be sharp to cause failure of the sling. The table shows the minimum allowable edge radii suitable for contact with unprotected webbing slings. Chamfering or cutting off edges is not an acceptable substitute for fully rounding the edges to the minimum radius. Slings can also be damaged from contact with the edges or burrs at the sling connections.

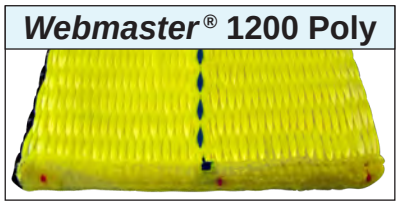
Minimum edge radii suitable for contact with unprotected web slings.		
Number of Sling Web Plies	**Minimum Edge Radii (in.)**	
1 Ply	.18	3/16
2 Plies	.50	1/2
3 Plies	.75	3/4
4 Plies	1.00	1

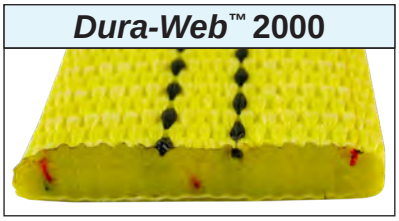
For further information on minimum edge radii, contact *Lift-All*.

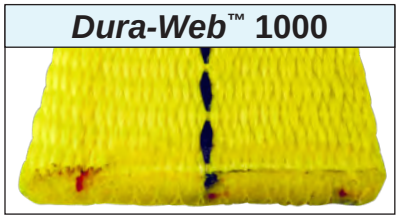
LIFT-ALL WEB SELECTOR











Approx. Thickness	Single-Ply Capacity Per Inch of Width	Material	Identifier	Applications*
0.156"	1600-lbs.	Polyester	Blue **E**dge **D**amage **L**imit (EDL) Blue center stripe Silver surface	Daily use under good to rugged lifting conditions. 30% more resistant to edge damage than our *Tuff-Edge* II webbing.
0.156"	1600-lbs.	Polyester	Blue center stripe	Daily use under good to moderate lifting conditions. Polyester stretches less for better load control, reduced abrasion.
0.156"	1600-lbs.	Nylon	No center stripe	Daily use under good to moderate lifting conditions. Nylon stretches more to help avoid shock loading.
0.125"	1200-lbs.	Polyester	Blue center stripe Black yarn one edge	Light use under good lifting conditions. Polyester stretches less for better load control, reduced abrasion.
0.125"	1200-lbs.	Nylon	No center stripe Black yarn on one edge	Light use under good lifting conditions. Nylon stretches more to help avoid shock loading.
0.3125"	2000-lbs.	Nylon	Two black center stripes	Heavy use under moderate to rugged lifting conditions. Abrasion resistant yarns cover entire surface.
0.1875"	1000-lbs.	Nylon	One black center stripe	Daily use under moderate lifting conditions. Abrasion resistant yarns cover entire surface.

* **⚠ WARNING** Always protect synthetic slings from being cut by corners and edges. See Sling Protection section in this catalog.

STANDARD WEB SLING TYPES

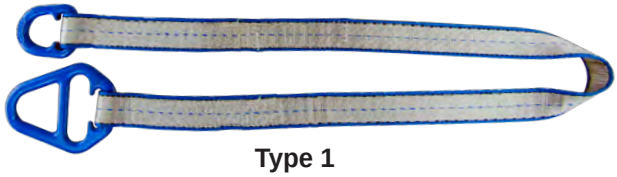
HARDWARE SLINGS

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 with *Web-Trap* 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.

Type U

Type 1 (TC) - Has a *Web-Trap* triangle on one end and choker on the other 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. Cannot be used as a choker.

Type 2

EYE / EYE

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. Type 3 will be supplied as the standard EE sling, unless Type 4 is requested.

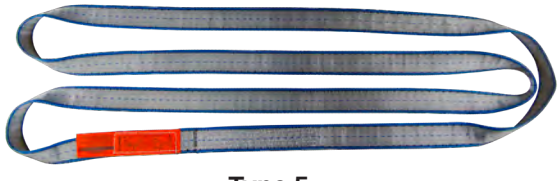
Type 3

Type 4 (EE) - Twisted Eye slings are similar to Type 3 except the eyes are turned 90°. The eyes of a Type 4 nest easily on the crane hook. Reverse the eyes to allow more even wear in eyes.

Type 4

ENDLESS

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 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

ENVIRONMENTAL CONSIDERATIONS

Exposure to sunlight and other environmental factors can result in 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.
- Accelerated abrasive damage to the surface yarns of the sling.
- Breakage or damage to yarn fibers is often evident by a fuzzy appearance on the web.
- Stiffening of the web.

Anti-Abrasion Treatment

Lift-All webbing is treated for abrasion. Heavy duty treatments are available as a supplemental process for greater protection. Natural, untreated webbing is available upon request.

Elasticity

The stretch characteristics of web slings depends on the type of yarn and the web treatment. Approximate stretch at rated sling capacity:

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

TOLERANCES FOR WEB SLINGS

Sling Type	Length Tolerance*
1-Ply	± (1.5" + 1.5% of sling length)
2-Ply	± (2.0" + 2% of sling length)
3-Ply & 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 lengths, please consult with Customer Service prior to ordering.

Sunlight / UV Exposure Service Life

Nylon and polyester web slings possess a limited useful 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 UV radiation 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 UV or outdoor exposure has reached these limits:

- 2 years: 1-Ply and 2-Ply web slings
- 3 years: 3-Ply and 4-Ply web slings

Temperature

Nylon and polyester slings degrade 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	NYLON	POLYESTER
Acids	NO	OK+
Alcohols	OK	OK
Aldehydes	OK	NO
Alkalis	OK	NO
Bleaching Agents	NO	OK
Dry Cleaning Solvents	OK	OK
Ethers	OK	OK
Halogenated Hydro-Carbons	OK	OK
Hydro-Carbons	OK	OK
Ketones	OK	OK
Oils Crude	OK	OK
Oils Lubricating	OK	OK
Soap & Detergents	OK	OK
Water & Seawater	OK	OK
Weak Alkalis	OK	OK

+ Disintegrated by concentrated sulfuric acid.

Prior to sling selection and use, review and understand the General Information section of this catalog.

HOW TO ORDER WEB SLINGS

EE 1 8 02 T F X 12

Sling Type
- **UU** – Type U - *Unilink*™ Each End
- **TC** – Type 1 - Triangle/Choker
- **TT** – Type 2 - Triangle/Triangle
- **EE** – Type 3 & 4 - Eye/Eye
- **EN** – Endless
- **RE** – Reverse Eye
- **WL** – Wide Lift

Number of Plies
1, 2, 3 or 4

Web Class
- **1** – *Dura-Web*™ 1000
- **2** – *Dura-Web*™ 2000
- **8** – *Webmaster*® 1600 or *Tuff-Edge*® III
- **6** – *Webmaster*® 1200
- **SH** – Stone Handling

Sling Length
Use actual pull to pull length (reach) in feet.

'X'

EYE TREATMENTS

Flat Eyes (Type 3)
- **F** – Standard
- **G** – Lined Bearing Point
- **H** – Fully Lined
- **I** – Wrapped Bearing Point
- **J** – Fully Wrapped

Twisted Eyes (Type 4)
- **T** – Standard
- **U** – Lined Bearing Point
- **V** – Fully Lined
- **W** – Wrapped Bearing Point
- **X** – Fully Wrapped

Exceptions: Class 1, 2 and SH slings

TAPERED EYE STANDARDS

Non-Tapered: 1" and 2" wide slings.
Tapered: 3" wider and up, in Class 6 & 8 slings only.

Note: Other treatments can be accommodated. Please specify at time of order.

Web Material
- **T** – *Tuff-Edge* III
- **D** – Polyester
- **N** – Nylon

Sling Width in inches

Always protect synthetic slings from being cut or damaged by corners, edges and protrusions by using protection sufficient for each application.

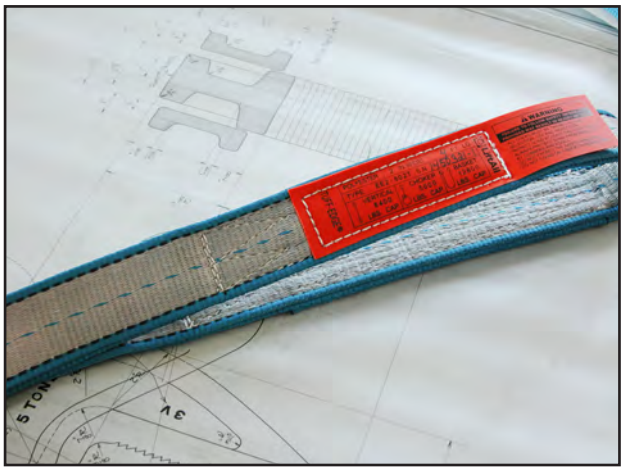
Refer to Sling Protection section in this catalog.

TUFF-EDGE® III

Patent #
10,494,231 Out of Service Marker
11,021,346 Edge Protection
D908,362 Web Design

The patented design changes to the body and edge of our new *Tuff-Edge* III translates to a softer web with increased abrasion and edge-cut resistance.

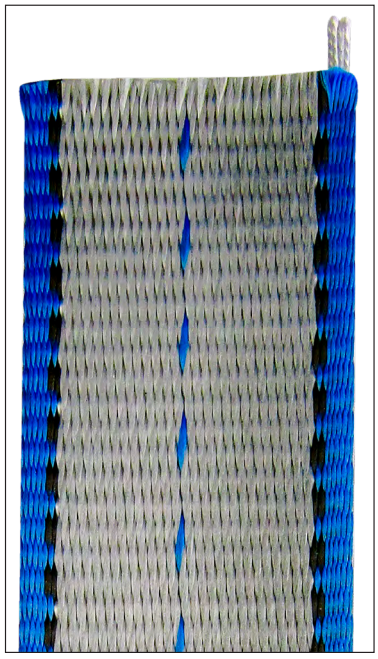
Introducing the Edge Damage Limit (EDL) out-of-service marker. The EDL tool both simplifies the inspection process and also extends the life of the web slings, saving you money. Whenever sling damage is concentrated along the edge of the webbing, the sling may continue to remain in service until the damage has reached the EDL black line marker, assuming the sling is otherwise in good operating condition. If there is any question as to the serviceability to the sling, remove from service.



Features and Benefits

- 30% more resistant to edge damage than our *Tuff-Edge* II webbing.
- Tubular edge design with damage-resistant core helps protect the body fibers from cutting, keeping the integrity of the sling intact without compromising its strength.
- Edge Damage Limit (EDL), out-of-service marker aids in sling inspection (refer to TEIII Web Sling Safety Bulletin).
- Soft twill weave body.
- Improved handling characteristics with no coated edge yarns.
- Easy to identify by the blue tubular edges and EDL marker.
- Available in 1” to 12" widths.

WEB EDGE CUT PERFORMANCE CHART			
Webbing Design	**Edge Construction**	**Comparative Web Edge Cut Test Performance Rating**	
		Poor	**Superior**
***Tuff-Edge* III**	**Tubular with Reinforced Core**		
***Tuff-Edge* II**	**Polymer**		
***Webmaster* 1600 Polyester**	**Standard**		



Safety Built-In

TUFF-EDGE® III & *WEBMASTER*® 1600 SLINGS

ENDLESS

Ply	*Tuff-Edge* III Part No.	*Webmaster* 1600 Polyester Part No.	*Webmaster* 1600 Nylon Part No.	Web Width (in.)	Rated Capacity* (lbs.)		
					Vertical	Choker	V. Basket
One Ply	EN1801T	EN1801D	EN1801N	1	3,200	2,500	6,400
	EN1802T	EN1802D	EN1802N	2	6,400	5,000	12,800
	EN1803T	EN1803D	EN1803N	3	8,800	7,040	17,600
	EN1804T	EN1804D	EN1804N	4	11,500	9,200	23,000
	EN1806T	EN1806D	EN1806N	6	16,500	13,200	33,000
	EN1808T	EN1808D	EN1808N	8	19,200	15,400	38,400
	EN1810T	EN1810D	EN1810N	10	22,400	17,900	44,800
	EN1812T	EN1812D	EN1812N	12	26,900	21,500	53,800
Two Ply	EN2801T	EN2801D	EN2801N	1	6,200	4,900	12,400
	EN2802T	EN2802D	EN2802N	2	12,400	9,900	24,800
	EN2803T	EN2803D	EN2803N	3	16,300	13,000	32,600
	EN2804T	EN2804D	EN2804N	4	20,700	16,500	41,400
	EN2806T	EN2806D	EN2806N	6	30,500	24,400	61,000
	EN2808T	EN2808D	EN2808N	8	40,000	32,000	80,000
	EN2810T	EN2810D	EN2810N	10	47,000	37,600	94,000
	EN2812T	EN2812D	EN2812N	12	56,000	44,800	112,000
Three Ply	EN3801T	EN3801D	EN3801N	1	8,000	6,400	16,000
	EN3802T	EN3802D	EN3802N	2	16,000	12,800	32,000
	EN3803T	EN3803D	EN3803N	3	21,500	17,200	43,000
	EN3804T	EN3804D	EN3804N	4	28,700	23,000	57,400
	EN3806T	EN3806D	EN3806N	6	40,700	32,500	81,400
	EN3808T	EN3808D	EN3808N	8	46,000	36,800	92,000
	EN3810T	EN3810D	EN3810N	10	51,500	41,200	103,000
	EN3812T	EN3812D	EN3812N	12	59,200	47,300	118,400
Four Ply	EN4801T	EN4801D	EN4801N	1	10,000	8,000	20,000
	EN4802T	EN4802D	EN4802N	2	19,800	15,800	39,600
	EN4803T	EN4803D	EN4803N	3	26,700	21,300	53,400
	EN4804T	EN4804D	EN4804N	4	35,600	28,400	71,200
	EN4806T	EN4806D	EN4806N	6	50,500	40,400	101,000
	EN4808T	EN4808D	EN4808N	8	57,600	46,000	115,200
	EN4810T	EN4810D	EN4810N	10	67,200	53,700	134,400
	EN4812T	EN4812D	EN4812N	12	80,700	64,500	161,400

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

Tuflex® is an Alternative…

For 3-ply and 4-ply slings wider than 6", *Tuflex* Roundslings should be seriously considered. *Tuflex* offers increased flexibility, ease of use and lower cost.

* **⚠ 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 the Effect of Angle chart in the General Information section of this catalog. **Always protect synthetic slings from being cut by corners and edges. See the Sling Protection section in this catalog.**