



SYNTHETIC SLINGS

Synthetic Web Slings

Standard Web Sling Types



Type 1 - TC (AL-1)

CHOKER: Designed for use in choker, basket or vertical hitch. Available in forged Aluminum Alloy or flame cut Alloy Steel



Type 2 - TT (AL-2)

TRIANGLE END: Application is limited to basket or vertical hitch only. Triangle fittings cannot be used in choke hitch since they will not pass through one another. Available in forged Aluminum Alloy or flame cut Alloy Steel.



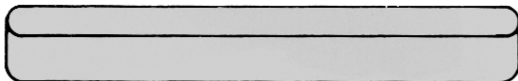
Type 3 - EEF (AL-3)

FLAT EYE: The eye is formed by folding the webbing back and sewing it flat against the sling body. Available in single or multiple thickness. Slings in widths 3" and wider are furnished with tapered eyes as standard.



Type 4 - EET (AL-4)

TWISTED EYE: The eye is formed by turning the fabric 180° before sewing to form an eye which lays 90° to the sling body. This allows for easier choking. Slings in widths 3" and wider are furnished with tapered eyes as standard.



Type 5 - EN (AL-5)

ENDLESS: Fabric is overlapped and sewn to form an endless grommet. The most versatile of all slings. Used in vertical, basket or choker hitch it provides the best gripping and holding power around the object to be lifted in the upright position. It is also the easiest to use and lasts longer because there are no eyes to determine wearing points. Endless slings are furnished with "flat" ends and can be supplied tapered.



Type 6 - RE (AL-6)

REVERSED EYE: Eye is formed by folding back the webbing and sewing it side by side. Designed primarily for use in choker hitch, although it lends itself equally well to basket and vertical hitch applications. This type of construction results in eye openings which are in the same plane as the sling body, and is best for choking. The sling body remains flat against the load.



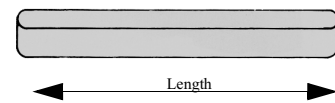
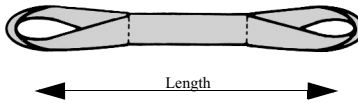
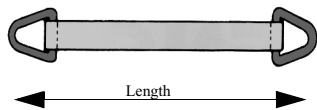
Considerations When Ordering

Every Order is Fabricated to Your Unique Specifications including multiple leg bridle assemblies. Many of our Web Products are stocked in the most commonly used sizes and constructions to enhance our service to the customer.

TYPICAL SLING IDENTIFICATION:

EET2 - 904 X 10 Ft. Nylon Sling

TYPE	PLIES	GRADE	WIDTH	LENGTH
TC - Triangle-Choker	Typically	6 - <i>Safe-T-Grip</i> ® Light Duty	1", 2", 3"	As Required
TT - Triangle-Triangle	1 - 4	7 - <i>Tufskin</i> ® Light Duty	4", 5", 6",	In Feet
EEF - Eye & Eye Flat	Plies	9 - <i>Mulox</i> ® Heavy Duty	8", 10", 12"	
EET - Eye & Eye Twisted		13 - <i>Tufskin</i> ® Heavy Duty		
EN - Endless				
RE - Reversed Eye				



NOTE: Nylon material is commonly used. If Polyester material is desired, please specify. *Tufskin*® material is a special order item.
NOTE: When ordering, specify any Non-Standard End Fittings or Optional Wear Pads.

Chemical Resistance of Web Materials

Web Material	Acids	Alcohols	Aldehydes	Strong Alkalis	Bleaching Agents	Dry Cleaning Solvents	Ethers	Halo-genated Hydro-carbons	Hydro-carbons	Ketones	Crude Oils	Lubri-cating Oils	Soap & Detergents	Water & Seawater	Weak Alkalis
Nylon	No	OK	OK	OK	No	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Polyester	*	OK	No	**	OK	OK	No	OK	OK	OK	OK	OK	OK	OK	OK

* Good Resistance to weak and strong acids at room temperature. Disintegrated by concentrated sulfuric acid.

** Degraded by strong alkalis at elevated temperatures

Standard Eye Length Specifications**

Sling Width	One Ply	Two Ply	Three Ply	Four Ply
1"	8-1/2"	8-1/2"	10"	10"
2"	10"	10"	12"	12"
3"	11"	11"	14"	14"
4"	12"	12"	16"	16"
5"	14"	14"	18"	18"
6"	16"	16"	18"	18"
8"	20"	20"	24"	24"
10"	24"	24"	24"	24"
12"	24"	24"	24"	24"

** Non-Standard Eye Lengths must be specified at the time of order.

CAUTION

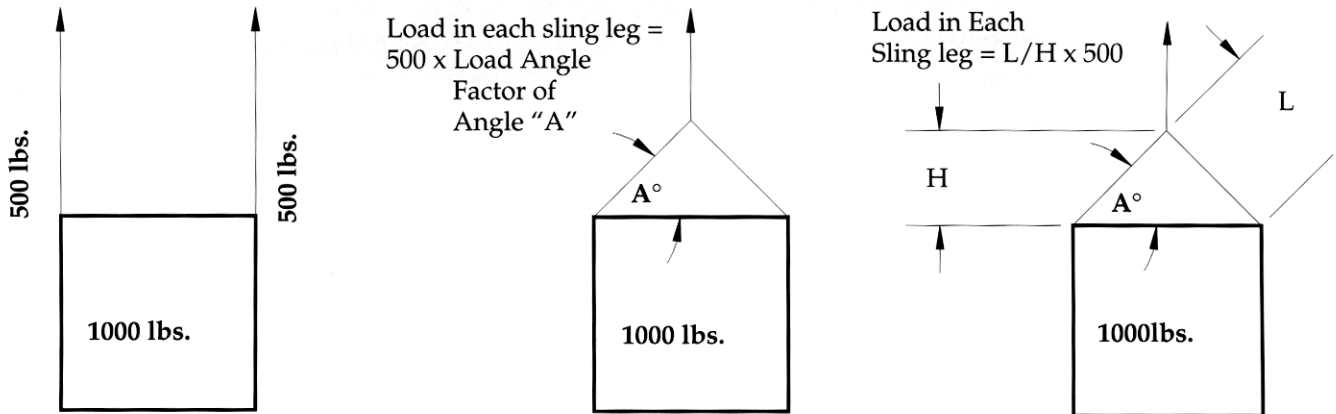
Aluminum Fittings are not recommended where sprays, mists, fumes, vapors, or liquids of caustics are present.

CAUTION: Do Not Use Slings Beyond Rated Capacity



Effects of Sling Angle

Sling capacity decreases as the angle from horizontal decreases. Sling Angles of less than 30° are not recommended.



Sling Angle Degrees (A°)	Load Angle Factor = L / H
90	1.000
60	1.155
50	1.305
45	1.414
30	2.000
LOAD ON EACH LEG OF SLING = (Load ÷ 2) x LOAD ANGLE FACTOR	

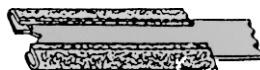
ANSI B30.9 recommends against the use of a horizontal sling angle smaller than 30°.

CAUTION: Do Not Use Slings Beyond Rated Capacity

Optional Wear Pads



Sliding Sleeve wear pads protect both sides of the sling. It provides the opportunity to shift the sleeve to any area where the sling may come into contact with sharp edges.



Edgeguard is a strip of webbing sewn along the edges of the sling. This may be desired for certain applications where the edge of the sling is subject to damage.



Regular wear pads are additional layers of material sewn to the sling at the point of expected wear. This can be sewn to one or both sides and at any point of the sling and to any length. Regular wear material can be added to the wear area of the eyes.



Web Sling Inspection

Inspection

Initial Inspection - Before using any new, repaired, or modified sling, it shall be inspected to ensure that the correct sling is being used as well as to determine that the sling meets the B30.9-5 Standard.

Frequent Inspection - This inspection should be made by the person handling the sling each day the sling is used.

Periodic Inspection - This inspection should be conducted by designated personnel. Frequency of inspection should be based on: Frequency of Use, Severity of Service Conditions, and Experience gained on the Service Life of Slings Used in Similar Applications.

Inspection Records - Written inspection records, utilizing the identification for each sling as established by the user, should be kept for all slings. These records should show a description of the new sling and its condition on each periodic inspection.

Removal Criteria

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

- missing or illegible sling identification.
- acid or caustic burns
- melting or charring of any part of the sling
- holes, tears, cuts, or snags
- broken or worn stitching in load bearing splices
- excessive abrasive wear
- knots in any part of the sling
- excessive pitting or corrosion, or cracked, distorted or broken fittings
- red warning yarns are visible in the body of the sling
- other visible damage that causes doubt as to the strength of the sling

Operating Practices

- 1 Slings having suitable characteristics for the type of load, hitch, and environment shall be selected in accordance with appropriate tables.
- 2 The weight of load shall be within the rated load of the sling. (*Sling Angles have a dramatic affect on rated load*)
- 3 Slings shall be shortened, lengthened, or adjusted only by methods approved by the sling manufacturer.
- 4 Slings shall not be shortened or lengthened by knotting.
- 5 Slings that appear to be damaged shall not be used unless inspected and accepted as usable under the Inspection and Removal Criteria.
- 6 Slings shall be hitched in a manner providing control of the load.
- 7 Sharp corners in contact with the sling should be padded with material of sufficient strength to minimize damage to the sling.
- 8 All portions of the human body shall be kept from between the sling and the load, and from between the sling and the crane hook or hoist hook.
- 9 Personnel should stand clear of the suspended load.
- 10 Personnel should not ride the sling.
- 11 Shock loading should be avoided.
- 12 Slings should not be pulled from under a load when the load is resting on the sling.
- 13 Slings should be stored in a cool, dry, and dark place to prevent environmental damage.
- 14 Twisting and kinking the legs shall be avoided.
- 15 Load applied to the hook should be centered in the base (bowl) of hook to prevent point loading on the hook.
- 16 During lifting, with or without load, personnel shall be alert for possible snagging.
- 17 In a basket hitch, the load should be balanced to prevent slippage.
- 18 The sling's legs should contain or support the load from the sides above the center of gravity when using a basket hitch.
- 19 Slings should be long enough so that the rated load is adequate when the angle of the legs is taken into consideration.
- 20 Slings should not be dragged on the floor or over an abrasive surface.
- 21 In a choker hitch, slings shall be long enough so the choker fitting chokes on the webbing and never on another fitting.
- 22 Nylon and polyester slings shall not be used in contact with object or at temperatures in excess of 194°F (90°C) or below -40°F (-40°C).
- 23 When extensive exposure to sunlight or ultraviolet light is experienced by nylon or polyester web slings, the sling manufacturer should be consulted for recommended inspection procedure.

Additional information and safe operating practices are outlined in current OSHA and ANSI/ASME B30.9c Standards as applicable, pertaining to Lifting assemblies. Operating practices are outlined in current Commercial Vehicle Safety Alliance (CVSA) guidelines for Federal, State, and Provincial practices pertaining to Tiedown Assemblies.