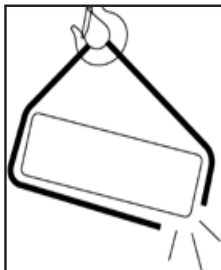


SLING SHIELD™ EDGE PROTECTOR SAFETY BULLETIN 035



WARNING

Failure to Read, Understand and Follow the information in this bulletin may result in severe **INJURY** or **DEATH** due to sling failure and/or loss of load. This bulletin contains important safety information. It **DOES NOT** contain all of the information you need to know about handling, lifting and manipulating materials and loads safely. It is your responsibility to consider all risk factors prior to using any rigging device or product.

1. **Users must be trained** in rigging practices and the proper selection, use, and inspection of sling protection.
2. **Inspect before each use** and remove from service if damaged.
3. **Protect slings from being cut or damaged** by corners, protrusions, or edges.
4. **Use properly:** Do not exceed capacities and consider the effects of pull angles.
5. **Stand clear** and do not stand on, under or near a suspended load.
6. **Maintain and store properly** where Sling Shield will not become damaged.

1. USER MUST BE TRAINED

Sling Shield users must be knowledgeable about the safe and proper use of sling protection.

OSHA sling regulation 29 CFR 1910.184 states, "Slings shall be padded or protected..."

ASME B30.9 states, "Slings in contact with edges, corners, or protrusions should be protected with a material of sufficient strength, thickness, and construction to prevent damage."

If you are unsure whether you are properly trained and knowledgeable, or if you are unsure of what the standards and regulations require of you, ask your employer for information and/or training — **DO NOT** use Hose Halters if you are unsure of what you are doing. Lack of skill, knowledge or care can result in severe **INJURY** or **DEATH**.

2. INSPECT FOR DAMAGE

Damage to Sling Shield can significantly increase the chance that the sling will fail during use.

2a. HOW TO INSPECT

Perform a visual inspection of the entire Sling Shield for any of the types of conditions listed in table 2-1.

REMOVAL FROM SERVICE CRITERIA

- Cracks, deformation, corrosion or any other forms of damaged or missing parts.
- 20% reduction of material in any area from abrasive wear.
- Any heat or chemical damage, i.e. acid or alkali burns, melting or weld spatter.
- Conditions which cause doubt as to the strength of the Sling Shield.

TABLE 2-1

ADDITIONAL REMOVAL CRITERIA IF USED WITH SYNTHETIC SLINGS:

- Gouging, pitting, or other forms of damage causing a non-uniform or rough surface.

2b. REMOVAL FROM SERVICE

Remove from service immediately if ANY of the listed types of damage are found. Never ignore damage or make any temporary repairs.

2c. INSPECTION FREQUENCY

Initial Inspection: Inspect when new to ensure its correct item, is undamaged, and meets requirements for its intended use.

Frequent Inspection: Sling Shields must be inspected before each use.

3. WHEN TO PROTECT SLINGS

Initial Inspection: Inspect when new to ensure its correct item, is undamaged, and meets requirements for its intended use.

Frequent Inspection: Sling Shields must be inspected before each use.



WARNING

Exposure of synthetic slings to edges with a radius that is too small can cause sling failure and loss of load. **ALWAYS** protect web slings and roundslings from being cut or damaged by corners, edges and

Edges do not need to be sharp to cause failure of the sling. Chamfering or cutting off edges is not an acceptable substitute for having fully rounded contact edges to avoid damage.

4. SLING SHIELD SELECTION AND USE

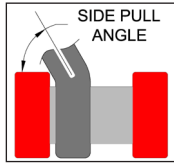
The Sling Shield provides a 1" bend radius to avoid sling cutting and reduce bearing pressure between slings and load edges. It is suitable for use with slings where a bend radius of up to 1" is prescribed. A qualified person must consider the following:

RATED CAPACITY AND SIDE PULL ANGLES

The rated capacity of the Sling Shield will depend on several factors including pull angle.

PULLING AT ANGLES OF 70° to 90°

When using the Sling Shield at side pull angles of 70° to 90°, the amount of stress on the molded end retainer is minimal, and the Sling Shield capacity is based solely on the integrity of the **aluminum center radial bar**, which is rated to support 25,000-lbs. of sling force per inch of sling contact width.



PROPER FIT – SLING SIZE & LOAD INTERFACE

The length of the Sling Shield must allow the sling to flatten to its normal bearing width. Proper placement of the Sling Shield must allow it to lay flat across its full length and it should not be placed onto curved edges.

VELCRO SECUREMENT

The Sling Shield includes Velcro® strips to help maintain position of the slings between the molded end retainers.

MAINTAINING PROPER POSITIONING

The Sling Shield has a magnetic surface to assist in positioning it on steel surfaces. A qualified will, however, need to assess the stability of the Sling Shield position against possible sliding during lift operations. Several factors may impact whether it will slide, including pull angle and characteristics of the load surface.

If any questions remain about the use of the Sling Shield for an applications, several **test** lifts done in a non-consequence setting, may be necessary to determine its suitability.

VELCRO SECUREMENT

The Sling Shield includes Velcro® strips to help maintain position of the slings between the molded end retainers.

AVOID ACTIONS THAT CAN DAMAGE SLING SHIELD:

- To avoid damaging the aluminum center radial bar, Sling Shields are not recommended for use with chain slings.
- Wire rope slings up to a 1" diameter may be used, but wire rope will tend to mar the aluminum surface of the center bar and render it unusable with synthetic slings. Padding may help prevent this damage.
- Avoid droppign onto hard surfaces.
- Do not expose to temperatures above 200°F (90°C), or below -40°F (40°C).
- Do not drive over with any vehicle/equipment.
- Do not expose to damaging acids or alkalis.

6. MAINTAIN AND STORE PROPERLY

When not in use, Sling Shields should be stored in an area free from environmental or mechanical sources of damage, such as: weld splatter, machining or sources of UV, heat, or chemical exposure, etc.

ADDITIONAL SOURCES OF TRAINING INFORMATION INCLUDE:

- WSTDA Standards for Synthetic Web Slings and Round Slings.
- ASME B30.9 Sling Standard.
- OSHA 29 CFR 1910.184 Regulations.
- Rigging Handbooks
- Lift-All Catalog and www.lift-all.com

CAPACITY TABLE FOR ANGLES OF 70° to 90°			
MAX. SLING TENSION IN A BASKET OR CHOKER HITCH*			
Sling Width (in.)	Maximum Sling Tension (lbs.)	Sling Width (in.)	Maximum Sling Tension (lbs.)
25,000-LBS. PER INCH OF SLING WIDTH			
1	25,000	6	150,000
2	50,000	8	200,000
3	75,000	10	250,000
4	100,000	12	300,000

TABLE 4-1

* When using in a vertical hitch, the maximum allowable tension equals one-half of these values for each sling leg.

PULLING AT ANGLES OF LESS THAN 70°

If the side pull angle is less than 70°, then the capacity is limited by the strength of the **molded end retainers**. Thus, the allowable amount of loading is reduced as the pull angle is lowered. **Do not use at angles of less than 45°.**

CAPACITY TABLE FOR ANGLES OF LESS THAN 70°			
MAX. SLING TENSION IN A BASKET OR CHOKER HITCH*			
Side Pull Angle	Maximum Sling Tension (lbs.)	Side Pull Angle	Maximum Sling Tension (lbs.)
65°	17,500	50°	11,000
60°	15,000	45°	8,000
55°	13,000	40°	do not use

TABLE 4-2

* When using in a vertical hitch, the maximum allowable tension equals one-half of these values for each sling leg.