

WAC 296-155-55820 Synthetic webbing slings. (1) Identification.

Make sure all slings have legible identification information permanently attached to the sling which includes the following information:

- (a) Name or trademark of the manufacturer;
- (b) Manufacturer's code or stock number;
- (c) Rated loads for the types of hitches used, and the angle that the load is based on;
- (d) Type of synthetic web material;
- (e) Number of legs, if more than one;
- (f) Repairing agency, if the sling is ever repaired.

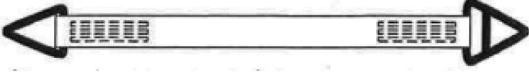
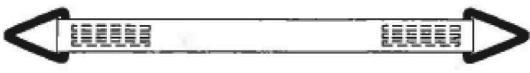

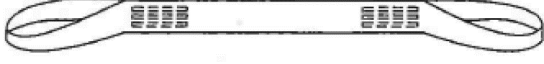
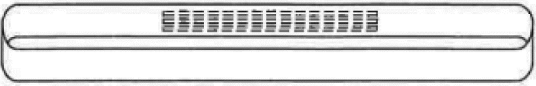
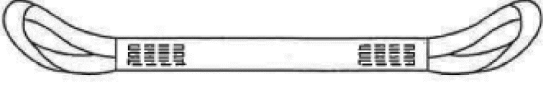
 <p style="text-align: center;">Type I</p> <p style="text-align: center;">Sling made with triangle fitting on one end and a slotted triangle choker fitting on the other end. It can be used in a vertical, basket, or choker hitch.</p>	 <p style="text-align: center;">Type II</p> <p style="text-align: center;">Sling made with a triangle fitting on both ends. It can be used in a vertical or basket hitch only.</p>
 <p style="text-align: center;">Type III</p> <p style="text-align: center;">Sling made with a flat loop eye on each end with loop eye opening on same plane as sling body. This type of sling is sometimes called a flat eye-and-eye, eye-and-eye, or double-eye sling.</p>	 <p style="text-align: center;">Type IV</p> <p style="text-align: center;">Sling made with both loop eyes formed as in Type III, except that the loop eyes are turned to form a loop eye which is at a right angle to the plane of the sling body. This type of sling is commonly referred to as a twisted-eye sling.</p>
 <p style="text-align: center;">Type V</p> <p style="text-align: center;">Endless sling, sometimes referred to as a grommet. It is a continuous loop formed by joining the ends of the webbing together.</p>	 <p style="text-align: center;">Type VI</p> <p style="text-align: center;">Return-eye (reversed-eye) sling is formed by using multiple widths of webbing held edge-to-edge. A wear pad is attached on one or both sides of the sling body and one or both sides of the loop eyes to form a loop eye at each end which is at a right angle to the plane of the sling body.</p>

Figure 25
Synthetic Webbing Slings

(2) Inspection.

(a) A qualified person must inspect synthetic webbing slings before their initial use, according to Table 25:

- (i) When the sling is new; and
- (ii) Whenever a repair, alteration, or modification has been done.

(b) A qualified person must perform a visual inspection for damage, each day or shift the synthetic webbing sling is used. Immediately remove from service any sling that is damaged beyond the criteria listed in Table 25.

(c) A qualified person must perform periodic inspections on synthetic webbing slings, according to Table 25.

(i) Examine each sling and component individually, taking care to expose and examine all surfaces.

(ii) Remove slings from use if any of the conditions in Table 25 are found.

(iii) Keep a written record of the most recent periodic inspection available, including the condition of the sling.

Note: An external code mark on the sling is an acceptable means of recording the inspection as long as the code can be traced back to a record.

**Table 25
Synthetic Webbing Sling Inspection**

Inspect synthetic webbing slings for the following conditions:	Perform inspections:
<ul style="list-style-type: none"> • Missing or illegible sling identification; • Acid or caustic burns; • Melting or charring on 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; • Discoloration, brittle fibers, and hard or stiff areas that may indicate chemical or ultraviolet/sunlight damage; • Fittings that are pitted, corroded, cracked, bent, twisted, gouged or broken; • Hooks that have any of the following conditions: <ul style="list-style-type: none"> – Any visibly apparent bend or twist from the plane of the unbent hook; – Any distortion causing an increase in throat opening 5%, not to exceed one-quarter inch, or as recommended by the manufacturer; – Wear exceeding 10%, of the original section dimension of the hook or its load pin, or as recommended by the manufacturer; – Self-locking mechanism that does not lock. • Other visible damage that causes doubt about the safety of continued use of the sling. 	<ul style="list-style-type: none"> • At least once a year for slings in normal service; • At least once a quarter for slings in severe service; • As recommended by a qualified person for slings in special service.

(3) Repair, alterations, or modifications.

- (a) Meet the following requirements when repairing synthetic webbing slings:
- (i) Slings are only to be repaired by the manufacturer or a qualified person;
 - (ii) Temporary repairs are prohibited;
 - (iii) Mark the sling to show the repairing agency;
 - (iv) Components used for sling repair must meet the requirements of this part;
 - (v) You must not repair cracked, broken, melted, or otherwise damaged webbing material or fittings other than hooks;
 - (vi) You must not repair load bearing splices;
- (b) Proof load test repaired slings according to the requirements in subsection (4) of this section.
- (4) Proof load test. The sling manufacturer or a qualified person must proof load test repaired slings and slings that have been altered or modified before initial use according to Table 26:

Table 26
Synthetic Webbing Sling Proof Test Requirements

Type of equipment:	Proof load test:
<ul style="list-style-type: none"> • Single leg slings; • Multiple leg slings; • Endless slings; • Fittings attached to single legs. 	To a minimum of two times the single leg vertical hitch rated load.
Master links for two-leg bridle slings.	To a minimum of 4 times the single leg vertical hitch rated load.
Master links for 3-leg bridle slings.	To a minimum of 6 times the single leg vertical hitch rated load.
Master links for 4-leg bridle slings.	To a minimum of 8 times the single leg vertical hitch rated load.

(5) Rated loads.

- Note:** Rated loads are based on the following factors:
- Strength of the material;
 - Design factor;
 - Type of hitch;
 - Angle of loading (see Figure 18, Angle of Loading);
 - Fabrication efficiency;
 - Diameter of curvature over which the sling is used.

(a) You must use synthetic web slings within the rated loads shown in Tables 20 through 24 in ASME B30.9-2010. For angles that are not shown in these tables, use either the rated load for the next lower angle or one calculated by a qualified person.

(b) Rate slings with the load capacity of the lowest rated component of the sling. For example, if you use fittings that are rated lower than the sling material itself, identify the sling with the lower-rated capacity.

(c) The use of horizontal sling angles less than 30 degrees is prohibited, unless recommended by the sling manufacturer or a qualified person. (See Figure 18.)

(d) Use Figure 20, Angle of Choke, the manufacturer, or a qualified person to determine the rated load if the angle of choke in a choker hitch is less than 120 degrees.

(e) Rated loads for slings used in a choker hitch must conform to the values shown in the above referenced tables, provided that the angle of choke is 120 degrees or greater. (See Figure 20.)

(6) Use of synthetic webbing slings.

(a) Use synthetic webbing slings safely by meeting all of the following requirements:

(i) Shorten or adjust slings only with methods approved by the manufacturer or qualified person;

(ii) You must not shorten or lengthen slings by knotting or twisting;

(iii) Hitch slings in a way that provides control of the load;

(iv) Protect slings with material of sufficient strength, thickness, and construction to prevent damage from sharp edges, corners, protrusions, or abrasive surfaces. See Figure 14;

(v) Keep all parts of the human body from between the sling and the load, crane, or hoist hook;

(vi) Fittings must be of a minimum breaking strength equal to that of the sling.

(b) Webbing. Synthetic webbing must be of uniform thickness and width and selvage edges must not be split from the webbing's width.

(c) Intentional shock loading is prohibited.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-55820, filed 4/19/16, effective 5/20/16. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060 and chapter 49.17 RCW, and 29 C.F.R. 1926, Subpart CC. WSR 13-02-068, § 296-155-55820, filed 12/31/12, effective 2/1/13. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.440, 49.17.060, and 29 C.F.R. 1926, Subpart CC. WSR 12-01-086, § 296-155-55820, filed 12/20/11, effective 2/1/12.]