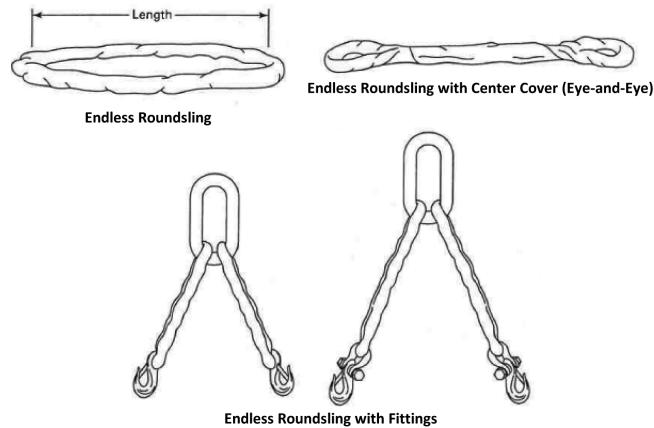


**WAC 296-155-33825 Synthetic roundslings. (1) Identification.**

All synthetic roundslings must be marked with the following information:

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



**Figure 15  
Synthetic Roundslings**

**(2) Inspection.**

(a) A qualified person must inspect synthetic roundslings before their initial use, according to Table 17, both:

- (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 roundsling is used. Immediately remove from service any sling that is damaged beyond the criteria listed in Table 17.

(c) A qualified person must perform periodic inspections on synthetic roundslings, according to Table 17.

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

(ii) You must remove slings from use if any of the conditions in Table 17 are found.

(iii) You must 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 17  
Synthetic Roundsling Inspection and Removal Criteria**

<b>Inspect synthetic roundslings for conditions such as the following:</b>	
<ul style="list-style-type: none"> <li>• Missing or illegible sling identification.</li> </ul>	<b>Perform inspections:</b>

Inspect synthetic roundslings for conditions such as the following:	Perform inspections:
<ul style="list-style-type: none"> <li>• Acid or caustic burns.</li> <li>• Evidence of heat damage.</li> <li>• Holes, tears, cuts, abrasive wear or snags that expose the core yarns.</li> <li>• Broken or damaged core yarns.</li> <li>• Weld spatter that exposes core yarns.</li> <li>• Roundslings that are knotted.</li> <li>• Fittings that are pitted, corroded, cracked, bent, twisted, gouged or broken.</li> <li>• Hooks that have any of the following conditions: <ul style="list-style-type: none"> <li>– Any visibly apparent bend or twist from the plane of the unbent hook.</li> <li>– Any distortion causing an increase in throat opening 5%, not to exceed one-quarter inch, or as recommended by the manufacturer.</li> <li>– Wear exceeding 10%, of the original section dimension of the hook or its load pin, or as recommended by the manufacturer.</li> <li>– Self-locking mechanism that does not lock.</li> </ul> </li> <li>• Other visible damage that causes doubt about the safety of continued use of the sling.</li> </ul>	<ul style="list-style-type: none"> <li>• At least once a year for slings in normal service.</li> <li>• At least once a quarter for slings in severe service.</li> <li>• As recommended by a qualified person for slings in special service.</li> </ul>

(3) **Repair, alterations, or modifications.**

(a) You must meet the following requirements when repairing synthetic roundslings:

(i) Only the manufacturer or a qualified person can repair slings;

(ii) You must mark the sling to show the repairing agency;

(iii) You must only use components that meet the requirements of this rule to repair slings;

(iv) You must replace cracked, broken, or bent fittings other than hooks; do not repair them.

(b) Both of the following are prohibited:

- (i) Temporary repairs of roundslings or fittings; and
- (ii) The repair of load bearing yarns.
- (c) You must proof load test repaired slings according to the requirements in subsection (4) of this section.
- (4) **Proof load tests.** 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 18:

**Table 18**  
**Synthetic Roundslings Proof Test Requirements**

Type of equipment:	Proof load test:
<ul style="list-style-type: none"> <li>• Single leg slings.</li> <li>• Multiple leg slings.</li> <li>• Endless slings.</li> <li>• Fittings attached to single legs.</li> </ul>	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 7, Angle of Loading.)
  - Diameter of curvature over which the sling is used.

(a) You must use synthetic roundslings within the rated loads shown in Table 25 in ASME B30.9-2010. For angles that are not shown in these tables, either use the rated load for the next lower angle or one calculated by a qualified person.

(b) You must 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) You must prohibit the use of horizontal sling angles less than 30 degrees unless recommended by the sling manufacturer or a qualified person.

(d) You must use Figure 7, 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 Table 10 provided that the angle of choke is 120 degrees or greater. (See Figure 7.)

(6) **Use of synthetic roundslings.**

(a) You must use methods approved by the manufacturer or qualified person to shorten or adjust slings. Slings must not be shortened or lengthened by knotting or twisting.

(b) You must hitch slings in a way that provides control of the load.

(c) You must protect slings with material of sufficient strength, thickness, and construction to prevent damage from sharp edges, corners, protrusions, or abrasive surfaces. (See Figure 3.)

(d) You must keep all parts of the human body from between the sling and the load, crane, or hoist hook.

(e) Intentional shock loading is prohibited.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-33825, 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, § 296-155-33825, filed 12/31/12, effective 2/1/13.]