

# ROUNDSLING SAFE USE & INSPECTION

## RECOMMENDED OPERATING PRACTICES FOR ROUNDSLINGS

### MECHANICAL CONSIDERATIONS

- 1) Determine weight of the load.
- 2) Select proper polyester roundslings having suitable characteristics for the type of load, hitch and environment. Only polyester roundslings with legible identification tags shall be used.
- 3) Polyester roundslings shall not be loaded in excess of their rated capacity. Consideration shall be given to the angle from the horizontal (load to roundslings angle) which affects rated capacity.
- 4) Polyester roundslings with fittings which are used in a choker hitch shall be of sufficient length to assure that the choking action is on the polyester roundslings and never on the fitting.
- 5) Polyester roundslings used in a basket hitch shall have the load balanced to prevent slippage.
- 6) Polyester roundslings shall not be dragged on the floor or over an abrasive surface.
- 7) Polyester roundslings shall not be twisted or tied into knots, or joined by knotting.
- 8) Polyester roundslings shall not be pulled from under loads when the load is resting on the sling.
- 9) Polyester roundslings shall be used with lifting devices that are compatible with roundslings.
- 10) Polyester roundslings shall always be protected from being cut by corners, edges, protrusions or abrasive surfaces.
- 11) Do not drop polyester roundslings equipped with metal fittings.
- 12) The opening in fittings shall be the proper shape and size to insure that the fitting will seat properly in the hook or other attachments.
- 13) Polyester roundslings protective covers that are cut, exposing the load bearing yarn, shall be removed from service.
- 14) Consideration shall be given to the fitting's radius in that it shall be compatible to that of the crane hook on which it is to be used.
- 15) Consideration shall be given to the distribution of load weight on a multi-legged lift.

### ENVIRONMENTAL CONSIDERATIONS

- 1) Polyester roundslings should be stored in a cool, dry, and dark place to prevent loss of strength when not in use through exposure to ultra-violet rays. Polyester roundslings shall not be stored in chemically active areas.
- 2) Chemically active environments can affect the strength of synthetic polyester roundslings in varying degrees ranging from little to total degradation. The polyester roundslings manufacturer or a qualified person shall be consulted before polyester roundslings are used in chemically active environments.

### ACIDS

- 1) Polyester is resistant to many acids, but is subject to degradation ranging from little to moderate in some acids.
- 2) Each application shall be evaluated, taking into consideration the following:
  - a. Type of acid
  - b. Exposure conditions
  - c. Concentration
  - d. Temperature

### ALKALIS

- 1) Polyester is subject to degradation in alkalis, ranging from little to total degradation.
- 2) Each application shall be evaluated, taking into consideration the following:
  - a. Type of alkali
  - b. Exposure conditions
  - c. Concentration
  - d. Temperature
- 3) Polyester roundslings shall not be used at temperatures in excess of 180°F (82°C), or at temperatures below minus 40°F (-40°C).
- 4) Polyester roundslings incorporating aluminum fittings shall not be used where fumes,

vapors, sprays, mists or liquids of alkalis and/or acids are present.

### BASIC RULES OF HITCHING

- 1) **RATED CAPACITY:** Be sure the polyester roundslings you intend to use is strong enough for the job (refer to identification tag on the polyester roundslings).
- 2) **WARNING!** Rated capacities are affected by the Angle of Lift (roundslings to load angle) when used in multi-legged polyester roundslings or basket hitches.
- 3) **CONTROL AND BALANCE:** Use a hitch that will keep the load under control at all times, and be sure the lifting device is directly over center of gravity (CG).
- 4) **PREVENT DAMAGE:** Use corner protectors on corners, edges and abrasive surfaces or protruding corners.
- 5) **LIFTING LOAD:** Lift load carefully, accelerating smoothly. Avoid shock loading.
- 6) **CONDITIONS OF POLYESTER ROUNDSLINGS:** Inspect roundslings and their parts carefully before each lift and at regular intervals. Remove the polyester roundslings from service if any conditions cause doubt as to the strength of the roundslings.

### POLYESTER ROUNDSLING INSPECTION

- 1) **INSPECTION RECORDS**
  - a) Written inspection records should be established and kept on file for each polyester roundslings. This record should include all the information taken from the polyester roundslings identification tag (type, reach, rated capacity), along with its location. These records should be updated after each inspection.
  - b) Polyester roundslings shall be visually inspected by a designated person handling the polyester roundslings before each use. These visual observations shall be concerned with the identification tag and discovering damage. Polyester roundslings shall be removed from service if there is any doubt as to the condition of the polyester roundslings.
- 2) **TYPE OF INSPECTION**
  - a) **Initial Inspection** – Before any polyester roundslings is placed into service it shall be inspected by a designated person to ensure that the correct polyester roundslings is being used, as well as to determine that the polyester roundslings meets the requirements of the manufacturer's specification.
  - b) **Frequent Visual Inspection** – This inspection shall be made by the person handling the polyester roundslings each time the roundslings is used.
  - c) **Periodic Inspection** – This inspection shall be conducted by a designated person. Frequency of inspection should be based on:
    1. Frequency of use.
    2. Severity of service conditions.
    3. Experience gained on service life of polyester roundslings used in similar applications.
    4. Periodic inspections should be conducted at least monthly.
- 3) **REMOVAL FROM SERVICE**

A polyester roundslings shall be removed from service if any of the following is visible:

  - a) If polyester roundslings identification tag is missing or unreadable.
  - b) Melting, charring or weld spatter on any part of the polyester roundslings.
  - c) Holes, tears, cuts, embedded particles, abrasive wear, or snags that expose the core fibers of the polyester roundslings.
  - d) Broken or worn stitching in the cover which exposes the core fibers.
  - e) Fittings when damaged, stretched or distorted in any way.
  - f) Polyester roundslings that are knotted.
  - g) Acid or alkali burns on the polyester roundslings.
  - h) Any conditions which cause doubt as to the strength of the polyester roundslings.