

Cranes, Hoists & Slings – Appendix D: Metal Mesh Slings

Sling Marking: Each metal mesh sling shall have permanently affixed to it a durable marking that states the rated capacity for vertical basket hitch and choker hitch loadings.

Handles: Handles shall have a rated capacity at least equal to the metal fabric and exhibit no deformation after proof testing.

Attachment of Handles to Fabric: Attachments of handles to fabric. The fabric and handles shall be joined so that:

- The rated capacity of the sling is not reduced.
- The load is evenly distributed across the width of the fabric.
- Sharp edges will not damage the fabric.

Sling coatings: Coatings which diminish the rated capacity of a sling shall not be applied.

Sling Testing: All new and repaired metal mesh slings, including handles, shall not be used unless proof tested by the manufacturer or equivalent entity at a minimum of 1 1/2 times their rated capacity. Elastomer impregnated slings shall be proof tested before coating.

Safe Operating Temperatures: Metal mesh slings which are not impregnated with elastomers may be used in a temperature range from minus 20 °F to plus 550 °F without decreasing the working load limit. Metal mesh slings impregnated with polyvinyl chloride or neoprene may be used only in a temperature range from 0 °F to plus 200 °F. For operations outside these temperature ranges or for metal mesh slings impregnated with other materials, the sling manufacturer's recommendations shall be followed.

Repairs:

- Metal mesh slings which are repaired shall not be used unless repaired by a metal mesh sling manufacturer or an equivalent entity.
- Once repaired, each sling shall be permanently marked or tagged, or a written record maintained, to indicate the date and nature of the repairs and the person or organization that performed the repairs. Records of repairs shall be made available for examination.

Removal from Service: Metal mesh slings shall be immediately removed from service if any of the following conditions are present:

- A broken weld or broken brazed joint along the sling edge
- Reduction in wire diameter of 25 percent due to abrasion or 15 percent due to corrosion
- Lack of flexibility due to distortion of the fabric
- Distortion of the female handle so that the depth of the slot is increased more than 10 percent
- Distortion of either handle so that the width of the eye is decreased more than 10 percent
- A 15 percent reduction of the original cross-sectional area of metal at any point around the handle eye
- Distortion of either handle out of its plane