

AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 7325A

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RINGS, SEALING, TUBULAR METAL, CORROSION RESISTANT STEEL

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for seals in fluid systems at temperatures above or below those at which elastomeric or plastic materials may be used.
3. MATERIAL: Shall be AMS 5570 or AMS 5576, unless otherwise specified on the drawing.
4. FABRICATION: Rings shall be formed, and the ends welded together by flash butt welding or resistance butt welding. The welding process shall be so performed and controlled as to prevent formation of excessive internal flash. The welded rings may be formed to final dimensions by rolling or coining. Outside welding flash shall be removed flush with the OD of the tubing but wall thickness shall not be reduced below the minimum allowed for the original tube by more than the amount specified on the drawing.
5. TECHNICAL REQUIREMENTS:
 - 5.1 Compression-Deflection Properties: The load required to produce at the weld a deflection of 0.025 in. in cross section diameter of rings 0.062 in. and over in tube OD shall not exceed the average of the loads required to produce the same deflection at two points away from the weld by more than 20% of that average, determined as in 5.1.1; for rings less than 4 in. in circumference, only one determination of load away from the weld shall be made.
 - 5.1.1 A section of the ring embracing at least 4 in. of the circumference shall be cut or an entire ring shall be used as the specimen. The specimen shall be held flat on the support plate while being compressed. The support plate shall be so designed that the area of the ring being compressed rests on a 0.375 in. $\pm$ 0.010 diameter surface. The specimen shall be compressed at two points, when size permits, at least 1 in. on either side of the weld and the average load determined. The specimen shall then be compressed 0.025 in. at the weld. Load shall be applied through the end of a 0.250 in. $\pm$ 0.005 diameter rod.
6. QUALITY:
 - 6.1 Parts shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external imperfections detrimental to their performance. Weld shall show complete fusion throughout the joint.
 - 6.2 Parts shall be subject to X-ray inspection. To assist in locating the weld, each ring 2.500 in. and over in OD shall bear a mark of yellow paint or ink on the OD, located 180 deg $\pm$ 10 from the weld.