

**AEROSPACE
MATERIAL
SPECIFICATION**



MAM 2244B

Issued JUN 1974
Revised JAN 1989
Noncurrent MAR 2003

Superseding MAM 2244A

Tolerances, Metric
Titanium and Titanium Alloy Tubing

NONCURRENCY NOTICE

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of March, 2003. It is recommended, therefore, that this specification not be specified for new designs.

AMS 2244 covers the same requirements.

"NONCURRENT" refers to those materials which have been widely used and which may be required on some existing designs in the future. The Aerospace Materials Division, however, does not recommend these as standard materials for future use in new designs.

"NONCURRENT" specifications are available from SAE.

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1. **SCOPE:** This specification covers established metric manufacturing tolerances applicable to titanium and titanium alloy tubing ordered to metric dimensions. These tolerances apply to all conditions, unless otherwise noted. The term "excl" is used to apply only to the higher figure of the specified range.
- 1.1 AMS 2244, specified in inch/pound units, is the equivalent of this MAM.
2. **DIAMETER:** When specified, OD tolerances shall apply to the ID but not to both ID and OD of the same lot of tubing. Mean OD is the average of two measurements taken at right angles to each other. Diameter tolerances include ovality except for tubing having specified wall thickness less than 4% of the specified OD; for tubing with specified wall thickness less than 4% of the specified OD, the ovality tolerance shall be double the diameter tolerance.
- 2.1 Seamless, Cold Reduced, Annealed or Stress Relieved:

TABLE I

Specified OD Millimetres	Standard Tolerance Millimetre plus and minus	Special Tolerance Millimetre plus only
up to 2.50, excl	0.05	0.05
2.50 to 4.75, excl	0.08	0.08
4.75 to 12.50, excl	0.10	0.10
12.50 to 25.00, excl	0.12	0.12
25.00 to 37.50, excl	0.15	0.15
37.50 to 50.00, excl	0.18	0.18
50.00 to 75.00, excl	0.25	0.25
75.00 to 115.00, excl	0.38	0.38

- 2.2 Welded, Cold Reduced, Annealed or Stress Relieved:

- 2.2.1 Standard Tolerances:

TABLE II

Specified OD Millimetres	Tolerance, Millimetre plus only
Up to 3.00, excl	0.05
3.00 to 4.75, excl	0.08
4.75 to 12.50, excl	0.10
12.50 and over	0.12