

# HAYNES<sup>®</sup> Ti-3Al-2.5V alloy

## Dimensional Tolerances

### Commercial OD/Wall (ASTM B-338)

Nominal Outside Diameter		Diameter Tolerance		Ovality Tolerance	Wall Tolerance
in	mm	in	mm	Tolerance* Included in Diameter Tolerances	+/- 10% Nominal Wall Thickness
Under 1.	25.4 excl.	+/-0.004	0.102		
1 to 1.5	25.4 to 38.1 excl.	+/-0.005	0.127		
1.5 to 2	38.1 to 50.8 excl.	+/-0.006	0.152		
2 to 2.5	50.8 to 63.5 excl.	+/-0.007	0.178		
2.5 to 3.5	63.5 to 88.9 excl.	+/-0.010	0.254		

### Aerospace OD/Wall (AMS)

Nominal Outside Diameter, in.	Diameter Tolerance, in.	Ovality Tolerance	Wall Tolerance
Over 0.093 to 0.188, incl.	+0.002/-0.000	Tolerance Included in Diameter Tolerances	+ 10%, - 5% Nominal Wall Thickness for Tubing under 1.500 in. (38.1 mm) Nominal OD  +/- 10% Nominal Wall Thickness for Tubing over 1.500 in (38.1 mm) Nominal OD
Over 0.188 to 0.500, incl.	+0.003/-0.000		
Over 0.500 to 1.000, incl.	+0.004/-0.000		
Over 1.000 to 1.500, incl.	+0.004/-0.001		
Over 1.500 to 2.000, incl.	+0.005/-0.001		
Diameter, mm	Tolerance, mm		
Over 2.3 to 4.70, incl.	+0.05/-0.00		
Over 4.7 to 12.50, incl.	+0.08/-0.00		
Over 12.5 to 25.00, incl.	+0.10/-0.00		
Over 25.0 to 37.50, incl.	+0.10/-0.02		
Over 37.5 to 50.0, incl.	+0.12/-0.02		

### Aerospace OD/ID (AMS/DAN)

Nominal Outside Diameter, in.	Diameter Tolerance, in.	Ovality Tolerance	Wall Tolerance
Over 0.093 to 0.187, incl.	+0.002/-0.000	Tolerance Included in Diameter Tolerances	All Tubing 1.500 in. (38.1 mm) And Under in Nominal O.D. Shall Have a Wall Thickness Not Less Than 95% of Nominal
Over 0.187 to 0.499, incl.	+0.003/-0.000		
Over 0.499 to 0.749, incl.	+0.004/-0.000		
Over 0.749 to 0.999, incl.	+0.004/-0.001		
Over 0.999 to 1.499, incl.	+0.004/-0.002		
Over 1.499 to 1.999, incl.	+0.005/-0.002		
<b>Diameter, mm</b>	<b>Tolerance, mm</b>		
Over 2.36 to 4.75, incl.	+0.05/-0.00		
Over 4.75 to 12.67, incl.	+0.08/-0.00		
Over 12.67 to 19.02, incl.	+0.10/-0.00		
Over 19.02 to 25.37, incl.	+0.10/-0.025		
Over 25.37 to 38.07, incl.	+0.10/-0.05		
Over 38.07 to 50.77, incl.	+0.13/-0.05		
<b>Nominal Inside Diameter, in.</b>	<b>Diameter Tolerance, in.</b>		
Up to 0.338, incl.	+0.0015/-0.0015		
Over 0.338 to 0.499, incl.	+0.002/-0.002		
Over 0.499 to 0.637, incl.	+0.0025/-0.0025		
Over 0.637 to 0.900, incl.	+0.003/-0.003		
Over 0.900 and over	+0.004/-0.004		
<b>Diameter, mm</b>	<b>Tolerance, mm</b>		
Up to 8.59, incl.	+0.038/-0.038		
Over 8.59 to 11.40, incl.	+0.05/-0.05		
Over 11.40 to 17.09, incl.	+0.064/-0.064		
Over 17.09 to 22.86, incl.	+0.08/-0.08		
Over 22.86 and above	+0.10/-0.10		

Inside diameter is equal to the nominal OD minus twice the nominal wall