

NITRO *tuff* TUBES

 FOR A GREENER TOMORROW! TM

Nitro-tuff Straightness Specification
12-01-2008

Straightness-The straightness tolerance for Nitro-tuff tubing is 0.045 in./3 ft (0.76 mm/1 m) lengths to 8.000 in. (203 mm) outside diameter. For 8.000 in. outside diameter and above, straightness tolerance is 0.090 in./3 ft (1.52 mm/ 1 m) lengths

Straightness is measured with a 3 foot straight edge and feeler gage.

An acceptable alternative method of measuring straightness would be using two rollers and a dial indicator. The tube will be placed on rollers located 25% from the end of the piece. TIR readings will be taken using a dial indicator while the piece is rotated 360 degrees. Maximum TIR is 0.030" per foot for diameters under 8.000" and 0.060" per foot for lengths over 8.000".

Maximum Acceptable TIR is calculated by multiplying the TIR per foot by the distance in feet from the closest roller. A tube that is checked for straightness under an 8.000" diameter could have a maximum TIR reading of 0.090" at 3 feet from the roller.

	8" and Under	8" and Over
Roller	0.000	0.000
0.50	0.015	0.030
1.00	0.030	0.060
1.50	0.045	0.090
2.00	0.060	0.120
2.50	0.075	0.150
3.00	0.090	0.180
3.50	0.105	0.210
4.00	0.120	0.240
4.50	0.135	0.270
5.00	0.150	0.300
5.50	0.165	0.330
6.00	0.180	0.360