

Material Standards & Specifications
Specialty Products Company



MSS	4.009	Prevailing Torque Fastener Test
Approved by:	JAW	
Revision:	C	Removed reference to thread pitch.
Date:	9/28/15	

Scope:

Test for incoming all-metal prevailing torque nuts. This specification replaces IP-325.

Testing Requirements:

I. General Testing Requirements:

- a) This test requirement is to be based upon the Inspection Control Plan for that part number.
- b) All drawing configuration dimensions, notations, additional Purchasing requirements, and additional Quality certifications and requirements shall apply to these parts.

II. Standard Test Requirements for Bolt and Nut Assemblies:

a) **Procedure:** Sample/test nut and sample/test bolt shall be of similar plating/finish. Nut shall be advanced on bolt until two full bolt threads protrude beyond nut. Maximum torque shall be measured through next 360° of nut rotation (rotate at 10-15 RPM). Measured torque must fall between Minimum and Maximum allowable torque, as listed below.

b) **Prevailing Torque Values:** (N-m [lbf-in])

Bolt Size	Classes 5 & 9		Class 10 +	
	Maximum	Minimum	Maximum	Minimum
M3	0.43 [3.8]	0.12 [1.1]	0.6 [5.3]	0.15 [1.32]
M4	0.90 [8.0]	0.18 [1.6]	1.2 [10.6]	0.22 [1.95]
M5	1.6 [14]	0.29 [2.6]	2.1 [18.6]	0.35 [3.1]
M6	3.0 [27]	0.45 [4.0]	4.0 [35.4]	0.55 [4.9]
M8	7.0 [62]	0.85 [7.5]	9.0 [79.6]	1.15 [10.2]
M10	10.5 [93]	1.5 [13.3]	14 [124]	2.0 [17.7]
M12	15.5 [137]	2.3 [20]	21 [186]	2.5 [27]
M14	24 [212]	2.3 [29]	31 [274]	3.0 [39]
M16	32 [283]	3.0 [40]	42 [372]	4.0 [53]
M18	43 [380]	4.0 [53]	57 [504]	5.5 [73]
M20	54 [478]	5.0 [66]	72 [637]	7.0 [93]